



**Department of
Design and
Construction**

**CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
DIVISION OF INFRASTRUCTURE
VOLUME 1 – BID BOOKLET (FHWA FUNDED)**

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Introduction

This Bid Booklet is intended to provide general information necessary for bidding on a DDC public works project and is part of the Contract Documents, as per Article 1.1 of the Standard Construction Contract.

As this contract is solicited via the PASSPort system, the bidder will be required to complete all of the PASSPort forms and questionnaires. These forms and questionnaires, along with the bidder's responses, will become part of the Bid Booklet.

Additional information on the PASSPort system can be found at the following website:

<https://www1.nyc.gov/site/mocs/systems/passport-user-materials.page>

Bid Submission Requirements

THE FOLLOWING MUST BE COMPLETED AND SUBMITTED FOR THE BID TO BE CONSIDERED RESPONSIVE:

1. Completed electronic bid submission in PASSPort;
 - a. All required fields in PASSPort must be completed.
2. One-page signed Bid Submission Form delivered in person to DDC before the bid due date; and
3. Bid security, if required.
 - a. If Bid security is in a form of a bid bond, bidders must include it with their electronic PASSPort submission.
 - b. If Bid security is in a form of a certified check, bidders must deliver the certified check with the signed Bid Submission Form.

BIDDERS ARE ADVISED THAT PAPER BID SUBMISSIONS WILL BE DEEMED NON-RESPONSIVE. BIDDERS MUST SUBMIT THEIR BIDS ELECTRONICALLY IN PASSPORT, PROVIDE THE BID SECURITY, AND DELIVER TO DDC THE ONE-PAGE SIGNED BID SUBMISSION FOR THE BID TO BE CONSIDERED RESPONSIVE.

THE FOLLOWING MAY RESULT IN THE BID BEING FOUND NON-RESPONSIVE:

1. Any discrepancy between the total bid price listed on the Bid Submission Form and the bid information submitted in PASSPort.
2. Failure to upload required files or documents as part of a mandatory PASSPort Questionnaire response.
 - a. For clarity, this includes uploading the DBE Schedule of Utilization on a form other than the Excel file provided in the PASSPort Questionnaire.

Notices to Bidders

Pre Bid Questions (PBQs)

Please be advised that PBQs should be submitted to the Agency Contact Person (CSB_projectinquiries@ddc.nyc.gov) at least five (5) business days (by 5:00 PM EST) prior to the bid opening date as indicated in the PASSPort procurement.

All PBQs must reference the Project ID. If a bidder has multiple PBQs for the same Project ID, the PBQs must be numbered sequentially, even if they are submitted separately.

While the PASSPort system has a facility for submitting inquiries, bidders are directed to send PBQs as directed above instead of using the PASSPort inquiry system.

Inquiries sent using the PASSPort inquiry system will not be considered PBQs.

NYC Contract Financing Loan Fund

If your business is working as a prime or subcontractor on a project with a City agency or City-funded entity, you may be eligible for a Contract Financing Loan from a participating lender coordinated with the NYC Department of Small Business Services (SBS). Loan repayment terms align with the contract payment schedule.

For more information: Call 311 or visit <https://www1.nyc.gov/nycbusiness/article/contract-financing-loan-fund>

M/WBE Notice to Prospective Contractors

PARTICIPATION BY MINORITY-OWNED AND WOMEN-OWNED BUSINESS ENTERPRISES IN CITY PROCUREMENT (9/2020 version)

ARTICLE I. M/WBE PROGRAM

Section 6-129 of the Administrative Code of the City of New York ("Section 6-129") establishes the program for participation in City procurement ("M/WBE Program") by minority-owned business enterprises ("MBEs") and women-owned business enterprises ("WBEs"), certified in accordance with Section 1304 of the New York City Charter. As stated in Section 6-129, the intent of the program is to address the impact of discrimination on the City's procurement process, and to promote the public interest in avoiding fraud and favoritism in the procurement process, increasing competition for City business, and lowering contract costs. The contract provisions contained herein are pursuant to Section 6-129, and the rules of the Department of Small Business Services ("DSBS") promulgated thereunder.

If this Contract is subject to the M/WBE Program established by Section 6-129, the specific requirements of MBE and/or WBE participation for this Contract are set forth in Schedule B of the Contract (entitled the "M/WBE Utilization Plan") and are detailed below. Contracts solicited through the Procurement and Sourcing Solutions Portal (PASSPort) will contain Schedule B in the format outlined in the Schedule B – M/WBE Utilization Plan & PASSPort rider. The provisions of this notice will apply to all contracts subject to the M/WBE Program established by Section 6-129 regardless of solicitation source.

The Contractor must comply with all applicable MBE and WBE requirements for this Contract.

All provisions of Section 6-129 are hereby incorporated in the Contract by reference and all terms used herein that are not defined herein shall have the meanings given such terms in Section 6-129.

References to MBEs and WBEs shall also include such businesses certified pursuant to the executive law where credit is required by Section 11 of the New York City Charter or other provision of law.

Article I, Part A, below, sets forth provisions related to the participation goals for construction, standard and professional services contracts.

Article I, Part B, below, sets forth miscellaneous provisions related to the M/WBE Program.

PART A

PARTICIPATION GOALS FOR CONSTRUCTION, STANDARD

AND PROFESSIONAL SERVICES CONTRACTS OR TASK ORDERS

1. The **MBE and/or WBE Participation Goals** established for this Contract or Task Orders issued pursuant to this Contract, ("**Participation Goals**"), as applicable, are set forth on Schedule B, Part 1 to this Contract (see Page 1, Line 1 Total Participation Goals) or will be set forth on Schedule B, Part 1 to Task Orders issued pursuant to this Contract, as applicable.

The **Participation Goals** represent a percentage of the total dollar value of the Contract or Task Order, as applicable, that may be achieved by awarding subcontracts to firms certified with DSBS as MBEs and/or WBEs, and/or by crediting the participation of prime contractors and/or qualified joint ventures as provided in Section 3 below, unless the goals have been waived or modified by Agency in accordance with Section 6-129 and Part A, Sections 10 and 11 below, respectively.

2. If **Participation Goals** have been established for this Contract or Task Orders issued pursuant to this Contract, Contractor agrees or shall agree as a material term of the Contract that Contractor shall be subject to the **Participation Goals**, unless the goals are waived or modified by Agency in accordance with Section 6-129 and Part A, Sections 10 and 11 below, respectively.

3. If **Participation Goals** have been established for this Contract or Task Order issued pursuant to this Contract, a Contractor that is an MBE and/or WBE shall be permitted to count its own participation toward fulfillment of the relevant **Participation Goal**, provided that in accordance with Section 6-129 the value of Contractor's participation shall be determined by subtracting from the total value of the Contract or Task Order, as applicable, any amounts that the Contractor pays to direct subcontractors (as defined in Section 6-129(c)(13)), and provided further that a Contractor that is certified as both an MBE and a WBE may count its own participation either toward the goal for MBEs or the goal for WBEs, but not both.

A Contractor that is a qualified joint venture (as defined in Section 6-129(c)(30)) shall be permitted to count a percentage of its own participation toward fulfillment of the relevant **Participation Goal**. In accordance with Section 6-129, the value of Contractor's participation shall be determined by subtracting from the total value of the Contract or Task Order, as applicable, any amounts that the Contractor pays to direct subcontractors, and then multiplying the remainder by the percentage to be applied to total profit to determine the amount to which an MBE or WBE is entitled pursuant to the joint venture agreement, provided that where a participant in a joint venture is certified as both an MBE and a WBE, such amount shall be counted either toward the goal for MBEs or the goal for WBEs, but not both.

4. A. If **Participation Goals** have been established for this Contract, a prospective contractor shall be required to submit with its bid or proposal, as applicable, a completed Schedule B, M/WBE Utilization Plan, Part 2 (see Pages 1-2) indicating: (a) whether the contractor is an MBE or WBE, or qualified joint venture; (b) the percentage of work it intends to award to direct subcontractors; (c) in cases where the contractor intends to award direct subcontractors, a description of the type and dollar value of work designated for participation by MBEs and/or WBEs and the time frame in which such work is scheduled to begin and end; as well as the name, address, and telephone number of the M/WBE subcontractors if required by the solicitation; and (d) the prospective contractor's required certification and affirmations. In the event that this M/WBE Utilization Plan indicates that the bidder or proposer, as applicable, does not intend to meet the **Participation Goals** in the bid or proposal, as applicable, shall be deemed non-responsive, unless Agency has granted the bidder or proposer, as applicable, a pre-award waiver of the **Participation Goals** in accordance with Section 6-129 and Part A, Section 10 below.

B. (i) If this Contract is for a master services agreement or other requirements type contract that will result in the issuance of Task Orders that will be individually registered ("Master Services Agreement") and is subject to M/WBE **Participation Goals**, a prospective contractor shall be required to submit with its bid or proposal, as applicable, a completed Schedule B, M/WBE Participation Requirements for Master Services Agreements That Will Require Individually Registered Task Orders, Part 2 (page 2) indicating the prospective contractor's certification and required affirmations to make all reasonable good faith efforts to meet participation goals established on each individual Task Order issued pursuant to this Contract, or if a partial waiver is obtained or such goals are modified by the Agency, to meet the modified **Participation Goals** by soliciting and obtaining the participation of certified MBE and/or WBE firms. In the event that the Schedule B indicates that the bidder or proposer, as applicable, does not intend to meet the **Participation Goals** that may be established on Task Orders issued pursuant to this Contract, the bid or proposal, as applicable, shall be deemed non-responsive.

(ii) **Participation Goals** on a Master Services Agreement will be established for individual Task Orders issued after the Master Services Agreement is awarded. If **Participation Goals** have been established on a Task Order, a contractor shall be required to submit a Schedule B – M/WBE Utilization Plan For Independently Registered Task Orders That Are Issued Pursuant to Master Services Agreements, Part 2 (see Pages 1-2) indicating: (a) whether the contractor is an MBE or WBE, or qualified joint venture; (b) the percentage of work it intends to award to direct subcontractors; (c) in cases where the contractor intends to award direct subcontracts, a description of the type and dollar value of work designated for participation by MBEs and/or WBEs, and the time frames in which such work is scheduled to begin and end; as well as the name, addresses, and telephone numbers of the M/WBE subcontractors if required by the solicitation; and (d) the prospective contractor's required certification and affirmations. The contractor must engage in good faith efforts to meet the **Participation Goals** as established for the Task Order unless Agency has granted the contractor a pre-award waiver of the **Participation Goals** in accordance with Section 6-129 and Part A, Section 10 below.

C. THE BIDDER/PROPOSER MUST COMPLETE THE SCHEDULE B INCLUDED HEREIN (SCHEDULE B, PART 2). A SCHEDULE B SUBMITTED BY THE BIDDER/PROPOSER WHICH DOES NOT INCLUDE THE VENDOR CERTIFICATION AND REQUIRED AFFIRMATIONS WILL BE DEEMED TO BE NON-RESPONSIVE, UNLESS A FULL WAIVER OF PARTICIPATION GOALS IS GRANTED (SCHEDULE B, PART 3). IN THE EVENT THAT THE CITY DETERMINES THAT THE BIDDER/PROPOSER HAS SUBMITTED A SCHEDULE B WHERE THE VENDOR CERTIFICATION AND REQUIRED AFFIRMATIONS ARE COMPLETE BUT OTHER ASPECTS OF THE SCHEDULE B ARE NOT COMPLETE, OR CONTAIN A COPY OR COMPUTATION ERROR THAT IS CONSISTENT WITH THE VENDOR CERTIFICATION AND AFFIRMATIONS, THE BIDDER/PROPOSER WILL BE NOTIFIED BY THE AGENCY AND WILL BE GIVEN FOUR (4) CALENDAR DAYS FROM RECEIPT OF NOTIFICATION TO CORRECT THE SPECIFIED DEFICIENCIES AND RETURN A COMPLETED SCHEDULE B TO THE AGENCY. FAILURE TO DO SO WILL RESULT IN A DETERMINATION THAT THE BID/PROPOSAL IS NON-RESPONSIVE. RECEIPT OF NOTIFICATION IS DEFINED AS THE DATE NOTICE IS E-MAILED OR FAXED (IF THE BIDDER/PROPOSER HAS PROVIDED AN E-MAIL ADDRESS OR FAX NUMBER), OR NO LATER THAN FIVE (5) CALENDAR DAYS FROM THE DATE OF MAILING OR UPON DELIVERY, IF DELIVERED.

5. Where an MBE/WBE Utilization Plan has been submitted, the Contractor shall, within 30 days of issuance by Agency of a notice to proceed, submit a list of proposed persons or entities to which it intends to award subcontracts within the subsequent 12 months. In the case of multi-year contracts, such list shall also be submitted every year hereafter. The Agency may also require the Contractor to report periodically about the contracts awarded by its direct subcontractors to indirect subcontractors (as defined in Section 6-129(c)(22)). **PLEASE NOTE that this Contract is a public works project subject to GML §101(5) (i.e., a contract valued at or below \$3M for projects in New York City) or if the Contract is subject to a project labor agreement in accordance with Labor Law §222, and the bidder is required to identify at the time of bid submission its intended subcontractors for the Wicks trades (plumbing and gas fitting; steam heating, hot water heating, ventilating and air conditioning (HVAC); and electric wiring), the Contractor must identify all those to which it intends to award construction subcontracts for any portion of the Wicks trade work at the time of bid submission, regardless of what point in the life of the contract such subcontracts will occur. In identifying intended subcontractors in the bid submission, bidders may satisfy any Participation Goals established for this Contract by proposing one or more subcontractors that are MBEs and/or WBEs for any portion of the Wicks trade work.** In the event that the Contractor's selection of a subcontractor is disapproved, the Contractor shall have a reasonable time to propose alternate subcontractors.

6. MBE and WBE firms must be certified by DSBS in order for the Contractor to credit such firms' participation toward the attainment of the **Participation Goals**. Such certification must occur prior to the firms' commencement of work. A list of city-certified MBE and WBE firms may be obtained from the DSBS

website at www.nyc.gov/buycertified, by emailing DSBS at buyer@sbs.nyc.gov, by calling (212) 513-6451, or by visiting or writing DSBS at One Liberty Plaza, New York, New York, 10006, 11th floor. Eligible firms that have not yet been certified may contact DSBS in order to seek certification by visiting www.nyc.gov/getcertified, emailing MWBE@sbs.nyc.gov, or calling the DSBS certification helpline at (212) 513-6311. A firm that is certified as both an MBE and a WBE may be counted either toward the goal for MBEs or the goal for WBEs, but not both. No credit shall be given for participation by a graduate MBE or graduate WBE, as defined in Section 6-129(c)(20).

7. Where an **M/WBE** Utilization Plan has been submitted, the Contractor shall, with each voucher for payment, and/or periodically as Agency may require, submit statements, certified under penalty of perjury, which shall include, but not be limited to, the total amount the Contractor paid to its direct subcontractors, and, where applicable pursuant to Section 6-129(j), the total amount direct subcontractors paid to indirect subcontractors; the names, addresses and contact numbers of each MBE or WBE hired as a subcontractor by the Contractor, and, where applicable, hired by any of the Contractor's direct subcontractors; and the dates and amounts paid to each MBE or WBE. The Contractor shall also submit, along with its voucher for final payment: the total amount it paid to subcontractors, and, where applicable pursuant to Section 6-129(j), the total amount its direct subcontractors paid directly to their direct subcontractors; and a final list, certified under penalty of perjury, which shall include the name, address and contact information of each subcontractor that is an MBE or WBE, the work performed by, and the date and amounts paid to each.

8. If payments made to, or work performed by, MBEs or WBEs are less than the amount specified in the Contractor's **M/WBE** Utilization Plan, Agency shall take appropriate action in accordance with Section 6-129 and Article II below, unless the Contractor has obtained a modification of its **M/WBE** Utilization Plan in accordance with Section 6-129 and Part A, Section 1 below.

9. Where an **M/WBE** Utilization Plan has been submitted, and the Contractor requests a change order the value of which equals or is greater than 10 percent of the Contract or Task Order, as applicable, or \$500,000, Agency shall review the scope of work for the Contract or Task Order, as applicable, and the scale and types of work involved in the change order, and determine whether the **Participation Goals** should be modified.

10. Pre-award waiver of the **Participation Goals**.

(a) A bidder or proposer or contractor with respect to a Task Order, may seek a pre-award full or partial waiver of the **Participation Goals** in accordance with Section 6-129, which requests that Agency change one or more **Participation Goals** on the grounds that the **Participation Goals** are unreasonable in light of the availability of certified firms to perform the services required, or by demonstrating that it has legitimate business reasons for proposing a lower level of subcontracting in its **M/WBE** Utilization Plan.

(b) To apply for a full or partial waiver of the **Participation Goals**, a bidder, proposer, or contractor, as applicable, must complete Part 3 of Schedule B and submit such request no later than seven (7) calendar days prior to the date and time the bids, proposals, or Task Orders are due, in writing to the Agency by email at MWBEModification@ddc.nyc.gov. Full or partial waiver requests that are received later than seven (7) calendar days prior to the date and time the bids, proposals, or Task Orders are due may be rejected as untimely. Bidders, proposers, or contractors, as applicable, who have submitted timely requests will receive an Agency response by no later than two (2) calendar days prior to the due date for bids, proposals, or Task Orders; provided, however, that if that date would fall on a weekend or holiday, an Agency response will be provided by close-of-business on the business day before such weekend or holiday date.

(c) If the Agency determines that the **Participation Goals** are unreasonable in light of the availability of certified firms to perform the services required, it shall revise the solicitation and extend the deadline for bids and proposals, or revise the Task Order, as applicable.

(d) Agency may grant a full or partial waiver of the **Participation Goals** to a bidder, proposer or contractor, as applicable, who demonstrates—before submission of the bid, proposal or Task Order, as applicable—that it has legitimate business reasons for proposing the level of

subcontracting in its **M/WBE** Utilization Plan. In making its determination, Agency shall consider factors that shall include, but not be limited to, whether the bidder, proposer or contractor, as applicable, has the capacity and the bona fide intention to perform the Contract without any subcontracting, or to perform the Contract without awarding the amount of subcontracts represented by the **Participation Goals**. In making such determination, Agency may consider whether the **M/WBE** Utilization Plan is consistent with past subcontracting practices of the bidder, proposer or contractor, as applicable, whether the bidder, proposer or contractor, as applicable, has made efforts to form a joint venture with a certified firm, and whether the bidder, proposer, or contractor, as applicable, has made good faith efforts to identify other portions of the Contract that it intends to subcontract.

11. Modification of **M/WBE** Utilization Plan. (a) A Contractor may request a modification of its **M/WBE** Utilization Plan after award of this Contract. **PLEASE NOTE: If this Contract is a public works project subject to GML §101(5) (i.e., a contract valued at or below \$3M for projects in New York State or if the Contract is subject to a project labor agreement in accordance with Labor Law §209 and the bidder is required to identify at the time of bid submission its intended subcontractors for the Vicks trades (plumbing and gas fitting; steam heating, hot water heating, ventilation and air conditioning (HVAC); and electric wiring), the Contractor may request Modification of its M/WBE Utilization Plan as part of its bid submission.**

The Agency may grant a request for Modification of a contractor's **M/WBE** Utilization Plan if it determines that the Contractor has established, with appropriate documentary and other evidence, that it made reasonable, good faith efforts to meet the **Participation Goals**. In making such determination, Agency shall consider evidence of the following efforts, as applicable, along with any other relevant factors:

(i) The Contractor advertised opportunities to participate in the Contract, where appropriate, in general circulation media, trade and professional association publications and small business media, and publications of minority and women's business organizations;

(ii) The Contractor provided notice of specific opportunities to participate in the Contract, in a timely manner, to minority and women's business organizations;

(iii) The Contractor sent written notices, by certified mail or facsimile, in a timely manner, to advise MBEs or WBEs that their interest in the Contract was solicited;

(iv) The Contractor made efforts to identify portions of the work that could be substituted for portions originally designated for participation by MBEs and/or WBEs in the **M/WBE** Utilization Plan, and for which the Contractor claims an inability to retain MBEs or WBEs;

(v) The Contractor held meetings with MBEs and/or WBEs prior to the date their bids or proposals were due, for the purpose of explaining in detail the scope and requirements of the work for which their bids or proposals were solicited;

(vi) The Contractor made efforts to negotiate with MBEs and/or WBEs as relevant to perform specific subcontracts, or act as suppliers or service providers;

(vii) Timely written requests for assistance made by the Contractor to Agency's M/WBE liaison officer and to DSBS;

(viii) Description of how recommendations made by DSBS and Agency were acted upon and an explanation of why action upon such recommendations did not lead to the desired level of participation of MBEs and/or WBEs.

Agency's M/WBE officer shall provide written notice to the Contractor of the determination.

(b) The Agency may modify the **Participation Goals** when the scope of the work has been changed by the Agency in a manner that affects the scale and types of work that the Contractor indicated in its **M/WBE Utilization Plan** would be awarded to subcontractors.

12. If the Contractor was required to identify in its bid or proposal the MBEs and/or WBEs they intended to use in connection with the performance of the Contract or Task Order, substitutions to the identified firms may only be made with the approval of the Agency, which shall only be given when the Contractor has proposed to use a firm that would satisfy the **Participation Goals** to the same extent as the firm previously identified, unless the Agency determines that the Contractor has established, with appropriate documentary and other evidence, that it made reasonable, good faith efforts. In making such determination, the Agency shall require evidence of the efforts listed in Section 6-129(a) above, as applicable, along with any other relevant factors.

13. If this Contract is for an indefinite quantity of construction, standard professional services or is a requirements type contract and the Contractor has submitted an **M/WBE Utilization Plan** and has committed to subcontract work to MBEs and/or WBEs in order to meet the **Participation Goals**, the Contractor will not be deemed in violation of the **M/WBE Program** requirements for this Contract with regard to any work which was intended to be subcontracted to an MBE and/or WBE to the extent that the Agency has determined that such work is not needed.

14. If **Participation Goals** have been established for this Contract or a Task Order issued pursuant to this Contract, at least once annually during the term of the contract or Task Order, as applicable, Agency shall review the Contractor's progress toward attainment of its **M/WBE Utilization Plan**, including but not limited to, by reviewing the percentage of work the Contractor has actually awarded to MBE and/or WBE subcontractors and the payments the Contractor made to such subcontractors.

15. If **Participation Goals** have been established for this Contract or a Task Order issued pursuant to this Contract, Agency shall evaluate and assess the Contractor's performance in meeting those goals, and such evaluation and assessment shall become part of the Contractor's overall contract performance evaluation.

PART B

MISCELLANEOUS

1. The Contractor shall take notice that, if this solicitation requires the establishment of a **M/WBE Utilization Plan**, the resulting contract may be audited by DSBS to determine compliance with Section 6-129. See §6-129(e)(10). Furthermore, such resulting contract may also be examined by the City's Comptroller to assess compliance with the **M/WBE Utilization Plan**.

2. Pursuant to DSBS rules, construction contracts that include a requirement for a **M/WBE Utilization Plan** shall not be subject to the law governing Locally Based Enterprises set forth in Section 6-108.1 of the Administrative Code of the City of New York.

3. DSBS is available to assist contractors and potential contractors in determining the availability of MBEs and/or WBEs to participate as subcontractors, and in identifying opportunities that are appropriate for participation by MBEs and/or WBEs in contracts.

4. Prospective contractors are encouraged to enter into qualified joint venture agreements with MBEs and/or WBEs as defined by Section 6-129(c)(30).

5. By submitting a bid or proposal the Contractor hereby acknowledges its understanding of the M/WBE Program requirements set forth herein and the pertinent provisions of Section 6-129, and any rules promulgated thereunder, and if awarded this Contract, the Contractor hereby agrees to comply with the M/WBE Program requirements of this Contract and pertinent provisions of Section 6-129, and any rules promulgated thereunder, all of which shall be deemed to be material terms of this Contract. The Contractor hereby agrees to make all reasonable, good faith efforts to solicit and obtain the participation of MBEs and/or WBEs to meet the required **Participation Goals**.

ARTICLE II. ENFORCEMENT

1. If Agency determines that a bidder or proposer, as applicable, has violated this procurement, violated Section 6-129 or the DSBS rules promulgated pursuant to Section 6-129, Agency may disqualify such bidder or proposer, as applicable, from competing for this Contract and the Agency may revoke such bidder's or proposer's prequalification status, if applicable.

2. Whenever Agency believes that the Contractor or a subcontractor is in non-compliance with Section 6-129 or the DSBS rules promulgated pursuant to Section 6-129, or any provision of this Contract that implements Section 6-129, including, but not limited to any **M/WBE Utilization Plan**, Agency shall send a written notice to the Contractor describing the alleged noncompliance and offering the Contractor an opportunity to be heard. Agency shall then conduct an investigation to determine whether such Contractor or subcontractor is in compliance.

3. In the event that the Contractor has been found to have violated Section 6-129, the DSBS rules promulgated pursuant to Section 6-129, or any provision of this Contract that implements Section 6-129, including, but not limited to, any **M/WBE Utilization Plan**, Agency may determine that one of the following actions should be taken:

- (a) entering into an agreement with the Contractor allowing the Contractor to cure the violation;
- (b) revoking the Contractor's pre-qualification to bid or make proposals for future contracts;
- (c) making a finding that the Contractor is in default of the Contract;
- (d) terminating the Contract;
- (e) declaring the Contractor to be in breach of Contract;
- (f) withholding payment or reimbursement;
- (g) determining not to renew the Contract;
- (h) assessing actual and consequential damages;
- (i) assessing liquidated damages or reducing fees, provided that liquidated damages may be based on amounts representing costs of delays in carrying out the purposes of the M/WBE Program, or in meeting the purposes of the Contract, the costs of meeting utilization goals through additional

procurements, the administrative costs of investigation and enforcement, or other factors set forth in the Contract;

(j) exercising rights under the Contract to procure goods, services or construction from another contractor and charge the cost of such contract to the Contractor that has been found to be in noncompliance; or

(k) taking any other appropriate remedy.

4. If an **M/WBE** Utilization Plan has been submitted, and pursuant to this Article II, Section 3, the Contractor has been found to have failed to fulfill its **Participation Goals** contained in its **M/WBE** Utilization Plan or the **Participation Goals** as modified by Agency pursuant to Article I, Part A, Section 11, Agency may assess liquidated damages in the amount of ten percent (10%) of the difference between the dollar amount of work required to be awarded to MBE and/or WBE firms to meet the **Participation Goals** and the dollar amount the Contractor actually awarded and paid, and/or credited, to MBE and/or WBE firms. In view of the difficulty of accurately ascertaining the loss which the City will suffer by reason of Contractor's failure to meet the **Participation Goals**, the foregoing amount is hereby fixed and agreed as the liquidated damages that the City will suffer by reason of such failure, and not as a penalty. Agency may deduct and retain out of any monies which may become due under this Contract the amount of any such liquidated damages; and in case the amount which may become due under this Contract shall be less than the amount of liquidated damages suffered by the City, the Contractor shall be liable to pay the difference.

5. Whenever Agency has reason to believe that an MBE and/or WBE is not qualified for certification, or is participating in a contract in a manner that does not serve a commercial useful function (as defined in Section 6-129(c)(8)), or has violated any provision of Section 6-129, Agency shall notify the Commissioner of DSBS who shall determine whether the certification of such business enterprise should be revoked.

6. Statements made in any instrument submitted to Agency pursuant to Section 6-129 shall be submitted under penalty of perjury and any false or misleading statement or omission shall be grounds for the application of any applicable criminal and/or civil penalties for perjury. The making of a false or fraudulent statement by an MBE and/or WBE in any instrument submitted pursuant to Section 6-129 shall, in addition, be grounds for revocation of its certification.

7. The Contractor's record in implementing its **M/WBE** Utilization Plan shall be a factor in the evaluation of its performance. Whenever Agency determines that a Contractor's compliance with an **M/WBE** Utilization Plan has been unsatisfactory, Agency shall, after consultation with the City Chief Procurement Officer, file an advice of caution form for inclusion in PASSPort as caution data.

Affirmation

The Bidder affirms and declares:

1. The said bidder is of lawful age and the only one interested in this bid; and no person, firm or corporation other than hereinbefore named has any interest in this bid, or in the Contract proposed to be taken.
2. By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief: (1) the prices in this bid have been arrived at independently without collusion, consultation, communication or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor; (2) unless otherwise required by law, the prices quoted in this bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to opening, directly or indirectly, to any other bidder or to any competitor; and (3) no attempt has been made or will be made by the bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition.
3. No councilman or other officer or employee or person whose salary is payable in whole or in part from the City Treasury is directly or indirectly interested in this bid, or in the supplies, materials, equipment, work or labor to which it relates, or in any of the profits thereof.
4. The bidder is not in arrears to the City of New York upon debt or contract or taxes, and is not a defaulter, as surety or otherwise, upon any obligation of the City of New York, and has not been declared not responsible, or disqualified, by any agency of the City of New York or State of New York, nor is there any proceeding pending relating to the responsibility or qualification of the bidder to receive public contracts except as disclosed in PASSPort.
5. The bidder hereby affirms that it has paid all applicable City income, excise and other taxes for all it has conducted business activities in New York City.
6. The bidder, as an individual, or as a member, partner, director or officer of the bidder, if the same be a firm, partnership or corporation, executes this document expressly warranting and representing that should this bid be accepted by the City and the Contract awarded to him, he and his subcontractors engaged in the performance:

(1) will comply with the provisions of Section 6-108 of the Administrative Code of the City of New York and the non-discrimination provisions of Section 220a of the New York State Labor Law, as more expressly and in detail set forth in the Agreement; (2) will comply with Section 6-109 of the Administrative Code of the City of New York in relation to minimum wages and other stipulations as more expressly and in detail set forth in the Agreement; (3) have complied with the provisions of the aforesaid laws since their respective effective dates, and (4) will post notices to be furnished by the City, setting forth the requirements of the aforesaid laws in prominent and conspicuous places in each and every plant, factory, building and structure where employees engaged in the performance of the Contract can readily view it, and will continue to keep such notices posted until the supplies, materials and equipment, or work labor and services required to be furnished or rendered by the Contractor have been finally accepted by the City. In the event of any breach or violation of the foregoing, the Contractor may be subject to damages, liquidated or otherwise, cancellation of the Contract and suspension as a bidder for a period of three years. (The words, "the bidder", "he", "his", and "him" where used shall mean the individual bidder, firm, partnership or corporation executing this bid).

7. Compliance Report

The bidder, as an individual, or as a member, partner, director, or officer of the bidder, if the same be a firm, partnership, or corporation, (1) represents that his attention has been specifically drawn to Executive Order No. 50, dated April 25, 1980, on Equal Employment Compliance of the contract, and (2) warrants that he will comply with the provisions of Executive Order No. 50. The Employment Report must be submitted as part of the bid.

8. The bidder, as an individual, or as a member, partner, director, or officer of the bidder, if the same be a firm, partnership, or corporation, executes this document expressly warranting that he will comply with: (1) the provision of the contract on providing records, Chapter 8.
9. By submission of this bid, the bidder certifies that it now has and will continue to have the financial capability to fully perform the work required for this contract. Any award of this contract will be made in reliance upon such certification. Upon request therefor, the bidder will submit written verification of such financial capability in a form that is acceptable to the department.
10. In accordance with Section 165 of the State Finance Law, the bidder agrees that tropical hardwoods, as defined in Section 165 of the State Finance Law, shall not be utilized in the performance of this Contract, except as the same are permitted by the foregoing provision of law.
11. The bidder has visited and examined the site of the work and has carefully examined the Contract in the form approved by the Corporation Counsel, and will execute the Contract and perform all its items, covenants and conditions, and will provide, furnish and deliver all the work, materials, supplies, tools and appliances for all labor and materials necessary or required for the hereinafter named work, all in strict conformity with the Contract, for the prices set forth in the Bid Schedule.
12. Certification Regarding Use of Contract Funds for Lobbying (FHWA 1273 Section XI.):
 - A. The Bidder certifies, by signing and submitting this bid, to the best of his or her knowledge and belief, that:
 - 1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
13. Sexual Harassment Prevention Certification for Construction Contract Bids:

By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that the bidder has and has implemented a written policy addressing sexual harassment prevention in the workplace and provides annual sexual harassment prevention training to all of its employees. Such policy shall, at a minimum, meet the requirements of section two hundred one-g of the labor law.

Bid Schedule

The Questionnaire in the PASSPort system contains the Bid Schedule. Items listed in the Bid Schedule shall comply with the requirements of the corresponding sections of the specifications detailed in the table below. All references to the Standard Specifications, Details, Standards and Drawings shall be to the version in effect at the time of bid.

NOTES:

- “XXX” in the table below signifies any possible combination of characters and spaces.
- The table below may contain item formats which are not included in the Bid Schedule.

Please refer to the Bid Schedule to determine which specifications apply.

Item Number Format	Applicable Specifications
4.XXX 6.XXX 7.XXX 8.XXX <i>(Except 8.01 XXX; see below)</i> 9.XXX HW-XXX	NYC Department of Transportation (“DOT”) Standard Highway Specifications, as amended in the R-Pages, located in Volume 3 of 3 herein; <p style="text-align: center;">AND</p> NYC DOT Standard Details of Construction; <p style="text-align: center;">OR,</p> <i>if the item is not contained within the Standard Specifications</i> , then see the applicable New Sections in the I-Pages, located in Volume 3 of 3 herein.
1.XXX 50.XXX through 55.XXX 60.XXX through 66.XXX 70.XXX through 79.XXX <i>(Except 79.11XXX; see below)</i> DSS XXX DSW XXX	NYC Department of Environmental Protection (“DEP”) Standard Sewer and Water Main Specifications, as amended in the R-Pages and SW-Pages, located in Volume 3 of 3 herein; <p style="text-align: center;">AND</p> NYC DEP Specifications for Trunk Main Work; <p style="text-align: center;">AND</p> NYC DEP Sewer Design Standards; <p style="text-align: center;">AND</p> NYC DEP Water Main Standard Drawings; <p style="text-align: center;">OR,</p> <i>if the item is not contained within the Standard Specifications</i> , then see the Amendments to the Standard Sewer and Water Main Specifications in the SW-Pages, located in Volume 3 of 3 herein.
GI-XXX PM-XXX ROW XXX	New Sections in the I-Pages, located in Volume 3 of 3 herein <p style="text-align: center;">AND</p> NYC DEP Standards for Green Infrastructure.

Item Number Format	Applicable Specifications
UTL-XXX	Gas Cost Sharing Standard Specifications in the EP7-Pages, located in Volume 3 of 3 herein.
83X.XXX MX.XXX MP XXX NYC-XXX NYCT-XXX NYPD-XXX P XXX PK-XXX	New Sections in the I-Pages, located in Volume 3 of 3 herein.
BMP-XXX	Specifications for Construction of Best Management Practice (BMP) and Mitigation Area in the BMP-Pages, located in Volume 3 of 3 herein.
E XXX ME XXX	Specifications for the Specialty Electrical Works in the EL-Pages, located in Volume 3 of 3 herein.
SL-XXX	NYC DOT Division of Street Lighting Specifications AND NYC Division of Street Lighting Standard Drawings.
T-XXX	NYC DOT Specifications for Traffic Signals and Intelligent Transportation Systems AND NYC DOT Traffic Signal Standard Drawings.
JB XXX	Joint Bid Specifications in the JB-Pages, located in Volume 3 of 3 herein.
8.01 XXX	Specifications for Handling, Transportation and Disposal of Nonhazardous and Potentially Hazardous Contaminated Materials in the HAZ-Pages, located in Volume 3 of 3 herein.
67.XXX	Specifications for Abatement of Coal Tar Wrap Asbestos Containing Materials in the ASB-Pages, located in Volume 3 of 3 herein.
79.11XXX	Specifications for Abatement of Transit Authority Duct Insulation Asbestos Containing Materials in the ASB-Pages, located in Volume 3 of 3 herein.

Pre-Award Process

The bidder is advised that as part of the pre-award review of its bid, it may be required to submit the information described in Sections (A) through (D) below. If required, the bidder must submit such information within five (5) business days following receipt of notification from DDC that it is among the low bidders. Such notification from DDC will be by email and will specify the types of information which must be submitted directly to DDC.

In the event the bidder fails to submit the required information within the specified time frame, its bid may be rejected as nonresponsive.

- (A) **Project Reference Form:** If required, the bidder must complete and submit the Project Reference Form set forth in this Bid Booklet. The Project Reference Form consists of 3 parts: (1) Contracts Completed by the Bidder, (2) Contracts Currently Under Construction by the Bidder, and (3) Pending Contracts Not Yet Started by the Bidder.
- (B) **Copy of License:** If required, the bidder must submit a copy of the license under which the bidder will be performing the work. Such license must clearly show the following: (1) Name of the Licensee, (2) License Number, and (3) Expiration date of the License. A copy of the license will be required from bidders for the following contracts: Plumbing Work, Electrical Work and Asbestos Abatement.
- (C) **Financial Information:** If required, the bidder must submit the financial information described below:
 - (1) **Audited Financial Statements:** Financial statements (Balance Sheet and Income Statement) of the entity submitting the bid, as audited by an independent auditor licensed to practice as a certified public accountant (CPA). Audited financial statements for the three most recent fiscal years must be submitted. Each such financial statement must include the auditor's standard report.

If the bidder does not have audited financial statements, it must submit an affidavit attesting to the fact that the bidder does not have such statements. In addition, the bidder must submit the following documentation covering the three most recent fiscal years: signed federal tax returns, unaudited financial statements, and a "certified review letter" from a certified public accountant (CPA) verifying the unaudited financial statements.

Unless the most recent audited or unaudited financial statement was issued within ninety (90) days, the bidder must submit interim financial information that includes data on financial position and results of operation (income data) for the current fiscal year. Such information may be summarized on a monthly or quarterly basis or at other intervals.

- (2) **Schedule of Aged Accounts Receivable,** including portion due within ninety (90) days.

(D) **Project Specific Information:** If required, the bidder must submit the project specific information described below:

- (1) Statement indicating the number of years of experience the bidder has had and in what type of construction.
- (2) Resumes of all key personnel to be involved in the project, including the proposed project superintendent.
- (3) List of significant pieces of equipment expected to be used for the contract, and whether such equipment is owned or leased.
- (4) Description of work expected to be subcontracted, and to what firms, if known.
- (5) List of key material suppliers.
- (6) Preliminary bar chart time schedule
- (7) Contractor's expected means of financing the project. This should be based on the assumption that the contractor is required to finance 2X average monthly billings throughout the contract period.
- (8) Any other issues the contractor sees as impacting his ability to complete the project according to the contract.

In addition to the information described in Sections (A) through (D) above, the bidder shall submit such additional information as the Commissioner may require, including without limitation, an explanation or justification for specific unit price items.

The bidder is further advised that it may be required to attend a pre-award meeting with DDC representatives. If such a meeting is convened, the bidder will be advised as to any additional material to be provided.



2400 East 69th Street
Brooklyn, N.Y. 11234
Tel: (718) 531-6084 / Fax: (888) 531-8856

October 18, 2023

City of New York
Department of Design & Construction
30-30 Thomson Avenue
Long Island City, NY 11101

Attn: Lorraine Holley, Director
Contracts Unit

Re: Contract No. HWK2048
Reconstruction of Jamaica Bay Greenway
Paerdegat Avenue North Connector, Flatlands Avenue, Etc.
Boroughs of Brooklyn
Pre-Award Submission

Dear Ms. Holley;

As requested, JPL Industries (JPL) is submitting its response to the agency's pre-award notification request to the bid submitted on October 13, 2023.

Company Overview.

While our origins began in 1981 as a small, family-owned business focusing on residential work J. Pizzirusso Landscaping Corp. started operations in 2000 as a general contractor performing work for the NYC Department of Design & Construction, NYC Department of Parks & Recreation, NYC Department of Transportation, DASNY, NYC School Construction Authority, NYC Department of Environmental Protection, NYC Economic Development Corp. and the Army Corp. of Engineers. Over the course of the past 23 years we have grown in both size and ability to perform site and heavy construction work. In addition to site work, deep excavation, earth moving, grading and landscaping we have successfully performed work that included water main installation, site drainage, storm and sanitary drainage, sewer chambers and structures, catch basin and chute connections, Utility interference, relocation and layout work for the various utility companies under GCA, CET and JB contract formats, storm water retention basins and bypass connections, manholes, dewatering, pile installation, upgrades and support and protection, BMP and Wetlands mitigation, full roadway reconstruction, maintenance and protection of traffic, curb, sidewalk, street lighting and traffic signalization and asphalt paving. In this duration we have complete in excess of \$370,00,000.00 in work for the City of New York.

1. **Project Reference Forms:**

Forms A, B and C as provided in the contract bid booklet was submitted with the bid as required.

JPL is adding the attached information as in part, additional references to that already submitted. See attached.

2. **Financial Information:**

The last available JPL financial statement will be submitted under separate cover

3. **Project Specific Information:**

Recent projects completed that are similar in nature include but are not limited to the following:

Pedestrian Safety Routes on 31st Street, Queens

NYCDDC Contract No HWPEDSF-01

Substantially completed June 3, 2019

Awarded contract value \$ 2,130,068

Work included MPT, water main, catch basins and manholes, sewer connections, Utility relocation, support and protection, excavation, testing, removal and disposal of hazardous and nonhazardous contaminated materials, special care at NYCT facilities, Street lighting and Traffic signalization, MPT, curb, sidewalk, roadway reconstruction and paving.

Reconstruction of New Lots Triangle, Brooklyn

NYCDDC Contract No. HWPLZ009K

Completed December of 2017

Award contract value; \$2,667,626.00

Work included MPT, watermain, sewer, manholes and catch basins, utility relocation, support and protection, curb, sidewalk, roadway reconstruction, special care for NYCT facilities, street lighting and traffic signalization, unit pavers and landscaping.

Installation of New Catch Basins- Brooklyn & Queens

NYCDDC Contract No. SECBRPQ10-R

Completed December 2018

Awarded contract value \$5,160,000.00

Work included MPT, new catch basin, manholes, chute connections, curb, sidewalk and roadway restoration.

Reconstruction of Father Capodanno Blvd. Midland Beach, Staten Island

NYCDDC Contract No. SANDHW15

Completed August 2019

Awarded contract value \$6,445,703.00

Work included MPT, water main, drainage structures, manholes, catch basins, highway drainage, curb, sidewalk, testing, removals and disposal for hazardous and nonhazardous

contaminated materials roadway reconstruction, erosion controls, street lighting and traffic signalization, landscaping and asphalt paving.

Reconstruction of Liberty Street between Greenwich Street and Trinity Place, Manhattan

NYCDDC Contract No. HWMWTCB5A

Completed September 2019

Awarded contract value \$1,951,333.00

Work included excavation, MPT, curb, sidewalk, roadway reconstruction, utility relocation, support and protection (under Joint bid items of work) asphalt restoration.

Reconstruction of the Retaining Walls and Site, Mt Hope Park, The Bronx

NYCDPR Contract No. X274-113M

Completed December 2018

Award contract value \$ 3,761,639.00

Work included removal and replacement of reinforced concrete retaining walls, deep excavation, underpinning structures, testing and removal for contaminated nonhazardous and hazardous soils. Retention basins, drainage, water service, site improvements and landscaping

Reconstruction of Father Cappadonna Blvd, South Beach, Staten Island

NYCDDC Contract No. SANDHW14

Completed October 2020

Award contract value \$ 18,180,900.00

Work included water main, MPT, utility relocation, support and protection, drainage and sewer replacement, manholes and catch basins, curb, sidewalk, landscaping, erosion control, environmental testing, contaminated nonhazardous soil removal, water treatment, roadway reconstruction, street lighting and traffic signalization and landscaping.

Installation of Water Mains- Brooklyn and Staten Island

NYCDDC Contract No. RED-385

Completed December 2019

Award contract value \$4,650,000.00

Work included removal and replacement of water mains, utility relocations, support and protection of facilities, MPT, trench restoration.

Construction of Right of Way Bioswales- Queens

NYCDDC Contract. GQBB09-01

Completed December 2019

Awarded contract value \$9,110,000.00

Construction of approximately 250 bioswales, including excavation, sidewalk, curb and roadway restoration, landscaping, MPT, utility relocation, support and protection.

Construction of a 12 Acre Multi-Purpose Field, Parking areas, Retention Areas, Paths and Landscaping in Fairview Park, Staten Island

NYCDPR Contract No. R153-118M

Completed May 2021

Awarded contract value \$12,288,411.00

Construction of new 12-acre park and recreation field including site clearing, tree removal, excavation, erosion control and stabilization measures, soils and material testing, foundation and pile work, site electrical and lighting, curb, concrete and unit paver sidewalk, asphalt paving, fencing, drainage, water and electrical services, landscaping and site amenities.

Installation and Replacement of Bus Pads-Citywide

NYCDDC Contract HWBUSPAD

Completed July 2019

Awarded contract amount \$3,204,000.00

Construction of 36 new reinforced concrete bus pads in all five (5) boroughs. Work included excavation, drainage and catch basins, water main relocation, utility (gas, electrical and telephone) relocation, support and protection, steel face curb, concrete sidewalk, reinforced concrete bus pad, Maintenance and Protection of Traffic

Reconstruction of Fredrick Johnson Playground, Borough of Manhattan

NYCDPR Contract M159-219M

Completed November 2021

Awarded contract value \$5,000,000.00

Work included site clearing and grubbing, removals, excavation and testing for hazardous and nonhazardous contaminated soils, Removals and disposal of non-hazardous contaminated soils, erosion controls, foundations, site drainage and water services, electrical services, site lighting, concrete curb and sidewalk, asphalt paving, play equipment, safety surfacing, steel bar and chain link fencing, site amenities, and landscaping.

Installation of New Catch Basins & Reconstruction of Existing Catch Basins in the Boroughs of Brooklyn & Staten Island

NYC DDC Contract SECBRKR02

Completed December 2020

Awarded contract value \$3,826,800.00

Work included the where and when emergency repair and replace along with new installations of catch basins, manholes and chute connections. Curb, sidewalk, roadway restoration, utility relocation, interference work and new layout work for gas, electrical and telephone, along with necessary MPT and MOS.

Construction of New Sanitary and Storm Sewers and Watermains in Xenia Street, Borough of Staten Island

NYC DDC Contract SER200232

Completed December of 2022

Awarded contract value \$4,200,000.00

Work includes water main, storm and sanitary sewer, sewer chambers, manholes, catch basins, utility interference work, Hazmat testing removal and disposal, curb, sidewalk and roadway restoration.

**Construction of Jamacia Bay Greenway-Canarsie Pier Connector
Borough of Brooklyn**

NYC DDC Contract SANDR03

Completed June 30, 2023

Awarded contract value: \$3,356,710.00

Work included the creation of dedicated bicycle lanes including elevated lanes, new curb and roadway configurations, relocation and offsetting water mains, new drainage including storm sewers, excavation, soil testing, non-hazardous-contaminated spoil removal and disposal, catch basins, drainage inlets and manhole installation, new concrete sidewalk, detectable warning pavers, street lighting and traffic signalization, roadway reconstruction, concrete base and final asphalt restoration, pavement markings, signage, utility relocations, landscaping and MPT including maintaining the off ramp exit from the Belt Parkway.

JPL notes that is contract was issued a Notice to Proceed for July 18, 2022, allowing 695 consecutive calendar days to complete by June 11, 2024. JPL manned the project aggressively and achieved Substantial Completion as of June 30, 2023 using a total of 347 consecutive calendar days.

JPL believes based on this limited list of work performed and successfully completed we believe we have satisfied the overall special requirements outlined for this contract.

3a Significant Project Currently Under Construction

Construction of Storm, Sanitary Sewers, Water main, and Best Management Practices (BMP) in Wetlands- Mason Avenue, etc. Borough of Staten Island

Note this contract is under a JV contract with New York Concrete

NYCDDC Contract MIBBNC003

Projected completion date June of 2024

Awarded contract value \$33,500,000.00,

Estimated Final Contract value at \$44,500,000.00

As a joint venture partner with New York Concrete Corp. JPL is performing work that includes excavation, testing, removal and disposal of approximately 25,000 tons of nonhazardous-contaminated soils, sheeting and installation of sanitary and storm sewers, manholes and drainage structures, installation of piles, dewatering wells, erosion control measures, utility interference work, curb, sidewalk and roadway restoration. This portion of the project was completed as of the October 2021.

The BMP work has begun with clearing and grubbing, soils testing, erosion controls and engineering. Pending work includes construction of diversion channels, excavation and removal of approximately 60,000 tons of nonhazardous – contaminated soil, deep[

excavations, sheeting, piles and dewatering, construction of a weir and head wall, box culvert, construction BMP, grading, earth moving, landscaping. The project is 90 % complete and will resume in the spring of 2024 when the design and change order for the post construction measures required by NYC DEP is approved. These post construction measures will include porous concrete panels for the catchment of water runoff from the roadways.

Water Street Streetscape Improvements- Whitehall Street to Fulton Street, Manhattan NYCEDC Contract 48480005

Awarded contract value \$19,200,000.00

Anticipated completion date June of 2025

The work includes MPT, site removals, excavation, soil testing, removals and disposal, utility interferences work for gas, steam, electrical and communications systems, water main, catch basins, drainage, streetlight and traffic signal work, concrete and granite curb, sidewalk, bus pads, silva planting cells, decorative elements, benches, site furnishings landscaping. The project began in May of 2021 with JPL performing utility relocation work to accommodate the Capital work. The contract is still under construction and has been increased in value to accommodate significant Con Edison relocation and capital work.

Construction of Combined Relief Sewer and Chambers in 7th Street, between 3rd and 4th Avenues, Including Water main, Sewer, Street Lighting, Traffic Signalization, in the Borough of Brooklyn.

NYCDDC Contract No. SEK002380

Projected Completion May of 2024

Awarded Contract value \$ 8,984,000.00

Work includes water main, large diameter storm sewer, diversion chambers, deep excavation, SOE, MTA interface and facility monitoring, preconstruction surveys, vibration and settlement monitoring, support and maintain utilities including Oil-O-Static systems and high-pressure transmission gas systems, HAZMAT testing and disposal, manhole and catch basins, drainage curb, sidewalk, and roadway restoration. The work is approximately 40 % complete but is on holding pending removal of trees that will be impacted by the new sewer.

Reconstruction of Center Medians at Union Turnpike, Borough of Queens NYC DDC Contract HWQ1193

Projected Completion of November 15, 2023

Awarded contract value \$4,171,000.00

The work includes curb, sidewalk, center median reconstruction, traffic and street lighting work, roadway reconstruction, asphalt paving, protection of Oil-O-Static systems and landscaping. The work is 80% complete and is pending final restoration. The project is scheduled to be completed well in advance of the specified completion date of August 20, 2024.

Reconstruction of Nassau Street, from Maiden Lane to Pine Street, Borough of Manhattan

NYC DDC Contract HWM WTCB1

Award Contract Value \$6,535,000.00

Projected Completion Date: December 2025

The work includes utility relocation, drainage catch basins, granite curb placement, street lighting and traffic signalization work, full roadway reconstruction, mass excavation, asphalt paving. The work is approximately 15% complete.

Safety Enhancement to Glen Cove Road- Jericho Turnpike- Norther State parkway Exits in the Town of North Hempstead

NYS DOT Contract D264479

Projected Completion Date November 15, 2023

Awarded Contract Value \$3,833,000.00

The work includes traffic lane re-configuration, lane widening, new curbs, sidewalks, roadway reconstruction, overhead sign structures, installation of new traffic signalization and INFORM communication system, earthwork, slope protection, guiderails, milling, paving, pavement markings, and drainage.

East Side Coastal Resiliency- Parallel Conveyance System

NYC DDC Contract SANDRESPC

Projected Completion date; September 2026

Award Contract Value \$ 154, 991,054.00

Note that JPL is in JV with New York Concrete Corp.

This work includes construction of a parallel Sewer Conveyance system, water main relocation, drainage, manhole and diversion chamber construction, construction of deep sewer interceptor gate chambers and gates and associated gate houses, utility relocation, upgrades, curb, sidewalk, roadway reconstruction, traffic and street lighting work, landscaping. The work is approximately 10% complete.

JPL believes based on this limited list of work performed and successfully completed we believe we have satisfied the overall special requirements outlined for this contract.

4. Overall Sequence of Operations

Once a Notice to proceed is issued the project site will be surveyed. Line and grade established for the proposed work. JPL will perform test pits and necessary subsurface utility investigation. JPL will perform all necessary private utility relocations/support-maintain and protection of facilities for the proposed water main replacement, catch basin, chute connection, curb, sidewalk. Reconstruction of roadway including the creation of the proposed bike lanes will be done in conjunction with the new curb layout and subsequent to the watermain and drainage work.

5. Resumes of key personnel are attached.

6. Anticipated Equipment Dedicated to the Project

JPL maintains its own fleet of heavy equipment, trucks, service vehicles, and small tools that would be used for this project if we were awarded. The following is a listing of what we would be anticipating using for this contract; (a complete list of all owned equipment can be provided if required)

- 3 Caterpillar 450F or equal
- Komatsu mini track excavator PC 88
- Komatsu PC 138 & 200 or 288 track excavators
- 2 Hyundai HW140 rubber-tired excavators
- 2 Komatsu WA-420 Loaders
- 2-Caterpillar CAT-262B Bobcat
- 2-3 Flatbed trucks
- 3 Service trucks
- 3 -12 to 15 CY dump trucks
- 2- 5-7-ton vibratory roller
- 4- Arrow boards /Message boards
- 2- 210 CFM air compressor
- 2-36" diameter road saw
- Generators, welding machine and rebar benders as required.

Note:
20 Cy truck and 40 Cy trailers will be rented as required
Additional heavy equipment would be rented as needed

7. Anticipated Subcontracted Work

JPL anticipates subcontracting the following tasks;

1. Trucking & Disposal; South Bay Industries
2. Rodent Control- Magic Pest Control/Urban Environmental
3. Pavement Markings-TBD
4. Street Lighting and Traffic work- TBD
5. Engineering Services – Mirmax Engineering or Summit Engineering
6. Survey-Mirmax Engineering
7. Asphalt Paving- TBD
8. Pavement Markings- The Fenceman Inc.
9. Tree Pruning/Removal- Bohemia Landscaping Co.

8. Anticipated Key Material Suppliers

Key suppliers are as follows;

1. T. Mina Supply for water main, chute connection pipe, valves and fittings

2. General Foundries- Castings
3. US Concrete- Concrete supply
4. Asphalt- Willets Point, Van Bro
5. Bendal Industries or GCM – Steel face curb
6. Coastal Precast- Precast structures
7. Faztec Industries- Fill Materials, Sand

9. Preliminary Schedule

Preliminary bar chart attached.

10. Financing

Financing for the project will be accomplished using current resources, cash on hand. JPL does have a bank line of credit to support our financing of the project. This information has been submitted to NYC DDC under a separate submission.

11. Labor Law Compliance

JPL is a signatory with various union locals including, 731 Laborers, 1010/1018 Laborers, Local 14 and 15 Operating Engineers, Local 780, Cement Masons. JPL will enter into a project specific agreement with any union local that has jurisdiction over certain aspects of the work. Further JPL will submit certified payrolls documenting the wages and benefits paid meet or exceed those required by NYS LL 220.

Any non-union employee performing trade work will be paid at prevailing wage pursuant to NYS LL 220.

12. Obtaining Permits

JPL will file for all necessary and required permits to perform the work. This will include NYC DOT street opening and storage permits, NYC DPR Constructions and Forestry permits will be applied for directly with the agency. NYC DEP hydrant use permits, water discharge permits and to the extent required any SWPPP permits that would govern the work. JPL maintains a log to assure all permits are active and current or closed out when no longer required.

13. Anticipated Work Force

JPL anticipates a full-time crew to advance the work that will include a site supervisor, at least 2 working foreman and composite crew of laborers, flag persons and operating engineers of 18 to 24 persons. The crew size can and will vary depending on the task and the availability of work. A project manager and support staff will assist in the management of the project. The JPL crew size is independent of any subcontractor we intend to use to advance the work.

14. References

Eric Macfarlane PE-	Deputy Commissioner.	NYC DDC	macfarla@ddc.nyc.gov
Ali Mallick PE	Associate Commissioner,	NYC DDC	mallicka@ddc.nyc.gov
Adam Alweiss PE	Assistant Commissioner,	NYC DDC	alweiss@ddc.nyc.gov
Phillip Granitto	Chief of Construction	NYC Dept of Parks	Phillip.granitto@parks.nyc.gov

Edward Scarlino PE Resident Engineer -Water Street Project
escarlino@techno-eng.com

15. Critical Issues

JPL sees no overarching critical issue beyond maintaining MPT and MOS. The work required is not complicated and does not require any unusual equipment, means or methods. We do recognize the MPT and traffic flows considerations for this location. JPL sees making the site safe and accessible for public use is our paramount concern.

In closing we believe that JPL can successfully complete this work in a timely manner.

If you require additional information, please feel free to contact us.

Very truly yours



Anthony Santoro
Sr. Project Manager

Cc; Karen General, Anika Barrington, NYC DDC

QUALIFICATION FORM

Name of Contractor: J. Pizzirusso Landscape Inc. (DBA) JPL INDUSTRIES

Name of Project: JAMAICA BAY GREENWAY

Location of Project: CANARSIE CONNECTION - BROOKLYN

Owner or Owner's representative (Architect or Engineer) who is familiar with the work performed:

Name: LAMBERT MINAH PE

Title: ASSIST. COMM. Phone Number: 917-939-6966

Brief description of the Project completed or the Project in progress: _____

SANDROB - CURB, BIKE LANE, ROADWAY, WATERMAIN

Was the Project performed as a prime, a subcontractor or a sub-subcontractor: PRIME

Amount of Contract, Subcontract or Sub-subcontract: \$ 3,356,710⁰⁰

Start Date and Completion Date: JULY 18, 2022 TO JUNE 30, 2023

Name of Contractor: J. Pizzirusso Landscape, (DBA) JPL INDUSTRIES

Name of Project: ROZAN PATRICK CAPADANNO BLVD - SR

Location of Project: SAND LANE TO STARVIEW AVE, SR

Owner or Owner's representative (Architect or Engineer) who is familiar with the work performed:

Name: ADAM ALWISS PE

Title: ASSIST COMM. Phone Number: 917-917-6784

Brief description of the Project completed or the Project in progress: WATER MAIN CURB

SIDWALK, HAZMAT, LIGHT, TRAFFIC ROAD RESTRICTION

Was the Project performed as a prime, a subcontractor or a sub-subcontractor: PRIME

Amount of Contract, Subcontract or Sub-subcontract: \$ 18,810,000

Start Date and Completion Date: 7-18 to 10-20

Project References

A. Contracts completed by the bidder

List all contracts substantially completed within the last 4 years, up to a maximum of 10 projects, in descending order of date of substantial completion.

Project & Location	Contract Type	Contract Amount (\$000)	Date Completed	Owner Reference & Tel. No.	Architect/Engineer Reference & Tel. No. (if different from owner)
SAND ROZ CANALSIE/GREENWAY TAMICA BAY	GEN CONST	3,356,100	6/30/23	LAMBERT MONTAN 917-939-6966	NYC DDC
SER 200 232 CONST SEWER XENIA ST. SI	GEN CONST SEWER/UTILITY	4,200,000	12/10/22	ADAM ARWIST 917-417-6784	NYC DDC
SEEBLICK 2 CATON BASIN INSTAN BKLYN / SE	GEN CONST	3,826,000	12/1/20	SHIRAZ KOCY BICOCH E DEPT. NYC. ENV	NYC DDC
NYC PARKS M159-219M F. DOUGLASS PLGD MANHATTAN	GEN. CONST	5,000,000	11/1/21	JAMES MARTIN 347-386-2113	NYC DPK
HWBUS PAD 6 CITYWIDE BUS PADS	GEN CONST	3,204,000	7/1/19	AJ MALLONE 917-6420333	NYC DDC
GOBBO 9-01 RIGHT OF WAY BIO SWALES	GEN CONST	9,110,000	12/1/19	AJ MALLONE 917 642 0333	NYC DDC
RED 385 WIM - BKLYN/SE	GEN CONST	4,650,000	12/1/19	LAMBERT MONTAN 917 939 6966	NYC DDC
SAND HW 14 SI.	GEN CONST	18,180,000	10/1/20	ADAM ARWIST 917-4176784	NYC DDC
SAND HW 15 SI	GEN CONST	6,445,000	8/1/19	ADAM ARWIST 917-417 6784	NYC DDC

B. Contracts currently under construction by the bidder

List all contracts currently under construction even if they are not similar to the contract being awarded.

Project & Location	Contract Type	Contract Amount (\$000)	Subcontracted to Others (\$000)	Uncompleted Portion (\$000)	Date Scheduled to Complete	Owner Reference & Tel. No.	Architect/Engineer Reference & Tel. No. (if different from owner)
WATKINS ST, MANHATTAN NYC EDC 489 E 8005	GEN CON CONSTR	49,200,000	3,000,000	20,000,000	6/25	ED SCARLINO 631 482 2808	TECHNO ENY6
NASSAU ST MANHATTAN HW/MWTR B1	GEN CON	6,509,000	450,000	5,600,000	12/25	MANSON KURTZ 698-620-3009	ENY6
UNION TURNPIKES SUN HWQ1193	GEN CON	4,171,000	600,000	2,000,000	4/24	JOSE MOLINA 917-587-6049	ODC
GLW COVE RD JENKINS TWP NYS DOT	GEN CON	3,823,000	600,000	800,000	11/23	JOHN MCMOLLI 516-379-9439	NYS DOT
SECOO 2380 7TH ST BIRKEN	GEN CON	8,984,000	850,000	4,200,000	5/24	CRONIN MUNAY 917 939-6966	NYC DOT
BG 1619 MIL SITMONT MCDJ	GEN CON	2,900,000	300,000	200,000	6/24	SUSMAN HONIG 718 866 6789	NYC PMIC
BG 119 W BOST PIKWAY TRUSS	GEN CON	9,899,000	1,000,000	9,899,000	6/25	NICK ZITTO 631-873-7942	PMIC

C. Pending contracts not yet started by the bidder

List all contracts awarded to or won by the bidder but not yet started.

Project & Location	Contract Type	Contract Amount (\$000)	Date Scheduled to Start	Owner Reference & Tel. No.	Architect/Engineer Reference & Tel. No. (if different from owner)
HWCSUPRIK BKLN / SI	Gen Const	16,946,000	10/16/23	LAMBOLT MUNDY 917-939-6966	N/A

**NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION
DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN
BID SCHEDULE**

Project ID: HWK2048
ePIN: 85023B0039

TOTAL BID PRICE: \$5,695,000.00

Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8
Seq. No	Item Number	Item Description	Engineer's Estimate of Quantity	Unit	Unit Price	Extended Amount	Price Criteria
1	4.01 RAG	ASPHALT MACADAM PAVEMENT, 6" THICK	1,875.00	S.Y.	\$72.00	\$135,000.00	
2	4.02 AF-R	ASPHALTIC CONCRETE WEARING COURSE, 2" THICK	5,935.00	S.Y.	\$30.00	\$178,050.00	
3	4.02 AG	ASPHALTIC CONCRETE WEARING COURSE, 3" THICK	2,025.00	S.Y.	\$47.00	\$95,175.00	
4	4.02 CA	BINDER MIXTURE	465.00	TONS	\$125.00	\$58,125.00	
5	4.02 CB	ASPHALTIC CONCRETE MIXTURE	95.00	TONS	\$200.00	\$19,000.00	
6	4.04 AC	CONCRETE BASE FOR PAVEMENT, 6" THICK, CLASS B-32	60.00	C.Y.	\$350.00	\$21,000.00	
7	4.05 A	NON-REINFORCED CONCRETE PAVEMENT	2.00	C.Y.	\$1,200.00	\$2,400.00	
8	4.06	CONCRETE IN STRUCTURES, CLASS A-40	5.00	C.Y.	\$3,000.00	\$15,000.00	
9	4.08 AD	CONCRETE CURB (20" DEEP)	220.00	L.F.	\$70.00	\$15,400.00	
10	4.09 ADB	STRAIGHT STEEL FACED CONCRETE CURB (20" DEEP)	2,020.00	L.F.	\$110.00	\$222,200.00	
11	4.09 BDB	DEPRESSED STEEL FACED CONCRETE CURB (20" DEEP)	175.00	L.F.	\$160.00	\$28,000.00	
12	4.09 CDB	CORNER STEEL FACED CONCRETE CURB (20" DEEP)	320.00	L.F.	\$175.00	\$56,000.00	
13	4.11 AS	EARTH EXCAVATION FOR STRUCTURES	9.00	C.Y.	\$50.00	\$450.00	
14	4.11 CA	FILL, PLACE MEASUREMENT	170.00	C.Y.	\$25.00	\$4,250.00	
15	4.11 CC	SELECT GRANULAR FILL, PLACE MEASUREMENT	5.00	C.Y.	\$80.00	\$400.00	
16	4.13 AAS	4" CONCRETE SIDEWALK (UNPIGMENTED)	26,665.00	S.F.	\$18.00	\$479,970.00	
17	4.13 BAS	7" CONCRETE SIDEWALK (UNPIGMENTED)	8,150.00	S.F.	\$20.00	\$163,000.00	
18	4.13 DE	EMBEDDED PREFORMED DETECTABLE WARNING UNITS	245.00	S.F.	\$40.00	\$9,800.00	
19	4.14	STEEL REINFORCEMENT BARS	722.00	LBS.	\$5.00	\$3,610.00	
20	4.15	TOPSOIL	15.00	C.Y.	\$90.00	\$1,350.00	
21	4.16 AA	TREES REMOVED (4" TO UNDER 12" CALIPER)	3.00	EACH	\$900.00	\$2,700.00	
22	4.16 BA510	TREES PLANTED, 2-1/2" TO 3" CALIPER, ALL TYPES, IN 5' X 10' TREE PITS	3.00	EACH	\$2,200.00	\$6,600.00	
23	4.18 A	MAINTENANCE TREE PRUNING (UNDER 12" CAL.)	24.00	EACH	\$225.00	\$5,400.00	
24	4.18 B	MAINTENANCE TREE PRUNING (12" TO UNDER 18" CAL.)	1.00	EACH	\$450.00	\$450.00	
25	4.18 C	MAINTENANCE TREE PRUNING (18" TO UNDER 24" CAL.)	4.00	EACH	\$600.00	\$2,400.00	
26	4.21	TREE CONSULTANT	61.00	P/HR	\$60.00	\$3,660.00	
27	50.31ME12	12" E.S.V.P. STORM SEWER, ENCASED IN CONCRETE	90.00	L.F.	\$550.00	\$49,500.00	
28	51.2150A3000V	STANDARD SHALLOW MANHOLE TYPE A-3	2.00	EACH	\$10,000.00	\$20,000.00	
29	51.23RF	REPLACEMENT OF EXISTING MANHOLE FRAME AND COVER	6.00	EACH	\$1,200.00	\$7,200.00	
30	51.41S001	STANDARD CATCH BASIN, TYPE 1	6.00	EACH	\$10,000.00	\$60,000.00	
31	52.11D12	12" DUCTILE IRON PIPE BASIN CONNECTION	240.00	L.F.	\$375.00	\$90,000.00	
32	6.01 AA	CLEARING AND GRUBBING	1.00	L.S.	\$3,000.00	\$3,000.00	
33	6.02 AAN	UNCLASSIFIED EXCAVATION	1,130.00	C.Y.	\$65.00	\$73,450.00	
34	6.09	CONCRETE HEADER (6" WIDE X 15" DEEP)	1,500.00	L.F.	\$70.00	\$105,000.00	
35	6.25 RS	TEMPORARY SIGNS	365.00	S.F.	\$10.00	\$3,650.00	
36	6.26	TIMBER CURB	3,625.00	L.F.	\$1.00	\$3,625.00	
37	6.27 A	DEMOLITION OF STRUCTURES	15.00	C.Y.	\$400.00	\$6,000.00	
38	6.28 AA	LIGHTED TIMBER BARRICADES	255.00	L.F.	\$1.00	\$255.00	
39	6.34 ACTP	TEMPORARY CHAIN LINK FENCE, 6'-0" HIGH (WITH TOP AND BOTTOM RAILS AND POSTS MOUNTED ON STEEL PLATES)	2,455.00	L.F.	\$60.00	\$147,300.00	
40	6.34 AE	CHAIN LINK FENCE, 10'-0" HIGH	1,225.00	L.F.	\$140.00	\$171,500.00	
41	6.34 BE	CHAIN LINK FENCE GATE FOR 10'-0" HIGH FENCE	25.00	L.F.	\$550.00	\$13,750.00	
42	6.34 BEX	SLIDING CHAIN LINK FENCE GATE FOR 10'-0" HIGH FENCE	60.00	L.F.	\$625.00	\$37,500.00	
43	6.34 PW	PRIVACY WINDSCREEN FOR FENCING	9,350.00	S.F.	\$5.25	\$49,087.50	
44	6.34 X	REMOVE AND DISPOSE OF EXISTING CHAIN LINK FENCE	1,560.00	L.F.	\$8.25	\$12,870.00	
45	6.40 C	ENGINEER'S FIELD OFFICE (TYPE C)	24.00	MONTH	\$8,000.00	\$192,000.00	
46	6.43 D	DIGITAL PHOTOGRAPHS	800.00	SETS	\$18.00	\$14,400.00	
47	6.44	THERMOPLASTIC REFLECTORIZED PAVEMENT MARKINGS (4" WIDE)	17,375.00	L.F.	\$1.75	\$30,406.25	
48	6.49	TEMPORARY PAVEMENT MARKINGS (4" WIDE)	6,510.00	L.F.	\$0.60	\$3,906.00	
49	6.50	CLEANING OF DRAINAGE STRUCTURES	7.00	EACH	\$750.00	\$5,250.00	
50	6.52 FED	UNIFORMED FLAGPERSON	1.00	F.S.	\$190,000.00	\$190,000.00	PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 190,000.00
51	6.53	REMOVE EXISTING LANE MARKINGS (4" WIDE)	7,170.00	L.F.	\$1.00	\$7,170.00	

**NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION
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BID SCHEDULE**

Project ID: HWK2048
ePIN: 85023B0039

TOTAL BID PRICE: \$5,695,000.00

Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8
Seq. No	Item Number	Item Description	Engineer's Estimate of Quantity	Unit	Unit Price	Extended Amount	Price Criteria
52	6.55	SAWCUTTING EXISTING PAVEMENT	2,600.00	L.F.	\$5.00	\$13,000.00	
53	6.67	SUBBASE COURSE, SELECT GRANULAR MATERIAL	315.00	C.Y.	\$65.00	\$20,475.00	
54	6.68	PLASTIC FILTER FABRIC	10.00	S.Y.	\$25.00	\$250.00	
55	6.75	GRINDING EXISTING ASPHALTIC CONCRETE WEARING COURSE	330.00	C.Y.	\$160.00	\$52,800.00	
56	6.82 A	REMOVING EXISTING TRAFFIC AND STREET NAME SIGNS	20.00	S.F.	\$15.00	\$300.00	
57	6.82 B	REMOVING EXISTING TRAFFIC AND STREET NAME SIGN POSTS	135.00	L.F.	\$15.00	\$2,025.00	
58	6.83 AA	FURNISHING NEW NON-REFLECTORIZED TRAFFIC SIGNS	45.00	S.F.	\$25.00	\$1,125.00	
59	6.83 AB	FURNISHING NEW TRAFFIC SIGN POSTS	320.00	L.F.	\$15.00	\$4,800.00	
60	6.83 AR	FURNISHING NEW REFLECTORIZED TRAFFIC SIGNS	70.00	S.F.	\$25.00	\$1,750.00	
61	6.83 BA	INSTALLING TRAFFIC SIGNS	115.00	S.F.	\$25.00	\$2,875.00	
62	6.83 BB	INSTALLING TRAFFIC SIGN POSTS	320.00	L.F.	\$15.00	\$4,800.00	
63	6.86 AA	FURNISHING NEW STREET NAME SIGNS	10.00	S.F.	\$50.00	\$500.00	
64	6.86 AB	FURNISHING NEW STREET NAME SIGN POSTS	35.00	L.F.	\$15.00	\$525.00	
65	6.86 BA	INSTALLING STREET NAME SIGNS	10.00	S.F.	\$25.00	\$250.00	
66	6.86 BB	INSTALLING STREET NAME SIGN POSTS	35.00	L.F.	\$20.00	\$700.00	
67	6.87	PLASTIC BARRELS	780.00	EACH	\$1.00	\$780.00	
68	6.91	REFLECTIVE CRACKING MEMBRANE (18" WIDE)	4,515.00	L.F.	\$4.00	\$18,060.00	
69	6.99	AUDIO AND VIDEO DOCUMENTATION SURVEY	1.00	L.S.	\$10,000.00	\$10,000.00	
70	60.11R520	FURNISHING AND DELIVERING 20-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 55)	720.00	L.F.	\$245.00	\$176,400.00	
71	60.11R606	FURNISHING AND DELIVERING 6-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 56)	55.00	L.F.	\$60.00	\$3,300.00	
72	60.11R612	FURNISHING AND DELIVERING 12-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 56)	1,210.00	L.F.	\$130.00	\$157,300.00	
73	60.12D06	LAYING 6-INCH DUCTILE IRON PIPE AND FITTINGS	65.00	L.F.	\$100.00	\$6,500.00	
74	60.12D12	LAYING 12-INCH DUCTILE IRON PIPE AND FITTINGS	1,335.00	L.F.	\$160.00	\$213,600.00	
75	60.12D20	LAYING 20-INCH DUCTILE IRON PIPE AND FITTINGS	795.00	L.F.	\$220.00	\$174,900.00	
76	60.13MOA24	FURNISHING AND DELIVERING DUCTILE IRON MECHANICAL JOINT 24-INCH DIAMETER AND SMALLER FITTINGS, INCLUDING WEDGE TYPE RETAINER GLANDS	4.00	TONS	\$18,500.00	\$74,000.00	
77	61.11DMM06	FURNISHING AND DELIVERING 6-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	4.00	EACH	\$1,585.00	\$6,340.00	
78	61.11DMM12	FURNISHING AND DELIVERING 12-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	2.00	EACH	\$4,825.00	\$9,650.00	
79	61.11DMM20	FURNISHING AND DELIVERING 20-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	1.00	EACH	\$2,625.00	\$2,625.00	
80	61.11TWC04	FURNISHING AND DELIVERING 4-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	1.00	EACH	\$1,425.00	\$1,425.00	
81	61.11TWC06	FURNISHING AND DELIVERING 6-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	1.00	EACH	\$1,600.00	\$1,600.00	
82	61.11TWC08	FURNISHING AND DELIVERING 8-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	1.00	EACH	\$2,500.00	\$2,500.00	
83	61.12DMM06	SETTING 6-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	4.00	EACH	\$600.00	\$2,400.00	
84	61.12DMM12	SETTING 12-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	2.00	EACH	\$1,200.00	\$2,400.00	
85	61.12DMM20	SETTING 20-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	1.00	EACH	\$2,000.00	\$2,000.00	
86	61.12TWC04	SETTING 4-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	1.00	EACH	\$500.00	\$500.00	
87	61.12TWC06	SETTING 6-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	1.00	EACH	\$600.00	\$600.00	

**NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION
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BID SCHEDULE**

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TOTAL BID PRICE: \$5,695,000.00

Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8
Seq. No	Item Number	Item Description	Engineer's Estimate of Quantity	Unit	Unit Price	Extended Amount	Price Criteria
88	61.12TWC08	SETTING 8-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	1.00	EACH	\$800.00	\$800.00	
89	62.11SD	FURNISHING AND DELIVERING HYDRANTS	4.00	EACH	\$4,700.00	\$18,800.00	
90	62.12SG	SETTING HYDRANTS COMPLETE WITH WEDGE TYPE RETAINER GLANDS	4.00	EACH	\$3,800.00	\$15,200.00	
91	62.13RH	REMOVING HYDRANTS	4.00	EACH	\$500.00	\$2,000.00	
92	62.14FS	FURNISHING, DELIVERING AND INSTALLING HYDRANT FENDERS	8.00	EACH	\$500.00	\$4,000.00	
93	63.11VC	FURNISHING AND DELIVERING VARIOUS CASTINGS	1.00	TONS	\$4,500.00	\$4,500.00	
94	64.11EL	WITHDRAWING AND REPLACING HOUSE SERVICES USING 1-1/2-INCH OR LARGER SCREW TAPS	1.00	EACH	\$500.00	\$500.00	
95	64.11ST	WITHDRAWING AND REPLACING HOUSE SERVICES USING SMALLER THAN 1-1/2-INCH SCREW TAPS	1.00	EACH	\$400.00	\$400.00	
96	64.12COEG	CUTTING AND OFFSETTING HOUSE SERVICE WATER CONNECTIONS (EQUAL TO OR GREATER THAN 3-INCH DIAMETER)	20.00	L.F.	\$100.00	\$2,000.00	
97	64.12COLT	CUTTING AND OFFSETTING HOUSE SERVICE WATER CONNECTIONS (LESS THAN 3-INCH DIAMETER)	20.00	L.F.	\$90.00	\$1,800.00	
98	64.12ESEG	EXTENDING HOUSE SERVICE WATER CONNECTIONS (EQUAL TO OR GREATER THAN 3-INCH DIAMETER)	20.00	L.F.	\$100.00	\$2,000.00	
99	64.12ESLT	EXTENDING HOUSE SERVICE WATER CONNECTIONS (LESS THAN 3-INCH DIAMETER)	20.00	L.F.	\$90.00	\$1,800.00	
100	64.13WC12	FURNISHING, DELIVERING AND INSTALLING WET CONNECTION SLEEVE ON 12-INCH WATER MAIN PIPE WITH VARIOUS OUTLETS	2.00	EACH	\$6,000.00	\$12,000.00	
101	64.13WC20	FURNISHING, DELIVERING AND INSTALLING WET CONNECTION SLEEVE ON 20-INCH WATER MAIN PIPE WITH VARIOUS OUTLETS	1.00	EACH	\$8,500.00	\$8,500.00	
102	65.11BR	FURNISHING, DELIVERING AND INSTALLING BANDS, RODS, WASHERS, ETC., COMPLETE, FOR RESTRAINING JOINTS	1,000.00	LBS.	\$1.00	\$1,000.00	
103	65.21PS	FURNISHING AND PLACING POLYETHYLENE SLEEVE	1,985.00	L.F.	\$1.00	\$1,985.00	Unit price bid shall not be less than: \$ 1.00
104	65.31FF	FURNISHING, DELIVERING AND PLACING FILTER FABRIC	54,380.00	S.F.	\$0.25	\$13,595.00	Unit price bid shall not be less than: \$ 0.25
105	65.71SG	FURNISHING, DELIVERING AND PLACING SCREENED GRAVEL OR SCREENED BROKEN STONE BEDDING	165.00	C.Y.	\$80.00	\$13,200.00	
106	7.08 AR	\$10 RATED PIPE BOLLARD WITH RETROREFLECTIVE TAPE ON PROTECTIVE COVER	2.00	EACH	\$2,500.00	\$5,000.00	
107	7.12 A	PROCTOR ANALYSIS	3.00	EACH	\$500.00	\$1,500.00	
108	7.12 B	IN-PLACE SOIL DENSITY TEST	9.00	EACH	\$300.00	\$2,700.00	
109	7.13 B	MAINTENANCE OF SITE	18.00	MONTH	\$12,200.00	\$219,600.00	Unit price bid shall not be less than: \$ 12,200.00
110	7.16 D	TEST PITS	10.00	C.Y.	\$100.00	\$1,000.00	
111	7.19	LOAD TRANSFER JOINT	145.00	L.F.	\$50.00	\$7,250.00	
112	7.35	PEDESTRIAN CHANNELIZER	4,010.00	L.F.	\$1.00	\$4,010.00	
113	7.51D4-GV-HD-UM	BICYCLE COUNTER (W/ DIRECTION DETECTION, 4 LOOPS, GREENWAYS VERSION, HIGH DEFINITION, URBAN MANHOLE)	1.00	EACH	\$25,000.00	\$25,000.00	
114	7.88 AA	RODENT INFESTATION SURVEY AND MONITORING	1.00	L.S.	\$2,000.00	\$2,000.00	Unit price bid shall not be less than: \$ 2,000.00
115	7.88 AB	RODENT BAIT STATIONS	62.00	EACH	\$63.00	\$3,906.00	Unit price bid shall not be less than: \$ 63.00
116	7.88 AC	BAITING OF RODENT BAIT STATIONS	62.00	EACH	\$11.00	\$682.00	Unit price bid shall not be less than: \$ 11.00
117	7.88 AD	WATERBUG BAIT APPLICATIONS	16.00	BLOCK	\$70.00	\$1,120.00	Unit price bid shall not be less than: \$ 70.00
118	70.51EO	EXCAVATION OF BOULDERS IN OPEN CUT	5.00	C.Y.	\$75.00	\$375.00	Unit price bid shall not be less than: \$ 75.00
119	70.61RE	ROCK EXCAVATION	5.00	C.Y.	\$500.00	\$2,500.00	
120	70.71SB	STONE BALLAST	10.00	C.Y.	\$26.50	\$265.00	Unit price bid shall not be less than: \$ 26.50
121	70.81CB	CLEAN BACKFILL	595.00	C.Y.	\$12.50	\$7,437.50	Unit price bid shall not be less than: \$ 12.50
122	70.91SW12	FURNISHING AND PLACING SHEETING AND BRACING IN TRENCH FOR WATER MAIN PIPE 12-INCH IN DIAMETER AND LESS	2,000.00	S.F.	\$1.00	\$2,000.00	
123	73.11AB	ADDITIONAL BRICK MASONRY	10.00	C.Y.	\$62.50	\$625.00	Unit price bid shall not be less than: \$ 62.50
124	73.21AC	ADDITIONAL CONCRETE	10.00	C.Y.	\$75.00	\$750.00	Unit price bid shall not be less than: \$ 75.00
125	73.31AE0	ADDITIONAL EARTH EXCAVATION INCLUDING TEST PITS (ALL DEPTHS)	10.00	C.Y.	\$17.50	\$175.00	Unit price bid shall not be less than: \$ 17.50

**NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION
DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN
BID SCHEDULE**

Project ID: HWK2048
ePIN: 85023B0039

TOTAL BID PRICE: \$5,695,000.00

Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8
Seq. No	Item Number	Item Description	Engineer's Estimate of Quantity	Unit	Unit Price	Extended Amount	Price Criteria
126	73.41AG	ADDITIONAL SELECT GRANULAR BACKFILL	10.00	C.Y.	\$15.00	\$150.00	Unit price bid shall not be less than: \$ 15.00
127	8.01 C1	HANDLING, TRANSPORTING AND DISPOSAL OF NON-HAZARDOUS CONTAMINATED SOIL	1,107.00	TONS	\$85.00	\$94,095.00	Unit price bid shall not be less than: \$ 85.00
128	8.01 C2	SAMPLING AND TESTING OF CONTAMINATED/POTENTIALLY HAZARDOUS SOIL FOR DISPOSAL PURPOSES	6.00	SETS	\$2,000.00	\$12,000.00	Unit price bid shall not be less than: \$ 2,000.00
129	8.01 H	HANDLING, TRANSPORTING AND DISPOSAL OF HAZARDOUS SOIL	968.00	TONS	\$400.00	\$387,200.00	Unit price bid shall not be less than: \$ 400.00
130	8.01 S	HEALTH AND SAFETY	1.00	L.S.	\$15,000.00	\$15,000.00	Unit price bid shall not be less than: \$ 15,000.00
131	8.01 W1	REMOVAL, TREATMENT, AND DISCHARGE/DISPOSAL OF CONTAMINATED WATER	20.00	DAY	\$1,700.00	\$34,000.00	Unit price bid shall not be less than: \$ 1,700.00
132	8.01 W2	SAMPLING AND TESTING OF CONTAMINATED WATER	20.00	SETS	\$1,400.00	\$28,000.00	Unit price bid shall not be less than: \$ 1,400.00
133	8.02 A	SPECIAL CARE EXCAVATION AND RESTORATION FOR SIDEWALK WORK	3,080.00	S.F.	\$1.00	\$3,080.00	
134	8.02 B	SPECIAL CARE EXCAVATION AND RESTORATION FOR CURB WORK	310.00	L.F.	\$1.00	\$310.00	
135	8.10 B	NEW SURVEY MONUMENTS, TYPE "B"	1.00	EACH	\$3,000.00	\$3,000.00	
136	8.22 LWM	LIQUID-APPLIED WATERPROOFING MEMBRANE	240.00	S.F.	\$35.00	\$8,400.00	
137	8.32	BARK CHIP MULCH	40.00	S.Y.	\$45.00	\$1,800.00	
138	8.52	ALLOWANCE FOR WAYFINDING TOTEMS	1.00	F.S.	\$50,000.00	\$50,000.00	PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 50,000.00
139	8.52 WSF-A	WAYFINDING SIGN FOOTING TYPE A	1.00	EACH	\$6,000.00	\$6,000.00	
140	8.52 WSF-B	WAYFINDING SIGN FOOTING TYPE B	1.00	EACH	\$6,500.00	\$6,500.00	
141	9.04 HW	ALLOWANCE FOR ANTI-FREEZE ADDITIVE IN CONCRETE	1.00	F.S.	\$25,000.00	\$25,000.00	PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 25,000.00
142	9.30	STORM WATER POLLUTION PREVENTION	1.00	L.S.	\$10,000.00	\$10,000.00	
143	9.77 RSR	REMOVE, STORE, AND RESET FLAGPOLE	1.00	EACH	\$20,000.00	\$20,000.00	
144	SL-20.02.02	FURNISH AND INSTALL STANDARD TYPE ANCHOR BOLT FOUNDATION, AS PER DRAWING E-3788	1.00	EACH	\$1,950.00	\$1,950.00	
145	SL-21.03.02	FURNISH AND INSTALL TYPE 8S LAMPPOST WITH TRANSFORMER BASE	1.00	EACH	\$4,385.00	\$4,385.00	
146	SL-22.16.05	FURNISH AND INSTALL ROADWAY TYPE LED FIXTURE AS PER SPECIFICATION 466 WITH PEC RECEPTACLE LUM-001	4.00	EACH	\$750.00	\$3,000.00	
147	SL-24.01.05	FURNISH AND INSTALL FABRICATED STEEL 8 Ft. BRACKET WITH HARDWARE ON WOOD POLE, AS PER DRAWING J-3585.	2.00	EACH	\$965.00	\$1,930.00	
148	SL-24.02.02	FURNISH AND INSTALL FABRICATED STEEL 8 Ft. ARM ON LAMPPOST OR "M-2" TRAFFIC POLE SHAFT EXTENSION.	1.00	EACH	\$1,500.00	\$1,500.00	
149	SL-24.02.16	FURNISH AND INSTALL FABRICATED STEEL 6 FT. SHAFT EXTENSION (SINGLE ARM) FOR "M-2" TRAFFIC POST AS PER DWGs H-5159 OR H-5255.	1.00	EACH	\$1,385.00	\$1,385.00	
150	SL-26.01.04	FURNISH AND INSTALL LONG LIFE PHOTO ELECTRIC CONTROL WITH SURGE WITH SURGE PROTECTION FOR LED LIGHT AS PER SPEC# 504	4.00	EACH	\$240.00	\$960.00	
151	SL-35.01.03	FURNISH AND INSTALL 1-1/2" HOT DIPPED GALVANIZED STEEL CONDUIT IN PAVED AREA.	10.00	L.F.	\$50.00	\$500.00	
152	SL-37.05.09	FURNISH AND INSTALL TYPE 2418 ROADWAY CONCRETE BOX WITH CAST IRON FRAME AND COVER WITH TAMPER PROOF BOLTS AS PER DWG BOX-001.	1.00	EACH	\$4,975.00	\$4,975.00	
153	T-1.1	INSTALL TYPE "S" OR "T" FOUNDATION	4.00	EACH	\$2,500.00	\$10,000.00	
154	T-1.18	REMOVE TYPE "A", "B", "S" OR "T" SERIES FOUNDATION	3.00	EACH	\$650.00	\$1,950.00	
155	T-1.20	REMOVE TYPE "M" SERIES FOUNDATION	2.00	EACH	\$650.00	\$1,300.00	
156	T-1.29	RAISE OR LOWER FOUNDATION TO GRADE	1.00	EACH	\$1,500.00	\$1,500.00	
157	T-1.3	INSTALL TYPE "M2-5S" FOUNDATION	2.00	EACH	\$3,000.00	\$6,000.00	
158	T-2.1	INSTALL TYPE "S-1" OR "T-1" SERIES POST	4.00	EACH	\$1,275.00	\$5,100.00	
159	T-2.16	FURNISH, INSTALL, MAINTAIN AND REMOVE TEMPORARY POST OR PYLON WITH SIGNALS	1.00	EACH	\$2,430.00	\$2,430.00	
160	T-2.22	REMOVE TYPE "S-1" OR "T-1" SERIES POST	3.00	EACH	\$1,170.00	\$3,510.00	
161	T-2.24	REMOVE TYPE "M" SERIES POST	2.00	EACH	\$1,275.00	\$2,550.00	
162	T-2.28	REMOVE MAST ARM FROM ANY POST	1.00	EACH	\$1,100.00	\$1,100.00	
163	T-2.4	INSTALL TYPE "M-2" POST	2.00	EACH	\$1,500.00	\$3,000.00	
164	T-20000	FURNISH TEN FOOT ALUMINUM SIGNAL POST TYPE "S-1"	4.00	EACH	\$1,685.00	\$6,740.00	

**NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION
DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN
BID SCHEDULE**

Project ID: HWK2048
ePIN: 85023B0039

TOTAL BID PRICE: \$5,695,000.00

Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8
Seq. No	Item Number	Item Description	Engineer's Estimate of Quantity	Unit	Unit Price	Extended Amount	Price Criteria
165	T-20020	a) FURNISH 3/4" ANCHOR BOLT ASSEMBLIES FOR S-1 (EACH) (3 REQUIRED PER POST)	12.00	EACH	\$156.00	\$1,872.00	
166	T-20160	FURNISH 20 FOOT SIGNAL MAST ARM POLE ASSEMBLY TYPE "M-2"	2.00	EACH	\$10,800.00	\$21,600.00	
167	T-20184	a) FURNISH 5' EXTENSION ARM ASSEMBLY WITH FITTINGS	1.00	EACH	\$995.00	\$995.00	
168	T-20220	c) FURNISH 1-1/4" ANCHOR BOLT ASSEMBLIES FOR M-2 (EACH) (4 REQUIRED PER POST)	4.00	EACH	\$205.00	\$820.00	
169	T-3.1	INSTALL "ONE-WAY" SIGNAL UNIT ON MAST ARM OR TOP OF TRAFFIC POST	4.00	EACH	\$789.00	\$3,156.00	
170	T-3.18	REMOVE SIGNAL HEAD FROM ANY TYPE POST	2.00	EACH	\$580.00	\$1,160.00	
171	T-3.21	REMOVE PEDESTRIAN SIGNAL OR SIGN UNIT OR OTHER ILLUMINATED SIGNS FROM ANY POST	6.00	EACH	\$580.00	\$3,480.00	
172	T-3.40	INSTALL AUDIBLE PEDESTRIAN SIGNALS UNIT	7.00	EACH	\$880.00	\$6,160.00	
173	T-3.6	INSTALL PEDESTRIAN SIGNAL ON ANY TYPE POST	6.00	EACH	\$800.00	\$4,800.00	
174	T-30013L	FURNISH ADJUSTABLE 3 SECTION 1-WAY, DIE CAST ALUMINUM TRAFFIC SIGNALS 8" - W/LED LENS	4.00	EACH	\$720.00	\$2,880.00	
175	T-31210	h) "HUB" ASSEMBLY *ASSEMBLY IS EQUAL TO ONE PAIR	7.00	EACH	\$220.00	\$1,540.00	
176	T-31215	b) "2MS"	1.00	EACH	\$318.00	\$318.00	
177	T-31340	f) "VB-P" ASSEMBLY *ASSEMBLY IS EQUAL TO ONE PAIR	7.00	EACH	\$325.00	\$2,275.00	
178	T-33000L	FURNISH POLYCARBONATE INCANDESCENT PED SIGNAL W/LED LENS	2.00	EACH	\$580.00	\$1,160.00	
179	T-33001-L	FURNISH POLYCARBONATE PEDESTRIAN SIGNAL (16 X 16) W/LED COUNT LENS (SPECIFICATION A-L)	3.00	EACH	\$700.00	\$2,100.00	
180	T-33002	FURNISH AUDIBLE PEDESTRIAN SIGNAL UNIT	6.00	EACH	\$1,080.00	\$6,480.00	
181	T-4.1	INSTALL ONE CONTROL BOX AND CONTROLLER ON ANY POST OR SUPPORT	1.00	EACH	\$1,730.00	\$1,730.00	
182	T-4.8	REMOVE ONE CONTROL BOX AND CONTROLLER FROM ANY POST OR SUPPORT	1.00	EACH	\$1,275.00	\$1,275.00	
183	T-5.17	FURNISH AND INSTALL 2" RIGID CONDUIT ON A POST	20.00	L.F.	\$60.00	\$1,200.00	
184	T-5.36	REMOVE CONDUIT FROM POST	20.00	L.F.	\$18.00	\$360.00	
185	T-5.50	FURNISH AND INSTALL 2" HDPE UNDERGROUND CONDUIT IN PAVED ROADWAY	340.00	L.F.	\$42.00	\$14,280.00	
186	T-5.52	FURNISH AND INSTALL 2" HDPE UNDERGROUND CONDUIT IN UNPAVED AREA	20.00	L.F.	\$41.00	\$820.00	
187	T-5.54	PERMANENT RESTORATION OF PAVED ROADWAY	340.00	L.F.	\$35.00	\$11,900.00	
188	T-6.1	INSTALL CABLE (INCLUDES OVERHEAD)	600.00	L.F.	\$8.00	\$4,800.00	
189	T-6.10	REMOVE CABLE (INCLUDES OVERHEAD)	700.00	L.F.	\$7.00	\$4,900.00	
190	T-6.2	INSTALL MULTIPLE CABLE (INCLUDES OVERHEAD)	700.00	L.F.	\$9.00	\$6,300.00	
191	T-60000B	FURNISH 2 C # 10B (BREAKDOWN = 2#10 WITH 3RD WIRE FOR GROUNDING).	600.00	L.F.	\$5.50	\$3,300.00	
192	T-60040	c) 7 CONDUCTOR, 14 A.W.G.	400.00	L.F.	\$4.75	\$1,900.00	
193	T-60190	e) 13 CONDUCTOR, 14 A.W.G.	800.00	L.F.	\$5.75	\$4,600.00	
194	T-60200	FURNISH AND INSTALL AUDIBLE PEDESTRIAN SIGNALS CABLE	150.00	L.F.	\$3.50	\$525.00	
195	T-7.18	FURNISH ONE JUNCTION BOX (10" X 8" X 4")	1.00	EACH	\$1,045.00	\$1,045.00	
196	T-7.20	INSTALL ONE JUNCTION BOX ON ANY POLE	1.00	EACH	\$900.00	\$900.00	
197	T-7.45	REMOVE PEDESTRIAN PUSHBUTTON AND PUSHBUTTON SIGN	1.00	EACH	\$320.00	\$320.00	
198	T-8.8	INSTALL CONCRETE PYLON	3.00	EACH	\$925.00	\$2,775.00	
199	T-8.9	REMOVE CONCRETE PYLON	3.00	EACH	\$810.00	\$2,430.00	
200	T-81000	FURNISH CONCRETE PYLON	3.00	EACH	\$810.00	\$2,430.00	
201	UTL-6.01.1 (NG)	GAS MAIN CROSSING SEWER UP TO 24" IN DIAMETER (\$6.01)	2.00	EACH	\$1,200.00	\$2,400.00	Unit price bid shall not be less than: \$ 1,200.00
202	UTL-6.01.8 (NG)	GAS SERVICES CROSSING TRENCHES AND/OR EXCAVATIONS (\$6.01)	7.00	EACH	\$550.00	\$3,850.00	Unit price bid shall not be less than: \$ 550.00
203	UTL-6.01.9 (NG)	GAS MAIN CROSSING WATER MAIN UP TO 20" IN DIAMETER (\$6.01)	2.00	EACH	\$485.00	\$970.00	Unit price bid shall not be less than: \$ 485.00
204	UTL-6.03 (NG)	REMOVAL OF ABANDONED GAS FACILITIES. ALL SIZES. (\$6.03)	125.00	L.F.	\$15.00	\$1,875.00	Unit price bid shall not be less than: \$ 15.00
205	UTL-6.03.1 (NG)	REMOVAL OF ABANDONED GAS FACILITIES WITH POSSIBLE COAL TAR WRAP. ALL SIZES. (FOR NATIONAL GRID WORK ONLY) (\$6.03)	175.00	L.F.	\$25.00	\$4,375.00	Unit price bid shall not be less than: \$ 25.00
206	UTL-6.04 (NG)	ADJUST HARDWARE TO GRADE USING SPACER RINGS/ADAPTORS. (STREET REPAVING.) (\$6.04)	5.00	EACH	\$35.00	\$175.00	Unit price bid shall not be less than: \$ 35.00

**NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION
DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN
BID SCHEDULE**

Project ID: HWK2048
ePIN: 85023B0039

TOTAL BID PRICE: \$5,695,000.00

Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8
Seq. No	Item Number	Item Description	Engineer's Estimate of Quantity	Unit	Unit Price	Extended Amount	Price Criteria
207	UTL-6.05 (NG)	ADJUST HARDWARE TO GRADE BY RESETTING. (ROAD RECONSTRUCTION.) (\$6.05)	8.00	EACH	\$65.00	\$520.00	Unit price bid shall not be less than: \$ 65.00
208	UTL-6.06 (NG)	SPECIAL CARE EXCAVATION AND BACKFILLING (\$6.06)	500.00	C.Y.	\$180.00	\$90,000.00	Unit price bid shall not be less than: \$ 180.00
209	UTL-6.06A (NG)	SPECIAL CARE EXCAVATION AND BACKFILLING FOR TRANSMISSION MAINS (TRANSMISSION MAIN IS DESCRIBED AS ANY GAS MAIN WITH A MAOP GREATER THAN 124-PSIG) (\$6.06A)	75.00	C.Y.	\$230.00	\$17,250.00	Unit price bid shall not be less than: \$ 230.00
210	UTL-6.07 (NG)	TEST PITS FOR GAS FACILITIES (\$6.07)	20.00	C.Y.	\$100.00	\$2,000.00	Unit price bid shall not be less than: \$ 100.00
211	UTL-6.09 (NG)	TRENCH EXCAVATION AND BACKFILL FOR GAS MAINS AND SERVICES. GAS INSTALLED BY OTHERS (FOR NATIONAL GRID WORK ONLY). (\$6.09)	50.00	C.Y.	\$200.00	\$10,000.00	Unit price bid shall not be less than: \$ 200.00
212	UTL-GCS-2WS (NG)	GAS INTERFERENCES AND ACCOMMODATIONS	1.00	F.S.	\$50,000.00	\$50,000.00	PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 50,000.00
		SUBTOTAL				\$5,273,541.25	
213	6.39 B	MOBILIZATION	1.00	L.S.	\$421,458.75	\$421,458.75	BID PRICE OF MOBILIZATION SHALL NOT EXCEED 8% OF THE ABOVE SUB-TOTAL PRICE.

The City of New York Department of Small Business Services
Division of Labor Services Contract Compliance Unit
110 William Street, New York, New York 10038
Phone: (212) 513 - 6323
Fax: (212) 618-8879

CONSTRUCTION EMPLOYMENT REPORT

GENERAL INFORMATION

1. Your contractual relationship in this contract is: Prime contractor Subcontractor
- 1a. Are MWBE goals attached to this project? Yes No
2. Please check one of the following if your firm would like information on how to certify with the City of New York as a:
- Minority Owned Business Enterprise Locally Based Business Enterprise
 Women Owned Business Enterprise Emerging Business Enterprise
 Disadvantaged Business Enterprise
- 2a. If you are certified as an **MBE, WBE, LBE, EBE** or **DBE**, what city/state agency are you certified with? _____ Are you DBE certified? Yes No
3. Please indicate if you would like assistance from SBS in identifying certified M/WBES for contracting opportunities: Yes No
4. Is this project subject to a project labor agreement? Yes No
5. Are you a Union contractor? Yes No If yes, please list which local(s) you affiliated with Local 731 & Local 780 & Local 1010 & Local 14 & Local 15
6. Are you a Veteran owned company? Yes No

PART I: CONTRACTOR/SUBCONTRACTOR INFORMATION

7. 11-3539578 JPLCORP@AOL.COM
Employer Identification Number or Federal Tax I.D. Email Address
8. J.Pizzirusso Landscaping Corp.
Company Name
9. 2400 East 69 Street Brooklyn, NY 11234
Company Address and Zip Code
10. John Pizzirusso 718-531-6084
Chief Operating Officer Telephone Number
11. Isabel Saveriano 718-531-6084
Designated Equal Opportunity Compliance Officer Telephone Number
(If same as Item #10, write "same")
12. -SAME-
Name of Prime Contractor and Contact Person
(If same as Item #8, write "same")

13. Number of employees in your company: 50

14. Contract information:

(a) NYC DDC Contracting Agency (City Agency) (b) \$5,695,000.00 Contract Amount

(c) Project ID #HWK2048 Procurement Identification Number (PIN) (d) _____ Contract Registration Number (CT#)

(e) TBD Projected Commencement Date (f) TBD Projected Completion Date

(g) Description and location of proposed contract:

Jamaica Bay Greenway – Paerdegat Avenue North Connector Borough of Brooklyn

15. Has your firm been reviewed by the Division of Labor Services (DLS) within the past 36 months and issued a Certificate of Approval? Yes No

If yes, attach a copy of certificate.

16. Has DLS within the past month reviewed an Employment Report submission for your company and issued a Conditional Certificate of Approval? Yes No

If yes, attach a copy of certificate.

NOTE: DLS WILL NOT ISSUE A CONTINUED CERTIFICATE OF APPROVAL IN CONNECTION WITH THIS CONTRACT UNLESS THE REQUIRED CORRECTIVE ACTIONS IN PRIOR CONDITIONAL CERTIFICATES OF APPROVAL HAVE BEEN TAKEN.

17. Has an Employment Report already been submitted for a different contract (not covered by this Employment Report) for which you have not yet received compliance certificate? Yes No If yes,

Date submitted: _____

Agency to which submitted: _____

Name of Agency Person: _____

Contract No: _____

Telephone: _____

18. Has your company in the past 36 months been audited by the United States Department of Labor, Office of Federal Contract Compliance Programs (OFCCP)? Yes No

If yes,

(a) Name and address of OFCCP office.

(b) Was a Certificate of Equal Employment Compliance issued within the past 36 months?
Yes No

If yes, attach a copy of such certificate.

(c) Were any corrective actions required or agreed to? Yes No

If yes, attach a copy of such requirements or agreements.

(d) Were any deficiencies found? Yes No

If yes, attach a copy of such findings.

19. Is your company or its affiliates a member or members of an employers' trade association which is responsible for negotiating collective bargaining agreements (CBA) which affect construction site hiring? Yes No

If yes, attach a list of such associations and all applicable CBA's.

PART II: DOCUMENTS REQUIRED

20. For the following policies or practices, attach the relevant documents (e.g., printed booklets, brochures, manuals, memoranda, etc.). If the policy(ies) are unwritten, attach a full explanation of the practices. See instructions.

- (a) Health benefit coverage/description(s) for all management, nonunion and union employees (whether company or union administered)
- (b) Disability, life, other insurance coverage/description
- (c) Employee Policy/Handbook
- (d) Personnel Policy/Manual
- (e) Supervisor's Policy/Manual
- (f) Pension plan or 401k coverage/description for all management, nonunion and union employees, whether company or union administered
- (g) Collective bargaining agreement(s).
- (h) Employment Application(s)
- (i) Employee evaluation policy/form(s).
- (j) Does your firm have medical and/or non-medical (i.e. education, military, personal, pregnancy, child care) leave policy?

SIGNATURE PAGE

I, (print name of authorized official signing) JOHN PIZZIRUSSO hereby certify that the information submitted herewith is true and complete to the best of my knowledge and belief and submitted with the understanding that compliance with New York City's equal employment requirements, as contained in Chapter 56 of the City Charter, Executive Order No. 50 (1980), as amended, and the implementing Rules and Regulations, is a contractual obligation. I also agree on behalf of the company to submit a certified copy of payroll records to the Division of Labor Services on a monthly basis.

J.Pizzirusso Landscaping Corp.

Contractor's Name

John Pizzirusso

President

Name of person who prepared this Employment Report

Title

John Pizzirusso

President

Name of official authorized to sign on behalf of the contractor

Title

718-531-6084

Telephone Number



10/20/23

Signature of authorized official

Date

If contractors are found to be underutilizing minorities and females in any given trade based on Chapter 56 Section 3H, the Division of Labor Services reserves the right to request the contractor's workforce data and to implement an employment program.

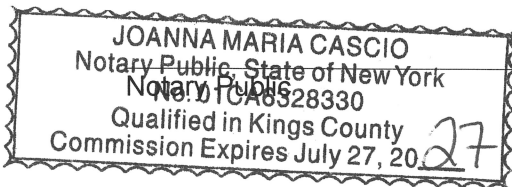
Contractors who fail to comply with the above mentioned requirements or are found to be in noncompliance may be subject to the withholding of final payment.

Willful or fraudulent falsifications of any data or information submitted herewith may result in the termination of the contract between the City and the bidder or contractor and in disapproval of future contracts for a period of up to five years. Further, such falsification may result in civil and/or criminal prosecution.

To the extent permitted by law and consistent with the proper discharge of DLS' responsibilities under Charter Chapter 56 of the City Charter and Executive Order No. 50 (1980) and the implementing Rules and Regulations, all information provided by a contractor to DLS shall be confidential.

Only original signatures accepted.

Sworn to before me this 20th day of Oct 2023



Joanna Cascio
Authorized Signature

10/20/23
Date



careers
businesses
neighborhoods

Jonnel Doris
Commissioner
1 Liberty Plaza
11th Floor
New York, NY 10006

221CY069

212.513.6300 tel
212.618.8891 fax
711 NY Relay

March 22, 2021

Mr. John Pizzirusso, President
J. Pizzirusso Landscaping Corp.
2400 East 69th Street
Brooklyn, NY 11234

RE: **Department of Design and Construction (DDC); Project No. SER200232(Rebid 1); PIN No. 8502020SE0008C; New Storm & Sanitary Sewers; Borough of Staten Island; Contract Value: \$4,171,815.00; Certificate of Approval.**

Dear Mr. Pizzirusso:

The Department of Small Business Services/Division of Labor Services has concluded that J. Pizzirusso Landscaping Corp. has met the equal employment opportunity requirements of the City of New York, as stated in Executive Order No. 50 (1980) as amended (E.O. 50), its implementing Rules (Rules), and Chapter 56 of the City Charter (Chapter 56). Consequently, DLS has notified DDC of this determination.

Contingent upon J. Pizzirusso Landscaping Corp.'s ongoing compliance with E.O. 50 and Chapter 56, this approval shall be effective for the (3) year period commencing on **March 22, 2021** and terminating on **March 21, 2024**. **The determination for a three-year approval only exempts contractors from completing the policy and procedure section of the employment report on future contracts within the three-year period.** However, a construction employment report must be submitted for each new project as explained during the Pre-Award conference on **March 22, 2020**.

PAGE TWO

It is important that J. Pizzirusso Landscaping Corp., as a New York City contractor, provide equal employment opportunity for all employees and applicants for employment.

Please direct all correspondence to Mr. Ra Amen Nu Jah Baddal, Field Auditor. Should you have any questions regarding this letter, you may call Mr. Baddal at (212) 618-6778 or email him at rbaddal@sbs.nyc.gov.

c: Karen General
Lorraine Holley
Hemwattie Roopnarine
Ra Amen Nu Jah Baddal
File

Very truly yours,
HWilson/HW
Assistant Commissioner
Division of Labor Services

FORM B: PROJECTED WORKFORCE

TRADE CLASSIFICATION CODES

- (J) Journeylevel Workers
- (H) Helper
- (TOT) Total by Column
- (A) Apprentice (TRN) Trainee

For each trade to be engaged by your company for this project, enter the projected workforce for Males and Females by trade classification on the charts below.

Trade: LABORERS	MALES						FEMALES						
	(1)		(2)		(3)	(4)	(5)	(6)		(7)	(8)	(9)	(10)
	White Non Hisp.	Black Non Hisp.	White Non Hisp.	Black Non Hisp.	Hisp.	Asian	Native Amer.	White Non Hisp.	Black Non Hisp.	Hisp.	Asian	Native Amer.	
Union Affiliation, if applicable LOCAL 731													
Total (Col. #1-10): 10	2		2		6								
Total Minority, Male & Female (Col. #2,3,4,5,7,8,9, & 10): 8													
Total Female (Col. #6 - 10): 0													
	2		2		6								
TOT	2		2		6								

What are the recruitment sources for you projected hires (i.e., unions, government employment office, job tap center, community outreach)?

UNIONS

FORM B: PROJECTED WORKFORCE

Trade:
Paver & Road Builders

Union Affiliation, if applicable
LOCAL 1010

Total (Col. #1-10):
3

Total Minority, Male & Female
(Col. #2,3,4,5,7,8,9, & 10):
2

Total Female
(Col. #6 - 10):
0

	MALES					FEMALES				
	(1) White Non Hisp.	(2) Black Non Hisp.	(3) Hisp.	(4) Asian	(5) Native Amer.	(6) White Non Hisp.	(7) Black Non Hisp.	(8) Hisp.	(9) Asian	(10) Native Amer.
J	1	1	1							
H										
A										
TRN										
TOT	1	1	1							

What are the recruitment sources for you projected hires (i.e., unions, government employment office, job tap center, community outreach)?

UNIONS

FORM B: PROJECTED WORKFORCE

TRADE CLASSIFICATION CODES

- (J) Journeylevel Workers (A) Apprentice
- (H) Helper (TRN) Trainee
- (TOT) Total by Column

For each trade to be engaged by your company for this project, enter the projected workforce for Males and Females by trade classification on the charts below.

Trade: Operators	MALES					FEMALES				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	White Non Hisp.	Black Non Hisp.	Hisp.	Asian	Native Amer.	White Non Hisp.	Black Non Hisp.	Hisp.	Asian	Native Amer.
LOCAL 14	1	1	1							
Total (Col. #1-10):	J									
3	H									
Total Minority, Male & Female (Col. #2,3,4,5,7,8,9, & 10):	A									
2										
Total Female (Col. #6 - 10):	TRN									
0	TOT	1	1	1						

What are the recruitment sources for you projected hires (i.e., unions, government employment office, job tap center, community outreach)?

UNIONS

FORM B: PROJECTED WORKFORCE

TRADE CLASSIFICATION CODES

For each trade to be engaged by your company for this project, enter the projected workforce for Males and Females by trade classification on the charts below.

- (J) Journeylevel Workers
- (H) Helper
- (TOT) Total by Column
- (A) Apprentice
- (TRN) Trainee

Trade:	MALES						FEMALES														
	(1) White Non-Hisp.		(2) Black Non-Hisp.		(3) Hisp.		(4) Asian		(5) Native Amer.		(6) White Non-Hisp.		(7) Black Non-Hisp.		(8) Hisp.		(9) Asian		(10) Native Amer.		
Operators																					
Union Affiliation, if applicable																					
LOCAL 15																					
Total (Col. #1-10):	1					1															
3																					
Total Minority, Male & Female (Col. #2, 3, 4, 5, 7, 8, 9, & 10):																					
2																					
Total Female (Col. #6 -- 10):																					
0																					
TOT	1					1															

What are the recruitment sources for you projected hires (i.e., unions, government employment office, job tap center, community outreach)?

UNIONS

BID SUBMISSION FORM

Bidder Name: J. Pizzirusso Landscaping Corp
Procurement Title: 85023B0039-HWK2048 - RECONSTRUCTION OF JAMAICA BAY GREENWAY
RFx Name: 85023B0039-HWK2048 - RECONSTRUCTION OF JAMAICA BAY GREENWAY

The above-named bidder affirms and declares:

1. The bidder has completed and submitted all required information for the above procurement in the PASSPort system;
2. Any discrepancy between the bid price listed on this Bid Submission Form and the bid information submitted in PASSPort may result in the agency finding the bid non-responsive; and
3. This bid is being submitted in accordance with New York State General Municipal Law § 103.

Total Bid Price: \$ 5,695,000.⁰⁰
(a/k/a Total Amount)

Bidder Signature

EIN (if applicable): 11-3539578

(EIN must match the EIN of the entity that submitted bid information in PASSPort)

Bidder Name: J. Pizzirusso Landscaping Corp

By: Joseph Pizzirusso V.P.

(Name of Partner of Corporate Officer)

Signature: 

(Signature of Partner of Corporate Officer)



**Department of
Design and
Construction**

**THE CITY OF NEW YORK
DEPARTMENT OF DESIGN AND
CONSTRUCTION
DIVISION OF INFRASTRUCTURE**
30-30 THOMSON AVENUE
LONG ISLAND CITY, NY, 11101
TEL: 718.391.1000
WEB: www.nyc.gov/ddc

TO BE FILLED IN BY THE BIDDER:

BIDDER'S NAME:

BID SECURITY (CIRCLE ONE):
BID BOND / CERTIFIED CHECK

NUMBER OF ADDENDUMS RECEIVED
AND ATTACHED TO BID:
_____ ADDENDUMS

DDC CLIENT AGENCY:

**DEPARTMENT OF
TRANSPORTATION**

PREPARED BY:

AECOM/ AKRF

DATE PREPARED:

NOVEMBER 02, 2022



VOLUME 2 OF 3

PROJECT ID: HWK2048

**INFORMATION FOR BIDDERS CONTRACT
PERFORMANCE AND PAYMENT BONDS
PREVAILING WAGE SCHEDULE**

FOR FURNISHING ALL LABOR AND MATERIALS NECESSARY
AND REQUIRED FOR:

**RECONSTRUCTION OF JAMAICA BAY
GREENWAY – PAERDEGAT AVENUE
NORTH CONNECTOR**

**FLATLANDS AVENUE
FROM RALPH AVENUE TO EAST 76TH STREET**

**EAST 76TH STREET / PAERDEGAT AVENUE NORTH
FROM FLATLANDS AVENUE TO PAERDEGAT 2ND
STREET**

**PAERDEGAT AVENUE NORTH
FROM PAERDEGAT 15TH STREET
TO SEAVIEW AVENUE**

INCLUDING BIKE PATH, CURB AND SIDEWALK,
SEWER, WATER MAIN, STREET LIGHTING, AND
TRAFFIC WORK

TOGETHER WITH ALL WORK INCIDENTAL THERETO

**BOROUGH OF BROOKLYN
CITY OF NEW YORK
FHWA FUNDED – NYSDOT PIN: X767.16**

CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
INFORMATION FOR BIDDERS
December 2021

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CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
INFORMATION FOR BIDDERS

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1. Description and Location of Work

The description and location of the work for which bids are requested are specified in the PASSPort RFX field "Description".

2. Time and Place for Receipt of Bids

Sealed bids shall be received on or before the date and hour specified in the PASSPort RFX, at which time they will be publicly opened and read aloud in the presence of the Commissioner or the Commissioner's or her representative, and any bidders who may desire to be present.

3. Definitions

The definitions set forth in the Procurement Policy Board Rules shall apply to this Invitation For Bids.

4. Invitation For Bids and Contract Documents

(A) Except for titles, sub-titles, headings, running headlines, tables of contents and indices (all of which are printed herein merely for convenience) the following, except for such portions thereof as may be specifically excluded, shall be deemed to be part of the Contract and the Invitation for Bids.

(1) All provisions required by law to be inserted in this Contract, whether actually inserted or not

(2) The Contract Drawings and Specifications

(3) The General Conditions, the General Requirements and the Special Conditions, if any

(4) The Contract

(5) The Information for Bidders; Request for Proposals; Notice of Solicitation and Proposal For Bids; Bid or Proposal, and the Bid Booklet

(6) The Budget Director's Certificate; all Addenda issued prior to the receipt of the bids; the Notice of Award; Performance and Payment Bonds, if required; and the Notice to Proceed with the Work.

(B) For particulars as to this procurement, including quantity and quality of the purchase, extent of the work or labor to be performed, delivery and performance schedule, and any other special instructions, prospective bidders are referred to the Invitation For Bids Documents. A copy of such documents can be obtained in the PASSPort RFX.

5. Pre-Bid Conference

A pre-bid conference shall be held as set forth in the PASSPort RFX. Nothing stated at the pre-bid conference shall change the terms or conditions of the Invitation For Bids Documents, unless a change is made by written amendment as provided in Section 9 below. Failure to attend a mandatory pre-bid conference shall constitute grounds for the rejection of the bid.

6. Agency Contact

Any questions or correspondence relating to this bid solicitation shall be addressed to the Agency Contact person specified in the PASSPort RFX.

7. Bidder's Oath

(A) The bid shall be properly signed by an authorized representative of the bidder and the bid shall be verified by the written oath of the authorized representative who signed the bid, that the several matters stated and information furnished therein are in all aspects true.

(B) A materially false statement willfully or fraudulently made in connection with the bid or any of the forms completed and submitted with the bid may result in the termination of any Contract between the City and the Bidder. As a result, the Bidder may be barred from participating in future City contracts as well as be subject to possible criminal prosecution.

8. Examination and Viewing of Site, Consideration of Other Sources of Information and Changed Conditions

- (A) Pre-Bidding (Investigation) Viewing of Site - Bidders must carefully view and examine the site of the proposed work, as well as its adjacent area, and seek other usual sources of information, for they will be conclusively presumed to have full knowledge of any and all conditions on, about or above the site relating to or affecting in any way the performance of the work to be done under the Contract which were or should have been indicated to a reasonably prudent bidder. To arrange a date for visiting the work site, bidders are to contact the Agency Contact person specified in The PASSPort RFx.
- (B) Should the contractor encounter during the progress of the work subsurface conditions at the site materially differing from any shown on the Contract Drawings or indicated in the Specifications or such subsurface conditions as could not reasonably have been anticipated by the contractor and were not anticipated by the City, which conditions will materially affect the cost of the work to be done under the Contract, the attention of the Commissioner must be called immediately to such conditions before they are disturbed. The Commissioner shall thereupon promptly investigate the conditions. If the Commissioner finds that they do so materially differ, or that they could not reasonably have been anticipated by the contractor and were not anticipated by the City, the Contract may be modified with the Commissioner's written approval.

9. Examination of Proposed Contract

- (A) Request for Interpretation or Correction: Prospective bidders must examine the Contract Documents carefully and before bidding must request the Commissioner in writing for an interpretation or correction of every patent ambiguity, inconsistency or error therein which should have been discovered by a reasonably prudent bidder. Such interpretation or correction, as well as any additional contract provisions the Commissioner may decide to include, will be issued in writing by the Commissioner as an addendum to the Contract, which will be transmitted to each person recorded as having received a copy of the Contract Documents from the Department. Transmission of such addendum will be by mail, e-mail, facsimile or hand delivery. Such addendum will also be posted at the place where the Contract Documents are available for the inspection of prospective bidders. Upon transmission as provided for herein, such addendum shall become a part of the Contract Documents, and binding on all bidders, whether or not actual notice of such addendum is shown.
- (B) Only Commissioner's Interpretation or Correction Binding: Only the written interpretation or correction so given by the Commissioner shall be binding, and prospective bidders are warned that no other officer, agent or employee of the City is authorized to give information concerning, or to explain or interpret, the Contract.
- (C) Documents given to a subcontractor for the purpose of soliciting the subcontractor's bid shall include either a copy of the bid cover sheet or a separate information sheet setting forth the project name, the Contract number (if available), the contracting agency and the Project's location.

10. Form of Bid

Each bid must be submitted upon the prescribed form and must contain: a) the name, residence and place of business of the person or persons making the same; b) the names of all persons interested therein, and if no other person is so interested, such fact must be distinctly stated; c) a statement to the effect that it is made without any connection with any other person making a bid for the same purpose and that it is in all respects fair and without collusion or fraud; d) a statement that no Council member or other officer or employee or person whose salary is payable in whole or part from the City Treasury is directly or indirectly interested therein or in the supplies, materials or equipment and work or labor to which it relates, or in any portion of the profits thereof; e) a statement that the bidder is not in arrears to the City or to any agency upon a debt or contract or taxes, and is not a defaulter as surety or otherwise upon any obligation to the City to any agency thereof, except as set forth in the bid.

THE BID SHALL BE TYPEWRITTEN OR WRITTEN LEGIBLY IN INK. THE BID SHALL BE SIGNED IN INK. ERASURES OR ALTERATIONS SHALL BE INITIALED BY THE SIGNER IN INK. FAILURE TO CONFORM TO THE REQUIREMENTS OF THIS SECTION 10 SHALL RESULT IN THE REJECTION OF THE BID.

11. Irrevocability of Bid

The prices set forth in the bid cannot be revoked and shall be effective until the award of the Contract, unless the bid is withdrawn as provided for in Sections 15 and 18 below.

12. Acknowledgment of Amendments

The receipt of any amendment to the Contract Documents shall be acknowledged by the bidder in its bid submission.

13. Bid Samples and Descriptive Literature

Bid samples and descriptive literature shall not be submitted by the bidder, unless expressly requested elsewhere in the Contract or Contract Documents. Any unsolicited bid samples or descriptive literature which are submitted shall not be examined or tested and shall not be deemed to vary any of the provisions of this Contract.

14. Proprietary Information/Trade Secrets

- (A) The bidder shall identify those portions of the bid which it deems to be confidential, proprietary information or trade secrets, and provide justification why such materials shall not be disclosed by the City. All such materials shall be clearly indicated by stamping the pages on which such information appears, at the top and bottom thereof with the word "Confidential". Such materials stamped "Confidential" must be easily separable from the non-confidential sections of the bid.
- (B) All such materials so indicated shall be reviewed by the Agency and any decision not to honor a request for confidentiality shall be communicated in writing to the bidder. For those bids which are unsuccessful, all such confidential materials shall be returned to the bidder. Prices, makes and model or catalog numbers of the items offered, deliveries, and terms of payment shall be publicly available after bid opening, regardless of any designation of confidentiality made by the bidder.

15. Pre-Opening Modification or Withdrawal of Bids

Bids may be modified or withdrawn by written notice received in the office designated in the PASSPort RFx, before the time and date set for the bid opening. If a bid is withdrawn in accordance with this Section, the bid security, if any, shall be returned to the bidder.

16. Bid Evaluation and Award

In accordance with the New York City Charter, the Procurement Policy Board Rules and the terms and conditions of this Invitation For Bids, this Contract shall be awarded, if at all, to the responsible bidder whose bid meets the requirements and evaluation criteria set forth in the Invitation For Bids, and whose bid price is either the most favorable bid price or, if the Invitation For Bids so states, the most favorable evaluated bid price. A bid may not be evaluated for any requirement or criterion that is not disclosed in the Invitation For Bids.

Restriction: No negotiations with any bidder shall be allowed to take place except under the circumstances and in the manner set forth in Section 21. Nothing in this Section shall be deemed to permit a contract award to a bidder submitting a higher quality item than that designated in the Invitation For Bids, if that bid is not also the most favorable bid.

17. Late Bids, Late Withdrawals and Late Modifications

Any bid received at the place designated in the solicitation after the time and date set for receipt of bids is late and shall not be considered. Any request for withdrawal or modification received at the place designated in the solicitation after the time and date set for receipt of bids is late and shall not be considered. The exception to this provision is that a late modification of a successful bid that makes the bid terms more favorable to the City shall be considered at any time it is received.

18. Withdrawal of Bids.

Except as provided for in Section 15, above, a bidder may not withdraw its bid before the expiration of forty-five (45) days after the date of the opening of bids; thereafter, a bidder may withdraw its bid only in writing and in advance of an actual award. If within sixty (60) days after the execution of the Contract, the Commissioner fails to fix the date

for commencement of work by written notice to the bidder, the bidder at the bidder's option, may ask to be relieved of the bidder's obligation to perform the work called for by written notice to the Commissioner. If such notice is given to the Commissioner, and the request to withdraw is granted, the bidder waives all claims in connection with this Contract.

19. Mistake in Bids

(A) Mistake Discovered Before Bid Opening: A bidder may correct mistakes discovered before the time and date set for bid opening by withdrawing or correcting the bid as provided in Section 15 above.

(B) Mistakes Discovered Before Award

(1) In accordance with General Municipal Law (Section 103, subdivision 11), where a unilateral error or mistake is discovered in a bid, such bid may be withdrawn upon written approval of the Agency Chief Contracting Officer if the following conditions are met:

(a) The mistake is known or made known to the agency prior to the awarding of the Contract or within 3 days after the opening of the bid, whichever period is shorter; and

(b) The price bid was based upon an error of such magnitude that enforcement would be unconscionable; and

(c) The bid was submitted in good faith and the bidder submits credible evidence that the mistake was a clerical error as opposed to a judgment error; and

(d) The error in the bid is actually due to an unintentional and substantial arithmetic error or an unintentional omission of a substantial quantity of work, labor, material or services made directly in the compilation of the bid, which unintentional arithmetic error or unintentional omission can be clearly shown by objective evidence drawn from inspection of the original work paper, documents, or materials used in the preparation of the bid sought to be withdrawn; and

(e) It is possible to place the agency in the same position as existed prior to the bid.

(2) Unless otherwise required by law, the sole remedy for a bid mistake in accordance with this Article shall be withdrawal of the bid, and the return of the bid bond or other security, if any, to the bidder. Thereafter, the agency may, in its discretion, award the Contract to the next lowest bidder or rebid the Contract. Any amendment to or reformation of a bid or a Contract to rectify such an error or mistake therein is strictly prohibited.

(3) If the mistake and the intended correct bid are clearly evident on the face of the bid document, the bid shall be corrected to the intended correct bid and may not be withdrawn. Examples of mistakes that may be corrected are typographical errors, errors in extending unit prices, transposition errors and arithmetical errors.

20. Low Tie Bids

(A) When two or more low responsive bids from responsible bidders are identical in price, meeting all the requirements and criteria set forth in the Invitation For Bids, the Agency Chief Contracting Officer will break the tie in the following manner and order of priority:

(1) Award to a certified New York City small, minority or woman-owned business entity bidder;

(2) Award to a New York City bidder;

(3) Award to a certified New York State small, minority or woman-owned business bidder;

(4) Award to a New York State bidder.

(B) If two or more bidders still remain equally eligible after application of paragraph (A) above, award shall be made by a drawing by lot limited to those bidders. The bidders involved shall be invited to attend the drawing. A witness shall be present to verify the drawing and shall certify the results on the bid tabulation sheet.

21. Rejection of Bids

- (A) **Rejection of Individual Bids**: The Agency may reject a bid if:
- (1) The bidder fails to furnish any of the information required pursuant to Section 24 or 28 hereof; or if
 - (2) The bidder is determined to be not responsible pursuant to the Procurement Policy Board Rules; or if
 - (3) The bid is determined to be non-responsive pursuant to the Procurement Policy Board Rules; or if
 - (4) The bid, in the opinion of the Agency Chief Contracting Officer, contains unbalanced bid prices and is thus non-responsive, unless the bidder can show that the prices are not unbalanced for the probable required quantity of items, or if the imbalance is corrected pursuant to Section 15.
- (B) **Rejection of All Bids**: The Agency, upon written approval by the Agency Chief Contracting Officer, may reject all bids and may elect to resolicit bids if in its sole opinion it shall deem it in the best interest of the City so to do.
- (C) **Rejection of All Bids and Negotiation With All Responsible Bidders**: The Agency Head may determine that it is appropriate to cancel the Invitation For Bids after bid opening and before award and to complete the acquisition by negotiation. This determination shall be based on one of the following reasons:
- (1) All otherwise acceptable bids received are at unreasonable prices, or only one bid is received and the Agency Chief Contracting Officer cannot determine the reasonableness of the bid price, or no responsive bid has been received from a responsible bidder; or
 - (2) In the judgment of the Agency Chief Contracting Officer, the bids were not independently arrived at in open competition, were collusive, or were submitted in bad faith.
- (B) When the Agency has determined that the Invitation for Bids is to be canceled and that use of negotiation is appropriate to complete the acquisition, the contracting officer may negotiate and award the Contract without issuing a new solicitation, subject to the following conditions:
- (1) prior notice of the intention to negotiate and a reasonable opportunity to negotiate have been given by the contracting officer to each responsible bidder that submitted a bid in response to the Invitation for Bids;
 - (2) the negotiated price is the lowest negotiated price offered by a responsible bidder; and
 - (3) the negotiated price is lower than the lowest rejected bid price of a responsible bidder that submitted a bid in response to the Invitation for Bids.

22. Right to Appeal Determinations of Non-Responsiveness or Non-Responsibility and Right to Protest Solicitations and Award

The bidder has the right to appeal a determination of non-responsiveness or non-responsibility and has the right to protest a solicitation and award. For further information concerning these rights, the bidder is directed to the Procurement Policy Board Rules.

23. Affirmative Action and Equal Employment Opportunity

This Invitation For Bids is subject to applicable provisions of Federal, State and Local Laws and executive orders requiring affirmative action and equal employment opportunity.

24. PASSPort COMPLIANCE

All vendors that intend to do business with the City of New York must complete a disclosure process in order to be considered for a contract. This disclosure process was formerly completed using Vendor Information Exchange System (VENDEX) paper-based forms. The City of New York has moved collection of vendor disclosure information online. In early August 2017, the New York City Mayor's Office of Contract Services (MOCS) launched the Procurement and Sourcing Solutions Portal (PASSPort), a new online procurement system that replaced the paper-VENDEX process. In anticipation of awards, all bidders must create online accounts in the new PASSPort system, and

file all disclosure information using PASSPort. Paper submissions, including certifications of no changes to existing VENDEX packages, will not be accepted in lieu of complete online filings using PASSPort.

All vendors that intend to do business with the City, but specifically those that fall into any of the following categories, are required to enroll:

- Have a pending award with a City Agency; or
- Hold a current contract with a City Agency and have either an expiring VENDEX or expiring Certificate of No Change.

The Department of Design and Construction (DDC) and MOCS hereby notifies all proposers that the PASSPort system is available, and that disclosure filing completion is required prior to any award through this competitive bid.

To enroll in PASSPort and to access the PASSPort website (including online training), please visit www.nyc.gov/passport. Contact MOCS at passport@mocs.nyc.gov for additional information and technical support.

25. Complaints About the Bid Process

The New York City Comptroller is charged with the audit of contracts in New York City. Any vendor who believes that there has been unfairness, favoritism or impropriety in the bid process should inform the Comptroller, Office of Contract Administration, One Centre Street, Room 835, New York, New York; telephone number (212)669-2323.

26. Bid, Performance and Payment Security

(A) Bid Security: Each bid must be accompanied by bid security in an amount and type specified in the PASSPort RFX questionnaire. The bid security shall assure the City of New York of the adherence of the bidder to its proposal, the execution of the Contract, and the furnishing of Performance and Payment Bonds by the bidder, if required in the PASSPort RFX. Bid security shall be returned to the bidder as follows:

- (1) Within ten (10) days after the bid opening, the Comptroller will be notified to return the deposits of all but the three (3) lowest bidders. Within five (5) days after the award, the Comptroller will be notified to return the deposits of the remaining two unsuccessful bidders.
- (2) Within five (5) days after the execution of the Contract and acceptance of the Contractor's bonds, the Comptroller will be notified to return the bid security of the successful bidder or, if performance and payment bonds are not required, only after the sum retained under Article 21 of the Contract equals the amount of the bid security.
- (3) Where all bids are rejected, the Comptroller will be notified to return the deposit of the three (3) lowest bidders at the time of rejection.

(B) Performance and Payment Security: Performance and Payment Security must be provided in an amount and type specified in the PASSPort RFX. The performance and payment security shall be delivered by the contractor prior to or at the time of execution of the Contract. If a contractor fails to deliver the required performance and payment security, its bid security shall be enforced, and an award of Contract may be made to the next lowest responsible and responsive bidder, or the contract may be rebid.

(C) Acceptable Types of Security: Acceptable types of security for bids, performance, and payment shall be limited to the following:

- (1) a one-time bond in a form satisfactory to the City;
- (2) a bank certified check or money order;
- (3) obligations of the City of New York; or
- (4) other financial instruments as determined by the Office of Construction in consultation with the Comptroller.

Whenever the successful bidder deposits obligations of the City of New York as performance and payment security, the Comptroller may sell and use the proceeds thereof for any purpose for which the principal or

surety on such bond would be liable under the terms of the Contract. If the money is deposited with the Comptroller, the successful bidder shall not be entitled to receive interest on such money from the City.

- (D) Form of Bonds: Security provided in the form of bonds must be prepared on the form of bonds authorized by the City of New York. Forms for bid, performance, and payment bonds are included in the Invitation for Bids Documents. Such bonds must have as surety thereunder such surety company or companies as are: (1) approved by the City of New York; (2) authorized to do business in the State of New York, and (3) approved by the Department of the Treasury of the United States. Premiums for any required bonds must be included in the base bid.

The bidder is advised that submission of a bid bond where the surety on such bond fails to meet the criteria set forth herein, shall result in the rejection of the bid as non-responsive.

The Department of the Treasury of the United States advises that information concerning approved surety companies may be obtained as follows: (1) from the Government Printing Office at 215-364-6465; (2) through the Internet at <https://www.fiscal.treasury.gov/surety-bonds/>.

- (E) Power of Attorney: Attorneys in fact who sign bid, performance, or payment bonds must file with each bond a certified copy of their power of attorney to sign said bonds.

27. Failure to Execute Contract

In the event of failure of the successful bidder to execute the Contract and furnish the required security within ten (10) days after notice of the award of the Contract, the deposit of the successful bidder or so much thereof as shall be applicable to the amount of the award made shall be retained by the City, and the successful bidder shall be liable for and hereby agrees to pay on demand the difference between the price bid and the price for which such Contract shall be subsequently awarded, including the cost of any required reletting and less the amount of such deposit. No plea of mistake in such accepted bid shall be available to the bidder for the recovery of the deposit or as a defense to any action based upon such accepted bid. Further, should the bidder's failure to comply with this Section cause any funding agency, body or group (Federal, State, City, Public, Private, etc.) to terminate, cancel or reduce the funding on this project, the bidder in such event shall be liable also to the City for the amount of actual funding withdrawn by such agency on this project, less the amount of the forfeited deposit.

28. Bidder Responsibilities and Qualifications

- (A) Bidders must include with their bids all information necessary for a determination of bidder responsibility, as set forth in the Specifications.
- (B) The Agency may require any bidder or prospective bidder to furnish all books of account, records, vouchers, statements or other information concerning the bidder's financial status for examination as may be required by the Agency to ascertain the bidder's responsibility and capability to perform the Contract. If required, a bidder must also submit a sworn statement setting forth such information as the Agency may require concerning present and proposed plant and equipment, the personnel and qualifications of the bidder's working organizations, prior experience and performance record.
- (C) Oral Examination on Qualifications: In addition thereto, and when directed by the Agency, the bidder, or a responsible officer, agent or employee of the bidder, must submit to an oral examination to be conducted by the Agency in relation to the bidder's proposed tentative plan and schedule of operations, and such other matters as the Agency may deem necessary in order to determine the bidder's ability and responsibility to perform the work in accordance with the Contract. Each person so examined must sign and verify a stenographic transcript of such examination noting thereon such corrections as such person may desire to make.
- (D) If the bidder fails or refuses to supply any of the documents or information set forth in paragraph (B) hereof or fails to comply with any of the requirements thereof, the Agency may reject the bid.

29. Employment Report

In accordance with Executive Order No. 50 (1980) as modified by Executive Order 108 (1986), the filing of a

completed Employment Report (ER) is a requirement of doing business with the City of New York for construction contractors with contracts of \$1,000,000 or more and subcontractors with construction subcontracts of \$750,000 or more. The required forms and information are included in the PASSPort Vendor Profile.

30. Labor Law Requirements

- (A) General: The successful bidder will be required to comply strictly with all Federal, State and local labor laws and regulations.
- (B) New York State Labor Law: This Contract is subject to New York State Labor Law Section 220, which requires that construction workers on the site be paid prevailing wages and supplements. The Contractor is reminded that all wage provisions of this Contract will be enforced strictly and failure to comply will be considered when evaluating performance. Noncompliance may result in the contractor being debarred by the City from future contracts. Complaints filed with the Comptroller may result in decisions which may debar a contractor from bidding contracts with any state governmental entity and other political subdivisions.
- (C) Records: The Contractor is expected to submit accurate payroll reports and other required documents and verify attendance and job classifications being utilized in compliance with the law, Contract provisions and agency procedures.

31. Insurance

- (A) Bidders are advised that the insurance requirements contained herein are regarded as material terms of the Contract. As required by Article 22 of the Contract, the contractor must effect and maintain with companies licensed and authorized to do business in the State of New York, the types of insurance set forth therein, when required by and in the amounts set forth in Schedule A of the General Conditions. Such required insurance must be provided from the date the contractor is ordered to commence work and up to the date of final acceptance of all required work.
- (B) The contractor must, within ten days of receipt of the notice of award, submit the following insurance documentation: (a) original certificate of insurance for general liability in the amount required by Schedule A of the General Conditions, and (b) original certificates of insurance or other proof of coverage for workers' compensation and disability benefits, as required by Section 57 of the New York State Workers' Compensation Law and Section 220 of the Disability Benefits Law.

32. Lump Sum Contracts

- (A) Comparison of Bids: Bids on Lump Sum Contracts will be compared on the basis of the lump sum price bid, adjusted for alternate prices bid, if any.
- (B) Lump Sum Bids for "General Construction Work" which include excavation shall include all necessary excavation work defined in the Specifications as being included in the lump sum bid. The bidder shall also bid a unit price for the additional cost of excavating material which is defined in the Specifications as excavation for which additional payment will be made. The total estimated additional cost of removing such material will be taken as the quantity set forth in the Engineer's Estimate multiplied by the unit price bid. This total estimated cost of additional excavation shall be added to the lump sum bid for the General Construction Work for the purpose of comparing bids to determine the low bidder.
- (C) Variations from Engineer's Estimate: The Engineer's Estimate of the quantity of excavation for which additional payment will be made is approximate only and is given solely to be used as a uniform basis for the comparison of bids and such estimate is not to be considered as part of this contract. The quantities actually required to complete the contract work may be more or less than the quantities in the Engineer's Estimate and, if so, no action for damages or for loss of profits shall accrue to the contractor by reason thereof.

33. Unit Price Contracts

- (A) Comparison of Bids: Bids on Unit Price Contracts will be compared on the basis of a total estimated price,

arrived at by taking the sum of the estimated quantities of such items, in accordance with the Engineer's Estimate of Quantities set forth in the Bid Schedule, multiplied by the corresponding unit prices, and including any lump sum bids on individual items.

(B) Variations from Engineer's Estimate: Bidders are warned that the Engineer's Estimate of Quantities on the various items of work and materials is approximate only, given solely to be used as a uniform basis for the comparison of bids, and is not be considered part of this contract. The quantities actually required to complete the contract work may be less or more than so estimated, and if so, no action for damages or for loss of profits shall accrue to the contractor by reason thereof.

(C) Overruns: The terms and conditions applicable to overruns of unit price items are set forth in Article 26 of the Contract.

34. Excise Tax

Bidders are referred to the Specifications for information on Federal Excise Tax exemptions.

35. Licenses and Permits

The successful bidder will be required to obtain all necessary licenses and permits necessary to perform the work.

36. Multiple Prime Contractors

If more than one prime contractor will be involved on this project, all contractors are required to examine the Invitation for Bid packages for all other parts of the project.

37. Locally Based Enterprise Requirements (LBE)

This Contract is subject to the requirements of Administrative Code, Section 6-108.1, and the regulations promulgated thereunder. No construction contract will be awarded unless and until these requirements have been complied with in their entirety. The bidder is advised of the provisions set forth below, as well as the provisions with respect to the Locally Based Enterprise Program contained in Article 67 of the Contract. The contractor is advised that:

(A) If any portion of the Contract is subcontracted, not less than ten percent of the total dollar amount of the contract shall be awarded to locally based enterprises ("LBEs"); except, where less than ten percent of the total dollar amount of the Contract is subcontracted, such lesser percentage shall be so awarded.

(B) No contractor shall require performance and payment bonds from LBE subcontractors.

(C) No Contract shall be awarded unless the contractor first identifies in its bid:

(1) the percentage, dollar amount and type of work to be subcontracted; and

(2) the percentage, dollar amount and type of work to be subcontracted to LBEs.

(D) Within ten calendar days after notification of low bid, the apparent low bidder shall submit an "LBE Participation Schedule" to the contracting agency. If such schedule does not identify sufficient LBE subcontractors to meet the requirements of Administrative Code Section 6-108.1, the apparent low bidder shall submit documentation of its good faith efforts to meet such requirements.

(1) The "LBE Participation Schedule" shall include:

(a) the name and address of each LBE that will be given a subcontract,

(b) the percentage, dollar amount and type of work to be subcontracted to the LBE, and

(c) the dates when the LBE subcontract work will commence and end.

(2) The following documents shall be attached to the "LBE Participation Schedule":

(a) verification letters from each subcontractor listed in the "LBE Participation Schedule" stating that the LBE will enter into a formal agreement for work,

- (b) certification documents of any proposed LBE subcontractor which is not on the LBE certified list, and
 - (c) copies of the certification letter of any proposed subcontractor which is an LBE.
- (3) Documentation of good faith efforts to achieve the required LBE percentage shall include as appropriate but not limited to the following:
- (a) attendance at prebid meetings, when scheduled by the agency, to advise bidders of contract requirements;
 - (b) advertisement where appropriate in general circulation media, trade association publications and small business media of the specific subcontracts that would be at least equal to the percentage goal for LBE utilization specified by the contractor;
 - (c) written notification to association of small, minority and women contractors soliciting specific subcontractors;
 - (d) written notification by certified mail to LBE firms that their interest in the contract is solicited for specific work items and their estimated values;
 - (e) demonstration of efforts made to select portions of the work for performance by LBE firms in order to increase the likelihood of achieving the stated goal;
 - (f) documented efforts to negotiate with LBE firms for specific subcontracts, including at a minimum:
 - (i) The names, address and telephone numbers of LBE firms that are contacted;
 - (ii) A description of the information provided to LBE firms regarding the plans and specifications for portions of the work to be performed;
 - (iii) Documentation showing that no reasonable price can be obtained from LBE firms;
 - (iv) A statement of why agreements with LBE firms were not reached;
 - (g) a statement of the reason for rejecting any LBE firm which the contractor deemed to be unqualified; and
 - (h) documentation of efforts made to assist the LBE firms contacted that needed assistance in obtaining required insurance.
- (E) Unless otherwise waived by the Commissioner with the approval of the Office of Economic and Financial Opportunity, failure of a proposed contractor to provide the information required by paragraphs (C) and (D) above may render the bid non-responsive and the Contract may not be awarded to the bidder. If the contractor states that it will subcontract a specific portion of the work, but can demonstrate despite good faith efforts it cannot achieve its required LBE percentage for subcontracted work until after award of Contract, the Contract may be awarded, subject to a letter of compliance from the contractor stating that it will comply with Administrative Code Section 6-108.1 and subject to approval by the Commissioner. If the contractor has not met its required LBE percentage prior to award, the contractor shall demonstrate that a good faith effort has been made subsequent to award to obtain LBEs on each subcontract until it meets the required percentage.
- (F) When a bidder indicates prior to award that no work will be subcontracted, no work may be subcontracted without the prior written approval of the Commissioner, which shall be granted only if the contractor in good faith seeks LBE subcontractors at least six weeks prior to the start of work.
- (G) The contractor may not substitute or change any LBE which was identified prior to award of the contract without the written permission of the Commissioner. The contractor shall make a written application to the Commissioner for permission to make such substitution or change, explaining why the contractor needs to change its LBE subcontractor and how the contractor will meet its LBE subcontracting requirement. Copies of such application must be served on the originally identified LBE by certified mail return receipt requested,

as well as the proposed substitute LBE. The Commissioner shall determine whether or not to grant the contractor's request for substitution.

38. Bid Submission Requirements

The Bid Submission Requirements are set forth in the PASSPort RFx.

39. Comptroller's Certificate

This Contract shall not be binding or of any force unless it is registered by the Comptroller in accordance with Section 328 of the City Charter and the Procurement Policy Board Rules. This Contract shall continue in force only after annual appropriation of funds by the City of New York and certification as hereinabove set forth.

40. Procurement Policy Board Rules

This Invitation For Bids is subject to the Rules of the Procurement Policy Board of the City of New York. In the event of a conflict between said Rules and a provision of this Invitation For Bids, the Rules shall take precedence.

41. DDC Safety Requirements

The DDC Safety Requirements apply to the work to be performed pursuant to the Contract. The DDC Safety Requirements are set forth on the following pages.

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CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
SAFETY REQUIREMENTS FOR CONSTRUCTION
CONTRACTS

January 2020

THE DDC SAFETY REQUIREMENTS FOR CONSTRUCTION CONTRACTS INCLUDE THE FOLLOWING SECTIONS:

- I. POLICY ON SITE SAFETY**
- II. PURPOSE**
- III. DEFINITIONS**
- IV. RESPONSIBILITIES**
- V. SAFETY QUESTIONNAIRE**
- VI. SITE SAFETY PLAN**
- VII. KICK-OFF/PRE-CONSTRUCTION MEETINGS AND SAFETY REVIEW**
- VIII. EVALUATION DURING WORK IN PROGRESS**
- IX. SAFETY PERFORMANCE EVALUATION**

I. POLICY ON SITE SAFETY

The City of New York Department of Design and Construction (DDC) is committed to a policy of injury and illness prevention and risk management for construction work that will ensure the safety and health of the workers engaged in the projects and the protection of the general public. Therefore, it is DDC's policy that work carried out by Contractors on DDC contracts must, at a minimum, comply with the most current versions of all applicable federal, state and city laws, rules, and regulations, including without limitation:

- ❑ Code of Federal Regulations, Title 29, Part 1926 (29 CFR 1926) and applicable Sub-parts of Part 1910 – U.S. Occupational Safety and Health Administration (OSHA);
- ❑ Federal Highway Administration – Manual on Uniform Traffic Control Devices (MUTCD);
- ❑ New York Codes, Rules and Regulations (NYCRR), Title 12, Part 23 – Protection in Construction, Demolition and Excavation Operations;
- ❑ New York Codes, Rules and Regulations (NYCRR), Title 16, Part 753 – Protection of Underground Facilities;
- ❑ New York City Administrative Code, Title 28 – New York City Construction Codes;
- ❑ Rules of the City of New York, Title 15, Chapter 13 – Rules Pertaining To the Prevention of the Emission of Dust from Construction Related Activities;
- ❑ Rules of the City of New York, Title 15, Chapter 28 – Citywide Construction Noise Mitigation;
- ❑ Rules of the City of New York, Title 34 Chapter 2 – NYCDOT Highway Rules.

The Contractor will be required to comply with all new and/or revised federal, state and city laws, rules, and regulations, issued during the course of the project, at the expense of the Contractor without any additional costs to the DDC.

II. PURPOSE

The purpose of this policy is to ensure that Contractors perform their work and supervise their employees in accordance with all applicable federal, state and city rules and regulations. Further, Contractors will be expected to minimize or eliminate jobsite and public hazards, through a planning, inspection, auditing and corrective action process. The goal is to control risks so that injuries, illnesses, and accidents to contractors' employees, DDC employees and the general public, as well as damage to city-owned and private property, are reduced to the lowest level feasible.

III. DEFINITIONS

Agency Chief Contracting Officer (ACCO): The ACCO will mean the person delegated authority by the Commissioner to organize and supervise the procurement activity of subordinate Agency staff in conjunction with the City Chief Procurement Officer (CCPO).

Competent Person: As defined by OSHA, an individual who is capable of identifying existing and predictable hazards in the surroundings or working conditions that are unsanitary, hazardous, or dangerous to employees or the general public, and who has authorization to take prompt corrective measures to eliminate them. This individual will have completed, at a minimum an authorized 30-hour OSHA Construction Safety Course. The Contractor may be required to provide more than one competent person due to construction operations and based on the number of active work sites.

Construction Safety Auditor: A representative of the Office of Construction Safety who provides inspection and assessment services to enhance health and safety on all DDC construction projects. The activities of the Construction Safety Auditor include performing site audits, reviewing safety plans, reviewing construction permits, drawings, verifying Contractor's compliance with applicable federal, state and city laws, rules, regulations, and DDC Contract Safety Requirements, etc. and rendering technical advice and assistance to DDC Resident Engineers and Project Managers.

Office of Construction Safety: A unit of DDC Safety and Site Support that assesses contractor’s safety on DDC jobsites and advises responsible parties of needed corrective actions.

Registered Construction Superintendent: For certain projects, as defined in New York City Construction Codes – Title 28, the contractor will provide a Construction Superintendent registered with the NYC Department of Buildings and responsible for all duties as defined in Chapter 33 of Title 1 of the Rules of the City of New York.

Contractor: For purposes of these Safety Requirements, the term “Contractor” will mean any person or entity that enters into a contract for the performance of construction work on a DDC project. The term “Contractor” will include any person or entity which enters into any of the following types of contracts: (1) a prime construction contract for a specific project, (2) a prime construction contract using the Job Order Contracting System (“JOCS Contract”), and (3) a subcontract with a CM/Builder (“First Tier Subcontract”).

Daily Safety Job Briefing: Daily jobsite safety briefings, given to all jobsite personnel at project site by the Contractor before work begins and/or if hazards or potential hazards are discovered while working, with the purpose of discussing the scheduled activities for the day, the hazards related to these activities, activity specific safety procedures, and Job Hazard Analysis associated with the scheduled construction work. Daily jobsite briefings will be documented, available at the jobsite, and will include at a minimum, topics, name and signature of the person conducting the briefing session, names and signatures of attendants, name of the designated competent person, contractor’s name, DDC Project ID, date, time, and location.

Director – Office of Construction Safety: Responsible for the operations of the Office of Construction Safety and the DDC Site Safety management programs.

Job Hazard Analysis (JHA): A process of identifying the major job tasks and any potential site-specific hazards that may be present during construction and establishing the means and methods to eliminate or control those hazards. A JHA will be documented, available at the jobsite and will include at a minimum work tasks, being performed, identified hazards, control methods for the identified hazards, contractor’s name, DDC Project ID, location, date, name and signature of certifying person. A JHA is a living document that will be re-evaluated and revised to address new hazards and tasks that may develop and will be present at the worksite and produced upon request.

Qualified Person: As defined by OSHA, an individual who, by possession of a recognized degree, certificate, license, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his or her ability to solve problems relating to the subject matter, the work, or the project. Qualified Persons are required under regulation to address issues pertaining, but without limit, to fall protection, scaffold design, maintenance and protection of traffic, and excavation protective system, among others.

Project Site: Those areas indicated in the Contract Documents where the Work is to be performed.

Project Safety Representative: The designated Project Safety Representative will have at a minimum an OSHA 30-hour Construction Safety Course and other safety training applicable to Contractor’s/subcontractor’s project work. This individual will be responsible to oversee safety performance of the required construction work, conduct documented daily safety inspections, and implement corrective actions to maintain a safe work site. The Project Safety Representative must have sufficient experience and skills necessary to thoroughly understand the health and safety hazards and controls and must have authority to undertake corrective actions. A dedicated full-time Project Safety Representative may be required on large projects and projects deemed by DDC to be particularly high risk. DDC reserves the right to request a dedicated full-time Project Safety Representative for any reason at any time during the course of the project at the expense of the Contractor without any additional costs to the DDC. The full-time Project Safety Representative will be present at the site during all work activities.

Resident Engineer (“RE”): Representative of the Commissioner duly designated by the Commissioner to be his/her representative at the site of the work. The RE may be a consultant retained by DDC, including a Construction Management (CM) or Resident Engineer Inspection (REI) firm. If DDC has retained a CM, REI or other consultant firm to perform management and oversight for the Project (e.g., CM-Builder, CM-Design-Builder, Project Manager, Program Manager), that CM, REI or other consultant is the Resident Engineer for purposes of these Safety Requirements.

Safety Questionnaire: Used by DDC to evaluate Contractor’s current and past safety performance. It is required to be completed by all Contractors initially when submitting bids for Construction work, or when being pre-qualified and updated annually or as requested by the DDC.

Site Safety Manager: For certain projects, as defined in New York City Construction Codes – Title 28, the Contractor will provide a Site Safety Manager with a Site Safety Manager License issued by the New York City Department of Building.

Site Safety Plan: A site-specific safety plan developed by the Contractor for a DDC project. The Site Safety Plan will identify the project work scope, identify hazards associated with the project work and include project specific safety procedures and training appropriate and necessary to complete the work. The Site Safety Plan will be submitted within 30 days from the Award Date or as otherwise directed and is subject to review and acceptance by the Office of Construction Safety prior to the commencement of work at the site.

Unsafe or Unhealthy Condition: A condition that could be potentially hazardous to the health and safety of personnel or the public, and/or damaging to equipment, machinery, property, or the environment.

Weekly Safety Meetings: Weekly jobsite safety meetings, given to all jobsite personnel by Contractor, with the purpose of discussing general safety topics and job specific requirements encountered at the DDC work site. Weekly safety meetings will be documented and will include at a minimum, topics, name and signature of the person conducting the meeting, names and signatures of attendees, contractor’s name, DDC Project ID, date, and location.

Work: The construction required by the Contractor’s Contract Documents whether completed or partially completed, performed by the Contractor/ subcontractors. Work refers to the furnishing of labor, furnishing and incorporating materials and equipment into the construction and providing any service required by the Contract Documents to fulfill the Contractor’s obligation to complete the Project. For the purposes of these Safety Requirements, the term “Work” includes all Utility Interference work (commonly referred to as “Section U”, “EP-7”, and “Joint Bid” work) performed in association with this Contract.

IV. RESPONSIBILITIES

All persons who manage, perform, and provide support for construction projects will conduct operations in compliance with the requirements identified in this Policy and all applicable governing regulatory agency requirements and guidelines pertaining to safety in construction.

A. Resident Engineer

1. Review and facilitate Contractor(s) Site Safety Plan submittals to DDC for acceptability.
2. Notify the Office of Construction Safety of the commencement of construction work.
3. Develop and implement a training verification process to ensure that all CM/REI, consultant, Contractor, and subcontractor employees are properly trained. Maintain all applicable initial and refresher training records and assures documentation availability on site.
4. Maintain documentation of and attend weekly safety meetings and daily safety job briefings.
5. Assure that Contractor(s) JHA’s are current to reflect the work tasks being performed, hazards, and control methods to mitigate the identified hazards. Verify that all employees at the job site are trained on the JHAs and maintain supporting documentation on site.
6. Assure adequate planning for all critical construction activities (crane operation, excavation, confined space entry, etc.) including coordination between Contractor(s) /DDC/ other Agencies as required.
7. Maintain custody of all construction related permits, plans, approvals, drawings, etc., related to the project and assure their availability on site.
8. Recognize, minimize, or eliminate jobsite and public hazards, through required planning, inspection, verification, and corrective action process.
9. Monitor the conditions at the site for conformance with the Contractor’s Site Safety Plan, DDC policies, permits, and all applicable regulations and documentation that pertain to construction safety.
10. Notify the Contractor and DDC immediately upon determination of any condition or activity existing which is not in compliance with the Contractor’s Site Safety Plan, applicable federal, state or local codes or any

condition that presents a potential risk of injury to the public or workers or possible damage to property. Direct the Contractor to provide such labor, materials, equipment, and supervision to remedy such conditions.

11. Notify the Office of Construction Safety and the ACCO's Insurance and Risk Management Unit of project-related accidents, incidents, and near misses as per DDC's Construction Safety Emergency and Accident Notification and Response Procedure within two (2) hours.
12. In case of an accident, incident, or near miss, RE is responsible to protect the integrity of the accident site including but not limited to: the safeguarding of all evidence, documentation of all personnel on site at the time of the accident, gather facts related to all accidents, incidents, or near miss, and prepare required DDC Construction Accident Report as per DDC's Construction Safety Emergency and Accident Notification and Response Procedure. Maintain all records pertaining to accidents, incidents, and near miss and have them available upon request.
13. Notify the Office of Construction Safety within two (2) hours of the start of an inspection by any outside/regulatory agency personnel, including NYS, OSHA, NYC DOB or any other City/State/Federal oversight entity and forward a copy of the inspection report within one business day of its receipt.
14. Escort and assist Construction Safety Auditors during all field and record audits.
15. Report any emergency conditions to the Office of Construction Safety immediately.

Note: In addition to the responsibilities listed above, if the Resident Engineer is a CM/REI or other non-City party hired by the City to manage the Project, the Resident Engineer is also required to do the following:

16. Provide personnel who are certified and or trained appropriately for the requirements of the project.
17. Perform an investigation for any project-related accidents, incidents, and near misses. Within 24-hours of the time of the accident, incident, or near miss, the CM/REI will submit an investigation report to the Office of Construction Safety. Such report will include proposed remedial measures and implementation of corrective actions to prevent recurrence.

DDC reserves the right to request that the CM/REI replace any CM/REI personnel for any reason at any time during the project.

B. Construction Contractors

Note: For CM-Build and CM-Design-Build Projects, the CM will meet all requirements listed in this section, as well as the Resident Engineer section above.

1. Submit a completed Safety Questionnaire and other safety performance related documentation with its bid or as part of a pre-qualification package.
2. Submit a Site Safety Plan within 30 days from the Award Date or as otherwise directed. The Site Safety Plan is subject to review and acceptance by the Office of Construction Safety prior to the commencement of work at the site. The Site Safety Plan will be revised and updated as necessary during the course of the project. If requested by the Office of Construction Safety, the Site Safety Plan must be developed and submitted for approval using a web-based system, the Site Safety Plan Application (SSP App).
3. Designate and identify a Project Safety Representative in the Site Safety Plan. The Contractor will immediately notify the Office of Construction Safety, in a form and manner acceptable to the Office of Construction Safety, of any permanent change to the designated Project Safety Representative. In the event the primary designated Project Safety Representative is temporary unable to perform his or her duties, an alternate Project Safety Representative will be provided. Resumes, outlining the qualification and experience for the Project Safety Representative (s) will be included in the Site Safety Plan and available upon request. DDC reserves the right to request the Contractor to replace a Project Safety Representative for any reason at any time during the course of the project.
4. Designate and identify a Competent Person(s) in the Site Safety Plan. Contractor/subcontractor may be required to provide more than one competent person due to construction operations and based on a number of work tasks/areas. DDC reserves the right to request the Contractor to replace a Competent Person or provide additional Competent Person(s) for any reason at any time during the course of the project. The Competent Person will be present at the site during all work activities.
5. For certain projects, as defined in New York City Construction Codes – Title 28, designate and identify the Licensed Site Safety Manager or Registered Construction Superintendent. Resumes, outlining the qualification and experience for the Licensed Site Safety Manager or Registered Construction Superintendent will be included in the Site Safety Plan and available upon request. The Contractor will immediately notify the Office

of Construction Safety, in a form and manner acceptable to the Office of Construction Safety, of any permanent change to the designated Site Safety Manager and/or Construction Superintendent. In the event the primary designated Site Safety Manager or Construction Superintendent is temporarily unable to perform his or her duties, an alternate Licensed Site Safety Manager and/or Registered Construction Superintendent will be provided. The Office of Construction Safety must be informed of such change. DDC reserves the right to request the Contractor to replace Site Safety Manager or Construction Superintendent for any reason at any time during the course of the project.

6. Develop a written Job Hazard Analysis (JHA) that identifies safety hazards and control methods for project specific work tasks. A preliminary JHA will be included in the Site Safety Plan submitted by the Contractor. A JHA is a living document that will be re-evaluated and revised to address new hazards and tasks that may develop during the course of the project and will be present at the worksite and produced upon request.
7. Develop project specific safety procedures to protect employees, general public, and property during all construction activities for the duration of the project.
8. Ensure that all employees are aware of the hazards associated with the project through documented formal and informal training and/or other communications. Conduct and document new employee and site-specific safety orientation for all Contractor and subcontractor personnel to review the hazards associated with the project as identified in the Site Safety Plan and the specific safety procedures and controls that will be used to protect workers, the general public and property. The Project Safety Representative will conduct this training prior to mobilization and if necessary during the course of the project. Documentation will be provided to the RE.
9. Prior to performing any work on DDC projects all Contractor's and subcontractor's employees will, at a minimum, have successfully completed, within the previous five calendar years, an OSHA 10-hour construction safety course.

All training records (OSHA 10-hour, flagger, scaffold, fall protection, confined space, etc.) will be provided to the RE prior to mobilization, included in the Site Safety Plan, kept current during the course of the project, and available for review.

10. Conduct and document weekly safety meetings and daily job briefing sessions for the duration of the project. Attendance at weekly safety meetings and daily job briefing sessions is mandatory. A written record of weekly safety meetings will be available upon request and job briefing sessions will be available at the worksite.
11. As part of the Site Safety Plan, prepare site specific procedures, such as maintenance and protection of traffic plan, steel erection plan, confined space program, fall protection plan, demolition plan, site specific emergency evacuation plan, etc. (if not otherwise provided in the contract documents) and comply with all of its provisions.
12. Have immediately available for review at the project site where actual construction activities are being performed all applicable documentation, including but not limited to: JHAs for work tasks being performed, all required training records, MPT plan (where applicable), Noise and Dust Mitigation Plans, excavation protective system drawings (where applicable), Emergency Evacuation plan, fall protection program (where applicable), confined space program (where applicable), all required permits, daily job briefing records, all required documentation for crane operation (where applicable), daily inspection checklist, scaffold and sidewalk drawings (when applicable), safety data sheets for chemicals in use.
13. Comply with all federal, state and local safety and health rules, laws, and regulations.
14. Comply with all provisions of the Site Safety Plan.
15. Provide, replace, and adequately maintain at or around the project site, suitable and sufficient signage, lights, barricades and enclosures (fences, sidewalk sheds, netting, bracing, etc.). The project specific MPT plan will be developed, implemented, and reviewed during the course of the project.
16. The Project Safety Representative will conduct daily safety inspections, document the inspection results, implement corrective actions for the identified hazards. Maintain the inspection records and have them available upon request.
17. **Report unsafe or unhealthy conditions to the RE as soon as practical, but no more than 24 hours after discovery, and take prompt actions to remove or abate such conditions. Should an imminent dangerous condition be discovered, Contractor will stop all work in the area of danger until corrections are made.**
18. Report all accidents, incidents and near misses involving injuries to workers or the general public, as well as property damage, to the RE within one (1) hour.
19. Following an accident or incident, unless otherwise directed, the Contractor will not remove or alter any equipment, structure, material, or evidence related to the accident or incident. Exception: Immediate emergency procedures taken to secure structures, temporary construction, operations, or equipment that pose a continued imminent danger or facilitate assistance for persons who are trapped or who have sustained bodily injury. Take

additional measures as necessary to secure the accident or incident site and to protect against any further injury or property damage.

20. The Contractor will perform an investigation into the root cause of the accident, incident, or near miss. Within 24 hours of an accident, incident, or near miss, the Contractor will prepare and submit to the RE a written investigation report detailing findings, corrective actions, and hazard mitigation implementation to prevent recurrence.
21. Notify the RE within two (2) hours of the start of an inspection by any outside regulatory agency personnel, including OSHA, NYC DOB, or others.
22. Maintain all records pertaining to all required safety compliance documents, accidents and incidents reports. DDC reserves the right to request copy of any records pertaining to the safety of the project and required by DDC and other federal, state, and city agencies, including but not limited to permits, training records, safety inspection records, drawings, equipment records, etc.
23. Cooperate with DDC Office of Construction Safety/ RE and address DDC recommendations on safety, which will in no way relieve the Contractor of its responsibilities for safety on the project. The Contractor has sole responsibility for safety.

V. SAFETY QUESTIONNAIRE

DDC requires that all Contractors provide information regarding their current and past safety performance and programs. This will be accomplished by the use of the DDC Safety Questionnaire. As a part of the bid submittal package, the contractor will submit a completed DDC Safety Questionnaire listing company workers' compensation experience modification rating and OSHA Incident Rates for the three (3) years prior to the date of the bid opening. DDC may request a Contractor to update its Questionnaire at any time or to provide more detailed information. The Contractor will provide the requested information within 15 days.

The following criteria will be used by DDC in reviewing the Contractor's responsibility, which will be based on the information provided on the questionnaire:

- Criteria 1: OSHA Injury and Illness Rates (I&IR) are no greater than the average for the industry (based on the most current Bureau of Labor Statistics data for the Contractors SIC code); and
- Criteria 2: Insurance workers compensation Experience Modification Rate (EMR) equal to or less than 1.0; and
- Criteria 3: Any willful violations issued by OSHA or NYC DOB within the last three (3) years; and
- Criteria 4: A fatality (worker or member of public) and injuries, requiring OSHA notification, experienced on or near Contractor's worksite within the last three (3) years; and
- Criteria 5: Past safety performance on DDC projects (accidents; status of site safety plan submittals; etc.)
- Criteria 6: OSHA violation history for the last three (3) years;
- Criteria 7: Contractor will provide OSHA Injury and Illness Records (currently OSHA 300 and 300A Logs) for the last three (3) years.

If the Contractor fails to meet the basic criteria listed above, the Office of Construction Safety may request, through the ACCO, more details concerning the Contractor's safety experience. DDC may request the Contractor to provide copies of, among other things, accident investigation reports, OSHA records, OSHA and NYC DOB citations, EPA citations and written corrective action plan.

VI. SITE SAFETY PLAN

Within thirty (30) days from the Award Date or as otherwise directed, the Contractor will submit the Site Safety Plan. The Site Safety Plan will identify project work scope, safety hazards associated with the project tasks, and include specific safety procedures and training appropriate and necessary to complete the work. The Site Safety Plan is subject to review and acceptance by the Office of Construction Safety prior to the commencement of work at the site. Due to the project work scope and project duration, the Office of Construction Safety may grant a conditional acceptance for a Site Safety Plan without all sections being complete. In a case of a "Conditional Acceptance" of a Site Safety Plan,

the Contractor will provide the remaining sections previously incomplete and/or not submitted for review and acceptance by the Office of Construction Safety prior to the commencement of the construction activities. The Office of Construction Safety reserves the right to withdraw the initial “Conditional Acceptance” if the Contractor fails to provide the remaining sections of a Site Safety Plan. Failure by the Contractor to submit an acceptable Site Safety Plan will be grounds for default.

Site Safety Plan requirements: The Site Safety Plan will be a written document and will apply to all project specific Contractor and subcontractor operations, and will have at a minimum, the following elements with each described in a separate section (It may be necessary to modify the basic format for certain unique or high-risk projects, such as tunnels or high-rise construction). All Site Safety Plan sections will be numbered in the order listed below. For sections, which are not applicable for the type of the work being performed by the Contractor on DDC project, the Contractor will in writing indicate “Not applicable based on the project work scope.” The Site Safety Plan will include Contractor’s name, DDC project ID, project location (s), and development and revision dates. The Site Safety Plan will include the sections, attachments, and appendixes provided in the Site Safety Plan. All pages of the Site Safety Plan will be numbered. If requested by the Office of Construction Safety, the Site Safety Plan must be developed and submitted for approval using a web-based system, the Site Safety Plan Application (SSP App).

1. Project Work Scope – Detailed information regarding work tasks that will be performed by Contractor and subcontractors under the project.
2. Responsibility and Organization – Contractor’s organization chart with responsible personnel for the project, including titles, names, contact information, roles, and responsibilities. All Contractor’s personnel required by the DDC Safety Requirements will be identified.
3. Safety Training and Education – OSHA 10 Hours training, requirements for daily safety briefings and weekly safety meetings, any work task specific training, responsible staff for implementation of training program for the project.
4. Job Hazard Analysis (JHA) – Project specific Job Hazard Analysis including work tasks, identified hazards, hazard control methods (administrative, engineering, PPE) to protect workers, property and general public, Contractor’s name, project id, location, name and signature of a certifying person, hazard assessment date.
5. Protection of Public – Project specific procedures covering safety of the general public during all project construction activities.
6. Hazard Corrective Actions - Procedures for hazard identification, including responsible person(s), frequency of safety inspections, implementation of corrective actions, safety inspection checklist.
7. Accident/Exposure Investigation – Project specific procedures for accident/incident/near miss investigation and implementation of corrective actions. Accident/incident/near miss notification procedure of DDC project staff (timer frame and responsible personnel).
8. Recording and Reporting Injuries – Procedures to meet 29 CFR 1904 requirements.
9. First Aid and Medical Attention – Responsible staff, location and inspection of First Aid kit, directions to local hospitals; emergency telephone numbers.
10. Project Specific Fire Protection and Prevention Program – Project specific procedures, including responsible staff, fire alarm system/methods, hot work procedures, etc.
11. Housekeeping Procedure.
12. Project Specific Illumination Procedure.
13. Project Specific Sanitation Procedure.
14. Personal Protective Equipment (PPE), including Respiratory Protection Program and Hearing Conservation Program, if required.
15. Hazard Communication Program – Contractor’s Hazard Communication Program, responsible staff; training; SDS records, project specific list of chemicals; location of the program and SDS records.
16. Means of Egress – Information regarding free and unobstructed egress from all parts of the building or structure; exit marking; maintenance of means of egress, etc.
17. Employee Emergency Action Plan – Project specific: responsible staff, emergency alarm system/devices, evacuation procedure, procedure to account for employees after evacuation, etc.
18. Evacuation Plan – Project specific evacuation plan (drawing/scheme) with exists and evacuation routes.
19. Ionizing/Nonionizing Radiation – Competent person, license and qualification requirements, type of radiation, employee’s exposure and protection, safety procedures, etc.

20. Material Handling, Storage, Use and Disposal – Project specific information regarding material storage, disposal, and handling: procedures, plan/drawings, etc.
21. Signs, Signals, and Barricades – Use of danger/warning signs, safety instruction signs, sidewalk closure and pedestrian fencing and barricades (if not included in the MPT plan), etc.
22. Tools – Hand and Power – Safety procedures for the type of tools to be used.
23. Scaffold – Project specific scaffold types, procedures, training requirements, scaffold drawings, designed, sealed, and signed by NYS Licensed Professional Engineer, or as otherwise directed; competent person, criteria for project specific scaffold, falling object protection, procedures for aerial lifts/scissor lifts.
24. Welding and Cutting – Project specific procedure for welding and cutting, including all necessary safety requirements such as fire prevention, personal protective equipment, hot work permits (if not covered by Contractor’s Fire Prevention and Protection program, FDNY certificate requirements).
25. Electrical Safety – Project specific procedures, including lock out-tag out.
26. Fall Protection – Project specific information regarding selected fall protection systems, fall protection plan, responsible staff.
27. Cranes, Derrick, Hoists, Elevators, Conveyors – project specific equipment information including type, rated load capacity, manufacture specification requirements, competent person, exposure to falling load, inspection, recordkeeping, clearance requirements, communication procedure, ground lines, permits.
28. Excavation Safety – Competent person; excavation procedures; project specific protective system, including drawings, designed, sealed, and signed by NYS Licensed Professional Engineer, or as otherwise directed.
29. Protection of Underground Facilities and Utilities Procedure, including responsible staff and responsibilities.
30. Concrete and Masonry Construction Procedures
31. Maintenance and Protection of Traffic Plan – Project specific MPT plan, designed, sealed, and signed by NYS Licensed Professional Engineer, or as otherwise directed; flagmen training, public safety, etc.
32. Steel Erection – Site specific erection plan, requirements for applicable written notifications, competent person, fall protection plan, training requirements, etc.
33. Demolition – Engineering survey, including written evidence, disconnection of all effected utilities, identification of all hazardous chemicals, materials, gases, etc., floor openings, chutes, inspection and maintenance of all stairs/passageways, removal of materials/debris/structural elements, lock out/tag out, competent person.
34. Blasting and the Use of Explosives – Project specific safety procedures, warning signs, training/qualification, transportation, storage and use of explosives, inspection.
35. Stairways and Ladders – Types of stairs and ladders, safety procedures, training requirements.
36. Alcohol and Drug Abuse Policy
37. Rodents and Vermin Controls
38. Toxic and Hazardous Substances – Safety procedures for substances that Contractor’s and subcontractor’s employees can be exposed on project.
39. Noise Mitigation Plan – Completed project specific Noise Mitigation Plan, and noise mitigation procedures.
40. Confined Space Program – Project specific Confined Space Program, responsible staff, training records, equipment information, rescue procedure, list of project specific confined spaces, forms.
41. Construction Vehicles/Heavy Equipment – Type of construction vehicles/heavy equipment to be used on site, procedures
42. Dust Mitigation Plan – Completed project specific Dust Mitigation Plan, and dust mitigation procedures.
43. Working Over and Near Water. Diving Operations – safety procedures including personal protective equipment, fall protection, rescue services, etc.

The most critical component of the Site Safety Plan is the Job Hazard Analysis (JHA) section. The JHA form is a written document prepared by the Contractor. The Contractor will conduct a site and task assessment to identify the tasks and any potential safety or environmental hazards related to performance of the work, eliminate or implement controls for the potential hazards, and identify proper personal protective equipment for the task. The JHA will be communicated to all Contractor/subcontractor personnel on site. The JHA will include safety hazard identification and controls to protect employees, general public, and property.

The initial JHA will be included in the Contractor’s Site Safety Plan and the current JHA form will be available at the construction site for reference. A JHA is a living document that will be re-evaluated and revised to address new hazards and tasks that may develop and will be present at the worksite and produced upon request.

VII. KICK-OFF MEETINGS/PRE-CONSTRUCTION AND SAFETY REVIEW

Prior to the start of construction activities on all DDC projects, RE will invite the Office of Construction Safety to the construction kick-off meeting. The Office of Construction Safety representative(s) will participate in this meeting with the Contractor and RE for the purpose of:

- A. Reviewing DDC Contract Safety Requirements
- B. Reviewing site-specific safety issues based on a project work scope, location, and any other factors which may impact safety of workers and general public.
- C. Reviewing the Site Safety Plan and JHA requirements.
- D. Reviewing Accident/Incident reporting and investigation procedures.
- E. Reviewing designated safety contacts, roles, and responsibilities.
- F. Discussing planned inspections and audits of the site by the Office of Construction Safety personnel.

VIII. EVALUATION DURING WORK IN PROGRESS

The Contractor's adherence to these Safety Requirements will be monitored throughout the project. This will be accomplished by the following:

- A. Use of a safety checklist by a representative of the Office of Construction Safety (or other designated DDC representative) and the RE during regular inspections and comprehensive audits of the job site. Field Exit Conferences will be held with the RE and Contractor Project Safety Representatives.
- B. The RE will continually monitor the safety and environmental performance of the Contractor's employees and work methods. Deficiencies will be brought to the attention of the Contractor's Project Safety Representative on site for immediate correction. The RE will maintain a written record of these deficiencies and have these records available upon request. Any critical deficiencies will be immediately reported to the Office of Construction Safety via telephone (718)391-1911.
- C. If the Contractor's safety performance during the project is not up to DDC standards (safety performance measure, accident/incident rate, etc.) the Director – Office of Construction Safety, or his/her designee will meet with the Contractor's Project Safety Representative and other representatives, the RE, and the DDC Environmental Specialist (if environmental issues are involved). The purpose of this meeting is to 1) determine the level of non-compliance; 2) explain and clarify the safety/environmental provisions; 3) agree on a future course of action to correct the deficiencies.
- D. If the deficiencies continue, the Commissioner may, without limitation, declare the Contractor in default.
- E. The Contractor will within 1 hour inform the RE of all accidents/incidents/near misses including all fatalities, any injuries to employees or members of the general public, and property damage (e.g., structural damage, equipment rollovers, utility damage, loads dropped from crane). The RE will notify the Office of Construction Safety as per DDC's Construction Safety Emergency and Accident Notification and Response Procedure and will maintain a record of all Contractor accidents/incidents for the project.
- F. The Contractor and the RE will notify the Office of Construction Safety within two (2) hours of the start of any NYS-DOL/ NYC-COSH/ OSHA/ EPA inspections.

IX. SAFETY PERFORMANCE EVALUATION

The Contractor's safety record, including accident/incident history and DDC safety inspection results, will be considered as part of the Contractor's performance evaluation at the conclusion of the project. Poor safety performance during the course of the project will be a reason to rate a Contractor unsatisfactory which may be reflected in the City's PASSPort system and will be considered for future procurement actions as set forth in the City's Procurement Policy Board Rules.

NOTICE TO BIDDERS

Please be advised that the following Riders to the March 2017 New York City Standard Construction Contract have been attached and incorporated in this Invitation for Bid:

- Rider regarding Non-Compensable Delays and Grounds for Extension;
- Rider regarding NYC Earned Safe and Sick Time Act.

Other than provisions specifically delineated in the Riders, all other terms of the March 2017 New York City Standard Construction Contract continue to apply in full force and effect.

**RIDER TO NEW YORK CITY STANDARD CONSTRUCTION CONTRACT (MARCH
2017) REGARDING NON-COMPENSABLE DELAYS AND GROUNDS FOR
EXTENSION**

The following provisions supersede the corresponding provisions in the March 2017 version of the New York City Standard Construction Contract:

1. Section **11.5.1** provides as follows:

11.5.1 The acts or omissions of public or government bodies (other than **City** agencies) or of any third parties who are disclosed in the **Contract Documents**, or those third parties who are ordinarily encountered or who are generally recognized as related to the **Work**, including but not limited to, **Other Contractors**, utilities or private enterprises;

2. Section **11.5.6** provides as follows:

11.5.6 Climatic conditions, storms, floods, droughts, tidal waves, fires, hurricanes, earthquakes, landslides or other catastrophes or acts of God; acts of war or of the public enemy or terrorist acts; disruption, outage or power failure caused by a utility's inability or failure to provide service, pandemics, epidemics, outbreaks of infectious disease or any other public health emergency; other states of emergency declared by the City, State or Federal government, quarantine restrictions, and freight embargoes; including the **City's** reasonable responses to any of the above; and

3. Section **13.3** provides as follows:

13.3 Grounds for Extension: If such application is made, the **Contractor** shall be entitled to an extension of time for delay in completion of the **Work** caused solely:

13.3.1 By any of the acts or omissions of the **City**, its officials, agents or employees set forth in Articles **11.4.1.1** through **11.4.1.9**; or

13.3.2 By or attributable to any of the items set forth in Articles **11.5.1** through **11.5.7**.

13.3.3 The **Contractor** shall, however, be entitled to an extension of time for such causes only for the number of **Days** of delay which the **ACCO** or the Board may determine to be due solely to such causes, and then only if the **Contractor** shall have strictly complied with all of the requirements of Articles 9 and 10.

NYC EARNED SAFE AND SICK TIME ACT CONTRACT RIDER

(To supersede Section 4.06 of the January 2018 Appendix A and Section 35.5 of the March 2017 Standard Construction Contract and to be attached to other City contracts and solicitations)

A. Introduction and General Provisions.

1. The Earned Safe and Sick Time Act (“ESSTA”), codified at Title 20, Chapter 8 of the New York City Administrative Code, also known as the “Paid Safe and Sick Leave Law,” requires covered employees (as defined in Admin. Code § 20-912) in New York City (“City”) to be provided with paid safe and sick time. Contractors of the City or of other governmental entities may be required to provide safe and sick time pursuant to the ESSTA. The ESSTA is enforced by the City’s Department of Consumer and Worker Protection (“DCWP”), which has promulgated 6 RCNY §§ 7-101 and 201 *et seq.* (“DCWP Rules”).

2. The Contractor agrees to comply in all respects with the ESSTA and the DCWP Rules, and as amended, if applicable, in the performance of this agreement. The Contractor further acknowledges that such compliance is a material term of this agreement and that failure to comply with the ESSTA in performance of this agreement may result in its termination.

3. The Contractor must notify (with a copy to DCWP at ComplianceMonitoring@dcwp.nyc.gov) the Agency Chief Contracting Officer of the City Agency or other entity with whom it is contracting in writing within 10 days of receipt of a complaint (whether oral or written) or notice of investigation regarding the ESSTA involving the performance of this agreement. Additionally, the Contractor must cooperate with DCWP’s guidance and must comply with DCWP’s subpoenas, requests for information, and other document demands as set forth in the ESSTA and the DCWP Rules. More information is available at <https://www1.nyc.gov/site/dca/about/paid-sick-leave-what-employers-need-to-know.page>.

4. Upon conclusion of a DCWP investigation, Contractor will receive a findings letter detailing any employee relief and civil penalties owed. Pursuant to the findings, Contractor will have the opportunity to settle any violations and cure the breach of this agreement caused by failure to comply with the ESSTA either i) without a trial by entering into a consent order or ii) appearing before an impartial judge at the City’s administrative tribunal. In addition to and notwithstanding any other rights and remedies available to the City, non-payment of relief and penalties owed pursuant to a consent order or final adjudication within 30 days of such consent order or final adjudication may result in the termination of this agreement without further opportunity to settle or cure the violations.

5. The ESSTA is briefly summarized below for the convenience of the Contractor. The Contractor is advised to review the ESSTA and the DCWP Rules in their entirety. The Contractor may go to www.nyc.gov/PaidSickLeave for resources for employers, such as Frequently Asked Questions, timekeeping tools and model forms, and an event calendar of upcoming presentations and webinars at which the Contractor can get more information about how to comply with the ESSTA and the DCWP Rules. The Contractor acknowledges that it is responsible for compliance with the ESSTA and the DCWP Rules notwithstanding any inconsistent language contained herein.

B. *Pursuant to the ESSTA and DCWP Rules: Applicability, Accrual, and Use.*

1. An employee who works within the City must be provided paid safe and sick time.¹ Employers with one hundred or more employees are required to provide 56 hours of safe and sick time for an employee each calendar year. Employers with fewer than one hundred employees are required to provide 40 hours of sick leave each calendar year. Employers must provide a minimum of one hour of safe and sick time for every 30 hours worked by an employee and compensation for such safe and sick time must be provided at the greater of the employee's regular hourly rate or the minimum wage at the time the paid safe or sick time is taken. Employers are not discouraged or prohibited from providing more generous safe and sick time policies than what the ESSTA requires.

2. Employees have the right to determine how much safe and sick time they will use, provided that an employer may set a reasonable minimum increment for the use of safe and sick time not to exceed four hours per day. For the use of safe time or sick time beyond the set minimum increment, an employer may set fixed periods of up to thirty minutes beyond the minimum increment. In addition, an employee may carry over up to 40 or 56 hours of unused safe and sick time to the following calendar year, provided that no employer is required to carry over unused paid safe and sick time if the employee is paid for such unused safe and sick time and the employer provides the employee with at least the legally required amount of paid safe and sick time for such employee for the immediately subsequent calendar year on the first day of such calendar year.

3. An employee entitled to safe and sick time pursuant to the ESSTA may use safe and sick time for any of the following:

a. such employee's mental illness, physical illness, injury, or health condition or the care of such illness, injury, or condition or such employee's need for medical diagnosis or preventive medical care;

b. such employee's care of a family member (an employee's child, spouse, domestic partner, parent, sibling, grandchild, or grandparent, the child or parent of an employee's spouse or domestic partner, any other individual related by blood to the employee, and any other individual whose close association with the employee is the equivalent of a family relationship) who has a mental illness, physical illness, injury or health condition or who has a need for medical diagnosis or preventive medical care;

¹ Pursuant to the ESSTA, if fewer than five employees work for the same employer, and the employer had a net income of less than one million dollars during the previous tax year, such employer has the option of providing such employees uncompensated safe and sick time.

c. closure of such employee's place of business by order of a public official due to a public health emergency;

d. such employee's need to care for a child whose school or childcare provider has been closed due to a public health emergency; or

e. when the employee or a family member has been the victim of a family offense matter, sexual offense, stalking, or human trafficking:

1. to obtain services from a domestic violence shelter, rape crisis center, or other shelter or services program for relief from a family offense matter, sexual offense, stalking, or human trafficking;
2. to participate in safety planning, temporarily or permanently relocate, or take other actions to increase the safety of the employee or employee's family members from future family offense matters, sexual offenses, stalking, or human trafficking;
3. to meet with a civil attorney or other social service provider to obtain information and advice on, and prepare for or participate in any criminal or civil proceeding, including but not limited to, matters related to a family offense matter, sexual offense, stalking, human trafficking, custody, visitation, matrimonial issues, orders of protection, immigration, housing, discrimination in employment, housing or consumer credit;
4. to file a complaint or domestic incident report with law enforcement;
5. to meet with a district attorney's office;
6. to enroll children in a new school; or
7. to take other actions necessary to maintain, improve, or restore the physical, psychological, or economic, health or safety of the employee or the employee's family member or to protect those who associate or work with the employee.

4. An employer must not require an employee, as a condition of taking safe and sick time, to search for a replacement. However, where the employee's need for safe and sick time is foreseeable, an employer may require an employee to provide reasonable notice of the need to use safe and sick time. For an absence of more than three consecutive work days, an employer may require reasonable documentation that the use of safe and sick time was needed for a reason listed in Admin. Code § 20-914; and/or written confirmation that an employee used safe and sick time pursuant to the ESSTA. However, an employer may not require documentation specifying the nature of a medical condition, require disclosure of the details of a medical condition, or require disclosure of the details of a family offense matter, sexual offense, stalking, or human trafficking, as a condition of providing safe and sick time. Health information and information concerning family offenses, sexual offenses, stalking or human trafficking obtained solely due to an

employee's use of safe and sick time pursuant to the ESSTA must be treated by the employer as confidential. An employer must reimburse an employee for all reasonable costs or expenses incurred in obtaining such documentation for the employer.

5. An employer must provide to all employees a written policy explaining its method of calculating sick time, policies regarding the use of safe and sick time (including any permissible discretionary conditions on use), and policies regarding carry-over of unused time at the end of the year, among other topics. It must provide the policy to employees using a delivery method that reasonably ensures that employees receive the policy. If such employer has not provided its written policy, it may not deny safe and sick time to an employee because of non-compliance with such a policy.

6. An employer must provide a pay statement or other form of written documentation that informs the employee of the amount of safe/sick time accrued and used during the relevant pay period and the total balance of the employee's accrued safe/sick time available for use.

7. Safe and sick time to which an employee is entitled must be paid no later than the payday for the next regular payroll period beginning after the safe and sick time was used.

C. *Exemptions and Exceptions.* Notwithstanding the above, the ESSTA does not apply to any of the following:

1. an independent contractor who does not meet the definition of employee under N.Y. Labor Law § 190(2);

2. an employee covered by a valid collective bargaining agreement, if the provisions of the ESSTA are expressly waived in such agreement and such agreement provides a benefit comparable to that provided by the ESSTA for such employee;

3. an audiologist, occupational therapist, physical therapist, or speech language pathologist who is licensed by the New York State Department of Education and who calls in for work assignments at will, determines their own schedule, has the ability to reject or accept any assignment referred to them, and is paid an average hourly wage that is at least four times the federal minimum wage;

4. an employee in a work study program under Section 2753 of Chapter 42 of the United States Code;

5. an employee whose work is compensated by a qualified scholarship program as that term is defined in the Internal Revenue Code, Section 117 of Chapter 20 of the United States Code; or

6. a participant in a Work Experience Program (WEP) under N.Y. Social Services Law § 336-c.

D. *Retaliation Prohibited.* An employer shall not take any adverse action against an employee that penalizes the employee for, or is reasonably likely to deter the employee from or interfere with the employee exercising or attempting in good faith to exercise any right provided by the ESSTA. In addition, an employer shall not interfere with any investigation, proceeding, or hearing pursuant to the ESSTA.

E. *Notice of Rights.*

1. An employer must provide its employees with written notice of their rights pursuant to the ESSTA. Such notice must be in English and the primary language spoken by an employee, provided that DCWP has made available a translation into such language. Downloadable notices are available on DCWP's website at <https://www1.nyc.gov/site/dca/about/Paid-Safe-Sick-Leave-Notice-of-Employee-Rights.page>. The notice must be provided to the employees by a method that reasonably ensures personal receipt by the employee.

2. Any person or entity that willfully violates these notice requirements is subject to a civil penalty in an amount not to exceed \$50.00 for each employee who was not given appropriate notice.

F. *Records.* An employer must retain records documenting its compliance with the ESSTA for a period of at least three years, and must allow DCWP to access such records in furtherance of an investigation related to an alleged violation of the ESSTA.

G. *Enforcement and Penalties.*

1. Upon receiving a complaint alleging a violation of the ESSTA, DCWP must investigate such complaint. DCWP may also open an investigation to determine compliance with the ESSTA on its own initiative. Upon notification of a complaint or an investigation by DCWP, the employer must provide DCWP with a written response and any such other information as DCWP may request. If DCWP believes that a violation of the ESSTA has occurred, it has the right to issue a notice of violation to the employer.

2. DCWP has the power to grant an employee or former employee all appropriate relief as set forth in Admin. Code § 20-924(d). Such relief may include, but is not limited to, treble damages for the wages that should have been paid; statutory damages for unlawful retaliation; and damages, including statutory damages, full compensation for wages and benefits lost, and reinstatement, for unlawful discharge. In addition, DCWP may impose on an employer found to have violated the ESSTA civil penalties not to exceed \$500.00 for a first violation, \$750.00 for a second violation within two years of the first violation, and \$1,000.00 for each succeeding violation within two years of the previous violation. When an employer has a policy or practice of not providing or refusing to allow the use of safe and sick time to its employees, DCWP may seek penalties and relief on a per employee basis.

3. Pursuant to Admin. Code § 20-924.2, (a) where reasonable cause exists to believe that an employer is engaged in a pattern or practice of violations of the ESSTA, the Corporation Counsel may commence a civil action on behalf of the City in a court of competent jurisdiction by filing a complaint setting forth facts relating to such pattern or practice and requesting relief, which may include injunctive relief, civil penalties and any other appropriate relief. Nothing in § 20-924.2 prohibits DCWP from exercising its authority under section 20-924 or the Charter, provided that a civil action pursuant to § 20-924.2 shall not have previously been commenced.

H. *More Generous Policies and Other Legal Requirements.* Nothing in the ESSTA is intended to discourage, prohibit, diminish, or impair the adoption or retention of a more generous safe and sick time policy, or the obligation of an employer to comply with any contract, collective bargaining agreement, employment benefit plan or other agreement providing more generous safe and sick time. The ESSTA provides minimum requirements pertaining to safe and sick time and does not preempt, limit, or otherwise affect the applicability of any other law, regulation, rule, requirement, policy or standard that provides for greater accrual or use by employees of safe and sick leave or time, whether paid or unpaid, or that extends other protections to employees. The ESSTA may not be construed as creating or imposing any requirement in conflict with any federal or state law, rule or regulation.

CITY OF NEW YORK

STANDARD CONSTRUCTION CONTRACT

March 2017

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CITY OF NEW YORK STANDARD CONSTRUCTION CONTRACT

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WITNESSETH:

The parties, in consideration of the mutual agreements contained herein, agree as follows:

CHAPTER I: THE CONTRACT AND DEFINITIONS

ARTICLE 1. THE CONTRACT

1.1 Except for titles, subtitles, headings, running headlines, tables of contents and indices (all of which are printed herein merely for convenience), the following, except for such portions thereof as maybe specifically excluded, shall be deemed to be part of this **Contract**:

1.1.1 All provisions required by law to be inserted in this **Contract**, whether actually inserted or not;

1.1.2 The Contract Drawings and Specifications;

1.1.3 The General Conditions and Special Conditions, if any;

1.1.4 The **Contract**;

1.1.5 The Information for Bidders; Request for Proposals; Notice of Solicitation and Proposal For Bids; Bid or Proposal, and, if used, the Bid Booklet;

1.1.6 All Addenda issued prior to the receipt of the bids; the Notice of Award; Performance and Payment Bonds, if required; and the Notice to Proceed or the Order to Work.

1.2 Should any conflict occur in or between the Drawings and Specifications, the **Contractor** shall be deemed to have estimated the most expensive way of doing the **Work**, unless the **Contractor** shall have asked for and obtained a decision in writing from the **Commissioner** of the **Agency** that is entering into this **Contract**, before the submission of its bid, as to what shall govern.

ARTICLE 2. DEFINITIONS

2.1 The following words and expressions, or pronouns used in their stead, shall, wherever they appear in this Contract, be construed as follows, unless a different meaning is clear from the context:

2.1.1 “**Addendum**” or “**Addenda**” shall mean the additional Contract provisions and/or technical clarifications issued in writing by the Commissioner prior to the receipt of bids.

2.1.2 “**Agency**” shall mean a city, county, borough or other office, position, department, division, bureau, board or commission, or a corporation, institution or agency of government, the expenses of which are paid in whole or in part from the City treasury.

2.1.3 “**Agency Chief Contracting Officer**” (**ACCO**) shall mean a person delegated authority by the Commissioner to organize and supervise the procurement activity of subordinate Agency staff in conjunction with the CCPO, or his/her duly authorized representative.

2.1.4 **“Allowance”** shall mean a sum of money which the Agency may include in the total amount of the Contract for such specific contingencies as the Agency believes may be necessary to complete the Work, *e.g.*, lead or asbestos remediation, and for which the Contractor will be paid on the basis of stipulated unit prices or a formula set forth in the Contract or negotiated between the parties provided, however, that if the Contractor is not directed to use the Allowance, the Contractor shall have no right to such money and it shall be deducted from the total amount of the Contract.

2.1.5 **“City”** shall mean the City of New York.

2.1.6 **“City Chief Procurement Officer” (CCPO)** shall mean a person delegated authority by the Mayor to coordinate and oversee the procurement activity of Mayoral agency staff, including the ACCO and any offices which have oversight responsibility for the procurement of construction, or his/her duly authorized representative.

2.1.7 **“Commissioner”** shall mean the head of the Agency that has entered into this Contract, or his/her duly authorized representative.

2.1.8 **“Comptroller”** shall mean the Comptroller of the City of New York.

2.1.9 **“Contract”** or **“Contract Documents”** shall mean each of the various parts of the contract referred to in Article 1 hereof, both as a whole and severally.

2.1.10 **“Contract Drawings”** shall mean only those drawings specifically entitled as such and listed in the Specifications or in any Addendum, or any drawings furnished by the Commissioner, pertaining or supplemental thereto.

2.1.11 **“Contract Work”** shall mean everything required to be furnished and done by the Contractor by any one or more of the parts of the Contract referred to in Article 1, except Extra Work as hereinafter defined.

2.1.12 **“Contractor”** shall mean the entity which executed this Contract, whether a corporation, firm, partnership, joint venture, individual, or any combination thereof, and its, their, his/her successors, personal representatives, executors, administrators, and assigns, and any person, firm, partnership, joint venture, individual, or corporation which shall at any time be substituted in the place of the Contractor under this Contract.

2.1.13 **“Days”** shall mean calendar days, except where otherwise specified.

2.1.14 **“Engineer”** or **“Architect”** or **“Project Manager”** shall mean the person so designated in writing by the Commissioner in the Notice to Proceed or the Order to Work to act as such in relation to this Contract, including a private Architect or Engineer or Project Manager, as the case may be. Subject to written approval by the Commissioner, the Engineer, Architect or Project Manager may designate an authorized representative.

2.1.15 **“Engineering Audit Officer” (EAO)** shall mean the person so designated by the Commissioner to perform responsible auditing functions hereunder.

2.1.16 **“Extra Work”** shall mean Work other than that required by the Contract at the time of award which is authorized by the Commissioner pursuant to Chapter VI of this Contract.

- 2.1.17 **“Federal-Aid Contract”** shall mean a contract in which the United States (federal) Government provides financial funding as so designated in the Information for Bidders.
- 2.1.18 **“Final Acceptance”** shall mean final written acceptance of all the Work by the Commissioner, a copy of which shall be sent to the Contractor.
- 2.1.19 **“Final Approved Punch List”** shall mean a list, approved pursuant to Article 14.2.2, specifying those items of Work to be completed by the Contractor after Substantial Completion and dates for the completion of each item of Work.
- 2.1.20 **“Law” or “Laws”** shall mean the Constitution of the State of New York, the New York City Charter, the New York City Administrative Code, a statute of the United States or of the State of New York, a local law of the City of New York, any ordinance, rule or regulation having the force of law, or common law.
- 2.1.21 **“Materialman”** shall mean any corporation, firm, partnership, joint venture, or individual, other than employees of the Contractor, who or which contracts with the Contractor or any Subcontractor, to fabricate or deliver, or who actually fabricates or delivers, plant, materials or equipment to be incorporated in the Work.
- 2.1.22 **“Means and Methods of Construction”** shall mean the labor, materials, temporary structures, tools, plant, and construction equipment, and the manner and time of their use, necessary to accomplish the result intended by this Contract.
- 2.1.23 **“Notice to Proceed” or “Order to Work”** shall mean the written notice issued by the Commissioner specifying the time for commencement of the Work and the Engineer, Architect or Project Manager.
- 2.1.24 **“Other Contractor(s)”** shall mean any contractor (other than the entity which executed this Contract or its Subcontractors) who or which has a contract with the City for work on or adjacent to the building or Site of the Work.
- 2.1.25 **“Payroll Taxes”** shall mean State Unemployment Insurance (SUI), Federal Unemployment Insurance (FUI), and payments pursuant to the Federal Insurance Contributions Act (FICA).
- 2.1.26 **“Project”** shall mean the public improvement to which this Contract relates.
- 2.1.27 **“Procurement Policy Board” (PPB)** shall mean the Agency of the City of New York whose function is to establish comprehensive and consistent procurement policies and rules which shall have broad application throughout the City.
- 2.1.28 **“Required Quantity”** in a unit price Contract shall mean the actual quantity of any item of Work or materials which is required to be performed or furnished in order to comply with the Contract.
- 2.1.29 **“Resident Engineer”** shall mean the representative of the Commissioner duly designated by the Commissioner to be his/her representative at the site of the Work.
- 2.1.30 **“Site”** shall mean the area upon or in which the Contractor’s operations are carried on, and such other areas adjacent thereto as may be designated as such by the Engineer.
- 2.1.31 **“Small Tools”** shall mean items that are ordinarily required for a worker’s job

function, including but not limited to, equipment that ordinarily has no licensing, insurance or substantive storage costs associated with it; such as circular and chain saws, impact drills, threaders, benders, wrenches, socket tools, etc.

2.1.32 “**Specifications**” shall mean all of the directions, requirements, and standards of performance applying to the Work as hereinafter detailed and designated under the Specifications.

2.1.33 “**Subcontractor**” shall mean any person, firm or corporation, other than employees of the Contractor, who or which contracts with the Contractor or with its subcontractors to furnish, or actually furnishes labor, or labor and materials, or labor and equipment, or superintendence, supervision and/or management at the Site. Wherever the word Subcontractor appears, it shall also mean sub-Subcontractor.

2.1.34 “**Substantial Completion**” shall mean the written determination by the Engineer that the Work required under this Contract is substantially, but not entirely, complete and the approval of the **Final Approved Punch List**.

2.1.35 “**Work**” shall mean all services required to complete the Project in accordance with the Contract Documents, including without limitation, labor, material, superintendence, management, administration, equipment, and incidentals, and obtaining any and all permits, certifications and licenses as may be necessary and required to complete the Work, and shall include both Contract Work and Extra Work.

CHAPTER II: THE WORK AND ITS PERFORMANCE

ARTICLE 3. CHARACTER OF THE WORK

3.1 Unless otherwise expressly provided in the **Contract Drawings, Specifications, and Addenda**, the **Work** shall be performed in accordance with the best modern practice, utilizing, unless otherwise specified in writing, new and unused materials of standard first grade quality and workmanship and design of the highest quality, to the satisfaction of the **Commissioner**.

ARTICLE 4. MEANS AND METHODS OF CONSTRUCTION

4.1 Unless otherwise expressly provided in the **Contract Drawings, Specifications, and Addenda**, the **Means and Methods of Construction** shall be such as the **Contractor** may choose; subject, however, to the **Engineer’s** right to reject the **Means and Methods of Construction** proposed by the **Contractor** which in the opinion of the **Engineer**:

4.1.1 Will constitute or create a hazard to the **Work**, or to persons or property; or

4.1.2 Will not produce finished **Work** in accordance with the terms of the **Contract**; or

4.1.3 Will be detrimental to the overall progress of the **Project**.

4.2 The **Engineer’s** approval of the **Contractor’s Means and Methods of Construction**, or his/her failure to exercise his/her right to reject such means or methods, shall not relieve the **Contractor** of its obligation to complete the **Work** as provided in this **Contract**; nor shall the exercise of such right to reject

create a cause of action for damages.

ARTICLE 5. COMPLIANCE WITH LAWS

5.1 The **Contractor** shall comply with all **Laws** applicable to this **Contract** and to the **Work** to be done hereunder.

5.2 Procurement Policy Board Rules: This **Contract** is subject to the Rules of the **PPB** (“**PPB Rules**”) in effect at the time of the bid opening for this **Contract**. In the event of a conflict between the **PPB Rules** and a provision of this **Contract**, the **PPB Rules** shall take precedence.

5.3 Noise Control Code provisions.

5.3.1 In accordance with the provisions of Section 24-216(b) of the Administrative Code of the **City** (“**Administrative Code**”), Noise Abatement Contract Compliance, devices and activities which will be operated, conducted, constructed or manufactured pursuant to this **Contract** and which are subject to the provisions of the **City** Noise Control Code shall be operated, conducted, constructed, or manufactured without causing a violation of the Administrative Code. Such devices and activities shall incorporate advances in the art of noise control development for the kind and level of noise emitted or produced by such devices and activities, in accordance with regulations issued by the **Commissioner** of the **City** Department of Environmental Protection.

5.3.2 The **Contractor** agrees to comply with Section 24-219 of the Administrative Code and implementing rules codified at 15 Rules of the City of New York (“**RCNY**”) Section 28-100 *et seq.* In accordance with such provisions, the **Contractor**, if the **Contractor** is the responsible party under such regulations, shall prepare and post a Construction Noise Mitigation Plan at each **Site**, in which the **Contractor** shall certify that all construction tools and equipment have been maintained so that they operate at normal manufacturers operating specifications. If the **Contractor** cannot make this certification, it must have in place an Alternative Noise Mitigation Plan approved by the **City** Department of Environmental Protection. In addition, the **Contractor**’s certified Construction Noise Mitigation Plan is subject inspection by the **City** Department of Environmental Protection in accordance with Section 28-101 of Title 15 of RCNY. No **Contract Work** may take place at a **Site** unless there is a Construction Noise Mitigation Plan or approved Alternative Noise Mitigation Plan in place. In addition, the **Contractor** shall create and implement a noise mitigation training program. Failure to comply with these requirements may result in fines and other penalties pursuant to the applicable provisions of the Administrative Code and RCNY.

5.4 Ultra Low Sulfur Diesel Fuel: In accordance with the provisions of Section 24-163.3 of the Administrative Code, the **Contractor** specifically agrees as follows:

5.4.1 Definitions. For purposes of this Article 5.4, the following definitions apply:

5.4.1(a) “**Contractor**” means any person or entity that enters into a Public Works Contract with a **City Agency**, or any person or entity that enters into an agreement with such person or entity, to perform work or provide labor or services related to such Public Works Contract.

5.4.1(b) “**Motor Vehicle**” means any self-propelled vehicle designed for transporting

persons or property on a street or highway.

5.4.1(c) “Nonroad Engine” means an internal combustion engine (including the fuel system) that is not used in a Motor Vehicle or a vehicle used solely for competition, or that is not subject to standards promulgated under Section 7411 or Section 7521 of Title 42 of the United States Code, except that this term shall apply to internal combustion engines used to power generators, compressors or similar equipment used in any construction program or project.

5.4.1(d) “Nonroad Vehicle” means a vehicle that is powered by a Nonroad Engine, fifty (50) horsepower and greater, and that is not a Motor Vehicle or a vehicle used solely for competition, which shall include, but not be limited to, excavators, backhoes, cranes, compressors, generators, bulldozers, and similar equipment, except that this term shall not apply to horticultural maintenance vehicles used for landscaping purposes that are powered by a Nonroad Engine of sixty-five (65) horsepower or less and that are not used in any construction program or project.

5.4.1(e) “Public Works Contract” means a contract with a **City Agency** for a construction program or project involving the construction, demolition, restoration, rehabilitation, repair, renovation, or abatement of any building, structure, tunnel, excavation, roadway, park or bridge; a contract with a **City Agency** for the preparation for any construction program or project involving the construction, demolition, restoration, rehabilitation, repair, renovation, or abatement of any building, structure, tunnel, excavation, roadway, park or bridge; or a contract with a **City Agency** for any final work involved in the completion of any construction program or project involving the construction, demolition, restoration, rehabilitation, repair, renovation, or abatement of any building, structure, tunnel, excavation, roadway, park or bridge.

5.4.1(f) “Ultra Low Sulfur Diesel Fuel” means diesel fuel that has a sulfur content of no more than fifteen parts per million (15 ppm).

5.4.2 Ultra Low Sulfur Diesel Fuel

5.4.2(a) All **Contractors** shall use Ultra Low Sulfur Diesel Fuel in diesel-powered Nonroad Vehicles in the performance of this **Contract**.

5.4.2(b) Notwithstanding the requirements of Article 5.4.2(a), **Contractors** may use diesel fuel that has a sulfur content of no more than thirty parts per million (30 ppm) to fulfill the requirements of this Article 5.4.2, where the Commissioner of the **City Department of Environmental Protection** (“DEP Commissioner”) has issued a determination that a sufficient quantity of Ultra Low Sulfur Diesel Fuel is not available to meet the needs of **Agencies** and **Contractors**. Any such determination shall expire after six (6) months unless renewed.

5.4.2(c) **Contractors** shall not be required to comply with this Article 5.4.2 where the **City Agency** letting this **Contract** makes a written finding, which is approved, in writing, by the DEP Commissioner, that a sufficient quantity of Ultra Low Sulfur Diesel Fuel, or diesel fuel that has a sulfur content of no more than thirty parts per million (30 ppm) is not available to meet the requirements of Section 24-163.3 of the Administrative Code, provided that such **Contractor** in its fulfillment of the requirements of this **Contract**, to the extent practicable, shall use whatever quantity of Ultra Low Sulfur Diesel Fuel or diesel fuel that has a sulfur content of no more than thirty parts per

million (30 ppm) is available. Any finding made pursuant to this Article 5.4.2(c) shall expire after sixty (60) **Days**, at which time the requirements of this Article 5.4.2 shall be in full force and effect unless the **City Agency** renews the finding in writing and such renewal is approved by the DEP Commissioner.

5.4.2(d) **Contractors** may check on determinations and approvals issued by the DEP Commissioner pursuant to Section 24-163.3 of the Administrative Code, if any, at www.dep.nyc.gov or by contacting the **City Agency** letting this **Contract**.

5.4.2(e) The requirements of this Article 5.4.2 do not apply where they are precluded by federal or State funding requirements or where the **Contract** is an emergency procurement.

5.4.3 Best Available Technology

5.4.3(a) All **Contractors** shall utilize the best available technology for reducing the emission of pollutants for diesel-powered Nonroad Vehicles in the performance of this **Contract**. For determinations of best available technology for each type of diesel-powered Nonroad Vehicle, **Contractors** shall comply with the regulations of the **City Department of Environmental Protection**, as and when adopted, Chapter 14 of Title 15 of the Rules of the City of New York (RCNY). The **Contractor** shall fully document all steps in the best available technology selection process and shall furnish such documentation to the **City Agency** or the DEP Commissioner upon request. The **Contractor** shall retain all documentation generated in the best available technology selection process for as long as the selected best available technology is in use.

5.4.3(b) No **Contractor** shall be required to replace best available technology for reducing the emission of pollutants or other authorized technology utilized for a diesel-powered Nonroad Vehicle in accordance with the provisions of this Article 5.4.3 within three (3) years of having first utilized such technology for such vehicle.

5.4.3(c) This Article 5.4.3 shall not apply to any vehicle used to satisfy the requirements of a specific Public Works Contract for fewer than twenty (20) **Days**.

5.4.3(d) The **Contractor** shall not be required to comply with this Article 5.4.3 with respect to a diesel-powered Nonroad Vehicle under the following circumstances:

5.4.3(d)(i) Where the **City Agency** makes a written finding, which is approved, in writing, by the DEP Commissioner, that the best available technology for reducing the emission of pollutants as required by this Article 5.4.3 is unavailable for such vehicle, the **Contractor** shall use whatever technology for reducing the emission of pollutants, if any, is available and appropriate for such vehicle.

5.4.3(d)(ii) Where the DEP Commissioner has issued a written waiver based upon the Contractor having demonstrated to the DEP Commissioner that the use of the best available technology for reducing the emission of pollutants might endanger the operator of such vehicle or those working near such vehicle, due to engine malfunction, the **Contractor** shall use whatever technology for reducing the emission of pollutants, if any, is available and appropriate for such vehicle, which would not endanger the operator of such vehicle or those working near such vehicle.

5.4.3(d)(iii) In determining which technology to use for the purposes of Articles 5.4.3(d)(i) and 5.4.3(d)(ii) above, the **Contractor** shall primarily consider the reduction in emissions of particulate matter and secondarily consider the reduction in emissions of nitrogen oxides associated with the use of such technology, which shall in no event result in an increase in the emissions of either such pollutant.

5.4.3(d)(iv) The **Contractor** shall submit requests for a finding or a waiver pursuant to this Article 5.4.3(d) in writing to the DEP Commissioner, with a copy to the **ACCO** of the **City Agency** letting this **Contract**. Any finding or waiver made or issued pursuant to Articles 5.4.3(d)(i) and 5.4.3(d)(ii) above shall expire after one hundred eighty (180) **Days**, at which time the requirements of Article 5.4.3(a) shall be in full force and effect unless the **City Agency** renews the finding, in writing, and the DEP Commissioner approves such finding, in writing, or the DEP Commissioner renews the waiver, in writing.

5.4.3(e) The requirements of this Article 5.4.3 do not apply where they are precluded by federal or State funding requirements or where the **Contract** is an emergency procurement.

5.4.4 Section 24-163 of the Administrative Code. The **Contractor** shall comply with Section 24-163 of the Administrative Code related to the idling of the engines of motor vehicles while parking.

5.4.5 Compliance

5.4.5(a) The **Contractor's** compliance with Article 5.4 may be independently monitored. If it is determined that the **Contractor** has failed to comply with any provision of Article 5.4, any costs associated with any independent monitoring incurred by the **City** shall be reimbursed by the **Contractor**.

5.4.5(b) Any **Contractor** who violates any provision of Article 5.4, except as provided in Article 5.4.5(c) below, shall be liable for a civil penalty between the amounts of one thousand (\$1,000) and ten thousand (\$10,000) dollars, in addition to twice the amount of money saved by such **Contractor** for failure to comply with Article 5.4.

5.4.5(c) No **Contractor** shall make a false claim with respect to the provisions of Article 5.4 to a **City Agency**. Where a **Contractor** has been found to have done so, such **Contractor** shall be liable for a civil penalty of twenty thousand (\$20,000) dollars, in addition to twice the amount of money saved by such **Contractor** in association with having made such false claim.

5.4.6 Reporting

5.4.6(a) For all Public Works Contracts covered by this Article 5.4, the **Contractor** shall report to the **City Agency** the following information:

5.4.6(a)(i) The total number of diesel-powered Nonroad Vehicles used to fulfill the requirements of this Public Works Contract;

5.4.6(a)(ii) The number of such Nonroad Vehicles that were powered by Ultra Low Sulfur Diesel Fuel;

5.4.6(a)(iii) The number of such Nonroad Vehicles that utilized the best available technology for reducing the emission of pollutants, including a breakdown by vehicle model and the type of technology;

5.4.6(a)(iv) The number of such Nonroad Vehicles that utilized such other authorized technology in accordance with Article 5.4.3, including a breakdown by vehicle model and the type of technology used for each such vehicle;

5.4.6(a)(v) The locations where such Nonroad Vehicles were used; and

5.4.6(a)(vi) Where a determination is in effect pursuant to Article 5.4.2(b) or 5.4.2(c), detailed information concerning the **Contractor's** efforts to obtain Ultra Low Sulfur Diesel Fuel or diesel fuel that has a sulfur content of no more than thirty parts per million (30 ppm).

5.4.6(b) The **Contractor** shall submit the information required by Article 5.4.6(a) at the completion of **Work** under the Public Works Contract and on a yearly basis no later than August 1 throughout the term of the Public Works Contract. The yearly report shall cover **Work** performed during the preceding fiscal year (July 1 - June 30).

5.5 Ultra Low Sulfur Diesel Fuel. In accordance with the Coordinated Construction Act for Lower Manhattan, as amended:

5.5.1 Definitions. For purposes of this Article 5.5, the following definitions apply:

5.5.1(a) "Lower Manhattan" means the area to the south of and within the following lines: a line beginning at a point where the United States pierhead line in the Hudson River as it exists now or may be extended would intersect with the southerly line of West Houston Street in the Borough of Manhattan extended, thence easterly along the southerly side of West Houston Street to the southerly side of Houston Street, thence easterly along the southerly side of Houston Street to the southerly side of East Houston Street, thence northeasterly along the southerly side of East Houston Street to the point where it would intersect with the United States pierhead line in the East River as it exists now or may be extended, including tax lots within or immediately adjacent thereto.

5.5.1(b) "Lower Manhattan Redevelopment Project" means any project in Lower Manhattan that is funded in whole or in part with federal or State funding, or any project intended to improve transportation between Lower Manhattan and the two air terminals in the **City** known as LaGuardia Airport and John F. Kennedy International Airport, or between Lower Manhattan and the air terminal in Newark known as Newark Liberty International Airport, and that is funded in whole or in part with federal funding.

5.5.1(c) "Nonroad Engine" means an internal combustion engine (including the fuel system) that is not used in a Motor Vehicle or a vehicle used solely for competition, or that is not subject to standards promulgated under Section 7411 or Section 7521 of Title 42 of the United States Code, except that this term shall apply to internal combustion engines used to power generators, compressors or similar equipment used in any construction program or project.

5.5.1(d) "Nonroad Vehicle" means a vehicle that is powered by a Nonroad Engine, fifty (50) horsepower (HP) and greater, and that is not a Motor Vehicle or a vehicle used

solely for competition, which shall include, but not be limited to, excavators, backhoes, cranes, compressors, generators, bulldozers, and similar equipment, except that this terms shall not apply to horticultural maintenance vehicles used for landscaping purposes that are powered by a Nonroad Engine of sixty-five (65) HP or less and that are not used in any construction program or project.

5.5.1(e) "Ultra Low Sulfur Diesel Fuel" means diesel fuel that has a sulfur content of no more than fifteen parts per million (15 ppm).

5.5.2 Requirements. **Contractors** and **Subcontractors** are required to use only Ultra Low Sulfur Diesel Fuel to power the diesel-powered Nonroad Vehicles with engine HP rating of fifty (50) HP and above used on a Lower Manhattan Redevelopment Project and, where practicable, to reduce the emission of pollutants by retrofitting such Nonroad Vehicles with oxidation catalysts, particulate filters, or technology that achieves lowest particulate matter emissions.

5.6 Pesticides. In accordance with Section 17-1209 of the Administrative Code, to the extent that the **Contractor** or any **Subcontractor** applies pesticides to any property owned or leased by the **City**, the **Contractor**, and any **Subcontractor** shall comply with Chapter 12 of the Administrative Code.

5.7 Waste Treatment, Storage, and Disposal Facilities and Transporters. In connection with the **Work**, the **Contractor** and any **Subcontractor** shall use only those waste treatment, storage, and disposal facilities and waste transporters that possess the requisite license, permit or other governmental approval necessary to treat, store, dispose, or transport the waste, materials or hazardous substances.

5.8 Environmentally Preferable Purchasing. The **Contractor** shall ensure that products purchased or leased by the **Contractor** or any **Subcontractor** for the **Work** that are not specified by the **City** or are submitted as equivalents to a product specified by the **City** comply with the requirements of the New York City Environmentally Preferable Purchasing Program contained in Chapter 11 of Title 43 of the RCNY, pursuant to Chapter 3 of Title 6 of the Administrative Code.

ARTICLE 6. INSPECTION

6.1 During the progress of the **Work** and up to the date of **Final Acceptance**, the **Contractor** shall at all times afford the representatives of the **City** every reasonable, safe, and proper facility for inspecting all **Work** done or being done at the **Site** and also for inspecting the manufacture or preparation of materials and equipment at the place of such manufacture or preparation.

6.2 The **Contractor's** obligation hereunder shall include the uncovering or taking down of finished **Work** and its restoration thereafter; provided, however, that the order to uncover, take down and restore shall be in writing, and further provided that if **Work** thus exposed proves satisfactory, and if the **Contractor** has complied with Article 6.1, such uncovering or taking down and restoration shall be considered an item of **Extra Work** to be paid for in accordance with the provisions of Article 26. If the **Work** thus exposed proves unsatisfactory, the **City** has no obligation to compensate the **Contractor** for the uncovering, taking down or restoration.

6.3 Inspection and approval by the **Commissioner**, the **Engineer**, **Project Manager**, or **Resident Engineer**, of finished **Work** or of **Work** being performed, or of materials and equipment at the place of manufacture or preparation, shall not relieve the **Contractor** of its obligation to perform the **Work** in strict accordance with the **Contract**. Finished or unfinished **Work** not found to be in strict accordance with the

Contract shall be replaced as directed by the **Engineer**, even though such **Work** may have been previously approved and paid for. Such corrective **Work** is **Contract Work** and shall not be deemed **Extra Work**.

6.4 Rejected **Work** and materials shall be promptly taken down and removed from the **Site**, which must at all times be kept in a reasonably clean and neat condition.

ARTICLE 7. PROTECTION OF WORK AND OF PERSONS AND PROPERTY; NOTICES AND INDEMNIFICATION

7.1 During the performance of the **Work** and up to the date of **Final Acceptance**, the **Contractor** shall be under an absolute obligation to protect the finished and unfinished **Work** against any damage, loss, injury, theft and/or vandalism and in the event of such damage, loss, injury, theft and/or vandalism, it shall promptly replace and/or repair such **Work** at the **Contractor's** sole cost and expense, as directed by the **Resident Engineer**. The obligation to deliver finished **Work** in strict accordance with the **Contract** prior to **Final Acceptance** shall be absolute and shall not be affected by the **Resident Engineer's** approval of, or failure to prohibit, the **Means and Methods of Construction** used by the **Contractor**.

7.2 During the performance of the **Work** and up to the date of **Final Acceptance**, the **Contractor** shall take all reasonable precautions to protect all persons and the property of the **City** and of others from damage, loss or injury resulting from the **Contractor's**, and/or its **Subcontractors'** operations under this **Contract**. The **Contractor's** obligation to protect shall include the duty to provide, place or replace, and adequately maintain at or about the **Site** suitable and sufficient protection such as lights, barricades, and enclosures.

7.3 The **Contractor** shall comply with the notification requirements set forth below in the event of any loss, damage or injury to **Work**, persons or property, or any accidents arising out of the operations of the **Contractor** and/or its **Subcontractors** under this **Contract**.

7.3.1 The **Contractor** shall make a full and complete report in writing to the **Resident Engineer** within three (3) **Days** after the occurrence.

7.3.2 The **Contractor** shall also send written notice of any such event to all insurance carriers that issued potentially responsive policies (including commercial general liability insurance carriers for events relating to the **Contractor's** own employees) no later than twenty (20) days after such event and again no later than twenty (20) days after the initiation of any claim and/or action resulting therefrom. Such notice shall contain the following information: the number of the insurance policy, the name of the Named Insured, the date and location of the incident, and the identity of the persons injured or property damaged. For any policy on which the **City** and/or the **Engineer, Architect, or Project Manager** are Additional Insureds, such notice shall expressly specify that "this notice is being given on behalf of the City of New York as Additional Insured, such other Additional Insureds, as well as the Named Insured."

7.3.2(a) Whenever such notice is sent under a policy on which the **City** is an Additional Insured, the **Contractor** shall provide copies of the notice to the **Comptroller, the Commissioner** and the **City Corporation Counsel**. The copy to the **Comptroller** shall be sent to the Insurance Unit, NYC Comptroller's Office, 1 Centre Street – Room 1222, New York, New York, 10007. The copy to the **Commissioner** shall be sent to the address set forth in Schedule A of the General Conditions. The copy to the **City Corporation Counsel** shall be sent to Insurance Claims Specialist, Affirmative Litigation

Division, New York City Law Department, 100 Church Street, New York, New York 10007.

7.3.2(b) If the **Contractor** fails to provide any of the foregoing notices to any appropriate insurance carrier(s) in a timely and complete manner, the **Contractor** shall indemnify the **City** for all losses, judgments, settlements, and expenses, including reasonable attorneys' fees, arising from an insurer's disclaimer of coverage citing late notice by or on behalf of the **City**.

7.4 To the fullest extent permitted by law, the **Contractor** shall defend, indemnify, and hold the **City**, its employees, and officials (the "Indemnitees") harmless against any and all claims (including but not limited to claims asserted by any employee of the **Contractor** and/or its **Subcontractors**) and costs and expenses of whatever kind (including but not limited to payment or reimbursement of attorneys' fees and disbursements) allegedly arising out of or in any way related to the operations of the **Contractor** and/or its **Subcontractors** in the performance of this **Contract** or from the **Contractor's** and/or its **Subcontractors'** failure to comply with any of the provisions of this **Contract** or of the **Law**. Such costs and expenses shall include all those incurred in defending the underlying claim and those incurred in connection with the enforcement of this Article 7.4 by way of cross-claim, third-party claim, declaratory action or otherwise. The parties expressly agree that the indemnification obligation hereunder contemplates (1) full indemnity in the event of liability imposed against the Indemnitees without negligence and solely by reason of statute, operation of **Law** or otherwise; and (2) partial indemnity in the event of any actual negligence on the part of the Indemnitees either causing or contributing to the underlying claim (in which case, indemnification will be limited to any liability imposed over and above that percentage attributable to actual fault whether by statute, by operation of **Law**, or otherwise). Where partial indemnity is provided hereunder, all costs and expenses shall be indemnified on a pro rata basis.

7.4.1 Indemnification under Article 7.4 or any other provision of the **Contract** shall operate whether or not **Contractor** or its **Subcontractors** have placed and maintained the insurance specified under Article 22.

7.5 The provisions of this Article 7 shall not be deemed to create any new right of action in favor of third parties against the **Contractor** or the **City**.

CHAPTER III: TIME PROVISIONS

ARTICLE 8. COMMENCEMENT AND PROSECUTION OF THE WORK

8.1 The **Contractor** shall commence the **Work** on the date specified in the **Notice to Proceed** or the **Order to Work**. The time for performance of the **Work** under the **Contract** shall be computed from the date specified in the **Notice to Proceed** or the **Order to Work**. **TIME BEING OF THE ESSENCE** to the **City**, the **Contractor** shall thereafter prosecute the **Work** diligently, using such **Means and Methods of Construction** as are in accord with Article 4 herein and as will assure its completion not later than the date specified in this **Contract**, or on the date to which the time for completion may be extended.

ARTICLE 9. PROGRESS SCHEDULES

9.1 To enable the **Work** to be performed in an orderly and expeditious manner, the **Contractor**, within fifteen (15) **Days** after the **Notice to Proceed** or **Order to Work**, unless otherwise directed by the **Engineer**, shall submit to the **Engineer** a proposed progress schedule based on the Critical Path Method in the form of

a bar graph or in such other form as specified by the **Engineer**, and monthly cash flow requirements, showing:

9.1.1 The anticipated time of commencement and completion of each of the various operations to be performed under this **Contract**; and

9.1.2 The sequence and interrelation of each of these operations with the others and with those of other related contracts; and

9.1.3 The estimated time required for fabrication or delivery, or both, of all materials and equipment required for the **Work**, including the anticipated time for obtaining required approvals pursuant to Article 10; and

9.1.4 The estimated amount in dollars the **Contractor** will claim on a monthly basis.

9.2 The proposed schedule shall be revised as directed by the **Engineer**, until finally approved by the **Engineer**, and after such approval, subject to the provisions of Article 11, shall be strictly adhered to by the **Contractor**.

9.3 If the **Contractor** shall fail to adhere to the approved progress schedule, or to the schedule as revised pursuant to Article 11, it shall promptly adopt such other or additional **Means and Methods of Construction**, at its sole cost and expense, as will make up for the time lost and will assure completion in accordance with the approved progress schedule. The approval by the **City** of a progress schedule which is shorter than the time allotted under the **Contract** shall not create any liability for the **City** if the approved progress schedule is not met.

9.4 The **Contractor** will not receive any payments until the proposed progress schedule is submitted.

ARTICLE 10. REQUESTS FOR INFORMATION OR APPROVAL

10.1 From time to time as the **Work** progresses and in the sequence indicated by the approved progress schedule, the **Contractor** shall submit to the **Engineer** a specific request in writing for each item of information or approval required by the **Contractor**. These requests shall state the latest date upon which the information or approval is actually required by the **Contractor**, and shall be submitted in a reasonable time in advance thereof to provide the **Engineer** a sufficient time to act upon such submissions, or any necessary re-submissions thereof.

10.2 The **Contractor** shall not have any right to an extension of time on account of delays due to the **Contractor's** failure to submit requests for the required information or the required approval in accordance with the above requirements.

ARTICLE 11. NOTICE OF CONDITIONS CAUSING DELAY AND DOCUMENTATION OF DAMAGES CAUSED BY DELAY

11.1 After the commencement of any condition which is causing or may cause a delay in completion of the **Work**, including conditions for which the **Contractor** may be entitled to an extension of time, the following notifications and submittals are required:

11.1.1 Within fifteen (15) **Days** after the **Contractor** becomes aware or reasonably should be

aware of each such condition, the **Contractor** must notify the **Resident Engineer** or **Engineer**, as directed by the **Commissioner**, in writing of the existence, nature and effect of such condition upon the approved progress schedule and the **Work**, and must state why and in what respects, if any, the condition is causing or may cause a delay. Such notice shall include a description of the construction activities that are or could be affected by the condition and may include any recommendations the **Contractor** may have to address the delay condition and any activities the **Contractor** may take to avoid or minimize the delay.

11.1.2 If the **Contractor** shall claim to be sustaining damages for delay as provided for in this Article 11, within forty-five (45) **Days** from the time such damages are first incurred for each such condition, the **Contractor** shall submit to the **Commissioner** a verified written statement of the details and estimates of the amounts of such damages, including categories of expected damages and projected monthly costs, together with documentary evidence of such damages as the **Contractor** may have at the time of submission (“statement of delay damages”), as further detailed in Article 11.6. The **Contractor** may submit the above statement within such additional time as may be granted by the **Commissioner** in writing upon written request therefor.

11.1.3 Articles 11.1.1 and 11.1.2 do not relieve the **Contractor** of its obligation to comply with the provisions of Article 44.

11.2 Failure of the **Contractor** to strictly comply with the requirements of Article 11.1.1 may, in the discretion of the **Commissioner**, be deemed sufficient cause to deny any extension of time on account of delay arising out of such condition. Failure of the **Contractor** to strictly comply with the requirements of both Articles 11.1.1 and 11.1.2 shall be deemed a conclusive waiver by the **Contractor** of any and all claims for damages for delay arising from such condition and no right to recover on such claims shall exist.

11.3 When appropriate and directed by the **Engineer**, the progress schedule shall be revised by the **Contractor** until finally approved by the **Engineer**. The revised progress schedule must be strictly adhered to by the **Contractor**.

11.4 Compensable Delays

11.4.1 The **Contractor** agrees to make claim only for additional costs attributable to delay in the performance of this **Contract** necessarily extending the time for completion of the **Work** or resulting from acceleration directed by the **Commissioner** and required to maintain the progress schedule, occasioned solely by any act or omission to act of the **City** listed below. The **Contractor** also agrees that delay from any other cause shall be compensated, if at all, solely by an extension of time to complete the performance of the **Work**.

11.4.1.1 The failure of the **City** to take reasonable measures to coordinate and progress the **Work** to the extent required by the **Contract**, except that the **City** shall not be responsible for the **Contractor’s** obligation to coordinate and progress the **Work** of its **Subcontractors**.

11.4.1.2 Unreasonable delays attributable to the review of shop drawings, the issuance of change orders, or the cumulative impact of change orders that were not brought about by any act or omission of the **Contractor**.

11.4.1.3 The unavailability of the **Site** caused by acts or omissions of the **City**.

11.4.1.4 The issuance by the **Engineer** of a stop work order that was not brought about through any act or omission of the **Contractor**.

11.4.1.5 Differing site conditions or environmental hazards that were neither known nor reasonably ascertainable on a pre-bid inspection of the **Site** or review

of the bid documents or other publicly available sources, and that are not ordinarily encountered in the **Project's** geographical area or neighborhood or in the type of **Work** to be performed.

11.4.1.6 Delays caused by the **City's** bad faith or its willful, malicious, or grossly negligent conduct;

11.4.1.7 Delays not contemplated by the parties;

11.4.1.8 Delays so unreasonable that they constitute an intentional abandonment of the **Contract** by the **City**; and

11.4.1.9 Delays resulting from the **City's** breach of a fundamental obligation of the **Contract**.

11.4.2 No claim may be made for any alleged delay in **Substantial Completion** of the **Work** if the **Work** will be or is substantially completed by the date of **Substantial Completion** provided for in Schedule A unless acceleration has been directed by the **Commissioner** to meet the date of **Substantial Completion** set forth in Schedule A, or unless there is a provision in the **Contract** providing for additional compensation for early completion.

11.4.3 The provisions of this Article 11 apply only to claims for additional costs attributable to delay and do not preclude determinations by the **Commissioner** allowing reimbursements for additional costs for **Extra Work** pursuant to Articles 25 and 26 of this **Contract**. To the extent that any cost attributable to delay is reimbursed as part of a change order, no additional claim for compensation under this Article 11 shall be allowed.

11.5 Non-Compensable Delays. The **Contractor** agrees to make no claim for, and is deemed to have included in its bid prices for the various items of the **Contract**, the extra/additional costs attributable to any delays caused by or attributable to the items set forth below. For such items, the **Contractor** shall be compensated, if at all, solely by an extension of time to complete the performance of the **Work**, in accordance with the provisions of Article 13. Such extensions of time will be granted, if at all, pursuant to the grounds set forth in Article 13.3.

11.5.1 The acts or omissions of any third parties, including but not limited to **Other Contractors**, public/ governmental bodies (other than **City Agencies**), utilities or private enterprises, who are disclosed in the **Contract Documents** or are ordinarily encountered or generally recognized as related to the **Work**;

11.5.2 Any situation which was within the contemplation of the parties at the time of entering into the **Contract**, including any delay indicated or disclosed in the **Contract Documents** or that would be generally recognized by a reasonably prudent contractor as related to the nature of the **Work**, and/or the existence of any facility or appurtenance owned, operated or maintained by any third party, as indicated or disclosed in the **Contract Documents** or ordinarily encountered or generally recognized as related to the nature of the **Work**;

11.5.3 Restraining orders, injunctions or judgments issued by a court which were caused by a Contractor's submission, action or inaction or by a Contractor's **Means and Methods of Construction**, or by third parties, unless such order, injunction or judgment was the result of an act or omission by the **City**;

11.5.4 Any labor boycott, strike, picketing, lockout or similar situation;

11.5.5 Any shortages of supplies or materials, or unavailability of equipment, required by the **Contract Work**;

11.5.6 Climatic conditions, storms, floods, droughts, tidal waves, fires, hurricanes, earthquakes, landslides or other catastrophes or acts of God, or acts of war or of the public enemy or terrorist acts, including the **City's** reasonable responses thereto; and

11.5.7 **Extra Work** which does not significantly affect the overall completion of the **Contract**, reasonable delays in the review or issuance of change orders or field orders and/or in shop drawing reviews or approvals.

11.6 Required Content of Submission of Statement of Delay Damages

11.6.1 In the verified written statement of delay damages required by Article 11.1.2, the following information shall be provided by the **Contractor**:

11.6.1.1 For each delay, the start and end dates of the claimed periods of delay and, in addition, a description of the operations that were delayed, an explanation of how they were delayed, and the reasons for the delay, including identifying the applicable act or omission of the City listed in Article 11.4.

11.6.1.2 A detailed factual statement of the claim providing all necessary dates, locations and items of **Work** affected by the claim.

11.6.1.3 The estimated amount of additional compensation sought and a breakdown of that amount into categories as described in Article 11.7.

11.6.1.4 Any additional information requested by the **Commissioner**.

11.7 Recoverable Costs

11.7.1 Delay damages may be recoverable for the following costs actually and necessarily incurred in the performance of the **Work**:

11.7.1.1 Direct labor, including payroll taxes (subject to statutory wage caps) and supplemental benefits, based on time and materials records;

11.7.1.2 Necessary materials (including transportation to the **Site**), based on time and material records;

11.7.1.3 Reasonable rental value of necessary plant and equipment other than small tools, plus fuel/energy costs according to the applicable formula set forth in Articles 26.2.4 and/or 26.2.8, based on time and material records;

11.7.1.4 Additional insurance and bond costs;

11.7.1.5 Extended **Site** overhead, field office rental, salaries of field office staff, on-site project managers and superintendents, field office staff vehicles, **Project**-specific storage, field office utilities and telephone, and field office consumables;

11.7.1.6 Labor escalation costs based on actual costs;

11.7.1.7 Materials and equipment escalation costs based on applicable industry indices unless documentation of actual increased cost is provided;

11.7.1.8 Additional material and equipment storage costs based on actual documented costs and additional costs necessitated by extended manufacturer warranty periods; and

11.7.1.9 Extended home office overhead calculated based on the following formula:
(1) Subtract from the original **Contract** amount the amount earned by original contractual **Substantial Completion** date (not

- including change orders);
- (2) Remove 15% overhead and profit from the calculation in item (1) by dividing the results of item (1) by 1.15;
- (3) Multiply the result of item (2) by 7.25% for the total home office overhead;
- (4) Multiply the result of item (3) by 7.25% for the total profit; and
- (5) The total extended home office overhead will be the total of items (3) and (4).

11.7.2 Recoverable Subcontractor Costs. When the **Work** is performed by a **Subcontractor**, the **Contractor** may be paid the actual and necessary costs of such subcontracted **Work** as outlined above in Articles 11.7.1.1 through 11.7.1.8, and an additional overhead of 5% of the costs outlined in Articles 11.7.1.1 through 11.7.1.3.

11.7.3 Non-Recoverable Costs. The parties agree that the **City** will have no liability for the following items and the **Contractor** agrees it shall make no claim for the following items:

- 11.7.3.1 Profit, or loss of anticipated or unanticipated profit, except as provided in Article 11.7.1.9;
- 11.7.3.2 Consequential damages, including, but not limited to, construction or bridge loans or interest paid on such loans, loss of bonding capacity, bidding opportunities, or interest in investment, or any resulting insolvency;
- 11.7.3.3 Indirect costs or expenses of any nature except those included in Article 11.7.1;
- 11.7.3.4 Direct or indirect costs attributable to performance of **Work** where the **Contractor**, because of situations or conditions within its control, has not progressed the **Work** in a satisfactory manner; and
- 11.7.3.5 Attorneys' fees and dispute and claims preparation expenses.

11.8 Any claims for delay under this Article 11 are not subject to the jurisdiction of the Contract Dispute Resolution Board pursuant to the dispute resolution process set forth in Article 27.

11.9 Any compensation provided to the **Contractor** in accordance with this Article 11 will be made pursuant to a claim filed with the **Comptroller**. Nothing in this Article 11 extends the time for the **Contractor** to file an action with respect to a claim within six months after **Substantial Completion** pursuant to Article 56.

ARTICLE 12. COORDINATION WITH OTHER CONTRACTORS

12.1 During the progress of the **Work**, **Other Contractors** may be engaged in performing other work or may be awarded other contracts for additional work on this **Project**. In that event, the **Contractor** shall coordinate the **Work** to be done hereunder with the work of such **Other Contractors** and the **Contractor** shall fully cooperate with such **Other Contractors** and carefully fit its own **Work** to that provided under other contracts as may be directed by the **Engineer**. The **Contractor** shall not commit or permit any act which will interfere with the performance of work by any **Other Contractors**.

12.2 If the **Engineer** determines that the **Contractor** is failing to coordinate its **Work** with the work of **Other Contractors** as the **Engineer** has directed, then the **Commissioner** shall have the right to withhold any payments otherwise due hereunder until the **Contractor** completely complies with the **Engineer's** directions.

12.3 The **Contractor** shall notify the **Engineer** in writing if any **Other Contractor** on this **Project** is failing to coordinate its work with the **Work** of this **Contract**. If the **Engineer** finds such charges to be true, the **Engineer** shall promptly issue such directions to the **Other Contractor** with respect thereto as the situation may require. The **City** shall not, however, be liable for any damages suffered by any **Other Contractor's** failure to coordinate its work with the **Work** of this **Contract** or by reason of the **Other Contractor's** failure to promptly comply with the directions so issued by the **Engineer**, or by reason of any **Other Contractor's** default in performance, it being understood that the **City** does not guarantee the responsibility or continued efficiency of any contractor. The **Contractor** agrees to make no claim against the **City** for any damages relating to or arising out of any directions issued by the **Engineer** pursuant to this Article 12 (including but not limited to the failure of any **Other Contractor** to comply or promptly comply with such directions), or the failure of any **Other Contractor** to coordinate its work, or the default in performance of any **Other Contractor**.

12.4 The **Contractor** shall indemnify and hold the **City** harmless from any and all claims or judgments for damages and from costs and expenses to which the **City** may be subjected or which it may suffer or incur by reason of the **Contractor's** failure to comply with the **Engineer's** directions promptly; and the **Comptroller** shall have the right to exercise the powers reserved in Article 23 with respect to any claims which may be made for damages due to the **Contractor's** failure to comply with the **Engineer's** directions promptly. Insofar as the facts and **Law** relating to any claim would preclude the **City** from being completely indemnified by the **Contractor**, the **City** shall be partially indemnified by the **Contractor** to the fullest extent provided by **Law**.

12.5 Should the **Contractor** sustain any damage through any act or omission of any **Other Contractor** having a contract with the **City** for the performance of work upon the **Site** or of work which may be necessary to be performed for the proper prosecution of the **Work** to be performed hereunder, or through any act or omission of a subcontractor of such **Other Contractor**, the **Contractor** shall have no claim against the **City** for such damage, but shall have a right to recover such damage from the **Other**

12.5 **Contractor** under the provision similar to the following provisions which apply to this Contract and have been or will be inserted in the contracts with such Other Contractors:

12.5.1 Should any **Other Contractor** having or who shall hereafter have a contract with the **City** for the performance of work upon the **Site** sustain any damage through any act or omission of the **Contractor** hereunder or through any act or omission of any **Subcontractor** of the **Contractor**, the **Contractor** agrees to reimburse such **Other Contractor** for all such damages and to defend at its own expense any action based upon such claim and if any judgment or claim (even if the allegations of the action are without merit) against the **City** shall be allowed the **Contractor** shall pay or satisfy such judgment or claim and pay all costs and expenses in connection therewith and agrees to indemnify and hold the **City** harmless from all such claims. Insofar as the facts and **Law** relating to any claim would preclude the **City** from being completely indemnified by the **Contractor**, the **City** shall be partially indemnified by the **Contractor** to the fullest extent provided by **Law**.

12.6 The **City's** right to indemnification hereunder shall in no way be diminished, waived or discharged by its recourse to assessment of liquidated damages as provided in Article 15, or by the exercise of any other remedy provided for by **Contract** or by **Law**.

ARTICLE 13. EXTENSION OF TIME FOR PERFORMANCE

13.1 If performance by the **Contractor** is delayed for a reason set forth in Article 13.3, the **Contractor** may be allowed a reasonable extension of time in conformance with this Article 13 and the **PPB**

Rules.

13.2 Any extension of time may be granted only by the **ACCO** or by the Board for the Extension of Time (hereafter “Board”) (as set forth below) upon written application by the **Contractor**.

13.3 Grounds for Extension: If such application is made, the **Contractor** shall be entitled to an extension of time for delay in completion of the **Work** caused solely:

13.3.1 By the acts or omissions of the **City**, its officials, agents or employees; or

13.3.2 By the act or omissions of **Other Contractors** on this **Project**; or

13.3.3 By supervening conditions entirely beyond the control of either party hereto (such as, but not limited to, acts of God or the public enemy, excessive inclement weather, war or other national emergency making performance temporarily impossible or illegal, or strikes or labor disputes not brought about by any act or omission of the **Contractor**).

13.3.4 The **Contractor** shall, however, be entitled to an extension of time for such causes only for the number of **Days** of delay which the **ACCO** or the Board may determine to be due solely to such causes, and then only if the **Contractor** shall have strictly complied with all of the requirements of Articles 9 and 10.

13.4 The **Contractor** shall not be entitled to receive a separate extension of time for each of several causes of delay operating concurrently, but, if at all, only for the actual period of delay in completion of the **Work** as determined by the **ACCO** or the Board, irrespective of the number of causes contributing to produce such delay. If one of several causes of delay operating concurrently results from any act, fault or omission of the **Contractor** or of its **Subcontractors** or **Materialmen**, and would of itself (irrespective of the concurrent causes) have delayed the **Work**, no extension of time will be allowed for the period of delay resulting from such act, fault or omission.

13.5 The determination made by the **ACCO** or the Board on an application for an extension of time shall be binding and conclusive on the **Contractor**.

13.6 The **ACCO** or the Board acting entirely within their discretion may grant an application for an extension of time for causes of delay other than those herein referred.

13.7 Permitting the **Contractor** to continue with the **Work** after the time fixed for its completion has expired, or after the time to which such completion may have been extended has expired, or the making of any payment to the **Contractor** after such time, shall in no way operate as a waiver on the part of the **City** of any of its rights under this **Contract**.

13.8 Application for Extension of Time:

13.8.1 Before the **Contractor’s** time extension request will be considered, the **Contractor** shall notify the **ACCO** of the condition which allegedly has caused or is causing the delay, and shall submit a written application to the **ACCO** identifying:

13.8.1(a) The **Contractor**; the registration number; and **Project** description;

13.8.1(b) Liquidated damage assessment rate, as specified in the **Contract**;

13.8.1(c) Original total bid price;

13.8.1(d) The original **Contract** start date and completion date;

13.8.1(e) Any previous time extensions granted (number and duration); and

13.8.1(f) The extension of time requested.

13.8.2 In addition, the application for extension of time shall set forth in detail:

13.8.2(a) The nature of each alleged cause of delay in completing the **Work**;

13.8.2(b) The date upon which each such cause of delay began and ended and the number of **Days** attributable to each such cause;

13.8.2(c) A statement that the **Contractor** waives all claims except for those delineated in the application, and the particulars of any claims which the **Contractor** does not agree to waive. For time extensions for **Substantial Completion** and final completion payments, the application shall include a detailed statement of the dollar amounts of each element of claim item reserved; and

13.8.2(d) A statement indicating the **Contractor's** understanding that the time extension is granted only for purposes of permitting continuation of **Contract** performance and payment for **Work** performed and that the **City** retains its right to conduct an investigation and assess liquidated damages as appropriate in the future.

13.9 Analysis and Approval of Time Extensions:

13.9.1 For time extensions for partial payments, a written determination shall be made by the **ACCO** who may, for good and sufficient cause, extend the time for the performance of the **Contract** as follows:

13.9.1(a) If the **Work** is to be completed within six (6) months, the time for performance may be extended for sixty (60) **Days**;

13.9.1(b) If the **Work** is to be completed within less than one (1) year but more than six (6) months, an extension of ninety (90) **Days** may be granted;

13.9.1(c) If the **Contract** period exceeds one (1) year, besides the extension granted in Article 13.9.1(b), an additional thirty (30) **Days** may be granted for each multiple of six (6) months involved beyond the one (1) year period; or

13.9.1(d) If exceptional circumstances exist, the **ACCO** may extend the time for performance beyond the extensions in Articles 13.9.1(a), 13.9.1(b), and 13.9.1(c). In that event, the **ACCO** shall file with the Mayor's Office of Contract Services a written explanation of the exceptional circumstances.

13.9.2 For extensions of time for **Substantial Completion** and final completion payments, the **Engineer**, in consultation with the **ACCO**, shall prepare a written analysis of the delay (including a preliminary determination of the causes of delay, the beginning and end dates for each such cause of delay, and whether the delays are excusable under the terms of this **Contract**). The report shall be subject to review by and approval of the Board, which shall have authority to question its analysis and determinations and request additional facts or documentation. The report as reviewed and made final by the Board shall be made a part of the **Agency** contract file. Neither the report itself nor anything contained therein shall operate as a

waiver or release of any claim the **City** may have against the **Contractor** for either actual or liquidated damages.

13.9.3 Approval Mechanism for Time Extensions for **Substantial Completion** or Final Completion Payments: An extension shall be granted only with the approval of the Board which is comprised of the **ACCO** of the **Agency**, the **City** Corporation Counsel, and the **Comptroller**, or their authorized representatives.

13.9.4 Neither the granting of any application for an extension of time to the **Contractor** or any **Other Contractor** on this **Project** nor the papers, records or reports related to any application for or grant of an extension of time or determination related thereto shall be referred to or offered in evidence by the **Contractor** or its attorneys in any action or proceeding.

13.10 No Damage for Delay: The **Contractor** agrees to make no claim for damages for delay in the performance of this **Contract** occasioned by any act or omission to act of the **City** or any of its representatives, except as provided for in Article 11.

ARTICLE 14. COMPLETION AND FINAL ACCEPTANCE OF THE WORK

14.1 Date for **Substantial Completion**: The **Contractor** shall substantially complete the **Work** within the time fixed in Schedule A of the General Conditions, or within the time to which such **Substantial Completion** may be extended.

14.2 Determining the Date of **Substantial Completion**: The **Work** will be deemed to be substantially complete when the two conditions set forth below have been met.

14.2.1 Inspection: The **Engineer** or **Resident Engineer**, as applicable, has inspected the **Work** and has made a written determination that it is substantially complete.

14.2.2 Approval of **Final Approved Punch List** and Date for **Final Acceptance**: Following inspection of the **Work**, the **Engineer/Resident Engineer** shall furnish the **Contractor** with a final punch list, specifying all items of **Work** to be completed and proposing dates for the completion of each specified item of **Work**. The **Contractor** shall then submit in writing to the **Engineer/Resident Engineer** within ten (10) **Days** of the **Engineer/Resident Engineer** furnishing the final punch list either acceptance of the dates or proposed alternative dates for the completion of each specified item of **Work**. If the **Contractor** neither accepts the dates nor proposes alternative dates within ten (10) **Days**, the schedule proposed by the **Engineer/Resident Engineer** shall be deemed accepted. If the **Contractor** proposes alternative dates, then, within a reasonable time after receipt, the **Engineer/Resident Engineer**, in a written notification to the **Contractor**, shall approve the **Contractor's** completion dates or, if they are unable to agree, the **Engineer/Resident Engineer** shall establish dates for the completion of each item of **Work**. The latest completion date specified shall be the date for **Final Acceptance** of the **Work**.

14.3 Date of **Substantial Completion**. The date of approval of the **Final Approved Punch List**, shall be the date of **Substantial Completion**. The date of approval of the **Final Approved Punch List** shall be either (a) if the **Contractor** approves the final punch list and proposed dates for completion furnished by the **Engineer/Resident Engineer**, the date of the **Contractor's** approval; or (b) if the **Contractor** neither accepts the dates nor proposes alternative dates, ten (10) **Days** after the **Engineer/Resident Engineer** furnishes the **Contractor** with a final punch list and proposed dates for completion; or (c) if the **Contractor** proposes alternative dates, the date that the **Engineer/Resident Engineer** sends written notification to the

Contractor either approving the **Contractor's** proposed alternative dates or establishing dates for the completion for each item of **Work**.

14.4 Determining the Date of **Final Acceptance**: The **Work** will be accepted as final and complete as of the date of the **Engineer's/Resident Engineer's** inspection if, upon such inspection, the **Engineer/Resident Engineer** finds that all items on the **Final Approved Punch List** are complete and no further **Work** remains to be done. The **Commissioner** will then issue a written determination of **Final Acceptance**.

14.5 Request for Inspection: Inspection of the **Work** by the **Engineer/Resident Engineer** for the purpose of **Substantial Completion** or **Final Acceptance** shall be made within fourteen (14) **Days** after receipt of the **Contractor's** written request therefor.

14.6 Request for Re-inspection: If upon inspection for the purpose of **Substantial Completion** or **Final Acceptance**, the **Engineer/Resident Engineer** determines that there are items of **Work** still to be performed, the **Contractor** shall promptly perform them and then request a re-inspection. If upon re-inspection, the **Engineer/Resident Engineer** determines that the **Work** is substantially complete or finally accepted, the date of such re-inspection shall be the date of **Substantial Completion** or **Final Acceptance**. Re-inspection by the **Engineer/Resident Engineer** shall be made within ten (10) **Days** after receipt of the **Contractor's** written request therefor.

14.7 Initiation of Inspection by the **Engineer/Resident Engineer**: If the **Contractor** does not request inspection or re-inspection of the **Work** for the purpose of **Substantial Completion** or **Final Acceptance**, the **Engineer/Resident Engineer** may initiate such inspection or re-inspection.

ARTICLE 15. LIQUIDATED DAMAGES

15.1 In the event the **Contractor** fails to substantially complete the **Work** within the time fixed for such **Substantial Completion** in Schedule A of the General Conditions, plus authorized time extensions, or if the **Contractor**, in the sole determination of the **Commissioner**, has abandoned the **Work**, the **Contractor** shall pay to the **City** the sum fixed in Schedule A of the General Conditions, for each and every **Day** that the time consumed in substantially completing the **Work** exceeds the time allowed therefor; which said sum, in view of the difficulty of accurately ascertaining the loss which the **City** will suffer by reason of delay in the **Substantial Completion** of the **Work** hereunder, is hereby fixed and agreed as the liquidated damages that the **City** will suffer by reason of such delay, and not as a penalty. This Article 15 shall also apply to the **Contractor** whether or not the **Contractor** is defaulted pursuant to Chapter X of this **Contract**. Neither the failure to assess liquidated damages nor the granting of any time extension shall operate as a waiver or release of any claim the **City** may have against the **Contractor** for either actual or liquidated damages.

15.2 Liquidated damages received hereunder are not intended to be nor shall they be treated as either a partial or full waiver or discharge of the **City's** right to indemnification, or the **Contractor's** obligation to indemnify the **City**, or to any other remedy provided for in this **Contract** or by **Law**.

15.3 The **Commissioner** may deduct and retain out of the monies which may become due hereunder, the amount of any such liquidated damages; and in case the amount which may become due hereunder shall be less than the amount of liquidated damages suffered by the **City**, the **Contractor** shall be liable to pay the difference.

ARTICLE 16. OCCUPATION OR USE PRIOR TO COMPLETION

16.1 Unless otherwise provided for in the **Specifications**, the **Commissioner** may take over, use, occupy or operate any part of the **Work** at any time prior to **Final Acceptance**, upon written notification to the **Contractor**. The **Engineer** or **Resident Engineer**, as applicable, shall inspect the part of the **Work** to be taken over, used, occupied, or operated, and will furnish the **Contractor** with a written statement of the **Work**, if any, which remains to be performed on such part. The **Contractor** shall not object to, nor interfere with, the **Commissioner's** decision to exercise the rights granted by Article 16. In the event the **Commissioner** takes over, uses, occupies, or operates any part of the **Work**:

16.1.1 the **Engineer/Resident Engineer** shall issue a written determination of **Substantial Completion** with respect to such part of the **Work**;

16.1.2 the **Contractor** shall be relieved of its absolute obligation to protect such part of the unfinished **Work** in accordance with Article 7;

16.1.3 the **Contractor's** guarantee on such part of the **Work** shall begin on the date of such use by the **City**; and;

16.1.4 the **Contractor** shall be entitled to a return of so much of the amount retained in accordance with Article 21 as it relates to such part of the **Work**, except so much thereof as may be retained under Articles 24 and 44.

CHAPTER IV: SUBCONTRACTS AND ASSIGNMENTS

ARTICLE 17. SUBCONTRACTS

17.1 The **Contractor** shall not make subcontracts totaling an amount more than the percentage of the total **Contract** price fixed in Schedule A of the General Conditions, without prior written permission from the **Commissioner**. All subcontracts made by the **Contractor** shall be in writing. No **Work** may be performed by a **Subcontractor** prior to the **Contractor** entering into a written subcontract with the **Subcontractor** and complying with the provisions of this Article 17.

17.2 Before making any subcontracts, the **Contractor** shall submit a written statement to the **Commissioner** giving the name and address of the proposed **Subcontractor**; the portion of the **Work** and materials which it is to perform and furnish; the cost of the subcontract; the VENDEX questionnaire if required; the proposed subcontract if requested by the **Commissioner**; and any other information tending to prove that the proposed **Subcontractor** has the necessary facilities, skill, integrity, past experience, and financial resources to perform the **Work** in accordance with the terms and conditions of this **Contract**.

17.3 In addition to the requirements in Article 17.2, **Contractor** is required to list the **Subcontractor** in the web based Subcontractor Reporting System through the City's Payee Information Portal (PIP), available at www.nyc.gov/pip.¹ For each **Subcontractor** listed, **Contractor** is required to provide the following information: maximum contract value, description of **Subcontractor's** Work, start and end date of the subcontract and identification of the **Subcontractor's** industry. Thereafter, **Contractor** will be required to report in the system the payments made to each **Subcontractor** within 30 days of making the

¹ In order to use the new system, a PIP account will be required. Detailed instructions on creating a PIP account and using the new system are also available at www.nyc.gov/pip. Additional assistance with PIP may be obtained by emailing the Financial Information Services Agency Help Desk at pip@fisa.nyc.gov.

payment. If any of the required information changes throughout the Term of the **Contract**, **Contractor** will be required to revise the information in the system.

Failure of the **Contractor** to list a **Subcontractor** and/or to report **Subcontractor** payments in a timely fashion may result in the **Commissioner** declaring the **Contractor** in default of the **Contract** and will subject **Contractor** to liquidated damages in the amount of \$100 per day for each day that the **Contractor** fails to identify a **Subcontractor** along with the required information about the **Subcontractor** and/or fails to report payments to a **Subcontractor**, beyond the time frames set forth herein or in the notice from the **City**. Article 15 shall govern the issue of liquidated damages.

17.4 If an approved **Subcontractor** elects to subcontract any portion of its subcontract, the proposed sub-subcontract shall be submitted in the same manner as directed above.

17.5 The **Commissioner** will notify the **Contractor** in writing whether the proposed **Subcontractor** is approved. If the proposed **Subcontractor** is not approved, the **Contractor** may submit another proposed **Subcontractor** unless the **Contractor** decides to do the **Work**. No **Subcontractor** shall be permitted to enter or perform any work on the **Site** unless approved.

17.6 Before entering into any subcontract hereunder, the **Contractor** shall provide the proposed **Subcontractor** with a complete copy of this document and inform the proposed **Subcontractor** fully and completely of all provisions and requirements of this **Contract** relating either directly or indirectly to the **Work** to be performed and the materials to be furnished under such subcontract, and every such **Subcontractor** shall expressly stipulate that all labor performed and materials furnished by the **Subcontractor** shall strictly comply with the requirements of this **Contract**.

17.7 Documents given to a prospective **Subcontractor** for the purpose of soliciting the **Subcontractor's** bid shall include either a copy of the bid cover or a separate information sheet setting forth the **Project** name, the **Contract** number (if available), the **Agency** (as noted in Article 2.1.6), and the **Project's** location.

17.8 The **Commissioner's** approval of a **Subcontractor** shall not relieve the **Contractor** of any of its responsibilities, duties, and liabilities hereunder. The **Contractor** shall be solely responsible to the **City** for the acts or defaults of its **Subcontractor** and of such **Subcontractor's** officers, agents, and employees, each of whom shall, for this purpose, be deemed to be the agent or employee of the **Contractor** to the extent of its subcontract.

17.9 If the **Subcontractor** fails to maintain the necessary facilities, skill, integrity, past experience, and financial resources (other than due to the **Contractor's** failure to make payments where required) to perform the **Work** in accordance with the terms and conditions of this **Contract**, the **Contractor** shall promptly notify the **Commissioner** and replace such **Subcontractor** with a newly approved **Subcontractor** in accordance with this Article 17.

17.10 The **Contractor** shall be responsible for ensuring that all **Subcontractors** performing **Work** at the **Site** maintain all insurance required by **Law**.

17.11 The **Contractor** shall promptly, upon request, file with the **Engineer** a conformed copy of the subcontract and its cost. The subcontract shall provide the following:

17.11.1 Payment to **Subcontractors**: The agreement between the **Contractor** and its **Subcontractor** shall contain the same terms and conditions as to method of payment for **Work**, labor, and materials, and as to retained percentages, as are contained in this **Contract**.

17.11.2 Prevailing Rate of Wages: The agreement between the **Contractor** and its **Subcontractor** shall include the prevailing wage rates and supplemental benefits to be paid in accordance with Labor Law Section 220.

17.11.3 Section 6-123 of the Administrative Code: Pursuant to the requirements of Section 6-123 of the Administrative Code, every agreement between the **Contractor** and a **Subcontractor** in excess of fifty thousand (\$50,000) dollars shall include a provision that the **Subcontractor** shall not engage in any unlawful discriminatory practice as defined in Title VIII of the Administrative Code (Section 8-101 *et seq.*).

17.11.4 All requirements required pursuant to federal and/or state grant agreement(s), if applicable to the **Work**.

17.12 The **Commissioner** may deduct from the amounts certified under this **Contract** to be due to the **Contractor**, the sum or sums due and owing from the **Contractor** to the **Subcontractors** according to the terms of the said subcontracts, and in case of dispute between the **Contractor** and its **Subcontractor**, or **Subcontractors**, as to the amount due and owing, the **Commissioner** may deduct and withhold from the amounts certified under this **Contract** to be due to the **Contractor** such sum or sums as may be claimed by such **Subcontractor**, or **Subcontractors**, in a sworn affidavit, to be due and owing until such time as such claim or claims shall have been finally resolved.

17.13 On contracts where performance bonds and payment bonds are executed, the **Contractor** shall include on each requisition for payment the following data: **Subcontractor's** name, value of the subcontract, total amount previously paid to **Subcontractor** for **Work** previously requisitioned, and the amount, including retainage, to be paid to the **Subcontractor** for **Work** included in the requisition.

17.14 On **Contracts** where performance bonds and payment bonds are not executed, the **Contractor** shall include with each requisition for payment submitted hereunder, a signed statement from each and every **Subcontractor** and/or **Materialman** for whom payment is requested in such requisition. Such signed statement shall be on the letterhead of the **Subcontractor** and/or **Materialman** for whom payment is requested and shall (i) verify that such **Subcontractor** and/or **Materialman** has been paid in full for all **Work** performed and/or material supplied to date, exclusive of any amount retained and any amount included on the current requisition, and (ii) state the total amount of retainage to date, exclusive of any amount retained on the current requisition.

ARTICLE 18. ASSIGNMENTS

18.1 The **Contractor** shall not assign, transfer, convey or otherwise dispose of this **Contract**, or the right to execute it, or the right, title or interest in or to it or any part thereof, or assign, by power of attorney or otherwise any of the monies due or to become due under this **Contract**, unless the previous written consent of the **Commissioner** shall first be obtained thereto, and the giving of any such consent to a particular assignment shall not dispense with the necessity of such consent to any further or other assignments.

18.2 Such assignment, transfer, conveyance or other disposition of this **Contract** shall not be valid until filed in the office of the **Commissioner** and the **Comptroller**, with the written consent of the **Commissioner** endorsed thereon or attached thereto.

18.3 Failure to obtain the previous written consent of the **Commissioner** to such an assignment,

transfer, conveyance or other disposition, may result in the revocation and annulment of this **Contract**. The **City** shall thereupon be relieved and discharged from any further liability to the **Contractor**, its assignees, transferees or sublessees, who shall forfeit and lose all monies therefor earned under the **Contract**, except so much as may be required to pay the **Contractor's** employees.

18.4 The provisions of this clause shall not hinder, prevent, or affect an assignment by the **Contractor** for the benefit of its creditors made pursuant to the **Laws** of the State of New York.

18.5 This **Contract** may be assigned by the **City** to any corporation, agency or instrumentality having authority to accept such assignment.

CHAPTER V: CONTRACTOR'S SECURITY AND GUARANTEE

ARTICLE 19. SECURITY DEPOSIT

19.1 If performance and payment bonds are required, the **City** shall retain the bid security to ensure that the successful bidder executes the **Contract** and furnishes the required payment and performance security within ten (10) **Days** after notice of the award of the **Contract**. If the successful bidder fails to execute the **Contract** and furnish the required payment and performance security, the **City** shall retain such bid security as set forth in the Information for Bidders. If the successful bidder executes the **Contract** and furnishes the required payment and performance security, the **City** shall return the bid security within a reasonable time after the furnishing of such bonds and execution of the **Contract** by the **City**.

19.2 If performance and payment bonds are not required, the bid security shall be retained by the **City** as security for the **Contractor's** faithful performance of the **Contract**. If partial payments are provided, the bid security will be returned to the **Contractor** after the sum retained under Article 21 equals the amount of the bid security, subject to other provisions of this **Contract**. If partial payments are not provided, the bid security will be released when final payment is certified by the **City** for payment.

19.3 If the **Contractor** is declared in default under Article 48 prior to the return of the deposit, or if any claim is made such as referred to in Article 23, the amount of such deposit, or so much thereof as the **Comptroller** may deem necessary, may be retained and then applied by the **Comptroller**:

19.3.1 To compensate the **City** for any expense, loss or damage suffered or incurred by reason of or resulting from such default, including the cost of re-letting and liquidated damages; or

19.3.2 To indemnify the **City** against any and all claims.

ARTICLE 20. PAYMENT GUARANTEE

20.1 On **Contracts** where one hundred (100%) percent performance bonds and payment bonds are executed, this Article 20 does not apply.

20.2 In the event the terms of this **Contract** do not require the **Contractor** to provide a payment bond or where the **Contract** does not require a payment bond for one hundred (100%) percent of the **Contract** price, the **City** shall, in accordance with the terms of this Article 20, guarantee payment of all lawful claims for:

20.2.1 Wages and compensation for labor performed and/or services rendered; and

20.2.2 Materials, equipment, and supplies provided, whether incorporated into the **Work** or not, when demands have been filed with the **City** as provided hereinafter by any person, firm, or corporation which furnished labor, material, equipment, supplies, or any combination thereof, in connection with the **Work** performed hereunder (hereinafter referred to as the “beneficiary”) at the direction of the **City** or the **Contractor**.

20.3 The provisions of Article 20.2 are subject to the following limitations and conditions:

20.3.1 If the **Contractor** provides a payment bond for a value that is less than one hundred (100%) percent of the value of the **Contract Work**, the payment bond provided by the **Contractor** shall be primary (and non-contributing) to the payment guarantee provided under this Article 20.

20.3.2 The guarantee is made for the benefit of all beneficiaries as defined in Article 20.2 provided that those beneficiaries strictly adhere to the terms and conditions of Article 20.3.4 and 20.3.5.

20.3.3 Nothing in this Article 20 shall prevent a beneficiary providing labor, services or material for the **Work** from suing the **Contractor** for any amounts due and owing the beneficiary by the **Contractor**.

20.3.4 Every person who has furnished labor or material, to the **Contractor** or to a **Subcontractor** of the **Contractor**, in the prosecution of the **Work** and who has not been paid in full therefor before the expiration of a period of ninety (90) **Days** after the date on which the last of the labor was performed or material was furnished by him/her for which the claim is made, shall have the right to sue on this payment guarantee in his/her own name for the amount, or the balance thereof, unpaid at the time of commencement of the action; provided, however, that a person having a direct contractual relationship with a **Subcontractor** of the **Contractor** but no contractual relationship express or implied with the **Contractor** shall not have a right of action upon the guarantee unless he/she shall have given written notice to the **Contractor** within one hundred twenty (120) **Days** from the date on which the last of the labor was performed or the last of the material was furnished, for which his/her claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the material was furnished or for whom the labor was performed. The notice shall be served by delivering the same personally to the **Contractor** or by mailing the same by registered mail, postage prepaid, in an envelope addressed to the **Contractor** at any place where it maintains an office or conducts its business; provided, however, that where such notice is actually received by the **Contractor** by other means, such notice shall be deemed sufficient.

20.3.5 Except as provided in Labor Law Section 220-g, no action on this payment guarantee shall be commenced after the expiration of the one-year limitations period set forth in Section 137(4)(b) of the State Finance Law.

20.3.6 The **Contractor** shall promptly forward to the **City** any notice or demand received pursuant to Article 20.3.4. The **Contractor** shall inform the **City** of any defenses to the notice or demand and shall forward to the **City** any documents the **City** requests concerning the notice or demand.

20.3.7 All demands made against the **City** by a beneficiary of this payment guarantee shall be presented to the **Engineer** along with all written documentation concerning the demand which the **Engineer** deems reasonably appropriate or necessary, which may include, but shall not be

limited to: the subcontract; any invoices presented to the **Contractor** for payment; the notarized statement of the beneficiary that the demand is due and payable, that a request for payment has been made of the **Contractor** and that the demand has not been paid by the **Contractor** within the time allowed for such payment by the subcontract; and copies of any correspondence between the beneficiary and the **Contractor** concerning such demand. The **City** shall notify the **Contractor** that a demand has been made. The **Contractor** shall inform the **City** of any defenses to the demand and shall forward to the **City** any documents the **City** requests concerning the demand.

20.3.8 The **City** shall make payment only if, after considering all defenses presented by the **Contractor**, it determines that the payment is due and owing to the beneficiary making the demand.

20.3.9 No beneficiary shall be entitled to interest from the **City**, or to any other costs, including, but not limited to, attorneys' fees, except to the extent required by State Finance Law Section 137.

20.3.10

20.4 Upon the receipt by the **City** of a demand pursuant to this Article 20, the **City** may withhold from any payment otherwise due and owing to the **Contractor** under this **Contract** an amount sufficient to satisfy the demand.

20.4.1 In the event the **City** determines that the demand is valid, the **City** shall notify the **Contractor** of such determination and the amount thereof and direct the **Contractor** to immediately pay such amount to the beneficiary. In the event the **Contractor**, within seven (7) **Days** of receipt of such notification from the **City**, fails to pay the beneficiary, such failure shall constitute an automatic and irrevocable assignment of payment by the **Contractor** to the beneficiary for the amount of the demand determined by the **City** to be valid. The **Contractor**, without further notification or other process, hereby gives its unconditional consent to such assignment of payment to the beneficiary and authorizes the **City**, on its behalf, to take all necessary actions to implement such assignment of payment, including without limitation the execution of any instrument or documentation necessary to effectuate such assignment.

20.4.2 In the event that the amount otherwise due and owing to the **Contractor** by the **City** is insufficient to satisfy such demand, the **City** may, at its option, require payment from the **Contractor** of an amount sufficient to cover such demand and exercise any other right to require or recover payment which the **City** may have under **Law** or **Contract**.

20.4.3 In the event the **City** determines that the demand is invalid, any amount withheld pending the **City**'s review of such demand shall be paid to the **Contractor**; provided, however, no lien has been filed. In the event a claim or an action has been filed, the terms and conditions set forth in Article 23 shall apply. In the event a lien has been filed, the parties will be governed by the provisions of the Lien Law of the State of New York.

20.5 The provisions of this Article 20 shall not prevent the **City** and the **Contractor** from resolving disputes in accordance with the **PPB** Rules, where applicable.

20.6 In the event the **City** determines that the beneficiary is entitled to payment pursuant to this Article 20, such determination and any defenses and counterclaims raised by the **Contractor** shall be taken into account in evaluating the **Contractor**'s performance.

20.7 Nothing in this Article 20 shall relieve the **Contractor** of the obligation to pay the claims of all

persons with valid and lawful claims against the **Contractor** relating to the **Work**.

20.8 The **Contractor** shall not require any performance, payment or other bonds of any **Subcontractor** if this **Contract** does not require such bonds of the **Contractor**.

20.9 The payment guarantee made pursuant to this Article 20 shall be construed in a manner consistent with Section 137 of the State Finance Law and shall afford to persons furnishing labor or materials to the **Contractor** or its **Subcontractors** in the prosecution of the **Work** under this **Contract** all of the rights and remedies afforded to such persons by such section, including but not limited to, the right to commence an action against the **City** on the payment guarantee provided by this Article 20 within the one-year limitations period set forth in Section 137(4)(b).

ARTICLE 21. RETAINED PERCENTAGE

21.1 If this **Contract** requires one hundred (100%) percent performance and payment security, then as further security for the faithful performance of this **Contract**, the **Commissioner** shall deduct, and retain until the substantial completion of the **Work**, five (5%) percent of the value of **Work** certified for payment in each partial payment voucher.

21.2 If this **Contract** does not require one hundred (100%) percent performance and payment security and if the price for which this **Contract** was awarded does not exceed one million (\$1,000,000) dollars, then as further security for the faithful performance of this **Contract**, the **Commissioner** shall deduct, and retain until the substantial completion of the **Work**, five (5%) percent of the value of **Work** certified for payment in each partial payment voucher.

21.3 If this **Contract** does not require one hundred (100%) percent performance and payment security and if the price for which this **Contract** was awarded exceeds one million (\$1,000,000) dollars, then as further security for the faithful performance of this **Contract**, the **Commissioner** shall deduct, and retain until the substantial completion of the **Work**, up to ten (10%) percent of the value of **Work** certified for payment in each partial payment voucher. The percentage to be retained is set forth in Schedule A of the General Conditions.

ARTICLE 22. INSURANCE

22.1 Types of Insurance: The **Contractor** shall procure and maintain the following types of insurance if, and as indicated, in Schedule A of the General Conditions (with the minimum limits and special conditions specified in Schedule A). Such insurance shall be maintained from the date the **Contractor** is required to provide Proof of Insurance pursuant to Article 22.3.1 through the date of completion of all required **Work** (including punch list work as certified in writing by the **Resident Engineer**), except for insurance required pursuant to Article 22.1.4, which may terminate upon **Substantial Completion** of the **Contract**. All insurance shall meet the requirements set forth in this Article 22. Wherever this Article requires that insurance coverage be “at least as broad” as a specified form (including all ISO forms), there is no obligation that the form itself be used, provided that the **Contractor** can demonstrate that the alternative form or endorsement contained in its policy provides coverage at least as broad as the specified form.

22.1.1 Commercial General Liability Insurance: The **Contractor** shall provide Commercial General Liability Insurance covering claims for property damage and/or bodily injury, including death, which may arise from any of the operations under this **Contract**. Coverage under this insurance shall be at least as broad as that provided by the latest edition of Insurance

Services Office (“ISO”) Form CG 0001. Such insurance shall be “occurrence” based rather than “claims-made” and include, without limitation, the following types of coverage: premises operations; products and completed operations; contractual liability (including the tort liability of another assumed in a contract); broad form property damage; independent contractors; explosion, collapse and underground (XCU); construction means and methods; and incidental malpractice. Such insurance shall contain a “per project” aggregate limit, as specified in Schedule A, that applies separately to operations under this **Contract**.

22.1.1(a) Such Commercial General Liability Insurance shall name the **City** as an Additional Insured. Coverage for the City shall specifically include the **City’s** officials and employees, be at least as broad as the latest edition of ISO Form CG 20 10 and provide completed operations coverage at least as broad as the latest edition of ISO Form CG 20 37.

22.1.1(b) Such Commercial General Liability Insurance shall name all other entities designated as additional insureds in Schedule A but only for claims arising from the **Contractor’s** operations under this **Contract**, with coverage at least as broad as the latest edition of ISO Form CG 20 26.

22.1.1(c) If the **Work** requires a permit from the Department of Buildings pursuant to 1 RCNY Section 101-08, the **Contractor** shall provide Commercial General Liability Insurance with limits of at least those required by 1 RCNY section 101-08 or greater limits required by the Agency in accordance with Schedule A. If the **Work** does not require such a permit, the minimum limits shall be those provided for in Schedule A.

22.1.1(d) If any of the **Work** includes repair of a waterborne vessel owned by or to be delivered to the **City**, such Commercial General Liability shall include, or be endorsed to include, Ship Repairer’s Legal Liability Coverage to protect against, without limitation, liability arising from navigation of such vessels prior to delivery to and acceptance by the **City**.

22.1.2 Workers’ Compensation Insurance, Employers’ Liability Insurance, and Disability Benefits Insurance: The **Contractor** shall provide, and shall cause its **Subcontractors** to provide, Workers Compensation Insurance, Employers’ Liability Insurance, and Disability Benefits Insurance in accordance with the **Laws** of the State of New York on behalf of all employees providing services under this **Contract** (except for those employees, if any, for which the **Laws** require insurance only pursuant to Article 22.1.3).

22.1.3 United States Longshoremen’s and Harbor Workers Act and/or Jones Act Insurance: If specified in Schedule A of the General Conditions or if required by **Law**, the **Contractor** shall provide insurance in accordance with the United States Longshoremen’s and Harbor Workers Act and/or the Jones Act, on behalf of all qualifying employees providing services under this **Contract**.

22.1.4 Builders Risk Insurance: If specified in Schedule A of the General Conditions, the **Contractor** shall provide Builders Risk Insurance on a completed value form for the total value of the **Work** through **Substantial Completion** of the **Work** in its entirety. Such insurance shall be provided on an All Risk basis and include coverage, without limitation, for windstorm (including named windstorm), storm surge, flood and earth movement. Unless waived by the **Commissioner**, it shall include coverage for ordinance and law, demolition and increased costs of construction, debris removal, pollutant clean up and removal, and expediting costs. Such insurance shall cover, without limitation, (a) all buildings and/or structures involved in the

Work, as well as temporary structures at the **Site**, and (b) any property that is intended to become a permanent part of such building or structure, whether such property is on the **Site**, in transit or in temporary storage. Policies shall name the **Contractor** as Named Insured and list the **City** as both an Additional Insured and a Loss Payee as its interest may appear.

22.1.4(a) Policies of such insurance shall specify that, in the event a loss occurs at an occupied facility, occupancy of such facility is permitted without the consent of the issuing insurance company.

22.1.4(b) Such insurance may be provided through an Installation Floater, at the **Contractor's** option, if it otherwise conforms with the requirements of this Article 22.1.4.

22.1.5 Commercial Automobile Liability Insurance: The **Contractor** shall provide Commercial Automobile Liability Insurance for liability arising out of ownership, maintenance or use of any owned (if any), non-owned and hired vehicles to be used in connection with this **Contract**. Coverage shall be at least as broad as the latest edition of ISO Form CA0001. If vehicles are used for transporting hazardous materials, the Automobile Liability Insurance shall be endorsed to provide pollution liability broadened coverage for covered vehicles (endorsement CA 99 48) as well as proof of MCS 90.

22.1.6 Contractors Pollution Liability Insurance: If specified in Schedule A of the General Conditions, the **Contractor** shall maintain, or cause the **Subcontractor** doing such **Work** to maintain, Contractors Pollution Liability Insurance covering bodily injury and property damage. Such insurance shall provide coverage for actual, alleged or threatened emission, discharge, dispersal, seepage, release or escape of pollutants (including asbestos), including any loss, cost or expense incurred as a result of any cleanup of pollutants (including asbestos) or in the investigation, settlement or defense of any claim, action, or proceedings arising from the operations under this **Contract**. Such insurance shall be in the **Contractor's** name and list the **City** as an Additional Insured and any other entity specified in Schedule A. Coverage shall include, without limitation, (a) loss of use of damaged property or of property that has not been physically injured, (b) transportation, and (c) non-owned disposal sites.

22.1.6(a) Coverage for the **City** as Additional Insured shall specifically include the **City's** officials and employees and be at least as broad as provided to the **Contractor** for this **Project**.

22.1.6(b) If such insurance is written on a claims-made policy, such policy shall have a retroactive date on or before the effective date of this **Contract**, and continuous coverage shall be maintained, or an extended discovery period exercised, for a period of not less than three (3) years from the time the **Work** under this **Contract** is completed.

22.1.7 Marine Insurance:

22.1.7(a) Marine Protection and Indemnity Insurance: If specified in Schedule A of the General Conditions or if the **Contractor** engages in marine operations in the execution of any part of the **Work**, the **Contractor** shall maintain, or cause the **Subcontractor** doing such **Work** to maintain, Marine Protection and Indemnity Insurance with coverage at least as broad as Form SP-23. The insurance shall provide coverage for the **Contractor** or **Subcontractor** (whichever is doing this **Work**) and for the **City** (together with its officials and employees) and any other entity specified in Schedule A as an Additional Insured for bodily injury and property damage arising from marine operations under this

Contract. Coverage shall include, without limitation, injury or death of crew members (if not fully provided through other insurance), removal of wreck, damage to piers, wharves and other fixed or floating objects and loss of or damage to any other vessel or craft, or to property on such other vessel or craft.

22.1.7(b) Hull and Machinery Insurance: If specified in Schedule A of the General Conditions or if the **Contractor** engages in marine operations in the execution of any part of the **Work**, the **Contractor** shall maintain, or cause the **Subcontractor** doing such **Work** to maintain, Hull and Machinery Insurance with coverage for the **Contractor** or **Subcontractor** (whichever is doing this Work) and for the **City** (together with its officials and employees) as Additional Insured at least as broad as the latest edition of American Institute Tug Form for all tugs used under this **Contract** and Collision Liability at least as broad as the latest edition of American Institute Hull Clauses.

22.1.7(c) Marine Pollution Liability Insurance: If specified in Schedule A of the General Conditions or if the **Contractor** engages in marine operations in the execution of any part of the **Work**, the **Contractor** shall maintain, or cause the **Subcontractor** doing such Work to maintain, Marine Pollution Liability Insurance covering itself (or the Subcontractor doing such Work) as Named Insured and the **City** (together with its officials and employees) and any other entity specified in Schedule A as an Additional Insured. Coverage shall be at least as broad as that provided by the latest edition of Water Quality Insurance Syndicate Form and include, without limitation, liability arising from the discharge or substantial threat of a discharge of oil, or from the release or threatened release of a hazardous substance including injury to, or economic losses resulting from, the destruction of or damage to real property, personal property or natural resources.

22.1.8 The **Contractor** shall provide such other types of insurance, at such minimum limits and with such conditions, as are specified in Schedule A of the General Conditions.

22.2 General Requirements for Insurance Coverage and Policies:

22.2.1 All required insurance policies shall be maintained with companies that may lawfully issue the required policy and have an A.M. Best rating of at least A-/VII or a Standard and Poor's rating of at least A, unless prior written approval is obtained from the **City** Corporation Counsel.

22.2.2 The **Contractor** shall be solely responsible for the payment of all premiums for all required policies and all deductibles and self-insured retentions to which such policies are subject, whether or not the **City** is an insured under the policy.

22.2.3 In his/her sole discretion, the **Commissioner** may, subject to the approval of the **Comptroller** and the **City** Corporation Counsel, accept Letters of Credit and/or custodial accounts in lieu of required insurance.

22.2.4 The **City's** limits of coverage for all types of insurance required pursuant to Schedule A of the General Conditions shall be the greater of (i) the minimum limits set forth in Schedule A or (ii) the limits provided to the **Contractor** as Named Insured under all primary, excess, and umbrella policies of that type of coverage.

22.2.5 The **Contractor** may satisfy its insurance obligations under this Article 22 through primary policies or a combination of primary and excess/umbrella policies, so long as all policies provide the scope of coverage required herein.

22.2.6 Policies of insurance provided pursuant to this Article 22 shall be primary and non-contributing to any insurance or self-insurance maintained by the **City**.

22.3 Proof of Insurance:

22.3.1 For all types of insurance required by Article 22.1 and Schedule A, except for insurance required by Articles 22.1.4 and 22.1.7, the **Contractor** shall file proof of insurance in accordance with this Article 22.3 within ten (10) **Days** of award. For insurance provided pursuant to Articles 22.1.4 and 22.1.7, proof shall be filed by a date specified by the **Commissioner** or ten (10) **Days** prior to the commencement of the portion of the **Work** covered by such policy, whichever is earlier.

22.3.2 For Workers' Compensation Insurance provided pursuant to Article 22.1.2, the **Contractor** shall submit one of the following forms: C-105.2 Certificate of Workers' Compensation Insurance; U-26.3 - State Insurance Fund Certificate of Workers' Compensation Insurance; Request for WC/DB Exemption (Form CE-200); equivalent or successor forms used by the New York State Workers' Compensation Board; or other proof of insurance in a form acceptable to the **Commissioner**. For Disability Benefits Insurance provided pursuant to Article 22.1.2, the Contractor shall submit DB-120.1 - Certificate Of Insurance Coverage Under The NYS Disability Benefits Law, Request for WC/DB Exemption (Form CE-200); equivalent or successor forms used by the New York State Workers' Compensation Board; or other proof of insurance in a form acceptable to the **Commissioner**. ACORD forms are not acceptable.

22.3.3 For policies provided pursuant to all of Article 22.1 other than Article 22.1.2, the **Contractor** shall submit one or more Certificates of Insurance on forms acceptable to the **Commissioner**. All such Certificates of Insurance shall certify (a) the issuance and effectiveness of such policies of insurance, each with the specified minimum limits (b) for insurance secured pursuant to Article 22.1.1 that the **City** and any other entity specified in Schedule A is an Additional Insured thereunder; (c) in the event insurance is required pursuant to Article 22.1.6 and/or Article 22.1.7, that the City is an Additional Insured thereunder; (d) the company code issued to the insurance company by the National Association of Insurance Commissioners (the NAIC number); and (e) the number assigned to the **Contract** by the **City**. All such Certificates of Insurance shall be accompanied by either a duly executed "Certification by Insurance Broker or Agent" in the form contained in Part III of Schedule A or copies of all policies referenced in such Certificate of Insurance as certified by an authorized representative of the issuing insurance carrier. If any policy is not available at the time of submission, certified binders may be submitted until such time as the policy is available, at which time a certified copy of the policy shall be submitted.

22.3.4 Documentation confirming renewals of insurance shall be submitted to the **Commissioner** prior to the expiration date of coverage of policies required under this **Contract**. Such proofs of insurance shall comply with the requirements of Articles 22.3.2 and 22.3.3.

22.3.5 The **Contractor** shall be obligated to provide the **City** with a copy of any policy of insurance provided pursuant to this Article 22 upon the demand for such policy by the **Commissioner** or the **City** Corporation Counsel.

22.4 Operations of the **Contractor**:

22.4.1 The **Contractor** shall not commence the **Work** unless and until all required certificates have been submitted to and accepted by the **Commissioner**. Acceptance by the

Commissioner of a certificate does not excuse the **Contractor** from securing insurance consistent with all provisions of this Article 22 or of any liability arising from its failure to do so.

22.4.2 The **Contractor** shall be responsible for providing continuous insurance coverage in the manner, form, and limits required by this **Contract** and shall be authorized to perform **Work** only during the effective period of all required coverage.

22.4.3 In the event that any of the required insurance policies lapse, are revoked, suspended or otherwise terminated, for whatever cause, the **Contractor** shall immediately stop all **Work**, and shall not recommence **Work** until authorized in writing to do so by the **Commissioner**. Upon quitting the **Site**, except as otherwise directed by the **Commissioner**, the **Contractor** shall leave all plant, materials, equipment, tools, and supplies on the **Site**. **Contract** time shall continue to run during such periods and no extensions of time will be granted. The **Commissioner** may also declare the **Contractor** in default for failure to maintain required insurance.

22.4.4 In the event the **Contractor** receives notice, from an insurance company or other person, that any insurance policy required under this Article 22 shall be cancelled or terminated (or has been cancelled or terminated) for any reason, the **Contractor** shall immediately forward a copy of such notice to both the **Commissioner** and the New York City Comptroller, attn: Office of Contract Administration, Municipal Building, One Centre Street, room 1005, New York, New York 10007. Notwithstanding the foregoing, the **Contractor** shall ensure that there is no interruption in any of the insurance coverage required under this Article 22.

22.4.5 Where notice of loss, damage, occurrence, accident, claim or suit is required under an insurance policy maintained in accordance with this Article 22, the **Contractor** shall notify in writing all insurance carriers that issued potentially responsive policies of any such event relating to any operations under this **Contract** (including notice to Commercial General Liability insurance carriers for events relating to the **Contractor**'s own employees) no later than 20 days after such event. For any policy where the **City** is an Additional Insured, such notice shall expressly specify that "this notice is being given on behalf of the City of New York as Insured as well as the Named Insured." Such notice shall also contain the following information: the number of the insurance policy, the name of the named insured, the date and location of the damage, occurrence, or accident, and the identity of the persons or things injured, damaged or lost. The **Contractor** shall simultaneously send a copy of such notice to the City of New York c/o Insurance Claims Specialist, Affirmative Litigation Division, New York City Law Department, 100 Church Street, New York, New York 10007.

22.4.6 In the event of any loss, accident, claim, action, or other event that does or can give rise to a claim under any insurance policy required under this Article 22, the **Contractor** shall at all times fully cooperate with the **City** with regard to such potential or actual claim.

22.5 **Subcontractor Insurance:** In the event the **Contractor** requires any **Subcontractor** to procure insurance with regard to any operations under this **Contract** and requires such **Subcontractor** to name the **Contractor** as an **Additional Insured** thereunder, the **Contractor** shall ensure that the **Subcontractor** name the **City**, including its officials and employees, as an Additional Insured with coverage at least as broad as the most recent edition of ISO Form CG 20 26.

22.6 Wherever reference is made in Article 7 or this Article 22 to documents to be sent to the **Commissioner** (e.g., notices, filings, or submissions), such documents shall be sent to the address set forth in Schedule A of the General Conditions. In the event no address is set forth in Schedule A, such documents

are to be sent to the **Commissioner's** address as provided elsewhere in this **Contract**.

22.7 Apart from damages or losses covered by insurance provided pursuant to Articles 22.1.2, 22.1.3, or 22.1.5, the **Contractor** waives all rights against the **City**, including its officials and employees, for any damages or losses that are covered under any insurance required under this Article 22 (whether or not such insurance is actually procured or claims are paid thereunder) or any other insurance applicable to the operations of the **Contractor** and/or its employees, agents, or **Subcontractors**.

22.8 In the event the **Contractor** utilizes a self-insurance program to satisfy any of the requirements of this Article 22, the **Contractor** shall ensure that any such self-insurance program provides the **City** with all rights that would be provided by traditional insurance under this Article 22, including but not limited to the defense and indemnification obligations that insurers are required to undertake in liability policies.

22.9 Materiality/Non-Waiver: The **Contractor's** failure to secure policies in complete conformity with this Article 22, or to give an insurance company timely notice of any sort required in this **Contract** or to do anything else required by this Article 22 shall constitute a material breach of this **Contract**. Such breach shall not be waived or otherwise excused by any action or inaction by the **City** at any time.

22.10 Pursuant to General Municipal Law Section 108, this **Contract** shall be void and of no effect unless **Contractor** maintains Workers' Compensation Insurance for the term of this **Contract** to the extent required and in compliance with the New York State Workers' Compensation Law.

22.11 Other Remedies: Insurance coverage provided pursuant to this Article 22 or otherwise shall not relieve the **Contractor** of any liability under this **Contract**, nor shall it preclude the **City** from exercising any rights or taking such other actions available to it under any other provisions of this **Contract** or **Law**.

ARTICLE 23. MONEY RETAINED AGAINST CLAIMS

23.1 If any claim shall be made by any person or entity (including **Other Contractors** with the **City** on this **Project**) against the **City** or against the **Contractor** and the **City** for any of the following:

- (a) An alleged loss, damage, injury, theft or vandalism of any of the kinds referred to in Articles 7 and 12, plus the reasonable costs of defending the **City**, which in the opinion of the **Comptroller** may not be paid by an insurance company (for any reason whatsoever); or
- (b) An infringement of copyrights, patents or use of patented articles, tools, etc., as referred to in Article 57; or
- (c) Damage claimed to have been caused directly or indirectly by the failure of the **Contractor** to perform the **Work** in strict accordance with this **Contract**,

the amount of such claim, or so much thereof as the **Comptroller** may deem necessary, may be withheld by the **Comptroller**, as security against such claim, from any money due hereunder. The **Comptroller**, in his/her discretion, may permit the **Contractor** to substitute other satisfactory security in lieu of the monies so withheld.

23.2 If an action on such claim is timely commenced and the liability of the **City**, or the **Contractor**,

or both, shall have been established therein by a final judgment of a court of competent jurisdiction, or if such claim shall have been admitted by the **Contractor** to be valid, the **Comptroller** shall pay such judgment or admitted claim out of the monies retained by the **Comptroller** under the provisions of this Article 23, and return the balance, if any, without interest, to the **Contractor**.

ARTICLE 24. MAINTENANCE AND GUARANTY

24.1 The **Contractor** shall promptly repair, replace, restore or rebuild, as the **Commissioner** may determine, any finished **Work** in which defects of materials or workmanship may appear or to which damage may occur because of such defects, during the one (1) year period subsequent to the date of **Substantial Completion** (or use and occupancy in accordance with Article 16), except where other periods of maintenance and guaranty are provided for in Schedule A.

24.2 As security for the faithful performance of its obligations hereunder, the **Contractor**, upon filing its requisition for payment on **Substantial Completion**, shall deposit with the **Commissioner** a sum equal to one (1%) percent of the price (or the amount fixed in Schedule A of the General Conditions) in cash or certified check upon a state or national bank and trust company or a check of such bank and trust company signed by a duly authorized officer thereof and drawn to the order of the **Comptroller**, or obligations of the **City**, which the **Comptroller** may approve as of equal value with the sum so required.

24.3 In lieu of the above, the **Contractor** may make such security payment to the **City** by authorizing the **Commissioner** in writing to deduct the amount from the **Substantial Completion** payment which shall be deemed the deposit required above.

24.4 If the **Contractor** has faithfully performed all of its obligations hereunder the **Commissioner** shall so certify to the **Comptroller** within five (5) **Days** after the expiration of one (1) year from the date of **Substantial Completion** and acceptance of the **Work** or within thirty (30) **Days** after the expiration of the guarantee period fixed in the **Specifications**. The security payment shall be repaid to the **Contractor** without interest within thirty (30) **Days** after certification by the **Commissioner** to the **Comptroller** that the **Contractor** has faithfully performed all of its obligations hereunder.

24.5 Notice by the **Commissioner** to the **Contractor** to repair, replace, rebuild or restore such defective or damaged **Work** shall be timely, pursuant to this article, if given not later than ten (10) **Days** subsequent to the expiration of the one (1) year period or other periods provided for herein.

24.6 If the **Contractor** shall fail to repair, replace, rebuild or restore such defective or damaged **Work** promptly after receiving such notice, the **Commissioner** shall have the right to have the **Work** done by others in the same manner as provided for in the completion of a defaulted **Contract**, under Article 51.

24.7 If the security payment so deposited is insufficient to cover the cost of such **Work**, the **Contractor** shall be liable to pay such deficiency on demand by the **Commissioner**.

24.8 The **Engineer's** certificate setting forth the fair and reasonable cost of repairing, replacing, rebuilding or restoring any damaged or defective **Work** when performed by one other than the **Contractor**, shall be binding and conclusive upon the **Contractor** as to the amount thereof.

24.9 The **Contractor** shall obtain all manufacturers' warranties and guaranties of all equipment and materials required by this **Contract** in the name of the **City** and shall deliver same to the **Commissioner**. All of the **City's** rights and title and interest in and to said manufacturers' warranties and guaranties may be assigned by the **City** to any subsequent purchasers of such equipment and materials or lessees of the

premises into which the equipment and materials have been installed.

CHAPTER VI: CHANGES, EXTRA WORK, AND DOCUMENTATION OF CLAIM

ARTICLE 25. CHANGES

25.1 Changes may be made to this **Contract** only as duly authorized in writing by the **Commissioner** in accordance with the **Law** and this **Contract**. All such changes, modifications, and amendments will become a part of the **Contract**. **Work** so ordered shall be performed by the **Contractor**.

25.2 **Contract** changes will be made only for **Work** necessary to complete the **Work** included in the original scope of the **Contract** and/or for non-material changes to the scope of the **Contract**. Changes are not permitted for any material alteration in the scope of **Work** in the **Contract**.

25.3 The **Contractor** shall be entitled to a price adjustment for **Extra Work** performed pursuant to a written change order. Adjustments to price shall be computed in one or more of the following ways:

25.3.1 By applicable unit prices specified in the **Contract**; and/or

25.3.2 By agreement of a fixed price; and/or

25.3.3 By time and material records; and/or

25.3.4 In any other manner approved by the **CCPO**.

25.4 All payments for change orders are subject to pre-audit by the **Engineering Audit Officer** and may be post-audited by the **Comptroller** and/or the **Agency**.

ARTICLE 26. METHODS OF PAYMENT FOR OVERRUNS AND EXTRA WORK

26.1 **Overrun of Unit Price Item**: An overrun is any quantity of a unit price item which the **Contractor** is directed to provide which is in excess of one hundred twenty-five (125%) percent of the estimated quantity for that item set forth in the bid schedule.

26.1.1 For any unit price item, the **Contractor** will be paid at the unit price bid for any quantity up to one hundred twenty-five (125%) percent of the estimated quantity for that item set forth in the bid schedule. If during the progress of the **Work**, the actual quantity of any unit price item required to complete the **Work** approaches the estimated quantity for that item, and for any reason it appears that the actual quantity of any unit price item necessary to complete the **Work** will exceed the estimated quantity for that item by twenty-five (25%) percent, the **Contractor** shall immediately notify the **Engineer** of such anticipated overrun. The **Contractor** shall not be compensated for any quantity of a unit price item provided which is in excess of one hundred twenty-five (125%) percent of the estimated quantity for that item set forth in the bid schedule without written authorization from the **Engineer**.

26.1.2 If the actual quantity of any unit price item necessary to complete the **Work** will exceed one hundred twenty-five (125%) percent of the estimated quantity for that item set forth in the bid schedule, the **City** reserves the right and the **Contractor** agrees to negotiate a new unit price for such item. In no event shall such negotiated new unit price exceed the unit bid price. If the **City** and **Contractor** cannot agree on a new unit price, then the **City** shall order the **Contractor** and the **Contractor** agrees to provide additional quantities of the item on the

basis of time and material records for the actual and reasonable cost as determined under Article 26.2, but in no event at a unit price exceeding the unit price bid.

26.2 **Extra Work:** For **Extra Work** where payment is by agreement on a fixed price in accordance with Article 25.3.2, the price to be paid for such **Extra Work** shall be based on the fair and reasonable estimated cost of the items set forth below. For **Extra Work** where payment is based on time and material records in accordance with Article 25.3.3, the price to be paid for such **Extra Work** shall be the actual and reasonable cost of the items set forth below, calculated in accordance with the formula specified therein, if any.

26.2.1 Necessary materials (including transportation to the **Site**); plus

26.2.2 Necessary direct labor, including payroll taxes (subject to statutory wage caps) and supplemental benefits; plus

26.2.3 Sales and personal property taxes, if any, required to be paid on materials not incorporated into such **Extra Work**; plus

26.2.4 Reasonable rental value of **Contractor**-owned (or **Subcontractor**-owned, as applicable), necessary plant and equipment other than **Small Tools**, plus fuel/energy costs. Except for fuel costs for pick-up trucks which shall be reimbursed based on a consumption of five (5) gallons per shift, fuel costs shall be reimbursed based on actual costs or, in the absence of auditable documentation, the following fuel consumption formula per operating hour: $(.035) \times (\text{HP rating}) \times (\text{Fuel cost/gallon})$. Reasonable rental value is defined as the lower of either seventy-five percent of the monthly prorated rental rates established in "The AED Green Book, Rental Rates and Specifications for Construction Equipment" published by Equipment Watch (the "Green Book"), or seventy-five percent of the monthly prorated rental rates established in the "Rental Rate Blue Book for Construction Equipment" published by Equipment Watch (the "Blue Book") (the applicable Blue Book rate being for rental only without the addition of any operational costs listed in the Blue Book). The reasonable rental value is deemed to be inclusive of all operating costs except for fuel/energy consumption and equipment operator's wages/costs. For multiple shift utilization, reimbursement shall be calculated as follows: first shift shall be seventy-five (75%) percent of such rental rates; second shift shall be sixty (60%) percent of the first shift rate; and third shift shall be forty (40%) percent of the first shift rate. Equipment on standby shall be reimbursed at one-third (1/3) the prorated monthly rental rate. **Contractor**-owned (or **Subcontractor**-owned, as applicable) equipment includes equipment from rental companies affiliated with or controlled by the **Contractor** (or **Subcontractor**, as applicable), as determined by the **Commissioner**. In establishing cost reimbursement for non-operating **Contractor**-owned (or **Subcontractor**-owned, as applicable) equipment (scaffolding, sheeting systems, road plates, etc.), the **City** may restrict reimbursement to a purchase-salvage/life cycle basis if less than the computed rental costs; plus

26.2.5 Necessary installation and dismantling of such plant and equipment, including transportation to and from the **Site**, if any, provided that, in the case of non-**Contractor**-owned (or non-**Subcontractor**-owned, as applicable) equipment rented from a third party, the cost of installation and dismantling are not allowable if such costs are included in the rental rate; plus

26.2.6 Necessary fees charged by governmental entities; plus

26.2.7 Necessary construction-related service fees charged by non-governmental entities, such as landfill tipping fees; plus

26.2.8 Reasonable rental costs of non-**Contractor**-owned (or non-**Subcontractor**-owned, as applicable) necessary plant and equipment other than **Small Tools**, plus fuel/energy costs. Except for fuel costs for pick-up trucks which shall be reimbursed based on a consumption of five (5) gallons per shift, fuel costs shall be reimbursed based on actual costs or, in the absence of auditable documentation, the following fuel consumption formula per hour of operation: $(.035) \times (\text{HP rating}) \times (\text{Fuel cost/gallon})$. In lieu of renting, the **City** reserves the right to direct the purchase of non-operating equipment (scaffolding, sheeting systems, road plates, etc.), with payment on a purchase-salvage/life cycle basis, if less than the projected rental costs; plus

26.2.9 Workers' Compensation Insurance, and any insurance coverage expressly required by the **City** for the performance of the **Extra Work** which is different than the types of insurance required by Article 22 and Schedule A of the General Conditions. The cost of Workers' Compensation Insurance is subject to applicable payroll limitation caps and shall be based upon the carrier's Manual Rate for such insurance derived from the applicable class Loss Cost ("LC") and carrier's Lost Cost Multiplier ("LCM") approved by the New York State Department of Financial Services, and with the exception of experience rating, rate modifiers as promulgated by the New York Compensation Insurance Rating Board ("NYCIRB"); plus

26.2.10 Additional costs incurred as a result of the **Extra Work** for performance and payment bonds; plus

26.2.11 Twelve percent (12%) percent of the total of items in Articles 26.2.1 through 26.2.5 as compensation for overhead, except that no percentage for overhead will be allowed on **Payroll Taxes** or on the premium portion of overtime pay or on sales and personal property taxes. Overhead shall include without limitation, all costs and expenses in connection with administration, management superintendence, small tools, and insurance required by Schedule A of the General Conditions other than Workers' Compensation Insurance; plus

26.2.12 Ten (10%) percent of the total of items in Articles 26.2.1 through 26.2.5, plus the items in Article 26.2.11, as compensation for profit, except that no percentage for profit will be allowed on **Payroll Taxes** or on the premium portion of overtime pay or on sales and personal property taxes; plus

26.2.13 Five (5%) percent of the total of items in Articles 26.2.6 through 26.2.10 as compensation for overhead and profit.

26.3 Where the **Extra Work** is performed in whole or in part by other than the **Contractor's** own forces pursuant to Article 26.2, the **Contractor** shall be paid, subject to pre-audit by the **Engineering Audit Officer**, the cost of such **Work** computed in accordance with Article 26.2 above, plus an additional allowance of five (5%) percent to cover the **Contractor's** overhead and profit.

26.4 Where a change is ordered, involving both **Extra Work** and omitted or reduced **Contract Work**, the **Contract** price shall be adjusted, subject to pre-audit by the **EAO**, in an amount based on the difference between the cost of such **Extra Work** and of the omitted or reduced **Work**.

26.5 Where the **Contractor** and the **Commissioner** can agree upon a fixed price for **Extra Work** in accordance with Article 25.3.2 or another method of payment for **Extra Work** in accordance with Article 25.3.4, or for **Extra Work** ordered in connection with omitted **Work**, such method, subject to pre-audit by the **EAO**, may, at the option of the **Commissioner**, be substituted for the cost plus a percentage method provided in Article 26.2; provided, however, that if the **Extra Work** is performed by a **Subcontractor**, the **Contractor** shall not be entitled to receive more than an additional allowance of five (5%) percent for overhead and profit over

the cost of such **Subcontractor's Work** as computed in accordance with Article 26.2.

ARTICLE 27. RESOLUTION OF DISPUTES

27.1 All disputes between the **City** and the **Contractor** of the kind delineated in this Article 27.1 that arise under, or by virtue of, this **Contract** shall be finally resolved in accordance with the provisions of this Article 27 and the **PPB** Rules. This procedure for resolving all disputes of the kind delineated herein shall be the exclusive means of resolving any such disputes.

27.1.1 This Article 27 shall not apply to disputes concerning matters dealt with in other sections of the **PPB** Rules, or to disputes involving patents, copyrights, trademarks, or trade secrets (as interpreted by the courts of New York State) relating to proprietary rights in computer software.

27.1.2 This Article 27 shall apply only to disputes about the scope of **Work** delineated by the **Contract**, the interpretation of **Contract** documents, the amount to be paid for **Extra Work** or disputed work performed in connection with the **Contract**, the conformity of the **Contractor's Work** to the **Contract**, and the acceptability and quality of the **Contractor's Work**; such disputes arise when the **Engineer, Resident Engineer, Engineering Audit Officer**, or other designee of the **Commissioner** makes a determination with which the **Contractor** disagrees.

27.2 All determinations required by this Article 27 shall be made in writing clearly stated, with a reasoned explanation for the determination based on the information and evidence presented to the party making the determination. Failure to make such determination within the time required by this Article 27 shall be deemed a non-determination without prejudice that will allow application to the next level.

27.3 During such time as any dispute is being presented, heard, and considered pursuant to this Article 27, the **Contract** terms shall remain in force and the **Contractor** shall continue to perform **Work** as directed by the **ACCO** or the **Engineer**. Failure of the **Contractor** to continue **Work** as directed shall constitute a waiver by the **Contractor** of its claim.

27.4 Presentation of Disputes to **Commissioner**.

Notice of Dispute and Agency Response. The **Contractor** shall present its dispute in writing ("Notice of Dispute") to the **Commissioner** within thirty (30) Days of receiving written notice of the determination or action that is the subject of the dispute. This notice requirement shall not be read to replace any other notice requirements contained in the **Contract**. The Notice of Dispute shall include all the facts, evidence, documents, or other basis upon which the **Contractor** relies in support of its position, as well as a detailed computation demonstrating how any amount of money claimed by the **Contractor** in the dispute was arrived at. Within thirty (30) Days after receipt of the detailed written submission comprising the complete Notice of Dispute, the **Engineer, Resident Engineer, Engineering Audit Officer**, or other designee of the **Commissioner** shall submit to the **Commissioner** all materials he or she deems pertinent to the dispute. Following initial submissions to the **Commissioner**, either party may demand of the other the production of any document or other material the demanding party believes may be relevant to the dispute. The requested party shall produce all relevant materials that are not otherwise protected by a legal privilege recognized by the courts of New York State. Any question of relevancy shall be determined by the **Commissioner** whose decision shall be final. Willful failure of the **Contractor** to produce any requested material whose relevancy the **Contractor** has not disputed, or whose relevancy has been affirmatively determined, shall constitute a waiver by the **Contractor** of its claim.

27.4.1 **Commissioner Inquiry.** The **Commissioner** shall examine the material and may, in his or her discretion, convene an informal conference with the **Contractor**, the **ACCO**, and the **Engineer, Resident Engineer, Engineering Audit Officer**, or other designee of the **Commissioner** to resolve the issue by mutual consent prior to reaching a determination. The **Commissioner** may seek such technical or other expertise as he or she shall deem appropriate, including the use of neutral mediators, and require any such additional material from either or both parties as he or she deems fit. The **Commissioner's** ability to render, and the effect of, a decision hereunder shall not be impaired by any negotiations in connection with the dispute presented, whether or not the **Commissioner** participated therein. The **Commissioner** may or, at the request of any party to the dispute, shall compel the participation of any **Other Contractor** with a contract related to the **Work** of this **Contract**, and that **Contractor** shall be bound by the decision of the **Commissioner**. Any **Other Contractor** thus brought into the dispute resolution proceeding shall have the same rights and obligations under this Article 27 as the **Contractor** initiating the dispute.

27.4.2 **Commissioner Determination.** Within thirty (30) **Days** after the receipt of all materials and information, or such longer time as may be agreed to by the parties, the **Commissioner** shall make his or her determination and shall deliver or send a copy of such determination to the **Contractor**, the **ACCO**, and **Engineer, Resident Engineer, Engineering Audit Officer**, or other designee of the **Commissioner**, as applicable, together with a statement concerning how the decision may be appealed.

27.4.3 **Finality of Commissioner's Decision.** The **Commissioner's** decision shall be final and binding on all parties, unless presented to the Contract Dispute Resolution Board pursuant to this Article 27. The **City** may not take a petition to the Contract Dispute Resolution Board. However, should the **Contractor** take such a petition, the **City** may seek, and the Contract Dispute Resolution Board may render, a determination less favorable to the **Contractor** and more favorable to the **City** than the decision of the **Commissioner**.

27.5 **Presentation of Dispute to the Comptroller.** Before any dispute may be brought by the **Contractor** to the Contract Dispute Resolution Board, the **Contractor** must first present its claim to the **Comptroller** for his or her review, investigation, and possible adjustment.

27.5.1 **Time, Form, and Content of Notice.** Within thirty (30) **Days** of its receipt of a decision by the **Commissioner**, the **Contractor** shall submit to the **Comptroller** and to the **Commissioner** a Notice of Claim regarding its dispute with the **Agency**. The Notice of Claim shall consist of (i) a brief written statement of the substance of the dispute, the amount of money, if any, claimed and the reason(s) the **Contractor** contends the dispute was wrongly decided by the **Commissioner**; (ii) a copy of the written decision of the **Commissioner**; and (iii) a copy of all materials submitted by the **Contractor** to the **Agency**, including the Notice of Dispute. The **Contractor** may not present to the **Comptroller** any material not presented to the **Commissioner**, except at the request of the **Comptroller**.

27.5.2 Response. Within thirty (30) **Days** of receipt of the Notice of Claim, the **Agency** shall make available to the **Comptroller** a copy of all material submitted by the **Agency** to the **Commissioner** in connection with the dispute. The **Agency** may not present to the **Comptroller** any material not presented to the **Commissioner** except at the request of the **Comptroller**.

27.5.3 **Comptroller** Investigation. The **Comptroller** may investigate the claim in dispute and, in the course of such investigation, may exercise all powers provided in Sections 7-201 and 7-203 of the Administrative Code. In addition, the **Comptroller** may demand of either party, and such party shall provide, whatever additional material the **Comptroller** deems pertinent to the claim, including original business records of the **Contractor**. Willful failure of the **Contractor** to produce within fifteen (15) **Days** any material requested by the **Comptroller** shall constitute a waiver by the **Contractor** of its claim. The **Comptroller** may also schedule an informal conference to be attended by the **Contractor**, **Agency** representatives, and any other personnel desired by the **Comptroller**.

27.5.4 Opportunity of **Comptroller** to Compromise or Adjust Claim. The **Comptroller** shall have forty-five (45) **Days** from his or her receipt of all materials referred to in Article 27.5.3 to investigate the disputed claim. The period for investigation and compromise may be further extended by agreement between the **Contractor** and the **Comptroller**, to a maximum of ninety (90) **Days** from the **Comptroller's** receipt of all materials. The **Contractor** may not present its petition to the Contract Dispute Resolution Board until the period for investigation and compromise delineated in this Article 27.5.4 has expired. In compromising or adjusting any claim hereunder, the **Comptroller** may not revise or disregard the terms of the **Contract** between the parties.

27.6 Contract Dispute Resolution Board. There shall be a Contract Dispute Resolution Board composed of:

27.6.1 The chief administrative law judge of the Office of Administrative Trials and Hearings (OATH) or his/her designated OATH administrative law judge, who shall act as chairperson, and may adopt operational procedures and issue such orders consistent with this Article 27 as may be necessary in the execution of the Contract Dispute Resolution Board's functions, including, but not limited to, granting extensions of time to present or respond to submissions;

27.6.2 The **CCPO** or his/her designee; any designee shall have the requisite background to consider and resolve the merits of the dispute and shall not have participated personally and substantially in the particular matter that is the subject of the dispute or report to anyone who so participated; and

27.6.3 A person with appropriate expertise who is not an employee of the **City**. This person shall be selected by the presiding administrative law judge from a prequalified panel of individuals, established and administered by OATH with appropriate background to act as decision-makers in a dispute. Such individual may not have a contract or dispute with the **City** or be an officer or employee of any company or organization that does, or regularly represents persons, companies, or organizations having disputes with the **City**.

27.7 Petition to the Contract Dispute Resolution Board. In the event the claim has not been settled or adjusted by the **Comptroller** within the period provided in this Article 27, the **Contractor**, within thirty (30) **Days** thereafter, may petition the Contract Dispute Resolution Board to review the

Commissioner's determination.

27.7.1 Form and Content of Petition by **Contractor**. The **Contractor** shall present its dispute to the Contract Dispute Resolution Board in the form of a petition, which shall include (i) a brief written statement of the substance of the dispute, the amount of money, if any, claimed, and the reason(s) the **Contractor** contends the dispute was wrongly decided by the **Commissioner**; (ii) a copy of the written Decision of the **Commissioner**, (iii) copies of all materials submitted by the **Contractor** to the Agency; (iv) a copy of the written decision of the **Comptroller**, if any, and (v) copies of all correspondence with, or written material submitted by the **Contractor**, to the **Comptroller**. The **Contractor** shall concurrently submit four (4) complete sets of the Petition: one set to the **City** Corporation Counsel (Attn: Commercial and Real Estate Litigation Division) and three (3) sets to the Contract Dispute Resolution Board at OATH's offices with proof of service on the **City** Corporation Counsel. In addition, the **Contractor** shall submit a copy of the written statement of the substance of the dispute, cited in (i) above, to both the **Commissioner** and the **Comptroller**.

27.7.2 **Agency Response**. Within thirty (30) **Days** of its receipt of the Petition by the **City** Corporation Counsel, the **Agency** shall respond to the brief written statement of the **Contractor** and make available to the Contract Dispute Resolution Board all material it submitted to the **Commissioner** and **Comptroller**. Three (3) complete copies of the **Agency** response shall be provided to the Contract Dispute Resolution Board and one to the **Contractor**. Extensions of time for submittal of the **Agency** response shall be given as necessary upon a showing of good cause or, upon consent of the parties, for an initial period of up to thirty (30) **Days**.

27.7.3 Further Proceedings. The Contract Dispute Resolution Board shall permit the **Contractor** to present its case by submission of memoranda, briefs, and oral argument. The Contract Dispute Resolution Board shall also permit the **Agency** to present its case in response to the **Contractor** by submission of memoranda, briefs, and oral argument. If requested by the **City** Corporation Counsel, the **Comptroller** shall provide reasonable assistance in the preparation of the **Agency's** case. Neither the **Contractor** nor the **Agency** may support its case with any documentation or other material that was not considered by the **Comptroller**, unless requested by the Contract Dispute Resolution Board. The Contract Dispute Resolution Board, in its discretion, may seek such technical or other expert advice as it shall deem appropriate and may seek, on its own or upon application of a party, any such additional material from any party as it deems fit. The Contract Dispute Resolution Board, in its discretion, may combine more than one dispute between the parties for concurrent resolution.

27.7.4 Contract Dispute Resolution Board Determination. Within forty-five (45) **Days** of the conclusion of all written submissions and oral arguments, the Contract Dispute Resolution Board shall render a written decision resolving the dispute. In an unusually complex case, the Contract Dispute Resolution Board may render its decision in a longer period, not to exceed ninety (90) **Days**, and shall so advise the parties at the commencement of this period. The Contract Dispute Resolution Board's decision must be consistent with the terms of the **Contract**. Decisions of the Contract Dispute Resolution Board shall only resolve matters before the Contract Dispute Resolution Board and shall not have precedential effect with respect to matters not before the Contract Dispute Resolution Board.

27.7.5 Notification of Contract Dispute Resolution Board Decision. The Contract Dispute Resolution Board shall send a copy of its decision to the **Contractor**, the **ACCO**, the Engineer, the **Comptroller**, the **City** Corporation Counsel, the CCPO, and the **PPB**. A decision in favor of the **Contractor** shall be subject to the prompt payment provisions of the **PPB** Rules. The

Required Payment Date shall be thirty (30) Days after the date the parties are formally notified of the Contract Dispute Resolution Board's decision.

27.7.6 Finality of Contract Dispute Resolution Board Decision. The Contract Dispute Resolution Board's decision shall be final and binding on all parties. Any party may seek review of the Contract Dispute Resolution Board's decision solely in the form of a challenge, filed within four (4) months of the date of the Contract Dispute Resolution Board's decision, in a court of competent jurisdiction of the State of New York, County of New York pursuant to Article 78 of the Civil Practice Law and Rules. Such review by the court shall be limited to the question of whether or not the Contract Dispute Resolution Board's decision was made in violation of lawful procedure, was affected by an error of **Law**, or was arbitrary and capricious or an abuse of discretion. No evidence or information shall be introduced or relied upon in such proceeding that was not presented to the Contract Dispute Resolution Board in accordance with this Article 27.

27.8 Any termination, cancellation, or alleged breach of the **Contract** prior to or during the pendency of any proceedings pursuant to this Article 27 shall not affect or impair the ability of the **Commissioner** or Contract Dispute Resolution Board to make a binding and final decision pursuant to this Article 27.

ARTICLE 28. RECORD KEEPING FOR EXTRA OR DISPUTED WORK OR WORK ON A TIME & MATERIALS BASIS

28.1 While the **Contractor** or any of its **Subcontractors** is performing **Work** on a time and material basis or **Extra Work** on a time and material basis ordered by the **Commissioner** under Article 25, or where the **Contractor** believes that it or any of its **Subcontractors** is performing **Extra Work** but a final determination by **Agency** has not been made, or the **Contractor** or any of its **Subcontractors** is performing disputed **Work** (whether on or off the **Site**), or complying with a determination or order under protest in accordance with Articles 11, 27, and 30, in each such case the **Contractor** shall furnish the **Resident Engineer** daily with three (3) copies of written statements signed by the **Contractor's** representative at the **Site** showing:

28.1.1 The name, trade, and number of each worker employed on such **Work** or engaged in complying with such determination or order, the number of hours employed, and the character of the **Work** each is doing; and

28.1.2 The nature and quantity of any materials, plant and equipment furnished or used in connection with the performance of such **Work** or compliance with such determination or order, and from whom purchased or rented.

28.2 A copy of such statement will be countersigned by the **Resident Engineer**, noting thereon any items not agreed to or questioned, and will be returned to the **Contractor** within two (2) **Days** after submission.

28.3 The **Contractor** and its **Subcontractors**, when required by the **Commissioner**, or the **Comptroller**, shall also produce for inspection, at the office of the **Contractor** or **Subcontractor**, any and all of its books, bid documents, financial statements, vouchers, records, daily job diaries and reports, and cancelled checks, and any other documents relating to showing the nature and quantity of the labor, materials, plant and equipment actually used in the performance of such **Work**, or in complying with such determination or order, and the amounts expended therefor, and shall permit the **Commissioner** and the

Comptroller to make such extracts therefrom, or copies thereof, as they or either of them may desire.

28.4 In connection with the examination provided for herein, the **Commissioner**, upon demand therefor, will produce for inspection by the **Contractor** such records as the **Agency** may have with respect to such **Extra Work** or disputed **Work** performed under protest pursuant to order of the **Commissioner**, except those records and reports which may have been prepared for the purpose of determining the accuracy and validity of the **Contractor's** claim.

28.5 Failure to comply strictly with these requirements shall constitute a waiver of any claim for extra compensation or damages on account of the performance of such **Work** or compliance with such determination or order.

ARTICLE 29. OMITTED WORK

29.1 If any **Contract Work** in a lump sum **Contract**, or if any part of a lump sum item in a unit price, lump sum, or percentage-bid **Contract** is omitted by the **Commissioner** pursuant to Article 33, the **Contract** price, subject to audit by the EAO, shall be reduced by a pro rata portion of the lump sum bid amount based upon the percent of **Work** omitted subject to Article 29.4. For the purpose of determining the pro rata portion of the lump sum bid amount, the bid breakdown submitted in accordance with Article 41 shall be considered, but shall not be the determining factor.

29.2 If the whole of a lump sum item or units of any other item is so omitted by the **Commissioner** in a unit price, lump sum, or percentage-bid **Contract**, then no payment will be made therefor except as provided in Article 29.4.

29.3 For units that have been ordered but are only partially completed, the unit price shall be reduced by a pro rata portion of the unit price bid based upon the percentage of **Work** omitted subject to Article 29.4.

29.4 In the event the **Contractor**, with respect to any omitted **Work**, has purchased any non-cancelable material and/or equipment that is not capable of use except in the performance of this **Contract** and has been specifically fabricated for the sole purpose of this **Contract**, but not yet incorporated into the **Work**, the **Contractor** shall be paid for such material and/or equipment in accordance with Article 64.2.1(b); provided, however, such payment is contingent upon the **Contractor's** delivery of such material and/or equipment in acceptable condition to a location designated by the **City**.

29.5 The **Contractor** agrees to make no claim for damages or for loss of overhead and profit with regard to any omitted **Work**.

ARTICLE 30. NOTICE AND DOCUMENTATION OF COSTS AND DAMAGES; PRODUCTION OF FINANCIAL RECORDS

30.1 If the **Contractor** shall claim to be sustaining damages by reason of any act or omission of the **City** or its agents, it shall submit to the **Commissioner** within forty-five (45) **Days** from the time such damages are first incurred, and every thirty (30) **Days** thereafter to the extent additional damages are being incurred for the same condition, verified statements of the details and the amounts of such damages, together with documentary evidence of such damages. The **Contractor** may submit any of the above statements within such additional time as may be granted by the **Commissioner** in writing upon written request therefor. Failure of the **Commissioner** to respond in writing to a written request for additional time within thirty (30) **Days** shall be deemed a denial of the request. On failure of the **Contractor** to strictly comply with

the foregoing provisions, such claims shall be deemed waived and no right to recover on such claims shall exist. Damages that the **Contractor** may claim in any action or dispute resolution procedure arising under or by reason of this **Contract** shall not be different from or in excess of the statements and documentation made pursuant to this Article 30. This Article 30.1 does not apply to claims submitted to the **Commissioner** pursuant to Article 11 or to claims disputing a determination under Article 27.

30.2 In addition to the foregoing statements, the **Contractor** shall, upon notice from the **Commissioner**, produce for examination at the **Contractor's** office, by the **Engineer, Architect or Project Manager**, all of its books of account, bills, invoices, payrolls, subcontracts, time books, daily reports, bank deposit books, bank statements, check books, and cancelled checks, showing all of its acts and transactions in connection with or relating to or arising by reason of this **Contract**, and submit itself and persons in its employment, for examination under oath by any person designated by the **Commissioner** or **Comptroller** to investigate claims made or disputes against the **City** under this **Contract**. At such examination, a duly authorized representative of the **Contractor** may be present.

30.3 In addition to the statements required under Article 28 and this Article 30, the **Contractor** and/or its **Subcontractor** shall, within thirty (30) **Days** upon notice from the **Commissioner** or **Comptroller**, produce for examination at the **Contractor's** and/or **Subcontractor's** office, by a representative of either the **Commissioner** or **Comptroller**, all of its books of account, bid documents, financial statements, accountant workpapers, bills, invoices, payrolls, subcontracts, time books, daily reports, bank deposit books, bank statements, check books, and cancelled checks, showing all of its acts and transactions in connection with or relating to or arising by reason of this **Contract**. Further, the **Contractor** and/or its **Subcontractor** shall submit any person in its employment, for examination under oath by any person designated by the **Commissioner** or **Comptroller** to investigate claims made or disputes against the **City** under this **Contract**. At such examination, a duly authorized representative of the **Contractor** may be present.

30.4 Unless the information and examination required under Article 30.3 is provided by the **Contractor** and/or its **Subcontractor** upon thirty (30) **Days'** notice from the **Commissioner** or **Comptroller**, or upon the **Commissioner's** or **Comptroller's** written authorization to extend the time to comply, the **City** shall be released from all claims arising under, relating to or by reason of this **Contract**, except for sums certified by the **Commissioner** to be due under the provisions of this **Contract**. It is further stipulated and agreed that no person has the power to waive any of the foregoing provisions and that in any action or dispute resolution procedure against the **City** to recover any sum in excess of the sums certified by the **Commissioner** to be due under or by reason of this **Contract**, the **Contractor** must allege in its complaint and prove, at trial or during such dispute resolution procedure, compliance with the provisions of this Article 30.

30.5 In addition, after the commencement of any action or dispute resolution procedure by the **Contractor** arising under or by reason of this **Contract**, the **City** shall have the right to require the **Contractor** to produce for examination under oath, up until the trial of the action or hearing before the Contract Dispute Resolution Board, the books and documents described in Article 30.3 and submit itself and all persons in its employ for examination under oath. If this Article 30 is not complied with as required, then the **Contractor** hereby consents to the dismissal of the action or dispute resolution procedure.

CHAPTER VII: POWERS OF THE RESIDENT ENGINEER, THE ENGINEER OR ARCHITECT AND THE COMMISSIONER

ARTICLE 31. THE RESIDENT ENGINEER

31.1 The **Resident Engineer** shall have the power to inspect, supervise, and control the performance

of the **Work**, subject to review by the **Commissioner**. The **Resident Engineer** shall not, however, have the power to issue an **Extra Work** order, except as specifically designated in writing by the **Commissioner**.

ARTICLE 32. THE ENGINEER OR ARCHITECT OR PROJECT MANAGER

32.1 The **Engineer** or **Architect** or **Project Manager**, in addition to those matters elsewhere herein delegated to the **Engineer** and expressly made subject to his/her determination, direction or approval, shall have the power, subject to review by the **Commissioner**:

32.1.1 To determine the amount, quality, and location of the **Work** to be paid for hereunder; and

32.1.2 To determine all questions in relation to the **Work**, to interpret the **Contract Drawings, Specifications, and Addenda**, and to resolve all patent inconsistencies or ambiguities therein; and

32.1.3 To determine how the **Work** of this **Contract** shall be coordinated with **Work** of **Other Contractors** engaged simultaneously on this **Project**, including the power to suspend any part of the **Work**, but not the whole thereof; and

32.1.4 To make minor changes in the **Work** as he/she deems necessary, provided such changes do not result in a net change in the cost to the **City** or to the **Contractor** of the **Work** to be done under the **Contract**; and

32.1.5 To amplify the **Contract Drawings**, add explanatory information and furnish additional **Specifications** and drawings, consistent with this **Contract**.

32.2 The foregoing enumeration shall not imply any limitation upon the power of the **Engineer** or **Architect** or **Project Manager**, for it is the intent of this **Contract** that all of the **Work** shall generally be subject to his/her determination, direction, and approval, except where the determination, direction or approval of someone other than the **Engineer** or **Architect** or **Project Manager** is expressly called for herein.

32.3 The **Engineer** or **Architect** or **Project Manager** shall not, however, have the power to issue an **Extra Work** order, except as specifically designated in writing by the **Commissioner**.

ARTICLE 33. THE COMMISSIONER

33.1 The **Commissioner**, in addition to those matters elsewhere herein expressly made subject to his/her determination, direction or approval, shall have the power:

33.1.1 To review and make determinations on any and all questions in relation to this **Contract** and its performance; and

33.1.2 To modify or change this **Contract** so as to require the performance of **Extra Work** (subject, however, to the limitations specified in Article 25) or the omission of **Contract Work**; and

33.1.3 To suspend the whole or any part of the **Work** whenever in his/her judgment such suspension is required:

33.1.3(a) In the interest of the **City** generally; or

33.1.3(b) To coordinate the **Work** of the various contractors engaged on this **Project** pursuant to the provisions of Article 12; or

33.1.3(c) To expedite the completion of the entire **Project** even though the completion of this particular **Contract** may thereby be delayed.

ARTICLE 34. NO ESTOPPEL

34.1 Neither the **City** nor any **Agency**, official, agent or employee thereof, shall be bound, precluded or estopped by any determination, decision, approval, order, letter, payment or certificate made or given under or in connection with this **Contract** by the **City**, the **Commissioner**, the **Engineer**, the **Resident Engineer**, or any other official, agent or employee of the **City**, either before or after the final completion and acceptance of the **Work** and payment therefor:

34.1.1 From showing the true and correct classification, amount, quality or character of the **Work** actually done; or that any such determination, decision, order, letter, payment or certificate was untrue, incorrect or improperly made in any particular, or that the **Work**, or any part thereof, does not in fact conform to the requirements of this **Contract**; and

34.1.2 From demanding and recovering from the **Contractor** any overpayment made to it, or such damages as the **City** may sustain by reason of the **Contractor's** failure to perform each and every part of its **Contract**.

CHAPTER VIII: LABOR PROVISIONS

ARTICLE 35. EMPLOYEES

35.1 The **Contractor** and its **Subcontractors** shall not employ on the **Work**:

35.1.1 Anyone who is not competent, faithful and skilled in the **Work** for which he/she shall be employed; and whenever the **Commissioner** shall inform the **Contractor**, in writing, that any employee is, in his/her opinion, incompetent, unfaithful or disobedient, that employee shall be discharged from the **Work** forthwith, and shall not again be employed upon it; or

35.1.2 Any labor, materials or means whose employment, or utilization during the course of this **Contract**, may tend to or in any way cause or result in strikes, work stoppages, delays, suspension of **Work** or similar troubles by workers employed by the **Contractor** or its **Subcontractors**, or by any of the trades working in or about the buildings and premises where **Work** is being performed under this **Contract**, or by **Other Contractors** or their **Subcontractors** pursuant to other contracts, or on any other building or premises owned or operated by the **City**, its **Agencies**, departments, boards or authorities. Any violation by the **Contractor** of this requirement may, upon certification of the **Commissioner**, be considered as proper and sufficient cause for declaring the **Contractor** to be in default, and for the **City** to take action against it as set forth in Chapter X of this **Contract**, or such other article of this **Contract** as the Commissioner may deem proper; or

35.1.3 In accordance with Section 220.3-e of the Labor Law of the State of New York (hereinafter “Labor Law”), the **Contractor** and its **Subcontractors** shall not employ on the **Work** any apprentice, unless he/she is a registered individual, under a bona fide program registered with the New York State Department of Labor. The allowable ratio of apprentices to journey-level workers in any craft classification shall not be greater than the ratio permitted to the **Contractor** as to its work force on any job under the registered program. Any employee listed on a payroll at an apprentice wage rate, who is not registered as above, shall be paid the wage rate determined by the **Comptroller** of the **City** for the classification of **Work** actually performed. The **Contractor** or **Subcontractor** will be required to furnish written evidence of the registration of its program and apprentices as well as all the appropriate ratios and wage rates, for the area of the construction prior to using any apprentices on the **Contract Work**.

35.2 If the total cost of the **Work** under this **Contract** is at least two hundred fifty thousand (\$250,000) dollars, all laborers, workers, and mechanics employed in the performance of the **Contract** on the public work site, either by the **Contractor**, **Subcontractor** or other person doing or contracting to do the whole or a part of the **Work** contemplated by the **Contract**, shall be certified prior to performing any **Work** as having successfully completed a course in construction safety and health approved by the United States Department of Labor’s Occupational Safety and Health Administration that is at least ten (10) hours in duration.

35.3 In accordance with Local Law Nos. 30-2012 and 33-2012, codified at sections 6-132 and 12-113 of the Administrative Code, respectively,

35.3.1 The **Contractor** shall not take an adverse personnel action with respect to an officer or employee in retaliation for such officer or employee making a report of information concerning conduct which such officer or employee knows or reasonably believes to involve corruption, criminal activity, conflict of interest, gross mismanagement or abuse of authority by any officer or employee relating to this **Contract** to (a) the Commissioner of the Department of Investigation, (b) a member of the New York City Council, the Public Advocate, or the **Comptroller**, or (c) the **CCPO**, **ACCO**, **Agency** head, or **Commissioner**.

35.3.2 If any of the **Contractor**’s officers or employees believes that he or she has been the subject of an adverse personnel action in violation of Article 35.3.1, he or she shall be entitled to bring a cause of action against the **Contractor** to recover all relief necessary to make him or her whole. Such relief may include but is not limited to: (a) an injunction to restrain continued retaliation, (b) reinstatement to the position such employee would have had but for the retaliation or to an equivalent position, (c) reinstatement of full fringe benefits and seniority rights, (d) payment of two times back pay, plus interest, and (e) compensation for any special damages sustained as a result of the retaliation, including litigation costs and reasonable attorney’s fees.

35.3.3 The **Contractor** shall post a notice provided by the **City** in a prominent and accessible place on any site where work pursuant to the **Contract** is performed that contains information about:

35.3.3(a) how its employees can report to the New York City Department of Investigation allegations of fraud, false claims, criminality or corruption arising out of or in connection with the **Contract**; and

35.3.3(b) the rights and remedies afforded to its employees under Administrative Code sections 7-805 (the New York City False Claims Act) and 12-113 (the Whistleblower Protection Expansion Act) for lawful acts taken in connection with the

reporting of allegations of fraud, false claims, criminality or corruption in connection with the **Contract**.

35.3.4 For the purposes of this Article 35.3, “adverse personnel action” includes dismissal, demotion, suspension, disciplinary action, negative performance evaluation, any action resulting in loss of staff, office space, equipment or other benefit, failure to appoint, failure to promote, or any transfer or assignment or failure to transfer or assign against the wishes of the affected officer or employee.

35.3.5 This Article 35.3 is applicable to all of the **Contractor’s Subcontractors** having subcontracts with a value in excess of \$100,000; accordingly, the **Contractor** shall include this rider in all subcontracts with a value a value in excess of \$100,000.

35.4 Article 35.3 is not applicable to this **Contract** if it is valued at \$100,000 or less. Articles 35.3.1, 35.3.2, 35.3.4, and 35.3.5 are not applicable to this **Contract** if it was solicited pursuant to a finding of an emergency.

35.5 Paid Sick Leave Law.

35.5.1 Introduction and General Provisions.

35.5.1(a) The Earned Sick Time Act, also known as the Paid Sick Leave Law (“PSLL”), requires covered employees who annually perform more than 80 hours of work in New York City to be provided with paid sick time². Contractors of the **City** or of other governmental entities may be required to provide sick time pursuant to the PSLL.

35.5.1(b) The PSLL became effective on April 1, 2014, and is codified at Title 20, Chapter 8, of the New York City Administrative Code. It is administered by the City’s Department of Consumer Affairs (“DCA”); DCA’s rules promulgated under the PSLL are codified at Chapter 7 of Title 6 of the Rules of the City of New York (“Rules”).

35.5.1(c) The **Contractor** agrees to comply in all respects with the PSLL and the Rules, and as amended, if applicable, in the performance of this **Contract**. The **Contractor** further acknowledges that such compliance is a material term of this **Contract** and that failure to comply with the PSLL in performance of this **Contract** may result in its termination.

35.5.1(d) The **Contractor** must notify the **Agency Chief Contracting Officer** of the **Agency** with whom it is contracting in writing within ten (10) days of receipt of a complaint (whether oral or written) regarding the PSLL involving the performance of this **Contract**. Additionally, the **Contractor** must cooperate with DCA’s education efforts and must comply with DCA’s subpoenas and other document demands as set forth in the PSLL and Rules.

35.5.1(e) The PSLL is summarized below for the convenience of the **Contractor**. The **Contractor** is advised to review the PSLL and Rules in their entirety. On the

² Pursuant to the PSLL, if fewer than five employees work for the same employer, as determined pursuant to New York City Administrative Code § 20-912(g), such employer has the option of providing such employees uncompensated sick time.

website www.nyc.gov/PaidSickLeave there are links to the PSL and the associated Rules as well as additional resources for employers, such as Frequently Asked Questions, timekeeping tools and model forms, and an event calendar of upcoming presentations and webinars at which the **Contractor** can get more information about how to comply with the PSL. The **Contractor** acknowledges that it is responsible for compliance with the PSL notwithstanding any inconsistent language contained herein.

35.5.2 Pursuant to the PSL and the Rules: Applicability, Accrual, and Use.

35.5.2(a) An employee who works within the City of New York for more than eighty hours in any consecutive 12-month period designated by the employer as its “calendar year” pursuant to the PSL (“Year”) must be provided sick time. Employers must provide a minimum of one hour of sick time for every 30 hours worked by an employee and compensation for such sick time must be provided at the greater of the employee’s regular hourly rate or the minimum wage. Employers are not required to provide more than 40 hours of sick time to an employee in any Year.

35.5.2(b) An employee has the right to determine how much sick time he or she will use, provided that employers may set a reasonable minimum increment for the use of sick time not to exceed four hours per **Day**. In addition, an employee may carry over up to 40 hours of unused sick time to the following Year, provided that no employer is required to allow the use of more than forty hours of sick time in a Year or carry over unused paid sick time if the employee is paid for such unused sick time and the employer provides the employee with at least the legally required amount of paid sick time for such employee for the immediately subsequent Year on the first **Day** of such Year.

35.5.2(c) An employee entitled to sick time pursuant to the PSL may use sick time for any of the following:

- i. such employee’s mental illness, physical illness, injury, or health condition or the care of such illness, injury, or condition or such employee’s need for medical diagnosis or preventive medical care;
- ii. such employee’s care of a family member (an employee’s child, spouse, domestic partner, parent, sibling, grandchild or grandparent, or the child or parent of an employee’s spouse or domestic partner) who has a mental illness, physical illness, injury or health condition or who has a need for medical diagnosis or preventive medical care;
- iii. closure of such employee’s place of business by order of a public official due to a public health emergency; or
- iv. such employee’s need to care for a child whose school or childcare provider has been closed due to a public health emergency.

35.5.2(d) An employer must not require an employee, as a condition of taking sick time, to search for a replacement. However, an employer may require an employee to provide: reasonable notice of the need to use sick time; reasonable documentation that the use of sick time was needed for a reason above if for an absence of more than three consecutive work days; and/or written confirmation that an employee used sick time pursuant to the PSL. However, an employer may not require documentation specifying the nature of a medical condition or otherwise require disclosure of the details of a medical condition as a condition of providing sick time and health information obtained solely due to an employee’s use of sick time pursuant to the PSL must be treated by the

employer as confidential.

35.5.2(e) If an employer chooses to impose any permissible discretionary requirement as a condition of using sick time, it must provide to all employees a written policy containing those requirements, using a delivery method that reasonably ensures that employees receive the policy. If such employer has not provided its written policy, it may not deny sick time to an employee because of non-compliance with such a policy.

35.5.2(f) Sick time to which an employee is entitled must be paid no later than the payday for the next regular payroll period beginning after the sick time was used.

35.5.3 Exemptions and Exceptions. Notwithstanding the above, the PSLL does not apply to any of the following:

35.5.3(a) an independent contractor who does not meet the definition of employee under section 190(2) of the New York State Labor Law;

35.5.3(b) an employee covered by a valid collective bargaining agreement in effect on April 1, 2014, until the termination of such agreement;

35.5.3(c) an employee in the construction or grocery industry covered by a valid collective bargaining agreement if the provisions of the PSLL are expressly waived in such collective bargaining agreement;

35.5.3(d) an employee covered by another valid collective bargaining agreement if such provisions are expressly waived in such agreement and such agreement provides a benefit comparable to that provided by the PSLL for such employee;

35.5.3(e) an audiologist, occupational therapist, physical therapist, or speech language pathologist who is licensed by the New York State Department of Education and who calls in for work assignments at will, determines his or her own schedule, has the ability to reject or accept any assignment referred to him or her, and is paid an average hourly wage that is at least four times the federal minimum wage;

35.5.3(f) an employee in a work study program under Section 2753 of Chapter 42 of the United States Code;

35.5.3(g) an employee whose work is compensated by a qualified scholarship program as that term is defined in the Internal Revenue Code, Section 117 of Chapter 20 of the United States Code; or

35.5.3(h) a participant in a Work Experience Program (WEP) under section 336-c of the New York State Social Services Law.

35.5.4 Retaliation Prohibited. An employer may not threaten or engage in retaliation against an employee for exercising or attempting in good faith to exercise any right provided by the PSLL. In addition, an employer may not interfere with any investigation, proceeding, or hearing pursuant to the PSLL.

35.5.5 Notice of Rights.

35.5.5(a) An employer must provide its employees with written notice of their rights pursuant to the PSLL. Such notice must be in English and the primary language spoken

by an employee, provided that DCA has made available a translation into such language. Downloadable notices are available on DCA's website at <http://www.nyc.gov/html/dca/html/law/PaidSickLeave.shtml>.

35.5.5(b) Any person or entity that willfully violates these notice requirements is subject to a civil penalty in an amount not to exceed fifty dollars for each employee who was not given appropriate notice.

35.5.6 Records. An employer must retain records documenting its compliance with the PSLL for a period of at least three years, and must allow DCA to access such records in furtherance of an investigation related to an alleged violation of the PSLL.

35.5.7 Enforcement and Penalties.

35.5.7(a) Upon receiving a complaint alleging a violation of the PSLL, DCA has the right to investigate such complaint and attempt to resolve it through mediation. Within **30 Days** of written notification of a complaint by DCA, or sooner in certain circumstances, the employer must provide DCA with a written response and such other information as DCA may request. If DCA believes that a violation of the PSLL has occurred, it has the right to issue a notice of violation to the employer.

35.5.7(b) DCA has the power to grant an employee or former employee all appropriate relief as set forth in New York City Administrative Code § 20-924(d). Such relief may include, among other remedies, treble damages for the wages that should have been paid, damages for unlawful retaliation, and damages and reinstatement for unlawful discharge. In addition, DCA may impose on an employer found to have violated the PSLL civil penalties not to exceed \$500 for a first violation, \$750 for a second violation within two years of the first violation, and \$1,000 for each succeeding violation within two years of the previous violation.

35.5.8 More Generous Policies and Other Legal Requirements. Nothing in the PSLL is intended to discourage, prohibit, diminish, or impair the adoption or retention of a more generous sick time policy, or the obligation of an employer to comply with any contract, collective bargaining agreement, employment benefit plan or other agreement providing more generous sick time. The PSLL provides minimum requirements pertaining to sick time and does not preempt, limit or otherwise affect the applicability of any other law, regulation, rule, requirement, policy or standard that provides for greater accrual or use by employees of sick leave or time, whether paid or unpaid, or that extends other protections to employees. The PSLL may not be construed as creating or imposing any requirement in conflict with any federal or state law, rule or regulation.

35.6 HireNYC: Hiring and Reporting Requirements. This Article 35.6 applies to construction contracts of \$1,000,000 or more. The **Contractor** shall comply with the requirements of Articles 35.6.1-35.6.5 for all non-trades jobs (e.g., for an administrative position arising out of **Work** ant located in New York City). The **Contractor** shall reasonably cooperate with SBS and the **City** on specific outreach events, including "Hire-on-the-Spot" events, for the hiring of trades workers in connection with the **Work**. If provided elsewhere in this **Contract**, this **Contract** is subject to a project labor agreement.

35.6.1 Enrollment. The **Contractor** shall enroll with the HireNYC system, found at www.nyc.gov/sbs, within thirty (30) days after the registration of this **Contract** pursuant to Section 328 of the New York City Charter. The **Contractor** shall provide information about the business, designate a primary contact and say whether it intends to hire for any entry

to mid-level job opportunities arising from this **Contract** and located in New York City, and, if so, the approximate start date of the first hire.

35.6.2 Job Posting Requirements.

35.6.2(a) Once enrolled in HireNYC, the **Contractor** agrees to update the HireNYC portal with all entry to mid-level job opportunities arising from this **Contract** and located in New York City, if any, which shall be defined as jobs requiring no more than an associate degree, as provided by the New York State Department of Labor (see Column F of <https://labor.ny.gov/stats/2012-2022-NYS-Employment-Prospects.xls>). The information to be updated includes the types of entry and mid-level positions made available from the work arising from the **Contract** and located in New York City, the number of positions, the anticipated schedule of initiating the hiring process for these positions, and the contact information for the **Contractor's** representative charged with overseeing hiring. The **Contractor** must update the HireNYC portal with any hiring needs arising from the contract and located in New York City, and the requirements of the jobs to be filled, no less than three weeks prior to the intended first day of employment for each new position, except with the permission of SBS, not to be unreasonably withheld, and must also update the HireNYC portal as set forth below.

35.6.2(b) After enrollment through HireNYC and submission of relevant information, SBS will work with the **Contractor** to develop a recruitment plan which will outline the candidate screening process, and will provide clear instructions as to when, where, and how interviews will take place. HireNYC will screen applicants based on employer requirements and refer applicants whom it believes are qualified to the **Contractor** for interviews. The **Contractor** must interview referred applicants whom it believes are qualified.

35.6.2(c) After completing an interview of a candidate referred by HireNYC, the **Contractor** must provide feedback via the portal within twenty (20) business days to indicate which candidates were interviewed and hired, if any. In addition, the **Contractor** shall provide the start date of new hires, and additional information reasonably related to such hires, within twenty (20) business days after the start date. In the event the **Contractor** does not have any job openings covered by this Rider in any given year, the **Contractor** shall be required to provide an annual update to HireNYC to that effect. For this purpose, the reporting year shall run from the date of the registration of the **Contract** pursuant to Charter section 328 and each anniversary date.

35.6.2(d) These requirements do not limit the **Contractor's** ability to assess the qualifications of prospective workers, and to make final hiring and retention decisions. No provision of this Article 35.6 shall be interpreted so as to require the **Contractor** to employ any particular worker.

35.6.2(e) In addition, the provisions of this Article 35.6 shall not apply to positions that the **Contractor** intends to fill with employees employed pursuant to the job retention provision of Section 22-505 of the Administrative Code of the City of New York. The **Contractor** shall not be required to report such openings with HireNYC. However, the **Contractor** shall enroll with the HireNYC system pursuant to Article 35.6.1, above, and, if such positions subsequently become open, then the remaining provisions of this Article 35.6 will apply.

35.6.3 Breach and Liquidated Damages. If the **Contractor** fails to comply with the terms of the **Contract** and this Article 35.6 (1) by not enrolling its business with HireNYC; (2) by not informing HireNYC, as required, of open positions; or (3) by failing to interview a qualified candidate, the **Agency** may assess liquidated damages in the amount of two-thousand five hundred dollars (\$2,500) per breach. For all other events of noncompliance with the terms of this Article 35.6, the **Agency** may assess liquidated damages in the amount of five hundred dollars (\$500) per breach. Furthermore, in the event the **Contractor** breaches the requirements of this Article 35.6 during the term of the **Contract**, the **City** may hold the **Contractor** in default of this **Contract**.

35.6.4 Audit Compliance. In addition to the auditing requirements set forth in other parts of the **Contract**, the **Contractor** shall permit SBS and the **City** to inspect any and all records concerning or relating to job openings or the hiring of individuals for work arising from the **Contract** and located in New York City. The **Contractor** shall permit an inspection within seven (7) business days of the request.

35.6.5 Other Reporting Requirements. The **Contractor** shall report to the **City**, on a monthly basis, all information reasonably requested by the **City** that is necessary for the **City** to comply with any reporting requirements imposed by **Law**, including any requirement that the **City** maintain a publicly accessible database. In addition, the **Contractor** agrees to comply with all reporting requirements imposed by **Law**, or as otherwise requested by the **City**.

35.6.6 Federal Hiring Requirements. If this **Contract** is federally funded (as indicated elsewhere in this **Contract**), the **Contractor** shall comply with all federal hiring requirements as may be set forth in this **Contract**, including, as applicable: (a) Section 3 of the HUD Act of 1968, which requires, to the greatest extent feasible, economic opportunities for 30 percent of new hires be given to low- and very low-income persons, particularly persons who are recipients of HUD assistance for housing and Executive Order 11246, which prohibits discrimination in employment due to race, color, religion, sex or national origin, and requires the implementation of goals for minority and female participation for work involving any construction trade.

ARTICLE 36. NO DISCRIMINATION

36.1 The **Contractor** specifically agrees, as required by Labor Law Section 220-e, as amended, that:

36.1.1 In the hiring of employees for the performance of **Work** under this **Contract** or any subcontract hereunder, neither the **Contractor**, **Subcontractor**, nor any person acting on behalf of such **Contractor** or **Subcontractor**, shall by reason of race, creed, color or national origin discriminate against any citizen of the State of New York who is qualified and available to perform the **Work** to which the employment relates;

36.1.2 Neither the **Contractor**, **Subcontractor**, nor any person on its behalf shall, in any manner, discriminate against or intimidate any employee hired for the performance of **Work** under this **Contract** on account of race, creed, color or national origin;

36.1.3 There may be deducted from the amount payable to the **Contractor** by the **City** under this **Contract** a penalty of fifty (\$50.00) dollars for each person for each **Day** during which such person was discriminated against or intimidated in violation of the provisions of this

Contract; and

36.1.4 This **Contract** may be cancelled or terminated by the **City** and all moneys due or to become due hereunder may be forfeited, for a second or any subsequent violation of the terms or conditions of this Article 36.

36.1.5 This Article 36 covers all construction, alteration and repair of any public building or public work occurring in the State of New York and the manufacture, sale, and distribution of materials, equipment, and supplies to the extent that such operations are performed within the State of New York pursuant to this **Contract**.

36.2 The **Contractor** specifically agrees, as required by Section 6-108 of the Administrative Code, as amended, that:

36.2.1 It shall be unlawful for any person engaged in the construction, alteration or repair of buildings or engaged in the construction or repair of streets or highways pursuant to a **Contract** with the **City** or engaged in the manufacture, sale or distribution of materials, equipment or supplies pursuant to a **Contract** with the **City** to refuse to employ or to refuse to continue in any employment any person on account of the race, color or creed of such person.

36.2.2 It shall be unlawful for any person or any servant, agent or employee of any person, described in Article 36.1.2, to ask, indicate or transmit, orally or in writing, directly or indirectly, the race, color or creed or religious affiliation of any person employed or seeking employment from such person, firm or corporation.

36.2.3 Breach of the foregoing provisions shall be deemed a violation of a material provision of this **Contract**.

36.2.4 Any person, or the employee, manager or owner of or officer of such firm or corporation who shall violate any of the provisions of this Article 36.2 shall, upon conviction thereof, be punished by a fine of not more than one hundred (\$100.00) dollars or by imprisonment for not more than thirty (30) **Days**, or both.

36.3 This **Contract** is subject to the requirements of Executive Order No. 50 (1980) (“E.O. 50”), as revised, and the rules and regulations promulgated thereunder. No contract will be awarded unless and until these requirements have been complied with in their entirety. By signing this **Contract**, the **Contractor** agrees that it:

36.3.1 Will not engage in any unlawful discrimination against any employee or applicant for employment because of race, creed, color, national origin, sex, age, disability, marital status or sexual orientation with respect to all employment decisions including, but not limited to, recruitment, hiring, upgrading, demotion, downgrading, transfer, training, rates of pay or other forms of compensation, layoff, termination, and all other terms and conditions of employment; and

36.3.2 Will not engage in any unlawful discrimination in the selection of **Subcontractors** on the basis of the owner’s race, color, creed, national origin, sex, age, disability, marital status or sexual orientation; and

36.3.3 Will state in all solicitations or advertisements for employees placed by or on behalf of the **Contractor** that all qualified applicants will receive consideration for employment without unlawful discrimination based on race, creed, color, national origin, sex, age, citizens status,

disability, marital status, sexual orientation, or that it is an equal employment opportunity employer; and

36.3.4 Will send to each labor organization or representative of workers with which it has a collective bargaining agreement or other contract or memorandum of understanding, written notification of its equal employment opportunity commitments under E.O. 50 and the rules and regulations promulgated thereunder; and

36.3.5 Will furnish, before the award of the **Contract**, all information and reports, including an employment report, that are required by E.O. 50, the rules and regulations promulgated thereunder, and orders of the **City** Department of Business Services, Division of Labor Services (**DLS**) and will permit access to its books, records, and accounts by the **DLS** for the purposes of investigation to ascertain compliance with such rules, regulations, and orders.

36.4 The **Contractor** understands that in the event of its noncompliance with the nondiscrimination clauses of this **Contract** or with any of such rules, regulations, or orders, such noncompliance shall constitute a material breach of this **Contract** and noncompliance with E.O. 50 and the rules and regulations promulgated thereunder. After a hearing held pursuant to the rules of the **DLS**, the Director of the **DLS** may direct the **Commissioner** to impose any or all of the following sanctions:

36.4.1 Disapproval of the **Contractor**; and/or

36.4.2 Suspension or termination of the **Contract**; and/or

36.4.3 Declaring the **Contractor** in default; and/or

36.4.4 In lieu of any of the foregoing sanctions, the Director of the **DLS** may impose an employment program.

In addition to any actions taken under this **Contract**, failure to comply with E.O. 50 and the rules and regulations promulgated thereunder, in one or more instances, may result in a **City Agency** declaring the **Contractor** to be non-responsible in future procurements. The **Contractor** further agrees that it will refrain from entering into any **Contract** or **Contract** modification subject to E.O. 50 and the rules and regulations promulgated thereunder with a **Subcontractor** who is not in compliance with the requirements of E.O. 50 and the rules and regulations promulgated thereunder.

36.5 The **Contractor** specifically agrees, as required by Section 6-123 of the Administrative Code, that:

36.5.1 The **Contractor** will not engage in any unlawful discriminatory practice in violation of Title 8 of the Administrative Code; and

36.5.2 Any failure to comply with this Article 36.5 may subject the **Contractor** to the remedies set forth in Section 6-123 of the Administrative Code, including, where appropriate, sanctions such as withholding of payment, imposition of an employment program, finding the **Contractor** to be in default, cancellation of the **Contract**, or any other sanction or remedy provided by **Law** or **Contract**.

ARTICLE 37. LABOR LAW REQUIREMENTS

37.1 The **Contractor** shall strictly comply with all applicable provisions of the Labor Law, as

amended. Such compliance is a material term of this **Contract**.

37.2 The **Contractor** specifically agrees, as required by Labor Law Sections 220 and 220-d, as amended, that:

37.2.1 Hours of **Work**: No laborer, worker, or mechanic in the employ of the **Contractor**, **Subcontractor** or other person doing or contracting to do the whole or a part of the **Work** contemplated by this **Contract** shall be permitted or required to work more than eight (8) hours in any one (1) **Day**, or more than five (5) **Days** in any one (1) week, except as provided in the Labor Law and in cases of extraordinary emergency including fire, flood, or danger to life or property, or in the case of national emergency when so proclaimed by the President of the United States of America.

37.2.2 In situations in which there are not sufficient laborers, workers, and mechanics who may be employed to carry on expeditiously the **Work** contemplated by this **Contract** as a result of such restrictions upon the number of hours and **Days** of labor, and the immediate commencement or prosecution or completion without undue delay of the **Work** is necessary for the preservation of the **Site** and/or for the protection of the life and limb of the persons using the same, such laborers, workers, and mechanics shall be permitted or required to work more than eight (8) hours in any one (1) **Day**; or five (5) **Days** in any one (1) week; provided, however, that upon application of any **Contractor**, the **Commissioner** shall have first certified to the Commissioner of Labor of the State of New York (hereinafter "Commissioner of Labor") that such public **Work** is of an important nature and that a delay in carrying it to completion would result in serious disadvantage to the public; and provided, further, that such Commissioner of Labor shall have determined that such an emergency does in fact exist as provided in Labor Law Section 220.2.

37.2.3 Failure of the **Commissioner** to make such a certification to the Commissioner of Labor shall not entitle the **Contractor** to damages for delay or for any cause whatsoever.

37.2.4 Prevailing Rate of Wages: The wages to be paid for a legal day's **Work** to laborers, workers, or mechanics employed upon the **Work** contemplated by this **Contract** or upon any materials to be used thereon shall not be less than the "prevailing rate of wage" as defined in Labor Law Section 220, and as fixed by the **Comptroller** in the attached Schedule of Wage Rates and in updated schedules thereof. The prevailing wage rates and supplemental benefits to be paid are those in effect at the time the **Work** is being performed.

37.2.5 Requests for interpretation or correction in the Information for Bidders includes all requests for clarification of the classification of trades to be employed in the performance of the **Work** under this **Contract**. In the event that a trade not listed in the **Contract** is in fact employed during the performance of this **Contract**, the **Contractor** shall be required to obtain from the **Agency** the prevailing wage rates and supplementary benefits for the trades used and to complete the performance of this **Contract** at the price at which the **Contract** was awarded.

37.2.6 Minimum Wages: Except for employees whose wage is required to be fixed pursuant to Labor Law Section 220, all persons employed by the **Contractor** and any **Subcontractor** in the manufacture or furnishing of the supplies, materials, or equipment, or the furnishing of work, labor, or services, used in the performance of this **Contract**, shall be paid, without subsequent deduction or rebate unless expressly authorized by **Law**, not less than the sum mandated by **Law**.

37.3 Working Conditions: No part of the **Work**, labor or services shall be performed or rendered by

the **Contractor** in any plants, factories, buildings or surroundings or under working conditions which are unsanitary or hazardous or dangerous to the health and safety of employees engaged in the performance of this **Contract**. Compliance with the safety, sanitary, and factory inspection **Laws** of the state in which the **Work** is to be performed shall be prima facie evidence of compliance with this Article 37.3.

37.4 Prevailing Wage Enforcement: The **Contractor** agrees to pay for all costs incurred by the **City** in enforcing prevailing wage requirements, including the cost of any investigation conducted by or on behalf of the **Agency** or the **Comptroller**, where the **City** discovers a failure to comply with any of the requirements of this Article 37 by the **Contractor** or its **Subcontractor(s)**. The **Contractor** also agrees that, should it fail or refuse to pay for any such investigation, the **Agency** is hereby authorized to deduct from a **Contractor's** account an amount equal to the cost of such investigation.

37.4.1 The Labor Law Section 220 and Section 220-d, as amended, provide that this **Contract** shall be forfeited and no sum paid for any **Work** done hereunder on a second conviction for willfully paying less than:

37.4.1(a) The stipulated prevailing wage scale as provided in Labor Law section 220, as amended, or

37.4.1(b) The stipulated minimum hourly wage scale as provided in Labor Law section 220-d, as amended.

37.4.2 For any breach or violation of either working conditions (Article 37.3) or minimum wages (Article 37.2.6) provisions, the party responsible therefor shall be liable to the **City** for liquidated damages, which may be withheld from any amounts due on any contracts with the **City** of such party responsible, or may be recovered in actions brought by the **City** Corporation Counsel in the name of the **City**, in addition to damages for any other breach of this **Contract**, for a sum equal to the amount of any underpayment of wages due to any employee engaged in the performance of this **Contract**. In addition, the **Commissioner** shall have the right to cancel contracts and enter into other contracts for the completion of the original contract, with or without public letting, and the original **Contractor** shall be liable for any additional cost. All sums withheld or recovered as deductions, rebates, refunds, or underpayment of wages hereunder, shall be held in a special deposit account and shall be paid without interest, on order of the **Comptroller**, directly to the employees who have been paid less than minimum rates of pay as set forth herein and on whose account such sums were withheld or recovered, provided that no claims by employees for such payments shall be entertained unless made within two (2) years from the date of actual notice to the **Contractor** of the withholding or recovery of such sums by the **City**.

37.4.3 A determination by the **Comptroller** that a **Contractor** and/or its **Subcontractor** willfully violated Labor Law Section 220 will be forwarded to the **City's** five District Attorneys for review.

37.4.4 The **Contractor's** or **Subcontractor's** noncompliance with this Article 37.4 and Labor Law Section 220 may result in an unsatisfactory performance evaluation and the **Comptroller** may also find and determine that the **Contractor** or **Subcontractor** willfully violated the New York Labor **Law**.

37.4.4(a) An unsatisfactory performance evaluation for noncompliance with this Article 37.4 may result in a determination that the **Contractor** is a non-responsible bidder on subsequent procurements with the **City** and thus a rejection of a future award

of a contract with the **City**, as well as any other sanctions provided for by **Law**.

37.4.4(b) Labor Law Section 220-b, as amended, provides that when two (2) final determinations have been rendered against a **Contractor** or **Subcontractor** within any consecutive six (6) year period determining that such **Contractor** or **Subcontractor** has willfully failed to pay the prevailing rate of wages or to provide supplements in accordance with the Labor Law and this Article 37.4, whether such failures were concurrent or consecutive and whether or not such final determinations concerning separate public works projects are rendered simultaneously, such **Contractor** or **Subcontractor** shall be ineligible to submit a bid on or be awarded any public works contract with the **City** for a period of five (5) years from the second final determination. If the final determination involves the falsification of payroll records or the kickback of wages or supplements, the **Contractor** or **Subcontractor** shall be ineligible to submit a bid on or be awarded any public works contract with the **City** for a period of five (5) years from the first final determination.

37.4.4(c) Labor Law Section 220, as amended, provides that the **Contractor** or **Subcontractor** found to have violated this Article 37.4 may be directed to make payment of wages or supplements including interest found to be due, and the **Contractor** or **Subcontractor** may be directed to make payment of a further sum as a civil penalty in an amount not exceeding twenty-five (25%) percent of the total amount found to be due.

37.5 The **Contractor** and its **Subcontractors** shall within ten (10) **Days** after mailing of a Notice of Award or written order, post in prominent and conspicuous places in each and every plant, factory, building, and structure where employees of the **Contractor** and its **Subcontractors** engaged in the performance of this **Contract** are employed, notices furnished by the **City**, in relation to prevailing wages and supplements, minimum wages, and other stipulations contained in Sections 220 and 220-h of the Labor Law, and the **Contractor** and its **Subcontractors** shall continue to keep such notices posted in such prominent and conspicuous places until **Final Acceptance** of the supplies, materials, equipment, or **Work**, labor, or services required to be furnished or rendered under this **Contract**.

37.6 The **Contractor** shall strictly comply with all of the provisions of Articles 37.6.1 through 37.6.5, and provide for all workers, laborers or mechanics in its employ, the following:

37.6.1 Notices Posted At **Site**: Post, in a location designated by the **City**, schedules of prevailing wages and supplements for this **Project**, a copy of all re-determinations of such schedules for the **Project**, the Workers' Compensation **Law** Section 51 notice, all other notices required by **Law** to be posted at the **Site**, the **City** notice that this **Project** is a public works project on which each worker is entitled to receive the prevailing wages and supplements for the occupation at which he or she is working, and all other notices which the **City** directs the **Contractor** to post. The **Contractor** shall provide a surface for such notices which is satisfactory to the **City**. The **Contractor** shall maintain and keep current such notices in a legible manner and shall replace any notice or schedule which is damaged, defaced, illegible or removed for any reason. The **Contractor** shall post such notices before commencing any **Work** on the **Site** and shall maintain such notices until all **Work** on the **Site** is complete; and

37.6.2 Daily **Site** Sign-in Sheets: Maintain daily **Site** sign-in sheets, and require that **Subcontractors** maintain daily **Site** sign-in sheets for its employees, which include blank spaces for an employee's name to be both printed and signed, job title, date started and Social Security number, the time the employee began work and the time the employee left

work, until **Final Acceptance** of the supplies, materials, equipment, or **Work**, labor, or services to be furnished or rendered under this **Contract** unless exception is granted by the **Comptroller** upon application by the **Agency**. In the alternative, subject to the approval of the **CCPO**, the **Contractor** and **Subcontractor** may maintain an electronic or biometric sign-in system, which provides the information required by this Article 37.6.2; and

37.6.3 Individual Employee Information Notices: Distribute a notice to each worker, laborer or mechanic employed under this **Contract**, in a form provided by the **Agency**, that this **Project** is a public works project on which each worker, laborer or mechanic is entitled to receive the prevailing rate of wages and supplements for the occupation at which he or she is working. If the total cost of the **Work** under this **Contract** is at least two hundred fifty thousand (\$250,000) dollars, such notice shall also include a statement that each worker, laborer or mechanic must be certified prior to performing any **Work** as having successfully completed a course in construction safety and health approved by the United States Department of Labor's Occupational Safety and Health Administration that is at least ten (10) hours in duration. Such notice shall be distributed to each worker before he or she starts performing any **Work** of this **Contract** and with the first paycheck after July first of each year. "Worker, laborer or mechanic" includes employees of the **Contractor** and all **Subcontractors** and all employees of suppliers entering the **Site**. At the time of distribution, the **Contractor** shall have each worker, laborer or mechanic sign a statement, in a form provided by the **Agency**, certifying that the worker has received the notice required by this Article 37.6.3, which signed statement shall be maintained with the payroll records required by this **Contract**; and

37.6.3(a) The **Contractor** and each **Subcontractor** shall notify each worker, laborer or mechanic employed under this **Contract** in writing of the prevailing rate of wages for their particular job classification. Such notification shall be given to every worker, laborer, and mechanic on their first pay stub and with every pay stub thereafter; and

37.6.4 **Site Laminated Identification Badges**: The **Contractor** shall provide laminated identification badges which include a photograph of the worker's, laborer's or mechanic's face and indicate the worker's, laborer's or mechanic's name, trade, employer's name, and employment starting date (month/day/year). Further, the **Contractor** shall require as a condition of employment on the **Site**, that each and every worker, laborer or mechanic wear the laminated identification badge at all times and that it may be seen by any representative of the **City**. The **Commissioner** may grant a written waiver from the requirement that the laminated identification badge include a photograph if the **Contractor** demonstrates that the identity of an individual wearing a laminated identification badge can be easily verified by another method; and

37.6.5 **Language Other Than English Used On Site**: Provide the **ACCO** notice when three (3) or more employees (worker and/or laborer and/or mechanic) on the **Site**, at any time, speak a language other than English. The **ACCO** will then provide the **Contractor** the notices described in Article 37.6.1 in that language or languages as may be required. The **Contractor** is responsible for all distributions under this Article 37; and

37.6.6 **Provision of Records**: The **Contractor** and **Subcontractor(s)** shall produce within five (5) **Days** on the **Site** of the **Work** and upon a written order of the **Engineer**, the **Commissioner**, the **ACCO**, the **Agency EAO**, or the **Comptroller**, such records as are required to be kept by this Article 37.6; and

37.6.7 The **Contractor** and **Subcontractor(s)** shall pay employees by check or direct deposit. If this **Contract** is for an amount greater than one million (\$1,000,000) dollars, checks issued by the **Contractor** to covered employees shall be generated by a payroll service or automated payroll system (an in-house system may be used if approved by the **Agency**). For any subcontract for an amount greater than seven hundred fifty thousand (\$750,000) dollars, checks issued by a **Subcontractor** to covered employees shall be generated by a payroll service or automated payroll system (an in-house system may be used if approved by the **Agency**); and

37.6.8 The failure of the **Contractor** or **Subcontractor(s)** to comply with the provisions of Articles 37.6.1 through 37.6.7 may result in the **Commissioner** declaring the **Contractor** in default and/or the withholding of payments otherwise due under the **Contract**.

37.7 The **Contractor** and its **Subcontractors** shall keep such employment and payroll records as are required by Section 220 of the Labor Law. The failure of the **Contractor** or **Subcontractor(s)** to comply with the provisions of this Article 37.7 may result in the **Commissioner** declaring the **Contractor** in default and/or the withholding of payments otherwise due under the **Contract**.

37.8 At the time the **Contractor** makes application for each partial payment and for final payment, the **Contractor** shall submit to the **Commissioner** a written payroll certification, in the form provided by this **Contract**, of compliance with the prevailing wage, minimum wage, and other provisions and stipulations required by Labor Law Section 220 and of compliance with the training requirements of Labor Law Section 220-h set forth in Article 35.2. This certification of compliance shall be a condition precedent to payment and no payment shall be made to the **Contractor** unless and until each such certification shall have been submitted to and received by the **Commissioner**.

37.9 This **Contract** is executed by the **Contractor** with the express warranty and representation that the **Contractor** is not disqualified under the provisions of Section 220 of the Labor Law from the award of the **Contract**.

37.10 Any breach or violation of any of the foregoing shall be deemed a breach or violation of a material provision of this **Contract**, and grounds for cancellation thereof by the **City**.

ARTICLE 38. PAYROLL REPORTS

38.1 The **Contractor** and its **Subcontractor(s)** shall maintain on the **Site** during the performance of the **Work** the original payrolls or transcripts thereof which the **Contractor** and its **Subcontractor(s)** are required to maintain and shall submit such original payrolls or transcripts, subscribed and affirmed by it as true, within thirty (30) **Days** after issuance of its first payroll, and every thirty (30) **Days** thereafter, pursuant to Labor Law Section 220(3-a)(a)(iii). The **Contractor** and **Subcontractor(s)** shall submit such original payrolls or transcripts along with each and every payment requisition. If payment requisitions are not submitted at least once a month, the **Contractor** and its **Subcontractor(s)** shall submit original payrolls and transcripts both along with its payment requisitions and independently of its payment requisitions.

38.2 The **Contractor** shall maintain payrolls or transcripts thereof for six (6) years from the date of completion of the **Work** on this **Contract**. If such payrolls and transcripts are maintained outside of New York City after the completion of the **Work** and their production is required pursuant to this Article 38, the **Contractor** shall produce such records in New York City upon request by the **City**.

38.3 The **Contractor** and **Subcontractor(s)** shall comply with any written order, direction, or request made by the **Engineer**, the **Commissioner**, the **ACCO**, the **Agency EAO**, the **Agency Labor Law**

Investigator(s), or the **Comptroller**, to provide to the requesting party any of the following information and/or records within five (5) **Days** of such written order, direction, or request:

38.3.1 Such original payrolls or transcripts thereof subscribed and affirmed by it as true and the statements signed by each worker pursuant to this Chapter VIII; and/or

38.3.2 Attendance sheets for each **Day** on which any employee of the **Contractor** and/or any of the **Subcontractor(s)** performed **Work** on the **Site**, which attendance sheet shall be in a form acceptable to the **Agency** and shall provide information acceptable to the **Agency** to identify each such employee; and/or

38.3.3 Any other information to satisfy the **Engineer**, the **Commissioner**, the **ACCO**, the **Agency EAO**, the **Agency Labor Law Investigator(s)** or the **Comptroller**, that this Chapter VIII and the Labor Law, as to the hours of employment and prevailing rates of wages and/or supplemental benefits, are being observed.

38.4 The failure of the **Contractor** or **Subcontractor(s)** to comply with the provisions of Articles 38.1 and/or 38.2 may result in the **Commissioner** declaring the **Contractor** in default and/or the withholding of payments otherwise due under the **Contract**.

ARTICLE 39. DUST HAZARDS

39.1 Should a harmful dust hazard be created in performing the **Work** of this **Contract**, for the elimination of which appliances or methods have been approved by the Board of Standards and Appeals of the City of New York, such appliances and methods shall be installed, maintained, and effectively operated during the continuance of such harmful dust hazard. Failure to comply with this provision after notice shall make this **Contract** voidable at the sole discretion of the **City**.

CHAPTER IX: PARTIAL AND FINAL PAYMENTS

ARTICLE 40. CONTRACT PRICE

40.1 The **City** shall pay, and the **Contractor** agrees to accept, in full consideration for the **Contractor's** performance of the **Work** subject to the terms and conditions hereof, the lump sum price or unit prices for which this **Contract** was awarded, plus the amount required to be paid for any **Extra Work** ordered by the **Commissioner** under Article 25, less credit for any **Work** omitted pursuant to Article 29.

ARTICLE 41. BID BREAKDOWN ON LUMP SUM

41.1 Within fifteen (15) **Days** after the commencement date specified in the **Notice to Proceed** or **Order to Work**, unless otherwise directed by the **Resident Engineer**, the **Contractor** shall submit to the **Resident Engineer** a breakdown of its bid price, or of lump sums bid for items of the **Contract**, showing the various operations to be performed under the **Contract**, as directed in the progress schedule required under Article 9, and the value of each of such operations, the total of such items to equal the lump sum price bid. Said breakdown must be approved in writing by the **Resident Engineer**.

41.2 No partial payment will be approved until the **Contractor** submits a bid breakdown that is acceptable to the **Resident Engineer**.

41.3 The **Contractor** shall also submit such other information relating to the bid breakdown as directed by the **Resident Engineer**. Thereafter, the breakdown may be used only for checking the **Contractor's** applications for partial payments hereunder, but shall not be binding upon the **City**, the **Commissioner**, or the **Engineer** for any purpose whatsoever.

ARTICLE 42. PARTIAL PAYMENTS

42.1 From time to time as the **Work** progresses satisfactorily, but not more often than once each calendar month (except where the **Commissioner** approves in writing the submission of invoices on a more frequent basis and for invoices relating to **Work** performed pursuant to a change order), the **Contractor** may submit to the **Engineer** a requisition for a partial payment in the prescribed form, which shall contain an estimate of the quantity and the fair value of the **Work** done during the payment period.

42.2 Partial payments may be made for materials, fixtures, and equipment in advance of their actual incorporation in the **Work**, as the **Commissioner** may approve, and upon the terms and conditions set forth in the General Conditions.

42.3 The **Contractor** shall also submit to the **Commissioner** in connection with every application for partial payment a verified statement in the form prescribed by the **Comptroller** setting forth the information required under Labor Law Section 220-a.

42.4 Within thirty (30) **Days** after receipt of a satisfactory payment application, and within sixty (60) **Days** after receipt of a satisfactory payment application in relation to **Work** performed pursuant to a change order, the **Engineer** will prepare and certify, and the **Commissioner** will approve, a voucher for a partial payment in the amount of such approved estimate, less any and all deductions authorized to be made by the **Commissioner** under the terms of this **Contract** or by **Law**.

ARTICLE 43. PROMPT PAYMENT

43.1 The Prompt Payment provisions of the **PPB** Rules in effect at the time of the bid will be applicable to payments made under this **Contract**. The provisions require the payment to the **Contractor** of interest on payments made after the required payment date, except as set forth in the **PPB** Rules.

43.2 The **Contractor** shall submit a proper invoice to receive payment, except where the **Contract** provides that the **Contractor** will be paid at predetermined intervals without having to submit an invoice for each scheduled payment.

43.3 Determination of interest due will be made in accordance with the **PPB** Rules.

43.4 If the **Contractor** is paid interest, the proportionate share(s) of that interest shall be forwarded by the **Contractor** to its **Subcontractor(s)**.

43.5 The **Contractor** shall pay each **Subcontractor** or **Materialman** not later than seven (7) **Days** after receipt of payment out of amounts paid to the **Contractor** by the **City** for **Work** performed by the **Subcontractor** or **Materialman** under this **Contract**.

43.5.1 If **Contractor** fails to make any payment to any **Subcontractor** or **Materialman** within seven (7) **Days** after receipt of payment by the **City** pursuant to this Article 43.5,

then the **Contractor** shall pay interest on amounts due to such **Subcontractor** or **Materialman** at the rate of interest in effect on the date such payment is made by the **Contractor** computed in accordance with Section 756-b (1)(b) of the New York General Business Law. Accrual of interest shall commence on the **Day** immediately following the expiration of the seventh **Day** following receipt of payment by the **Contractor** from the **City** and shall end on the date on which payment is made.

43.6 The **Contractor** shall include in each of its subcontracts a provision requiring each **Subcontractor** to make payment to each of its **Subcontractors** or **Materialmen** for **Work** performed under this **Contract** in the same manner and within the same time period set forth above.

ARTICLE 44. SUBSTANTIAL COMPLETION PAYMENT

44.1 The **Contractor** shall submit with the **Substantial Completion** requisition:

44.1.1 A final verified statement of any pending Article 27 disputes in accordance with the **PPB** Rules and this **Contract** and any and all alleged claims against the **City**, in any way connected with or arising out of this **Contract** (including those as to which details may have been furnished pursuant to Articles 11, 27, 28, and 30) setting forth with respect to each such claim the total amount thereof, the various items of labor and materials included therein, and the alleged value of each item; and if the alleged claim be one for delay, the alleged cause of each such delay, the period or periods of time, giving the dates when the **Contractor** claims the performance of the **Work** or a particular part thereof was delayed, and an itemized statement and breakdown of the amount claimed for each such delay.

44.1.1(a) With respect to each such claim, the **Commissioner**, the **Comptroller** and, in the event of litigation, the **City** Corporation Counsel shall have the same right to inspect, and to make extracts or copies of, the **Contractor's** books, vouchers, records, etc., as is referred to in Articles 11, 27, 28, and 30. Nothing contained in this Article 44.1.1(a) is intended to or shall relieve the **Contractor** from the obligation of complying strictly with Articles 11, 27, 28, and 30. The **Contractor** is warned that unless such claims are completely set forth as herein required, the **Contractor** upon acceptance of the **Substantial Completion** payment pursuant to this Article 44, will have waived any such claims.

44.1.2 A **Final Approved Punch List**.

44.1.3 Where required, a request for an extension of time to achieve **Substantial Completion** or final extension of time.

44.2 The **Commissioner** shall issue a voucher calling for payment of any part or all of the balance due for **Work** performed under the **Contract**, including monies retained under Article 21, less any and all deductions authorized to be made by the **Commissioner**, under this **Contract** or by **Law**, and less twice the amount the **Commissioner** considers necessary to ensure the completion of the balance of the **Work** by the **Contractor**. Such a payment shall be considered a partial and not a final payment. No **Substantial Completion** payment shall be made under this Article 44 where the **Contractor** failed to complete the **Work** within the time fixed for such completion in the Schedule A of the General Conditions, or within the time to which completion may have been extended, until an extension or extensions of time for the completion of **Work** have been acted upon pursuant to Article 13.

44.3 No further partial payments shall be made to the **Contractor** after **Substantial Completion**, except the **Substantial Completion** payment and payment pursuant to any **Contractor's** requisition that were properly filed with the **Commissioner** prior to the date of **Substantial Completion**; however, the **Commissioner** may grant a waiver for further partial payments after the date of **Substantial Completion** to permit payments for change order **Work** and/or release of retainage and deposits pursuant to Articles 21 and 24. Such waiver shall be in writing.

44.4 The **Contractor** acknowledges that nothing contained in this Article 44 is intended to or shall in any way diminish the force and effect of Article 13.

ARTICLE 45. FINAL PAYMENT

45.1 After completion and **Final Acceptance** of the **Work**, the **Contractor** shall submit all required certificates and documents, together with a requisition for the balance claimed to be due under the **Contract**, less the amount authorized to be retained for maintenance under Article 24. Such submission shall be within 90 days of the date of the **Commissioner's** written determination of **Final Acceptance**, or within such additional time as may be granted by the **Commissioner** in writing. If the **Contractor** fails to submit all required certificates and documents within the time allowed, no payment of the balance claimed shall be made to the **Contractor** and the **Contractor** shall be deemed to have forfeited its right to payment of any balance claimed. A verified statement similar to that required in connection with applications for partial payments shall also be submitted to the **Commissioner**.

45.2 Amended Verified Statement of Claims: The **Contractor** shall also submit with the final requisition any amendments to the final verified statement of any pending dispute resolution procedures in accordance with the **PPB** Rules and this **Contract** and any and all alleged claims against the **City**, in any way connected with or arising out of this **Contract** (including those as to which details may have been furnished pursuant to Articles 11, 27, 28, and 30) that have occurred subsequent to **Substantial Completion**, setting forth with respect to each such claim the total amount thereof, the various items of labor and materials included therein, and the alleged value of each such item; and if the alleged claim be one for delay, the alleged cause of each such delay, the period or periods of time, giving the dates when the **Contractor** claims the performance of the **Work** or a particular part thereof was delayed, and an itemized statement and breakdown of the amount claimed for each such delay. With reference to each such claim, the **Commissioner**, the **Comptroller** and, in the event of litigation, the **City** Corporation Counsel shall have the same right to inspect, and to make extracts or copies of, the **Contractor's** books, vouchers, records, etc., as is referred to in Articles 11, 27, 28, and 30. Nothing contained in this Article 45.2, is intended to or shall relieve the **Contractor** from the obligation of complying strictly with Articles 11, 27, 28, and 30. The **Contractor** is warned that unless such claims are completely set forth as herein required, the **Contractor**, upon acceptance of the Final Payment pursuant to Article 46, will have waived any such claims.

45.3 Preparation of Final Voucher: Upon determining the balance due hereunder other than on account of claims, the **Engineer** will prepare and certify, for the **Commissioner's** approval, a voucher for final payment in that amount less any and all deductions authorized to be made by the **Commissioner** under this **Contract** or by **Law**. In the case of a lump sum **Contract**, the **Commissioner** shall certify the voucher for final payment within thirty (30) **Days** from the date of completion and acceptance of the **Work**, provided all requests for extensions of time have been acted upon.

45.3.1 All prior certificates and vouchers upon which partial payments were made, being merely estimates made to enable the **Contractor** to prosecute the **Work** more advantageously, shall be subject to correction in the final voucher, and the certification of the **Engineer**

thereon and the approval of the **Commissioner** thereof, shall be conditions precedent to the right of the **Contractor** to receive any money hereunder. Such final voucher shall be binding and conclusive upon the **Contractor**.

45.3.2 Payment pursuant to such final voucher, less any deductions authorized to be made by the **Commissioner** under this **Contract** or by **Law**, shall constitute the final payment, and shall be made by the **Comptroller** within thirty (30) **Days** after the filing of such voucher in his/her office.

45.4 The **Contractor** acknowledges that nothing contained in this Article 45 is intended to or shall in any way diminish the force and effect of Article 13.

ARTICLE 46. ACCEPTANCE OF FINAL PAYMENT

46.1 The acceptance by the **Contractor**, or by anyone claiming by or through it, of the final payment, whether such payment be made pursuant to any judgment of any court, or otherwise, shall constitute and operate as a release of the **City** from any and all claims of and liability to the **Contractor** for anything heretofore done or furnished for the **Contractor** relating to or arising out of this **Contract** and the **Work** done hereunder, and for any prior act, neglect or default on the part of the **City** or any of its officials, agents or employees, excepting only a claim against the **City** for the amounts deducted or retained in accordance with the terms and provisions of this **Contract** or by **Law**, and excepting any claims, not otherwise waived, or any pending dispute resolution procedures which are contained in the verified statement filed with the **Contractor's** substantial and final requisitions pursuant to Articles 44 and 45.

46.2 The **Contractor** is warned that the execution by it of a release, in connection with the acceptance of the final payment, containing language purporting to reserve claims other than those herein specifically excepted from the operation of this Article 46, or those for amounts deducted by the **Commissioner** from the final requisition or from the final payment as certified by the **Engineer** and approved by the **Commissioner**, shall not be effective to reserve such claims, anything stated to the **Contractor** orally or in writing by any official, agent or employee of the **City** to the contrary notwithstanding.

46.3 Should the **Contractor** refuse to accept the final payment as tendered by the **Comptroller**, it shall constitute a waiver of any right to interest thereon.

46.4 The **Contractor**, however, shall not be barred by this Article 46 from commencing an action for breach of **Contract** to the extent permitted by **Law** and by the terms of the **Contract** for any claims that are contained in the verified statement filed with the **Contractor's** substantial and final requisitions pursuant to Articles 44 and 45 or that arose after submission of the final payment requisition, provided that a detailed and verified statement of claim is served upon the contracting **Agency** and **Comptroller** not later than forty (40) **Days** after the making of such final payment by electronic funds transfer (EFT) or the mailing of such final payment. The statement shall specify the items upon which the claim will be based and any such claim shall be limited to such items.

ARTICLE 47. APPROVAL BY PUBLIC DESIGN COMMISSION

47.1 All works of art, including paintings, mural decorations, stained glass, statues, bas-reliefs, and other sculptures, monuments, fountains, arches, and other structures of a permanent character intended for ornament or commemoration, and every design of the same to be used in the performance of this **Contract**, and the design of all bridges, approaches, buildings, gates, fences, lamps, or structures to be erected, pursuant

to the terms of this **Contract**, shall be submitted to the Art Commission, d/b/a the Public Design Commission of the City of New York, and shall be approved by the Public Design Commission prior to the erection or placing in position of the same. The final payment shall not become due or payable under this **Contract** unless and until the Public Design Commission shall certify that the design for the **Work** herein contracted for has been approved by the said Public Design Commission, and that the same has been executed in substantial accordance with the design so approved, pursuant to the provisions of Chapter 37, Section 854 of the **City Charter**, as amended.

CHAPTER X: CONTRACTOR'S DEFAULT

ARTICLE 48. COMMISSIONER'S RIGHT TO DECLARE CONTRACTOR IN DEFAULT

48.1 In addition to those instances specifically referred to in other Articles herein, the **Commissioner** shall have the right to declare the **Contractor** in default of this **Contract** if:

48.1.1 The **Contractor** fails to commence **Work** when notified to do so by the **Commissioner**; or if

48.1.2 The **Contractor** shall abandon the **Work**; or if

48.1.3 The **Contractor** shall refuse to proceed with the **Work** when and as directed by the **Commissioner**; or if

48.1.4 The **Contractor** shall, without just cause, reduce its working force to a number which, if maintained, would be insufficient, in the opinion of the **Commissioner**, to complete the **Work** in accordance with the progress schedule; or if

48.1.5 The **Contractor** shall fail or refuse to increase sufficiently such working force when ordered to do so by the **Commissioner**; or if

48.1.6 The **Contractor** shall sublet, assign, transfer, convert or otherwise dispose of this **Contract** other than as herein specified; or sell or assign a majority interest in the **Contractor**; or if

48.1.7 The **Contractor** fails to secure and maintain all required insurance; or if

48.1.8 A receiver or receivers are appointed to take charge of the **Contractor's** property or affairs; or if

48.1.9 The **Commissioner** shall be of the opinion that the **Contractor** is or has been unnecessarily or unreasonably or willfully delaying the performance and completion of the **Work**, or the award of necessary subcontracts, or the placing of necessary material and equipment orders; or if

48.1.10 The **Commissioner** shall be of the opinion that the **Contractor** is or has been willfully or in bad faith violating any of the provisions of this **Contract**; or if

48.1.11 The **Commissioner** shall be of the opinion that the **Work** cannot be completed within the time herein provided therefor or within the time to which such completion may have been extended; provided, however, that the impossibility of timely completion is, in the

Commissioner's opinion, attributable to conditions within the **Contractor's** control; or if

48.1.12 The **Work** is not completed within the time herein provided therefor or within the time to which the **Contractor** may be entitled to have such completion extended; or if

48.1.13 Any statement or representation of the **Contractor** in the **Contract** or in any document submitted by the **Contractor** with respect to the **Work**, the **Project**, or the **Contract** (or for purposes of securing the **Contract**) was untrue or incorrect when made; or if

48.1.14 The **Contractor** or any of its officers, directors, partners, five (5%) percent shareholders, principals, or other persons substantially involved in its activities, commits any of the acts or omissions specified as the grounds for debarment in the **PPB** Rules.

48.2 Before the **Commissioner** shall exercise his/her right to declare the **Contractor** in default, the **Commissioner** shall give the **Contractor** an opportunity to be heard, upon not less than two (2) **Days'** notice.

ARTICLE 49. EXERCISE OF THE RIGHT TO DECLARE DEFAULT

49.1 The right to declare the **Contractor** in default for any of the grounds specified or referred to in Article 48 shall be exercised by sending the **Contractor** a notice, signed by the **Commissioner**, setting forth the ground or grounds upon which such default is declared (hereinafter referred to as a "Notice of Default").

49.2 The **Commissioner's** determination that the **Contractor** is in default shall be conclusive, final, and binding on the parties and such a finding shall preclude the **Contractor** from commencing a plenary action for any damages relating to the **Contract**. If the **Contractor** protests the determination of the **Commissioner**, the **Contractor** may commence an action in a court of competent jurisdiction of the State of New York under Article 78 of the New York Civil Practice Law and Rules.

ARTICLE 50. QUITTING THE SITE

50.1 Upon receipt of such notice the **Contractor** shall immediately discontinue all further operations under this **Contract** and shall immediately quit the **Site**, leaving untouched all plant, materials, equipment, tools, and supplies then on the **Site**.

ARTICLE 51. COMPLETION OF THE WORK

51.1 The **Commissioner**, after declaring the **Contractor** in default, may then have the **Work** completed by such means and in such manner, by contract with or without public letting, or otherwise, as he/she may deem advisable, utilizing for such purpose such of the **Contractor's** plant, materials, equipment, tools, and supplies remaining on the **Site**, and also such **Subcontractors**, as he/she may deem advisable.

51.2 After such completion, the **Commissioner** shall make a certificate stating the expense incurred in such completion, which shall include the cost of re-letting and also the total amount of liquidated damages (at the rate provided for in the **Contract**) from the date when the **Work** should have been completed by the **Contractor** in accordance with the terms hereof to the date of actual completion of the **Work**. Such certificate shall be binding and conclusive upon the **Contractor**, its sureties, and any person claiming under the **Contractor**, as to the amount thereof.

51.3 The expense of such completion, including any and all related and incidental costs, as so certified by the **Commissioner**, and any liquidated damages assessed against the **Contractor**, shall be charged against and deducted out of monies which are earned by the **Contractor** prior to the date of default. Should the expense of such completion, as certified by the **Commissioner**, exceed the total sum which would have been payable under the **Contract** if it had been completed by the **Contractor**, any excess shall be paid by the **Contractor**.

ARTICLE 52. PARTIAL DEFAULT

52.1 In case the **Commissioner** shall declare the **Contractor** in default as to a part of the **Work** only, the **Contractor** shall discontinue such part, shall continue performing the remainder of the **Work** in strict conformity with the terms of this **Contract**, and shall in no way hinder or interfere with any **Other Contractor(s)** or persons whom the **Commissioner** may engage to complete the **Work** as to which the **Contractor** was declared in default.

52.2 The provisions of this Chapter relating to declaring the **Contractor** in default as to the entire **Work** shall be equally applicable to a declaration of partial default, except that the **Commissioner** shall be entitled to utilize for completion of the part of the **Work** as to which the **Contractor** was declared in default only such plant, materials, equipment, tools, and supplies as had been previously used by the **Contractor** on such part.

ARTICLE 53. PERFORMANCE OF UNCOMPLETED WORK

53.1 In completing the whole or any part of the **Work** under the provisions of this Chapter X, the **Commissioner** shall have the power to depart from or change or vary the terms and provisions of this **Contract**, provided, however, that such departure, change or variation is made for the purpose of reducing the time or expense of such completion. Such departure, change or variation, even to the extent of accepting a lesser or different performance, shall not affect the conclusiveness of the **Commissioner's** certificate of the cost of completion referred to in Article 51, nor shall it constitute a defense to an action to recover the amount by which such certificate exceeds the amount which would have been payable to the **Contractor** hereunder but for its default.

ARTICLE 54. OTHER REMEDIES

54.1 In addition to the right to declare the **Contractor** in default pursuant to this Chapter X, the **Commissioner** shall have the absolute right, in his/her sole discretion and without a hearing, to complete or cause to be completed in the same manner as described in Articles 51 and 53, any or all unsatisfactory or uncompleted punch list **Work** that remains after the completion date specified in the **Final Approved Punch List**. A written notice of the exercise of this right shall be sent to the **Contractor** who shall immediately quit the **Site** in accordance with the provisions of Article 50.

54.2 The expense of completion permitted under Article 54.1, including any and all related and incidental costs, as so certified by the **Commissioner**, shall be charged against and deducted out of monies which have been earned by the **Contractor** prior to the date of the exercise of the right set forth in Article 54.1; the balance of such monies, if any, subject to the other provisions of this **Contract**, to be paid to the **Contractor** without interest after such completion. Should the expense of such completion, as certified by

the **Commissioner**, exceed the total sum which would have been payable under the **Contract** if it had been completed by the **Contractor**, any excess shall be paid by the **Contractor**.

54.3 The previous provisions of this Chapter X shall be in addition to any and all other remedies available under **Law** or in equity.

54.4 The exercise by the **City** of any remedy set forth herein shall not be deemed a waiver by the **City** of any other legal or equitable remedy contained in this **Contract** or provided under **Law**.

CHAPTER XI: MISCELLANEOUS PROVISIONS

ARTICLE 55. CONTRACTOR'S WARRANTIES

55.1 In consideration of, and to induce, the award of this **Contract** to the **Contractor**, the **Contractor** represents and warrants:

55.1.1 That it is financially solvent, sufficiently experienced and competent to perform the **Work**; and

55.1.2 That the facts stated in its bid and the information given by it pursuant to the Information for Bidders is true and correct in all respects; and

55.1.3 That it has read and complied with all requirements set forth in the **Contract**.

ARTICLE 56. CLAIMS AND ACTIONS THEREON

56.1 Any claim, that is not subject to dispute resolution under the **PPB** Rules or this **Contract**, against the **City** for damages for breach of **Contract** shall not be made or asserted in any action, unless the **Contractor** shall have strictly complied with all requirements relating to the giving of notice and of information with respect to such claims, as herein before provided.

56.2 Nor shall any action be instituted or maintained on any such claims unless such action is commenced within six (6) months after **Substantial Completion**; except that:

56.2.1 Any claims arising out of events occurring after **Substantial Completion** and before **Final Acceptance** of the **Work** shall be asserted within six (6) months of **Final Acceptance** of the **Work**;

56.2.2 If the **Commissioner** exercises his/her right to complete or cause to complete any or all unsatisfactory or uncompleted punch list **Work** that remains after the completion date specified in the **Final Approved Punch List** pursuant to Article 54, any such action shall be commenced within six (6) months from the date the **Commissioner** notifies the **Contractor** in writing that he/she has exercised such right. Any claims for monies deducted, retained or withheld under the provisions of this **Contract** shall be asserted within six (6) months after the date when such monies otherwise become due and payable hereunder; and

56.2.3 If the **Commissioner** exercises his/her right to terminate the **Contract** pursuant to Article 64, any such action shall be commenced within six (6) months of the date the **Commissioner** exercises said right.

ARTICLE 57. INFRINGEMENT

57.1 The **Contractor** shall be solely responsible for and shall defend, indemnify, and hold the **City** harmless from any and all claims (even if the allegations of the lawsuit are without merit) and judgments for damages and from costs and expenses to which the **City** may be subject to or which it may suffer or incur allegedly arising out of or in connection with any infringement by the **Contractor** of any copyright, trade secrets, trademark or patent rights or any other property or personal right of any third party by the **Contractor** and/or its **Subcontractors** in the performance or completion of the **Work**. Insofar as the facts or **Law** relating to any claim would preclude the **City** from being completely indemnified by the **Contractor**, the **City** shall be partially indemnified by the **Contractor** to the fullest extent permitted by **Law**.

ARTICLE 58. NO CLAIM AGAINST OFFICIALS, AGENTS OR EMPLOYEES

58.1 No claim whatsoever shall be made by the **Contractor** against any official, agent or employee of the **City** for, or on account of, anything done or omitted to be done in connection with this **Contract**.

ARTICLE 59. SERVICE OF NOTICES

59.1 The **Contractor** hereby designates the business address, fax number, and email address specified in its bid, as the place where all notices, directions or other communications to the **Contractor** may be delivered, or to which they may be mailed. Any notice, direction, or communication from either party to the other shall be in writing and shall be deemed to have been given when (i) delivered personally; (ii) sent by certified mail, return receipt requested; (iii) delivered by overnight or same day courier service in a properly addressed envelope with confirmation; or (iv) sent by fax or email and, unless receipt of the fax or e-mail is acknowledged by the recipient by fax or e-mail, deposited in a post office box regularly maintained by the United States Postal Service in a properly addressed, postage pre-paid envelope.

59.2 **Contractor's** notice address, email address, or fax number may be changed at any time by an instrument in writing, executed and acknowledged by the **Contractor**, and delivered to the **Commissioner**.

59.3 Nothing herein contained shall, however, be deemed to preclude or render inoperative the service of any notice, direction or other communication upon the **Contractor** personally, or, if the **Contractor** is a corporation, upon any officer thereof.

ARTICLE 60. UNLAWFUL PROVISIONS DEEMED STRICKEN FROM CONTRACT

60.1 If this **Contract** contains any unlawful provision not an essential part of the **Contract** and which shall not appear to have been a controlling or material inducement to the making thereof, the same shall be deemed of no effect and shall, upon notice by either party, be deemed stricken from the **Contract** without affecting the binding force of the remainder.

ARTICLE 61. ALL LEGAL PROVISIONS DEEMED INCLUDED

61.1 It is the intent and understanding of the parties to this **Contract** that each and every provision of **Law** required to be inserted in this **Contract** shall be and is inserted herein. Furthermore, it is hereby stipulated that every such provision is to be deemed to be inserted herein, and if, through mistake or otherwise, any such provision is not inserted, or is not inserted in correct form, then this **Contract** shall forthwith upon the application of either party be amended by such insertion so as to comply strictly with the **Law** and without prejudice to the rights of either party hereunder.

ARTICLE 62. TAX EXEMPTION

62.1 The **City** is exempt from payment of Federal, State, and local taxes, including sales and compensating use taxes of the State of New York and its cities and counties on all tangible personal property sold to the **City** pursuant to the provisions of this **Contract**. These taxes are not to be included in bids. However, this exemption does not apply to tools, machinery, equipment or other property leased by or to the **Contractor**, **Subcontractor** or **Materialman** or to tangible personal property which, even though it is consumed, is not incorporated into the completed **Work** (consumable supplies) and tangible personal property that the **Contractor** is required to remove from the **Site** during or upon completion of the **Work**. The **Contractor** and its **Subcontractors** and **Materialmen** shall be responsible for and pay any and all applicable taxes, including sales and compensating use taxes, on such leased tools, machinery, equipment or other property and upon all such consumable supplies and tangible personal property that the **Contractor** is required to remove from the **Site** during or upon completion of the **Work**.

62.2 The **Contractor** agrees to sell and the **City** agrees to purchase all tangible personal property, other than consumable supplies and other tangible personal property that the **Contractor** is required to remove from the **Site** during or upon completion of the **Work**, that is required, necessary or proper for or incidental to the construction of the **Project** covered by this **Contract**. The sum paid under this **Contract** for such tangible personal property shall be in full payment and consideration for the sale of such tangible personal property.

62.2.1 The **Contractor** agrees to construct the **Project** and to perform all **Work**, labor and services rendered, necessary, proper or incidental thereto for the sum shown in the bid for the performance of such **Work**, labor, and services, and the sum so paid pursuant to this **Contract** for such **Work**, labor, and services, shall be in full consideration for the performance by the **Contractor** of all its duties and obligations under this **Contract** in connection with said **Work**, labor, and services.

62.3 20 NYCRR Section 541.3(d) provides that a **Contractor's** purchases of tangible personal property that is either incorporated into real property owned by a governmental entity or purchased for and sold to a governmental entity are exempt from sales and use tax. The **City** shall not pay sales tax for any such tangible personal property that it purchases from the **Contractor** pursuant to the **Contract**. With respect to such tangible personal property, the **Contractor**, at the request of the **City**, shall furnish to the **City** such bills of sale and other instruments as may be required by the **City**, properly executed, acknowledged and delivered assuring to the **City** title to such tangible personal property, free of liens and/or encumbrances, and the **Contractor** shall mark or otherwise identify all such tangible personal property as the property of the **City**.

62.4 Title to all tangible personal property to be sold by the **Contractor** to the **City** pursuant to the provisions of the **Contract** shall immediately vest in and become the sole property of the **City** upon delivery of such tangible personal property to the **Site**. Notwithstanding such transfer of title, the **Contractor** shall

have the full and continuing responsibility to install such tangible personal property in accordance with the provisions of this **Contract**, protect it, maintain it in a proper condition and forthwith repair, replace and make good any damage thereto, theft or disappearance thereof, and furnish additional tangible personal property in place of any that may be lost, stolen or rendered unusable, without cost to the **City**, until such time as the **Work** covered by the **Contract** is fully accepted by the **City**. Such transfer of title shall in no way affect any of the **Contractor's** obligations hereunder. In the event that, after title has passed to the **City**, any of the tangible personal property is rejected as being defective or otherwise unsatisfactory, title to all such tangible personal property shall be deemed to have been transferred back to the **Contractor**.

62.5 The purchase by **Subcontractors** or **Materialmen** of tangible personal property to be sold hereunder shall be a purchase or procurement for resale to the **Contractor** (either directly or through other **Subcontractors**) and therefore not subject to the aforesaid sales and compensating use taxes, provided that the subcontracts and purchase agreements provide for the resale of such tangible personal property and that such subcontracts and purchase agreements are in a form similar to this **Contract** with respect to the separation of the sale of consumable supplies and tangible personal property that the **Contractor** is required to remove from the **Site** during or upon completion of the **Work** from the **Work** and labor, services, and any other matters to be provided, and provided further that the subcontracts and purchase agreements provide separate prices for tangible personal property and all other services and matters. Such separation shall actually be followed in practice, including the separation of payments for tangible personal property from the payments for other **Work** and labor and other things to be provided.

62.6 The **Contractor** and its **Subcontractors** and **Materialmen** shall furnish a **Contractor** Exempt Purchase Certificate to all persons, firms or corporations from which they purchase tangible personal property for the performance of the **Work** covered by this **Contract**.

62.7 In the event any of the provisions of this Article 62 shall be deemed to be in conflict with any other provisions of this **Contract** or create any ambiguity, then the provisions of this Article 62 shall control.

ARTICLE 63. INVESTIGATION(S) CLAUSE

63.1 The parties to this **Contract** agree to cooperate fully and faithfully with any investigation, audit or inquiry conducted by a United States, a State of New York (State) or a **City** governmental agency or authority that is empowered directly or by designation to compel the attendance of witnesses and to examine witnesses under oath, or conducted by the Inspector General of a governmental agency that is a party in interest to the transaction, submitted bid, submitted proposal, contract, lease, permit or license that is the subject of the investigation, audit or inquiry.

63.2 If any person who has been advised that his/her statement, and any information from such statement, will not be used against him/her in any subsequent criminal proceeding refuses to testify before a grand jury or other governmental agency or authority empowered directly or by designation to compel the attendance of witnesses and to examine witnesses under oath concerning the award of or performance under any transaction, agreement, lease, permit, contract, or license entered into with the **City**, the State, or any political subdivision or public authority thereof, or the Port Authority of New York and New Jersey, or any local development corporation within the **City**, or any public benefit corporation organized under the **Laws** of the State of New York, or;

63.3 If any person refuses to testify for a reason other than the assertion of his/her privilege against self incrimination in an investigation, audit or inquiry conducted by a **City** or State governmental agency or authority empowered directly or by designation to compel the attendance of witnesses and to take testimony under oath, or by the Inspector General of the governmental agency that is a party in interest in, and is

seeking testimony concerning the award of, or performance under any transaction, agreement, lease, permit, contract, or license entered into with the **City**, the State, or any political subdivision thereof or any local development corporation within the **City**, then;

63.4 The **Commissioner** whose **Agency** is a party in interest to the transaction, submitted bid, submitted proposal, contract, lease, permit, or license shall convene a hearing, upon not less than five (5) **Days**' written notice to the parties involved to determine if any penalties should attach for the failure of a person to testify.

63.5 If any non-governmental party to the hearing requests an adjournment, the **Commissioner** who convened the hearing may, upon granting the adjournment, suspend any contract, lease, permit, or license, pending the final determination pursuant to Article 63.7 without the **City** incurring any penalty or damages for delay or otherwise.

63.6 The penalties which may attach after a final determination by the **Commissioner** may include but shall not exceed:

63.6.1 The disqualification for a period not to exceed five (5) years from the date of an adverse determination for any person, or any entity of which such person was a member at the time the testimony was sought, from submitting bids for, or transacting business with, or entering into or obtaining any contract, lease, permit or license with or from the **City**; and/or

63.6.2 The cancellation or termination of any and all such existing **City** contracts, leases, permits or licenses that the refusal to testify concerns and that have not been assigned as permitted under this **Contract**, nor the proceeds of which pledged, to an unaffiliated and unrelated institutional lender for fair value prior to the issuance of the notice scheduling the hearing, without the **City** incurring any penalty or damages on account of such cancellation or termination; monies lawfully due for goods delivered, work done, rentals, or fees accrued prior to the cancellation or termination shall be paid by the **City**.

63.7 The **Commissioner** shall consider and address in reaching his/her determination and in assessing an appropriate penalty the factors in Articles 63.7.1 and 63.7.2. The **Commissioner** may also consider, if relevant and appropriate, the criteria established in Articles 63.7.3 and 63.7.4, in addition to any other information which may be relevant and appropriate:

63.7.1 The party's good faith endeavors or lack thereof to cooperate fully and faithfully with any governmental investigation or audit, including but not limited to the discipline, discharge, or disassociation of any person failing to testify, the production of accurate and complete books and records, and the forthcoming testimony of all other members, agents, assignees or fiduciaries whose testimony is sought.

63.7.2 The relationship of the person who refused to testify to any entity that is a party to the hearing, including but not limited to, whether the person whose testimony is sought has an ownership interest in the entity and/or the degree of authority and responsibility the person has within the entity.

63.7.3 The nexus of the testimony sought to the subject entity and its contracts, leases, permits or licenses with the **City**.

63.7.4 The effect a penalty may have on an unaffiliated and unrelated party or entity that has a significant interest in an entity subject to penalties under Article 63.6, provided that the party

or entity has given actual notice to the **Commissioner** upon the acquisition of the interest, or at the hearing called for in Article 63.4, gives notice and proves that such interest was previously acquired. Under either circumstance the party or entity shall present evidence at the hearing demonstrating the potential adverse impact a penalty will have on such person or entity.

63.8 Definitions:

63.8.1 The term “license” or “permit” as used in this Article 63 shall be defined as a license, permit, franchise or concession not granted as a matter of right.

63.8.2 The term “person” as used in this Article 63 shall be defined as any natural person doing business alone or associated with another person or entity as a partner, director, officer, principal or employee.

63.8.3 The term “entity” as used in this Article 63 shall be defined as any firm, partnership, corporation, association, joint venture, or person that receives monies, benefits, licenses, leases, or permits from or through the **City** or otherwise transacts business with the **City**.

63.8.4 The term “member” as used in this Article 63 shall be defined as any person associated with another person or entity as a partner, director, officer, principal or employee.

63.9 In addition to and notwithstanding any other provision of this **Contract**, the **Commissioner** may in his/her sole discretion terminate this **Contract** upon not less than three (3) **Days**’ written notice in the event the **Contractor** fails to promptly report in writing to the **Commissioner** of the Department of Investigations (“DOI”) of the **City** any solicitation of money, goods, requests for future employment or other benefit or thing of value, by or on behalf of any employee of the **City** or other person, firm, corporation or entity for any purpose which may be related to the procurement or obtaining of this **Contract** by the **Contractor**, or affecting the performance of this **Contract**.

ARTICLE 64. TERMINATION BY THE CITY

64.1 In addition to termination pursuant to any other article of this **Contract**, the **Commissioner** may, at any time, terminate this **Contract** by written notice to the **Contractor**. In the event of termination, the **Contractor** shall, upon receipt of such notice, unless otherwise directed by the **Commissioner**:

64.1.1 Stop **Work** on the date specified in the notice;

64.1.2 Take such action as may be necessary for the protection and preservation of the **City**’s materials and property;

64.1.3 Cancel all cancelable orders for material and equipment;

64.1.4 Assign to the **City** and deliver to the **Site** or another location designated by the **Commissioner**, any non-cancelable orders for material and equipment that is not capable of use except in the performance of this **Contract** and has been specifically fabricated for the sole purpose of this **Contract** and not incorporated in the **Work**;

64.1.5 Take no action which will increase the amounts payable by the **City** under this
64.1.5 **Contract**.

64.2 In the event of termination by the **City** pursuant to this Article 64, payment to the **Contractor** shall be in accordance with Articles 64.2.1, 64.2.2 or 64.2.3, to the extent that each respective article applies.

64.2.1 Lump Sum Contracts or Items: On all lump sum **Contracts**, or on lump sum items in a **Contract**, the **City** will pay the **Contractor** the sum of the amounts described in Articles 64.2.1(a) and 64.2.1(b), less all payments previously made pursuant to this **Contract**. On lump sum **Contracts** only, the **City** will also pay the **Contractor** an additional sum as provided in Article 64.2.1(c).

64.2.1(a) For **Work** completed prior to the notice of termination, the **Contractor** shall be paid a pro rata portion of the lump sum bid amount, plus approved change orders, based upon the percent completion of the **Work**, as determined by the **Commissioner**. For the purpose of determining the pro rata portion of the lump sum bid amount to which the **Contractor** is entitled, the bid breakdown submitted in accordance with Article 41 shall be considered, but shall not be dispositive. The **Commissioner's** determination hereunder shall be final, binding, and conclusive.

64.2.1(b) For non-cancelable material and equipment that is not capable of use except in the performance of this **Contract** and has been specifically fabricated for the sole purpose of this **Contract**, but not yet incorporated in the **Work**, the **Contractor** shall be paid the lesser of the following, less salvage value:

64.2.1(b)(i) The Direct Cost, as defined in Article 64.2.4; or

64.2.1(b)(ii) The fair and reasonable value, if less than Direct Cost, of such material and equipment, plus necessary and reasonable delivery costs.

64.2.1(b)(iii) In addition, the **Contractor** shall be paid five (5%) percent of the amount described in Article 64.2.1(b)(i) or Article 64.2.1(b)(ii), whichever applies.

64.2.1(c) Except as otherwise provided in Article 64.2.1(d), on all lump sum **Contracts**, the **Contractor** shall be paid the percentage indicated below applied to the difference between the total lump sum bid amount and the total of all payments made prior to the notice of termination plus all payments allowed pursuant to Articles 64.2.1(a) and 64.2.1(b):

64.2.1(c)(i) Five (5%) percent of the first five million (\$5,000,000) dollars; and

64.2.1(c)(ii) Three (3%) percent of any amount between five million (\$5,000,000) dollars and fifteen million (\$15,000,000) dollars; plus

64.2.1(c)(iii) One (1%) percent of any amount over fifteen million (\$15,000,000) dollars.

64.2.1(d) In the event the **City** terminates a lump sum **Contract** pursuant to this Article 64 within ninety (90) **Days** after registration of the **Contract** with the **Comptroller**, the **Contractor** shall be paid one (1%) percent of the difference between the lump sum bid amount and the total of all payments made pursuant to this Article 64.2.

64.2.2 Unit Price Contracts or Items: On all unit price **Contracts**, or on unit price items in a

Contract, the **City** will pay the **Contractor** the sum of the amounts described in Articles 64.2.2(a) and 64.2.2(b), less all payments previously made pursuant to this **Contract**:

64.2.2(a) For all completed units, the unit price stated in the **Contract**, and

64.2.2(b) For units that have been ordered but are only partially completed, the **Contractor** will be paid:

64.2.2(b)(i) A pro rata portion of the unit price stated in the **Contract** based upon the percent completion of the unit and

64.2.2(b)(ii) For non-cancelable material and equipment, payment will be made pursuant to Article 64.2.1(b).

64.2.3 Time and Materials Contracts or Items Based on Time and Material Records: On all **Contracts** or items in a **Contract** where payment for the **Work** is based on time and material records, the **Contractor** shall be paid in accordance with Article 26, less all payments previously made pursuant to this **Contract**.

64.2.4 Direct Costs: Direct Costs as used in this Article 64.2 shall mean:

64.2.4(a) The actual purchase price of material and equipment, plus necessary and reasonable delivery costs,

64.2.4(b) The actual cost of labor involved in construction and installation at the **Site**, and

64.2.4(c) The actual cost of necessary bonds and insurance purchased pursuant to requirements of this **Contract** less any amounts that have been or should be refunded by the **Contractor's** sureties or insurance carriers.

64.2.4(d) Direct Costs shall not include overhead.

64.3 In no event shall any payments under this Article 64 exceed the **Contract** price for such items.

64.4 All payments pursuant to Article 64 shall be in the nature of liquidated damages and shall be accepted by the **Contractor** in full satisfaction of all claims against the **City**.

64.5 The **City** may deduct or set off against any sums due and payable pursuant to this Article 64, any deductions authorized by this **Contract** or by **Law** (including but not limited to liquidated damages) and any claims it may have against the **Contractor**. The **City's** exercise of the right to terminate the **Contract** pursuant to this Article 64 shall not impair or otherwise effect the **City's** right to assert any claims it may have against the **Contractor** in a plenary action.

64.6 Where the **Work** covered by the **Contract** has been substantially completed, as determined in writing by the **Commissioner**, termination of the **Work** shall be handled as an omission of **Work** pursuant to Articles 29 and 33, in which case a change order will be issued to reflect an appropriate reduction in the **Contract** sum, or if the amount is determined after final payment, such amount shall be paid by the **Contractor**.

ARTICLE 65. CHOICE OF LAW, CONSENT TO JURISDICTION AND VENUE

65.1 This **Contract** shall be deemed to be executed in the **City** regardless of the domicile of the **Contractor**, and shall be governed by and construed in accordance with the **Laws** of the State of New York and the **Laws** of the United States, where applicable.

65.2 The parties agree that any and all claims asserted against the **City** arising under this **Contract** or related thereto shall be heard and determined in the courts of the State of New York (“New York State Courts”) located in the **City** and County of New York. To effect this **Contract** and intent, the **Contractor** agrees:

65.2.1 If the **City** initiates any action against the **Contractor** in Federal court or in a New York State Court, service of process may be made on the **Contractor** either in person, wherever such **Contractor** may be found, or by registered mail addressed to the **Contractor** at its address as set forth in this **Contract**, or to such other address as the **Contractor** may provide to the **City** in writing; and

65.2.2 With respect to any action between the **City** and the **Contractor** in a New York State Court, the **Contractor** hereby expressly waives and relinquishes any rights it might otherwise have:

65.2.2(a) To move to dismiss on grounds of forum non conveniens;

65.2.2(b) To remove to Federal Court; and

65.2.2(c) To move for a change of venue to a New York State Court outside New York County.

65.2.3 With respect to any action brought by the **City** against the **Contractor** in a Federal Court located in the **City**, the **Contractor** expressly waives and relinquishes any right it might otherwise have to move to transfer the action to a Federal Court outside the **City**.

65.2.4 If the **Contractor** commences any action against the **City** in a court located other than in the **City** and County of New York, upon request of the **City**, the **Contractor** shall either consent to a transfer of the action to a New York State Court of competent jurisdiction located in the **City** and County of New York or, if the Court where the action is initially brought will not or cannot transfer the action, the **Contractor** shall consent to dismiss such action without prejudice and may thereafter reinstate the action in a New York State Court of competent jurisdiction in New York County.

65.3 If any provision(s) of this Article 65 is held unenforceable for any reason, each and all other provision(s) shall nevertheless remain in full force and effect.

ARTICLE 66. PARTICIPATION IN AN INTERNATIONAL BOYCOTT

66.1 The **Contractor** agrees that neither the **Contractor** nor any substantially owned affiliated company is participating or shall participate in an international boycott in violation of the provisions of the Federal Export Administration Act of 1979, as amended, or the regulations of the United States Department of Commerce (Commerce Department) promulgated thereunder.

66.2 Upon the final determination by the Commerce Department or any other agency of the United States as to, or conviction of the **Contractor** or a substantially-owned affiliated company thereof for participation in an international boycott in violation of the provisions of the Export Administration Act of 1979, as amended, or the regulations promulgated thereunder, the **Comptroller** may, at his/her option, render forfeit and void this **Contract**.

66.3 The **Contractor** shall comply in all respects, with the provisions of Section 6-114 of the Administrative Code and the rules and regulations issued by the **Comptroller** thereunder.

ARTICLE 67. LOCALLY BASED ENTERPRISE PROGRAM

67.1 This **Contract** is subject to the requirements of Section 6-108.1 of the Administrative Code and regulations promulgated thereunder. No construction contract shall be awarded unless and until these requirements have been complied with in their entirety; however, compliance with this Article 67 is not required if the Agency sets Subcontractor Participation Goals for Minority- and Women-Owned Business Enterprises (M/WBEs).

67.2 Unless specifically waived by the **Commissioner** with the approval of the Division of Economic and Financial Opportunity of the **City** Department of Business Services, if any portion of the **Contract** is subcontracted, not less than ten (10%) percent of the total dollar amount of the **Contract** shall be awarded to locally based enterprises (LBEs); except that where less than ten (10%) percent of the total dollar amount of the **Contract** is subcontracted, such lesser percentage shall be so awarded.

67.3 The **Contractor** shall not require performance and payment bonds from LBE **Subcontractors**.

67.4 If the **Contractor** has indicated prior to award that no **Work** will be subcontracted, no **Work** shall be subcontracted without the prior approval of the **Commissioner**, which shall be granted only if the **Contractor** makes a good faith effort beginning at least six (6) weeks before the **Work** is to be performed to obtain LBE **Subcontractors** to perform the **Work**.

67.5 If the **Contractor** has not identified sufficient LBE **Subcontractors** prior to award, it shall sign a letter of compliance stating that it complies with Section 6-108.1 of the Administrative Code, recognizes that achieving the LBE requirement is a condition of its **Contract**, and shall submit documentation demonstrating its good faith efforts to obtain LBEs. After award, the **Contractor** shall begin to solicit LBE's to perform subcontracted **Work** at least six (6) weeks before the date such **Work** is to be performed and shall demonstrate that a good faith effort has been made to obtain LBEs on each subcontract until it meets the required percentage.

67.6 Failure of the **Contractor** to comply with the requirements of Section 6-108.1 of the Administrative Code and the regulations promulgated thereunder shall constitute a material breach of this **Contract**. Remedy for such breach may include the imposition of any or all of the following sanctions:

67.6.1 Reducing the **Contractor's** compensation by an amount equal to the dollar value of the percentage of the LBE subcontracting requirement not complied with;

67.6.2 Declaring the **Contractor** in default;

67.6.3 If the **Contractor** is an LBE, de-certifying and declaring the **Contractor** ineligible to participate in the LBE program for a period of up to three (3) years.

ARTICLE 68. ANTITRUST

68.1 The **Contractor** hereby assigns, sells, and transfers to the **City** all right, title, and interest in and to any claims and causes of action arising under the antitrust **Laws** of New York State or of the United States relating to the particular goods or services purchased or procured by the **City** under this **Contract**.

ARTICLE 69. MacBRIDE PRINCIPLES PROVISIONS

69.1 Notice To All Prospective **Contractors**:

69.1.1 Local Law No. 34 of 1991 became effective on September 10, 1991 and added Section 6-115.1 of the Administrative Code. The local **Law** provides for certain restrictions on **City Contracts** to express the opposition of the people of the **City** to employment discrimination practices in Northern Ireland to promote freedom of work-place opportunity.

69.1.2 Pursuant to Section 6-115.1, prospective **Contractors** for **Contracts** to provide goods or services involving an expenditure of an amount greater than ten thousand (\$10,000.) dollars, or for construction involving an amount greater than fifteen thousand (\$15,000.) dollars, are asked to sign a rider in which they covenant and represent, as a material condition of their **Contract**, that any business operations in Northern Ireland conducted by the **Contractor** and any individual or legal entity in which the **Contractor** holds a ten (10%) percent or greater ownership interest in the **Contractor** will be conducted in accordance with the MacBride Principles of nondiscrimination in employment.

69.1.3 Prospective **Contractors** are not required to agree to these conditions. However, in the case of **Contracts** let by competitive sealed bidding, whenever the lowest responsible bidder has not agreed to stipulate to the conditions set forth in this notice and another bidder who has agreed to stipulate to such conditions has submitted a bid within five (5%) percent of the lowest responsible bid for a **Contract** to supply goods, services or construction of comparable quality, the **Agency** shall refer such bids to the Mayor, the Speaker or other officials, as appropriate, who may determine, in accordance with applicable **Law**, that it is in the best interest of the **City** that the **Contract** be awarded to other than the lowest responsible pursuant to Section 313(b)(2) of the **City** Charter.

69.1.4 In the case of **Contracts** let by other than competitive sealed bidding, if a prospective **Contractor** does not agree to these conditions, no **Agency**, elected official or the **City** Council shall award the **Contract** to that bidder unless the **Agency** seeking to use the goods, services or construction certifies in writing that the **Contract** is necessary for the **Agency** to perform its functions and there is no other responsible **Contractor** who will supply goods, services or construction of comparable quality at a comparable price.

69.2 In accordance with Section 6-115.1 of the Administrative Code, the **Contractor** stipulates that such **Contractor** and any individual or legal entity in which the **Contractor** holds a ten (10%) percent or greater ownership interest in the **Contractor** either:

69.2.1 Have no business operations in Northern Ireland, or

69.2.2 Shall take lawful steps in good faith to conduct any business operations they have in

Northern Ireland in accordance with the MacBride Principles, and shall permit independent monitoring of their compliance with such principles.

69.3 For purposes of this Article, the following terms shall have the following meanings:

69.3.1 “MacBride Principles” shall mean those principles relating to nondiscrimination in employment and freedom of work-place opportunity which require employers doing business in Northern Ireland to:

69.3.1(a) increase the representation of individuals from under-represented religious groups in the workforce, including managerial, supervisory, administrative, clerical and technical jobs;

69.3.1(b) take steps to promote adequate security for the protection of employees from under-represented religious groups both at the work-place and while traveling to and from **Work**;

69.3.1(c) ban provocative religious or political emblems from the workplace;

69.3.1(d) publicly advertise all job openings and make special recruitment efforts to attract applicants from under-represented religious groups;

69.3.1(e) establish layoff, recall, and termination procedures which do not in practice favor a particular religious group;

69.3.1(f) abolish all job reservations, apprenticeship restrictions and different employment criteria which discriminate on the basis of religion;

69.3.1(g) develop training programs that will prepare substantial numbers of current employees from under-represented religious groups for skilled jobs, including the expansion of existing programs and the creation of new programs to train, upgrade, and improve the skills of workers from under-represented religious groups;

69.3.1(h) establish procedures to assess, identify, and actively recruit employees from under-represented religious groups with potential for further advancement; and

69.3.1(i) appoint a senior management staff member to oversee affirmative action efforts and develop a timetable to ensure their full implementation.

69.4 The **Contractor** agrees that the covenants and representations in Article 69.2 are material conditions to this **Contract**. In the event the **Agency** receives information that the **Contractor** who made the stipulation required by this Article 69 is in violation thereof, the **Agency** shall review such information and give the **Contractor** an opportunity to respond. If the **Agency** finds that a violation has occurred, the **Agency** shall have the right to declare the **Contractor** in default and/or terminate this **Contract** for cause and procure supplies, services or **Work** from another source in the manner the **Agency** deems proper. In the event of such termination, the **Contractor** shall pay to the **Agency**, or the **Agency** in its sole discretion may withhold from any amounts otherwise payable to the **Contractor**, the difference between the **Contract** price for the uncompleted portion of this **Contract** and the cost to the **Agency** of completing performance of this **Contract** either itself or by engaging another **Contractor** or **Contractors**. In the case of a requirement **Contract**, the **Contractor** shall be liable for such difference in price for the entire amount of supplies required by the **Agency** for the uncompleted term of **Contractor's Contract**. In the case of a construction **Contract**, the **Agency** shall also have the right to hold the **Contractor** in partial or total default in

accordance with the default provisions of this **Contract**, and/or may seek debarment or suspension of the **Contractor**. The rights and remedies of the **Agency** hereunder shall be in addition to, and not in lieu of, any rights and remedies the **Agency** has pursuant to this **Contract** or by operation of **Law**.

ARTICLE 70. ELECTRONIC FILING/NYC DEVELOPMENT HUB

70.1 The **Contractor** shall electronically file all alteration type-2 and alteration type-3 applications via the New York City Development Hub Web site, except applications for the following types of minor alterations: enlargements, curb cuts, legalizations, fire alarms, builders pavement plans, and jobs filed on Landmark Preservation Commission calendared properties. All such filings must be professionally certified. Information about electronic filing via the New York City Development Hub is available on the **City** Department of Buildings Web site at www.nyc.gov/buildings.

ARTICLE 71. PROHIBITION OF TROPICAL HARDWOODS

71.1 Tropical hardwoods, as defined in Section 165 of the New York State Finance Law (Finance Law), shall not be utilized in the performance of this **Contract** except as expressly permitted by Section 165 of the Finance Law.

ARTICLE 72. CONFLICTS OF INTEREST

72.1 Section 2604 of the **City** Charter and other related provisions of the **City** Charter, the Administrative Code, and the Penal Law are applicable under the terms of this **Contract** in relation to conflicts of interest and shall be extended to **Subcontractors** authorized to perform **Work**, labor and services pursuant to this **Contract** and further, it shall be the duty and responsibility of the **Contractor** to so inform its respective **Subcontractors**. Notice is hereby given that, under certain circumstances, penalties may be invoked against the donor as well as the recipient of any form of valuable gift.

ARTICLE 73. MERGER CLAUSE

73.1 The written **Contract** herein, contains all the terms and conditions agreed upon by the parties hereto, and no other agreement, oral or otherwise, regarding the subject matter of this **Contract** shall be deemed to exist or to bind any of the parties hereto, or to vary any of the terms contained herein.

ARTICLE 74. STATEMENT OF WORK

74.1 The **Contractor** shall furnish all labor and materials and perform all **Work** in strict accordance with the **Specifications** and **Addenda** thereto, numbered as shown in Schedule A.

ARTICLE 75. COMPENSATION TO BE PAID TO CONTRACTOR

75.1 The **City** will pay and the **Contractor** will accept in full consideration for the performance of the **Contract**, subject to additions and deductions as provided herein, the total sum shown in Schedule A, this said sum being the amount at which the **Contract** was awarded to the **Contractor** at a public letting thereof, based upon the **Contractor's** bid for the **Contract**.

ARTICLE 76. ELECTRONIC FUNDS TRANSFER

76.1 In accordance with Section 6-107.1 of the Administrative Code, the **Contractor** agrees to accept payments under this **Contract** from the **City** by electronic funds transfer (EFT). An EFT is any transfer of funds, other than a transaction originated by check, draft or similar paper instrument, which is initiated through an electronic terminal, telephonic instrument or computer or magnetic tape so as to order, instruct or authorize a financial institution to debit or credit an account. Prior to the first payment made under this **Contract**, the **Contractor** shall designate one financial institution or other authorized payment agent and shall complete the attached "EFT Vendor Payment Enrollment Form" in order to provide the Commissioner of the **City** Department of Finance with information necessary for the **Contractor** to receive electronic funds transfer payments through a designated financial institution or authorized payment agent. The crediting of the amount of a payment to the appropriate account on the books of a financial institution or other authorized payment agent designated by the **Contractor** shall constitute full satisfaction by the **City** for the amount of the payment under this **Contract**. The account information supplied by the **Contractor** to facilitate the electronic funds transfer shall remain confidential to the fullest extent provided by **Law**.

76.2 The **Commissioner** may waive the application of the requirements of this Article 76 to payments on contracts entered into pursuant to Section 315 of the **City** Charter. In addition, the Commissioner of the Department of Finance and the Comptroller may jointly issue standards pursuant to which the **Agency** may waive the requirements of this Article 76 for payments in the following circumstances: (i) for individuals or classes of individuals for whom compliance imposes a hardship; (ii) for classifications or types of checks; or (iii) in other circumstances as may be necessary in the interest of the **City**.

ARTICLE 77. RECORDS RETENTION

77.1 The **Contractor** agrees to retain all books, records, and other documents relevant to this **Contract** for six years after the final payment or termination of this **Contract**, whichever is later. **City**, state, and federal auditors and any other persons duly authorized by the **City** shall have full access to and the right to examine any such books, records, and other documents during the retention period.

ARTICLE 78. EXAMINATION AND VIEWING OF SITE, CONSIDERATION OF OTHER SOURCES OF INFORMATION AND CHANGED SITE CONDITIONS

78.1 Pre-Bidding (Investigation) Viewing of Site – Bidders must carefully view and examine the **Site** of the proposed **Work**, as well as its adjacent area, and seek other usual sources of information, for they will be conclusively presumed to have full knowledge of any and all conditions and hazards on, about or above the **Site** relating to or affecting in any way the performance of the **Work** to be done under the **Contract** that were or should have been known by a reasonably prudent bidder. To arrange a date for visiting the **Site**,

bidders are to contact the **Agency** contact person specified in the bid documents.

78.2 Should the **Contractor** encounter during the progress of the Work site conditions or environmental hazards at the **Site** materially differing from any shown on the **Contract Drawings** or indicated in the **Specifications** or such conditions or environmental hazards as could not reasonably have been anticipated by the **Contractor**, which conditions or hazards will materially affect the cost of the **Work** to be done under the **Contract**, the attention of the **Commissioner** must be called immediately to such conditions or hazards before they are disturbed. The **Commissioner** shall thereupon promptly investigate the conditions or hazards. If the **Commissioner** finds that they do so materially differ, and that they could not have been reasonably anticipated by the **Contractor**, the **Contract** may be modified with the **Commissioner's** written approval.

ARTICLE 79. PARTICIPATION BY MINORITY-OWNED AND WOMEN-OWNED BUSINESS ENTERPRISES IN CITY PROCUREMENT

ARTICLE I. M/WBE PROGRAM

Section 6-129 of the Administrative Code of the City of New York (“Section 6-129”) establishes the program for participation in City procurement (“M/WBE Program”) by minority- owned business enterprises (“MBEs”) and women-owned business enterprises (“WBEs”), certified in accordance with Section 1304 of the New York City Charter. As stated in Section 6- 129, the intent of the program is to address the impact of discrimination on the City’s procurement process, and to promote the public interest in avoiding fraud and favoritism in the procurement process, increasing competition for City business, and lowering contract costs. The contract provisions contained herein are pursuant to Section 6-129, and the rules of the Department of Small Business Services (“DSBS”) promulgated thereunder.

If this Contract is subject to the M/WBE Program established by Section 6-129, the specific requirements of MBE and/or WBE participation for this Contract are set forth in Schedule B of the Contract (entitled the “M/WBE Utilization Plan”) and are detailed below.

The Contractor must comply with all applicable MBE and WBE requirements for this Contract.

All provisions of Section 6-129 are hereby incorporated in the Contract by reference and all terms used herein that are not defined herein shall have the meanings given such terms in Section 6-129.

References to MBEs or WBEs shall also include such businesses certified pursuant to the executive law where credit is required by section 311 of the New York City Charter or other provision of law.

Article I, Part A, below, sets forth provisions related to the participation goals for construction, standard and professional services contracts.

Article I, Part B, below, sets forth miscellaneous provisions related to the M/WBE Program.

PART A: PARTICIPATION GOALS FOR CONSTRUCTION, STANDARD AND PROFESSIONAL SERVICES CONTRACTS OR TASK ORDERS

1. The MBE and/or WBE Participation Goals established for this Contract or Task Orders issued pursuant to this Contract, (“Participation Goals”), as applicable, are set forth on Schedule B, Part 1 to this Contract (see Page 1, Line 1 Total Participation Goals) or will be set forth on Schedule B, Part 1 to Task Orders issued pursuant to this Contract, as applicable.

The Participation Goals represent a percentage of the total dollar value of the Contract or Task Order, as applicable, that may be achieved by awarding subcontracts to firms certified with DSBS as MBEs and/or WBEs, and/or by crediting the participation of prime contractors and/or qualified joint ventures as provided in Section 3 below, unless the goals have been waived or modified by Agency in accordance with Section 6-129 and Part A, Sections 10 and 11 below, respectively.

2. If Participation Goals have been established for this Contract or Task Orders issued pursuant to this Contract, Contractor agrees or shall agree as a material term of the Contract that Contractor shall be subject to the Participation Goals, unless the goals are waived or modified by Agency in accordance with Section 6-129 and Part A, Sections 10 and 11 below, respectively.

3. If Participation Goals have been established for this Contract or Task Order issued pursuant to this Contract, a Contractor that is an MBE and/or WBE shall be permitted to count its own participation toward fulfillment of the relevant Participation Goal, provided that in accordance with Section 6-129 the value of Contractor's participation shall be determined by subtracting from the total value of the Contract or Task Order, as applicable, any amounts that the Contractor pays to direct subcontractors (as defined in Section 6-129(c)(13)), and provided further that a Contractor that is certified as both an MBE and a WBE may count its own participation either toward the goal for MBEs or the goal for WBEs, but not both.

A Contractor that is a qualified joint venture (as defined in Section 6-129(c)(30)) shall be permitted to count a percentage of its own participation toward fulfillment of the relevant Participation Goal. In accordance with Section 6-129, the value of Contractor's participation shall be determined by subtracting from the total value of the Contract or Task Order, as applicable, any amounts that Contractor pays to direct subcontractors, and then multiplying the remainder by the percentage to be applied to total profit to determine the amount to which an MBE or WBE is entitled pursuant to the joint venture agreement, provided that where a participant in a joint venture is certified as both an MBE and a WBE, such amount shall be counted either toward the goal for MBEs or the goal for WBEs, but not both.

4. A. If Participation Goals have been established for this Contract, a prospective contractor shall be required to submit with its bid or proposal, as applicable, a completed Schedule B, M/WBE Utilization Plan, Part 2 (see Pages 1-2) indicating: (a) whether the contractor is an MBE or WBE, or qualified joint venture; (b) the percentage of work it intends to award to direct subcontractors; (c) in cases where the contractor intends to award direct subcontracts, a description of the type and dollar value of work designated for participation by MBEs and/or WBEs, and the time frames in which such work is scheduled to begin and end; as well as the name, addresses, and telephone numbers of the M/WBE subcontractors if required by the solicitation; and (d) the prospective contractor's required certification and affirmations. In the event that this M/WBE Utilization Plan indicates that the bidder or proposer, as applicable, does not intend to meet the Participation Goals, the bid or proposal, as applicable, shall be deemed non-responsive, unless Agency has granted the bidder or proposer, as applicable, a pre-award waiver of the Participation Goals in accordance with Section 6-129 and Part A, Section 10 below.

B. (i) If this Contract is for a master services agreement or other requirements type contract that will result in the issuance of Task Orders that will be individually registered ("Master Services Agreement") and is subject to M/WBE Participation Goals, a prospective contractor shall be required to submit with its bid or proposal, as applicable, a completed Schedule B, M/WBE Participation Requirements for Master Services Agreements That Will Require Individually Registered Task Orders, Part 2 (page 2) indicating the prospective contractor's certification and required affirmations to make all reasonable good faith efforts to meet participation goals established on each individual Task Order issued pursuant to this Contract, or if a partial waiver is obtained or such goals are modified by the Agency, to meet the modified Participation Goals by soliciting and obtaining the participation of certified MBE and/or WBE firms. In the event that the Schedule B indicates that the bidder or proposer, as applicable, does not intend to meet the Participation Goals that may be established on Task Orders issued pursuant to this Contract, the bid or proposal, as applicable, shall be deemed non-responsive.

(ii) Participation Goals on a Master Services Agreement will be established for individual Task Orders issued after the Master Services Agreement is awarded. If Participation Goals have been established on a Task Order, a contractor shall be required to submit a Schedule B – M/WBE Utilization Plan For Independently Registered Task Orders That Are Issued Pursuant to Master Services Agreements, Part 2 (see Pages 1-2) indicating: (a) whether the contractor is an MBE or WBE, or qualified joint venture; (b) the percentage of work it intends to award to direct subcontractors; (c) in cases where the contractor intends to award direct subcontracts, a description of the type and dollar value of work designated for participation by MBEs and/or WBEs, and the time frames in which such work is scheduled to begin and end; as well as the name, addresses, and telephone numbers of the M/WBE subcontractors if required by the solicitation; and (d) the prospective contractor's required certification and affirmations. The contractor must engage in good faith efforts to meet the Participation Goals as established for the Task Order unless Agency has granted the contractor a pre-award waiver of the Participation Goals in accordance with Section 6-129 and Part A, Section 10 below.

C. THE BIDDER/PROPOSER MUST COMPLETE THE SCHEDULE B INCLUDED HEREIN (SCHEDULE B, PART 2). A SCHEDULE B SUBMITTED BY THE BIDDER/PROPOSER WHICH DOES NOT INCLUDE THE VENDOR CERTIFICATION AND REQUIRED AFFIRMATIONS WILL BE DEEMED TO BE NON-RESPONSIVE, UNLESS A FULL WAIVER OF THE PARTICIPATION GOALS IS GRANTED (SCHEDULE B, PART 3). IN THE EVENT THAT THE CITY DETERMINES THAT THE BIDDER/PROPOSER HAS SUBMITTED A SCHEDULE B WHERE THE VENDOR CERTIFICATION AND REQUIRED AFFIRMATIONS ARE COMPLETED BUT OTHER ASPECTS OF THE SCHEDULE B ARE NOT COMPLETE, OR CONTAIN A COPY OR COMPUTATION ERROR THAT IS AT ODDS WITH THE VENDOR CERTIFICATION AND AFFIRMATIONS, THE BIDDER/PROPOSER WILL BE NOTIFIED BY THE AGENCY AND WILL BE GIVEN FOUR (4) CALENDAR DAYS FROM RECEIPT OF NOTIFICATION TO CURE THE SPECIFIED DEFICIENCIES AND RETURN A COMPLETED SCHEDULE B TO THE AGENCY. FAILURE TO DO SO WILL RESULT IN A DETERMINATION THAT THE BID/PROPOSAL IS NON-RESPONSIVE. RECEIPT OF NOTIFICATION IS DEFINED AS THE DATE NOTICE IS E-MAILED OR FAXED (IF THE BIDDER/PROPOSER HAS PROVIDED AN E-MAIL ADDRESS OR FAX NUMBER), OR NO LATER THAN FIVE (5) CALENDAR DAYS FROM THE DATE OF MAILING OR UPON DELIVERY, IF DELIVERED.

5. Where an M/WBE Utilization Plan has been submitted, the Contractor shall, within 30 days of issuance by Agency of a notice to proceed, submit a list of proposed persons or entities to which it intends to award subcontracts within the subsequent 12 months. In the case of multi- year contracts, such list shall also be submitted every year thereafter. The Agency may also require the Contractor to report periodically about the contracts awarded by its direct subcontractors to indirect subcontractors (as defined in Section 6-129(c)(22)). PLEASE NOTE: If this Contract is a public works project subject to GML §101(5) (i.e., a contract valued at or below \$3M for projects in New York City) or if the Contract is subject to a project labor agreement in accordance with Labor Law §222, and the bidder is required to identify at the time of bid submission its intended subcontractors for the Wicks trades (plumbing and gas fitting; steam heating, hot water heating, ventilating and air conditioning (HVAC); and electric wiring), the Contractor must identify all those to which it intends to award construction subcontracts for any portion of the Wicks trade work at the time of bid submission, regardless of what point in the life of the contract such subcontracts will occur. In identifying intended subcontractors in the bid submission, bidders may satisfy any Participation Goals established for this Contract by proposing one or more subcontractors that are MBEs and/or WBEs for any portion of the Wicks trade work. In the event that the Contractor's selection of a subcontractor is disapproved, the Contractor shall have a reasonable time to propose alternate subcontractors.

6. MBE and WBE firms must be certified by DSBS in order for the Contractor to credit such firms' participation toward the attainment of the Participation Goals. Such certification must occur prior to the firms' commencement of work. A list of city-certified MBE and WBE firms may be obtained from the DSBS website at www.nyc.gov/buycertified, by emailing DSBS at buyer@sbs.nyc.gov, by calling (212) 513-6451, or by visiting or writing DSBS at One Liberty Plaza ., New York, New York, 10006, 11th floor. Eligible firms that have not yet

been certified may contact DSBS in order to seek certification by visiting www.nyc.gov/getcertified, emailing MWBE@sbs.nyc.gov, or calling the DSBS certification helpline at (212) 513-6311. A firm that is certified as both an MBE and a WBE may be counted either toward the goal for MBEs or the goal for WBEs, but not both. No credit shall be given for participation by a graduate MBE or graduate WBE, as defined in Section 6-129(c)(20).

7. Where an M/WBE Utilization Plan has been submitted, the Contractor shall, with each voucher for payment, and/or periodically as Agency may require, submit statements, certified under penalty of perjury, which shall include, but not be limited to, the total amount the Contractor paid to its direct subcontractors, and, where applicable pursuant to Section 6-129(j), the total amount direct subcontractors paid to indirect subcontractors; the names, addresses and contact numbers of each MBE or WBE hired as a subcontractor by the Contractor, and, where applicable, hired by any of the Contractor's direct subcontractors; and the dates and amounts paid to each MBE or WBE. The Contractor shall also submit, along with its voucher for final payment: the total amount it paid to subcontractors, and, where applicable pursuant to Section 6-129(j), the total amount its direct subcontractors paid directly to their indirect subcontractors; and a final list, certified under penalty of perjury, which shall include the name, address and contact information of each subcontractor that is an MBE or WBE, the work performed by, and the dates and amounts paid to each.

8. If payments made to, or work performed by, MBEs or WBEs are less than the amount specified in the Contractor's M/WBE Utilization Plan, Agency shall take appropriate action, in accordance with Section 6-129 and Article II below, unless the Contractor has obtained a modification of its M/WBE Utilization Plan in accordance with Section 6-129 and Part A, Section 11 below.

9. Where an M/WBE Utilization Plan has been submitted, and the Contractor requests a change order the value of which exceeds the greater of 10 percent of the Contract or Task Order, as applicable, or \$500,000, Agency shall review the scope of work for the Contract or Task Order, as applicable, and the scale and types of work involved in the change order, and determine whether the Participation Goals should be modified.

10. Pre-award waiver of the Participation Goals. (a) A bidder or proposer, or contractor with respect to a Task Order, may seek a pre-award full or partial waiver of the Participation Goals in accordance with Section 6-129, which requests that Agency change one or more Participation Goals on the grounds that the Participation Goals are unreasonable in light of the availability of certified firms to perform the services required, or by demonstrating that it has legitimate business reasons for proposing a lower level of subcontracting in its M/WBE Utilization Plan.

(b) To apply for a full or partial waiver of the Participation Goals, a bidder, proposer, or contractor, as applicable, must complete Part 3 of Schedule B and **submit such request no later than seven (7) calendar days prior to the date and time the bids, proposals, or Task Orders are due, in writing by email at MWBEModification@ddc.nyc.gov. Full or partial waiver requests that are received later than seven (7) calendar days prior to the date and time the bids, proposals, or Task Orders are due may be rejected as untimely.** Bidders, proposers, or contractors, as applicable, who have submitted timely requests will receive an Agency response by no later than two (2) calendar days prior to the due date for bids, proposals, or Task Orders; provided, however, that if that date would fall on a weekend or holiday, an Agency response will be provided by close-of-business on the business day before such weekend or holiday date.

(c) If the Agency determines that the Participation Goals are unreasonable in light of the availability of certified firms to perform the services required, it shall revise the solicitation and extend the deadline for bids and proposals, or revise the Task Order, as applicable.

(d) Agency may grant a full or partial waiver of the Participation Goals to a bidder, proposer or contractor, as applicable, who demonstrates—before submission of the bid, proposal or Task Order, as applicable—that it has legitimate business reasons for proposing the level of subcontracting in its M/WBE Utilization Plan. In making its determination, Agency shall consider factors that shall include, but not be limited

to, whether the bidder, proposer or contractor, as applicable, has the capacity and the bona fide intention to perform the Contract without any subcontracting, or to perform the Contract without awarding the amount of subcontracts represented by the Participation Goals. In making such determination, Agency may consider whether the M/WBE Utilization Plan is consistent with past subcontracting practices of the bidder, proposer or contractor, as applicable, whether the bidder, proposer or contractor, as applicable, has made efforts to form a joint venture with a certified firm, and whether the bidder, proposer, or contractor, as applicable, has made good faith efforts to identify other portions of the Contract that it intends to subcontract.

11. Modification of M/WBE Utilization Plan. (a) A Contractor may request a modification of its M/WBE Utilization Plan after award of this Contract. PLEASE NOTE: If this Contract is a public works project subject to GML §101(5) (i.e., a contract valued at or below \$3M for projects in New York City) or if the Contract is subject to a project labor agreement in accordance with Labor Law §222, and the bidder is required to identify at the time of bid submission its intended subcontractors for the Wicks trades (plumbing and gas fitting; steam heating, hot water heating, ventilating and air conditioning (HVAC); and electric wiring), the Contractor may request a Modification of its M/WBE Utilization Plan as part of its bid submission. The Agency may grant a request for Modification of a Contractor's M/WBE Utilization Plan if it determines that the Contractor has established, with appropriate documentary and other evidence, that it made reasonable, good faith efforts to meet the Participation Goals. In making such determination, Agency shall consider evidence of the following efforts, as applicable, along with any other relevant factors:

- (i) The Contractor advertised opportunities to participate in the Contract, where appropriate, in general circulation media, trade and professional association publications and small business media, and publications of minority and women's business organizations;
- (ii) The Contractor provided notice of specific opportunities to participate in the Contract, in a timely manner, to minority and women's business organizations;
- (iii) The Contractor sent written notices, by certified mail or facsimile, in a timely manner, to advise MBEs or WBEs that their interest in the Contract was solicited;
- (iv) The Contractor made efforts to identify portions of the work that could be substituted for portions originally designated for participation by MBEs and/or WBEs in the M/WBE Utilization Plan, and for which the Contractor claims an inability to retain MBEs or WBEs;
- (v) The Contractor held meetings with MBEs and/or WBEs prior to the date their bids or proposals were due, for the purpose of explaining in detail the scope and requirements of the work for which their bids or proposals were solicited;
- (vi) The Contractor made efforts to negotiate with MBEs and/or WBEs as relevant to perform specific subcontracts, or act as suppliers or service providers;
- (vii) Timely written requests for assistance made by the Contractor to Agency's M/WBE liaison officer and to DSBS;
- (viii) Description of how recommendations made by DSBS and Agency were acted upon and an explanation of why action upon such recommendations did not lead to the desired level of participation of MBEs and/or WBEs.

Agency's M/WBE officer shall provide written notice to the Contractor of the determination.

(b) The Agency may modify the Participation Goals when the scope of the work has been changed by the Agency in a manner that affects the scale and types of work that the Contractor indicated in its M/WBE Utilization Plan would be awarded to subcontractors.

12. If the Contractor was required to identify in its bid or proposal the MBEs and/or WBEs they intended to use in connection with the performance of the Contract or Task Order, substitutions to the identified firms may only be made with the approval of the Agency, which shall only be given when the Contractor has proposed to use a firm that would satisfy the Participation Goals to the same extent as the firm previously identified, unless the Agency determines that the Contractor has established, with appropriate documentary and other evidence, that it made reasonable, good faith efforts. In making such determination, the Agency shall require evidence of the

efforts listed in Section 11(a) above, as applicable, along with any other relevant factors.

13. If this Contract is for an indefinite quantity of construction, standard or professional services or is a requirements type contract and the Contractor has submitted an M/WBE Utilization Plan and has committed to subcontract work to MBEs and/or WBEs in order to meet the Participation Goals, the Contractor will not be deemed in violation of the M/WBE Program requirements for this Contract with regard to any work which was intended to be subcontracted to an MBE and/or WBE to the extent that the Agency has determined that such work is not needed.

14. If Participation Goals have been established for this Contract or a Task Order issued pursuant to this Contract, at least once annually during the term of the Contract or Task Order, as applicable, Agency shall review the Contractor's progress toward attainment of its M/WBE Utilization Plan, including but not limited to, by reviewing the percentage of work the Contractor has actually awarded to MBE and/or WBE subcontractors and the payments the Contractor made to such subcontractors.

15. If Participation Goals have been established for this Contract or a Task Order issued pursuant to this Contract, Agency shall evaluate and assess the Contractor's performance in meeting those goals, and such evaluation and assessment shall become part of the Contractor's overall contract performance evaluation.

PART B: MISCELLANEOUS

The Contractor shall take notice that, if this solicitation requires the establishment of a M/WBE Utilization Plan, the resulting contract may be audited by DSBS to determine compliance with Section 6-129. See §6-129(e)(10). Furthermore, such resulting contract may also be examined by the City's Comptroller to assess compliance with the M/WBE Utilization Plan.

1. Pursuant to DSBS rules, construction contracts that include a requirement for a M/WBE Utilization Plan shall not be subject to the law governing Locally Based Enterprises set forth in Section 6-108.1 of the Administrative Code of the City of New York.

2. DSBS is available to assist contractors and potential contractors in determining the availability of MBEs and/or WBEs to participate as subcontractors, and in identifying opportunities that are appropriate for participation by MBEs and/or WBEs in contracts.

3. Prospective contractors are encouraged to enter into qualified joint venture agreements with MBEs and/or WBEs as defined by Section 6-129(c)(30).

4. By submitting a bid or proposal the Contractor hereby acknowledges its understanding of the M/WBE Program requirements set forth herein and the pertinent provisions of Section 6-129, and any rules promulgated thereunder, and if awarded this Contract, the Contractor hereby agrees to comply with the M/WBE Program requirements of this Contract and pertinent provisions of Section 6-129, and any rules promulgated thereunder, all of which shall be deemed to be material terms of this Contract. The Contractor hereby agrees to make all reasonable, good faith efforts to solicit and obtain the participation of MBEs and/or WBEs to meet the required Participation Goals.

ARTICLE II. ENFORCEMENT

1. If Agency determines that a bidder or proposer, as applicable, has, in relation to this procurement, violated Section 6-129 or the DSBS rules promulgated pursuant to Section 6-129, Agency may disqualify such bidder or proposer, as applicable, from competing for this Contract and the Agency may revoke such bidder's or proposer's prequalification status, if applicable.

2. Whenever Agency believes that the Contractor or a subcontractor is not in compliance with Section 6-129

or the DSBS rules promulgated pursuant to Section 6-129, or any provision of this Contract that implements Section 6-129, including, but not limited to any M/WBE Utilization Plan, Agency shall send a written notice to the Contractor describing the alleged noncompliance and offering the Contractor an opportunity to be heard. Agency shall then conduct an investigation to determine whether such Contractor or subcontractor is in compliance.

3. In the event that the Contractor has been found to have violated Section 6-129, the DSBS rules promulgated pursuant to Section 6-129, or any provision of this Contract that implements Section 6-129, including, but not limited to, any M/WBE Utilization Plan, Agency may determine that one of the following actions should be taken:

- (a) entering into an agreement with the Contractor allowing the Contractor to cure the violation;
- (b) revoking the Contractor's pre-qualification to bid or make proposals for future contracts;
- (c) making a finding that the Contractor is in default of the Contract;
- (d) terminating the Contract;
- (e) declaring the Contractor to be in breach of Contract;
- (f) withholding payment or reimbursement;
- (g) determining not to renew the Contract;
- (h) assessing actual and consequential damages;
- (i) assessing liquidated damages or reducing fees, provided that liquidated damages may be based on amounts representing costs of delays in carrying out the purposes of the M/WBE Program, or in meeting the purposes of the Contract, the costs of meeting utilization goals through additional procurements, the administrative costs of investigation and enforcement, or other factors set forth in the Contract;
- (j) exercising rights under the Contract to procure goods, services or construction from another contractor and charge the cost of such contract to the Contractor that has been found to be in noncompliance; or
- (k) taking any other appropriate remedy.

4. If an M/WBE Utilization Plan has been submitted, and pursuant to this Article II, Section 3, the Contractor has been found to have failed to fulfill its Participation Goals contained in its M/WBE Utilization Plan or the Participation Goals as modified by Agency pursuant to Article I, Part A, Section 11, Agency may assess liquidated damages in the amount of ten percent (10%) of the difference between the dollar amount of work required to be awarded to MBE and/or WBE firms to meet the Participation Goals and the dollar amount the Contractor actually awarded and paid, and/or credited, to MBE and/or WBE firms. In view of the difficulty of accurately ascertaining the loss which the City will suffer by reason of Contractor's failure to meet the Participation Goals, the foregoing amount is hereby fixed and agreed as the liquidated damages that the City will suffer by reason of such failure, and not as a penalty. Agency may deduct and retain out of any monies which may become due under this Contract the amount of any such liquidated damages; and in case the amount which may become due under this Contract shall be less than the amount of liquidated damages suffered by the City, the Contractor shall be liable to pay the difference.

5. Whenever Agency has reason to believe that an MBE and/or WBE is not qualified for certification, or is participating in a contract in a manner that does not serve a commercially useful function (as defined in Section 6-129(c)(8)), or has violated any provision of Section 6-129, Agency shall notify the Commissioner of DSBS who shall determine whether the certification of such business enterprise should be revoked.

6. Statements made in any instrument submitted to Agency pursuant to Section 6-129 shall be submitted under penalty of perjury and any false or misleading statement or omission shall be grounds for the application of any applicable criminal and/or civil penalties for perjury. The making of a false or fraudulent statement by an MBE and/or WBE in any instrument submitted pursuant to Section 6-129 shall, in addition, be grounds for revocation of its certification.

7. The Contractor's record in implementing its M/WBE Utilization Plan shall be a factor in the evaluation of

its performance. Whenever Agency determines that a Contractor's compliance with an M/WBE Utilization Plan has been unsatisfactory, Agency shall, after consultation with the City Chief Procurement Officer, file an advice of caution form for inclusion in PASSPort as caution data.

CONTRACT SIGNATURE PAGE

This Contract is entered by and between the City of New York (“City”), acting by and through the **DEPARTMENT OF DESIGN AND CONSTRUCTION**, and **J PIZZIRUSSO LANDSCAPING CORP** (“Contractor”).

This Contract consists of this contract signature page as well as the following documents (“Contract Documents”) which are located in the Documents tab of the PASSPort record titled **85023B0039-HWK2048**.


1. (Question answer) - HWK2048 Bid Bond.pdf - Jun 14 2024 1:28PM
2. (Question answer) - HWK2048 Bid Schedule As Submitted 10-13-23.xlsx - Jun 11 2024 7:43PM
3. (Question answer) - JPL DBE SCHEDULE OF UTILIZATION 10.13.23.xlsx - Jun 14 2024 1:33PM
4. Bid Schedule - Jun 18 2024 2:52PM
5. Bonds - Jun 18 2024 2:45PM
6. Broker Certificate 3.21.25 - Jun 18 2024 2:47PM
7. DBL 6-14-25 - Jun 18 2024 2:46PM
8. GL & Auto Expire 3-21-25 - Jun 18 2024 2:43PM
9. HWK2048 - Addendum 1 - Jun 11 2024 7:43PM
10. HWK2048 - Addendum 2 - Jun 11 2024 7:43PM
11. HWK2048 - Addendum 3 - Jun 11 2024 7:43PM
12. HWK2048 - Addendum 4 - Jun 11 2024 7:43PM
13. HWK2048 - Bid Schedule [Addendum 3] - Jun 18 2024 12:39PM
14. HWK2048 - DRAWINGS - Jun 11 2024 7:43PM
15. HWK2048 - PLANHOLDERS LIST [Addendum1] - Jun 11 2024 7:43PM
16. HWK2048 - Volume 3 [Addendum 1] - Jun 11 2024 7:43PM
17. HWK2048 -Volume 2 - Jun 11 2024 7:43PM
18. Proposal/Bid - Jun 11 2024 7:43PM
19. RFx Document - Jun 11 2024 7:43PM
20. Volume 1 - Jun 11 2024 7:43PM
21. WC 3-20-25 - Jun 18 2024 2:46PM

The above order does not represent an order of precedence. The Contract shall be governed by the order of precedence, if any, in the Contract Documents or by ordinary contract principles if no such order of precedence exists.

Each party is signing this Contract electronically on the date stated in that party's electronic signature.

The City of New York

By: **DEPARTMENT OF DESIGN AND CONSTRUCTION**

DocuSigned by:

1A87ABA0188B41C...
(Signature)


Name: ERIC MACFARLANE

Title: 0First Deputy Commissioner

Date: 6/24/2024 | 09:42:07 PDT

Contractor

By: **J PIZZIRUSSO LANDSCAPING CORP**

DocuSigned by:

05391FF7135441C...
(Signature)

Name: John Pizzirusso

Title: President

Date: 6/24/2024 | 09:12:41 PDT

Signatures

Number of pages (including this one): 3

- ✓ Document signed electronically, the signatories agreeing that it is authentic between them.
- ✓ By signing this document, the signatories acknowledge and agree that they have carefully read this document and approve all its terms.

Nom: Pizzirusso John

Fonction: President

Place: NY

Date: 6/24/2024 | 09:12:41 PDT

DocuSigned by:

John Pizzirusso

05391FF7135441C...

Nom: Macfarlane Eric

Fonction:

Place: lic ny

Date: 6/24/2024 | 09:42:07 PDT

DocuSigned by:

ERIC MACFARLANE

1A87ABA0188B41C...



CERTIFICATE OF LIABILITY INSURANCE

EK

DATE (MM/DD/YYYY)
08/02/2024

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER GEORGE R GROSSMANN, LUTCF FARM FAMILY CASUALTY INSURANCE COMPANY 3920 VETERANS MEMORIAL HIGHWAY BOHEMIA, NY 11716	CONTACT NAME GEORGE GROSSMANN		
	PHONE (A/C, No, Ext): 631-439-4650	FAX (A/C, No): 631-439-4651	
	E-MAIL ADDRESS:		
	INSURER(S) AFFORDING COVERAGE		NAIC #
	INSURER A: FARM FAMILY CASUALTY INSURANCE CO.		13803
	INSURER B: UNITED FARM FAMILY INSURANCE CO.		29963
INSURED J PIZZIRUSSO LANDSCAPING CORP. 2400 E 69TH STREET BROOKLYN, NY 11234	INSURER C:		
	INSURER D:		
	INSURER E:		
	INSURER F:		

COVERAGES **CERTIFICATE NUMBER:** 129029 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE		ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	<input checked="" type="checkbox"/>	COMMERCIAL GENERAL LIABILITY	<input checked="" type="checkbox"/>		3124X0083	03/21/2024	03/21/2025	EACH OCCURRENCE	\$ 2,000,000
	<input type="checkbox"/>	CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	\$ 100,000
								MED EXP (Any one person)	\$ 5,000
								PERSONAL & ADV INJURY	\$ 2,000,000
								GENERAL AGGREGATE	\$ 4,000,000
								PRODUCTS - COMP/OP AGG	\$ 4,000,000
									\$
		GEN'L AGGREGATE LIMIT APPLIES PER:							
	<input checked="" type="checkbox"/>	<input type="checkbox"/> POLICY	<input type="checkbox"/> PRO-JECT	<input type="checkbox"/> LOC					
		OTHER:							
B	<input type="checkbox"/>	AUTOMOBILE LIABILITY			3101C3685	02/24/2024	02/24/2025	COMBINED SINGLE LIMIT (Ea accident)	\$ 1,000,000
	<input type="checkbox"/>	ANY AUTO						BODILY INJURY (Per person)	\$
	<input type="checkbox"/>	OWNED AUTOS ONLY	<input checked="" type="checkbox"/>	SCHEDULED AUTOS				BODILY INJURY (Per accident)	\$
	<input checked="" type="checkbox"/>	HIRED AUTOS ONLY	<input checked="" type="checkbox"/>	NON-OWNED AUTOS ONLY				PROPERTY DAMAGE (Per accident)	\$
									\$
A	<input checked="" type="checkbox"/>	UMBRELLA LIAB	<input checked="" type="checkbox"/>		3101E3822	07/27/2024	07/27/2025	EACH OCCURRENCE	\$ 8,000,000
		EXCESS LIAB	<input type="checkbox"/>	CLAIMS-MADE				AGGREGATE	\$ 8,000,000
		DED <input checked="" type="checkbox"/>	RETENTION \$ 10,000						\$
								PER STATUTE	OTH-ER
		WORKERS COMPENSATION AND EMPLOYERS' LIABILITY						E.L. EACH ACCIDENT	\$
		ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) <input type="checkbox"/>		N/A				E.L. DISEASE - EA EMPLOYEE	\$
		If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - POLICY LIMIT	\$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
 CITY OF NEW YORK, INCLUDING ITS OFFICIALS AND EMPLOYEES, THE NEW YORK CITY TRANSIT AUTHORITY (NYCTA), MANHATTAN AND BRONX SURFACE TRANSIT OPERATION AUTHORITY (MABSTOA), STATEN ISLAND RAPID TRANSIT OPERATION AUTHORITY (SIRTOA), METROPOLITAN TRANSPORTATION AUTHORITY (MTA), ITS SUBSIDIARIES AND AFFILIATED COMPANIES., NEW YORK STATE, INCLUDING ITS OFFICIALS AND EMPLOYEES, FEDERAL TRANSIT ADMINISTRATION (FTA), INCLUDING ITS OFFICIALS AND EMPLOYEES, NATIONAL GRID.

CONTRACT #HWK2048

CERTIFICATE HOLDER CITY OF NEW YORK DEPARTMENT OF DESIGN AND CONSTRUCTION 30-30 THOMSON AVENUE LONG ISLAND CITY, NY 11101	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE

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CITY OF NEW YORK
CERTIFICATION BY INSURANCE BROKER OR AGENT

The undersigned insurance broker represents to the City of New York that the attached Certificate of Insurance is accurate in all material respects.

[Name of broker or agent (typewritten)]

[Address of broker or agent (typewritten)]

[Email address of broker or agent (typewritten)]

[Phone number/Fax number of broker or agent (typewritten)]

[Signature of authorized official, broker, or agent]

[Name and title of authorized official, broker, or agent (typewritten)]

State of)
) ss.:
County of)

Sworn to before me this _____ day of _____, 20____

NOTARY PUBLIC FOR THE STATE OF _____

CERTIFICATE OF INSURANCE COVERAGE

NYS DISABILITY AND PAID FAMILY LEAVE BENEFITS LAW

PART 1. To be completed by NYS disability and Paid Family Leave benefits carrier or licensed insurance agent of that carrier

<p>1a. Legal Name & Address of Insured (use street address only) J.PIZZIRUSSO LANDSCAPING CORP 2400 EAST 69 STREET BROOKLYN, NY 11234</p> <p>Work Location of Insured <i>(Only required if coverage is specifically limited to certain locations in New York State, i.e., Wrap-Up Policy)</i> Contract #HWK2048</p>	<p>1b. Business Telephone Number of Insured 7185316084</p> <p>1c. Federal Employer Identification Number of Insured or Social Security Number 11-3539578</p>
<p>2. Name and Address of Entity Requesting Proof of Coverage <i>(Entity Being Listed as the Certificate Holder)</i> NYC Department of Design and Construction 30-30 Thomson Ave 4 floor Long Island City, NY 11101</p>	<p>3a. Name of Insurance Carrier Standard Security Life Insurance Company of New York</p> <p>3b. Policy Number of Entity Listed in Box 1a D35965-000</p> <p>3c. Policy Effective Period <u>1/1/2001</u> to <u>6/14/2025</u></p>

4. Policy provides the following benefits:

A. Both disability and Paid Family Leave benefits.

B. Disability benefits only.

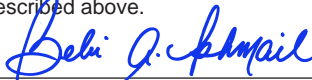
C. Paid Family Leave benefits only.

5. Policy covers:

A. All of the employer's employees eligible under the NYS Disability and Paid Family Leave Benefits Law.

B. Only the following class or classes of employer's employees:

Under penalty of perjury, I certify that I am an authorized representative or licensed agent of the insurance carrier referenced above and that the named insured has NYS disability and/or Paid Family Leave benefits insurance coverage as described above.

Date Signed 6/15/2024 By 
(Signature of insurance carrier's authorized representative or NYS licensed insurance agent of that insurance carrier)

Telephone Number (212) 355-4141 Name and Title SUPERVISOR-DBL/POLICY SERVICES

IMPORTANT: If Boxes 4A and 5A are checked, and this form is signed by the insurance carrier's authorized representative or NYS Licensed Insurance Agent of that carrier, this certificate is COMPLETE. Mail it directly to the certificate holder.

If Box 4B, 4C or 5B is checked, this certificate is NOT COMPLETE for purposes of Section 220, Subd. 8 of the NYS Disability and Paid Family Leave Benefits Law. It must be emailed to PAU@wcb.ny.gov or it can be mailed for completion to the Workers' Compensation Board, Plans Acceptance Unit, PO Box 5200, Binghamton, NY 13902-5200.

PART 2. To be completed by the NYS Workers' Compensation Board (Only if Box 4B, 4C or 5B of Part 1 has been checked)

State of New York Workers' Compensation Board

According to information maintained by the NYS Workers' Compensation Board, the above-named employer has complied with the NYS Disability and Paid Family Leave Benefits Law (Article 9 of the Workers' Compensation Law) with respect to all of their employees.

Date Signed _____ By _____
(Signature of Authorized NYS Workers' Compensation Board Employee)

Telephone Number _____ Name and Title _____

Please Note: Only insurance carriers licensed to write NYS disability and Paid Family Leave benefits insurance policies and NYS licensed insurance agents of those insurance carriers are authorized to issue Form DB-120.1. **Insurance brokers are NOT authorized to issue this form.**



Additional Instructions for Form DB-120.1

By signing this form, the insurance carrier identified in Box 3 on this form is certifying that it is insuring the business referenced in Box 1a for disability and/or Paid Family Leave benefits under the NYS Disability and Paid Family Leave Benefits Law. The insurance carrier or its licensed agent will send this Certificate of Insurance Coverage (Certificate) to the entity listed as the certificate holder in Box 2.

The insurance carrier must notify the above certificate holder and the Workers' Compensation Board within 10 days IF a policy is cancelled due to nonpayment of premiums or within 30 days IF there are reasons other than nonpayment of premiums that cancel the policy or eliminate the insured from coverage indicated on this Certificate. (These notices may be sent by regular mail.) Otherwise, this Certificate is valid for one year after this form is approved by the insurance carrier or its licensed agent, or until the policy expiration date listed in Box 3c, whichever is earlier.

This certificate is issued as a matter of information only and confers no rights upon the certificate holder. This certificate does not amend, extend or alter the coverage afforded by the policy listed, nor does it confer any rights or responsibilities beyond those contained in the referenced policy.

This Certificate may be used as evidence of a NYS disability and/or Paid Family Leave benefits contract of insurance only while the underlying policy is in effect.

Please Note: Upon the cancellation of the disability and/or Paid Family Leave benefits policy indicated on this form, if the business continues to be named on a permit, license or contract issued by a certificate holder, the business must provide that certificate holder with a new Certificate of Insurance Coverage for NYS disability and/or Paid Family Leave Benefits or other authorized proof that the business is complying with the mandatory coverage requirements of the NYS Disability and Paid Family Leave Benefits Law.

NYS DISABILITY AND PAID FAMILY LEAVE BENEFITS LAW

§220. Subd. 8

(a) The head of a state or municipal department, board, commission or office authorized or required by law to issue any permit for or in connection with any work involving the employment of employees in employment as defined in this article, and notwithstanding any general or special statute requiring or authorizing the issue of such permits, shall not issue such permit unless proof duly subscribed by an insurance carrier is produced in a form satisfactory to the chair, that the payment of disability benefits and after January first, two thousand and twenty-one, the payment of family leave benefits for all employees has been secured as provided by this article. Nothing herein, however, shall be construed as creating any liability on the part of such state or municipal department, board, commission or office to pay any disability benefits to any such employee if so employed.

(b) The head of a state or municipal department, board, commission or office authorized or required by law to enter into any contract for or in connection with any work involving the employment of employees in employment as defined in this article and notwithstanding any general or special statute requiring or authorizing any such contract, shall not enter into any such contract unless proof duly subscribed by an insurance carrier is produced in a form satisfactory to the chair, that the payment of disability benefits and after January first, two thousand eighteen, the payment of family leave benefits for all employees has been secured as provided by this article.

CERTIFICATE OF WORKERS' COMPENSATION INSURANCE



SCAN TO VALIDATE
AND SUBSCRIBE

^ ^ ^ ^ ^ ^ ^ ^ 113539578
J. PIZZIRUSSO LANDSCAPING CORP.
2400 EAST 69TH STREET
BROOKLYN NY 11234

POLICYHOLDER J. PIZZIRUSSO LANDSCAPING CORP. 2400 EAST 69TH STREET BROOKLYN NY 11234		CERTIFICATE HOLDER NYC DDC 30-30 THOMSON AVE 4 FLOOR LONG ISLAND CITY NY 11101	
POLICY NUMBER K 858 023-5	CERTIFICATE NUMBER 530224	POLICY PERIOD 03/20/2024 TO 03/20/2025	DATE 3/22/2024

THIS IS TO CERTIFY THAT THE POLICYHOLDER NAMED ABOVE IS INSURED WITH THE NEW YORK STATE INSURANCE FUND UNDER POLICY NO. 858 023-5, COVERING THE ENTIRE OBLIGATION OF THIS POLICYHOLDER FOR WORKERS' COMPENSATION UNDER THE NEW YORK WORKERS' COMPENSATION LAW WITH RESPECT TO ALL OPERATIONS IN THE STATE OF NEW YORK, EXCEPT AS INDICATED BELOW, AND, WITH RESPECT TO OPERATIONS OUTSIDE OF NEW YORK, TO THE POLICYHOLDER'S REGULAR NEW YORK STATE EMPLOYEES ONLY.


IF YOU WISH TO RECEIVE NOTIFICATIONS REGARDING SAID POLICY, INCLUDING ANY NOTIFICATION OF CANCELLATIONS, OR TO VALIDATE THIS CERTIFICATE, VISIT OUR WEBSITE AT [HTTPS://WWW.NYSIF.COM/CERT/CERTVAL.ASP](https://www.nysif.com/cert/certval.asp). THE NEW YORK STATE INSURANCE FUND IS NOT LIABLE IN THE EVENT OF FAILURE TO GIVE SUCH NOTIFICATIONS.

THIS POLICY DOES NOT COVER CLAIMS OR SUITS THAT ARISE FROM BODILY INJURY SUFFERED BY THE OFFICERS OF THE INSURED CORPORATION.
 J PIZZIRUSSO LANDSCAPING CORP
 JOHN PIZZIRUSSO
 JOSEPH PIZZIRUSSO

THIS CERTIFICATE DOES NOT APPLY TO THOSE JOB SITES WHICH ARE COVERED BY OTHER INSURANCE AND ARE SPECIFICALLY EXCLUDED BY ENDORSEMENT.

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS NOR INSURANCE COVERAGE UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICY.

NEW YORK STATE INSURANCE FUND



DIRECTOR, INSURANCE FUND UNDERWRITING

VALIDATION NUMBER: 561473046

PERFORMANCE BOND #1

Performance Bond #1 (4 Pages): Use if the total contract price is \$5 Million Or Less. Performance Bond #1 has been approved by the U.S. Small Business Administration (“SBA”)for participation in its Bond Guarantee Program.

PERFORMANCE BOND #1 (Page 1)

KNOW ALL PERSONS BY THESE PRESENTS;

That we, _____

hereinafter referred to as the “Principal,”
and, _____

hereinafter referred to as the “Surety” (“Sureties”) are held and firmly bound to THE CITY OF NEW YORK, hereinafter referred to as the “City” or to its successors and assigns in the penal sum of _____

(\$ _____) Dollars, lawful money of the United States for the payment of which said sum of money well and truly to be made, we, and each of us, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal is about to enter, or has entered, into a Contract in writing with the City for _____

a copy of which Contract is annexed to and hereby made a part of this bond as though herein set forth in full; **NOW, THEREFORE**, the conditions of this obligation are such that if the Principal, his or its representatives or assigns, shall well and faithfully perform the said Contract and all modifications, amendments, additions and alterations thereto that may hereafter be made, according to its terms and its true intent and meaning, including repair and or replacement of defective work and guarantees of maintenance for the periods stated in the Contract, and shall fully indemnify and save harmless the City from all cost and damage which it may suffer by reason of the Principal’s default of the Contract, and shall fully reimburse and repay the City for all outlay and expense which the City may incur in making good any such default and shall protect the said City of New York against, and pay any and all amounts, damages, cost and judgments which may or shall be recovered against said City or its officers or agents or which the said City of New York may be called upon to pay any person or corporation by reason of any damages arising or growing out of the Principal’s default of the Contract, then this obligation shall be null and void, otherwise to remain in full force and effect.

PERFORMANCE BOND #1 (Page 2)

The Surety (Sureties), for value received, hereby stipulates and agrees, upon written notice from the City that the City has determined that the Principal is in default of the Contract, to (1) pay the City the cost to complete the contract as determined by the City in excess of the balance of the Contract held by the City, plus any damages or costs to which the City is entitled, up to the full amount of the above penal sum, (2) fully perform and complete the Work to be performed under the Contract, pursuant to the terms, conditions, and covenants thereof, or (3) tender a completion Contractor that is acceptable to the City. The Surety (Sureties) further agrees, at its option, either to notify the City that it elects to pay the city the cost of completion plus any applicable damages and costs under option (1) above, or to commence and diligently perform the Work specified in the Contract, including physical site work, within twenty-five (25) business days after written notice thereof from the City and, if the Surety elects to fully perform and complete the Work, then to complete all Work within the time set forth in the Contract or such other time as agreed to between the City and Surety in accordance with the Contract. If the Surety elects to tender payment pursuant to (1) above, then the Surety shall tender such amount within fifteen (15) business days notification from the City of the cost of completion. The Surety and the City reserve all rights and defenses each may have against the other; provided, however, that the Surety expressly agrees that its reservation of rights shall not provide a basis for non-performance of its obligation to pay the City the cost of completion, to commence and complete all Work as provided herein, or to tender a completion contractor.

The Surety (Sureties), for value received, for itself and its successors and assigns, hereby stipulates and agrees that the obligation of said Surety (Sureties) and its bond shall be in no way impaired or affected by any extension of time, modification, omission, addition, or change in or to the said Contract or the Work to be performed thereunder, or by any payment thereunder before the time required therein, or by any waiver of any provisions thereof, or any moneys due or to become due thereunder; and said Surety (Sureties) does hereby waive notice of any and all of such extensions, modifications, omissions, additions, changes, payments, and waivers, and hereby expressly stipulates and agrees that any and all things done and omitted to be done by and in relation to subcontractors shall have the same effect as to said Surety (Sureties) as though done or omitted to be done by or in relation to said Principal. Notwithstanding the above, if the City makes payments to the Principal before the time required by the contract that in the aggregate exceed \$100,000 or 10% of the Contract price, whichever is less, and that have not become earned prior to the Principal being found to be in default, then all payments made to the Principal before the time required by the Contract shall be added to the remaining contract value available to be paid for the completion of the Contract as if such sums had not been paid to the Principal, but shall not provide a basis for non-performance of its obligation to pay the City the cost of completion, to commence and to complete all Work as provided herein, or to tender a completion contractor.

PERFORMANCE BOND #1 (Page 3)

IN WITNESS WHEREOF, The Principal and the Surety (Sureties) have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereunto affixed and these presents to be signed by their proper officers, this

_____ day of _____, 20_____(Seal)

_____(L.S.)
Principal

(Seal)

By: _____
Surety

By: _____

(Seal)

Surety

By: _____

(Seal)

Surety

By: _____

(Seal)

Surety

By: _____

(Seal)

Surety

By: _____

Bond Premium Rate _____

Bond Premium Cost _____

If the Contractor (Principal) is a partnership, the bond should be signed by each of the individuals who are partners.

If the Contractor (Principal) is a corporation, the bond should be signed in its correct corporate name by duly authorized officer, agent, or attorney-in-fact.

There should be executed an appropriate number of counterparts of the bond corresponding to the number of counterparts of the Contract.

ACKNOWLEDGMENT OF PRINCIPAL IF A CORPORATION

State of _____ County of _____ ss:

On this _____ day of _____, 20 _____ before me personally came _____, to me known, who, being by me duly sworn did depose and say that he/she resides at _____; that he/she is the _____ of the corporation described in and which executed the foregoing instrument; and that he/she signed his/her name to the foregoing instrument by order of the directors of said corporation as the duly authorized and binding act thereof.

Notary Public or Commissioner of Deeds.

ACKNOWLEDGMENT OF PRINCIPAL IF A PARTNERSHIP

State of _____ County of _____ ss:

On this _____ day of _____, 20 _____ before me personally came _____, to me known, who, being by me duly sworn did depose and say that he/she resides at _____ partner of _____, a limited/general partnership existing under the laws of the State of _____, the partnership described in and which executed the foregoing instrument; and that he/she signed his/her name to the foregoing instrument as the duly authorized and binding act of said partnership.

Notary Public or Commissioner of Deeds.

ACKNOWLEDGMENT OF PRINCIPAL IF AN INDIVIDUAL

State of _____ County of _____ ss:

On this _____ day of _____, 20 _____ before me personally came _____, to me known, who, being by me duly sworn did depose and say that he/she resides at _____, and that he/she is the individual whose name is subscribed to the within instrument and acknowledged to me that by his/her signature on the instrument, said individual executed the instrument.

Notary Public or Commissioner of Deeds

Each executed bond should be accompanied by: (a) appropriate acknowledgments of the respective parties; (b) appropriate duly certified copy of Power of Attorney or other certificate of authority where bond is executed by agent, officer or other representative of Principal or Surety; (c) a duly certified extract from By-Laws or resolutions of Surety under which Power of Attorney or other certificate of authority of its agent, officer or representative was issued, and (d) certified copy of latest published financial statement of assets and liabilities of Surety.

Affix Acknowledgments and Justification of Sureties.

Performance Bond #2 (Pages 104 to 107): Use if the total contract price is more than \$5 Million.

PERFORMANCE BOND #2 (Page 1)

PERFORMANCE BOND #2

KNOW ALL PERSONS BY THESE PRESENTS,;

That we, J. Pizzirusso Landscaping Corp.

2400 East 69th Street

Brooklyn, NY 11234

hereinafter referred to as the "Principal,"
and, Liberty Mutual Insurance Company

175 Berkeley Street

Boston, MA 02116

hereinafter referred to as the "Surety" ("Sureties") are held and firmly bound to THE CITY OF NEW YORK, hereinafter referred to as the "City" or to its successors and assigns in the penal sum of Five Million Six Hundred Ninety-five Thousand And No/100

(\$5,695,000.00) Dollars, lawful money of the United States for the payment of which said sum of money well and truly to be made, we, and each of us, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal is about to enter, or has entered, into a Contract in writing with the City for Reconstruction of Jamaica Bay Greenway - Paerdegat Avenue North Connector - HWK2048

a copy of which Contract is annexed to and hereby made a part of this bond as though herein set forth in full;

NOW, THEREFORE, the conditions of this obligation are such that if the Principal, his or its representatives or assigns, shall well and faithfully perform the said Contract and all modifications, amendments, additions and alterations thereto that may hereafter be made, according to its terms and its true intent and meaning, including repair and or replacement of defective work and guarantees of maintenance for the periods stated in the Contract, and shall fully indemnify and save harmless the City from all cost and damage which it may suffer by reason of the Principal's default of the Contract, and shall fully reimburse and repay the City for all outlay and expense which the City may incur in making

Performance Bond #2 (Pages 104 to 107): Use if the total contract price is more than \$5 Million.

PERFORMANCE BOND #2 (Page 2)

good any such default and shall protect the said City of New York against, and pay any and all amounts, damages, cost and judgments which may or shall be recovered against said City or its officers or agents or which the said City of New York may be called upon to pay any person or corporation by reason of any damages arising or growing out of the Principal's default of the Contract, then this obligation shall be null and void, otherwise to remain in full force and effect.

The Surety (Sureties), for value received, hereby stipulates and agrees, upon written notice from the City that the City has determined that the Principal is in default of the Contract, to either (1) pay the full amount of the above penal sum in complete discharge and exoneration of this bond and of all the liabilities of the Surety relating to this bond, or (2) fully perform and complete the Work to be performed under the Contract, pursuant to the terms, conditions, and covenants thereof. The Surety (Sureties) further agrees, at its option, either to tender the penal sum or to commence and diligently perform the Work specified in the Contract, including physical site work, within twenty-five (25) business days after written notice thereof from the City and to complete all Work within the time set forth in the Contract or such other time as agreed to between the City and Surety in accordance with the Contract. The Surety and the City reserve all rights and defenses each may have against the other; provided, however, that the Surety expressly agrees that its reservation of rights shall not provide a basis for non-performance of its obligation to commence and to complete all Work as provided herein.

The Surety (Sureties), for value received, for itself and its successors and assigns, hereby stipulates and agrees that the obligation of said Surety (Sureties) and its bond shall be in no way impaired or affected by any extension of time, modification, omission, addition, or change in or to the said Contract or the Work to be performed thereunder, or by any payment thereunder before the time required therein, or by any waiver of any provisions thereof, or by any assignment, subletting or other transfer thereof or of any Work to be performed or any moneys due or to become due thereunder; and said Surety (Sureties) does hereby waive notice of any and all of such extensions, modifications, omissions, additions, changes, payments, waivers, assignments, subcontracts and transfers, and hereby expressly stipulates and agrees that any and all things done and omitted to be done by and in relation to assignees, subcontractors, and other transferees shall have the same effect as to said Surety (Sureties) as though done or omitted to be done by or in relation to said Principal.

Performance Bond #2 (Pages 104 to 107): Use if the total contract price is more than \$5 Million.

PERFORMANCE BOND #2 (Page 3)

IN WITNESS WHEREOF, The Principal and the Surety (Sureties) have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereunto affixed and these presents to be signed by their proper officers, this

_____ 11th _____ day of _____ June _____ 2024

(Seal) _____
J. Pizzirusso Landscaping Corp. (L.S.)
Principal

By: _____
Surety
Liberty Mutual Insurance Company

(Seal) _____
By: _____
Loriann P. Fay, Attorney-in-Fact
Surety

(Seal) _____
By: _____
Surety

(Seal) _____
By: _____
Surety

(Seal) _____
By: _____
Surety

(Seal) _____
By: _____
Surety

Bond Premium Rate _____

Bond Premium Cost _____

If the Contractor (Principal) is a partnership, the bond should be signed by each of the individuals who are partners.

If the Contractor (Principal) is a corporation, the bond should be signed in its correct corporate name by a duly authorized officer, agent, or attorney-in-fact.

There should be executed an appropriate number of counterparts of the bond corresponding to the number of counterparts of the Contract.

Performance Bond #2 (Pages 104 to 107): Use if the total contract price is more than \$5 Million.

PERFORMANCE BOND #2 (Page 4)

ACKNOWLEDGMENT OF PRINCIPAL IF A CORPORATION

State of New York County of Kings ss:

On this 14th day of June, 20 24 before me personally came Joseph Pizzirusso to me known, who, being by me duly sworn did depose and say that he resides at Nassau County;

that he/she is the Vice President of the corporation described in and which executed the foregoing instrument; that he/she signed his/her name to the foregoing instrument by order of the directors of said corporation as the duly authorized

Joanna Casio
Notary Public or Commissioner of Deeds.



ACKNOWLEDGMENT OF PRINCIPAL IF A PARTNERSHIP

State of _____ County of _____ ss:

On this _____ day of _____, 20 _____ before me personally came _____ to me known, who, being by me duly sworn did depose and say that he/she resides at _____

_____ ; that he/she is _____ partner of _____, a limited/general partnership existing under the laws of the State of _____, the partnership described in and which executed the foregoing instrument; and that he/she signed his/her name to the foregoing instrument as the duly authorized and binding act of said partnership.

Notary Public or Commissioner of Deeds

ACKNOWLEDGMENT OF PRINCIPAL IF AN INDIVIDUAL

State of _____ County of _____ ss:

On this _____ day of _____, 20 _____ before me personally came _____ to me known, who, being by me duly sworn did depose and say that he/she resides at _____

_____ , and that he/she is the individual whose name is subscribed to the within instrument and acknowledged to me that by his/her signature on the instrument, said individual executed the instrument.

Notary Public or Commissioner of Deeds

Each executed bond should be accompanied by: (a) appropriate acknowledgments of the respective parties; (b) appropriate duly certified copy of Power of Attorney or other certificate of authority where bond is executed by agent, officer or other representative of Principal or Surety; (c) a duly certified extract from By-Laws or resolutions of Surety under which Power of Attorney or other certificate of authority of its agent, officer or representative was issued, and (d) certified copy of latest published financial statement of assets and liabilities of Surety.

Affix Acknowledgments and Justification of Sureties.


SURETY COMPANY'S ACKNOWLEDGMENT

STATE OF New York)

COUNTY OF Suffolk) ss.:

CITY OF East Northport)

On this 11th day of June in the year 2024 before me personally came Loriann P. Fay , to me known, who, being by me duly sworn, did depose and say that he/she/they reside(s) in East Northport, NY , that he/she/they (is) (are) the Attorney-In-Fact duly appointed of the Liberty Mutual Insurance Company the corporation described in and which executed the above instrument; that he/she/they know(s) the seal of said corporation; that the seal affixed to said instrument is such corporate seal; is such corporate seal; that it was so affixed by authority of the board of directors of said corporation, and that he/she/they signed his/her/their name(s) thereto by like authority.



NOTARY PUBLIC

Geoffrey Lesniak
Notary Public, State of New York
No. 01LE6376846
Qualified in Erie County
Commission Expires June 18, 2026



This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

Certificate No: 8200197

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That The Ohio Casualty Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the 'Companies'), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Lorian P. Fay

all of the city of Northport state of NY each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 31st day of December, 2018.



Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

By: David M. Carey
David M. Carey, Assistant Secretary

State of PENNSYLVANIA ss
County of MONTGOMERY

On this 31st day of December, 2018 before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of Liberty Mutual Insurance Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at King of Prussia, Pennsylvania, on the day and year first above written.



COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Teresa Pastella, Notary Public
Upper Merion Twp., Montgomery County
My Commission Expires March 28, 2021
Member, Pennsylvania Association of Notaries

By: Teresa Pastella
Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company which resolutions are now in full force and effect reading as follows:

ARTICLE IV OFFICERS: Section 12. Power of Attorney.

Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

ARTICLE XIII Execution of Contracts: Section 5. Surety Bonds and Undertakings.

Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

Certificate of Designation - The President of the Company, acting pursuant to the Bylaws of the Company, authorizes David M. Carey, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization - By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Llewellyn, the undersigned, Assistant Secretary, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 11th day of June, 2024.



By: Renee C. Llewellyn
Renee C. Llewellyn, Assistant Secretary

Not valid for mortgage, note, loan, letter of credit, currency rate, interest rate or residual value guarantees.

To confirm the validity of this Power of Attorney call 1-610-832-8240 between 9:00 am and 4:30 pm EST on any business day.



LIBERTY MUTUAL INSURANCE COMPANY
FINANCIAL STATEMENT – DECEMBER 31, 2023

Assets		Liabilities	
Cash and Bank Deposits	\$1,850,245,073.00	Unearned Premiums	\$10,298,963,305.00
*Bonds – U.S Government	\$3,859,565,383.00	Reserve for Claims and Claims Expense	\$28,848,537,243.00
*Other Bonds	\$21,048,805,773.00	Funds Held Under Reinsurance Treaties	\$360,714,151.00
*Stocks	\$19,937,271,802.00	Reserve for Dividends to Policyholders	\$1,310,198.00
Real Estate	\$122,228,711.00	Additional Statutory Reserve	\$296,126,000.00
Agents' Balances or Uncollected Premiums	\$8,208,660,427.00	Reserve for Commissions, Taxes and Other Liabilities	\$7,622,413,466.63
Accrued Interest and Rents	\$186,906,667.00	Total	\$47,428,064,363.63
Other Admitted Assets	\$15,677,869,683.63	Special Surplus Funds	\$209,508,757.00
Total Admitted Assets	\$70,891,553,519.63	Capital Stock	\$10,000,075.00
		Paid in Surplus	\$13,834,867,488.00
		Unassigned Surplus	\$9,409,112,836.00
		Surplus to Policyholders	\$23,463,489,156.00
		Total Liabilities and Surplus	\$70,891,553,519.63

* Bonds are stated at amortized or investment value; Stocks at Association Market Values.
 The foregoing financial information is taken from Liberty Mutual Insurance Company's financial statement filed with the Massachusetts Department of Insurance.

I, TIM MIKOLAJEWSKI, Assistant Secretary of Liberty Mutual Insurance Company, do hereby certify that the foregoing is a true, and correct statement of the Assets and Liabilities of said Corporation, as of December 31, 2023, to the best of my knowledge and belief.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of said Corporation at Seattle, Washington, this 8th day of March, 2024.



Timothy A. Mikolajewski

 Timothy A. Mikolajewski, Assistant Secretary

Payment Bond (Pages 108 to 111): Use for any contract for which a Payment Bond is required.

PAYMENT BOND (Page 1)

PAYMENT BOND

KNOW ALL PERSONS BY THESE PRESENTS, That we, _____

_____ J. Pizzirusso Landscaping Corp.

_____ 2400 East 69th Street

_____ Brooklyn, NY 11234

hereinafter referred to as the "Principal", and _____

_____ Liberty Mutual Insurance Company

_____ 175 Berkeley Street

_____ Boston, MA 02116

hereinafter referred to as the "Surety" ("Sureties") are held and firmly bound to THE CITY OF NEW YORK, hereinafter referred to as the "City" or to its successors and assigns, in the penal sum of

_____ Five Million Six Hundred Ninety-five Thousand And No/100

_____ (\$5,695,000.00) Dollars, lawful money of the United States, for the payment of which said sum of money well and truly to be made, we, and each of us, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal is about to enter, or has entered, into a Contract in writing with the City for
_____ Reconstruction of Jamaica Bay Greenway - Paerdegat Avenue North Connector - HWK2048

_____ a copy of which Contract is annexed to and hereby made a part of this bond as though herein set forth in full;

NOW, THEREFORE, the conditions of this obligation are such that if the Principal, his or its representatives or assigns and other Subcontractors to whom Work under this Contract is sublet and his or their successors and assigns shall promptly pay or cause to be paid all lawful claims for

(a) Wages and compensation for labor performed and services rendered by all persons engaged in the prosecution of the Work under said Contract, and any amendment or extension thereof or addition thereto, whether such persons be agents servants or employees of the Principal or any such Subcontractor, including all persons so engaged who perform the work of laborers or mechanics at or in the vicinity of the site

Payment Bond (Pages 108 to 111): Use for any contract for which a Payment Bond is required.

PAYMENT BOND (Page 2)

of the Project regardless of any contractual relationship between the Principal or such Subcontractors, or his or their successors or assigns, on the one hand and such laborers or mechanics on the other, but not including office employees not regularly stationed at the site of the project; and

(b) Materials and supplies (whether incorporated in the permanent structure or not), as well as teams, fuels, oils, implements or machinery furnished, used or consumed by said Principal or any subcontractor at or in the vicinity of the site of the Project in the prosecution of the Work under said Contract and any amendment or extension thereof or addition thereto; then this obligation shall be void, otherwise to remain in full force and effect.

This bond is subject to the following additional conditions, limitations and agreements:

(a) The Principal and Surety (Sureties) agree that this bond shall be for the benefit of any materialmen or laborer having a just claim, as well as the City itself.

(b) All persons who have performed labor, rendered services or furnished materials and supplies, as aforesaid, shall have a direct right of action against the Principal and his, its or their successors and assigns, and the Surety (Sureties) herein, or against either or both or any of them and their successors and assigns. Such persons may sue in their own name, and may prosecute the suit to judgment and execution without the necessity of joining with any other persons as party plaintiff.

(c) The Principal and Surety (Sureties) agree that neither of them will hold the City liable for any judgment for costs of otherwise, obtained by either or both of them against a laborer or materialman in a suit brought by either a laborer or materialman under this bond for moneys allegedly due for performing work or furnishing material.

(d) The Surety (Sureties) or its successors and assigns shall not be liable for any compensation recoverable by an employee or laborer under the Workmen's Compensation Law.

(e) In no event shall the Surety (Sureties), or its successors or assigns, be liable for a greater sum than the penalty of this bond or be subject to any suit, action or proceeding hereon that is instituted by any person, firm, or corporation hereunder later than two years after the complete performance of said Contract and final settlement thereof.

The Principal, for himself and his successors and assigns, and the Surety (Sureties), for itself and its successors and assigns, do hereby expressly waive any objection that might be interposed as to the right of the City to require a bond containing the foregoing provisions, and they do hereby further expressly waive any defense which they or either of them might interpose to an action brought hereon by any person, firm or corporation, including subcontractors, materialmen and third persons, for work, labor, services, supplies or material performed rendered, or furnished as aforesaid upon the ground that there is no law authorizing the City to require the foregoing provisions to be place in this bond.

And the Surety (Sureties), for value received, for itself and its successors and assigns, hereby stipulates and agrees that the obligation of said Surety (Sureties), and its bonds shall be in no way impaired or affected by any extension of time, modification, omission, addition, or change in or of the said Contract or the work to be performed thereunder, or by any payment thereunder before the time required therein, or by any waiver of any provisions thereof, or by any assignment, subletting or other transfer thereof or of any part thereof, or of any Work to be performed, or any moneys due to become due thereunder and said Surety (Sureties) does hereby waive notice of any and all of such extensions, modifications, omissions, additions, changes, payments, waivers, assignments, subcontracts and transfers, and hereby expressly stipulates and agrees that any and all things done and omitted to be done by and in relation to assignees, Subcontractors, and other transferees shall have the same effect as to said Surety (Sureties) as though done or omitted to be done or in relation to said Principal.

Payment Bond (Pages 108 to 111): Use for any contract for which a Payment Bond is required.

PAYMENT BOND (Page 3)

IN WITNESS WHEREOF, the Principal and the Surety (Sureties) have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereunto affixed and these presents to be signed by their proper officers, this 11th day of June, 2024.

(Seal)

J. Pizzirusso Landscaping Corp. (L.S.)
Principal

By:  _____

(Seal)

Liberty Mutual Insurance Company
Surety

By:  _____

Loriann P. Fay, Attorney-in-Fact

(Seal)

Surety

By: _____

(Seal)

Surety

By: _____

(Seal)

Surety

By: _____

If the Contractor (Principal) is a partnership, the bond should be signed by each of the individuals who are partners.

If the Contractor (Principal) is a corporation, the bond should be signed in its correct corporate name by a duly authorized officer, agent, or attorney-in-fact.

There should be executed an appropriate number of counterparts of the bond corresponding to the number of counterparts of the Contract.

Payment Bond (Pages 108 to 111): Use for any contract for which a Payment Bond is required.

PAYMENT BOND (Page 4)

ACKNOWLEDGMENT OF PRINCIPAL, IF A CORPORATION

State of New York County of Kings ss:

On this 14th day of June, 2024, before me personally came Joseph Pizzinuso to me known, who, being by me duly sworn did depose and say that he resides at Nassau County that he is the Vice President of the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that one of the seals affixed to said instrument is such seal; that it was so affixed by order of the directors of said corporation, and that he signed his name thereto by like order.

Joanna Cascio
Notary Public or Commissioner of Deeds



ACKNOWLEDGMENT OF PRINCIPAL, IF A PARTNERSHIP

State of _____ County of _____ ss:

On this _____ day of _____, _____, before me personally appeared _____ to me known, and known to me to be one of the members of the firm of _____ described in and who executed the foregoing instrument; and he acknowledged to me that he executed the same as and for the act and deed of said firm.

Notary Public or Commissioner of Deeds

ACKNOWLEDGMENT OF PRINCIPAL, IF AN INDIVIDUAL

State of _____ County of _____ ss:

On this _____ day of _____, _____, before me personally appeared _____ to me known, and known to me to be the person described in and who executed the foregoing instrument; and acknowledged that he executed the same.

Notary Public or Commissioner of Deeds

Each executed bond should be accompanied by: (a) appropriate acknowledgments of the respective parties; (b) appropriate duly certified copy of Power of Attorney or other certificate of authority where bond is executed by agent, officer or other representative of Principal or Surety; (c) a duly certified extract from By-Laws or resolutions of Surety under which Power of Attorney or other certificate of authority of its agent, officer or representative was issued, and (d) certified copy of latest published financial statement of assets and liabilities of Surety.

Affix Acknowledgments and Justification of Sureties.

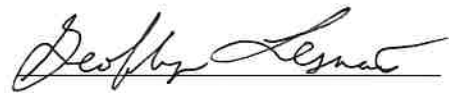
SURETY COMPANY'S ACKNOWLEDGMENT

STATE OF New York)

COUNTY OF Suffolk) ss.:

CITY OF East Northport)

On this 11th day of June in the year 2024 before me personally came Loriann P. Fay , to me known, who, being by me duly sworn, did depose and say that he/she/they reside(s) in East Northport, NY , that he/she/they (is) (are) the Attorney-In-Fact duly appointed of the Liberty Mutual Insurance Company the corporation described in and which executed the above instrument; that he/she/they know(s) the seal of said corporation; that the seal affixed to said instrument is such corporate seal; is such corporate seal; that it was so affixed by authority of the board of directors of said corporation, and that he/she/they signed his/her/their name(s) thereto by like authority.



NOTARY PUBLIC

Geoffrey Lesniak
Notary Public, State of New York
No. 01LE6376846
Qualified in Erie County
Commission Expires June 18, 2026



This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

Certificate No. 8200197

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That The Ohio Casualty Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Lorian P. Fay

all of the city of Northport state of NY each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 31st day of December, 2018.



Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

By: David M. Carey, Assistant Secretary

State of PENNSYLVANIA
County of MONTGOMERY

On this 31st day of December, 2018 before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of Liberty Mutual Insurance Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at King of Prussia, Pennsylvania, on the day and year first above written.



COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Teresa Pastella, Notary Public
Upper Merion Twp., Montgomery County
My Commission Expires March 28, 2021
Member, Pennsylvania Association of Notaries

By: Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company which resolutions are now in full force and effect reading as follows:

ARTICLE IV OFFICERS: Section 12. Power of Attorney.

Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

ARTICLE XIII Execution of Contracts: Section 5. Surety Bonds and Undertakings.

Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

Certificate of Designation - The President of the Company, acting pursuant to the Bylaws of the Company, authorizes David M. Carey, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization - By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Llewellyn, the undersigned, Assistant Secretary, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 11th day of June, 2024



By: Renee C. Llewellyn, Assistant Secretary

Not valid for mortgage, note, loan, letter of credit, currency rate, interest rate or residual value guarantees.

To confirm the validity of this Power of Attorney call 1-610-832-8240 between 9:00 am and 4:30 pm EST on any business day.



LIBERTY MUTUAL INSURANCE COMPANY
FINANCIAL STATEMENT – DECEMBER 31, 2023

Assets	Liabilities
Cash and Bank Deposits\$1,850,245,073.00	Unearned Premiums \$10,298,963,305.00
*Bonds – U.S Government\$3,859,565,383.00	Reserve for Claims and Claims Expense..... \$28,848,537,243.00
*Other Bonds.....\$21,048,805,773.00	Funds Held Under Reinsurance Treaties \$360,714,151.00
*Stocks\$19,937,271,802.00	Reserve for Dividends to Policyholders \$1,310,198.00
Real Estate.....\$122,228,711.00	Additional Statutory Reserve \$296,126,000.00
Agents' Balances or Uncollected Premiums...\$8,208,660,427.00	Reserve for Commissions, Taxes and Other Liabilities \$7,622,413,466.63
Accrued Interest and Rents\$186,906,667.00	Total..... \$47,428,064,363.63
Other Admitted Assets\$15,677,869,683.63	Special Surplus Funds..... \$209,508,757.00
Total Admitted Assets\$70,891,553,519.63	Capital Stock..... \$10,000,075.00
	Paid in Surplus..... \$13,834,867,488.00
	Unassigned Surplus..... \$9,409,112,836.00
	Surplus to Policyholders \$23,463,489,156.00
	Total Liabilities and Surplus..... \$70,891,553,519.63

* Bonds are stated at amortized or investment value; Stocks at Association Market Values.
The foregoing financial information is taken from Liberty Mutual Insurance Company's financial statement filed with the Massachusetts Department of Insurance.

I, TIM MIKOLAJEWSKI, Assistant Secretary of Liberty Mutual Insurance Company, do hereby certify that the foregoing is a true, and correct statement of the Assets and Liabilities of said Corporation, as of December 31, 2023, to the best of my knowledge and belief.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of said Corporation at Seattle, Washington, this 8th day of March, 2024.



Timothy A. Mikolajewski

Timothy A. Mikolajewski, Assistant Secretary

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

LABOR LAW ARTICLE 8 - NYC PUBLIC WORKS

Workers, Laborers and Mechanics employed on a public work project must receive not less than the prevailing rate of wage and benefits for the classification of work performed by each upon such public work. Pursuant to New York Labor Law Article 8 the Comptroller of the City of New York has promulgated this schedule solely for Workers, Laborers and Mechanics engaged by private contractors on New York City public work projects. Prevailing rates are required to be annexed to and form part of the public work contract pursuant to Labor Law section 220 (3).

This schedule is a compilation of separate determinations of the prevailing rate of wage and supplements made by the Comptroller for each trade classification listed herein pursuant to Labor Law section 220 (5). The source of the wage and supplement rates, whether a collective bargaining agreement, survey data or other, is listed at the end of each classification.

Agency Chief Contracting Officers should contact the Bureau of Labor Law's Classification Unit with any questions concerning trade classifications, prevailing rates or prevailing practices with respect to procurement on New York City public work contracts. Contractors are advised to review the Comptroller's Prevailing Wage Schedule before bidding on public work contracts. Contractors with questions concerning trade classifications, prevailing rates or prevailing practices with respect to public work contracts in the procurement stage must contact the contracting agency responsible for the procurement.

Any error as to compensation under the prevailing wage law or other information as to trade classification, made by the contracting agency in the contract documents or in any other communication, will not preclude a finding against the contractor of prevailing wage violation.

Any questions concerning trade classifications, prevailing rates or prevailing practices on New York City public work contracts that have already been awarded may be directed to the Bureau of Labor Law's Classification Unit by calling (212) 669-4443. All callers must have the agency name and contract registration number available when calling with questions on public work contracts. Please direct all other compliance issues to: laborlaw@comptroller.nyc.gov or Bureau of Labor Law, Attn: Paul Brumlik, Office of the Comptroller, 1 Centre Street, Room 651, New York, N.Y. 10007.

Pursuant to Labor Law § 220 (3-a) (a), the appropriate schedule of prevailing wages and benefits must be posted in a prominent and accessible place at all public work sites along with the Construction Poster provided on our web site at comptroller.nyc.gov/wages. In addition, covered employees must be given the appropriate schedule of prevailing wages and benefits along with the Worker Notice provided on our web site at the time the public work project begins, and with the first paycheck to each such employee after July first of each year.

This schedule is applicable to work performed during the effective period, unless otherwise noted. Changes to this schedule are published on our web site comptroller.nyc.gov/wages. Contractors must pay the wages and supplements in effect when the worker, laborer, mechanic performs the work. Preliminary schedules for future one-year periods appear in the City Record on or about June 1 each succeeding year. Final schedules appear on or about July 1 in the City Record and on our web site comptroller.nyc.gov/wages.

Prevailing rates and ratios for apprentices are published in the Construction Apprentice Prevailing Wage Schedule. Pursuant to Labor Law § 220 (3-e), only apprentices who are individually registered in a bona fide program to which the employer contractor is a participant, registered with the

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

New York State Department of Labor, may be paid at the apprentice rates. Apprentices who are not so registered must be paid as journey persons.

New York City public work projects awarded pursuant to a Project Labor Agreement (“PLA”) in accordance with Labor Law section 222 may have different labor standards for shift, premium and overtime work. Please refer to the PLA’s pre-negotiated labor agreements for wage and benefit rates applicable to work performed outside of the regular workday. More information is available at the Mayor’s Office of Contract Services (MOCS) web page at:

<https://www1.nyc.gov/site/mocs/legal-forms/project-labor-agreements.page>

All the provisions of Labor Law Article 8 remain applicable to PLA work including, but not limited to, the enforcement of prevailing wage requirements by the Comptroller in accordance with the trade classifications in this schedule; however, we will enforce shift, premium, overtime and other non-standard rates as they appear in a project’s pre-negotiated labor agreement.

In order to meet their obligation to provide prevailing supplemental benefits to each covered employee, employers must either:

- 1) Provide bona fide fringe benefits which cost the employer no less than the prevailing supplemental benefits rate; or
- 2) Supplement the employee’s hourly wage by an amount no less than the prevailing supplemental benefits rate; or
- 3) Provide a combination of bona fide fringe benefits and wage supplements which cost the employer no less than the prevailing supplemental benefits rate in total.

Although prevailing wage laws do not require employers to provide bona fide fringe benefits (as opposed to wage supplements) to their employees, other laws may. For example, the Employee Retirement Income Security Act, 29 U.S.C. § 1001 et seq., the Patient Protection and Affordable Care Act, 42 U.S.C. § 18001 et seq., and the New York City Paid Sick Leave Law, N.Y.C. Admin. Code § 20-911 et seq., require certain employers to provide certain benefits to their employees. Labor agreements to which employers are a party may also require certain benefits. The Comptroller’s Office does not enforce these laws or agreements.

Employers must provide prevailing supplemental benefits at the straight time rate for each hour worked unless otherwise noted in the classification.

Paid Holidays, Vacation and Sick Leave when listed must be paid or provided in addition to the prevailing hourly supplemental benefit rate.

For more information, please refer to the Comptroller’s Prevailing Wage Law Regulations in Title 44 of the Rules of the City of New York, Chapter 2, available at comptroller.nyc.gov/wages.

Paul Brumlik
Director of Classifications
Bureau of Labor Law

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OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

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ASBESTOS HANDLER SEE HAZARDOUS MATERIAL HANDLER

BLASTER

Blaster

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$57.71**

Supplemental Benefit Rate per Hour: **\$52.23**

Blaster - Hydraulic Trac Drill

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$51.85**

Supplemental Benefit Rate per Hour: **\$52.23**

Blaster - Wagon: Air Trac: Quarry Bar: Drillrunners

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$51.02**

Supplemental Benefit Rate per Hour: **\$52.23**

Blaster - Journeyperson

(Laborer, Chipper/Jackhammer including Walk Behind Self Propelled Hydraulic Asphalt and Concrete Breakers and Hydro (Water) Demolition, Powder Carrier, Hydraulic Chuck Tender, Chuck Tender and Nipper)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$44.50**

Supplemental Benefit Rate per Hour: **\$52.23**

Blaster - Magazine Keepers: (Watch Person)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$22.25**

Supplemental Benefit Rate per Hour: **\$52.23**

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day
Memorial Day
Independence Day
Labor Day
Columbus Day
Thanksgiving Day
Christmas Day

Paid Holidays

Labor Day
Thanksgiving Day

Shift Rates

When two shifts are employed, single time rate shall be paid for each shift. When three shifts are found necessary, each shift shall work seven and one half hours (7 ½), but shall be paid for eight (8) hours of labor, and be permitted one half hour for lunch.

(Local #731)

BOILERMAKER

Boilermaker

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$65.88**

Supplemental Benefit Rate per Hour: **\$48.47**

Supplemental Note: For time and one half overtime - \$72.13 For double overtime - \$95.79

Overtime Description

For Repair and Maintenance work:

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

For New Construction work:

Double time the regular rate after an 8 hour day.

Double time the regular time rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day
President's Day
Memorial Day
Independence Day
Columbus Day

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Election Day
Veteran's Day
Thanksgiving Day
Christmas Day

Quadruple time the regular rate for work on the following holiday(s).
Labor Day

Paid Holidays

Good Friday
Day after Thanksgiving
Day before Christmas
Day before New Year's Day

Shift Rates

On jobs requiring two (2) or three (3) shifts, the first shift shall work eight (8) hours at the regular straight-time hourly rate. The second shift shall work eight (8) hours and receive eight hours at the regular straight time hourly rate plus two dollars (\$2.00) per hour. The third shift shall work eight (8) hours and receive eight hours at the regular straight time hourly rate plus two dollars and twenty-five cents (\$2.25) per hour.

(Local #5)

BRICKLAYER

Bricklayer

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$64.23**

Supplemental Benefit Rate per Hour: **\$31.75**

Overtime Description

Time and one half the regular rate after a 7 hour day. If working on a job that is predominately Pointer, Cleaner, Caulker work, then Time and one half the regular rate after an 8 hour day.

Overtime

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day
President's Day
Memorial Day
Independence Day
Labor Day

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Thanksgiving Day
Christmas Day

Paid Holidays

None

Shift Rates

The second shift wage rate shall be a 15% wage premium with no premium for supplemental benefits. There must be a first shift in order to work a second shift. When it is not possible to conduct alteration or repair work during regular working hours in a building occupied by tenants, eight hours will be paid at straight time rate for seven hours of work.

(Bricklayer District Council)

CARPENTER - BUILDING COMMERCIAL

Building Commercial

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$55.05**

Supplemental Benefit Rate per Hour: **\$47.88**

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Presidential Election Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Paid Holidays

None

Shift Rates

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

The second shift will receive one hour at the double time rate of pay for the last hour of the shift; eight hours pay for seven hours of work, nine hours pay for eight hours of work. There must be a first shift in order to work a second shift. When it is not possible to conduct alteration or repair work during regular working hours in a building occupied by tenants, the rule for the second shift will apply.

(Carpenters District Council)

CARPENTER - HEAVY CONSTRUCTION WORK
(Construction of Engineered Structures and Building Foundations including all form work)

Heavy Construction Work

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$59.16**

Supplemental Benefit Rate per Hour: **\$55.31**

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Presidential Election Day

Thanksgiving Day

Christmas Day

Paid Holidays

None

Shift Rates

Off shift work commencing between 5:00 P.M. and 11:00 P.M. shall work eight and one half hours allowing for one half hour for lunch. The wage rate shall be 113% of the straight time hourly wage rate and the supplemental benefits shall be paid at the straight time rate. When two (2) or more shifts of Carpenters are employed, single time will be paid for each shift.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

(Carpenters District Council)

CARPENTER - HIGH RISE CONCRETE FORMS **(Excludes Engineered Structures and Building Foundations)**

Carpenter High Rise A

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$51.48**

Supplemental Benefit Rate per Hour: **\$44.74**

Carpenter High Rise B

Carpenter High Rise B worker is excluded from high risk operations such as erection decking, perimeter debris netting, leading edge work, self-climbing form systems, and the installation of cocoon systems unless directly supervised by a Carpenter High Rise A worker.

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$40.89**

Supplemental Benefit Rate per Hour: **\$18.05**

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Good Friday

Memorial Day

Independence Day

Labor Day

Columbus Day

Presidential Election Day

Thanksgiving Day

Christmas Day

Paid Holidays

None

Shift Rates

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

The second shift wage rate shall be 113% of the straight time hourly wage rate. However, any shift beginning after 5:00 P.M. shall be paid at time and one half the regular hourly rate. There must be a first shift in order to work a second shift. When it is not possible to conduct alteration or repair work during regular working hours in a building occupied by tenants, the rule for the second shift will apply.

(Carpenters District Council)

CARPENTER - SIDEWALK SHED, SCAFFOLD AND HOIST

Carpenter - Hod Hoist

(Assisted by Mason Tender)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$53.50**

Supplemental Benefit Rate per Hour: **\$48.45**

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Presidential Election Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Paid Holidays

None

Shift Rates

The second shift will receive 112% of the straight time hourly rate. Benefit fund contributions shall be paid at the straight time rate. There must be a first shift in order to work a second shift. When it is not possible to conduct alteration or repair work during regular working hours in a building occupied by tenants, the rule for the second shift will apply.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

(Carpenters District Council)

CARPENTER - WOOD WATER STORAGE TANK

Tank Mechanic

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$37.13**

Supplemental Benefit Rate per Hour: **\$24.18**

Tank Helper

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$29.23**

Supplemental Benefit Rate per Hour: **\$24.18**

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Time and one half the regular rate for work on a holiday plus the day's pay.

Paid Holidays

New Year's Day

President's Day

Good Friday

Memorial Day

Independence Day

Labor Day

Columbus Day

Thanksgiving Day

Day after Thanksgiving

1/2 day on Christmas Eve if work is performed in the A.M.

Christmas Day

1/2 day on New Year's Eve if work is performed in the A.M.

Vacation

Employed for one (1) year.....one (1) week vacation (40 hours)

Employed for three (3) years.....two (2) weeks vacation (80 hours)

Employed for more than twenty (20) years.....three (3) weeks vacation (120 hours)

SICK LEAVE:

Two (2) sick days after being employed for twenty (20) years.

(Carpenters District Council)

CEMENT & CONCRETE WORKER

Cement & Concrete Worker

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$47.28**

Supplemental Benefit Rate per Hour: **\$30.20**

Supplemental Note: \$34.20 on Saturdays; \$38.20 on Sundays & Holidays

Cement & Concrete Worker - (Hired after 2/6/2016)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$36.80**

Supplemental Benefit Rate per Hour: **\$22.20**

Supplemental Note: \$24.20 on Saturdays; \$26.20 on Sundays & Holidays

Overtime Description

Time and one half the regular rate after 7 hour day (time and one half the regular rate after an 8 hour day when working with Dockbuilders on pile cap forms and for work below street level to the top of the foundation wall, not to exceed 2 feet or 3 feet above the sidewalk-brick shelf, when working on the foundation and structure.)

Overtime

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Good Friday

Memorial Day

Independence Day

Labor Day

Columbus Day

Presidential Election Day

Thanksgiving Day

Christmas Day

Paid Holidays

1/2 day before Christmas Day

1/2 day before New Year's Day

Shift Rates

On shift work extending over a twenty-four hour period, all shifts are paid at straight time.

(Cement & Concrete Workers District Council 16)

CEMENT MASON

Cement Mason

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$53.77**

Supplemental Benefit Rate per Hour: **\$34.01**

Supplemental Note: Supplemental benefit time and one half rate: \$61.47; Double time rate: double the base supplemental benefit rate.

Overtime Description

Time and one-half the regular rate after an 8 hour day, double time the regular rate after 10 hours. Time and one-half the regular rate on Saturday, double time the regular rate after 10 hours. Double time the regular rate on Sunday. Four Days a week at Ten (10) hours straight time is allowed.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Good Friday

Memorial Day

Independence Day

Labor Day

Columbus Day

Presidential Election Day

Thanksgiving Day

Christmas Day

Paid Holidays

Any worker who reports to work on Christmas Eve or New Year's Eve pursuant to his employer's instruction shall be entitled to three (3) hours afternoon pay without working.

Shift Rates

For off shift work, (at times other than the regular 7:00 A.M. to 3:30 P.M. work day) a cement mason shall be paid at the regular hourly rate plus a 25% per hour differential.

(Local #780) (BCA)

CORE DRILLER

Core Driller

Effective Period: 7/1/2023 - 6/30/2024

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Wage Rate per Hour: **\$43.88**

Supplemental Benefit Rate per Hour: **\$31.35**

Core Driller Helper

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$34.47**

Supplemental Benefit Rate per Hour: **\$31.35**

Core Driller Helper(Third year in the industry)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$31.02**

Supplemental Benefit Rate per Hour: **\$31.35**

Core Driller Helper (Second year in the industry)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$27.58**

Supplemental Benefit Rate per Hour: **\$31.35**

Core Driller Helper (First year in the industry)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$24.13**

Supplemental Benefit Rate per Hour: **\$31.35**

Overtime Description

Time and one half the regular rate for work on a holiday plus Holiday pay when worked.

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Time and one half the regular rate for work on the following holiday(s).

Paid Holidays

New Year's Day

Memorial Day

Independence Day

Labor Day

Thanksgiving Day

Christmas Day

Shift Rates

When two (2) or more shifts are employed, single time shall be paid for each shift, but those employees employed on a shift other than from 8:00 A.M. to 5:00 P.M. shall, in addition, receive two dollars (\$2.00) per hour differential for each hour worked. When three (3) shifts are needed, each shift shall work seven and one-half (7 ½) hours paid for eight (8) hours of labor and be permitted one-half (½) hour for mealtime.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

(Carpenters District Council)

DERRICKPERSON AND RIGGER

Derrick Person & Rigger

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$58.90**

Supplemental Benefit Rate per Hour: **\$58.37**

Derrick Person & Rigger - Site Work

Assists the Stone Mason-Setter in the setting of stone and paving stone.

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$46.49**

Supplemental Benefit Rate per Hour: **\$46.47**

Overtime Description

The first two hours of overtime on weekdays and the first seven hours of work on Saturdays are paid at time and one half for wages and supplemental benefits. All additional overtimes is paid at double time for wages and supplemental benefits.

Overtime

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

Washington's Birthday

Good Friday

Memorial Day

Independence Day

Labor Day

Thanksgiving Day

Christmas Day

Paid Holidays

1/2 day on Christmas Eve if work is performed in the A.M.

(Local #197)

DIVER

Diver (Marine)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$74.03**

Supplemental Benefit Rate per Hour: **\$55.31**

Diver Tender (Marine)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$53.57**

Supplemental Benefit Rate per Hour: **\$55.31**

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Presidential Election Day

Thanksgiving Day

Christmas Day

Paid Holidays

None

Shift Rates

When three shifts are utilized each shift shall work seven and one half-hours (7 1/2 hours) and paid for 8 hours, allowing for one half hour for lunch.

(Carpenters District Council)

DOCKBUILDER - PILE DRIVER

Dockbuilder - Pile Driver

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$59.16**

Supplemental Benefit Rate per Hour: **\$55.31**

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Presidential Election Day

Thanksgiving Day

Christmas Day

Paid Holidays

None

Shift Rates

Off shift work commencing between 5:00 P.M. and 11:00 P.M. shall work eight and one half hours allowing for one half hour for lunch. The wage rate shall be 113% of the straight time hourly wage rate.

(Carpenters District Council)

DRIVER: TRUCK (TEAMSTER)

Driver - Dump Truck

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$44.17**

Supplemental Benefit Rate per Hour: **\$53.95**

Supplemental Note: Over 40 hours worked: at time and one half rate - \$24.00; at double time rate - \$32.00

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Driver - Tractor Trailer

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$47.32**

Supplemental Benefit Rate per Hour: **\$52.40**

Supplemental Note: Over 40 hours worked: at time and one half rate - \$23.25; at double time rate - \$31.00

Driver - Euclid & Turnapull Operator

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$47.88**

Supplemental Benefit Rate per Hour: **\$52.40**

Supplemental Note: Over 40 hours worked: at time and one half rate - \$23.25; at double time rate - \$31.00

Overtime Description

For Paid Holidays: Holiday pay for all holidays shall be prorated based two hours per day for each day worked in the holiday week, not to exceed 8 hours of holiday pay. For Thanksgiving week, the prorated share shall be 5 1/3 hours of holiday pay for each day worked in Thanksgiving week.

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

Martin Luther King Jr. Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Christmas Day

Paid Holidays

New Year's Day

Martin Luther King Jr. Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Christmas Day

Shift Rates

Off shift work commencing between 6:00 P.M. and 5:00 A.M. shall work eight and one half (8 1/2) hours allowing for one half hour for lunch

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Driver Redi-Mix (Sand & Gravel)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$40.89**

Supplemental Benefit Rate per Hour: **\$47.85**

Supplemental Note: Over 40 hours worked: time and one half rate \$18.68; double time rate \$24.90

Overtime Description

For Paid Holidays: Employees who do not work on a contractual holiday shall be compensated two (2) hours extra pay in straight time wages and benefits for every day on which the Employee does not pass up a day's work during the calendar week (Sunday through Saturday) of the holiday, up to a maximum of ten (10) hours in wages and eight (8) hours in benefit contributions for the holiday

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

Martin Luther King Jr. Day

President's Day

Columbus Day

Veteran's Day

Triple time the regular rate for work on the following holiday(s).

New Year's Day

Memorial Day

Independence Day

Labor Day

Thanksgiving Day

Christmas Day

Paid Holidays

New Year's Day

Martin Luther King Jr. Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Election Day

Thanksgiving Day

Christmas Day

(Local #282)

ELECTRICIAN

(Including installation of low voltage cabling carrying data, video and/or voice on building construction/alteration/renovation projects.)

Electrician "A" (Regular Day / Day Shift)

Effective Period: 7/1/2023 - 4/12/2024

Wage Rate per Hour: **\$61.00**

Supplemental Benefit Rate per Hour: **\$60.06**

* Supplemental Note: See Supplemental Benefit Rate per Hour Note below

Effective Period: 4/13/2024 - 6/30/2024

Wage Rate per Hour: **\$62.00**

Supplemental Benefit Rate per Hour: **\$62.25**

* Supplemental Note: See Supplemental Benefit Rate per Hour Note below

Electrician "A" (Regular Day Overtime after 7 hrs / Day Shift Overtime after 8 hrs)

Effective Period: 7/1/2023 - 4/12/2024

Wage Rate per Hour: **\$91.50**

Supplemental Benefit Rate per Hour: **\$62.02**

* Supplemental Note: See Supplemental Benefit Rate per Hour Note below

Effective Period: 4/13/2024 - 6/30/2024

Wage Rate per Hour: **\$93.00**

Supplemental Benefit Rate per Hour: **\$64.24**

* Supplemental Note: See Supplemental Benefit Rate per Hour Note below

Electrician "A" (Swing Shift)

Effective Period: 7/1/2023 - 4/12/2024

Wage Rate per Hour: **\$71.57**

Supplemental Benefit Rate per Hour: **\$68.14**

* Supplemental Note: See Supplemental Benefit Rate per Hour Note below

Effective Period: 4/13/2024 - 6/30/2024

Wage Rate per Hour: **\$72.75**

Supplemental Benefit Rate per Hour: **\$70.56**

* Supplemental Note: See Supplemental Benefit Rate per Hour Note below

Electrician "A" (Swing Shift Overtime after 7.5 hours)

Effective Period: 7/1/2023 - 4/12/2024

Wage Rate per Hour: **\$107.36**

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Supplemental Benefit Rate per Hour: **\$70.45**

* Supplemental Note: See Supplemental Benefit Rate per Hour Note below

Effective Period: 4/13/2024 - 6/30/2024

Wage Rate per Hour: **\$109.13**

Supplemental Benefit Rate per Hour: **\$72.91**

* Supplemental Note: See Supplemental Benefit Rate per Hour Note below

Electrician "A" (Graveyard Shift)

Effective Period: 7/1/2023 - 4/12/2024

Wage Rate per Hour: **\$80.17**

Supplemental Benefit Rate per Hour: **\$74.99**

* Supplemental Note: See Supplemental Benefit Rate per Hour Note below

Effective Period: 4/13/2024 - 6/30/2024

Wage Rate per Hour: **\$81.49**

Supplemental Benefit Rate per Hour: **\$77.61**

* Supplemental Note: See Supplemental Benefit Rate per Hour Note below

Electrician "A" (Graveyard Shift Overtime after 7 hours)

Effective Period: 7/1/2023 - 4/12/2024

Wage Rate per Hour: **\$120.26**

Supplemental Benefit Rate per Hour: **\$77.57**

* Supplemental Note: See Supplemental Benefit Rate per Hour Note below

Effective Period: 4/13/2024 - 6/30/2024

Wage Rate per Hour: **\$122.24**

Supplemental Benefit Rate per Hour: **\$80.23**

* Supplemental Note: See Supplemental Benefit Rate per Hour Note below

* Supplemental Benefit Rate per Hour Note

In addition to the Supplemental Benefit Rates per Hour listed above, the employer must provide an additional 6.2% of taxable gross pay earned on covered work only. This additional Supplemental Benefit Rate will terminate when the employee has contributed the maximum annual Social Security tax required by law, on all work performed.

Overtime

Time and one half the regular rate after a 7 hour day.

Time and one half the regular rate for Saturday.

Time and one half the regular rate for Sunday.

Overtime Holidays

Time and one half the regular rate for work on a holiday.

New Year's Day

Martin Luther King Jr. Day

President's Day

Memorial Day

Independence Day

Labor Day

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Columbus Day
Veteran's Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

Paid Holidays
None

Shift Rates

For multiple shifts of temporary light and/or power, the temporary light and/or power employee shall be paid for 8 hours at the straight time rate. For three or less workers performing 8 hours temporary light and/or power the supplemental benefit rate is \$24.36, effective 04/13/2023 the supplemental benefit rate is \$24.78 - See * Supplemental Benefit Rate per Hour Note above.

Electrician "M" (First 8 hours)

"M" rated work shall be defined as jobbing: electrical work of limited duration and scope, also consisting of repairs and/or replacement of electrical and tele-data equipment. Includes all work necessary to retrofit, service, maintain and repair all kinds of lighting fixtures and local lighting controls and washing and cleaning of foregoing fixtures.

Effective Period: 7/1/2023 - 4/12/2024

Wage Rate per Hour: **\$31.25**

Supplemental Benefit Rate per Hour: **\$26.55**

First and Second Year "M" Wage Rate Per Hour: \$26.75

First and Second Year "M" Supplemental Rate: \$24.13

Effective Period: 4/13/2024 - 6/30/2024

Wage Rate per Hour: **\$32.00**

Supplemental Benefit Rate per Hour: **\$27.20**

First and Second Year "M" Wage Rate Per Hour: \$27.50

First and Second Year "M" Supplemental Rate: \$24.79

Electrician "M" (Overtime After First 8 hours)

"M" rated work shall be defined as jobbing: electrical work of limited duration and scope, also consisting of repairs and/or replacement of electrical and tele-data equipment. Includes all work necessary to retrofit, service, maintain and repair all kinds of lighting fixtures and local lighting controls and washing and cleaning of foregoing fixtures.

Effective Period: 7/1/2023 - 4/12/2024

Wage Rate per Hour: **\$46.88**

Supplemental Benefit Rate per Hour: **\$28.53**

First and Second Year "M" Wage Rate Per Hour: \$40.13

First and Second Year "M" Supplemental Rate: \$25.82

Effective Period: 4/13/2024 - 6/30/2024

Wage Rate per Hour: **\$48.00**

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Supplemental Benefit Rate per Hour: **\$29.23**
First and Second Year "M" Wage Rate Per Hour: **\$41.25**
First and Second Year "M" Supplemental Rate: **\$26.52**

Overtime

Time and one half the regular rate after an 8 hour day.
Time and one half the regular rate for Saturday.
Time and one half the regular rate for Sunday.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s).
New Year's Day
Martin Luther King Jr. Day
President's Day
Memorial Day
Independence Day
Labor Day
Columbus Day
Veteran's Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

Paid Holidays

None

(Local #3)

ELECTRICIAN - ALARM TECHNICIAN

(Scope of Work - Inspect, test, repair, and replace defective, malfunctioning, or broken devices, components and controls of Fire, Burglar and Security Systems)

Alarm Technician

Effective Period: 7/1/2023 - 3/6/2024
Wage Rate per Hour: **\$36.40**
Supplemental Benefit Rate per Hour: **\$20.67**
Supplemental Note: \$18.80 only after 8 hours worked in a day

Effective Period: 3/7/2024 - 6/30/2024
Wage Rate per Hour: **\$37.40**
Supplemental Benefit Rate per Hour: **\$21.44**
Supplemental Note: \$19.31 only after 8 hours worked in a day

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Overtime Description

Time and one half the regular rate for work on the following holidays: Columbus Day, Veterans Day, Day after Thanksgiving.

Double time the regular rate for work on the following holidays: New Year's day, Martin Luther King Jr. Day, President's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas Day.

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Time and one half the regular rate for Sunday.

Paid Holidays

New Year's Day

Martin Luther King Jr. Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Shift Rates

Night Differential is based upon a ten percent (10%) differential between the hours of 4:00 P.M. and 12:30 A.M. and a fifteen percent (15%) differential for the hours 12:00 A.M. to 8:30 A.M.

Vacation

At least 1 year of employment.....ten (10) days

5 years or more of employment.....fifteen (15) days

10 years of employment.....twenty (20) days

Plus one Personal Day per year

Sick Days:

One day per Year. Up to 4 vacation days may be used as sick days.

(Local #3)

ELECTRICIAN-STREET LIGHTING WORKER

Electrician - Electro Pole Electrician

Effective Period: 7/1/2023 - 4/17/2024

Wage Rate per Hour: **\$61.00**

Supplemental Benefit Rate per Hour: **\$62.13**

* Supplemental Note: See Supplemental Benefit Rate per Hour Note below

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Effective Period: 4/18/2024 - 6/30/2024

Wage Rate per Hour: **\$62.00**

Supplemental Benefit Rate per Hour: **\$62.85**

* Supplemental Note: See Supplemental Benefit Rate per Hour Note below

Electrician - Electro Pole Foundation Installer

Effective Period: 7/1/2023 - 4/17/2024

Wage Rate per Hour: **\$46.66**

Supplemental Benefit Rate per Hour: **\$47.16**

* Supplemental Note: See Supplemental Benefit Rate per Hour Note below

Effective Period: 4/18/2024 - 6/30/2024

Wage Rate per Hour: **\$47.66**

Supplemental Benefit Rate per Hour: **\$48.72**

* Supplemental Note: See Supplemental Benefit Rate per Hour Note below

Electrician - Electro Pole Maintainer

Effective Period: 7/1/2023 - 4/17/2024

Wage Rate per Hour: **\$40.61**

Supplemental Benefit Rate per Hour: **\$42.88**

* Supplemental Note: See Supplemental Benefit Rate per Hour Note below

Effective Period: 4/18/2024 - 6/30/2024

Wage Rate per Hour: **\$41.61**

Supplemental Benefit Rate per Hour: **\$44.45**

* Supplemental Note: See Supplemental Benefit Rate per Hour Note below

* Supplemental Benefit Rate per Hour Note

In addition to the Supplemental Benefit Rates per Hour listed above, the employer must provide an additional 6.2% of taxable gross pay earned on covered work only. This additional Supplemental Benefit Rate will terminate when the employee has contributed the maximum annual Social Security tax required by law, on all work performed.

Overtime Description

Electrician - Electro Pole Electrician: Time and one half the regular rate after a 7 hour day and after 5 consecutive days worked per week.

Electrician - Electro Pole Foundation Installer: Time and one half the regular rate after 8 hours within a 24 hour period and Saturday and Sunday.

Electrician - Electro Pole Maintainer: Time and one half the regular rate after a 7 hour day and after 5 consecutive days worked per week. Saturdays and Sundays may be used as a make-up day at straight time when a day is lost during the week to inclement weather.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s).

New Year's Day

Martin Luther King Jr. Day

President's Day

Memorial Day

Independence Day

Labor Day

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Columbus Day
Veteran's Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

Paid Holidays
None

(Local #3)

ELEVATOR CONSTRUCTOR

Elevator Constructor

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$77.49**

Supplemental Benefit Rate per Hour: **\$40.28**

Overtime Description

For New Construction: work performed after an 8 hour day, Saturday, Sunday or between 4:30pm and 7:00am shall be paid at double time rate.

Existing buildings: work performed after an 8 hour day, Saturday, Sunday or between 5:30pm and 7:00 am shall be paid time and one half.

Overtime

Double time the regular rate for work on the following holiday(s).

Paid Holidays

New Year's Day
President's Day
Good Friday
Memorial Day
Independence Day
Labor Day
Columbus Day
Veteran's Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

Vacation

Employer contributes 8% of regular basic hourly rate as vacation pay for employees with more than 15 years of service, and 6% for employees with 5 to 15 years of service, and 4% for employees with less than 5 years of service.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

(Local #1)

ELEVATOR REPAIR & MAINTENANCE

Elevator Service/Modernization Mechanic

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$60.89**

Supplemental Benefit Rate per Hour: **\$40.18**

Overtime Description

For Scheduled Service Work: Double time - work scheduled in advance by two or more workers performed on Sundays, Holidays, and between midnight and 7:00am.

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Time and one half the regular rate for Sunday.

Time and one half the regular rate for work on a holiday plus the day's pay.

Paid Holidays

New Year's Day

President's Day

Good Friday

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Shift Rates

Afternoon shift - regularly hourly rate plus a (15%) fifteen percent differential. Graveyard shift - time and one half the regular rate.

Vacation

Employer contributes 8% of regular basic hourly rate as vacation pay for employees with more than 15 years of service, and 6% for employees with 5 to 15 years of service, and 4% for employees with less than 5 years of service.

(Local #1)

ENGINEER

Engineer - Heavy Construction Operating Engineer I

Cherry pickers 20 tons and over and Loaders (rubber tired and/or tractor type with a manufacturer's minimum rated capacity of six cubic yards and over).

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$75.82**

Supplemental Benefit Rate per Hour: **\$46.68**

Supplemental Note: \$85.96 on overtime

Shift Wage Rate: **\$121.31**

Engineer - Heavy Construction Operating Engineer II

Backhoes, Basin Machines, Groover, Mechanical Sweepers, Bobcat, Boom Truck, Barrier Transport (Barrier Mover) & machines of similar nature. Operation of Churn Drills and machines of a similar nature, Stetco Silent Hoist and machines of similar nature, Vac-Alls, Meyers Machines, John Beam and machines of a similar nature, Ross Carriers and Travel Lifts and machines of a similar nature, Bulldozers, Scrapers and Turn-a-Pulls: Tugger Hoists (Used exclusively for handling excavated material); Tractors with attachments, Hyster and Roustabout Cranes, Cherry pickers. Austin Western, Grove and machines of a similar nature, Scoopmobiles, Monorails, Conveyors, Trenchers: Loaders-Rubber Tired and Tractor: Barber Greene and Eimco Loaders and Eimco Backhoes; Mighty Midget and similar breakers and Tampers, Curb and Gutter Pavers and Motor Patrol, Motor Graders and all machines of a similar nature. Locomotives 10 Tons or under. Mini-Max, Break-Tech and machines of a similar nature; Milling machines, robotic and demolition machines and machines of a similar nature, shot blaster, skid steer machines and machines of a similar nature including bobcat, pile rig rubber-tired excavator (37,000 lbs. and under), 2 person auger.

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$73.45**

Supplemental Benefit Rate per Hour: **\$46.68**

Supplemental Note: \$85.96 on overtime

Shift Wage Rate: **\$117.52**

Engineer - Heavy Construction Operating Engineer III

Minor Equipment such as Tractors, Post Hole Diggers, Ditch Witch (Walk Behind), Road Finishing Machines, Rollers five tons and under, Tugger Hoists, Dual Purpose Trucks, Fork Lifts, and Dempsey Dumpers, Fireperson.

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$69.49**

Supplemental Benefit Rate per Hour: **\$46.68**

Supplemental Note: \$85.96 on overtime

Shift Wage Rate: **\$111.18**

Engineer - Heavy Construction Maintenance Engineer I

Installing, Repairing, Maintaining, Dismantling of all equipment including Steel Cutting, Bending and Heat Sealing Machines, Mechanical Heaters, Grout Pumps, Bentonite Pumps & Plants, Screening Machines, Fusion Coupling Machines, Tunnel Boring Machines Moles and Machines of a similar nature, Power Packs, Mechanical Hydraulic Jacks; all drill rigs including but not limited to Churn, Rotary Caisson, Raised Bore & Drills of a similar

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

nature; Personnel, Inspection & Safety Boats or any boats used to perform functions of same, Mine Hoists, Whirlies, all Climbing Cranes, all Tower Cranes, including but not limited to Truck Mounted and Crawler Type and machines of similar nature; Maintaining Hydraulic Drills and machines of a similar nature; Well Point System-Installation and dismantling; Burning, Welding, all Pumps regardless of size and/or motor power, except River Cofferdam Pumps and Wells Point Pumps; Motorized Buggies (three or more); equipment used in the cleaning and televising of sewers, but not limited to jet-rodder/vacuum truck, vacall/vactor, closed circuit television inspection equipment; high powered water pumps, jet pumps; screed machines and concrete finishing machines of a similar nature; vermeers.

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$73.08**

Supplemental Benefit Rate per Hour: **\$46.68**

Supplemental Note: \$85.96 on overtime

Shift Wage Rate: **\$116.93**

Engineer - Heavy Construction Maintenance Engineer II

On Base Mounted Tower Cranes

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$97.21**

Supplemental Benefit Rate per Hour: **\$46.68**

Supplemental Note: \$85.96 on overtime

Shift Wage Rate: **\$155.54**

Engineer - Heavy Construction Maintenance Engineer III

On Generators, Light Towers

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$46.89**

Supplemental Benefit Rate per Hour: **\$46.68**

Supplemental Note: \$85.96 on overtime

Shift Wage Rate: **\$75.02**

Engineer - Heavy Construction Maintenance Engineer IV

On Pumps and Mixers including mud sucking

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$48.20**

Supplemental Benefit Rate per Hour: **\$46.68**

Supplemental Note: \$85.96 on overtime

Shift Wage Rate: **\$77.12**

Engineer - Heavy Construction Service Engineer

Gradalls: Concrete Pumps: Power Houses: Driving Truck Cranes: Driving and Operating Fuel and Grease Trucks.

Effective Period: 7/1/2023 - 6/30/2024

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Wage Rate per Hour: **\$65.49**
Supplemental Benefit Rate per Hour: **\$46.68**
Supplemental Note: \$85.96 on overtime
Shift Wage Rate: **\$104.78**

Engineer - Heavy Construction Service Mechanic

Shovels: Cranes: Draglines: Backhoes: Keystones: Pavers: Trenching Machines: Guniting Machines: Compressors (three (3) or more in Battery): Crawler Cranes- having a straight lattice boom with no attachment or luffing boom, no jib and no auxiliary attachment.

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: **\$44.10**
Supplemental Benefit Rate per Hour: **\$46.68**
Supplemental Note: \$85.96 on overtime
Shift Wage Rate: **\$70.56**

Engineer - Steel Erection Maintenance Engineers

Derrick, Travelers, Tower, Crawler Tower and Climbing Cranes

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: **\$70.20**
Supplemental Benefit Rate per Hour: **\$46.68**
Supplemental Note: \$85.96 on overtime
Shift Wage Rate: **\$112.32**

Engineer - Steel Erection Oiler I

On a Truck Crane

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: **\$65.46**
Supplemental Benefit Rate per Hour: **\$46.68**
Supplemental Note: \$85.96 on overtime
Shift Wage Rate: **\$104.74**

Engineer - Steel Erection Oiler II

On a Crawler Crane

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: **\$48.91**
Supplemental Benefit Rate per Hour: **\$46.68**
Supplemental Note: \$85.96 on overtime
Shift Wage Rate: **\$78.26**

Overtime Description

**OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE**

On jobs of more than one shift, if the next shift employee fails to report for work through any cause over which the employer has no control, the employee on duty who works the next shift continues to work at the single time rate.

Overtime

- Double time the regular rate after an 8 hour day.
- Double time the regular time rate for Saturday.
- Double time the regular rate for Sunday.
- Double time the regular rate for work on the following holiday(s).

Paid Holidays

- New Year's Day
- Martin Luther King Jr. Day
- President's Day
- Memorial Day
- Independence Day
- Labor Day
- Columbus Day
- Veteran's Day
- Thanksgiving Day
- Day after Thanksgiving
- Christmas Day

Engineer - Building Work Maintenance Engineers I

Installing, repairing, maintaining, dismantling (of all equipment including: Steel Cutting and Bending Machines, Mechanical Heaters, Mine Hoists, Climbing Cranes, Tower Cranes, Linden Peine, Lorain, Liebherr, Mannes, or machines of a similar nature, Well Point Systems, Deep Well Pumps, Concrete Mixers with loading Device, Concrete Plants, Motor Generators when used for temporary power and lights), skid steer machines of a similar nature including bobcat.

- Effective Period: 7/1/2023 - 6/30/2024
- Wage Rate per Hour: **\$63.51**
- Supplemental Benefit Rate per Hour: **\$45.77**
- Supplemental Note: \$84.14 on overtime

Engineer - Building Work Maintenance Engineers II

On Pumps, Generators, Mixers and Heaters

- Effective Period: 7/1/2023 - 6/30/2024
- Wage Rate per Hour: **\$48.46**
- Supplemental Benefit Rate per Hour: **\$45.77**
- Supplemental Note: \$84.14 on overtime

Engineer - Building Work Oilers I

All gasoline, electric, diesel or air operated Gradealls: Concrete Pumps, Overhead Cranes in Power Houses: Their duties shall be to assist the Engineer in oiling, greasing and repairing of all machines; Driving Truck

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CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Cranes: Driving and Operating Fuel and Grease Trucks, Cherrypickers (hydraulic cranes) over 70,000 GVW, and machines of a similar nature.

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$60.19**

Supplemental Benefit Rate per Hour: **\$45.77**

Supplemental Note: \$84.14 on overtime

Engineer - Building Work Oilers II

Oilers on Crawler Cranes, Backhoes, Trenching Machines, Guniting Machines, Compressors (three or more in Battery).

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$44.93**

Supplemental Benefit Rate per Hour: **\$45.77**

Supplemental Note: \$84.14 on overtime

Overtime Description

On jobs of more than one shift, if an Employee fails to report for work through any cause over which the Employer has no control, the Employee on duty will continue to work at the rate of single time.

Overtime

Double time the regular rate after an 8 hour day.

Double time the regular time rate for Saturday.

Double time the regular rate for Sunday.

Double time the regular rate for work on the following holiday(s).

Paid Holidays

New Year's Day

Martin Luther King Jr. Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Christmas Day

Shift Rates

When two (2) or more shifts are employed, single time will be paid for each shift.

(Local #15)

ENGINEER - CITY SURVEYOR AND CONSULTANT

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Party Chief

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$42.78**

Supplemental Benefit Rate per Hour: **\$27.76**

Supplemental Note: Overtime Benefit Rate - \$33.27 per hour (time & one half) \$38.77 per hour (double time).

Instrument Person

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$34.64**

Supplemental Benefit Rate per Hour: **\$27.76**

Supplemental Note: Overtime Benefit Rate - \$33.27 per hour (time & one half) \$38.77 per hour (double time).

Rodperson

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$29.50**

Supplemental Benefit Rate per Hour: **\$27.76**

Supplemental Note: Overtime Benefit Rate - \$33.27 per hour (time & one half) \$38.77 per hour (double time).

Overtime Description

Time and one half the regular rate after an 8 hour day, Time and one half the regular rate for Saturday for the first eight hours worked, Double time the regular time rate for Saturday for work performed in excess of eight hours, Double time the regular rate for Sunday and Double time the regular rate for work on a holiday.

Paid Holidays

New Year's Day

Lincoln's Birthday

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Employees must work at least one day in the payroll week in which the holiday occurs to receive the paid holiday

(Operating Engineer Local #15-D)

ENGINEER - FIELD (BUILDING CONSTRUCTION)

(Construction of Building Projects, Concrete Superstructures, etc.)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Field Engineer - BC Party Chief

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$66.83**

Supplemental Benefit Rate per Hour: **\$42.39**

Supplemental Note: Overtime Benefit Rate - \$59.89 per hour (time & one half) \$77.38 per hour (double time).

Field Engineer - BC Instrument Person

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$49.67**

Supplemental Benefit Rate per Hour: **\$42.39**

Supplemental Note: Overtime Benefit Rate - \$59.89 per hour (time & one half) \$77.38 per hour (double time).

Field Engineer - BC Rodperson

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$30.60**

Supplemental Benefit Rate per Hour: **\$42.39**

Supplemental Note: Overtime Benefit Rate - \$59.89 per hour (time & one half) \$77.38 per hour (double time).

Overtime Description

Time and one half the regular rate after a 7 hour work and time and one half the regular rate for Saturday for the first seven hours worked, Double time the regular time rate for Saturday for work performed in excess of seven hours, Double time the regular rate for Sunday and Double time the regular rate for work on a holiday.

Paid Holidays

New Year's Day

President's Day

Good Friday

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Christmas Day

Employees must work at least one day in the payroll week in which the holiday occurs to receive the paid holiday

(Operating Engineer Local #15-D)

ENGINEER - FIELD (HEAVY CONSTRUCTION)

(Construction of Roads, Tunnels, Bridges, Sewers, Building Foundations, Engineering Structures etc.)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Field Engineer - HC Party Chief

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$77.94**

Supplemental Benefit Rate per Hour: **\$44.82**

Supplemental Note: Overtime benefit rate - \$63.41 per hour (time & one half), \$82.00 per hour (double time).

Field Engineer - HC Instrument Person

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$56.07**

Supplemental Benefit Rate per Hour: **\$44.82**

Supplemental Note: Overtime benefit rate - \$63.41 per hour (time & one half), \$82.00 per hour (double time).

Field Engineer - HC Rodperson

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$46.34**

Supplemental Benefit Rate per Hour: **\$44.82**

Supplemental Note: Overtime benefit rate - \$63.41 per hour (time & one half), \$82.00 per hour (double time).

Overtime Description

Time and one half the regular rate after an 8 hour day, Time and one half the regular rate for Saturday for the first eight hours worked, Double time the regular time rate for Saturday for work performed in excess of eight hours, Double time the regular rate for Sunday and Double time the regular rate for work on a holiday.

Paid Holidays

New Year's Day

Lincoln's Birthday

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Christmas Day

Employees must work at least one day in the payroll week in which the holiday occurs to receive the paid holiday

(Operating Engineer Local #15-D)

ENGINEER - FIELD (STEEL ERECTION)

Field Engineer - Steel Erection Party Chief

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$72.66**

Supplemental Benefit Rate per Hour: **\$44.37**

Supplemental Note: Overtime benefit rate - \$62.73 per hour (time & one half), \$81.09 per hour (double time).

Field Engineer - Steel Erection Instrument Person

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$55.67**

Supplemental Benefit Rate per Hour: **\$44.37**

Supplemental Note: Overtime benefit rate - \$62.73 per hour (time & one half), \$81.09 per hour (double time).

Field Engineer - Steel Erection Rodperson

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$35.79**

Supplemental Benefit Rate per Hour: **\$44.37**

Supplemental Note: Overtime benefit rate - \$62.73 per hour (time & one half), \$81.09 per hour (double time).

Overtime Description

Time and one half the regular rate for Saturday for the first eight hours worked.

Double time the regular rate for Saturday for work performed in excess of eight hours.

Overtime

Time and one half the regular rate after an 8 hour day.

Double time the regular rate for Sunday.

Double time the regular rate for work on the following holiday(s).

Paid Holidays

New Year's Day

Lincoln's Birthday

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Christmas Day

Employees must work at least one day in the payroll week in which the holiday occurs to receive the paid holiday

(Operating Engineer Local #15-D)

ENGINEER - OPERATING

Operating Engineer - Road & Heavy Construction I

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Back Filling Machines, Cranes, Mucking Machines and Dual Drum Paver.

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$90.59**

Supplemental Benefit Rate per Hour: **\$36.05**

Supplemental Note: \$65.90 overtime hours

Shift Wage Rate: **\$144.94**

Operating Engineer - Road & Heavy Construction II

Backhoes, Power Shovels, Hydraulic Clam Shells, Steel Erection, Moles and machines of a similar nature.

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$93.75**

Supplemental Benefit Rate per Hour: **\$36.05**

Supplemental Note: \$65.90 overtime hours

Shift Wage Rate: **\$150.00**

Operating Engineer - Road & Heavy Construction III

Mine Hoists (Cranes, etc. when used as Mine Hoists)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$96.73**

Supplemental Benefit Rate per Hour: **\$36.05**

Supplemental Note: \$65.90 overtime hours

Shift Wage Rate: **\$154.77**

Operating Engineer - Road & Heavy Construction IV

Gradealls, Keystones, Cranes on land or water (with digging buckets), Bridge Cranes, Vermeer Cutter and machines of a similar nature, Trenching Machines.

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$94.42**

Supplemental Benefit Rate per Hour: **\$36.05**

Supplemental Note: \$65.90 overtime hours

Shift Wage Rate: **\$151.07**

Operating Engineer - Road & Heavy Construction V

Pile Drivers & Rigs (working alongside Dock Builder foreperson): Derrick Boats, Tunnel Shovels.

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$92.58**

Supplemental Benefit Rate per Hour: **\$36.05**

Supplemental Note: \$65.90 overtime hours

Shift Wage Rate: **\$148.13**

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CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Operating Engineer - Road & Heavy Construction VI

Mixers (Concrete with loading attachment), Concrete Pavers, Cableways, Land Derricks, Power Houses (Low Air Pressure Units).

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$88.01**

Supplemental Benefit Rate per Hour: **\$36.05**

Supplemental Note: \$65.90 overtime hours

Shift Wage Rate: **\$140.82**

Operating Engineer - Road & Heavy Construction VII

Barrier Movers, Barrier Transport and Machines of a Similar Nature.

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$71.33**

Supplemental Benefit Rate per Hour: **\$36.05**

Supplemental Note: \$65.90 overtime hours

Shift Wage Rate: **\$114.13**

Operating Engineer - Road & Heavy Construction VIII

Utility Compressors

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$55.65**

Supplemental Benefit Rate per Hour: **\$36.05**

Supplemental Note: \$65.90 overtime hours

Shift Wage Rate: **\$69.81**

Operating Engineer - Road & Heavy Construction IX

Horizontal Boring Rig

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$83.78**

Supplemental Benefit Rate per Hour: **\$36.05**

Supplemental Note: \$65.90 overtime hours

Shift Wage Rate: **\$134.05**

Operating Engineer - Road & Heavy Construction X

Elevators (manually operated as personnel hoist).

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$77.11**

Supplemental Benefit Rate per Hour: **\$36.05**

Supplemental Note: \$65.90 overtime hours

Shift Wage Rate: **\$123.38**

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CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Operating Engineer - Road & Heavy Construction XI

Compressors (Portable 3 or more in battery), Driving of Truck Mounted Compressors, Well-point Pumps, Tugger Machines Well Point Pumps, Churn Drill.

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$60.16**

Supplemental Benefit Rate per Hour: **\$36.05**

Supplemental Note: **\$65.90** overtime hours

Shift Wage Rate: **\$96.26**

Operating Engineer - Road & Heavy Construction XII

All Drills and Machines of a similar nature.

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$88.94**

Supplemental Benefit Rate per Hour: **\$36.05**

Supplemental Note: **\$65.90** overtime hours

Shift Wage Rate: **\$142.30**

Operating Engineer - Road & Heavy Construction XIII

Concrete Pumps, Concrete Plant, Stone Crushers, Double Drum Hoist, Power Houses (other than above).

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$86.19**

Supplemental Benefit Rate per Hour: **\$36.05**

Supplemental Note: **\$65.90** overtime hours

Shift Wage Rate: **\$137.90**

Operating Engineer - Road & Heavy Construction XIV

Concrete Mixer

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$82.44**

Supplemental Benefit Rate per Hour: **\$36.05**

Supplemental Note: **\$65.90** overtime hours

Shift Wage Rate: **\$131.90**

Operating Engineer - Road & Heavy Construction XV

Compressors (Portable Single or two in Battery, not over 100 feet apart), Pumps (River Cofferdam) and Welding Machines, Push Button Machines, All Engines Irrespective of Power (Power-Pac) used to drive auxiliary equipment, Air, Hydraulic, etc.

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$56.01**

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Supplemental Benefit Rate per Hour: **\$36.05**
Supplemental Note: \$65.90 overtime hours
Shift Wage Rate: **\$89.62**

Operating Engineer - Road & Heavy Construction XVI

Concrete Breaking Machines, Hoists (Single Drum), Load Masters, Locomotives (over ten tons) and Dinkies over ten tons, Hydraulic Crane-Second Engineer.

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: **\$78.79**
Supplemental Benefit Rate per Hour: **\$36.05**
Supplemental Note: \$65.90 overtime hours
Shift Wage Rate: **\$126.06**

Operating Engineer - Road & Heavy Construction XVII

On-Site concrete plant engineer, On-site Asphalt Plant Engineer, and Vibratory console.

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: **\$79.36**
Supplemental Benefit Rate per Hour: **\$36.05**
Supplemental Note: \$65.90 overtime hours
Shift Wage Rate: **\$126.98**

Operating Engineer - Road & Heavy Construction XVIII

Tower Crane

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: **\$113.37**
Supplemental Benefit Rate per Hour: **\$36.05**
Supplemental Note: \$65.90 overtime hours
Shift Wage Rate: **\$181.39**

Operating Engineer - Paving I

Asphalt Spreaders, Autogrades (C.M.I.), Roto/Mil

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: **\$88.01**
Supplemental Benefit Rate per Hour: **\$36.05**
Supplemental Note: \$65.90 overtime hours
Shift Wage Rate: **\$140.82**

Operating Engineer - Paving II

Asphalt Roller

Effective Period: 7/1/2023 - 6/30/2024

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Wage Rate per Hour: **\$85.79**
Supplemental Benefit Rate per Hour: **\$36.05**
Supplemental Note: **\$65.90** overtime hours
Shift Wage Rate: **\$137.26**

Operating Engineer - Paving III

Asphalt Plants

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: **\$72.72**
Supplemental Benefit Rate per Hour: **\$36.05**
Supplemental Note: **\$65.90** overtime hours
Shift Wage Rate: **\$116.35**

Operating Engineer - Concrete I

Cranes

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: **\$94.01**
Supplemental Benefit Rate per Hour: **\$36.05**
Supplemental Note: **\$65.90** overtime hours

Operating Engineer - Concrete II

Compressors

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: **\$56.43**
Supplemental Benefit Rate per Hour: **\$36.05**
Supplemental Note: **\$65.90** overtime hours

Operating Engineer - Concrete III

Micro-traps (Negative Air Machines), Vac-All Remediation System.

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: **\$75.37**
Supplemental Benefit Rate per Hour: **\$36.05**
Supplemental Note: **\$65.90** overtime hours

Operating Engineer - Steel Erection I

Three Drum Derricks

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: **\$97.68**
Supplemental Benefit Rate per Hour: **\$36.05**
Supplemental Note: **\$65.90** overtime hours

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CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Shift Wage Rate: **\$156.29**

Operating Engineer - Steel Erection II

Cranes, 2 Drum Derricks, Hydraulic Cranes, Fork Lifts and Boom Trucks.

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$93.89**

Supplemental Benefit Rate per Hour: **\$36.05**

Supplemental Note: **\$65.90** overtime hours

Shift Wage Rate: **\$150.22**

Operating Engineer - Steel Erection III

Compressors, Welding Machines.

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$56.29**

Supplemental Benefit Rate per Hour: **\$36.05**

Supplemental Note: **\$65.90** overtime hours

Shift Wage Rate: **\$90.06**

Operating Engineer - Steel Erection IV

Compressors - Not Combined with Welding Machine. (Public Works Only)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$53.64**

Supplemental Benefit Rate per Hour: **\$36.05**

Supplemental Note: **\$65.90** overtime hours

Shift Wage Rate: **\$85.82**

Operating Engineer - Building Work I

Forklifts, Plaster (Platform machine), Plaster Bucket, Concrete Pump and all other equipment used for hoisting material.

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$73.47**

Supplemental Benefit Rate per Hour: **\$36.05**

Supplemental Note: **\$65.90** overtime hours

Operating Engineer - Building Work II

Compressors, Welding Machines (Cutting Concrete-Tank Work), Paint Spraying, Sandblasting, Pumps (with the exclusion of Concrete Pumps), All Engines irrespective of Power (Power-Pac) used to drive Auxiliary Equipment, Air, Hydraulic, Jacking System, etc.

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$55.13**

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Supplemental Benefit Rate per Hour: **\$36.05**
Supplemental Note: \$65.90 overtime hours

Operating Engineer - Building Work III

Double Drum

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: **\$89.09**
Supplemental Benefit Rate per Hour: **\$36.05**
Supplemental Note: \$65.90 overtime hours

Operating Engineer - Building Work IV

Stone Derrick, Cranes, Hydraulic Cranes Boom Trucks.

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: **\$94.30**
Supplemental Benefit Rate per Hour: **\$36.05**
Supplemental Note: \$65.90 overtime hours

Operating Engineer - Building Work V

Dismantling and Erection of Cranes, Relief Engineer.

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: **\$81.57**
Supplemental Benefit Rate per Hour: **\$36.05**
Supplemental Note: \$65.90 overtime hours

Operating Engineer - Building Work VI

4 Pole Hoist, Single Drum Hoists.

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: **\$80.71**
Supplemental Benefit Rate per Hour: **\$36.05**
Supplemental Note: \$65.90 overtime hours

Operating Engineer - Building Work VII

Rack & Pinion and House Cars

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: **\$64.28**
Supplemental Benefit Rate per Hour: **\$36.05**
Supplemental Note: \$65.90 overtime hours
For New House Car projects Wage Rate per Hour **\$51.40**
For New House Car projects: Supplemental Benefit overtime hours: **\$50.98**

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Overtime Description

On jobs of more than one shift, if an Employee fails to report for work through any cause over which the Employer has no control, the Employee on duty will continue to work at the rate of single time.

For House Cars and Rack & Pinion only: Overtime paid at time and one-half for all hours in excess of eight hours in a day, Saturday, Sunday and Holidays worked.

Overtime

Double time the regular rate after an 8 hour day.

Double time the regular time rate for Saturday.

Double time the regular rate for Sunday.

Double time the regular rate for work on the following holiday(s).

Paid Holidays

New Year's Day

Martin Luther King Jr. Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Shift Rates

When two (2) or more shifts are employed, single time will be paid for each shift.

For Steel Erection Only: Shifts may be worked at the single time rate at other than the regular working hours (8:00 A.M. to 4:30 P.M.) on the following work ONLY: Heavy construction jobs on work below the street level, over railroad tracks and on building jobs.

(Operating Engineer Local #14)

FLOOR COVERER

(Interior vinyl composition tile, sheath vinyl linoleum and wood parquet tile including site preparation and synthetic turf not including site preparation)

Floor Coverer

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$55.05**

Supplemental Benefit Rate per Hour: **\$47.88**

Overtime

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CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Presidential Election Day

Thanksgiving Day

Day after Thanksgiving

Day before Christmas

Christmas Day

Day before New Year's Day

Shift Rates

Two shifts may be utilized with the first shift working 8 a.m. to the end of the shift at straight time rate of pay. The wage rate for the second shift consisting of 7 hours shall be paid at 114.29% of straight time wage rate. The wage rate for the second shift consisting of 8 hours shall be paid 112.5% of the straight time wage rate. When it is not possible to conduct alteration or repair work during regular working hours in a building occupied by tenants, the rule for the second shift will apply.

(Carpenters District Council)

GLAZIER

(New Construction, Remodeling, and Alteration)

Glazier

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$47.95**

Supplemental Benefit Rate per Hour: **\$53.34**

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Time and one half the regular rate for Sunday.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s).

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CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

New Year's Day
President's Day
Memorial Day
Independence Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

Paid Holidays

None

Shift Rates

Shifts shall be any 8 consecutive hours after the normal working day for which the Glazier shall receive 9 hours pay for 8 hours worked.

(Local #1281)

GLAZIER - REPAIR & MAINTENANCE

(For the Installation of Glass - All repair and maintenance work on a particular building.)

Craft Jurisdiction for repair, maintenance and fabrication

Plate glass replacement, Storm windows and storm doors, Herculite door repairs, Door closer repairs, Glass tinting.

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$27.05**

Supplemental Benefit Rate per Hour: **\$26.50**

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Sunday.

Time and one half the regular rate for work on the following holiday(s).

Time and one half the regular hourly rate after 40 straight time hours in any work week.

Paid Holidays

New Year's Day
President's Day
Memorial Day
Independence Day
Labor Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Employees must work at least one day in the payroll week in which the holiday occurs to receive the paid holiday

(Local #1281)

HAZARDOUS MATERIAL HANDLER

(Removal, abatement, encapsulation or decontamination of asbestos, lead, mold, or other toxic or hazardous waste/materials)

Handler

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$39.50**

Supplemental Benefit Rate per Hour: **\$20.60**

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Sunday.

Time and one half the regular hourly rate after 40 straight time hours in any work week.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s).

New Year's Day

Good Friday

Memorial Day

Independence Day

Labor Day

Thanksgiving Day

Christmas Day

Easter

Paid Holidays

None

(Local #78 and Local #12A)

HEAT AND FROST INSULATOR

Heat & Frost Insulator

Effective Period: 7/1/2023 - 6/30/2024

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Wage Rate per Hour: **\$69.96**

Supplemental Benefit Rate per Hour: **\$35.76**

Overtime Description

Premium rate shall be paid for supplemental benefits during overtime work.

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

Martin Luther King Jr. Day

President's Day

Memorial Day

Independence Day

Columbus Day

Veteran's Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Triple time the regular rate for work on the following holiday(s).

Labor Day

Paid Holidays

None

Shift Rates

The first shift shall work seven hours at the regular straight time rate. The second and third shift shall work seven hours the regular straight time hourly rate plus a fourteen percent wage and benefit premium. There must be a first shift to work the second shift, and a second shift to work the third shift. Off-hour jobs in occupied buildings may be worked on weekdays with an increment of one-dollar (\$1.00) per hour and eight (8) hours pay for seven (7) hours worked.

(Local #12) (BCA)

HOUSE WRECKER (TOTAL DEMOLITION)

House Wrecker - Tier A

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

On all work sites the first, second, eleventh and every third House Wrecker thereafter will be Tier A House Wreckers (i.e. 1st, 2nd, 11th, 14th etc). Other House Wreckers may be Tier B House Wreckers.

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$38.93**

Supplemental Benefit Rate per Hour: **\$31.27**

House Wrecker - Tier B

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$28.16**

Supplemental Benefit Rate per Hour: **\$23.68**

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Thanksgiving Day

Christmas Day

Paid Holidays

None

(Mason Tenders District Council)

IRON WORKER - ORNAMENTAL

Iron Worker - Ornamental

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$47.15**

Supplemental Benefit Rate per Hour: **\$63.75**

Supplemental Note: Supplemental benefits are to be paid at the applicable overtime rate when overtime is in effect.

Overtime Description

Time and one half the regular rate after a 7 hour day for a maximum of two hours on any regular work day (the 8th and 9th hour) and double time shall be paid for all work on a regular work day thereafter. Time and one half

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

the regular rate for Saturday for the first seven hours of work and double time should be paid for all work on a Saturday thereafter. Four (4), ten (10) hour days may be worked at straight time, Monday to Thursday.

Overtime

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day
President's Day
Memorial Day
Independence Day
Labor Day
Thanksgiving Day
Christmas Day

Paid Holidays

None

Shift Rates

When two or three shifts are employed on a job, Monday through Friday, each shift will be paid eight (8) hours at the straight time rate for eight (8) hours of work; at time and one-half the regular straight time rate for the first two (2) hours of overtime worked beyond eight (8) hours; and at double time for all work thereafter. When it is not possible to conduct alteration or repair work during regular working hours in a building occupied by tenants, eight (8) hours will be paid at straight time rate for seven (7) hours of work, and all overtime shall be paid at time and one-half the regular straight time rates. On Saturday, Sundays and Holidays, time and one-half the regular straight time rate shall be paid for all work up to seven (7) hours and double time shall be paid for all work thereafter.

(Local #580)

IRON WORKER - STRUCTURAL

Iron Worker - Structural

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$57.20**

Supplemental Benefit Rate per Hour: **\$86.77**

Supplemental Note: Supplemental benefits are to be paid at the applicable overtime rate when overtime is in effect.

Overtime Description

Monday through Friday- the first eight hours are paid at straight time, the 9th and 10th hours are paid at time and one-half the regular rate, all additional weekday overtime is paid at double the regular rate. Saturdays- the first eight hours are paid at time and one-half the regular rate, double time thereafter. Sunday-all shifts are paid at double time. Four Days a week at Ten (10) hours straight time is allowed.

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CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Overtime

Time and one half the regular rate after an 8 hour day.
Time and one half the regular rate for Saturday.
Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day
President's Day
Memorial Day
Independence Day
Labor Day
Thanksgiving Day
Christmas Day

Paid Holidays

1/2 day on Christmas Eve if work is performed in the A.M.
1/2 day on New Year's Eve if work is performed in the A.M.

Shift Rates

Monday through Friday - First Shift: First eight hours are paid at straight time, the 9th & 10th hours are paid at time and a half, double time paid thereafter. Second and third Shifts: First eight hours are paid at time and one-half, double time thereafter. Saturdays: All shifts, first eight hours paid at time and one-half, double time thereafter: Sunday all shifts are paid at double time.

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday.

(Local #40 & #361)

LABORER

(Foundation, Concrete, Excavating, Street Pipe Layer and Common)

Laborer

Excavation and foundation work for buildings, heavy construction, engineering work, and hazardous waste removal in connection with the above work. Landscaping tasks in connection with heavy construction work, engineering work and building projects. Projects include, but are not limited to pollution plants, sewers, parks, subways, bridges, highways, etc.

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$44.50**

Supplemental Benefit Rate per Hour: **\$52.23**

Overtime

Time and one half the regular rate after an 8 hour day.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Thanksgiving Day

Christmas Day

Paid Holidays

Labor Day

Thanksgiving Day

Shift Rates

When two shifts are employed, single time rate shall be paid for each shift. When three shifts are found necessary, each shift shall work seven and one half hours (7 ½), but shall be paid for eight (8) hours of labor, and be permitted one half hour for lunch.

(Local #731)

LANDSCAPING

(Landscaping tasks, such as tree pruning, tree removing and spraying in connection with Green Infrastructure maintenance and the planting of street trees and trees in City parks, but not when such activities are performed as part of construction or reconstruction projects.)

Landscaper (Year 6 and above)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$36.64**

Supplemental Benefit Rate per Hour: **\$17.55**

Landscaper (Year 3 - 5)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$35.47**

Supplemental Benefit Rate per Hour: **\$17.55**

Landscaper (up to 3 years)

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CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$32.55**

Supplemental Benefit Rate per Hour: **\$17.55**

Groundperson

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$32.55**

Supplemental Benefit Rate per Hour: **\$17.55**

Tree Remover / Pruner

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$42.51**

Supplemental Benefit Rate per Hour: **\$17.55**

Landscaper Sprayer (Pesticide Applicator)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$30.80**

Supplemental Benefit Rate per Hour: **\$17.55**

Watering - Plant Maintainer

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$24.92**

Supplemental Benefit Rate per Hour: **\$17.55**

Overtime Description

For all overtime work performed, supplemental benefits shall include an additional seventy-five (\$0.75) cents per hour.

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Time and one half the regular rate for work on a holiday plus the day's pay.

Paid Holidays

New Year's Day

Memorial Day

Independence Day

Labor Day

Thanksgiving Day

Christmas Day

Shift Rates

Work performed on a 4pm to 12am shift has a 15% differential. Work performed on a 12am to 8am shift has a 20% differential.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

(Local #175)

MARBLE MECHANIC

Marble Setter

Effective Period: 7/1/2023 - 7/2/2023

Wage Rate per Hour: **\$57.82**

Supplemental Benefit Rate per Hour: **\$42.86**

Effective Period: 7/3/2023 - 6/30/2024

Wage Rate per Hour: **\$58.12**

Supplemental Benefit Rate per Hour: **\$43.31**

Marble Finisher

Effective Period: 7/1/2023 - 7/2/2023

Wage Rate per Hour: **\$44.77**

Supplemental Benefit Rate per Hour: **\$40.16**

Effective Period: 7/3/2023 - 6/30/2024

Wage Rate per Hour: **\$45.10**

Supplemental Benefit Rate per Hour: **\$40.36**

Marble Polisher

Effective Period: 7/1/2023 - 7/2/2023

Wage Rate per Hour: **\$43.97**

Supplemental Benefit Rate per Hour: **\$32.76**

Effective Period: 7/3/2023 - 6/30/2024

Wage Rate per Hour: **\$44.19**

Supplemental Benefit Rate per Hour: **\$33.11**

Marble Maintenance Finisher

Effective Period: 7/1/2023 - 7/2/2023

Wage Rate per Hour: **\$27.26**

Supplemental Benefit Rate per Hour: **\$14.55**

Effective Period: 7/3/2023 - 6/30/2024

Wage Rate per Hour: **\$27.44**

Supplemental Benefit Rate per Hour: **\$14.77**

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CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Overtime Description

Supplemental Benefit contributions are to be made at the applicable overtime rates.

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Good Friday

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Paid Holidays

None

(Local #7)

MASON TENDER

Mason Tender

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$43.80**

Supplemental Benefit Rate per Hour: **\$29.39**
before calculating premium wage deduct \$3.00

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

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CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

New Year's Day
President's Day
Memorial Day
Independence Day
Labor Day
Thanksgiving Day
Christmas Day

Paid Holidays

None

Shift Rates

The employer may work two (2) shifts with the first shift at the straight time wage rate and the second shift receiving eight (8) hours paid for seven (7) hours work at the straight time wage rate. When it is not possible to conduct alteration work during regular working hours in a building occupied by tenants, the rule for the second shift will apply.

(Local #79)

MASON TENDER (INTERIOR DEMOLITION WORKER)

Mason Tender Tier A

Tier A Interior Demolition Worker performs all burning, chopping, and other technically skilled tasks related to interior demolition work.

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$39.19**

Supplemental Benefit Rate per Hour: **\$24.60**
before calculating premium wage deduct \$1.50

Mason Tender Tier B

Tier B Interior Demolition Worker performs manual work and work incidental to demolition work, such as loading and carting of debris from the work site to an area where it can be loaded in to bins/trucks for removal. Also performs clean-up of the site when demolition is completed.

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$28.38**

Supplemental Benefit Rate per Hour: **\$18.92**
before calculating premium wage deduct \$1.50

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Sunday.

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CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day
President's Day
Memorial Day
Independence Day
Labor Day
Thanksgiving Day
Christmas Day

Paid Holidays

None

(Local #79)

METALLIC LATHER

Metallic Lather

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$46.45**

Supplemental Benefit Rate per Hour: **\$52.80**

Supplemental Note: For time and one half overtime - \$64.80 For double overtime - \$81.60

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day
President's Day
Memorial Day
Independence Day
Labor Day
Columbus Day
Thanksgiving Day
Christmas Day

Paid Holidays

1/2 day on Christmas Eve if work is performed in the A.M.

1/2 day on New Year's Eve if work is performed in the A.M.

Shift Rates

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Off-shift work outside of normal working hours shall receive straight time rate plus \$12 per hour for the first eight (8) hours.

(Local #46)

MILLWRIGHT

Millwright

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$58.70**

Supplemental Benefit Rate per Hour: **\$57.11**

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Good Friday

Memorial Day

Independence Day

Labor Day

Columbus Day

Presidential Election Day

Veteran's Day

Thanksgiving Day

Christmas Day

Paid Holidays

1/2 day on Christmas Eve if work is performed in the A.M.

1/2 day on New Year's Eve if work is performed in the A.M.

Shift Rates

Second and third shifts receives the straight time rate of pay plus fifteen (15%) percent allowing for one half hour for a meal. There must be a first shift to work a second and third shift. All additional hours worked shall be paid at the time and one-half rate of pay plus fifteen (15%) percent for weekday hours.

(Local #740)

MOSAIC MECHANIC

Mosaic Mechanic - Mosaic & Terrazzo Mechanic

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$53.40**

Supplemental Benefit Rate per Hour: **\$45.67**

Mosaic Mechanic - Mosaic & Terrazzo Finisher

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$51.79**

Supplemental Benefit Rate per Hour: **\$45.67**

Mosaic Mechanic - Machine Operator Grinder

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$51.79**

Supplemental Benefit Rate per Hour: **\$45.67**

Overtime

Time and one half the regular rate after a 7 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

Washington's Birthday

Good Friday

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Paid Holidays

None

(Local #7)

PAINTER

Painter - Brush & Roller

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$43.00**

Supplemental Benefit Rate per Hour: **\$40.88**

Supplemental Note: \$46.62 on overtime

Spray & Scaffold / Decorative / Sandblast

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$46.00**

Supplemental Benefit Rate per Hour: **\$40.88**

Supplemental Note: \$46.62 on overtime

Overtime

Time and one half the regular rate after a 7 hour day.

Time and one half the regular rate for Saturday.

Time and one half the regular rate for Sunday.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Thanksgiving Day

Christmas Day

Paid Holidays

None

(District Council of Painters #9)

PAINTER - LINE STRIPING (ROADWAY)

see PAVER AND ROADBUILDER - LINE STRIPING (ROADWAY)

PAINTER - METAL POLISHER

METAL POLISHER

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$32.93**

Supplemental Benefit Rate per Hour: **\$11.99**

METAL POLISHER - NEW CONSTRUCTION

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$33.88**

Supplemental Benefit Rate per Hour: **\$11.99**

METAL POLISHER - SCAFFOLD OVER 34 FEET

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$36.43**

Supplemental Benefit Rate per Hour: **\$11.99**

ASSISTANT METAL POLISHER

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$25.71**

Supplemental Benefit Rate per Hour: **\$11.51**

ASSISTANT METAL POLISHER - NEW CONSTRUCTION

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$26.66**

Supplemental Benefit Rate per Hour: **\$11.51**

ASSISTANT METAL POLISHER - SCAFFOLD OVER 34 FEET

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$28.21**

Supplemental Benefit Rate per Hour: **\$11.51**

Overtime Description

All work performed on Saturdays shall be paid at time-in-a half. The exception being; for suspended scaffold work and work deemed as a construction project; an eight (8) hour shift lost during the week due to circumstances beyond the control of the employer, up to a maximum of eight (8) hours per week, may be worked on Saturday at the straight time rate.

Holiday Pay

Only employees who have completed one year of service, including any trial period shall be eligible for holiday pay.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Triple time the regular rate for work on the following holiday(s).

Paid Holidays

New Year's Day

Martin Luther King Jr. Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Shift Rates

Four Days a week at Ten (10) hours straight a day.

Local 8A-28A

PAINTER - SIGN

Sign Painter

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$45.54**

Supplemental Benefit Rate per Hour: **\$22.29**

Assistant Sign Painter

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$38.70**

Supplemental Benefit Rate per Hour: **\$20.20**

Overtime Description

If any employee is required to work on any of the paid holidays then the employee shall receive double time rate of wages as well as the holiday pay for that day.

Overtime

Time and one half the regular rate after an 8 hour day.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Time and one half the regular rate for Saturday.

Time and one half the regular rate for Sunday.

Paid Holidays

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Election Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Vacation

At least 1 year of employment.....1 week

2 years or more of employment.....2 weeks

8 years or more of employment.....3 weeks

(Local #8A-28A)

PAINTER - STRUCTURAL STEEL

Painters on Structural Steel

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$54.50**

Supplemental Benefit Rate per Hour: **\$51.33**

Painter - Power Tool

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$61.00**

Supplemental Benefit Rate per Hour: **\$51.33**

Overtime Wage Rate: **\$6.50** above the "Painters on Structural Steel" overtime rate.

Overtime Description

Supplemental Benefits shall be paid for each hour worked, up to forty (40) hours per week for the period of May 1st to November 15th or up to fifty (50) hours per week for the period of November 16th to April 30th.

Overtime

Time and one half the regular rate after a 7 hour day.

Time and one half the regular rate for Saturday.

Time and one half the regular rate for Sunday.

Overtime Holidays

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Double time the regular rate for work on the following holiday(s).

New Year's Day
Memorial Day
Independence Day
Labor Day
Thanksgiving Day
Christmas Day

Paid Holidays

None

Shift Rates

Second shift is paid at regular hourly wage rates plus a ten percent (10%) differential. There must be a first shift in order to work a second shift.

(Local #806)

PAPERHANGER

Paperhanger

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$48.02**

Supplemental Benefit Rate per Hour: **\$40.51**

Supplemental Note: Supplemental benefits are to be paid at the appropriate straight time and overtime rate.

Overtime

Time and one half the regular rate after a 7 hour day.

Time and one half the regular rate for Saturday.

Time and one half the regular rate for Sunday.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s).

New Year's Day
President's Day
Memorial Day
Independence Day
Labor Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

Paid Holidays

None

Shift Rates

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Evening shift - 4:30 P.M. to 12:00 Midnight (regular rate of pay); any work performed before 7:00 A.M. shall be at time and one half the regular base rate of pay.

(District Council of Painters #9)

PAVER AND ROADBUILDER

Paver & Roadbuilder - Formsetter

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$48.85**

Supplemental Benefit Rate per Hour: **\$51.87**

Supplemental Note: For time and one half overtime - \$56.37 For double overtime - \$60.87

Paver & Roadbuilder - Laborer

Paving and road construction work, regardless of material used, including but not limited to preparation of job sites, removal of old surfaces, asphalt and/or concrete, by whatever method, including but not limited to milling; laying of concrete; laying of asphalt for temporary, patchwork, and utility paving (but not production paving); site preparation and incidental work for installation of rubberized materials and similar surfaces; installation and repair of temporary construction fencing; slurry/seal coating, paving stones, maintenance of safety surfaces; play equipment installation, and other related work.

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$44.98**

Supplemental Benefit Rate per Hour: **\$51.87**

Supplemental Note: For time and one half overtime - \$56.37 For double overtime - \$60.87

Production Paver & Roadbuilder - Screed Person

(Production paving is asphalt paving when using a paving machine or on a project where a paving machine is traditionally used)

Adjustment of paving machinery on production paving jobs.

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$49.45**

Supplemental Benefit Rate per Hour: **\$51.87**

Supplemental Note: For time and one half overtime - \$56.37 For double overtime - \$60.87

Production Paver & Roadbuilder - Raker

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$48.85**

Supplemental Benefit Rate per Hour: **\$51.87**

Supplemental Note: For time and one half overtime - \$56.37 For double overtime - \$60.87

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Production Paver & Roadbuilder - Shoveler

General laborer (except removal of surfaces - see Paver and Roadbuilder-Laborer) including but not limited to tamper, AC paint and liquid tar work.

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$44.98**

Supplemental Benefit Rate per Hour: **\$51.87**

Supplemental Note: For time and one half overtime - \$56.37 For double overtime - \$60.87

Overtime Description

If an employee works New Year's Day or Christmas Day, they receive the single time rate plus 25%.

For Paid Holidays: Holiday pay for all holidays shall be prorated based two hours per day for each day worked in the holiday week, not to exceed 8 hours of holiday pay.

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

Memorial Day

Independence Day

Labor Day

Columbus Day

Thanksgiving Day

Paid Holidays

Memorial Day

Independence Day

Labor Day

Thanksgiving Day

Shift Rates

When two shifts are employed, the work period for each shift shall be a continuous eight (8) hours. When three shifts are employed, each shift will work seven and one half (7 ½) hours but will be paid for eight (8) hours at the straight time rate since only one half (1/2) hour is allowed for meal time.

When two or more shifts are employed, single time will be paid for each shift.

Night Work - On night work, the first eight (8) hours of work will be paid for at the single time rate, except that production paving work shall be paid at 10% over the single time rate for the screed person, rakers and shovelers directly involved only. This differential is to be paid when there is only one shift and the shift works at night. All other workers will be exempt. Hours worked over eight (8) hours during said shift shall be paid for at the time and one-half rate.

(Local #1010)

PAVER AND ROADBUILDER - LINE STRIPING (ROADWAY)

Striping - Machine Operator

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$40.00**

Supplemental Benefit Rate per Hour: **\$17.27**

Supplemental Note: For time and one half overtime - \$18.27 For double overtime - \$19.27

Lineperson (Thermoplastic)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$44.00**

Supplemental Benefit Rate per Hour: **\$17.27**

Supplemental Note: For time and one half overtime - \$18.27 For double overtime - \$19.27

Striping Assistant & Traffic Safety

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$38.00**

Supplemental Benefit Rate per Hour: **\$17.27**

Supplemental Note: For time and one half overtime - \$18.27 For double overtime - \$19.27

Overtime Description

For Paid Holidays: Employees will only receive Holiday Pay for holidays not worked if said employee worked both the regularly scheduled workday before and after the holiday.

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Time and one half the regular rate for Sunday.

Time and one half the regular rate for work on the following holiday(s).

Paid Holidays

New Year's Day

Good Friday

Memorial Day

Independence Day

Labor Day

Columbus Day

Presidential Election Day

Thanksgiving Day

Christmas Day

Vacation

Employees with one to two years service shall accrue vacation based on hours worked: 250 hours worked - 1 day vacation; 500 hours worked - 2 days vacation; 750 hours worked - 3 days vacation; 900 hours worked - 4 days vacation; 1,000 hours worked - 5 days vacation. Employees with two to five years service receive two weeks

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

vacation. Employees with five to twenty years service receive three weeks vacation. Employees with twenty to twenty-five years service receive four weeks vacation. Employees with 25 or more years service receive five weeks vacation.

(Local #1010)

PLASTERER

Plasterer

Effective Period: 7/1/2023 - 7/31/2023

Wage Rate per Hour: **\$52.08**

Supplemental Benefit Rate per Hour: **\$23.74**

Effective Period: 8/1/2023 - 6/30/2024

Wage Rate per Hour: **\$52.10**

Supplemental Benefit Rate per Hour: **\$25.35**

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Thanksgiving Day

Christmas Day

Paid Holidays

None

Shift Rates

When it is not possible to conduct work during regular working hours (between 6:30am and 4:30pm), a shift differential shall be paid at the regular hourly rate plus a twelve percent (12%) per hour differential. Workers on shift work shall be allowed a paid one-half hour meal break.

(Local #262)

PLASTERER - TENDER

Plasterer - Tender

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$39.95**

Supplemental Benefit Rate per Hour: **\$31.99**

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

Washington's Birthday

Memorial Day

Independence Day

Labor Day

Presidential Election Day

Thanksgiving Day

Christmas Day

Paid Holidays

None

Shift Rates

When work commences outside regular work hours, workers receive an hour additional (differential) wage and supplement payment. Eight hours pay for seven hours work or nine hours pay for eight hours work.

(Mason Tenders District Council)

PLUMBER

Plumber

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$72.50**

Supplemental Benefit Rate per Hour: **\$41.45**

Supplemental Note: Supplemental benefit contributions are to be made at the applicable overtime rates.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Plumber - Temporary Services

Temporary Services - When there are no Plumbers on the job site, there may be three shifts designed to cover the entire twenty-four hour period, including weekends if necessary, at the following rate straight time.

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$58.08**

Supplemental Benefit Rate per Hour: **\$33.08**

Overtime

Double time the regular rate after an 8 hour day.

Double time the regular time rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Shift Rates

30% shift premium shall be paid for wages and fringe benefits for 4:00 pm and midnight shifts Monday to Friday.

50% shift premium shall be paid for wages and fringe benefits for 4:00 pm and midnight shift work performed on weekends. For shift work on holidays, double time wages and fringe benefits shall be paid.

(Plumbers Local #1)

PLUMBER (MECHANICAL EQUIPMENT AND SERVICE)

(Mechanical Equipment and Service work shall include any repair and/or replacement of the present plumbing system.)

Plumber

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$47.45**

Supplemental Benefit Rate per Hour: **\$20.51**

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Overtime

Time and one half the regular rate after an 8 hour day.
Time and one half the regular rate for Saturday.
Time and one half the regular rate for Sunday.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s).

New Year's Day
President's Day
Memorial Day
Independence Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

Paid Holidays

None

(Plumbers Local # 1)

**PLUMBER (RESIDENTIAL RATES FOR 1, 2 AND 3 FAMILY HOME
CONSTRUCTION)**

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$50.35**

Supplemental Benefit Rate per Hour: **\$29.73**

Overtime

Double time the regular rate after an 8 hour day.
Double time the regular time rate for Saturday.
Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day
President's Day
Memorial Day
Independence Day
Labor Day
Columbus Day
Veteran's Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

Paid Holidays

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

None

Shift Rates

30% shift premium shall be paid for wages and fringe benefits for 4:00 pm and midnight shifts Monday to Friday.
50% shift premium shall be paid for wages and fringe benefits for 4:00 pm and midnight shift work performed on weekends. For shift work on holidays, double time wages and fringe benefits shall be paid.

(Plumbers Local #1)

PLUMBER: PUMP & TANK Oil Trades (Installation and Maintenance)

Plumber - Pump & Tank

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$69.73**

Supplemental Benefit Rate per Hour: **\$28.48**

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Time and one half the regular rate for Sunday.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Paid Holidays

None

Shift Rates

All work outside the regular workday (8:00 A.M. to 3:30 P.M.) is to be paid at time and one half the regular hourly rate

(Plumbers Local #1)

**POINTER, WATERPROOFER, CAULKER, SANDBLASTER,
STEAMBLASTER
(Exterior Building Renovation)**

Journey person

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$61.93**

Supplemental Benefit Rate per Hour: **\$30.25**

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Time and one half the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s).

New Year's Day

Martin Luther King Jr. Day

President's Day

Memorial Day

Independence Day

Labor Day

Thanksgiving Day

Christmas Day

Paid Holidays

None

Shift Rates

All work outside the regular work day (an eight hour workday between the hours of 6:00 A.M. and 4:00 P.M.) is to be paid at time and one half the regular rate. However, the employer may establish one (1) or two (2) shifts starting at or after 4:00 P.M. to be paid at the regular hourly rate plus a 10% differential. For projects bid and performed after July 1, 2023, the first shift shall be paid at the regular hourly rate plus a 5% differential.

(Bricklayer District Council)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

ROOFER

Roofer

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$46.50**

Supplemental Benefit Rate per Hour: **\$38.31**

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Time and one half the regular rate for Sunday.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s).

New Year's Day

Memorial Day

Independence Day

Labor Day

Thanksgiving Day

Christmas Day

Paid Holidays

None

Shift Rates

Second shift - Regular hourly rate plus a 10% differential. Third shift - Regular hourly rate plus a 15% differential. There must be a first shift to work the second shift, and a second shift to work the third shift. All other work outside the regular work day (an eight hour workday between the hours of 5:00 A.M. and 4:00 P.M.) is to be paid at time and one half the regular rate.

(Local #8)

SHEET METAL WORKER

Sheet Metal Worker

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$52.60**

Supplemental Benefit Rate per Hour: **\$56.93**

Supplemental Note: Supplemental benefit contributions are to be made at the applicable overtime rates.

Sheet Metal Worker - Fan Maintenance

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

(The temporary operation of fans or blowers in new or existing buildings for heating and/or ventilation, and/or air conditioning prior to the completion of the project.)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$42.08**

Supplemental Benefit Rate per Hour: **\$56.93**

Sheet Metal Worker - Duct Cleaner

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$19.30**

Supplemental Benefit Rate per Hour: **\$12.35**

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

Martin Luther King Jr. Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Paid Holidays

None

Shift Rates

Work that can only be performed outside regular working hours (eight hours of work between 7:30 A.M. and 3:30 P.M.) - First shift (work between 3:30 P.M. and 11:30 P.M.) - 10% differential above the established hourly rate.

Second shift (work between 11:30 P.M. and 7:30 A.M.) - 15% differential above the established hourly rate.

For Fan Maintenance: On all full shifts of fan maintenance work the straight time hourly rate of pay will be paid for each shift, including nights, Saturdays, Sundays, and holidays.

(Local #28)

SHEET METAL WORKER - SPECIALTY (Decking & Siding)

Sheet Metal Specialty Worker

The first worker to perform this work must be paid at the rate of the Sheet Metal Worker. The second and third workers shall be paid the Specialty Worker Rate. The ratio of One Sheet Metal Worker, then Two Specialty Workers shall be utilized thereafter.

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$49.40**

Supplemental Benefit Rate per Hour: **\$28.99**

Supplemental Note: Supplemental benefit contributions are to be made at the applicable overtime rates.

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

Martin Luther King Jr. Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Christmas Day

Paid Holidays

None

(Local #28)

SHIPYARD WORKER

Shipyard Mechanic - First Class

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$30.26**

Supplemental Benefit Rate per Hour: **\$3.80**

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Shipyard Mechanic - Second Class

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$21.63**

Supplemental Benefit Rate per Hour: **\$3.30**

Shipyard Laborer - First Class

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$23.59**

Supplemental Benefit Rate per Hour: **\$3.70**

Shipyard Laborer - Second Class

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$18.43**

Supplemental Benefit Rate per Hour: **\$3.43**

Shipyard Dockhand - First Class

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$25.82**

Supplemental Benefit Rate per Hour: **\$3.54**

Shipyard Dockhand - Second Class

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$18.83**

Supplemental Benefit Rate per Hour: **\$3.58**

Overtime Description

Work performed on holiday is paid double time the regular hourly wage rate plus holiday pay.

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Time and one half the regular hourly rate after 40 straight time hours in any work week.

Paid Holidays

New Year's Day

Martin Luther King Jr. Day

President's Day

Good Friday

Memorial Day

Independence Day

Labor Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Based on Survey Data

SIGN ERECTOR

(Sheet Metal, Plastic, Electric, and Neon)

Sign Erector

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$56.00**

Supplemental Benefit Rate per Hour: **\$61.89**

Overtime

Time and one half the regular rate after a 7 hour day.

Time and one half the regular rate for Saturday.

Time and one half the regular rate for Sunday.

Time and one half the regular rate for work on the following holiday(s).

Paid Holidays

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Election Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Shift Rates

Time and one half the regular hourly rate is to be paid for all hours worked outside the regular workday either (7:00 A.M. through 2:30 P.M.) or (8:00 A.M. through 3:30 P.M.)

(Local #137)

STEAMFITTER

Steamfitter

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$69.05**

Supplemental Benefit Rate per Hour: **\$53.14**

Supplemental Note: Overtime supplemental benefit rate: \$105.54

Steamfitter -Temporary Services

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$52.48**

Supplemental Benefit Rate per Hour: **\$43.57**

Overtime Description

Double time after a 7 hour day except for Temporary Services.

Overtime

Double time the regular time rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Paid Holidays

None

Shift Rates

May be performed outside of the regular workday except Saturday, Sunday and Holidays. When shift work is performed the wage rate for regular time worked is a 15% percent premium on wage and 15% percent premium on supplemental benefits.

Local 638

STEAMFITTER - REFRIGERATION AND AIR CONDITIONER (Maintenance and Installation Service Person)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Refrigeration and Air Conditioner Mechanic

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$44.85**

Supplemental Benefit Rate per Hour: **\$20.71**

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

Independence Day

Labor Day

Veteran's Day

Thanksgiving Day

Christmas Day

Double time and one half the regular rate for work on the following holiday(s).

Martin Luther King Jr. Day

President's Day

Memorial Day

Columbus Day

Paid Holidays

New Year's Day

Martin Luther King Jr. Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Christmas Day

(Local #638-B)

STONE MASON - SETTER

Stone Mason - Setter

(Assisted by Derrickperson and Rigger)

Effective Period: 7/1/2023 - 6/30/2024

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Wage Rate per Hour: **\$56.15**

Supplemental Benefit Rate per Hour: **\$53.35**

Overtime

Time and one half the regular rate after a 7 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

Washington's Birthday

Good Friday

Memorial Day

Independence Day

Labor Day

Thanksgiving Day

Christmas Day

Paid Holidays

1/2 day on Christmas Eve if work is performed in the A.M.

Shift Rates

For all work outside the regular workday (8:00 A.M. to 3:30 P.M. Monday through Friday), the pay shall be straight time plus a ten percent (10%) differential.

(Bricklayers District Council)

TAPER

Drywall Taper

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$48.47**

Supplemental Benefit Rate per Hour: **\$30.01**

Overtime

Time and one half the regular rate after a 7 hour day.

Time and one half the regular rate for Saturday.

Time and one half the regular rate for Sunday.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s).

New Year's Day

Martin Luther King Jr. Day

President's Day

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Good Friday
Memorial Day
Independence Day
Labor Day
Columbus Day
Thanksgiving Day
Christmas Day

Paid Holidays

Any worker who reports to work on Christmas Eve or New Year's Eve pursuant to his employer's instruction shall be entitled to three (3) hours afternoon pay without working.

(Local #1974)

TELECOMMUNICATION WORKER

(Install/maintain/repair telecommunications cables carrying data, video, and/or voice except for installation on building construction/alteration/renovation projects.)

Telecommunication Worker

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$47.03**

Supplemental Benefit Rate per Hour: **\$23.15**

Supplemental Note: The above rate applies for Manhattan, Bronx, Brooklyn, Queens. \$22.84 for Staten Island only.

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Time and one half the regular rate for Sunday.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s).

New Year's Day
Lincoln's Birthday
Washington's Birthday
Memorial Day
Independence Day
Labor Day
Columbus Day
Election Day
Veteran's Day
Thanksgiving Day
Christmas Day

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Paid Holidays

- New Year's Day
- Lincoln's Birthday
- Washington's Birthday
- Memorial Day
- Independence Day
- Labor Day
- Columbus Day
- Election Day
- Veteran's Day
- Thanksgiving Day
- Christmas Day

Employees have the option of observing either Martin Luther King's Birthday or the day after Thanksgiving instead of Lincoln's Birthday

Shift Rates

For any workday that starts before 8A.M. or ends after 6P.M. there is a 10% differential for the applicable worker's hourly rate.

Vacation

- After 6 months.....one week.
- After 12 months but less than 7 years.....two weeks.
- After 7 or more but less than 15 years.....three weeks.
- After 15 years or more but less than 25 years.....four weeks.

(C.W.A.)

TILE FINISHER

Tile Finisher

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: **\$48.78**
Supplemental Benefit Rate per Hour: **\$32.36**

Overtime

Time and one half the regular rate after a 7 hour day.
Time and one half the regular rate for Saturday.
Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

- New Year's Day
- President's Day
- Good Friday
- Memorial Day
- Independence Day

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Labor Day
Columbus Day
Veteran's Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

Paid Holidays

None

Shift Rates

Off shift work day (work performed outside the regular 8:00 A.M. to 3:30 P.M. workday): shift differential of one and one quarter (1¼) times the regular straight time rate of pay for the seven hours of actual off-shift work.

(Local #7)

TILE LAYER - SETTER

Tile Layer - Setter

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$63.46**

Supplemental Benefit Rate per Hour: **\$35.51**

Overtime

Time and one half the regular rate after a 7 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Good Friday

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Shift Rates

Off shift work day (work performed outside the regular 8:00 A.M. to 3:30 P.M. workday): shift differential of one and one quarter (1¼) times the regular straight time rate of pay for the seven hours of actual off-shift work.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

(Local #7)

TIMBERPERSON

Timberperson

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$54.05**

Supplemental Benefit Rate per Hour: **\$54.99**

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Presidential Election Day

Thanksgiving Day

Christmas Day

Paid Holidays

None

Shift Rates

Off shift work commencing between 5:00 P.M. and 11:00 P.M. shall work eight and one half hours allowing for one half hour for lunch. The wage rate shall be 113% of the straight time hourly wage rate. Benefits for off-shift work shall be paid at the straight time rate.

(Local #1556)

TUNNEL WORKER

Blasters, Mucking Machine Operators (Compressed Air Rates)

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: \$71.86
Supplemental Benefit Rate per Hour: \$63.35

Tunnel Workers (Compressed Air Rates)

Includes shield driven liner plate portions or solidification portions work (8 hour shift) during excavation phase.

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: \$69.30
Supplemental Benefit Rate per Hour: \$61.35

Top Nipper (Compressed Air Rates)

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: \$68.14
Supplemental Benefit Rate per Hour: \$60.14

Outside Lock Tender, Outside Gauge Tender, Muck Lock Tender (Compressed Air Rates)

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: \$66.78
Supplemental Benefit Rate per Hour: \$59.16

Bottom Bell & Top Bell Signal Person: Shaft Person (Compressed Air Rates)

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: \$66.78
Supplemental Benefit Rate per Hour: \$59.16

Changehouse Attendant: Powder Watchperson (Compressed Air Rates)

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: \$58.80
Supplemental Benefit Rate per Hour: \$55.51

Blasters (Free Air Rates)

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: \$68.55
Supplemental Benefit Rate per Hour: \$60.82

Tunnel Workers (Free Air Rates)

Effective Period: 7/1/2023 - 6/30/2024

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Wage Rate per Hour: **\$65.58**

Supplemental Benefit Rate per Hour: **\$58.28**

All Others (Free Air Rates)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$60.62**

Supplemental Benefit Rate per Hour: **\$53.94**

Microtunneling (Free Air Rates)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$52.46**

Supplemental Benefit Rate per Hour: **\$46.62**

Overtime Description

For work performed during excavation and primary concrete tunnel lining phases - Double time the regular rate after an 8 hour day and Saturday, Sunday and on the following holiday(s) listed below.

For Repair-Maintenance Work on Existing Equipment and Facilities - Time and one half the regular rate after a 8 hour day, Saturday, Sunday and double time the regular rate for work on the following holiday(s) listed below.

For Small-Bore Micro Tunneling Machines - Time and one-half the regular rate shall be paid for all overtime.

For work not listed above - Time and one half the regular rate after an 8 hour day and Saturday and double time the regular rate on Sunday and on the following holiday(s) listed below.

Paid Holidays

New Year's Day

Martin Luther King Jr. Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

(Local #147)

UTILITY LOCATOR

(Locate & mark underground utilities for street excavation.)

Utility Locator (Year 7 and above)

Effective Period: 7/1/2023 - 6/30/2024

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Wage Rate per Hour: **\$31.56**

Supplemental Benefit Rate per Hour: **\$1.43**

Utility Locator (Year 5 - 6)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$22.85**

Supplemental Benefit Rate per Hour: **\$1.43**

Utility Locator (Year 4)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$21.54**

Supplemental Benefit Rate per Hour: **\$1.43**

Utility Locator (Year 3)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$20.30**

Supplemental Benefit Rate per Hour: **\$1.43**

Utility Locator (Year 2)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$19.13**

Supplemental Benefit Rate per Hour: **\$1.43**

Utility Locator (Year 1)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$18.04**

Supplemental Benefit Rate per Hour: **\$1.43**

Utility Locator (Up to 1 year)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$17.00**

Supplemental Benefit Rate per Hour: **\$1.43**

Supplemental Note: No benefits for the first 90 days of employment.

Overtime

Time and one half the regular rate for work on the following holiday(s).

Time and one half the regular hourly rate after 40 straight time hours in any work week.

Paid Holidays

New Year's Day

Memorial Day

Independence Day

Thanksgiving Day

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION WORKER PREVAILING WAGE SCHEDULE

Christmas Day

Shift Rates

10% shift differential to employees working any shift starting between noon and 5 AM.

Vacation

For up to 1 year 0 hours
For year 1 - 2 48 hours per year
For year 3 - 9 96 hours per year
For year 10 or more 144 hours per year

Sick Days:

For up to 1 year employee receives 40 hours paid sick leave.
For year 1 employee earns 2 hours of paid sick leave for every 100 overtime hours worked.
For year 2 - 9 years employee earns 4 hours of paid sick leave for every 100 overtime hours worked.
For year 10 or more employee earns 6 hours of paid sick leave for every 100 overtime hours worked.

(C.W.A.)

WELDER

**WELDER AND FIREWATCH TO BE PAID AT THE RATE OF THE
JOURNEYPERSON OR REGISTERED APPRENTICE IN THE TRADE
PERFORMING THE WORK.**

OFFICE OF THE COMPTROLLER

CITY OF NEW YORK

**CONSTRUCTION APPRENTICE
PREVAILING WAGE SCHEDULE**

Pursuant to Labor Law § 220 (3-e), only apprentices who are individually registered in a bona fide program to which the employer contractor is a participant and registered with the New York State Department of Labor, may be paid at the apprentice rates in this schedule. Apprentices who are not so registered must be paid as journey persons in accordance with the trade classification of the work they actually performed.

Apprentice ratios are established to ensure the proper safety, training and supervision of apprentices. A ratio establishes the number of journey workers required for each apprentice in a program and on a job site. Ratios are interpreted as follows: in the case of a 1:1, 1:4 ratio, there must be one journey worker for the first apprentice, and four additional journey workers for each subsequent apprentice.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION APPRENTICE PREVAILING WAGE SCHEDULE

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BOILERMAKER

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 3)

Boilermaker (First Year)

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 65% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$34.37

Boilermaker (Second Year: 1st Six Months)

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 70% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$36.39

Boilermaker (Second Year: 2nd Six Months)

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 75% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$38.41

Boilermaker (Third Year: 1st Six Months)

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 80% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$40.40

Boilermaker (Third Year: 2nd Six Months)

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 85% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$42.43

Boilermaker (Fourth Year: 1st Six Months)

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 90% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$44.44

Boilermaker (Fourth Year: 2nd Six Months)

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 95% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$46.46

(Local #5)

BRICKLAYER

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 4)

Bricklayer (First 750 Hours)

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$22.60

Bricklayer (Second 750 Hours)

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 60% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$22.60

Bricklayer (Third 750 Hours)

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 70% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$22.60

Bricklayer (Fourth 750 Hours)

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 80% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$22.60

Bricklayer (Fifth 750 Hours)

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 90% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$22.60

Bricklayer (Sixth 750 Hours)

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 95% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$22.60

(Bricklayer District Council)

CARPENTER

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 4)

Carpenter (First Year)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate Per Hour For Building Apprentice: \$20.20

Supplemental Benefit Rate Per Hour For Building Apprentice: \$17.25

Wage Rate Per Hour For Heavy Apprentice: \$25.60

Supplemental Benefit Rate Per Hour For Heavy Apprentice: \$37.31

Carpenter (Second Year)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate Per Hour For Building Apprentice: \$23.20

Supplemental Benefit Rate Per Hour For Building Apprentice: \$18.75

Wage Rate Per Hour For Heavy Apprentice: \$31.20

Supplemental Benefit Rate Per Hour For Heavy Apprentice: \$37.31

Carpenter (Third Year)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate Per Hour For Building Apprentice: \$27.45

Supplemental Benefit Rate Per Hour For Building Apprentice: \$22.35

Wage Rate Per Hour For Heavy Apprentice: \$39.58

Supplemental Benefit Rate Per Hour For Heavy Apprentice: \$37.31

Carpenter (Fourth Year)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate Per Hour For Building Apprentice: \$35.33

Supplemental Benefit Rate Per Hour For Building Apprentice: \$24.35

Wage Rate Per Hour For Heavy Apprentice: \$47.97

Supplemental Benefit Rate Per Hour For Heavy Apprentice: \$37.31

(Carpenters District Council)

CARPENTER - HIGH RISE CONCRETE FORMS

(Ratio of Apprentice to Journeyman: 1 to 1, 2 to 5)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION APPRENTICE PREVAILING WAGE SCHEDULE

Carpenter - High Rise (First Year)

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: **\$18.27**
Supplemental Benefit Rate per Hour: **\$17.55**

Carpenter - High Rise (Second Year)

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: **\$24.70**
Supplemental Benefit Rate per Hour: **\$17.68**

Carpenter - High Rise (Third Year)

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: **\$31.28**
Supplemental Benefit Rate per Hour: **\$17.81**

Carpenter - High Rise (Fourth Year)

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: **\$38.90**
Supplemental Benefit Rate per Hour: **\$17.96**

(Carpenters District Council)

CEMENT AND CONCRETE WORKER
(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 3)

Cement & Concrete Worker (First 1333 hours)

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 53% of Journeyman's rate
Supplemental Benefit Rate Per Hour: **\$14.79**

Cement & Concrete Worker (Second 1333 hours)

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 69% of Journeyman's rate
Supplemental Benefit Rate Per Hour: **\$19.72**

Cement & Concrete Worker (Last 1334 hours)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION APPRENTICE PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 85% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$21.30

(Cement Concrete Workers District Council)

CEMENT MASON
(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 4)

Cement Mason (First Year)

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: \$19.92
Supplemental Benefit Rate per Hour: \$15.61

Cement Mason (Second Year)

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: \$24.82
Supplemental Benefit Rate per Hour: \$15.91

Cement Mason (Third Year)

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: \$30.22
Supplemental Benefit Rate per Hour: \$16.02

(Local #780)

DERRICKPERSON & RIGGER (STONE)
(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 4)

Derrickperson & Rigger (stone) - First Year

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Benefit Rate Per Hour: 50% of Journeyman's rate

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION APPRENTICE PREVAILING WAGE SCHEDULE

Derrickperson & Rigger (stone) - Second Year: 1st Six Months

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 70% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: 75% of Journeyperson's rate

Derrickperson & Rigger (stone) - Second Year: 2nd Six Months

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 80% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: 75% of Journeyperson's rate

Derrickperson & Rigger (stone) - Third Year

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 90% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: 75% of Journeyperson's rate

(Local #197)

DOCKBUILDER/PILE DRIVER
(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 6)

Dockbuilder/Pile Driver (First Year)

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: \$25.60
Supplemental Benefit Rate Per Hour: \$37.31

Dockbuilder/Pile Driver (Second Year)

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: \$31.20
Supplemental Benefit Rate Per Hour: \$37.31

Dockbuilder/Pile Driver (Third Year)

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: \$39.58
Supplemental Benefit Rate Per Hour: \$37.31

Dockbuilder/Pile Driver (Fourth Year)

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: \$47.97

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION APPRENTICE PREVAILING WAGE SCHEDULE

Supplemental Benefit Rate Per Hour: \$37.31

(Carpenters District Council)

ELECTRICIAN

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)

Electrician (First Term: 0-6 Months)

Effective Period: 7/1/2023 - 4/12/2024

Wage Rate per Hour: **\$18.00**

Supplemental Benefit Rate per Hour: **\$16.43**

Overtime Supplemental Rate Per Hour: **\$17.63**

Effective Period: 4/13/2024 - 6/30/2024

Wage Rate per Hour: **\$18.00**

Supplemental Benefit Rate per Hour: **\$17.18**

Overtime Supplemental Rate Per Hour: **\$18.38**

Electrician (First Term: 7-12 Months)

Effective Period: 7/1/2023 - 4/12/2024

Wage Rate per Hour: **\$18.50**

Supplemental Benefit Rate per Hour: **\$16.69**

Overtime Supplemental Rate Per Hour: **\$17.92**

Effective Period: 4/13/2024 - 6/30/2024

Wage Rate per Hour: **\$18.50**

Supplemental Benefit Rate per Hour: **\$17.44**

Overtime Supplemental Rate Per Hour: **\$18.67**

Electrician (Second Term: 0-6 Months)

Effective Period: 7/1/2023 - 4/12/2024

Wage Rate per Hour: **\$19.50**

Supplemental Benefit Rate per Hour: **\$17.22**

Overtime Supplemental Rate Per Hour: **\$18.51**

Effective Period: 4/13/2024 - 6/30/2024

Wage Rate per Hour: **\$19.50**

Supplemental Benefit Rate per Hour: **\$17.97**

Overtime Supplemental Rate Per Hour: **\$19.26**

Electrician (Second Term: 7-12 Months)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION APPRENTICE PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2023 - 4/12/2024

Wage Rate per Hour: **\$20.50**

Supplemental Benefit Rate per Hour: **\$17.74**

Overtime Supplemental Rate Per Hour: **\$19.10**

Effective Period: 4/13/2024 - 6/30/2024

Wage Rate per Hour: **\$20.50**

Supplemental Benefit Rate per Hour: **\$18.49**

Overtime Supplemental Rate Per Hour: **\$19.85**

Electrician (Third Term: 0-6 Months)

Effective Period: 7/1/2023 - 4/12/2024

Wage Rate per Hour: **\$21.50**

Supplemental Benefit Rate per Hour: **\$18.27**

Overtime Supplemental Rate Per Hour: **\$19.69**

Effective Period: 4/13/2024 - 6/30/2024

Wage Rate per Hour: **\$21.50**

Supplemental Benefit Rate per Hour: **\$19.02**

Overtime Supplemental Rate Per Hour: **\$20.44**

Electrician (Third Term: 7-12 Months)

Effective Period: 7/1/2023 - 4/12/2024

Wage Rate per Hour: **\$22.50**

Supplemental Benefit Rate per Hour: **\$18.79**

Overtime Supplemental Rate Per Hour: **\$20.28**

Effective Period: 4/13/2024 - 6/30/2024

Wage Rate per Hour: **\$22.50**

Supplemental Benefit Rate per Hour: **\$19.54**

Overtime Supplemental Rate Per Hour: **\$21.03**

Electrician (Fourth Term: 0-6 Months)

Effective Period: 7/1/2023 - 4/12/2024

Wage Rate per Hour: **\$23.50**

Supplemental Benefit Rate per Hour: **\$19.31**

Overtime Supplemental Rate Per Hour: **\$20.87**

Effective Period: 4/13/2024 - 6/30/2024

Wage Rate per Hour: **\$23.50**

Supplemental Benefit Rate per Hour: **\$20.06**

Overtime Supplemental Rate Per Hour: **\$21.62**

Electrician (Fourth Term: 7-12 Months)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION APPRENTICE PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2023 - 4/12/2024

Wage Rate per Hour: **\$25.50**

Supplemental Benefit Rate per Hour: **\$20.36**

Overtime Supplemental Rate Per Hour: **\$22.05**

Effective Period: 4/13/2024 - 6/30/2024

Wage Rate per Hour: **\$25.50**

Supplemental Benefit Rate per Hour: **\$21.11**

Overtime Supplemental Rate Per Hour: **\$22.80**

Electrician (Fifth Term: 0-12 Months)

Effective Period: 7/1/2023 - 4/12/2024

Wage Rate per Hour: **\$26.75**

Supplemental Benefit Rate per Hour: **\$24.13**

Overtime Supplemental Rate Per Hour: **\$25.82**

Effective Period: 4/13/2024 - 6/30/2024

Wage Rate per Hour: **\$27.50**

Supplemental Benefit Rate per Hour: **\$24.79**

Overtime Supplemental Rate Per Hour: **\$26.52**

Electrician (Fifth Term: 13-18 Months)

Effective Period: 7/1/2023 - 4/12/2024

Wage Rate per Hour: **\$31.25**

Supplemental Benefit Rate per Hour: **\$26.55**

Overtime Supplemental Rate Per Hour: **\$28.53**

Effective Period: 4/13/2024 - 6/30/2024

Wage Rate per Hour: **\$32.00**

Supplemental Benefit Rate per Hour: **\$27.20**

Overtime Supplemental Rate Per Hour: **\$29.23**

Overtime Description

Overtime Wage paid at time and one half the regular rate

(Local #3)

ELEVATOR CONSTRUCTOR

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 2)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION APPRENTICE PREVAILING WAGE SCHEDULE

Elevator (Constructor) - First Year

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 50% of Journeyperson's rate
Supplemental Rate Per Hour: \$34.18

Elevator (Constructor) - Second Year

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 55% of Journeyperson's rate
Supplemental Rate Per Hour: \$34.79

Elevator (Constructor) - Third Year

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 65% of Journeyperson's rate
Supplemental Rate Per Hour: \$36.01

Elevator (Constructor) - Fourth Year

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 75% of Journeyperson's rate
Supplemental Rate Per Hour: \$37.23

(Local #1)

ELEVATOR REPAIR & MAINTENANCE
(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 2)

Elevator Service/Modernization Mechanic (First Year)

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 50% of Journeyperson's rate
Supplemental Benefit Per Hour: \$34.59

Elevator Service/Modernization Mechanic (Second Year)

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 55% of Journeyperson's rate
Supplemental Benefit Per Hour: \$35.18

Elevator Service/Modernization Mechanic (Third Year)

Effective Period: 7/1/2023 - 6/30/2024

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION APPRENTICE PREVAILING WAGE SCHEDULE

Wage Rate Per Hour: 65% of Journeyperson's rate
Supplemental Benefit Per Hour: \$36.37

Elevator Service/Modernization Mechanic (Fourth Year)

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 75% of Journeyperson's rate
Supplemental Benefit Per Hour: \$37.55

(Local #1)

ENGINEER
(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 5)

Engineer - First Year

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: \$27.47
Supplemental Benefit Rate per Hour: \$32.38

Engineer - Second Year

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: \$34.34
Supplemental Benefit Rate per Hour: \$32.38

Engineer - Third Year

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: \$37.77
Supplemental Benefit Rate per Hour: \$32.38

Engineer - Fourth Year

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: \$41.21
Supplemental Benefit Rate per Hour: \$32.38

(Local #15)

ENGINEER - OPERATING

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 5)

Operating Engineer - First Year

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate Per Hour: 40% of Operating Engineer - Road & Heavy Construction V's Rate

Supplemental Benefit Per Hour: \$25.55

Operating Engineer - Second Year

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate Per Hour: 50% of Operating Engineer - Road & Heavy Construction V's Rate

Supplemental Benefit Per Hour: \$25.55

Operating Engineer - Third Year

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate Per Hour: 60% of Operating Engineer - Road & Heavy Construction V's Rate

Supplemental Benefit Per Hour: \$25.55

(Local #14)

FLOOR COVERER

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 4)

Floor Coverer (First Year)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$25.20**

Supplemental Benefit Rate per Hour: **\$17.25**

Floor Coverer (Second Year)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$28.20**

Supplemental Benefit Rate per Hour: **\$18.75**

Floor Coverer (Third Year)

Effective Period: 7/1/2023 - 6/30/2024

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION APPRENTICE PREVAILING WAGE SCHEDULE

Wage Rate per Hour: **\$32.45**

Supplemental Benefit Rate per Hour: **\$22.35**

Floor Coverer (Fourth Year)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$40.33**

Supplemental Benefit Rate per Hour: **\$24.35**

(Carpenters District Council)

GLAZIER

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 3)

Glazier (First Year)

Effective Period: 7/1/2023 - 6/30/2024

Wage and Supplemental Rate Per Hour: 40% of Journeyman's rate

Glazier (Second Year)

Effective Period: 7/1/2023 - 6/30/2024

Wage and Supplemental Rate Per Hour: 50% of Journeyman's rate

Glazier (Third Year)

Effective Period: 7/1/2023 - 6/30/2024

Wage and Supplemental Rate Per Hour: 60% of Journeyman's rate

Glazier (Fourth Year)

Effective Period: 7/1/2023 - 6/30/2024

Wage and Supplemental Rate Per Hour: 80% of Journeyman's rate

(Local #1281)

HAZARDOUS MATERIAL HANDLER

(Ratio of Apprentice Journeyman: 1 to 1, 1 to 3)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION APPRENTICE PREVAILING WAGE SCHEDULE

Handler (First 1000 Hours)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$20.00**

Supplemental Benefit Rate per Hour: **\$14.75**

Handler (Second 1000 Hours)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$21.00**

Supplemental Benefit Rate per Hour: **\$14.75**

Handler (Third 1000 Hours)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$24.00**

Supplemental Benefit Rate per Hour: **\$14.75**

Handler (Fourth 1000 Hours)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$26.00**

Supplemental Benefit Rate per Hour: **\$14.75**

(Local #78)

HEAT & FROST INSULATOR

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 3)

Heat & Frost Insulator (First Year)

Effective Period: 7/1/2023 - 6/30/2024

Wage and Supplemental Rate Per Hour: 40% of Journeyman's rate

Heat & Frost Insulator (Second Year)

Effective Period: 7/1/2023 - 6/30/2024

Wage and Supplemental Rate Per Hour: 50% of Journeyman's rate

Heat & Frost Insulator (Third Year)

Effective Period: 7/1/2023 - 6/30/2024

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION APPRENTICE PREVAILING WAGE SCHEDULE

Wage and Supplemental Rate Per Hour: 60% of Journeyperson's rate

Heat & Frost Insulator (Fourth Year)

Effective Period: 7/1/2023 - 6/30/2024

Wage and Supplemental Rate Per Hour: 70% of Journeyperson's rate

(Local #12)

**HOUSE WRECKER
(TOTAL DEMOLITION)
(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)**

House Wrecker - First Year

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$21.30**

Supplemental Benefit Rate per Hour: **\$10.97**

House Wrecker - Second Year

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$23.05**

Supplemental Benefit Rate per Hour: **\$10.97**

House Wrecker - Third Year

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$24.55**

Supplemental Benefit Rate per Hour: **\$10.97**

House Wrecker - Fourth Year

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$27.05**

Supplemental Benefit Rate per Hour: **\$10.97**

(Mason Tenders District Council)

IRON WORKER - ORNAMENTAL

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 4)

Iron Worker (Ornamental) - First Year

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$25.98**

Supplemental Benefit Rate per Hour: **\$16.00**

Iron Worker (Ornamental) - Second Year

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$28.45**

Supplemental Benefit Rate per Hour: **\$18.00**

Iron Worker (Ornamental) - Third Year

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$30.80**

Supplemental Benefit Rate per Hour: **\$19.00**

Iron Worker (Ornamental) - Fourth Year

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$34.39**

Supplemental Benefit Rate per Hour: **\$21.00**

(Local #580)

IRON WORKER - STRUCTURAL

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 6)

Iron Worker (Structural) - 1st Six Months

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$29.73**

Supplemental Benefit Rate per Hour: **\$60.12**

Iron Worker (Structural) - 7- 18 Months

Effective Period: 7/1/2023 - 6/30/2024

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION APPRENTICE PREVAILING WAGE SCHEDULE

Wage Rate per Hour: **\$30.33**

Supplemental Benefit Rate per Hour: **\$60.12**

Iron Worker (Structural) - 19 - 36 months

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$30.94**

Supplemental Benefit Rate per Hour: **\$60.12**

(Local #40 and #361)

**LABORER (FOUNDATION, CONCRETE, EXCAVATING, STREET PIPE
LAYER & COMMON)**

(Ratio Apprentice to Journeyman: 1 to 1, 1 to 3)

**Laborer (Foundation, Concrete, Excavating, Street Pipe Layer & Common) - First
1000 hours**

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate Per Hour: 50% of Journeyman's rate

Supplemental Rate Per Hour: \$50.43

**Laborer (Foundation, Concrete, Excavating, Street Pipe Layer & Common) -
Second 1000 hours**

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate Per Hour: 60% of Journeyman's rate

Supplemental Rate Per Hour: \$50.43

**Laborer (Foundation, Concrete, Excavating, Street Pipe Layer & Common) -
Third 1000 hours**

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate Per Hour: 75% of Journeyman's rate

Supplemental Rate Per Hour: \$50.43

**Laborer (Foundation, Concrete, Excavating, Street Pipe Layer & Common) -
Fourth 1000 hours**

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate Per Hour: 90% of Journeyman's rate

Supplemental Rate Per Hour: \$50.43

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION APPRENTICE PREVAILING WAGE SCHEDULE

(Local #731)

MARBLE MECHANICS

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 4)

Cutters & Setters - First 750 Hours

Effective Period: 7/1/2023 - 6/30/2024

Wage and Supplemental Rate Per Hour: 40% of Journeyman's rate

NO BENEFITS PAID DURING THE FIRST TWO MONTHS (PROBATIONARY PERIOD)

Cutters & Setters - Second 750 Hours

Effective Period: 7/1/2023 - 6/30/2024

Wage and Supplemental Rate Per Hour: 45% of Journeyman's rate

Cutters & Setters - Third 750 Hours

Effective Period: 7/1/2023 - 6/30/2024

Wage and Supplemental Rate Per Hour: 50% of Journeyman's rate

Cutters & Setters - Fourth 750 Hours

Effective Period: 7/1/2023 - 6/30/2024

Wage and Supplemental Rate Per Hour: 55% of Journeyman's rate

Cutters & Setters - Fifth 750 Hours

Effective Period: 7/1/2023 - 6/30/2024

Wage and Supplemental Rate Per Hour: 60% of Journeyman's rate

Cutters & Setters - Sixth 750 Hours

Effective Period: 7/1/2023 - 6/30/2024

Wage and Supplemental Rate Per Hour: 65% of Journeyman's rate

Cutters & Setters - Seventh 750 Hours

Effective Period: 7/1/2023 - 6/30/2024

Wage and Supplemental Rate Per Hour: 70% of Journeyman's rate

Cutters & Setters - Eighth 750 Hours

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION APPRENTICE PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2023 - 6/30/2024

Wage and Supplemental Rate Per Hour: 75% of Journeyperson's rate

Cutters & Setters - Ninth 750 Hours

Effective Period: 7/1/2023 - 6/30/2024

Wage and Supplemental Rate Per Hour: 85% of Journeyperson's rate

Cutters & Setters - Tenth 750 Hours

Effective Period: 7/1/2023 - 6/30/2024

Wage and Supplemental Rate Per Hour: 95% of Journeyperson's rate

Polishers & Finishers - First 900 Hours

Effective Period: 7/1/2023 - 6/30/2024

Wage and Supplemental Rate Per Hour: 70% of Journeyperson's rate

NO BENEFITS PAID DURING THE FIRST TWO MONTHS (PROBATIONARY PERIOD)

Polishers & Finishers - Second 900 Hours

Effective Period: 7/1/2023 - 6/30/2024

Wage and Supplemental Rate Per Hour: 80% of Journeyperson's rate

Polishers & Finishers - Third 900 Hours

Effective Period: 7/1/2023 - 6/30/2024

Wage and Supplemental Rate Per Hour: 90% of Journeyperson's rate

(Local #7)

MASON TENDER

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)

Mason Tender - First Year

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$21.80**

Supplemental Benefit Rate per Hour: **\$10.47**

Mason Tender - Second Year

Effective Period: 7/1/2023 - 6/30/2024

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION APPRENTICE PREVAILING WAGE SCHEDULE

Wage Rate per Hour: **\$23.55**

Supplemental Benefit Rate per Hour: **\$10.47**

Mason Tender - Third Year

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$25.05**

Supplemental Benefit Rate per Hour: **\$10.47**

Mason Tender - Fourth Year

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$27.55**

Supplemental Benefit Rate per Hour: **\$10.47**

(Local #79)

MASON TENDER (INTERIOR DEMOLITION WORKER)
(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 3)

Mason Tender (Interior Demolition) - First Year

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$20.70**

Supplemental Benefit Rate per Hour: **\$10.82**

Mason Tender (Interior Demolition) - Second Year

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$22.65**

Supplemental Benefit Rate per Hour: **\$10.82**

Mason Tender (Interior Demolition) - Third Year

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$24.15**

Supplemental Benefit Rate per Hour: **\$10.82**

Mason Tender (Interior Demolition) - Fourth Year

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$26.65**

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION APPRENTICE PREVAILING WAGE SCHEDULE

Supplemental Benefit Rate per Hour: **\$10.82**

(Local #79)

METALLIC LATHER

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 3)

Metallic Lather (First Year)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$22.55**

Supplemental Benefit Rate per Hour: **\$17.87**

Metallic Lather (Second Year)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$23.60**

Supplemental Benefit Rate per Hour: **\$16.87**

Metallic Lather (Third Year)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$24.60**

Supplemental Benefit Rate per Hour: **\$15.92**

Metallic Lather (Fourth Year)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$37.18**

Supplemental Benefit Rate per Hour: **\$21.82**

(Local #46)

MILLWRIGHT

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 4)

Millwright (First Year)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION APPRENTICE PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: **\$31.74**
Supplemental Benefit Rate per Hour: **\$36.74**

Millwright (Second Year)

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: **\$37.19**
Supplemental Benefit Rate per Hour: **\$40.44**

Millwright (Third Year)

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: **\$42.64**
Supplemental Benefit Rate per Hour: **\$44.79**

Millwright (Fourth Year)

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: **\$53.54**
Supplemental Benefit Rate per Hour: **\$51.55**

(Local #740)

PAINTER

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 3)

Painter - Brush & Roller - First Year

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: **\$17.20**
Supplemental Benefit Rate per Hour: **\$18.26**

Painter - Brush & Roller - Second Year

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: **\$21.50**
Supplemental Benefit Rate per Hour: **\$23.46**

Painter - Brush & Roller - Third Year

Effective Period: 7/1/2023 - 6/30/2024

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION APPRENTICE PREVAILING WAGE SCHEDULE

Wage Rate per Hour: **\$25.80**

Supplemental Benefit Rate per Hour: **\$27.72**

Painter - Brush & Roller - Fourth Year

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$34.40**

Supplemental Benefit Rate per Hour: **\$35.83**

(District Council of Painters)

PAINTER - METAL POLISHER

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)

Metal Polisher (First Year)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$16.00**

Supplemental Benefit Rate per Hour: **\$7.96**

New Construction - Wage Rate Per Hour: **\$16.39**

Scaffold Over 34 Feet - Wage Rate Per Hour: **\$18.50**

Metal Polisher (Second Year)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$17.00**

Supplemental Benefit Rate per Hour: **\$7.96**

New Construction - Wage Rate Per Hour: **\$17.44**

Scaffold Over 34 Feet - Wage Rate Per Hour: **\$19.50**

Metal Polisher (Third Year)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$18.00**

Supplemental Benefit Rate per Hour: **\$7.96**

New Construction - Wage Rate Per Hour: **\$18.54**

Scaffold Over 34 Feet - Wage Rate Per Hour: **\$20.50**

(Local 8A-28)

PAINTER - STRUCTURAL STEEL

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 3)

Painters - Structural Steel (First Year)

Effective Period: 7/1/2023 - 6/30/2024

Wage and Supplemental Rate Per Hour: 40% of Journeyman's rate

Painters - Structural Steel (Second Year)

Effective Period: 7/1/2023 - 6/30/2024

Wage and Supplemental Rate Per Hour: 60% of Journeyman's rate

Painters - Structural Steel (Third Year)

Effective Period: 7/1/2023 - 6/30/2024

Wage and Supplemental Rate Per Hour: 80% of Journeyman's rate

(Local #806)

PAVER AND ROADBUILDER

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 3)

Paver and Roadbuilder - First Year (Minimum 1000 hours)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$30.86**

Supplemental Benefit Rate per Hour: **\$25.54**

Paver and Roadbuilder - Second Year (Minimum 1000 hours)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$32.50**

Supplemental Benefit Rate per Hour: **\$25.54**

(Local #1010)

PAVER AND ROADBUILDER - LINE STRIPING (ROADWAY)
(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 3)

Paver and Roadbuilder - Line Striping (Roadway) - First Year (Minimum 1000 hours)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$30.86**

Supplemental Benefit Rate per Hour: **\$17.27**

Paver and Roadbuilder - Line Striping (Roadway) - Second Year (Minimum 1000 hours)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$32.50**

Supplemental Benefit Rate per Hour: **\$17.27**

(Local #1010)

PLASTERER

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 3)
(Each Term is 800 Hours.)

Plasterer - First Term

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate Per Hour: 55% of Journeyman's rate

Supplemental Rate Per Hour: **\$17.48**

Plasterer - Second Term

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate Per Hour: 60% of Journeyman's rate

Supplemental Rate Per Hour: **\$18.63**

Plasterer - Third Term

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate Per Hour: 70% of Journeyman's rate

Supplemental Rate Per Hour: **\$20.93**

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION APPRENTICE PREVAILING WAGE SCHEDULE

Plasterer - Fourth Term

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 75% of Journeyperson's rate
Supplemental Rate Per Hour: \$22.10

(Local #262)

PLASTERER - TENDER
(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)

Plasterer Tender - First Year

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: \$21.45
Supplemental Benefit Rate per Hour: \$10.32

Plasterer Tender - Second Year

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: \$23.40
Supplemental Benefit Rate per Hour: \$10.32

Plasterer Tender - Third Year

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: \$24.90
Supplemental Benefit Rate per Hour: \$10.32

Plasterer Tender - Fourth Year

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: \$27.40
Supplemental Benefit Rate per Hour: \$10.32

(Local #79)

PLUMBER

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 3)

Plumber - First Year: 1st Six Months

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$16.78**

Supplemental Benefit Rate per Hour: **\$5.43**

Plumber - First Year: 2nd Six Months

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$19.78**

Supplemental Benefit Rate per Hour: **\$6.43**

Plumber - Second Year

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$28.99**

Supplemental Benefit Rate per Hour: **\$21.95**

Plumber - Third Year

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$31.09**

Supplemental Benefit Rate per Hour: **\$21.95**

Plumber - Fourth Year

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$33.94**

Supplemental Benefit Rate per Hour: **\$21.95**

Plumber - Fifth Year: 1st Six Months

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$35.34**

Supplemental Benefit Rate per Hour: **\$21.95**

Plumber - Fifth Year: 2nd Six Months

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$47.41**

Supplemental Benefit Rate per Hour: **\$21.95**

(Plumbers Local #1)

**POINTER, WATERPROOFER, CAULKER, SANDBLASTER,
STEAMBLASTER**

(Exterior Building Renovation)

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 4)

Pointer, Waterproofer, Caulker, Sandblaster, Steamblaster - First Year

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$31.48**

Supplemental Benefit Rate per Hour: **\$15.00**

Pointer, Waterproofer, Caulker, Sandblaster, Steamblaster - Second Year

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$35.54**

Supplemental Benefit Rate per Hour: **\$20.20**

Pointer, Waterproofer, Caulker, Sandblaster, Steamblaster - Third Year

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$41.14**

Supplemental Benefit Rate per Hour: **\$23.95**

Pointer, Waterproofer, Caulker, Sandblaster, Steamblaster - Fourth Year

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: **\$49.50**

Supplemental Benefit Rate per Hour: **\$24.95**

(Bricklayer District Council)

ROOFER

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 2)

Roofer - First Year

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION APPRENTICE PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 35% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$3.97

Roofer - Second Year

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 50% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$19.29

Roofer - Third Year

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 60% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$23.09

Roofer - Fourth Year

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 75% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$28.81

(Local #8)

SHEET METAL WORKER

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)

Sheet Metal Worker (0-6 Months)

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 25% of Journeyperson's rate
Supplemental Rate Per Hour: \$7.19

Sheet Metal Worker (7-18 Months)

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 35% of Journeyperson's rate
Supplemental Rate Per Hour: \$20.98

Sheet Metal Worker (19-30 Months)

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 45% of Journeyperson's rate
Supplemental Rate Per Hour: \$28.41

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION APPRENTICE PREVAILING WAGE SCHEDULE

Sheet Metal Worker (31-36 Months)

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 55% of Journeyperson's rate
Supplemental Rate Per Hour: \$33.59

Sheet Metal Worker (37-42 Months)

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 55% of Journeyperson's rate
Supplemental Rate Per Hour: \$33.59

Sheet Metal Worker (43-48 Months)

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 70% of Journeyperson's rate
Supplemental Rate Per Hour: \$41.37

Sheet Metal Worker (49-54 Months)

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 70% of Journeyperson's rate
Supplemental Rate Per Hour: \$41.37

Sheet Metal Worker (55-60 Months)

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 80% of Journeyperson's rate
Supplemental Rate Per Hour: \$46.56

(Local #28)

SIGN ERECTOR

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 4)

Sign Erector - First Year: 1st Six Months

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 35% of Journeyperson's rate
Supplemental Rate Per Hour: \$17.84

Sign Erector - First Year: 2nd Six Months

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 40% of Journeyperson's rate

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION APPRENTICE PREVAILING WAGE SCHEDULE

Supplemental Rate Per Hour: \$20.25

Sign Erector - Second Year: 1st Six Months

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 45% of Journey person's rate
Supplemental Rate Per Hour: \$22.66

Sign Erector - Second Year: 2nd Six Months

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 50% of Journey person's rate
Supplemental Rate Per Hour: \$25.09

Sign Erector - Third Year: 1st Six Months

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 55% of Journey person's rate
Supplemental Rate Per Hour: \$33.83

Sign Erector - Third Year: 2nd Six Months

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 60% of Journey person's rate
Supplemental Rate Per Hour: \$36.81

Sign Erector - Fourth Year: 1st Six Months

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 65% of Journey person's rate
Supplemental Rate Per Hour: \$40.63

Sign Erector - Fourth Year: 2nd Six Months

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 70% of Journey person's rate
Supplemental Rate Per Hour: \$43.70

Sign Erector - Fifth Year

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 75% of Journey person's rate
Supplemental Rate Per Hour: \$46.76

Sign Erector - Sixth Year

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 80% of Journey person's rate
Supplemental Rate Per Hour: \$49.80

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION APPRENTICE PREVAILING WAGE SCHEDULE

(Local #137)

STEAMFITTER

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 3)

Steamfitter - First Year

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate and Supplemental Per Hour: 40% of Journeyman's rate

Steamfitter - Second Year

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate and Supplemental Rate Per Hour: 50% of Journeyman's rate.

Steamfitter - Third Year

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate and Supplemental Rate per Hour: 60% of Journeyman's rate.

Steamfitter - Fourth Year

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate and Supplemental Rate Per Hour: 70% of Journeyman's rate.

Steamfitter - Fifth Year

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate and Supplemental Rate Per Hour: 80% of Journeyman's rate.

(Local #638)

STEAMFITTER - REFRIGERATION & AIR CONDITIONER

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 3)

Refrigeration & Air Conditioner (First Year)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: \$21.71

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION APPRENTICE PREVAILING WAGE SCHEDULE

Supplemental Benefit Rate per Hour: \$13.75

Refrigeration & Air Conditioner (Second Year)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: \$26.21

Supplemental Benefit Rate per Hour: \$15.09

Refrigeration & Air Conditioner (Third Year)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: \$30.53

Supplemental Benefit Rate per Hour: \$16.49

Refrigeration & Air Conditioner (Fourth Year)

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate per Hour: \$36.87

Supplemental Benefit Rate per Hour: \$18.38

(Local #638-B)

STONE MASON - SETTER

(Ratio Apprentice of Journeyman: 1 to 1, 1 to 2)

Stone Mason - Setters - First 750 Hours

Effective Period: 7/1/2023 - 6/30/2024

Wage and Supplemental Rate Per Hour: 50% of Journeyman's rate

Stone Mason - Setters - Second 750 Hours

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate Per Hour: 60% of Journeyman's rate

Supplemental Rate Per Hour: 50% of Journeyman's rate

Stone Mason - Setters - Third 750 Hours

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate Per Hour: 70% of Journeyman's rate

Supplemental Rate Per Hour: 50% of Journeyman's rate

Stone Mason - Setters - Fourth 750 Hours

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION APPRENTICE PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 80% of Journeyperson's rate
Supplemental Rate Per Hour: 50% of Journeyperson's rate

Stone Mason - Setters - Fifth 750 Hours

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 90% of Journeyperson's rate
Supplemental Rate Per Hour: 50% of Journeyperson's rate

Stone Mason - Setters - Sixth 750 Hours

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate Per Hour: 100% of Journeyperson's rate
Supplemental Rate Per Hour: 50% of Journeyperson's rate

(Bricklayers District Council)

TAPER

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 4)

Drywall Taper - First Year

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: **\$20.97**
Supplemental Benefit Rate per Hour: **\$14.25**

Drywall Taper - Second Year

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: **\$24.24**
Supplemental Benefit Rate per Hour: **\$21.26**

Drywall Taper - Third Year

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: **\$29.08**
Supplemental Benefit Rate per Hour: **\$23.01**

Drywall Taper - Fourth Year

Effective Period: 7/1/2023 - 6/30/2024
Wage Rate per Hour: **\$38.78**

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION APPRENTICE PREVAILING WAGE SCHEDULE

Supplemental Benefit Rate per Hour: **\$26.51**

(Local #1974)

TILE LAYER - SETTER

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 4)

Tile Layer - Setter - First 750 Hours

Effective Period: 7/1/2023 - 6/30/2024

Wage and Supplemental Rate Per Hour: 35% of Journeyman's rate

Tile Layer - Setter - Second 750 Hours

Effective Period: 7/1/2023 - 6/30/2024

Wage and Supplemental Rate Per Hour 40% of Journeyman's rate

Tile Layer - Setter - Third 750 Hours

Effective Period: 7/1/2023 - 6/30/2024

Wage and Supplemental Rate Per Hour: 50% of Journeyman's rate

Tile Layer - Setter - Fourth 750 Hours

Effective Period: 7/1/2023 - 6/30/2024

Wage and Supplemental Rate Per Hour: 55% of Journeyman's rate

Tile Layer - Setter - Fifth 750 Hours

Effective Period: 7/1/2023 - 6/30/2024

Wage and Supplemental Rate Per Hour: 60% of Journeyman's rate

Tile Layer - Setter - Sixth 750 Hours

Effective Period: 7/1/2023 - 6/30/2024

Wage and Supplemental Rate Per Hour: 65% of Journeyman's rate

Tile Layer - Setter - Seventh 750 Hours

Effective Period: 7/1/2023 - 6/30/2024

Wage and Supplemental Rate Per Hour: 70% of Journeyman's rate

Tile Layer - Setter - Eighth 750 Hours

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
CONSTRUCTION APPRENTICE PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2023 - 6/30/2024

Wage and Supplemental Rate Per Hour: 75% of Journeyperson's rate

Tile Layer - Setter - Ninth 750 Hours

Effective Period: 7/1/2023 - 6/30/2024

Wage and Supplemental Rate Per Hour: 80% of Journeyperson's rate

Tile Layer - Setter - Tenth 750 Hours

Effective Period: 7/1/2023 - 6/30/2024

Wage and Supplemental Rate Per Hour: 90% of Journeyperson's rate

(Local #7)

TIMBERPERSON

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 6)

Timberperson - First Year

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate Per Hour: \$23.42

Supplemental Rate Per Hour: \$37.27

Timberperson - Second Year

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate Per Hour: \$28.53

Supplemental Rate Per Hour: \$37.27

Timberperson - Third Year

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate Per Hour: \$36.18

Supplemental Rate Per Hour: \$37.27

Timberperson - Fourth Year

Effective Period: 7/1/2023 - 6/30/2024

Wage Rate Per Hour: \$43.84

Supplemental Rate Per Hour: \$37.27

(Local #1536)



Leonard A. Mancusi
SENIOR ASSISTANT COMPTROLLER

THE CITY OF NEW YORK
OFFICE OF THE COMPTROLLER
1 CENTRE STREET ROOM 1120
NEW YORK, N.Y. 10007-2341

TELEPHONE: (212) 669-3622
FAX NUMBER: (212) 669-8499

ALAN G. HEVESI
COMPTROLLER

MEMORANDUM

November 6, 2000

To Agency Chief Contracting Officers

From: Leonard A. Mancusi

Re: Security at Construction Sites

Prior to the enactment of Administrative Code §6-109, security guards on construction sites were not subject to prevailing wages. Security guards under the New York State labor law are covered under §230 which provides that prevailing wages are to be paid for security guards in existing buildings. §6-109 of the Administrative Code which was enacted in 1996 closed this loophole by including all security guards working pursuant to a city contract as a prevailing wage trade.

Although some construction contract boilerplate language has been amended to include §6-109, sub-contractors performing security services have advised us that they were not aware of this provision and, since traditionally, security guards were not a covered trade on construction sites, and they were not advised by a prime contractor that they would have to pay prevailing wages, they have not been doing so.

To avoid the possibility of issuing stop payments against prime contractors for the failure of their security service sub-contractors to pay

prevailing wages, we suggest that you write to all your existing security guard sub-contractors and their primes and in the future, upon approval of a security guard sub-contractor, advise the contractors of their obligation to pay prevailing wages under §6-109 of the Administrative Code.

As always, your cooperation is appreciated.

LAM:er
ACCO.SECURITY AT SITES



**Department of
Design and
Construction**

**DIVISION OF INFRASTRUCTURE
BUREAU OF DESIGN**

VOLUME 2 OF 3

PROJECT ID: HWK2048

**RECONSTRUCTION OF JAMAICA BAY GREENWAY –
PAERDEGAT AVENUE NORTH CONNECTOR**

**FLATLANDS AVENUE
FROM RALPH AVENUE TO EAST 76TH STREET**

**EAST 76TH STREET / PAERDEGAT AVENUE NORTH
FROM FLATLANDS AVENUE TO PAERDEGAT 2ND STREET**

**PAERDEGAT AVENUE NORTH
FROM PAERDEGAT 15TH STREET TO SEAVIEW AVENUE**

**INCLUDING BIKE PATH, CURB AND SIDEWALK, SEWER, WATER MAIN, STREET
LIGHTING, AND TRAFFIC WORK**

TOGETHER WITH ALL WORK INCIDENTAL THERETO

**BOROUGH OF BROOKLYN
CITY OF NEW YORK**

Contractor

Dated _____, 20__

**APPROVED AS TO FORM
CERTIFIED AS TO LEGAL AUTHORITY**

Acting Corporation Counsel

Dated _____, 20__



**Department of
Design and
Construction**

THE CITY OF NEW YORK
DEPARTMENT OF DESIGN AND
CONSTRUCTION
DIVISION OF INFRASTRUCTURE
30-30 THOMSON AVENUE
LONG ISLAND CITY, NY, 11101
TEL: 718.391.1000
WEB: www.nyc.gov/ddc

TO BE FILLED IN BY THE BIDDER:

BIDDER'S NAME:

BID SECURITY (CIRCLE ONE):
BID BOND / CERTIFIED CHECK

NUMBER OF ADDENDUMS RECEIVED
AND ATTACHED TO BID:
_____ ADDENDUMS

DDC CLIENT AGENCY:
DEPARTMENT OF
TRANSPORTATION

PREPARED BY:
AECOM/ AKRF

DATE PREPARED:
NOVEMBER 02, 2022



VOLUME 3 OF 3

FOR FURNISHING ALL LABOR AND MATERIALS
NECESSARY AND REQUIRED FOR:

PROJECT ID: HWK2048

**SCHEDULE A
SPECIFICATIONS AND
REVISIONS TO STANDARD
SPECIFICATIONS**

**RECONSTRUCTION OF JAMAICA BAY
GREENWAY – PAERDEGAT AVENUE
NORTH CONNECTOR**

**FLATLANDS AVENUE
FROM RALPH AVENUE TO EAST 76TH STREET**

**EAST 76TH STREET / PAERDEGAT AVENUE NORTH
FROM FLATLANDS AVENUE TO PAERDEGAT 2ND
STREET**

**PAERDEGAT AVENUE NORTH
FROM PAERDEGAT 15TH STREET
TO SEAVIEW AVENUE**

INCLUDING BIKE PATH, CURB AND SIDEWALK,
SEWER, WATER MAIN, STREET LIGHTING, AND
TRAFFIC WORK

TOGETHER WITH ALL WORK INCIDENTAL THERETO

**BOROUGH OF BROOKLYN
CITY OF NEW YORK
FHWA FUNDED – NYSDOT PIN: X767.16**

CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
DIVISION OF INFRASTRUCTURE

ADDENDA CONTROL SHEET

BID SUBMISSION DATE/ TIME: October 3, 2023; between 8:30 AM and 11:00 AM
 BID OPENING DATE/ TIME: October 3, 2023; 11:30 AM

PROJECT No.: **HWK2048**

TITLE: **RECONSTRUCTION OF JAMAICA BAY GREENWAY, BOROUGH OF BROOKLYN**

ADDENDA ISSUED	NO. OF DWG	DATE	SPECS UNIT	APPROVED BY:
				GENERAL COUNSEL
#1 Revisions to Documents;	0	09/21/2023		<i>Vani Nayyar</i>

THE CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
DIVISION OF INFRASTRUCTURE

09/21/2023

ADDENDUM No. # 1

FOR FURNISHING ALL LABOR AND MATERIAL NECESSARY AND REQUIRED FOR:

85023B0039-HWK2048

RECONSTRUCTION OF JAMAICA BAY GREENWAY, BOROUGH OF BROOKLYN

This addendum is issued for the purpose of amending the requirements of the Bid and Contract Documents and is hereby made a part of said Bid and Contract Documents to the same extent as though it were originally included therein.

The bidder is advised that the items listed below apply to the project:

1. **Bidders Questions and Responses to Questions:**
No Attachment A is included with this Addendum.
2. **Revisions to Documents:**
See Attachment B is included with this Addendum.
3. **Revisions to PASSPort forms:**
No Attachment C is included with this Addendum.

Transferring Data Between Rounds of an RFX: A new document titled “Transferring Data Between Rounds of an RFX” has been added to the Documents section of the View RFX tab. Please refer to this document when an addendum has been issued. Note: Whenever an addendum is issued, the RFX item grid will be cleared. You can import the work you have already done by following the steps on this document.

DDC strongly advises vendors to finalize and submit bids 48 hours prior to due date and time. The City is not responsible for technical issues (e.g. internet connection, power outages, technology malfunction, computer errors, etc.) related to bid submissions.

If additional information is required, please contact the Department of Design and Construction, Contract Section at (718) 391-1041 or by email at CSB_projectinquiries@ddc.nyc.gov.

Richard Jones, PE CWI CDT
Executive Director, Specifications

DDC PROJECT #: HWK2048

**PROJECT NAME: RECONSTRUCTION OF JAMAICA BAY GREENWAY, BOROUGH OF
BROOKLYN**

ATTACHMENT A - BIDDERS QUESTIONS AND DDC RESPONSES

None

DDC PROJECT #: HWK2048

**PROJECT NAME: RECONSTRUCTION OF JAMAICA BAY GREENWAY, BOROUGH OF
BROOKLYN**

ATTACHMENT B – REVISIONS TO THE DOCUMENTS

A) VOLUME 3 OF 3:

1) Revised UI-Section (No bid items/qty were changed).

B) Added Planholders List

DDC PROJECT #: HWK2048

**PROJECT NAME: RECONSTRUCTION OF JAMAICA BAY GREENWAY,
BOROUGH OF BROOKLYN**

ATTACHMENT C – REVISIONS TO PASSPORT FORMS

This Addendum initiates Round 2 of the procurement.

Please note that numbering of addenda is independent of rounds.

Questionnaire Changes:

None

Item Grid Changes:

None.

CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
DIVISION OF INFRASTRUCTURE

ADDENDA CONTROL SHEET

BID SUBMISSION DATE/ TIME: October 13, 2023; between 8:30 AM and 11:00 AM
BID OPENING DATE/ TIME: October 13, 2023; 11:30 AM

PROJECT No.: **HWK2048**

TITLE: **RECONSTRUCTION OF JAMAICA BAY GREENWAY, BOROUGH OF BROOKLYN**

ADDENDA ISSUED	NO. OF DWG	DATE	APPROVED BY:	
			SPECS UNIT	GENERAL COUNSEL
#1 Revisions to Documents;	0	09/21/2023		
#2 Revised Bid Opening Date;		10/03/2023	<i>NA</i>	

THE CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
DIVISION OF INFRASTRUCTURE

10/03/2023

ADDENDUM No. # 2

FOR FURNISHING ALL LABOR AND MATERIAL NECESSARY AND REQUIRED FOR:

85023B0039-HWK2048

RECONSTRUCTION OF JAMAICA BAY GREENWAY, BOROUGH OF BROOKLYN

This addendum is issued for the purpose of amending the requirements of the Bid and Contract Documents and is hereby made a part of said Bid and Contract Documents to the same extent as though it were originally included therein.

The bidder is advised that the items listed below apply to the project:

1. **Bid Date Revised to OCTOBER 13, 2023**
2. **Bidders Questions and Responses to Questions:**
No Attachment A is included with this Addendum.
3. **Revisions to Documents:**
No Attachment B is included with this Addendum.
4. **Revisions to PASSPort forms:**
No Attachment C is included with this Addendum.

Transferring Data Between Rounds of an RFX: A new document titled "Transferring Data Between Rounds of an RFX" has been added to the Documents section of the View RFX tab. Please refer to this document when an addendum has been issued. Note: Whenever an addendum is issued, the RFX item grid will be cleared. You can import the work you have already done by following the steps on this document.

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If additional information is required, please contact the Department of Design and Construction, Contract Section at (718) 391-1041 or by email at CSB_projectinquiries@ddc.nyc.gov.

Signed for

Nasrin Akter

Richard Jones, PE CWI CDT
Executive Director, Specifications

DDC PROJECT #: HWK2048

**PROJECT NAME: RECONSTRUCTION OF JAMAICA BAY GREENWAY, BOROUGH OF
BROOKLYN**

ATTACHMENT A - BIDDERS QUESTIONS AND DDC RESPONSES

None

DDC PROJECT #: HWK2048

**PROJECT NAME: RECONSTRUCTION OF JAMAICA BAY GREENWAY, BOROUGH OF
BROOKLYN**

ATTACHMENT B – REVISIONS TO THE DOCUMENTS

None

DDC PROJECT #: HWK2048

**PROJECT NAME: RECONSTRUCTION OF JAMAICA BAY GREENWAY,
BOROUGH OF BROOKLYN**

ATTACHMENT C – REVISIONS TO PASSPORT FORMS

This Addendum initiates Round 2 of the procurement.

Please note that numbering of addenda is independent of rounds.

Questionnaire Changes:

None.

Item Grid Changes:

None.

CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
DIVISION OF INFRASTRUCTURE

ADDENDA CONTROL SHEET

BID SUBMISSION DATE/ TIME: October 13, 2023; between 8:30 AM and 11:00 AM
 BID OPENING DATE/ TIME: October 13, 2023; 11:30 AM

PROJECT No.: **HWK2048**

TITLE: **RECONSTRUCTION OF JAMAICA BAY GREENWAY, BOROUGH OF BROOKLYN**

ADDENDA ISSUED	NO. OF DWG	DATE	APPROVED BY:	
			SPECS UNIT	GENERAL COUNSEL
#1 Revisions to Documents;	0	09/21/2023		
#2 Revised Bid Opening Date;		10/03/2023		
#3 Questions from Bidders and Responses to Questions; Revisions to Documents; Revisions to PASSPort Forms		10/05/2023		V N

THE CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
DIVISION OF INFRASTRUCTURE

10/05/2023

ADDENDUM No. # 3

FOR FURNISHING ALL LABOR AND MATERIAL NECESSARY AND REQUIRED FOR:

85023B0039-HWK2048

RECONSTRUCTION OF JAMAICA BAY GREENWAY, BOROUGH OF BROOKLYN

This addendum is issued for the purpose of amending the requirements of the Bid and Contract Documents and is hereby made a part of said Bid and Contract Documents to the same extent as though it were originally included therein.

The bidder is advised that the items listed below apply to the project:

1. **Bidders Questions and Responses to Questions:**
See Attachment A is included with this Addendum.
2. **Revisions to Documents:**
See Attachment B is included with this Addendum.
3. **Revisions to PASSPort forms:**
See Attachment C is included with this Addendum.

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If additional information is required, please contact the Department of Design and Construction, Contract Section at (718) 391-1041 or by email at CSB_projectinquiries@ddc.nyc.gov.

Richard Jones, PE CWI CDT
Executive Director, Specifications

DDC PROJECT #: HWK2048

**PROJECT NAME: RECONSTRUCTION OF JAMAICA BAY GREENWAY, BOROUGH OF
BROOKLYN**

ATTACHMENT A - BIDDERS QUESTIONS AND DDC RESPONSES

No.	Bidders Questions	DDC Responses
1	Item numbers 61.11TWC04, 61.11TWC06, 61.11TWC08 are for "Furnishing & Delivering Wet Connection Tapping Valve". However, there is no setting items for these items. Please clarify.	Please refer to Attachment B.

DDC PROJECT #: HWK2048

**PROJECT NAME: RECONSTRUCTION OF JAMAICA BAY GREENWAY, BOROUGH OF
BROOKLYN**

ATTACHMENT B – REVISIONS TO THE DOCUMENTS

1. Revised Bid Schedule

- Added Items 61.12TWC04, 61.12TWC06, 61.12TWC08, 64.13WC12
and 64.13WC20

2. Volume 3 of 3 – revised I-Pages adding new revised Sections 8.01 and 9.30

DDC PROJECT #: HWK2048

**PROJECT NAME: RECONSTRUCTION OF JAMAICA BAY GREENWAY,
BOROUGH OF BROOKLYN**

ATTACHMENT C – REVISIONS TO PASSPORT FORMS

This Addendum initiates Round 3 of the procurement.

Please note that numbering of addenda is independent of rounds.

Questionnaire Changes:

1. Revised Bid Schedule
 - Added Items 61.12TWC04, 61.12TWC06, 61.12TWC08, 64.13WC12, and 64.13WC20

Item Grid Changes:

None.

CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
DIVISION OF INFRASTRUCTURE

ADDENDA CONTROL SHEET

BID SUBMISSION DATE/ TIME: October 13, 2023; between 8:30 AM and 11:00 AM
BID OPENING DATE/ TIME: October 13, 2023; 11:30 AM

PROJECT No.: **HWK2048**

TITLE: **RECONSTRUCTION OF JAMAICA BAY GREENWAY, BOROUGH OF BROOKLYN**

ADDENDA ISSUED	NO. OF DWG	DATE	APPROVED BY:	
			SPECS UNIT	GENERAL COUNSEL
#1 Revisions to Documents;	0	09/21/2023		
#2 Revised Bid Opening Date;		10/03/2023		
#3 Questions from Bidders and Responses to Questions; Revisions to Documents; Revisions to PASSPort Forms		10/05/2023		
#4 Questions from Bidders and Responses to Questions;		10/06/2023		V N

THE CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
DIVISION OF INFRASTRUCTURE

10/06/2023

ADDENDUM No. # 4

FOR FURNISHING ALL LABOR AND MATERIAL NECESSARY AND REQUIRED FOR:

85023B0039-HWK2048

RECONSTRUCTION OF JAMAICA BAY GREENWAY, BOROUGH OF BROOKLYN

This addendum is issued for the purpose of amending the requirements of the Bid and Contract Documents and is hereby made a part of said Bid and Contract Documents to the same extent as though it were originally included therein.

The bidder is advised that the items listed below apply to the project:

1. **Bidders Questions and Responses to Questions:**
See Attachment A is included with this Addendum.
2. **Revisions to Documents:**
No Attachment B is included with this Addendum.
3. **Revisions to PASSPort forms:**
No Attachment C is included with this Addendum.

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If additional information is required, please contact the Department of Design and Construction, Contract Section at (718) 391-1041 or by email at CSB_projectinquiries@ddc.nyc.gov.

Richard Jones, PE CWI CDT
Chief Engineer, Executive- Engineering Services

DDC PROJECT #: HWK2048

PROJECT NAME: RECONSTRUCTION OF JAMAICA BAY GREENWAY, BOROUGH OF BROOKLYN

ATTACHMENT A - BIDDERS QUESTIONS AND DDC RESPONSES

No.	Bidders Questions	DDC Responses
1	<p>We had submitted our proposal for the previous version of this bid on PASSPort before the postponement notice had been sent out. Now, after Addendum 3, the submitted version of our PASSPort bid proposal has disappeared from the website. Our question is, is it okay to just submit a completely new proposal, or are there further steps we need to take? Because the previous submitted version is gone and only a new blank proposal is left for us to fill out, do we need to go through any additional steps, such as finding the old submitted version and going through the process of withdrawing it? Or is it unnecessary because it is already deleted? Please clarify.</p>	<p>Please refer to the “Round Addendum Job Aid” in the Documents tab in PASSPort.</p>

DDC PROJECT #: HWK2048

**PROJECT NAME: RECONSTRUCTION OF JAMAICA BAY GREENWAY, BOROUGH OF
BROOKLYN**

ATTACHMENT B – REVISIONS TO THE DOCUMENTS

None

DDC PROJECT #: HWK2048

**PROJECT NAME: RECONSTRUCTION OF JAMAICA BAY GREENWAY,
BOROUGH OF BROOKLYN**

ATTACHMENT C – REVISIONS TO PASSPORT FORMS

This Addendum is included within Round 3 of the procurement.

Please note that numbering of addenda is independent of rounds.

Questionnaire Changes:

None

Item Grid Changes:

None.

VOLUME 3 OF 3

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(NO TEXT ON THIS PAGE)

SPECIFICATIONS AND STANDARDS OF NEW YORK CITY

The following specifications and standards are incorporated into the Contract Documents by reference as though fully set forth herein.

1. Standard Specifications and Drawings for New York City Department of Transportation (NYCDOT) are available:
Online at: <http://www1.nyc.gov/site/ddc/resources/publications.page>
 - a. NYC DOT Standard Highway Specifications
 - b. NYC DOT Standard Details of ConstructionOnline at: <https://www1.nyc.gov/html/dot/html/about/dotlibrary.shtml#spec>
 - c. NYC DOT Division of Street Lighting Standard Drawings
 - d. NYC DOT Standard Specifications for Traffic Signals
 - e. NYC DOT Standard Drawings for Traffic SignalsFor purchase between 9:00 A.M. and 3:00 P.M. Bid Window, at 55 Water St., Ground Floor, NYC, N.Y. 10041. Tel. (212) 839-9435.
 - f. NYC DOT Division of Street Lighting Specifications
2. The 2010 Americans with Disabilities Act (ADA) Standards; available online at: <https://www.ada.gov/regs2010/2010ADASTandards/2010ADASTandards.htm>
3. The 2013 Public Rights-of-Way Accessibility Guidelines (PROWAG); available online at: <https://www.access-board.gov/files/prowag/PROW-SUP-SNPRM-2013.pdf>
4. Standard Specifications and Drawings for New York City Department of Environmental Protection (NYCDEP) are available online at: <http://www1.nyc.gov/site/ddc/resources/publications.page>
 - a. NYC DEP Standard Sewer and Water Main Specifications, August 8, 2022
 - b. NYC DEP Instructions to Architect/Engineers Specifications for Concrete, January 1992
 - c. NYC DEP General Specification 11-Concrete, November 1991
 - d. NYC DEP Sewer Design Standards, March 27, 2023
 - e. NYC DEP Water Main Standard Drawings, December 2020
 - f. Specifications for Trunk Main Work, July 2014
 - g. Standard Green Infrastructure Specifications September 1,2021
5. Standard Design and Guidelines for Green Infrastructure Practices, latest version, available only online at: <https://www1.nyc.gov/assets/dep/downloads/pdf/water/stormwater/green-infrastructure/green-infrastructure-standard-designs.pdf>
6. Standard Specifications and Drawings for New York City Fire Department Communications facilities of New York City are available online at <https://www1.nyc.gov/assets/fdny/downloads/pdf/about/fdny-plant-operations-standard-drawings-specifications.pdf> or for pick up from the FDNY Facilities Management Bureau, Plant Operations Engineering, 316 Sgt. Beers Avenue Cluster 1 Box 16, Fort Totten, N.Y. 11359. Contact: Mr. Ed Durkin, Tel. (718) 281-3933
7. Tree Planting Standards of the City of New York Parks & Recreation are available at the following Department of Parks & Recreation website: <http://www.nycgovparks.org/pagefiles/53/Tree-Planting-Standards.pdf>
8. Standards and Specifications for Utility Joint Bid work are available online at <http://www1.nyc.gov/site/ddc/resources/publications.page>
 - a. CET SPECIFICATIONS AND SKETCHES, dated November 2010
 - b. JOINT-BIDDING SPECIFICATIONS AND SKETCHES FOR MANHATTAN, Issued August 1, 2005

SCHEDULE A**(GENERAL CONDITIONS TO CONSTRUCTION CONTRACT
(INCLUDING GENERAL CONDITIONS RELATED TO ARTICLE 22 – INSURANCE)****PART I. REQUIRED INFORMATION**

<p align="center"><u>INFORMATION FOR BIDDERS SECTION 26 BID SECURITY</u></p> <p>The Contractor shall obtain a bid security in the amount indicated to the right.</p>	<p>Required provided the TOTAL BID PRICE set forth on the Bid Form is \$1,000,000. or more.</p> <p>Certified Check: 2% of Bid Amount or Bond: 10% of Bid Amount</p>
<p align="center"><u>INFORMATION FOR BIDDERS SECTION 26 PERFORMANCE AND PAYMENT BONDS</u></p> <p>The Contractor shall obtain performance and payment bonds in the amount indicated to the right.</p>	<p>Required for contracts in the amount of \$1,000,000 or more.</p> <p>Performance Security and Payment Security shall each be in an amount equal to 100% of the Contract Price.</p>
<p align="center"><u>INFORMATION FOR BIDDERS DEPARTMENT OF DESIGN AND CONSTRUCTION SAFETY REQUIREMENTS</u></p> <p>The Contractor shall provide the safety personnel as indicated to the right.</p>	<p><input checked="" type="checkbox"/> Project Safety Representative</p> <p><input type="checkbox"/> Dedicated, full-time Project Safety Manager</p>
<p align="center"><u>CONTRACT ARTICLE 14 DATE FOR SUBSTANTIAL COMPLETION</u></p> <p>The Contractor shall substantially complete the Work in the number of calendar days indicated to the right.</p>	<p>See Page SA-4</p>
<p align="center"><u>CONTRACT ARTICLE 15 LIQUIDATED DAMAGES</u></p> <p>If the Contractor fails to substantially complete the Work within the time fixed for substantial completion plus authorized time extensions or if the Contractor, in the sole determination of the Commissioner, has abandoned the Work, the Contractor shall pay to the City the amount indicated to the right.</p>	<p><u>\$4,000.00</u> for each consecutive calendar day over substantial completion time</p>
<p align="center"><u>CONTRACT ARTICLE 17. SUB-CRONTACTOR</u></p> <p>The Contractor shall not make subcontracts totaling an amount more than the percentage of the total Contract price indicated to the right.</p>	<p>Not to exceed <u>49</u> % of the Contract price</p>

<p align="center"><u>CONTRACT ARTICLE 21.</u> <u>RETAINAGE</u></p> <p>The Commissioner shall deduct and retain until the substantial completion of the Work the percent value of the Work indicated to the right.</p>	<p><u>0%</u> of the value of the Work</p>
<p align="center"><u>CONTRACT ARTICLE 22.</u> <u>(Per Directions Below)</u></p>	<p>See pages SA-5 through SA-12</p>
<p align="center"><u>CONTRACT ARTICLE 24.</u> <u>DEPOSIT GUARANTEE</u></p> <p>As security for the faithful performance of its obligations, the Contractor, upon filing its requisition for payment on Substantial Completion, shall deposit with the Commissioner a sum equal to the percentage of the Contract price indicated to the right.</p>	<p>1% of Contract price</p>
<p align="center"><u>CONTRACT ARTICLE 24.</u> <u>PERIOD OF GUARANTEE</u></p> <p>Periods of maintenance and guarantee other than the period set forth in Article 24.1 are indicated to the right.</p>	<p>Twenty-four (24) Months for Plants and Tree Planting</p>
<p align="center"><u>CONTRACT ARTICLE 74.</u> <u>STATEMENT OF WORK</u></p> <p>The Contractor shall furnish all labor and materials and perform all Work in strict accordance with the Contract Drawings, Specifications, and all Addenda thereto, as shown in the column to the right.</p>	<p>Addenda, numbered: _____</p>
<p align="center"><u>CONTRACT ARTICLE 75.</u> <u>COMPENSATION TO BE PAID TO CONTRACTOR</u></p> <p>The City shall pay and the Contractor shall accept in full consideration for the performance of the Contract, subject to additions and deductions as provided herein, the total sum shown in the column to the right, being the amount at which the Contract was awarded to the Contractor at a public letting thereof, based upon the Contractor's bid for the Contract.</p>	<p>Amount for which the Contract was Awarded: _____ _____ Dollars (\$ _____)</p>
<p align="center"><u>CONTRACT ARTICLE 79.</u> <u>PARTICIPATION BY MINORITY-OWNED AND WOMEN-OWNED BUSINESS ENTERPRISES IN CITY PROCUREMENT</u></p>	<p align="center">EXEMPT</p> <p>FHWA DBE goal of 10%, see page TF-D1, herein this book Volume 3 of 3</p>

<p style="text-align: center;"><u>STANDARD HIGHWAY SPECIFICATIONS</u> <u>SECTION 6.40</u> <u>LIQUIDATED DAMAGES FOR ENGINEER'S FIELD OFFICE</u></p> <p>If the Contractor fails to satisfactorily provide the field office and all equipment specified in Section 6.40 - Engineer's Field Office, and/or if a cited deficiency exceed seventy two (72) hours after notice from the Engineer in writing, or is permitted to recur, liquidated damages will be assessed in the amount specified herein for each subsequent calendar day or part thereof that a cited deficiency resulting in nonpayment, as described in Section 6.40.5, is not corrected.</p>	<p>\$ <u>800.00</u> for each calendar day of deficiency</p>
<p style="text-align: center;"><u>STANDARD HIGHWAY SPECIFICATIONS</u> <u>SECTION 6.70</u> <u>LIQUIDATED DAMAGES FOR MAINTENANCE AND PROTECTION OF TRAFFIC</u></p>	<p>\$ <u>400.00</u> for each instance of failure to comply with the Maintenance and Protection of Traffic requirements within three (3) hours after written notice from the Engineer.</p> <p>\$ <u>800.00</u> for each and every hour of failing to open the entire width of roadway to traffic the morning following a night/weekend work operation.</p>
<p style="text-align: center;"><u>STANDARD HIGHWAY SPECIFICATIONS</u> <u>SECTION 7.13</u> <u>LIQUIDATED DAMAGES FOR MAINTENANCE OF SITE</u></p> <p>If the Contractor fails to comply, within three (3) consecutive hours after written notice from the Engineer, with the requirements of Section 7.13 - Maintenance of Site, the Contractor shall pay to the City of New York, until such notice has been complied with or rescinded, the sum specified above per calendar day, for each instance of such failure, as liquidated damages and not as a penalty, for such default.</p>	<p>\$ <u>800.00</u> for each calendar day, for each occurrence</p>

Date for Substantial Completion (Reference: Article 14)

The Contractor shall substantially complete the Work within the Final Contract Duration determined in accordance with the terms and conditions set forth herein.

The Base Contract Duration for this project is 545 consecutive calendar days (“ccds”).

The Final Contract Duration shall be the Base Contract Duration when a check mark is indicated before the word “NO”, below, and shall be the Base Contract Duration adjusted by the table set forth below when a check mark is indicated before the word “YES”, below.

YES NO

When the Final Contract Duration is indicated above to be adjusted by the table below, the table may increase the Base Contract Duration depending on the date of scheduled substantial completion to avoid a scheduled substantial completion of the Work during the winter months. The date of scheduled substantial completion shall be determined by adding the Base Contract Duration to the date specified to commence work in the written Notice to Proceed. The Final Contract Duration shall then be determined as follows:

- (a) Find the row that corresponds to the month of substantial completion based on the Base Contract Duration added to the date specified to commence work in the written Notice to Proceed.
- (b) Find the number of days to be added to the Base Contract Duration in the table below. Add that number of days to the Base Contract Duration to obtain the Final Contract Duration in consecutive calendar days.

Month of Substantial Completion based on the Base Contract Duration	Number of Days of adjustment
January	150
February	120
March	90
April	60
May	30
June	0
July	0
August	0
September	0
October	0
November –December 15	0
December 16 – December 31	180

In addition, should Item No. 9.30, “Storm Water Pollution Prevention,” exist in the Contract and the required Storm Water Pollution Prevention Plan (SWPPP) does not conform to NYSDEC’s recommended Standards, an additional 60 ccd shall be added to the above Final Contract Duration.

(GENERAL CONDITIONS RELATING TO ARTICLE 22 – INSURANCE)

PART II. TYPES OF INSURANCE, MINIMUM LIMITS AND SPECIAL CONDITIONS

Note: All certificate(s) of insurance submitted pursuant to Contract Article 22.3. 3 must be accompanied by a Certification by Broker consistent with Part III below and include the following information:

- For each insurance policy, the name and NAIC number of issuing company, number of policy, and effective dates;
- Policy limits consistent with the requirements listed below;
- Additional insureds or loss payees consistent with the requirements listed below; and
- The number assigned to the Contract by the City (in the “Description of Operations” field).

Insurance indicated by a blackened box (■) or by X in a □ to left will be required under this contract

Types of Insurance (per Article 22 in its entirety, including listed paragraph)	Minimum Limits and Special Conditions
<p>■ Commercial General Liability Art. 22.1.1</p>	<p>The minimum limits shall be \$ <u>3,000,000</u> per occurrence and \$ <u>6,000,000</u> per project aggregate applicable to this Contract.</p> <p>■ Additional Insureds:</p> <ol style="list-style-type: none"> 1. City of New York, including its officials and employees, with coverage at least as broad as ISO Form CG 20 10 and CG 20 37, 2. All person(s) or organization(s), if any, that Article 22.1.1(b) of the Contract requires to be named as Additional Insured(s), with coverage at least as broad as ISO Form CG 20 26. The Additional Insured endorsement shall either specify the entity’s name, if known, or the entity’s title (e.g., Project Manager), 3. New York State, including its officials and employees, 4. Federal Highway Administration (FHWA), its officials and employees. 5. <u>The New York City Transit Authority (NYCTA), Manhattan and Bronx Surface Transit Operation Authority (MaBSTOA), Staten Island Rapid Transit Operation Authority (SIRTOA), Metropolitan Transportation Authority (MTA)</u>, its subsidiaries and affiliated companies. The Contractor shall furnish two (2) certificates of insurance to and the policy shall be endorsed to provide thirty (30) days advance notice to the Director, Risk Management, MTA Risk and Insurance Management Standards, Enforcement and Claims Unit, 2 Broadway, 21st Floor, New York, NY 10004, of any material change and/or cancellation. 6. National Grid USA

<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Workers' Compensation Art. 22.1.2 <input checked="" type="checkbox"/> Disability Benefits Insurance Art. 22.1.2 <input checked="" type="checkbox"/> Employers' Liability Art. 22.1.2 <input type="checkbox"/> Jones Act Art. 22.1.3 <input type="checkbox"/> U.S. Longshoremen's and Harbor Workers Compensation Act Art. 22.1.3 	<p>Workers' Compensation, Employers' Liability, and Disability Benefits Insurance: Statutory per New York State law without regard to jurisdiction.</p> <p>Note: The following forms are acceptable: (1) New York State Workers' Compensation Board Form No. C-105.2, (2) State Insurance Fund Form No. U-26.3, (3) New York State Workers' Compensation Board Form No. DB-120.1 and (4) Request for WC/DB Exemption Form No. CE-200. The City will not accept an ACORD form as proof of Workers' Compensation or Disability Insurance.</p> <p>Jones Act and U.S. Longshoremen's and Harbor Workers' Compensation Act: Statutory per U.S. Law.</p> <p><input type="checkbox"/> Additional Requirements: (1) Two (2) certificates of such insurance or authority for self-insurance shall be furnished to the Director, Risk Management, MTA Risk and Insurance Management Standards, Enforcement and Claims Unit, 2 Broadway, 21st Floor, New York, NY 10004</p>
<ul style="list-style-type: none"> <input type="checkbox"/> Builders' Risk Art. 22.1.4 	<ul style="list-style-type: none"> <input type="checkbox"/> Required: 100% of total bid amount <input type="checkbox"/> Required: 100 % of total bid amount for Item(s): <p>Contractor the Named Insured; the City both an Additional Insured and one of the loss payees as its interests may appear.</p> <p>If the Work does not involve construction of a new building or gut renovation work, the Contractor may provide an installation floater in lieu of Builders Risk insurance.</p> <p>Note: Builders Risk Insurance may terminate upon Substantial Completion of the Work in its entirety.</p>

<p><input checked="" type="checkbox"/> Commercial Auto Liability Art. 22.1.5</p>	<p>\$ <u>2,000,000</u> per accident combined single limit If vehicles are used for transporting hazardous materials, the Contractor shall provide pollution liability broadened coverage for covered vehicles (endorsement CA 99 48) as well as proof of MCS 90</p> <p>Additional Insureds:</p> <p>(1) City of New York, including its officials and employees, and (2) New York State, including its officials and employees, and, (3) FHWA, including its officials and employees. (4) <u>The New York City Transit Authority (NYCTA), Manhattan and Bronx Surface Transit Operation Authority (MaBSTOA), Staten Island Rapid Transit Operation Authority (SIRTOA), Metropolitan Transportation Authority (MTA), its subsidiaries and affiliated companies</u></p>
<p><input type="checkbox"/> Contractors Pollution Liability Art. 22.1.6</p>	<p>\$ <u>5,000,000</u> per occurrence \$ <u>5,000,000</u> aggregate</p> <p>Additional Insureds:</p> <p>1. City of New York, including its officials and employees, and 2. _____ 3. _____</p>
<p><input type="checkbox"/> Marine Protection and Indemnity Art. 22.1.7(a)</p>	<p>\$ _____ each occurrence \$ _____ aggregate</p> <p>Additional Insureds:</p> <p>1. City of New York, including its officials and employees, and 2. _____ 3. _____</p>
<p><input type="checkbox"/> Hull and Machinery Insurance Art. 22.1.7(b)</p>	<p>\$ _____ per occurrence \$ _____ aggregate</p> <p>Additional Insureds:</p> <p>1. City of New York, including its officials and employees, and 2. _____ 3. _____</p>

<input type="checkbox"/> Marine Pollution Liability Art. 22.1.7(c)	<p>\$ <u>1,000,000</u> per occurrence</p> <p>\$ <u>1,000,000</u> aggregate</p> <p>Additional Insureds:</p> <ol style="list-style-type: none"> 1. City of New York, including its officials and employees, and 2. _____ 3. _____
<p>[OTHER] Art. 22.1.8</p> <p><input type="checkbox"/> Railroad Protection Liability Policy</p> <p>(ISO-RIMA or equivalent form) approved by Permitter covering the work to be performed at the designated site and affording protection for damages arising out of bodily injury or death, physical damage to or destruction of property, including damage to the Insured's own property and conforming to the following:</p> <ul style="list-style-type: none"> • Policy Endorsement CG 28 31 - Pollution Exclusion Amendment is required to be endorsed onto the policy when environmental-related work and/or exposures exist. • Indicate the Name and address of the Contractor to perform the work, the Contract # and the name of the railroad property where the work is being performed and the Agency Permit. • Evidence of Railroad Protective Liability Insurance, must be provided in the form of the <u>Original Policy. A detailed Insurance Binder (ACORD or Manuscript Form) will be accepted pending issuance of the Original Policy, which must be provided within 30 days of the Binder Approval.</u> 	<p>\$ <u>2,000,000</u> per occurrence</p> <p>\$ <u>6,000,000</u> annual aggregate</p> <p>Named Insureds:</p> <ol style="list-style-type: none"> 1. New York City Transit Authority (NYCTA), the Manhattan and Bronx Surface Transit Operation Authority (MaBSTOA), the Staten Island Rapid Transit Operation Authority (SIRTOA), MTA Capital Construction Co., the Metropolitan Transportation Authority (MTA) including its subsidiaries and affiliates, and the City of New York (as Owner) and all other indemnified parties.

<p>[OTHER] Art. 22.1.8</p> <p>■ Professional Liability</p> <p>A. The Contractor's Professional Engineer shall maintain and submit evidence of Professional Liability Insurance in the minimum amount of \$1,000,000 per claim. The policy or policies shall include an endorsement to cover the liability assumed by the Contractor under this Contract arising out of the negligent performance of professional services or caused by an error, omission or negligent act of the Contractor's Professional Engineer or anyone employed by the Contractor's Professional Engineer.</p> <p>B. Claims-made policies will be accepted for Professional Liability Insurance. All such policies shall have an extended reporting period option or automatic coverage of not less than two (2) years. If available as an option, the Contractor's Professional Engineer shall purchase extended reporting period coverage effective on cancellation or termination of such insurance unless a new policy is secured with a retroactive date, including at least the last policy year.</p>	
<p>[OTHER] Art. 22.1.8</p> <p>■ Engineer's Field Office</p> <p>Section 6.40, Standard Highway Specifications</p>	<p>Fire insurance, extended coverage and vandalism, malicious mischief and burglary, and theft insurance coverage in the amount of <u>\$40,000</u></p>
<p>[OTHER] Art. 22.1.8</p> <p><input type="checkbox"/> The Following Additional Insurance Must Be Provided:</p> <p>Umbrella/Excess Liability Insurance - The Contractor shall provide Umbrella/Excess Liability Insurance in the minimum amount of \$10,000,000 per Occurrence and \$10,000,000 in Aggregate. The policy terms and condition should be at least as broad as the underlying policies. The underlying policies should comply with the insurance provision as outlined by the contract. Defense cost should be in addition to the limit of liability. The City of New York, including its officials and employees, should be included as additional insured as respects to the noted project.</p>	

SCHEDULE A
(GENERAL CONDITIONS TO CONSTRUCTION CONTRACT)
(GENERAL CONDITIONS RELATING TO ARTICLE 22 – INSURANCE)

PART III. CERTIFICATES OF INSURANCE

All certificates of insurance (except certificates of insurance solely evidencing Workers' Compensation Insurance, Employer's Liability Insurance, and/or Disability Benefits Insurance) must be accompanied by one of the following:

- (1) the Certification by Insurance Broker or Agent on the following page setting forth the required information and signatures;

-- OR --

- (2) copies of all policies as certified by an authorized representative of the issuing insurance carrier that are referenced in such certificate of insurance. If any policy is not available at the time of submission, certified binders may be submitted until such time as the policy is available, at which time a certified copy of the policy shall be submitted.

CITY OF NEW YORK
CERTIFICATION BY INSURANCE BROKER OR AGENT

The undersigned insurance broker represents to the City of New York that the attached Certificate of Insurance is accurate in all material respects.

[Name of broker or agent (typewritten)]

[Address of broker or agent (typewritten)]

[Email address of broker or agent (typewritten)]

[Phone number/Fax number of broker or agent (typewritten)]

[Signature of authorized official, broker, or agent]

[Name and title of authorized official, broker, or agent (typewritten)]

State of)
) ss.:
County of)

Sworn to before me this _____ day of _____, 20_____

NOTARY PUBLIC FOR THE STATE OF _____

SCHEDULE A

(GENERAL CONDITIONS TO CONSTRUCTION CONTRACT)

PART IV. ADDRESS OF COMMISSIONER

Wherever reference is made in Article 7 or Article 22 to documents to be sent to the **Commissioner** (e.g., notices, filings, or submissions), such documents must be sent through email to insurance@ddc.nyc.gov. Hard copy documents of the above requirement are no longer required.

(NO FURTHER TEXT ON THIS PAGE)

REVISIONS TO STANDARD SPECIFICATIONS

NOTICE

The Specification Bulletin(s) (“SB(s)”) referenced in this Section (R-Pages) may consist of revisions to the following Standard Specifications:

- New York City Department of Transportation (“NYC DOT”) Standard Highway Specifications, dated 5/16/2022;
- New York City Department of Environmental Protection (“NYC DEP”) Standard Sewer and Water Main Specifications, dated 8/8/2022; and
- NYC DEP Specifications for Trunk Main Work, dated 7/2014.

The SB(s) modify and supersede portions of the applicable Standard Specifications. The provisions contained in this Contract’s I-Pages, S-Pages and SW-Pages may further modify the applicable Standard Specifications.

The following active SB(s) are included as part of this contract:

- *SB 22-006 – INCREMENTAL COST NEAR TRANSIT FACILITIES*
- *SB 23-001 – SEWER DESIGN STANDARDS*
- *SB 23-002 – PIPE BOLLARD*
- *SB 23-003 – MOBILIZATION*

The SB(s) are available online at:

<http://www1.nyc.gov/site/ddc/resources/specification-bulletins.page>

(NO FURTHER TEXT ON THIS PAGE)

I - Pages

NEW SECTIONS

NOTICE

UNLESS OTHERWISE NOTED, ALL SECTIONS, SUBSECTIONS, ARTICLES, OR SUBARTICLES AS REFERRED TO HEREIN WITHIN THESE NEW SECTION SPECIFICATIONS SHALL BE THOSE OF THE NEW YORK CITY DEPARTMENT OF TRANSPORTATION'S (NYCDOT'S) CURRENT STANDARD HIGHWAY SPECIFICATIONS WITH CURRENT ADDITIONS, MODIFICATIONS AND REVISIONS TO THE STANDARD HIGHWAY SPECIFICATIONS (R-PAGES).

THE STANDARD HIGHWAY SPECIFICATIONS ARE NOT INCLUDED IN THESE I-PAGES. SEE THE NYCDOT STANDARD HIGHWAY SPECIFICATIONS BOOKS FOR STANDARD SPECIFICATIONS TEXTS.

(NO TEXT ON THIS PAGE)

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SECTION 6.34 BEX - Sliding Chain Link Fence Gate For 10'-0" High Fence

6.34 BEX.1. DESCRIPTION.

This work will consist of furnishing and erecting a manual sliding gate of the size specified and at the location shown on the plans or as directed by the Engineer. Gate opening and closing is accomplished by manual means only.

6.34 BEX.2. MATERIALS.

Gate materials must conform to the requirements of Section 6.34 of the NYCDOT Standard Highway Specifications or as otherwise specified on the contract drawings. All exposed parts must be galvanized. Each gate must be lockable with a padlock or other approved mechanism. Locks are not included in the item.

The chain link fence gate must be from one of the following manufacturers or approved equal:

Master Halco
30100 Lyndon B. Johnson Freeway
Suite 800
Dallas, TX 75234
800.883.8384
www.masterhalco.com

Ameristar Fence Products
1555 N. Mingo Road
Tulsa, OK 74116
888.333.3422
www.ameristarfence.com

Guardian Fence
1103 Pasture Lane
Columbia, SC 29201
800.254.0460
www.guardianfenceonline.com

Track. Overhead track for openings up to 23 feet must consist of two 8" structural steel channels joined together as shown on the drawings, weighing a minimum of 37.5 lb/ft.

Trolleys. Heavy duty trolleys must be milled from a single block of steel and use 2 sealed ball bearings per wheel, 2 wheels per trolley. Each gate panel to be hung on 2 or 3 trolleys depending on gate opening width.

Grade Beam. Grade beam must consist of 3" x 5.7 pound galvanized steel I-beam across the entire area of gate travel installed flush with roadway surface and be provided with welded steel guides.

Vertical Support Posts. Supports must consist of 2 sets (4 posts) support posts of 4 NPS O.D. galvanized steel weighing a minimum of 9.11 lb/ft, in accordance with ASTM F 1043.

Gate Guide Angle. Gate guide angle must consist of a 2 1/2" x 1 1/2" x 1/4" steel angle attached to the bottom of the gate panel running its full length.

Chain Link Fence Gate Panel. Gate panel must be manufactured with square aluminum members meeting the requirements of ASTM B221, Alloy and Temper 6061-T6. Gate frame must be welded to form a ridged panel. The fabric must conform to the requirements of Aluminum Coated Steel Fence Fabric, Section 710-04. Selvages must be twisted and barbed on the top side and knuckled on the bottom side.

Outer Support Members.

Grade A steel pipe 1.9000 NPS O.D. weighing 2.72 lb/ft. Grade B steel pipe 1.9000 NPS O.D. weight may be differ depending on manufacturer. Product must be Schedule 40 pipe.

Inner Support Members.

Grade A steel pipe 1.660 NPS O.D. weighing 1.84 lb/ft. Grade B steel pipe 1.660 NPS O.D. weight may be differ depending on manufacturer. Product must be Schedule 40 pipe.

Stretcher Bars. One piece equal to full height of fabric, minimum cross-section 3/16" x 3/4".

Metal Bands (for stretcher bars). Steel, wrought iron, or malleable iron, to secure stretcher bars to end, corner, pull and gate posts.

Wire Ties. For tying fabric to line posts, rails and braces: 9 gage steel wire. For tying fabric to tension wire: 11 gage steel hog rings.

Truss Rods. 3/8" diameter.

Tension Wire. 7 gage coiled spring steel wire.

Bolts and Nuts. ASTM A-307, Grade A

6.34 BEX.3. CONSTRUCTION DETAILS.

The contractor must erect sliding gates as indicated on the plans at locations shown or as ordered by the Engineer. Gates must be erected in conformance with the manufacturer's instruction, unless otherwise specified.

Submittals:

Shop Drawings. The Contractor must submit shop drawings showing the dimensions and layout of the gate and must indicate all materials and fixtures necessary for the final installation.

6.34 BEX.4. METHOD OF MEASUREMENT.

This work will be measured by the number of linear feet of gate furnished and erected in accordance with the plans, specifications, and directions of the Engineer.

6.34 BEX.5. BASIS OF PAYMENT.

The unit price bid per linear foot of each gate will cover the cost of furnishing all labor, materials, insurance and equipment necessary to satisfactorily complete the work and will include all necessary removal of existing gates and foundation, clearing, grubbing, excavation, disposal, fill, concrete, gates, posts, track and rollers, bracing, and all other necessary material to complete the work.

Payment will be made under:

Item No.	Item	Pay Unit
6.34 BEX	SLIDING CHAIN LINK FENCE GATE FOR 10'-0" HIGH FENCE	L.F.

The Section below supersedes and replaces Section 6.40 of NYC DOTStandard Specifications dated May 16, 2022**SECTION 6.40 – Engineer’s Field Office**

6.40.1. DESCRIPTION. The Contractor shall provide, furnish, and maintain a fully equipped field office (Type A, B, C, CU, D, DC, or DU, as specified) for the exclusive use of and occupancy by the Department’s engineering personnel and/or Supervising Consultant (herein after called “City personnel”), and by the engineering personnel of private utilities when specified. The field office shall be at a location approved by the Engineer and shall be a commercial building, store front, or with the approval of both Office of Construction Mitigation and Coordination (OCMC) and the Community Board it may be a mobile trailer(s). If a trailer is used it shall be subject to approval by the Engineer, and all necessary permits shall be obtained by the Contractor. The Contractor may have facilities in an adjoining area separated by a lockable door, provided such facilities are in a location approved by the Engineer. The field office must be within ½ mile of the job site. Field offices located further than ½ mile from the job site will require approval by the Director or Assistant Commissioner for Construction.

The field office structure and occupancy thereof shall conform to the requirements of all laws, rules, regulations, and orders applicable to it.

The field office and all equipment, except as otherwise specified, may be new materials or may be used materials in good condition and satisfactory to the Engineer.

6.40.2. MATERIALS.

(A) **GENERAL CONSTRUCTION.** The Engineer’s Field Office shall be in an approved and weatherproof building. It shall have a minimum ceiling height of seven (7’) feet and be partitioned to provide the number of rooms required for the type of office specified. Floor space for Field Office Types C, CU, D, and DU shall be subdivided into work areas based on a floor plan provided by the City to the Contractor upon notification of space availability.

(B) **GENERAL FACILITIES.** The field office shall contain or have the following facilities incorporated:

- (a) Lighting - Electric light, non-glare type luminaries to provide a minimum illumination level of 100 ft.- candles at desk height level.
- (b) Heating and Cooling - Adequate equipment to maintain an ambient air temperature of 70° F. ±5°.
- (c) Electrical Energy Outlets
- (d) Toilet - A separate enclosed room, properly ventilated per code and complying with applicable sanitary codes shall contain a lavatory with a sink that provides running hot and cold water, flush-type toilet, mirror, electric hand dryer, and paper towel dispenser.
- (e) Potable Water - Potable water supplied from an existing system or five (5) gallon capacity water cooler of a type to be approved by the Engineer shall be provided for use by City personnel. Replacement bottles of water shall be provided by the Contractor, when required.
- (f) Signs - Store front locations shall have a window graphic sign in black and white lettering with the following inscription. Other locations shall have a wood or metal sign affixed on the outside wall of the building with the following inscription painted in black block lettering on a white background. Paints shall be approved exterior enamels.

CITY OF NEW YORK	2-1/2”
DEPARTMENT OF DESIGN AND CONSTRUCTION	3-1/2”
INFRASTRUCTURE	2-1/2”
RESIDENT ENGINEER’S FIELD OFFICE	2-1/2”

- (g) Electric Refrigerator - Five (5) cubic feet minimum capacity for use by City personnel.

- (h) Microwave, Toaster Oven, and Coffee Maker - Basic reheating equipment or approved appliances for use by City personnel.
 - (i) Windows and Doors - All windows and doors shall be weatherproof, and each equipped with adequate locking devices. Each window shall be equipped with vertical blinds. Exterior doors shall be provided with two (2) separate "high security" dead bolt type cylinder locks, keyed alike, and three (3) keys shall be furnished for each lock.
 - (j) Partitions - Partitions for workspace enclosures shall be either permanent walls or of the modular type similar to Herman Miller's standard fabric covered line.
 - (k) Kitchen Sink – Mechanism to provide non-drinking, hot and cold, running water.
 - (l) Security Cameras – Wi-Fi enabled security cameras must be provided at all entrances and exits, except that fire escapes / emergency stairwells do not require cameras. One security camera must be provided for the interior of the field office, with the location to be determined by the Engineer. Cameras must be minimum 1080p video resolution. Cameras must have internet cloud storage, with all videos stored for a minimum of two weeks. The cloud storage must be accessible via desktop or mobile. Cameras may be hardwired for power or battery powered; battery powered cameras must have the batteries changed by the Contractor as required to ensure no lapses of service. Signs must be posted indicating that the area is under video surveillance.
- (C) OFFICE EQUIPMENT.
- (a) Pencil Sharpener - One standard pencil sharpener for use by City personnel.
 - (b) Telephone Answering Machine - The telephone answering machine to be provided shall be an electronic digital voice machine with emergency call forwarding capability. It shall be operable twenty-four (24) hours per day and, when unattended, shall transmit to the caller the following message:

“You have reached the Field Office of the New York City Dept. of Design and Construction. No one is here now. We check our incoming messages frequently. We will get back to you as soon as possible. Please leave your name, message, and phone number where you may be reached. In case of emergency, call the New York City Hotline at 311. Again, the emergency number is 311.”

All electronic voicemail messages shall be automatically forwarded as email attachments, to allow for the voicemails to be played remotely.
 - (c) Computer Equipment - Computers shall be provided for all contracts regardless of construction duration.

Computers furnished by the Contractor for use by City Personnel, for the duration of the contract, shall be in accordance with Table I - ADDITIONAL SPECIFIC REQUIREMENTS, contained herein, and shall meet the following minimum requirements:

 - (1) Personal Computers – Personal Computers must meet the requirements of the US General Services Administration (GSA) Government-Wide Strategic Solutions (GSS) Standard Laptop, Desktop, and Tablet Specifications, V7. (Available online at <https://hallways.cap.gsa.gov/>)
 - (a) Computer type for Personal Computers to be “Desktop Small Form Factor.” Computer type for projector laptop to be “Lightweight Notebook” or “Notebook”
 - (b) The following components listed as optional in the GSA specification must be provided with each personal computer: monitor, speakers, optical drive, smart card reader, webcam, and headset.

- (c) The following additional software must be provided with licenses for each computer:
 1. Adobe Acrobat Pro DC or Bluebeam Revu
 2. Microsoft Office Professional
 3. Autodesk AutoCAD LT
 4. Anti-virus software
 5. Microsoft Visio (only one license required per field office)

- (2) All field offices requiring computers shall be provided with the following:
 - (a) One (1) broad-band internet service account. See table below for minimum required upload and download speeds. Telephone service should be bundled together with Internet connectivity. Because of throughput requirements Verizon FIOS is the preferred connectivity provider where available.

Office Personnel #	Download Speeds (Minimum)	Upload Speeds (Minimum)
1 – 5	10 Mbps	15 Mbps
6 – 10	20 Mbps	15 Mbps
11 – 15	25 Mbps	15 Mbps
16 – 20	50 Mbps	15 Mbps

This account will be active for the life of the project. The e-mail name for the account shall be the NYCDDC Field Office/project Id (preferably Gmail or Outlook – e.g. HWK666@gmail.com).

- (b) All necessary Cabling.
- (c) Storage Boxes for and Blank CDs/DVDs.
- (d) UPS/Surge Suppressor combo.
- (e) 10 USB Thumb (or Flash) Drive – 16 GB each
- (3) All computers required for use in the Engineer’s Field Office shall be delivered, installed, and setup in the Field Office by the Contractor.
- (4) All Computer Hardware shall come with a three (3) year warranty for on-site repair or replacement. Additionally, and notwithstanding any terms of the warranty to the contrary, the Contractor is responsible for rectifying all computer problems or equipment failures within one (1) business day.
- (5) An adequate supply of blank CDs/DVDs, and paper and toner cartridges for the printer shall be provided by the Contractor and shall be replenished by the Contractor as required by the Engineer.
- (6) It is the Contractor’s responsibility to ensure that electrical service and phone connections are also available at all times; that is, the Field Office Computer(s) is to be powered and turned on twenty-four (24) hours each day.

Broadband connectivity is preferred at each field office location. Please take into consideration that an extra phone line dedicated to the modem must be ordered as part of the contract unless Internet broadband connectivity, via Cable or FiOS, is available at the planned field office location. Any questions regarding this policy should be directed to the Director of Information Technology Services at 718-391-1761.

- (d) Data Access - Electronic access to the Equipment Watch Retail Rental Rates database (formerly known as The AED Green Book, published by Equipment Watch), shall be provided for all contracts that have a total Consecutive Calendar Days for General Construction duration as set forth in Schedule A of greater than 545 CCD's. Contracts of lesser duration shall not require any data access.
- (D) Field Testing Equipment.
- (a) Air Entrainment Meters - Pressure Type, with carrying case for use by City personnel. Each meter shall be capable of producing an accurate test result in approximately five (5) minutes and shall comply with ASTM Designation C231.
- (b) Slump Test Sets - Slump cone and test sets conforming to the requirements of ASTM Designation C143, complete with rod and scoop for use by City personnel.
- (c) Thermometers: For use by City personnel.
- (1) 1 Minimum-maximum thermometer.
 - (2) 3 Asphalt thermometers of stainless-steel construction with an accuracy of 0.5% of the full scale, able to measure temperatures from 50 to 500 degrees F. in 5-degree increments.
 - (3) 3 Surface Thermometers able to measure temperatures of flat surfaces similar to Sargent-Welsh Model S81441-D, or an approved equivalent.
- (d) Non sparking Pinch Bar - For use in opening manholes.
- (e) Gas Meters - For use in detecting the presence of explosive gases and vapors for use by City personnel.
- (f) Straight Edge - One 10-foot-long straight edge for use by City personnel in detecting pavement surface tolerance.
- (g) 48" Smart Level - For use in determining pedestrian ramp and sidewalk slopes.
- (h) Chlorine Test Kits – For testing residual chlorine levels following water main flushing.
- (i) Green Florescent Power Trace-Dye – For testing sewer connections.
- (j) One Million Candlepower Rechargeable Flashlight.
- (k) Distance Measuring Wheel – For measuring long distances.
- (E) Additional Office Electronics –
- (a) Photocopying machine must be a stand-alone, heavy duty, electric, dry-process color photocopying type with color scan and send capability via e-mail, a minimum production rate of 70 pages per minute and an adequate supply of copy paper, toner, etc. The machine shall be capable of duplex copying paper sizes of 8-1/2 x 11 inches, 8-1/2 x 14 inches and 11 x 17 inches and have separate trays for each paper size. It shall have a document feeder, collator, stapler, and the capability to reduce/enlarge copies between each paper size. The supply of each size copy paper, toner, etc. shall be replenished and the machines shall be maintained for the duration of the contract by the Contractor as required by the Engineer. Make and model can be Minolta, Canon, IBM, Epson, or an approved equivalent, and shall be networked to the office computers for printing capability.
- (b) Fax machine must be provided with an adequate supply of copy paper, toner, etc. The supply of copy paper, toner, etc. shall be replenished and the machines shall be maintained for the duration of the contract by the Contractor as required by the Engineer.
- (c) Paper shredder must be a heavy-duty commercial grade diamond cut shredder with automatic start. The shredder shall be able to receive 8-1/2 inch wide paper and shred a minimum of 15 sheets simultaneously along with CDs and staples.

- (d) Projector must be 1080p LCD with a min. of 2200 ANSI Lumens, 1920 x 1080, 16:9, 40,000:1 contrast ratio, HDMI, VGA, USB, and a 10' diagonal, 16:9 Projection Screen. A screen must be provided if directed by the Engineer. A laptop must be provided for use with the projector, and all required cables for connecting the laptop to the projector.

6.40.3. SPECIFIC REQUIREMENTS FOR ENGINEER'S FIELD OFFICE.

In addition to the general requirements, each type of Field Office shall have the minimum floor area indicated in Table 6.40-I calculated based on usable area only, excluding any loss factors. Loss factors are defined as those areas such as lobby, sidewalk window ledge, elevator shafts and stairways. The Contractor shall provide and maintain furnishings for each type of Field Office in the quantity specified in Table 6.40-I. The furnishings shall be new or used equipment satisfactory to the Engineer:

- (a) Each Type shall have a minimum of one outside door and four windows.
- (b) Type C shall be partitioned to provide three (3) rooms.
- (c) Type CU shall be partitioned to provide four (4) rooms, one of which shall be at least 150 s.f. in area (for use by private utilities).
- (d) Type D and DC shall be partitioned to provide four (4) rooms.
- (e) Type DU shall be partitioned to provide five (5) rooms, one of which shall be at least 150 s.f. in area (for use by private utilities).

TABLE 6.40-I – ADDITIONAL SPECIFIC REQUIREMENTS

SPECIFIC REQUIREMENTS	FIELD OFFICE TYPE						
	A	B	C	CU	D	DC	DU
Minimum useable floor space (Square Feet)	400	800	1,200	1,200	1,800	2,320	1,800
Office desks, at least 4'-8" x 2'-8", with drawers, locks, and keys.	2	2	4	8 ^a	8	8	12 ^a
Swivel chairs, with arms, for the above.	2	2	4	8 ^a	8	8	12 ^a
Office folding chairs, metal, with padded seats and backs.	2	3	6	14 ^b	8	8	16 ^b
Steel supply cabinets (approximate size 72" high by 36" wide by 18" deep), with four adjustable shelves, tumbler lock and 3 keys.	1	1	1	1	1	1	1
Fire resistant cabinet, 4-drawer, legal size with lock and three (3) keys, meeting the requirements for "Filing devices, Insulated (36 E 9)" Class D Label, of the Underwriters' Laboratories, Inc. Specifications.	1	1	1	3 ^c	4	4	6 ^c
Individual lockers (17" wide x 18" deep x 72" high) with flat key locks and two (2) keys each.	1	1	4	4	4	4	4
Calculating machines, tape type with digital display registering at least ten (10) digits.	1	1	2	2	3	3	3
Wastepaper baskets (metal, approximately 12" square by 16" high).	1	2	2	6 ^a	4	4	8 ^a
Fire extinguishers, non-toxic, dry chemical type meeting Underwriters Laboratories, Inc., approval for Class A, Class B and Class C fires with a minimum rating of 2A: IOB:10C.	1	1	2	3 ^d	4	8	5 ^d
First Aid Kit kept properly stocked with appropriate first aid supplies at all times.	1	1	1	1	2	2	2
Drafting tables (3'-0" x 5'-0") with storage drawers and stool.	1	2	2	3 ^d	4	4	5 ^d
Photocopying Machine	1	1	1	1	1	1	1

SPECIFIC REQUIREMENTS	FIELD OFFICE TYPE						
	A	B	C	CU	D	DC	DU
Standalone networked color laser printer. (Not required if photocopying machine prints in color)	1	1	1	1	1	1	1
Vertical filing plan racks for six sets of 22"x36" plans each rack.	1	1	2	3 ^d	4	4	5 ^d
Telephone lines for calls, where one shall be dedicated for the Fax Machine, one for each computer fax/modem and the others for telephone instruments.	4	6	6	7 ^e	8	8	9 ^e
Telephone instruments.	2	2	3	5 ^e	4	4	6 ^e
Telephone answering machine.	1	1	1	1	1	1	1
Fax Machine	1	1	1	1	1	1	1
Personal Computer	1	3	3	3	4	4	4
Bottled water with refrigerator unit-hot/cold water. (For private utilities room.)	0	0	0	1	0	0	1
Paper Shredder	1	1	1	1	1	1	1
Projector	0	0	1	1	1	1	1
Conference Room, 320 square feet (20'x16' minimum, equipped with (2) 3'x6.5' tables and (30) chairs.	0	0	0	0	0	1	0

^a Provide four (4) each of Office Desks, Swivel Chairs and Wastepaper Baskets in private utilities room.

^b Provide eight (8) Folding Chairs in private utilities room.

^c Provide two (2) Fire Resistant 4- Drawer Legal Size Cabinets in private utilities room.

^d Provide one (1) each of Fire Extinguisher, Drafting Table and Vertical File Rack in private utilities room.

^e Provide one (1) telephone line and two (2) telephone instruments for the exclusive use by private utilities personnel. The line shall interconnect the two telephone instruments by push button control.

6.40.4. CONSTRUCTION METHODS. The building shall be fully equipped and made available for use and occupancy by the Department's personnel and/or Supervision Consultant not less than thirty (30) days prior to the start of any contract work.

The building interior (including access foyers, stairwells, etc.) shall be maintained in good, clean, and sanitary working condition by the Contractor for the duration of the contract. The Contractor shall provide and pay all costs for electrical service, telephone service for calls within New York City limits, hot and cold water, heat and fuel, and daily janitor service. Staples, such as paper towels, hand soap, toilet paper, and similar supplies, shall always be available.

Where necessary, the site for a mobile trailer(s) shall be graded and shoulder stone placed and maintained as directed by the Engineer to provide a parking area for City personnel and, if necessary, an approach road shall be provided. Plumbing work shall include all water supply, drainage and piping required for the operation of a complete installation. Temporary water service shall be provided from an existing main and extended into the trailer and all fixtures requiring water supply shall be properly connected up. All necessary soil, waste, vent and drainage piping shall be provided and connected to the existing sewer or as otherwise directed.

The office, incorporated facilities, equipment, and personal property of the Department's employees shall be protected by the Contractor against loss or damage from fire, theft, or other causes, at all hours of the day and night. The Contractor shall provide fire insurance, extended coverage and vandalism, malicious mischief and burglary, and theft insurance coverage in the amount of forty thousand dollars (\$40,000.00) for office equipment of the City of New York in the Engineer's field office and for property of City personnel that is used in the contract work and stored in the office. All insurance coverage shall be written by a company approved by the Commissioner and payable in case of loss to the City of New York. The office shall be maintained by the Contractor in first class condition until final acceptance of the work.

At the direction of the Engineer, any equipment on the above lists may be deleted. The Engineer may direct that other equipment of equivalent value be supplied by the Contractor or an appropriate credit be taken for the value of equipment not provided.

When directed by the Engineer, the Contractor shall disconnect all services and remove and dispose of all temporary installations from the site, including fencing, surfacing and utilities, the area shall then be cleaned, loamed, and seeded if required and left in a neat and acceptable condition. On and after the date of the Engineer's Final Acceptance, the temporary structure and all installed equipment shall become the property of the Contractor, and shall be disposed of, by him, away from the site of the work. Engineer's Final Acceptance shall be when the Contractor has completed all punch list work and Official Completion Date has been set.

6.40.5. NONCONFORMANCE. No payment will be made under Engineer's Field Office for each calendar day during which there are deficiencies in compliance with the requirements of any subsection of this specification. The first calendar day shall commence twenty-four (24) hours after notice to the Contractor of such a deficiency. This non-payment shall be deducted from the Contractor's next estimate as a charge to the Contractor on the item. The amount of such calendar day non-payment will be determined by dividing the unit price bid per month by 30.

In addition, the Contractor may be subject to liquidated damages in accordance with Schedule A.

6.40.6. MEASUREMENT. The quantity to be measured for payment under this item shall be the number of months that the Field Office is available for occupancy by the Field Engineers during the period of the contract. Payment will begin the first month that the office is fully equipped, serviced as specified, and made available for occupancy. The Field Office is to be continuously made available and monthly payments will continue for the duration of the contract through a period not to exceed 6 months past the Substantial Completion date. When directed in writing by the Commissioner, the Field Office will be provided and paid for a period of time beyond 6 months past the Substantial Completion date. Payment for each month's occupancy after the date of Substantial Completion acceptance will be made as part of the final estimate. Monthly payments may be terminated on a specified date prior to acceptance of the contract by written notification by the Engineer that such office will no longer be required on the contract.

In order to incentivize early Substantial Completion of the Project, the City agrees to share the savings resulting from the reduction of the quantity measured for payment under this item.

If the determination of Substantial Completion is reached at least two (2) months earlier than the Substantial Completion date set forth in the Notice to Proceed letter, plus any approved time extensions, the Contractor and the City will evenly split the saved amount. This payment will be in addition to any payments of incentive for early completion, if one is specified for the Project.

For example, using a contract with a 30-month duration for achievement of substantial completion, with the Engineer's Field Office directed by the Commissioner to remain open six (6) months after the substantial completion date per Subsection 6.40.6 above, the following would apply under these two scenarios:

1. Project substantial completion is achieved in 28.5 months: Because the contract was completed within two (2) months of the scheduled substantial completion date, the contractor is entitled to be paid for the 28.5 month project duration plus the six (6) months after Substantial Completion, amounting to 34.5 months to be paid to the Contractor for the Engineer's Field Office, with no additional amounts due to the contractor from any savings.
2. Project substantial completion is achieved in 26 months: Because the contract was substantially completed more than two (2) months early, the contractor is entitled to be paid for the 26 month project duration plus six (6) months after substantial completion plus half of the four months saved, amounting to 34 months to be paid to the contractor for the Engineer's Field Office.

6.40.7. PRICE TO COVER. The unit price bid per month for the item Engineer's Field Office shall include the cost of furnishing all labor, materials, equipment, ground rental, fire and theft insurance, and utility charges necessary to complete the work of providing or constructing the field office; making all necessary electrical, water, sewer, and other connections required to make the above facilities operative; payment of all rental costs; furnishing and paying for heating fuel, as required; all electrical energy; private telephone services; staples, as specified; and all necessary incidentals to complete the work - all in accordance with the specifications and the directions of the Engineer.

Payment will be made under:

Item No.	Item	Pay Unit
6.40 A	ENGINEER'S FIELD OFFICE (Type A)	MONTH
6.40 B	ENGINEER'S FIELD OFFICE (Type B)	MONTH
6.40 C	ENGINEER'S FIELD OFFICE (Type C)	MONTH
6.40 CU	ENGINEER'S FIELD OFFICE (Joint Use) (Type CU)	MONTH
6.40 D	ENGINEER'S FIELD OFFICE (Type D)	MONTH
6.40 DC	ENGINEER'S FIELD OFFICE WITH CONFERENCE ROOM	MONTH
6.40 DU	ENGINEER'S FIELD OFFICE (Joint Use) (Type DU)	MONTH

SECTION 6.52 FED - Uniformed Flagperson

6.52FED.1. INTENT.

This section describes the employment of uniformed flagpersons to direct and detour traffic.

6.52FED.2. DESCRIPTION.

The Contractor must furnish an adequate number of flagpersons to control vehicular and pedestrian traffic when it is necessary to maintain alternating one-way traffic in one lane of a two-way roadway, and at all other locations where construction operations, construction vehicles and equipment, and temporary traffic patterns related to the construction operations require positive temporary traffic control for safe, efficient traffic operations.

6.52FED.3. METHODS.

All flagpersons must be proficient in speaking, writing and reading English, and adequately trained in flagging operations by a recognized training program such as that provided by the American Traffic Safety Services Association, the National Safety Council, unions or construction industry associations, or by an individual who holds a current certification as a flagger training instructor from such a program.

All flagpersons, their apparel, hand-signaling devices, active two-way radios, and procedures to be used by them must be in compliance with the requirements of Chapter 6E. FLAGGER CONTROL, in the Federal "Manual on Uniform Traffic Control Devices for Streets and Highways" 2009 Edition, or later edition.

Prior to the start of flagging operations, the Contractor must provide to the Engineer a list of certified flagpersons to be used in the contract, identifying the source of flagger training for each individual. When requested by the Engineer, flagpersons must demonstrate their competency in flagging procedures. Flagpersons not competent in flagging procedures to the satisfaction of the Engineer must be retrained or replaced at once.

Flagpersons are to be paid not less than the most recent prevailing wages rates established for Laborers as set by the NYC Comptroller or the US Department of Labor, whichever is higher at the time the work is being performed.

The Contractor will be given a minimum of 12 hours advanced notice by the Engineer as to when to furnish a flagperson.

6.52FED.4. METHOD OF MEASUREMENT.

The fixed price lump sum shown in the bid proposal for this item will be considered the price bid, although actual payment will be based on the authorized work performed by the Uniformed Flagpersons. The fixed sum is not to be altered in any manner by the bidder.

It is agreed that the quantity to be measured for payment will be the number of person-hours of uniformed flagperson service actually performed, as authorized by the Engineer.

Laborers who are not uniformed flagperson will not be measured for payment as flagperson under this item.

6.52FED.5. BASIS OF PAYMENT.

The Contract price for this item will be a lump sum price for the work performed under this item and will be equal to the total sum of the amount of wages paid for all authorized Uniformed Flagpersons performing vehicular and pedestrian traffic management, with a twelve (12%) percent markup for Overhead, except that no percentage for overhead will be allowed on Payroll Taxes or on the premium portion of overtime pay or on sales and personal property taxes; plus ten (10%) as compensation for Profit, except that no percentage for profit will be allowed on Payroll Taxes or on the premium portion of overtime pay or on sales and personal property taxes; as described in Article 26 of the Standard Construction Contract.

Overhead will include without limitation, all costs and expenses in connection with administration, management superintendence, and all material costs for their apparel, hand-signaling devices, active two-way radios, and any other equipment required, and insurance required by Schedule A of the General Conditions other than Workers' Compensation Insurance.

The hourly rate per person-hour will be the prevailing wage rate for Laborers in effect at the time of the work to control and detour traffic, as shown on the Contract Drawings or as directed by the Engineer.

The Contactor will be required to submit to the Engineer satisfactory evidence of payment on a New York State certified payroll report forms. No retainage will be withheld by the Department on such payments made under this section.

The total estimated cost of this item is the "fixed sum" amount shown for this item in the Bid Schedule. No guarantee is given that the actual total cost for this item will in fact be the "fixed sum" amount. The "fixed sum" amount is included in the total bid solely to ensure that sufficient monies will be available to pay the Contractor for these services.

The "fixed sum" is for bidding purposes only and will not be varied in the bid. The Contractor will be paid for the actual amount regardless of the fixed sum, which may be more or less than the fixed sum amount.

The Contractor must maintain separate books of accounts and must not charge any portion of the cost of wages for Uniformed Flagpersons to another part of the work. Payment and partial payments under this item will be treated separately from the rest of the contract items.

The New York State certified payroll report forms will be submitted to the Engineer on a monthly basis and will include the signed copies of the daily report.

Payment will be made under:

Item No.	Item	Pay Unit
6.52 FED	UNIFORMED FLAGPERSON	FIXED SUM

The Section below supersedes and replaces Section 7.13 of NYC DOT

Standard Specifications dated May 16, 2022

SECTION 7.13 – Maintenance of Site

7.13.1. DESCRIPTION. This section describes the maintenance, protection, and cleanup of the construction site. The Contractor is placed on notice that a safe and clean site throughout all phases of the work and during all operations must be provided by the Contractor, and further that the monitoring by the City of the Contractor's site maintenance, site protection and site cleanup is considered for the purposes of the contract to be a Project objective necessary to eliminate and/or mitigate public disruption and inconvenience, and to insure public health and safety. The Contractor shall therefore, at all times, conduct this operation in a manner which promotes a clean site and ensures the convenience, safety and health of general users consisting of, but not limited to, the motorist, the pedestrian, and the abutting property owners/tenants, as well as those of the Contractor's employees. This includes compliance with the Contractor Code of Conduct in **Section 1.06.19**.

The provisions of this section are supplementary to and do not abrogate the General Conditions (Section 1.06) or the General Notes on the Contract Drawings relating to the protection and cleanup of the site, and the delivery and storage of materials at the site. Furthermore, any conditions pertaining to the maintenance, protection, and cleanup of the construction site during the life of the contract which are addressed in the General Conditions and in the General Notes on the Contract Drawings, whether or not addressed under this Section, shall be deemed as having been addressed under this Section.

7.13.2. METHODS.

(A) GENERAL

Work under this Item shall start from the date of written notice to commence work or from the actual start of construction work at the site, whichever is later.

The Contractor shall be responsible for the maintenance of the contract streets or portions of streets pursuant to Article 7 of the Standard Construction Contract.

The Contractor shall provide the necessary personnel and equipment for adequate site maintenance within and adjacent to the contract site and all detour routes. The Contractor shall keep the work site and adjacent areas free and clean from all rubbish, debris, dust, idle construction equipment, discarded or leftover construction material and excavated material as outlined below. The Contractor shall also keep all haul routes outside the work site free and clean from all rubbish, debris and dust resulting from the Contractor's operations.

The Contractor shall protect the public from damage to persons and property, which may result directly or indirectly from any construction operation. Such protection shall include, but not be limited to, providing proper street drainage and diversion of runoffs from private properties by such means as sandbagging or pumping, controlling soil erosion and/or soil migration.

All existing Fire Department Communication facilities shall be protected, and provisions made for their continuous operation during construction. ALL ALARM BOXES AND POSTS MUST REMAIN ACCESSIBLE. If, due to the Contractor's operations, Fire Alarm Service is inadvertently interrupted or Fire Communication System equipment or facilities are damaged, the Contractor will be held responsible and shall replace them at its own expense and in accordance with Fire Department requirements.

The Contractor shall be fully responsible for maintaining the completed work in an acceptable condition and protecting the completed work until relieved of such responsibility by acceptance of the contract or the completed items of work. Upon completion of each phase of work, or when ordered by the Engineer, and before acceptance and final payment are made, the Contractor shall remove all surplus and discarded material, rubbish, equipment, debris, and temporary structures from the site, and restore the working site as directed by and to the satisfaction of the Engineer. All sewers, water mains, appurtenant structures, etc., shall be clean, free from debris and deposits.

(B) MAINTENANCE OF STREETS

Maintenance of streets and detours for vehicles shall include any repairs, as directed, including the filling of pre-existing and new potholes that may be necessary due to usage of streets by traffic. This repair work will be paid for under Item No. 4.02 CB - ASPHALTIC CONCRETE MIXTURE, or 4.02 CA - BINDER MIXTURE, as provided in the Bid Schedule.

Also, the Contractor shall provide reasonably safe and convenient walkways and passageways for pedestrian traffic. Where required by the Contract Documents or when ordered by the Engineer, the Contractor shall construct and maintain, as directed, temporary asphalt walkways and ramps in accordance with the requirements of Subsection 7.13.2.(G)(1), below, temporary wood plank or steel plate ramps or other configurations and materials, as may be required, and provide temporary pedestrian passageways (as per the NYC Department of Transportation's Standard Details of Construction, Standard Drawing H-1004, or as otherwise approved). The Contractor shall make the surface(s) of the pedestrian pathway(s) safe by eliminating ponding conditions, removing debris, sweeping, and wetting for dust control. All walkways and passageways must be in compliance with all ADA requirements.

The Contractor shall maintain access to all abutting properties and pedestrian usage of sidewalk areas, both old and new, at all times, as directed by the Engineer and as shown on the Contract Drawings, except at "Sidewalk Closings" as designated or as directed.

The Contractor shall maintain the traveled way in such a condition and conduct operations in such a manner that snow, and ice may be readily removed by others as and when necessary, and in such a manner that proper drainage is provided for the melting of snow in the banks resulting from normal plowing. However, the Contractor will not be responsible for snow or ice removal on the pavement or traveled way opened for public usage, except within the limits of the work zone(s) which may include, but is not limited to, stairway, promenades, esplanade areas, and sidewalk, including those fronting the Contractor's office and the Engineer's field office all of which will be the responsibility of the Contractor. In order to minimize the amount of salts entering the storm sewer system, snow melt must not be used in place of shoveling, but must be used after all standing snow is removed. This does not prohibit applying reasonable amounts of snow melt prior to snowfall.

(C) CONTROL OF DUST AND DEBRIS

The Contractor shall control dust and debris within the work area and the traveled way. The Contractor shall mitigate material spilling from trucks with the use of tarpaulin covers. All dust producing materials shall be wet down with water to the extent necessary to minimize dust. When public or local inconvenience is caused by dust occasioned by the sweeping and cleaning operations, the Contractor shall furnish and sprinkle water onto the affected surfaces during the sweeping and cleaning operations; however, the application of water shall not be used as a substitute for sweeping.

The Contractor shall perform all work operations so that dust and debris is minimized within the work zone and mitigated before any of it leaves the work zone. Movement of dust and debris by wind, vehicles, persons, and the Contractor's operations shall be cause for sweeping and watering to be implemented immediately as directed by the Engineer. Also, should dust and dirt cover over all or portions of the work site it shall also be cause for immediate sweeping and watering by the Contractor.

All water furnished and applied under this item shall be free from harmful materials and shall be reasonably clean. Water shall be delivered in tanks or tank trucks, or by use of hydrants as permitted by the Department of Environmental Protection; however, no guarantee is made by the City as to the availability of suitable hydrants at the site. Where no suitable hydrants exist at the site, the Contractor shall be required to furnish water in tanks or tank trucks at no additional cost to the City.

(D) CLEANING OF SITE AND WASTE DISPOSAL

The Contractor shall be responsible for the removal of all rubbish and debris from the site of the project. The Contractor shall remove all piles of rubbish, debris, waste material and wood cratings as a result of the Contractor's operations as they accumulate. When directed by the Engineer the Contractor shall cart them away from the site. The Contractor shall employ and keep engaged for this purpose an adequate force of laborers.

The Contractor shall at the beginning and end of each day be required to pick up all litter, trash, and debris (excluding garbage and recycled material set to be picked up by scheduled private and/or public sanitation pickups) adjacent to and within the work zone on a daily basis, seven (7) days a week. The Contractor shall also during the day keep clean all roadways, sidewalks and other places in which the work is being performed or which are to be used in connection therewith.

The Contractor shall protect the site against unauthorized dumping of waste materials by patrolling the site and reporting violations to the Engineer, and should any unauthorized dumping occur, it shall be immediately removed by the Contractor to the Engineer's satisfaction.

While performing the above site cleaning work, the Contractor shall have available an approved mechanical street sweeper, with operator, suitable for removing dirt, debris, dust and loose stones; a sprinkler truck; adequate size pick-up truck with driver and laborers; an adequate supply of brooms, sixteen (16) inch wide or larger; and necessary hand tools and materials. The Contractor shall arrange to have necessary persons and equipment assigned to satisfy concerns relating to required clean up and restoration work. These persons with equipment shall be available to correct all matters requiring attention and shall be immediately available to respond to directives issued by the Engineer regarding specified problems of maintenance and cleaning.

The Contractor shall perform this work during the normal or extended working days. However, when required in accordance with the approved schedule or directed, the Contractor shall be prepared to extend this work beyond the normal workday, including weekends.

The Contractor shall provide trash receptacles for use by its construction staff. The trash shall be periodically removed and disposed of in compliance with local ordinances.

(E) DISPOSAL OF REMOVED MATERIALS

Except as may be otherwise specified herein or in the General Conditions, all materials which are permanently removed from the existing construction by the Contractor in accordance with the Contract Documents shall become the Contractor's property and shall be disposed of by him away from the site.

In addition, it is the intent of NYCDDC to have all metals that are excavated and removed from the site, such as iron castings street hardware (i.e., manhole frames and cover, valve box covers, hydrants, etc.), ductile iron sewer pipe, steel and ductile iron water main pipe, trolley track rails, etc. (excluding steel reinforcement embedded in concrete), recycled provided that they are not deemed contaminated or hazardous. Therefore, the Contractor shall agree to make every effort possible to recycle said metals removed from the site. As a record of such compliance, the Contractor shall be required to keep an accurate log of said materials that are excavated and removed from the site and where and how said materials are either processed for reuse or disposed of away from the site. A copy of said log shall be submitted to the Engineer along with the invoice submitted by the Contractor for payment each month.

(F) REMOVAL OF SURPLUS PLANT AND EQUIPMENT

When ordered by the Engineer, the Contractor shall be required to promptly move from any location within the contract area all such items of plant and equipment determined to be no longer necessary for the effective prosecution of the work at such point, to other locations to be designated by the Engineer. If, in the opinion of the Engineer, plant and equipment are no longer required on any portion of the work, they shall be removed from the site when so ordered.

Where access to regularly scheduled private and/or public sanitation pickups, such as garbage and recycled materials, is blocked due to the Contractor's operations, the Contractor shall coordinate a schedule for collection of said materials, and/or shall collect and transport garbage and recycled materials to collection points, as directed by the Engineer, for disposal by public or private collections, as appropriate.

Waste material shall not be dumped in or on any part of the City's property except by special permission of the Engineer. Concrete mixing trucks shall not be washed on City streets nor shall the waste material from the washing out of concrete mixing trucks be discharged to any street, public property, sewer manhole, catch basin, sewer, street gutter, or other above or below ground structures. All excavated materials falling on roadways and sidewalks shall be promptly swept up and removed.

(G) MAINTAINING ACCESS TO PROPERTIES AT CUT AND FILL LOCATIONS

When it is necessary to cut or fill at abutting properties in accordance with the contract requirements, the Contractor shall immediately commence construction to provide entrance to and egress from said properties as shown on the Contract Drawings and/or by one of the following methods, or modifications made thereto, when so ordered by the Engineer:

(1) "Asphalt Ramps"

Temporary access ramps shall be made hard and smooth surfaced with asphaltic material (to be paid for under Item No. 4.02 CB or 4.02 CA, as provided in the Bid Schedule) The slope of temporary ramps at driveways and transition areas shall be approximately 25% [approximately a three (3") inch rise in one (1') foot] and be limited to a width of not more than eight (8') feet for single driveways and not more than twelve (12') feet for double driveways. The slope of temporary ramps at street hardware shall range between 1:10 and 1:6 (rise:run). The slope of temporary pedestrian ramps shall be limited to a width of not less than four (4') nor more than five (5') feet and a slope of approximately 1:12.

(2) "Benching"

In locations where embankments are to be constructed on existing slopes or against existing embankments with slopes steeper than 1 (vertical) on 3 (horizontal), slopes shall be benched as shown on the Contract Drawings. Benches shall be constructed as a "Temporary Retaining Wall" (Item No. 8.12). Access to abutting properties shall be provided as shown on the Contract Drawings or as per the details shown on the NYC Department of Transportation's Standard Details of Construction, Standard Drawing for Temporary Wooden Steps (Item No. 7.15).

(3) "Specified"

By methods specified and detailed on the Contract Drawings.

(H) FINAL CLEARANCE OF SITE

Immediately after the completion of the contract and before final acceptance of the Work by the Department, the Contractor shall remove all surplus material, temporary structures, and debris resulting from the Contractor's operations. Any painted markings (layout survey, etc.), excluding utility markings made under 16 NYCRR Part 753 (utility markings made under Part 753 shall not be removed), that have been placed by the Contractor and which are still remaining at the end of the contract shall be removed. Removal of painted markings shall be done using an approved power-washing method. The entire area shall be cleared and left in a neat presentable manner satisfactory to the Commissioner.

If as a result of the Contractor's operations, obstructions have fallen into a navigable waterway, they must be removed and the waterway and channel cleared; and the Contractor must obtain a release from the United States Coast Guard.

7.13.3. STORAGE OF MATERIALS AND EQUIPMENT. Roadways, sidewalks, gutters, crosswalks, and driveways shall at all times be kept clear and unobstructed unless a permit has been obtained from NYC Department of Transportation authorizing encumbrance of the roadway and/or sidewalk with equipment and/or material, provided it is in a manner which will not prevent the safe passage of vehicular traffic on such roadway designated to remain open, or the safe passage of pedestrians on such sidewalk and crosswalks, or block the normal drainage flow within the streets.

(A) DELIVERED MATERIALS NOT TO OBSTRUCT TRAFFIC

All materials delivered upon but not placed in the work shall be neatly piled so as not to obstruct public travel and shall be removed from the line of the work, at the direction of the Engineer, at no additional cost to the City. Unless the materials are so removed by the Contractor upon notice from the Engineer, the materials may be removed by the Commissioner and the expense thereof charged to the Contractor.

(B) PILING OF MATERIALS DELIVERED TO WORK SITE

Materials placed on the sidewalk or roadway shall be piled or stacked in a satisfactory and safe manner, enclosed with plastic barrels (Section 6.87) or barricades (Section 6.28 AA or 6.28 BA), and with pedestrian steel barricades (Section 7.36), "WARNING: KEEP OUT" signs (Section 6.25), and heavy duty safety orange construction fencing. The heavy duty safety orange construction fencing shall be safety orange in color, of heavy duty construction grade flexible plastic (light duty plastic screening fence will not be accepted), have a minimum height of four (4') feet, and shall be of a type approved by the Engineer. The heavy duty safety orange construction fencing shall be held vertically in place for its full length and shall be securely attached to barrels, utility poles, or a combination thereof, or other traffic control devices shown on the Contract Drawings or directed, in a manner approved by the Engineer. Loose materials shall be covered with tarpaulins, suitably held down. Areas adjacent to stored materials shall be kept clean and watered as required and as directed by the Engineer. When such materials are removed, the sidewalks and roadways must be immediately swept clean by the Contractor and control of dust shall be mitigated in accordance with the requirements of Subsection 7.13.2.(C), above.

Materials to be used in the work shall be compactly piled within limits to be designated by the Engineer. Sand and coarse aggregate may be piled within the roadway area. All old and such new material as has been approved, except sand and coarse aggregate, shall be neatly piled by the Contractor on the front half of the sidewalk, on planks or plates, if the same be flagged or otherwise improved.

Stored material shall be neatly stacked, placed at locations designated by the Engineer, and suitably enclosed or covered, protected, and wet down, as stipulated above. Streets under such construction material or equipment shall be shielded by wooden planking, skids or other protective covering approved by the Engineer. All pipes, fittings and appurtenances must be carefully stored, as approved by the Engineer, so as to prevent surface drainage, excavation material or other foreign matter from entering into the pipes, fittings and appurtenances.

Waste material and excavated material will under no conditions be permitted to remain on the work site or Provisions must be made by the Contractor to maintain curb-line drainage through storage areas. Stored materials shall not block the normal drainage flow or cause ponding conditions within streets and shall not be placed within fifteen (15') feet of any fire hydrant (working or not), at bus stops, within tree root zone areas, or any other areas as set forth in the rules of the department the obstruction of which would impair the safety or convenience of the public (also see General Notes on Contract Drawings for any additional information). In a street upon which there is a surface railroad, construction materials or equipment shall not be placed nearer to the track than five (5) feet.

The Contractor shall not be permitted to store, stockpile or lay down any construction material within the boundaries of tree pits or critical root zone (CRZ) of existing trees. This material includes but is not limited to lumber, fuel and oil containers, pipes, pipe fittings, barricades, hand tools, hoses, hardware, bricks, salvaged stone or granite, trash receptacles, or asphalt. Bulk material, equipment, or vehicles shall not be stockpiled or parked within the CRZ of any tree, or within ten (10') feet of the trunk (whichever is greater). This is done to minimize surface and subsurface root and soil compaction. This applies to all CRZs within or outside the project limit line. CRZ is calculated as $(DBH \times 1.5 \text{ ft} = \text{Radius})$. The radius calculation is equal to the critical root zone.

When no work is in progress, at least one half of the roadway must be left clear at all times.

The Contractor must remove any stored materials/equipment from the project street(s), as directed by the Engineer, within forty-eight (48) hours' notice, at no additional cost to the City. Payment for compliance with such a directive shall be deemed included in the unit price bid for this "Maintenance of Site" item.

(C) ILLUMINATION OF BUILDING MATERIAL AND EQUIPMENT ON STREETS

Pursuant to Section 19-121 of the Administrative Code of the City of New York, the Contractor's attention is directed to the following:

1. Whenever a permit is issued for any construction material or equipment, the outer surface of such construction material or equipment shall be clearly marked with high intensity fluorescent paint, reflectors, or other marking which is capable of producing a warning glow when illuminated by the headlamps of a vehicle or other source of illumination.
2. Each approved storage area shall have at least one (1) sign identifying the Contractor's name, Project ID/Name, and the phone number of the Engineer's Field Office.
3. Violations. Any person who shall violate any of the above provisions, upon conviction thereof, shall be subject to the Criminal penalties pursuant to Section 19-149 of the Administrative Code of the City of New York or Civil penalties pursuant to Section 19-150 of the Administrative Code of the City of New York, or both such fines and imprisonment.

(D) STORAGE WITHIN THE PROJECT LIMITS

The Contractor will not be permitted to store construction equipment, construction material or excavated material within the project limits, except where specifically approved by the Engineer and only under the following conditions:

The Contractor will not be permitted to allow the personal vehicles of the Contractor's work force to be stored, parked, or to stand within the limits of any designated work area or in "no parking", "no standing", and/or other restricted zones; vehicles so stored, parked, or found standing may be ticketed and/or towed at the owner's expense. This restriction shall exclude Contractor owned vehicles transporting and/or storing specialized equipment and/or materials necessary for the execution of ongoing contract work, as approved by the Engineer. The Contractor shall be responsible for properly notifying the Contractor's work force of these restrictions.

Payment for traffic control devices such as plastic barrels, barricades, pedestrian steel barricades, and warning signs used to enclose stored materials and equipment within the project limits will be paid for under the appropriately scheduled items; however, when no appropriately scheduled item or items are provided in the bid schedule, the cost of those items shall be deemed included under all scheduled items.

Materials stored on site shall be "Installed in Place" within two (2) consecutive working days of delivery to the job site, unless otherwise specified or permitted by the Engineer. (Construction supervisor will be required to maintain accurate records of all delivery dates.) No material shall be stored on site during construction shutdowns and/or stoppages scheduled to last more than five (5) consecutive working days.

(E) STORAGE OUTSIDE THE PROJECT LIMITS

The Contractor may be permitted to occupy off site street/roadway areas for material storage, subject to their availability and conformance with City wide permitting requirements for storage of materials; however, this neither implies nor guaranties the Contractor the availability and/or approval of any off site street/roadway areas.

Materials and/or equipment must be stored safely and neatly as specified above, with appropriate Maintenance and Protection of Traffic devices separating the storage area from vehicular traffic and pedestrians. Loose materials must be properly and neatly stored.

No separate payment will be made for providing off site storage site(s) where approved or for providing any traffic control devices used for off-site storage, the cost of which shall be deemed included under all scheduled items.

7.13.4. NONCONFORMANCE. No payment will be made under Maintenance of Site for each calendar day during which there are deficiencies in compliance with the foregoing specification requirements, as determined by the Engineer and made evident by the Engineer's failure to sign documents each day approving payment to be made under this item.

The amount of such calendar day non-payment will be determined by dividing the unit price bid per month by thirty (30).

If the Contractor fails to maintain and protect the site, or any portion thereof, adequately and safely for a period of three (3) or more consecutive hours, the Engineer may correct the adverse conditions by any means deemed appropriate, including, but not limited to, "outside services," and shall deduct the cost of the corrective work from any monies due the Contractor. The cost of this work shall be in addition to the nonpayment for site maintenance listed above.

However, where continued nonconformance with the requirements of this specification is noted by the Engineer, and prompt Contractor compliance is deemed not to be obtainable, all contract work may be stopped by direct order of the Engineer, regardless of whether corrections are made by the Engineer as stated in the paragraph above.

Furthermore, in addition to the remedies specified above, in the event the Contractor shall fail to comply, within three (3) consecutive hours after written notice from the Engineer, with the requirements of the contract and the specifications in the matter of providing facilities and services for the maintenance, protection and cleanup of the construction site, the Contractor shall pay to the City of New York, until such notice has been complied with or rescinded, the sum shown per calendar day in Schedule A, for each instance of such failure, as liquidated damages and not as a penalty, for such default.

Any money due the City of New York under this provision shall be deducted from the amounts due or to become due to the Contractor for work performed under the contract.

7.13.5. MEASUREMENT.

(A) MAINTENANCE OF SITE (LUMP SUM)

Payment will be made by lump sum.

(B) MAINTENANCE OF SITE (PER MONTH)

The quantity to be measured for payment under this item shall be the number of months (to the nearest 1/4 month increment) that the Contractor satisfactorily provides for the Maintenance of Site in accordance with these specifications, including winter shut down, holiday embargo, and other work suspension periods for which the Contractor remains responsible for site maintenance. Measurement for this item shall not begin until actual construction work is started at the site.

Periods where the Contractor is demobilized and not continuing the site maintenance will not be measured for payment. The Engineer will provide written notice two weeks in advance that the Contractor is being deemed to be demobilized. For the avoidance of doubt, reduced activity during winter shutdowns, holiday embargos, and other work suspension periods as shown on the Contractor's approved CPM schedule do not count as demobilization, provided the Contractor continues to be responsible for site maintenance and responsive to notifications of nonconformance per **Subsection 7.13.4** above. Should such nonconformance occur during periods of demobilization, the liquidated damages described in **Subsection 7.13.4** above may be assessed during periods where maintenance of site is not being measured for payment.

In order to incentivize early completion, the City agrees to share the savings resulting from the reduction of the quantity measured for payment under this item.

If the determination of Substantial Completion is reached at least two (2) months earlier than the Substantial Completion date set forth in the Notice to Proceed letter, plus any approved time extensions, the Contractor and the City will evenly split the saved amount. This payment will be in addition to any payments of incentive for early completion if one is specified for the Project.

For example, using a contract with a 30-month duration for achievement of substantial completion, the following would apply under these two scenarios:

1. Project substantial completion is achieved in 28.5 months: Because the contract was completed within two (2) months of the scheduled substantial completion date, the contractor is entitled to be paid the 28.5 month project duration for the Maintenance of Site, with no additional amounts due to the contractor from any savings.
2. Project substantial completion is achieved in 26 months: Because the contract was completed more than two (2) months prior to the scheduled substantial completion date, the contractor is entitled to be paid the 26 month project duration plus half of the four months saved, amounting to 28 months to be paid to the contractor for the Maintenance of Site.

7.13.6. PRICE TO COVER.

(A) MAINTENANCE OF SITE (LUMP SUM)

The lump sum price bid for Maintenance of Site shall include the cost of furnishing all labor, materials, plant, equipment, insurance and incidentals required to maintain, protect and clean up the site, all in accordance with the Contract Drawings, these specifications, and the directions of the Engineer. Payment will be made in proportion to the percentage of actual contract completion. The final payment for this item will be in direct proportion (whether higher or lower) to the final contract value as compared to the original contract value.

(B) MAINTENANCE OF SITE (PER MONTH)

The unit price bid per month for Maintenance of Site shall include the cost of furnishing all labor, materials, plant, equipment, insurance and incidentals required to maintain, protect and clean up the site, all in accordance with the Contract Drawings, these specifications, and the directions of the Engineer.

Where no separate item is provided for this work, the cost thereof shall be deemed to be included under all scheduled items.

Payment will be made under:

Item No.	Item	Pay Unit
7.13 A	MAINTENANCE OF SITE	L.S.
7.13 B	MAINTENANCE OF SITE	MONTH

SECTION 7.35 - Pedestrian Channelizer

7.35.1. INTENT.

This section describes the work of providing interlocking pedestrian channelizers to be used as temporary pedestrian access route between pedestrian and construction work areas when directed by the Engineer.

Pedestrian channelizer must provide the same level of pedestrian guidance as concrete or plastic barrier, but should be light weight, easier to transport, install and remove with interlocking arrangements.

7.35.2. MATERIALS.

The work shall consist of furnishing, maintaining, relocating, and removing pedestrian channelizer in sidewalk areas as per the specifications, as shown on the Contract Drawings or where otherwise directed by the Engineer.

Pedestrian Channelizer units must meet the requirements of the following standards:

- a. 2010 ADA Standards for Accessible Design
- b. 2011 Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way (PROWAG)
- c. 2009 Manual on Uniform Traffic Control Devices (MUTCD), with FHWA Revisions and NYS Supplements

Product should meet the crash test and evaluation criteria contained in the American Association of State Highway and Transportation Officials' (AASHTO) Manual for Assessing Safety Hardware (MASH) and have a FHWA acceptance letter.

Acceptable products include:

- a. ADA PEDESTRIAN BARRICADE – STRONG WALL by PLASTICADE
- b. ADA COMPLIANT PEDESTRIAN BARRICADE like Safety Rail & SafetyWall by PSS
- c. Urbanite 57000 Series by Urbanite
- d. Plastic Safety System Safety Wall by PAUL PETERSON SAFETY DIVISION.
- e. Or approved equivalent

Battery operated flashing units as approved by the Engineer.

7.35.3. METHODS.

Pedestrian Channelizer units of the various sizes required shall be furnished to the site, complete, ready to use. All units shall be in good condition and acceptable to the Engineer. pedestrian channelizer installed must meet the requirements of the standards listed in **Section 7.35.2** above.

The Contractor shall install pedestrian channelizer by placing them where shown on the Contract Drawings or where otherwise directed by the Engineer. Adjacent units shall be interlocked. Weights (sand or water ballast in the unit, sandbags, concrete blocks, etc.) must be used per the manufacturer's recommendations, as necessary to ensure

stability, or as directed by the Engineer. Weights must not interfere with pedestrian travel. The minimum number of interlocked barricade units in a given run must be two, unless otherwise approved by the Engineer. Where less than three units are required and approved by the Engineer, additional measures shall be taken by the Contractor to stabilize the shorter length of interlocking barricade and prevent overturning.

At corners, units four feet or less in length must be used to form smooth curved runs of barricade.

Contractor shall continuously maintain the temporary pedestrian steel barricades, where shown on the Contract Drawings or directed by the Engineer, until ordered by the Engineer to remove the barricades at the completion of a work stage. Should a unit or units of barricades become damaged or otherwise unacceptable to the Engineer, the Contractor shall replace said units within twenty-four (24) hours of notice by the Engineer, at no additional cost to the City.

Battery operated flashing units will be installed on every alternate pedestrian channelizer or as approved by the Engineer.

7.35.4. MEASUREMENT.

The quantity to be measured for payment shall be the number of linear feet of pedestrian channelizer constructed and placed, complete, based upon the summation of the lengths of the individual units so constructed and placed.

Payment will be made for only the initial installation at any location. Whenever pedestrian channelizer are moved to a new location, as required by the Contract Drawings or directed by the Engineer, payment will be made in the same manner as if it were an initial installation. Whenever the Contractor proposes to move pedestrian channelizer to a new location it is subject to approval of the Engineer and must be in accordance with the latest approved progress schedule. Minor movement of the pedestrian channelizer within a work area will not be considered as a movement to a new location and will not entitle the Contractor to additional payment. Minor movement within a work area includes, but is not limited to

- Movement from one side of the roadway to the other side
- Movement to adjust the roadway or work zone width
- Movement required to access the work zone or to secure the work zone
- Linear movement of less than one block within an established work zone
- Rearrangement within a work area

No payment will be made: for non-interlocked units of barricade; for barricade units greater than four (4') feet in length used in corner quadrants; for movements of pedestrian channelizer made for the Contractor's convenience; for movement of barricades at a given location at the end of a work period and subsequent replacement at the same location at the beginning of the next work period; for movement of barricades at a given location during a work period and subsequent replacement at the same location during the same work period; or for the interchanging of barricades between initial installations.

7.35.5. PRICE TO COVER.

The contract price bid per linear foot for PEDESTRIAN CHANNELIZER will cover the cost of furnishing all labor, materials, plant, equipment, insurance, battery operated flashing units and necessary incidentals required to furnish, install, maintain, relocate, and remove PEDESTRIAN CHANNELIZER, complete with weights for stability, in accordance with the Contract Drawings, the specifications, and the directions of the Engineer.

Where there is no scheduled item for temporary Pedestrian Steel Barricades, the cost of furnishing, installation, maintenance, relocation, and subsequent removal of PEDESTRIAN CHANNELIZER as required will be deemed included in the unit price bid for the Maintenance and Protection of Traffic Item.

Payment will be made under:

Item No.	Item	Pay Unit
7.35	PEDESTRIAN CHANNELIZER	L.F.

SECTION 7.51 - Bicycle Counter for Bike Lanes

7.51.1 INTENT.

This section describes the furnishing and installation of bicycle counters which can register and analyze the electromagnetic signature of each bicycle wheel, with different differentiation criteria on shared road, bicycle boulevard, parks, etc.

Furnish and install bicycle counters as shown on contract plans, specifications, manufacturer's installation guide and as directed by the Engineer.

7.51.2 TYPES.

(A) STANDARD DEFINITION (SD): Relies on a single set of loops and is suitable for sites with loops assume the direction of travel (two independent loops are each assigned a direction).

(B) HIGH DEFINITION (HD): Relies on loop pairs, allowing for a more accurate reading and detecting the direction of travel. HD is suitable for high volume roads with frequent encroachment from motor vehicles.

(C) VERSIONS: There are "SELECTIVE VERSION (SV)" and "GREENWAYS VERSION (GV)".

i) SV has been designed to count bicycles on roads in mixed traffic (bicycle lanes, shared bicycle/bus lanes)

ii) GV is specifically adapted to dedicated paths with heavy traffic. The sensor's sensitivity can be set with the delivered Software and can be adapted to all configurations.

7.51.3. DESCRIPTION.

The bicycle counters are to be based on electromagnetic loop technology type manufactured by:

Eco-Counter

604-3981 Boulevard St-Laurent; Montreal, QC H2W 1Y5 CANADA

Office: 514-849-9779 ;

Toll Free: 1-866-518-4404;

Email: sales@eco-counter.com

- a. ZELT Selective/ Greenways – With/ Direction – Type of loops (example 1, 2, 3, 4, etc.).
- b. Double/Single Battery Pack with GSM and Pin Connector (number of pins compatible with number of loop).
- c. 15-minute/ 60-minute interval data recording.

- d. Manhole for asphalt surfacing or without asphalt.
- e. Preformed Loops for Asphalt to placed or existing asphalt.

7.51.4. MATERIALS.

- a. Excavation must comply with either SECTION 6.02 or 4.11 of NYCDOT Standard Highway Specifications, as shown on drawings or directed by the Engineer.
- b. Materials for Fill and Backfill must comply with the requirements of Section 4.11 of NYCDOT Standard Highway Specifications, as shown on drawings or directed by the Engineer.
- c. Concrete must comply with the requirements of Section 4.06 of NYCDOT Standard Highway Specifications, as shown on drawings or directed by the Engineer.
- d. Asphalt to comply with SECTION 4.02 or as shown on drawings, NYCDOT Standard Highway Specifications, as shown on drawings or directed by the Engineer.
- e. Rebar to comply with Section 4.14 of NYCDOT Standard Highway Specifications, as shown on drawings or directed by the Engineer.

Bicycle Counter Configurations:

NUMBER OF LOOPS	MANHOLES
1	Urban Manhole (UM)/ Rainbird Manhole (RM)
2	Urban Manhole (UM)/ Rainbird Manhole (RM)
3	Urban Manhole (UM)/ Rainbird Manhole (RM)
4	Urban Manhole (UM)/ Rainbird Manhole (RM)
5	Urban Manhole (UM)/ Rainbird Manhole Large (RML)
6	Urban Manhole (UM)/ Rainbird Manhole Large (RML)

NOTES:

- 1- Pre-Formed loops are necessary for asphalt pours over loops
- 2- Urban manhole is needed for asphalt installation
- 3- Rainbird manhole is needed for natural ground
- 4- All counters are set on 60-minute data recording while 15-minute recording can also be made on request
- 5- Large Rainbird manhole is needed for systems with 4+ loops with double batteries

7.51.5. METHODS.

Obtain Manufacturer's installation instructions and drawings Anything contradictory to the specifications and contract drawings must be referred to the Engineer whose decision must be deemed final.

7.51.6. MEASUREMENT.

The quantities of BICYCLE COUNTER to be measured for payment will be the number of BICYCLE COUNTER units as EACH with different size, type, version etc., incorporated in the work, complete as shown on drawings, specifications and directed by the Engineer.

7.51.7. PRICE TO COVER.

The contract price for "BICYCLE COUNTER" will be the unit price bid per EACH size, type, version etc., will cover the cost of all labor, materials, plant, equipment, tests and insurance required and necessary to furnish and install the BICYCLE COUNTER, as shown in the contract document, including the earth excavation of all materials of whatever nature encountered, installation of manholes, HDPE conduit, concrete, filling, connections, asphalt, reinforcement and structural steel, all incidentals and accessories (for example nuts, washers, bolts, screws, etc.) for furnishing and installing all other items necessary to complete this work and do all work incidental thereto, all in accordance with the plans, specifications and standards, and as directed by the Engineer.

Payment for Bicycle Counters will be made under the Item Number as calculated below:

The Item Numbers for Bicycle Counters have fifteen characters.

NOTE: (.) and (-) are considered as characters.

(1) The first four characters must define BICYCLE COUNTER:

7.51

(2) The fifth character must define DETECTION:

D - WITH DIRECTION DETECTION

W - WITHOUT DIRECTION DETECTION

(3) The sixth character must define the NUMBER OF LOOPS:

1 – One loop

2 – Two loop

3 – Three loop

4 – Four loop

5 – Five loop

6 – Six loop

(4) The eighth and ninth characters must define VERSION:

SV - SELECTIVE VERSION

GV - GREENWAYS VERSION

(5) The eleven and twelfth characters must define the ACCURACY:

SD – STANDARD DEFINITION

HD – HIGH DEFINITION

(6) The fourteenth and fifteenth characters must define the Manhole:

UM - URBAN MANHOLE

RN - RAINBIRD MANHOLE

RL - RAINBIRD MANHOLE LARGE

(5) Examples of Item Numbers together with Description and Pay Unit as provided in the Bid Schedule are provided below:

Item No.	Item	Pay Unit
7.51D4-GV-HD-UM	BICYCLE COUNTER (W/ DIRECTION DETECTION, 4 LOOPS, GREENWAYS VERSION, HIGH DEFINITION, URBAN MANHOLE)	EACH

SECTION 7.70 TPR – Temporary Pedestrian Ramp (Not a Pay Item)

7.70TPR.1. INTENT.

This section describes the work of providing Temporary Pedestrian Ramps (TPRs) near new pedestrian construction work areas and the ADA guidelines. TPRs should provide access to sidewalk routes when pedestrian ramps are not accessible due to construction activities going on or around pedestrian ramps.

The work shall consist of furnishing, installation, maintaining, relocating, and removing temporary pedestrian ramps in order to access sidewalk areas as shown on the Contract Drawings or where otherwise directed by the Engineer.

TPR shall consist of temporary pedestrian ramp units having a geometry similar to that shown on the contract drawings, as directed the Engineer and complying with the following requirements:

1. TPR running slope must not exceed 1:12 ramp slope, which equals 4.8 degrees slope or one foot of wheelchair ramp for each inch of rise. For instance, a 30 inch rise requires a 30 foot handicap wheelchair ramp.
2. Cross slope must not exceed 1:48.
3. Handrails must be provided on both sides if rise is more than 6 inches.
4. A minimum 5' x 5' flat, unobstructed area at the top and bottom of the ramp
5. A Minimum width of 36 inches of clear space across the wheelchair ramp.
6. Maximum run of 30 feet will be allowed ramp before a rest or turn platform.
7. Ramp handrail height will be between 34" and 38" in height on both sides of the wheelchair ramps.
8. The TPR must allow for normal street drainage.

Note: At areas with grass strips, ramp to be located at closest concrete walk or driveway by means of ground level decking on grass connecting to the concrete sidewalk or driveway etc.

7.70TPR.2. MATERIALS AND METHODS.

1. LUMBER TPR: Lumber should have a slip-resistant surface. Use pressure treated wood for most of the wood material. Lumber must be preservative-treated southern pine, grade #2 or better. Pressure treated lumber must resist rot and decay with level of treatment as per American Wood Council latest standards. Decking board for the TPR will be at a minimum 2" thick.

2. ALUMINUM TPR: Aluminum should be high traction (e.g., textured extruded aluminum surface), dock plate with a coefficient of friction not less than 0.5 and made from high strength, lightweight aluminum; it should be slip-resistant and have a self-adjusting ground transition plate. The Ramp, Step, and Platform system is designed to be a rigid, free-standing structure. All footplates should be fastened securely to a concrete surface or 12" minimum diameter footings in order to achieve full structural integrity. Footing depth will depend on local building code.

Fastening all platforms to the building or modular building with lag screws is highly recommended.

3.FIBERGLASS/PLASTIC TPR: Fiberglass/ Plastic ramps should be able to take minimum wheelchairs, foot traffic etc., not less than 550 lbs., should be ADA compliant and adapts to varying curb heights from minimum of 2.5" to 7". Should be anti-slip with high visibility surface and must be bolted for maximum stability and security. Coefficient of friction will not be less than 0.5.

All ramp handrails and ramp guardrails are designed to withstand a concentrated load of 200 pounds applied in any direction on the top of the rail.

All Ramp handrails are designed to be continuous along ramp runs and in between the inside corner of 90 degree and 180 degree turns in ramp direction. Handrails are not interrupted by posts or other obstructions.

Platforms and landings will be designed to carry a uniform live load of 100 pounds per square foot and a concentrated vertical load of 300 pounds in an area of one square foot.

Walking surfaces for serial number 1, 2 and 3 above must be designed to have a coefficient of friction no less than 0.50 in all directions of travel.

7.70TPR.3. METHODS.

All units shall be in good condition and acceptable to the Engineer.

The Contractor shall install the TPR by placing them where shown on the Contract Drawings, specifications and as directed by the Engineer. All the modular ramps will be assembled as per manufacturer's instructions.

If the modular ramps are pre-assembled and transported to their locations, Contractor shall use utmost care in the delivery and installation of these units.

Units can also be fabricated/constructed at site with the approval of the Engineer.

Contractor shall continuously maintain the TPR, where shown on the Contract Drawings or directed by the Engineer, until ordered by the Engineer to remove the completion of a work stage. Should a unit or units of barricades become damaged or otherwise unacceptable to the Engineer, the Contractor shall replace said units within twenty-four (24) hours of notice by the Engineer, at no additional cost to the City.

7.70TPR.4. MEASUREMENT AND PAYMENT.

The price of Temporary Pedestrian Ramp (TPR) shall be deemed included in the prices bid for all the scheduled contract items.

The Section below supersedes and replaces Sections 8.01, 8.01 C1, 8.01 C2, 8.01H, 8.01S, 8.01W1, and 8.01 W2 of NYC DOT Standard Specifications dated May 16, 2022

SECTION 8.01 Handling, Transporting, and Disposal of Potential and Identified Contaminated and Hazardous Materials

8.01.1. DESCRIPTION. This Section provides common references and requirements for **Sections 8.01 C1, 8.01 C2, 8.01H, 8.01S, 8.01W1, and 8.01 W2.**

8.01.2. MATERIALS. None.

8.01.3. METHODS.

(A) NYCDEP Limitations for Discharge to Sewer

NYCDEP Bureau of Wastewater Treatment – Limitations for Effluent to Sanitary or Combined Sewers

Parameter ¹	Daily Limit	Units	Sample Type	Monthly Limit
Non-polar material ²	50	mg/l	Instantaneous	---
pH	5-11	SU's	Instantaneous	---
Temperature	< 150	Degree F	Instantaneous	---
Flash Point	> 140	Degree F	Instantaneous	---
Cadmium	2 0.69	mg/l mg/l	Instantaneous Composite	---
Chromium (VI)	5	mg/l	Instantaneous	---
Copper	5	mg/l	Instantaneous	---
Lead	2	mg/l	Instantaneous	---
Mercury	0.05	mg/l	Instantaneous	---
Nickel	3	mg/l	Instantaneous	---
Zinc	5	mg/l	Instantaneous	---
Benzene	134	ppb	Instantaneous	57
Carbontetrachloride	---	---	Composite	---
Chloroform	---	---	Composite	---
1,4 Dichlorobenzene	---	---	Composite	---
Ethylbenzene	380	ppb	Instantaneous	142
MTBE (Methyl-Tert-Butyl-Ether)	50	ppb	Instantaneous	---
Naphthalene	47	ppb	Composite	19
Phenol	---	---	Composite	---
Tetrachloroethylene (Perc)	20	ppb	Instantaneous	---
Toluene	74	ppb	Instantaneous	28
1,2,4 Trichlorobenzene	---	---	Composite	---
1,1,1 Trichloroethane	---	---	Composite	---
Xylenes (Total)	74	ppb	Instantaneous	28
PCB's (Total) ³	1	ppb	Composite	---
Total Suspended Solids (TSS)	350 ⁴	mg/l	Instantaneous	---
CBOD ⁵	---	---	Composite	---
Chloride ⁵	---	---	Instantaneous	---
Total Nitrogen ⁵	---	---	Composite	---
Total Solids ⁵	---	---	Instantaneous	---

Notes for table above:

1. All handling and preservation of collected samples and laboratory analyses of samples must be performed in accordance with 40 C.F.R. pt. 136. If 40 C.F.R. pt. 136 does not cover the pollutant in

question, the handling, preservation, and analysis must be performed in accordance with the latest edition of "Standard Methods for the Examination of Water and Wastewater." All analyses must be performed using a detection level less than the lowest applicable regulatory discharge limit. If a parameter does not have a limit, then the detection level is defined as the least of the Practical Quantitation Limits identified in NYSDEC's Analytical Detectability and Quantitation Guidelines for Selected Environmental Parameters, December 1988.

2. Analysis for **non-polar materials** must be done by USEPA method 1664 Rev. A. Non-Polar Material will mean that portion of the oil and grease that is not eliminated from a solution containing N-Hexane, or any other extraction solvent the USEPA will prescribe, by silica gel absorption.
3. Analysis for PCBs is required if **both** conditions listed below are met:
 - a. if proposed discharge \geq 10,000 gpd;
 - b. if duration of a discharge $>$ 10 Days.

Analysis for PCBs must be done by USEPA method 608 with MDL= \leq 65 ppt. PCB's (total) is the sum of PCB-1242 (Arochlor 1242), PCB-1254 (Arochlor 1254), PCB-1221 (Arochlor 1221), PCB-1232 (Arochlor 1232), PCB-1248 (Arochlor 1248), PCB-1260 (Arochlor 1260) and PCB-1016 (Arochlor 1016).

4. For discharge \geq 10,000 gpd, the TSS limit is 350 mg/l. For discharge $<$ 10,000 gpd, the limit is determined on a case-by-case basis.
5. Analysis for Carbonaceous Biochemical Oxygen Demand (CBOD), Chloride, Total Solids and Total Nitrogen are required if proposed discharge \geq 10,000 gpd.

(B) Applicable Regulations

Applicable regulations include, but are not limited to:

1. 49 CFR 100 to 179 - DOT Hazardous Materials Transport and Manifest System Requirements
2. 6 NYCRR 375-6 - NYSDEC Remedial Program Soil Cleanup Objectives
3. 6 NYCRR 360-1 NYSDEC Solid Waste Management Facilities
4. 6 NYCRR 364- Waste Transporter permits
5. Local restrictions on transportation of waste/debris
6. 40 CFR 260 to 272 - Hazardous Waste Management (RCRA)
7. 6 NYCRR 371 - Identification and Listing of Hazardous Wastes
8. 6 NYCRR 372 - Hazardous Waste Manifest System and Related Standards for Generators, Transporters and Facilities
9. 6 NYCRR 373-1 - Hazardous Waste Treatment, Storage and Disposal Facility Permitting Requirements
10. 6 NYCRR 376 - Land Disposal Restrictions
11. Posted weight limitations on roads or bridges
12. Transportation Skills Programs, Inc. 1985 - Hazardous Materials and Waste Shipping Papers and Manifests
13. Other local restrictions on transportation of waste/debris
14. Occupational Safety and Health Administration (OSHA), Standards and Regulations, 29 CFR 1910 (General Industry)
15. OSHA 29 CFR 1910.120 Hazardous Waste Operations and Emergency Response
16. OSHA Safety and Health Standards 29 CFR 1926 (Construction Industry)
17. OSHA 29 CFR 1910.146 Confined Space Entry Standard
18. Standard Operating Safety Guidelines, USEPA Office of Emergency and Remedial Response Publication, 9285.1-03
19. NIOSH / OSHA / USCG / USEPA Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities (1986)

20. U.S. Department of Health and Human Services (DHHS) "NIOSH Sampling and Analytical Methods," DHHS (NIOSH) Publication 84-100
21. ANSI, Practice for Respiratory Protection, Z88.2 (1980)
22. ANSI, Emergency Eyewash and Shower Equipment, Z41.1 (1983)
23. ANSI, Protective Footwear, Z358.1 (1981)
24. ANSI, Physical Qualifications for Respirator Use, Z88.6 (1984)
25. ANSI, Practice for Occupational and Educational Eye and Face Protection, Z87.1 (1968)
26. Water Pollution Control Federation "Manual of Practice No. 1, Safety in Wastewater Works"
27. NFPA No. 327 "Standard Procedures for Cleaning and Safeguarding Small Tanks and Containers"
28. Occupational Safety and Health Act Confined Space Entry Standard 29 CFR 1910.146.87
29. Department of Transportation 49 CFR 100 through 179
30. Department of Transportation 49 CFR 387 (46 FR 30974, 47073)
31. Environmental Protection Agency 40 CFR 136 (41 FR 52779)
32. Environmental Protection Agency 40 CFR 262 and 761
33. Resource Conservation and Recovery Act (RCRA)
34. Any transporter of hazardous or non-hazardous materials must be licensed in the State of New York and all other states traversed in accordance with all applicable regulations.

(C) Definitions

Contaminated Groundwater and Decontamination Fluids: Groundwater within the excavation trench or decontamination water that contains regulated compounds above the NYCDEP Discharge to Sewer Effluent limits.

Disposal or Treatment Facility: A facility licensed to accept either non-hazardous regulated waste or hazardous waste for either treatment or disposal.

Exclusion Zone: Work area that will be limited to access by Contractor personnel specifically trained to enter the work area only. The exclusion zone will be set up to secure the area from the public and untrained personnel. The project health and safety program will apply to all construction personnel including persons entering the work area.

Hazard Assessment: An assessment of any physical hazards that may be encountered on a work site.

Hazardous Soils: Soils that exhibit any of the characteristics of a hazardous waste, namely ignitability, corrosivity, reactivity, and toxicity, as defined in 6 NYCRR Part 371, Section 371.3 and 40 CFR Section 261.

Hazardous Substance Evaluation: An evaluation of the possible or known presence of any hazardous substances that may be encountered on a job site. This evaluation is included in the Health and Safety Plan and will include the identification and description of any hazardous substances expected to be encountered. Material Safety Data Sheets (MSDS) will be included for each substance.

Health and Safety Plan: A plan employed at a work site that describes all the measures that will be taken to assure that all work is conducted in a safe manner, and that the health of the workers and the public will be insured.

Material Handling Plan: A plan outlining the methods that will be employed to handle, transport and dispose of contaminated materials.

Non-Hazardous Contaminated Soils: Soils which exhibit a distinct chemical or petroleum odor or exhibit elevated photoionization detector readings but are not classified as hazardous waste under 6 NYCRR Part 371, Section 371.3 and 40 CFR Section 261.

New York State Health Department's Environmental Laboratory Approval Program: A program by which the state of New York approves and accredits environmental testing laboratories.

PCBs: Polychlorinated biphenyls are a group of toxic compounds commonly used as a coolant in transformers and other electrical components.

Photoionization Detector: A handheld instrument used to measure volatile organic compounds in air. The instrument ionizes the organic molecules through the use of an ultraviolet lamp.

RCRA Hazardous Waste Characteristics: Characteristics of a material which may indicate the material is hazardous. These include ignitability corrosivity, reactivity, and toxicity.

Total Petroleum Hydrocarbons: An analytical procedure used to determine the total amount of petroleum compounds in a material.

(D) Phase I and Phase II Investigation Reports

If Phase I and / or Phase II investigation reports have been prepared for the Project, they will be included in the HAZ-Pages in Volume 3 of the Contract.

If there are no Phase I and / or Phase II investigation reports in the HAZ-Pages in Volume 3 of the Contract, but 8.01 bid items are included in the Bid Schedule, the Contractor is to assume the excavated soil is contaminated and bid on the quantities listed. The Contractor must use the Contractor's engineering judgement for pricing those items.

8.01.4. MEASUREMENT AND PAYMENT. No separate payment will be made for complying with the requirements of this Section.

ITEM 8.01 C1 HANDLING, TRANSPORTING AND DISPOSAL OF NON-HAZARDOUS CONTAMINATED SOIL

8.01 C1.1 WORK TO INCLUDE

A. General

This work will consist of the handling, transportation, and disposal of non-hazardous contaminated soils. The materials covered by this specification are soils that are contaminated with petroleum or other chemicals (including but not limited to metals, pesticides, polychlorinated biphenyls [PCBs], volatile organic compounds [VOCs], semi-volatile organic compounds [SVOCs], etc.) but cannot be classified as hazardous waste. For the purpose of this specification, soil will be defined as any material excavated below the pavement (concrete and/or asphalt) and pavement base (concrete and/or asphalt). Soil will also be defined as any material excavated from wetlands and/or wetlands adjacent area, or any areas that are not covered with hard pavement (e.g., concrete, asphalt), such as grass or dirt areas.

Soil to be excavated can be classified as non-contaminated, non-hazardous contaminated, or hazardous soil. Non-contaminated soils are defined as soils not exhibiting any of the following characteristics:

- Exceedances of New York State Department of Environmental Conservation (NYSDEC) Part 375-6 Restricted Commercial Soil Cleanup Objectives (SCOs) for street work, with the exception of benzo(a)pyrene which will have a limit of 3 parts per million (ppm), Restricted Residential SCOs for work areas in parkland, Residential SCOs for work in housing project areas, and Protection of Ecological Resources SCOs for work in wetlands and/or wetlands adjacent area.
- Elevated Photo-Ionization Detector (PID) readings (readings of greater than 10 parts per million [ppm] on a calibrated PID), which is subsequently confirmed by laboratory analysis specified under 8.01 C2.1.B.3
- Visual evidence of contamination, such as the presence of staining, discoloration, which is subsequently confirmed by laboratory analysis and exhibits exceedances of applicable SCOs.
- Petroleum and/or chemical odors, which are subsequently confirmed by laboratory analysis and exhibits exceedances of applicable SCOs.
- Physical evidence of coal ash, municipal solid waste, dredged spoils, or greater than 50% of the material is construction and demolition debris.

Non-hazardous contaminated soils are defined as soils exhibiting one or more of the above characteristics. Non-hazardous contaminated soils must be handled, transported, and disposed of in accordance with the specifications for Item 8.01 C1 – Handling, Transporting and Disposal of Non-Hazardous Contaminated Soil.

Hazardous soils are defined as soils showing exceedances of Toxicity Characteristic Leaching Procedure (TCLP) Regulatory Levels for Hazardous Waste published in Resource Conservation and Recovery Act (RCRA), 6 New York Codes, Rules, and Regulations (NYCRR) Part 371, or 40 Code of Federal Regulations (CFR) Section 261. Hazardous soils must be handled, transported, and disposed of in accordance with the specifications of this section.

This entire specification 8.01 covers the handling, transportation, and disposal of non-hazardous contaminated soils and hazardous soils only. Non-contaminated soil can be reused at the Project site, provided it meets other Contract requirements. Non-hazardous contaminated soils and hazardous soils cannot be reused. Excess non-contaminated soil becomes the property and responsibility of the Contractor.

The Contractor must ensure that all operations associated with the handling, sampling,

loading, transportation, and disposal of non-hazardous contaminated soils are in compliance with all applicable Federal, State, and City statutes and regulations.

The Contractor must supply all equipment, material and labor required to conduct the specified work of this Item. The Contractor must document the excavation, handling, transportation and disposal of non-hazardous contaminated soils with analytical reports, manifests, photos, and clean fill documentation.

B. Request for Approval of Subcontractors

In accordance with Article 17 of the Contract, a subcontractor/subconsultant, such as the Environmental Consultant and the waste hauler, is not permitted to start work until approved by the Engineer. If the Contractor performs work using a subcontractor/subconsultant prior to approval, the Contractor will not be paid for the work performed by that subcontractor/subconsultant and the Contractor may be subject to penalties including, but not limited to, initiation of default proceedings.

The Contractor must submit a completed original Request for Approval of Subcontractors (RFAS) form and all required documents, such as legal identity, project reference list, Corporate Health and Safety Plan (HASP), waste transporter permits, Occupational Safety and Health Administration (OSHA) 10 certification, Hazardous Waste and Emergency Response (HAZWOPER) certification, etc., to the Engineer at least 30 days prior to the scheduled subcontract work start date. The Engineer must then submit the original RFAS to DDC Safety and Site Support, Office of Environmental and Hazmat Services (OEHS) for review and approval. If the RFAS is denied by OEHS, OEHS will issue the final denial and return the original RFAS to the Engineer. If the RFAS is approved by OEHS, OEHS will forward the original RFAS package and an approval memo to the DDC Agency Chief Contracting Officer (ACCO) for further review and approval. The ACCO's Vendor Integrity Unit and Office of Contract Opportunity (OCO) will review the subcontractor/subconsultant's overall business integrity and compliance with the vendor integrity requirements in the PASSPort system, Executive Order 50, Local Law 1, and Minority- and Women-Owned Business Enterprise/ Disadvantaged Business Enterprise (MWBE/DBE) participation as per the Contract. ACCO will issue the final Approval or Denial. The original RFAS will be returned to the Engineer, who will subsequently notify and return the original RFAS to the Contractor.

C. Environmental Consultant

The Contractor must retain an independent Environmental Consultant to obtain all permits, prepare the plans required in the specification 8.01 and as per DDC issued templates, and perform all field screening, sampling, air monitoring, and other health and safety services. The Contractor is not permitted to self-perform this work. The Environmental Consultant must be approved under the RFAS process and must demonstrate the minimum requirements as set forth below:

1. The Environmental Consultant project supervisor on site and other designated key personnel must have a minimum of three (3) years of experience in the environmental field dealing with issues associated with contaminated/hazardous soils. Such experience must include oversight of environmental investigations, specifically including VOC and dust monitoring services as a routine part of daily operations.
2. The Environmental Consultant must be experienced in work of similar nature, size, and complexity and must have previous experience in working with DDC.
3. The Environmental Consultant must furnish a list of at least five (5) projects completed within the last 3 years, identifying the location, nature of services provided, owner, owner's contact, contact's working telephone number, project duration and value of the projects..

D. Sampling and Analysis

Prior to the performance of soil sampling, the Contractor will submit a Field Sampling Plan (FSP). Soil sampling must not be conducted until OEHS has approved the FSP. The Contractor must conduct sampling and analysis of the impacted soils as specified under Item 8.01 C2 – Sampling and Testing of Non-Hazardous Contaminated/Potentially Hazardous Soil for Disposal Purposes.

The laboratory results must be forwarded to OEHS for review to determine if the soils would be handled and disposed of as non-hazardous contaminated soils or hazardous soils.

E. Material Handling Plan

At least 45 days prior to the commencement of work, the Contractor must submit to the OEHS for review a Material Handling Plan (MHP). The MHP must be approved by the OEHS prior to the Contractor beginning any soil excavation work. The MHP must, at a minimum, consist of:

1. The Contractor's procedures for identifying non-hazardous contaminated soils during excavation, including the specific model and manufacturer of intended organic vapor monitoring equipment and calibration procedures to be used. It should also include the training and experience of the personnel who will operate the equipment.
2. The Contractor's procedures for safely handling non-hazardous contaminated soils. The procedures must include personnel safety and health as well as environmental protection considerations.
3. For the proposed laboratory for analysis of representative soil samples, provide the following: (a) name, (b) address, (c) telephone number, and (d) New York State Department of Health's (NYSDOH) Environmental Laboratories Accreditation Program (ELAP) status.
4. Identification of the Contractor's proposed waste transporter(s) (hauler). This information must include:
 - a) Name and Waste Transporter Permit Number;
 - b) Address;
 - c) Name of responsible contact for the waste transporter;
 - d) Telephone number for the contact;
 - e) All necessary permit authorizations for each type of waste transported; and,
 - f) Previous experience in performing the type of work specified herein.
5. The name and location of the facility where an off-site scale is located. The Contractor must outline the procedures for controlling trucks leaving the work site and enroute to the off-site scale.
6. All staging/stockpiling areas (if stockpiling areas are intended and available), or alternate procedures that will be used. Alternate procedures may include, but are not limited to, agreements from the intended disposal facilities to accept boring data and/or analytical data previously obtained during the site characterization so that materials may be directly loaded into vehicles for shipment to the disposal facility.
7. A backup facility must be provided, should the staging/stockpile areas become unavailable, insufficient in area, or presented by some other unforeseen difficulty.
8. Identification of the Contractor's two proposed Treatment Storage or Disposal (TSD) facilities for contaminated soils (primary and back-up) for final disposal of the soils. Both primary and backup TSD facilities must be currently state-licensed disposal facilities approved to receive contaminated soil. The information required for each facility must include:
 - a. General Information
 - i. Facility name and the State identification number;
 - ii. Facility location;
 - iii. Name of responsible contact for the facility;
 - iv. Telephone number for contact;

- v. Signed letter of agreement to accept waste as specified in this Specification. The letter must indicate agreement to handle and accept the specified estimated quantities and types of material during the time period specified in the project schedule and any time extension as deemed necessary; and,
- vi. Unit of measure utilized at disposal facility for costing purposes.
- b. A listing of all permits, licenses, letters of approval, and other authorizations to operate, which are currently held and valid for the proposed facility.
- c. A listing of all permits, licenses, letters of approval, and other authorizations to operate which have been applied for by the proposed facility but not yet granted or issued.
- d. The Contractor must specify and describe the disposal/containment unit(s) that the proposed facility will use to manage the waste. The Contractor must identify the capacity available in the units and the capacity reserved for the subject waste.
- e. The Contractor must provide the date of the proposed facility's last compliance inspection.
- f. A list of all active (unresolved) compliance orders (or agreements), enforcement notices, or notices of violations issued to the proposed facility must be provided. The source and nature of the cause of violation must be stated, if known.
- 9. Description of all sampling and field/laboratory analyses that will be needed to obtain disposal facility approval.

8.01 C1.2 MATERIALS

- A. The Contractor must provide containers as specified in the United States Department of Transportation (USDOT) regulations.
- B. The Contractor must provide polyethylene sheeting, which is to be placed under (20mil. thickness minimum) and over (10 mil. thickness minimum) soil piles.
- C. The Contractor must assure that the waste transporter's appropriate choice of vehicles and operating practices are fitted to prevent spillage or leakage of non-hazardous contaminated material during transportation.
- D. The Contractor must provide, install, and maintain any temporary stockpiling or loading facilities on site as required until completion of material handling activities. The location and design of any such facilities must be included in the MHP.

8.01 C1.3 CONSTRUCTION DETAILS

A. Material Handling

- 1. Immediately after excavation of non-hazardous contaminated soil, the Contractor must:
 - a. Load material directly onto trucks/tankers/roll offs for disposal off site; or,
 - b. If interim stockpiling is required, place non-hazardous contaminated soil on a minimum of 20 mil. polyethylene sheeting and cover it securely by minimum of 10 mil. polyethylene sheeting to protect against cross contamination, airborne dust, leaching or runoff of contaminants into the subsurface, groundwater, or stormwater. Weight or secure the sheeting by appropriate means and seal seams as approved by the DDC to prevent tearing or removal by wind or weather. Grade surrounding surface to provide for positive drainage away from pile. Each stockpile must not exceed 500 cubic yards. Non-hazardous contaminated soils must be stockpiled separately from non-contaminated and hazardous soil at an off-site location approved by DDC or secured on-site by the Contractor, meeting all required Federal, State and Local stipulations. Stockpiles must be at least 800 feet away from any sensitive receptors, such as schools, daycare center, hospitals, nursing homes, etc., and at least 100 feet away from any water body.

2. Institute appropriate procedures and security measures to ensure the protection of site personnel and the public from non-hazardous contaminated materials as described in the approved MHP, Environmental Health & Safety Plan (EHASP), and Item 8.01 S - Health and Safety.
3. **Any soil encountered that appears to contain unknown contaminants (based on visual, odor, or other observation), or that vary substantially from the material originally identified must be segregated in stockpiles and the Environmental Consultant promptly notified to collect soil samples for analysis. Construct stockpiles to the same requirements as stated in subsection (A)(1)(b) above.**
4. Provide any dewatering that is necessary to complete the work. Contaminated water must be disposed of in accordance with Item 8.01 W1 – Removal, Treatment and Discharge/Disposal of Contaminated Water.
5. Provide and operate field organic vapor test equipment, a PID or a flame ionization detector (FID), to detect general organic vapor levels at intervals of approximately 50 cubic yards of soil excavated, when visual or odor observations indicate the material may substantially differ from the soil previously excavated, and/or as directed by the Environmental Consultant.

B. Off-Site Transportation to Disposal Facility

1. General
 - a. The Contractor must furnish all labor, equipment, supplies and incidental costs required to transport non-hazardous contaminated material from the work area to the off-site disposal facility, and any other items and services required for transporting non-hazardous contaminated material for disposal at an off-site facility.
 - b. The Contractor will be responsible for tracking all materials and vehicles from the site to the off-site scale at the final TSD facility.
 - c. The Contractor must submit to the Engineer the certified tare and gross weight slips for each load received at the accepted facility which must be attached to each returned manifest. These documents must be maintained and kept with project field records.
 - d. Non-hazardous contaminated soils must be delivered to the disposal or treatment facility within 30 calendar days after excavation.
 - e. The Contractor must coordinate the schedule for truck arrival and material deliveries at the job site to meet the approved project schedule.
 - f. The Contractor must inspect all vehicles leaving the project site to ensure that non-hazardous contaminated soils adhering to the wheels or undercarriage are removed prior to the vehicle leaving the site.
 - g. The Contractor must obtain letters of commitment from the waste haulers and the TSD facility to haul and accept shipments when directed by the Engineer in consultation with OEHS.
 - h. The Contractor must provide waste profile forms to OEHS for review and approval before transporting non-hazardous contaminated soil to the approved TSD facility.
2. Hauling
 - a. The Contractor must coordinate manifesting, placarding of shipments, and vehicle decontamination. All quantities must be measured and recorded upon arrival at the disposal facility. If any deviation between the two (2) records occurs, the matter is to be reported immediately to the Engineer and to be resolved by the Contractor to the satisfaction of the Engineer.
 - b. The Contractor will be held responsible, at its own cost, for any and all actions necessary to remedy situations involving material spilled in transit or mud and dust tracked off-site.

- c. The Contractor must ensure that trucks are protected against contamination by properly covering and lining them with polyethylene sheeting or by decontaminating them prior to and between acceptance of loads. Trucks with loaded non-hazardous contaminated soil must be covered securely with tarps before leaving the project site to prevent generation of airborne dust during hauling.
 - d. The Contractor will be responsible for inspecting the access routes for road conditions, overhead clearance, and weight restrictions.
 - e. **The Contractor must only use the transporter(s) identified in the approved MHP for the performance of work. A revised MHP or an addendum to the original approved MHP must be submitted to OEHS for review and approval at no additional cost to the City for any use of substitute or additional transporters.**
 - f. The Contractor must develop, document, and implement a policy for accident prevention.
 - g. The Contractor must not combine non-hazardous contaminated materials from other projects with material from this project.
 - h. No material will be transported until approval by the Engineer is obtained.
3. Off-Site Disposal
- a. The Contractor must use only the disposal facility(ies) identified in the approved MHP for the performance of the work. A revised MHP or an addendum to the original approved MHP must be submitted to OEHS for review and approval at no additional cost to the City for any use of substitutions or additions of disposal facilities.
 - b. The Contractor must be responsible for acceptance of the materials at an approved facility, for ensuring that the facility is properly permitted to accept the stated materials, and for ensuring that the facility provides the stated treatment and/or disposal services.
 - c. The City reserves the right to contact and visit the TSD facility, and regulatory agencies to verify the agreement to accept the stated materials and to verify any other information provided.
 - d. In the event that the identified and approved facility ceases to accept the stated materials or the facility ceases operations, it is the Contractor's responsibility to locate an alternate approved and permitted facility(ies) for accepting materials. The alternate facility(ies) must be approved in writing by the Engineer in the same manner and with the same requirements as for the original facility(ies). This must be done at no extra cost or delay to the City.
 - e. The Contractor must obtain manifest forms and complete the shipment manifest records required by the appropriate regulatory agencies for verifying the material and quantity of each load in unit of volume and weight. Copies of each manifest must be submitted to the Engineer within four (4) business days following shipment, and within three (3) business days after notification of receipt of the facility. The signed manifests must be maintained and kept with the project field records. Any manifest discrepancies must be reported immediately to the Engineer and be resolved by the Contractor to the satisfaction of the Engineer.
4. Equipment and Vehicle Decontamination
- a. The Contractor must design and construct a portable decontamination station to be used to decontaminate equipment and vehicles that have been used to handle contaminated soil. The cost for this work will be paid under Item 8.01 S - Health and Safety.
 - b. Water generated during the decontamination process must be disposed of in accordance with Item 8.01 W1 – Removal, Treatment and Discharge/Disposal of Contaminated Water.

8.01 C1.4 METHOD OF MEASUREMENT

- A. Quantities for contaminated soils will be measured in tons. The tonnage will be determined by off-site truck scales, as per Subsection 8.01 C1(3)(B)(1), that are capable of generating load tickets.
- B. Final disposal of hazardous soil will be paid for under Item 8.01 H – Handling, Transporting and Disposal of Hazardous Soil.
- C. Disposal of contaminated water will be paid for under Item 8.01 W1 – Removal, Treatment and Discharge/Disposal of Contaminated Water. Backfill will be paid for under its respective item as specified in the Contract Documents.
- D. The Environmental Consultant will be paid under Item 8.01 S – Health and Safety.

8.01 C1.5 PRICE TO COVER

The unit bid price per ton for Item 8.01 C1 must include the cost of furnishing all labor, materials, equipment plan, and insurance for excavation, handling, transportation, disposal, documentation, fees, permits, loading, stockpiling, hauling, and any other incidentals necessary to complete all the work as specified herein for handling, transporting, and disposal of non-hazardous contaminated soil.

Payment will be made under:

ITEM NUMBER	DESCRIPTION	PAY UNIT
8.01 C1	Handling, Transporting and Disposal of Non-Hazardous Contaminated Soil	Tons

**ITEM 8.01 C2 SAMPLING AND TESTING OF Non-hazardous
CONTAMINATED/POTENTIALLY HAZARDOUS SOIL FOR DISPOSAL
PURPOSES**

8.01 C2.1 WORK TO INCLUDE

A. Description

The work will consist of collecting and analyzing representative samples of soil to be excavated in-situ and/or ex-situ from stockpiles for parameters typically requested by the disposal facilities to determine if the soil to be excavated is suitable for reuse, or to be hauled off-site for disposal purposes as contaminated and/or hazardous soil.

B. Sampling and Laboratory Analysis

1. At least forty-five (45) days prior to the commencement of work, the Contractor's Environmental Consultant must submit an FSP and an Investigation Health and Safety Plan (Investigation HASP) to OEHS for review and approval, prior to conducting the field sampling. The FSP must include, at a minimum, the following information:

- a. Project information;
- b. Description of sample collection methodology for soil which appears to contain contaminants based on PID readings and field observation;
- c. Type of analyses;
- d. Sample preservation and handling;
- e. Training and experience of the personnel who will collect the samples;
- f. Equipment decontamination;
- g. Analytical laboratory's name, address, New York State Department of Health's ELAP certification number, and telephone number;
- h. Map of the project area;
- i. Sample location plan; and,
- j. Chain of Custody.

The Investigation HASP must identify actual and potential hazards associated with planned sampling field activities and stipulate appropriate health and safety procedures, so as to minimize field personnel exposures to physical, biological, and chemical hazards that may be present in the sampling media. The Investigation HASP must include, at a minimum, the following information:

- a. Project information;
- b. Description of work to be performed;
- c. Names of responsible health and safety personnel;
- d. Worker training;
- e. Job hazard analysis;
- f. Confined Space Entry Plan (if applicable);
- g. Personal monitoring (if applicable);
- h. Community Air Monitoring Plan (CAMP, if applicable);
- i. Personnel Protection Equipment (PPE);
- j. Decontamination;

- k. Safety rules;
 - l. Spill prevention and control, dust control, vapor/odor suppression procedures;
 - m. Identification of nearest hospital and route; and,
 - n. Emergency Incident Reporting.
2. The Contractor's Environmental Consultant must collect one (1) grab sample and one (1) composite sample per 500 cubic yards of soil to be excavated in-situ and/or ex-situ from stockpiles. Sample locations must be placed A) throughout or along areas within the project limits, and B) within any portion of the project area that exhibits any of the characteristics described in Section 8.01 C1.1 A (evidence of potential contamination via elevated PID readings, olfactory or visual evidence). For in-situ sampling, each grab soil sample must be collected from either the 6-inch interval above the water table (when encountered), or the 6-inch interval above the bottom of the proposed excavation depth (where recovery allowed), or from the 6-inch interval showing the highest potential for contamination based on field observation. For composite soil sampling, grid sampling must be performed for projects with excavation depth deeper than six (6) feet below grade. Each composite sample must consist of five (5) grab samples and discrete aliquots collected from various intervals along the depth of excavation at each sampling boring location. For stockpiled soils, each composite sample must consist of five (5) grab samples collected from various depths within each soil stockpile, at least two feet below the soil surface. For drummed soil, one (1) composite sample per 10 drums must be collected. Each composite soil sample must consist of one (1) grab sample from each of the 10 drums.
 3. Laboratory sampling should include analyses for VOCs, Polycyclic Aromatic Hydrocarbons (PAHs), PCBs, Toxicity Characteristic Leaching Procedure (TCLP) Metals (Resource Conservation and Recovery Act [RCRA] 8), the three RCRA Characteristics, ignitability, reactivity, and corrosivity, and Paint Filter Test. Additionally, should the disposal facility(ies) require specific analyses to accept material, the additional analyses should be included at no additional cost to the City.
 4. Should the Contractor seek to remove non-contaminated excess soils from the site, the Contractor will be required to coordinate the Beneficial Use Determination (BUD) with NYSDEC prior to moving the soils in accordance with the 6 New York Code, Rules, and Regulations (NYCRR) Parts 360.12 and 360.13. The Contractor must keep the Engineer informed of the approval status and removal schedule of any and all soils being removed from the site which are not going to an approved disposal facility.
 5. The quality of the data from the sampling program is the Contractor's responsibility. The Contractor must furnish all qualified personnel, materials, equipment and instruments necessary to carry out the sampling. Unless directed otherwise, all sampling procedures must follow the NYSDEC sampling guidelines and protocols. All sampling must be conducted by a qualified person trained in sampling protocols using standard accepted practices for obtaining representative samples.

6. Each grab and composite sample must be analyzed for all parameters required by disposal facilities accepting contaminated and hazardous soil, in addition to any specific criteria a sample is being analyzed for.
7. All sample containers must be marked and identified with legible sample labels, which must indicate the project name, sample location and/or container, the sample number, the date and time of sampling, preservatives utilized and other information that may be useful in determining the character of the sample. Chain-of-custody must be tracked from laboratory issuance of sample containers through laboratory receipt of the samples.
8. The Contractor must maintain a bound sample logbook. The Contractor must provide the Engineer access to it at all times and must turn it over to the Engineer in good condition at the completion of the work. The following information, at a minimum, must be recorded to the log:
 - a. Sample identification number;
 - b. Sample location;
 - c. Field observation;
 - d. Sample type;
 - e. Analyses;
 - f. Date/time of collection;
 - g. Collector's name;
 - h. Sample procedures and equipment utilized; and,
 - i. Date sent to laboratory and name of laboratory.
9. The City reserves the right to direct the Contractor to conduct alternative sampling in lieu of the parameters described in subsection 8.01 C2(1)(B)(4) if the situation warrants. The substitute sampling parameters will be of equal or lesser monetary value than those described in subsection 8.01 C2(1)(B)(4), as determined by industry laboratory pricing standards.
10. Only dedicated sampling equipment may be used to collect these samples. All equipment involved in field sampling must be decontaminated before being brought to the sampling location and must be properly disposed after use.
11. The Contractor's Environmental Consultant must prepare a Field Sampling Result Report (FSSR), tabulate the analytical results, and compare the data to the applicable NYSDEC Part 375.6 SCOs and TCLP for Hazardous Waste published in RCRA and 6 NYCRR Part 371, or 40 CFR Section 261. If the soil is to be disposed of in a disposal facility outside of the State of New York, the soil sampling data must also be compared to the applicable regulatory criteria established by the state in which the disposal facility is located. The FSSR, with the tabulated tables and laboratory analytical data, must be submitted to OEHS for review and approval prior to any soil reuse or disposal activities.
12. Soils exceeding any of the hazardous characteristic criteria meet the legal definition of hazardous soils (rather than non-hazardous contaminated soils) and must be transported or disposed of under Item 8.01 H – Handling, Transporting and Disposal of Hazardous Soil. All analyses must be done by a laboratory that has received approval from the ELAP for the methods to be used. The Contractor must specify the laboratory in the MHP.
13. The Contractor must contact the disposal facility where the waste will be sent for permanent disposal and arrange to collect any additional samples required by the facility. The cost associated with additional sampling and testing must be included in the bid price of this Item.

8.01 C2.2 METHOD OF MEASUREMENT

Quantities for samples must be measured as the number of sets of samples that are tested. A set will be defined as one (1) grab and one (1) composite samples per 500 cubic yards to be analyzed for the full range of parameters as specified in subsection 8.01 C2(1)(B)(3).

8.01 C2.3 PRICE TO COVER

The unit price bid per set for Item 8.01 C2 will include the cost of furnishing all labor, materials, equipment, plan, and insurance necessary for sampling, handling, transporting, testing, documentation, fees, permits, and any other incidentals necessary to complete the work as specified herein for in-situ and ex-situ soil sampling and analysis for waste disposal parameters.

Payment will be made under:

Item No.	Description	Pay Unit
8.01 C2	SAMPLING AND TESTING OF CONTAMINATED/POTENTIALLY HAZARDOUS SOIL FOR DISPOSAL PURPOSES	SETS

ITEM 8.01 H HANDLING, TRANSPORTING AND DISPOSAL OF HAZARDOUS SOIL**8.01 H.1 WORK TO INCLUDE****A. General**

This work will consist of the handling, transportation, and disposal of hazardous soils, which are defined as soils showing exceedances of TCLP for Hazardous Waste published in RCRA, 6 NYCRR Part 371, or 40 CFR Section 261. Hazardous soil can also be contaminated soils, as defined in Item 8.01 C1, but must be handled, transported, and disposed of as hazardous soil under Item 8.01 H, in accordance with the specifications herein. For the purpose of this specification, soil will be defined as any materials excavated below the pavement and base for pavement. Soil will also be defined as any material excavated from wetlands and/or wetlands adjacent areas, or any areas that are not covered with hard pavement (e.g., concrete, asphalt), such as grass or dirt areas.

The Contractor must ensure that all operations associated with the handling, sampling, loading, transportation, and disposal of hazardous materials are in compliance with the applicable Federal, State, and Local statutes and regulations, including Local Law 72 which becomes effective upon discovery of a TCLP lead exceedance. A sampling report, along with the executive summary, must be transmitted to OEHS within 48 hours of discovery to post on DDC website, as required by Local Law 72.

The Contractor must supply all equipment, material and labor required to conduct the specified work under this section. The Contractor must document the excavation, handling, sampling, and testing, transportation, and disposal of hazardous soils. The City must be listed in the disposal documents as the waste generator.

The Contractor must decontaminate all equipment prior to its removal from the exclusion zone and/or following contact with hazardous materials, as detailed in Item 8.01 S - Health and Safety. Water generated during the decontamination process must be disposed of under Item 8.01 W1 – Removal, Treatment and Discharge/Disposal of Contaminated Water.

The Contractor must retain an Environmental Consultant, meeting the requirements specified in Section 8.01 C1, and the Contractor is not permitted to self-perform this work. The Environmental Consultant must conduct sampling for laboratory analysis of soil to be excavated to determine whether the soil is contaminated and/or hazardous.

Hazardous soils are defined as soils showing exceedances of Toxicity Characteristic Leaching Procedure (TCLP) Regulatory Levels for Hazardous Waste published in Resource Conservation and Recovery Act (RCRA), 6 New York Codes, Rules, and Regulations (NYCRR) Part 371, or 40 Code of Federal Regulations (CFR) Section 261. Hazardous soils must be handled, transported, and disposed of in accordance with the specifications of this section.

All work under Item 8.01 H must be performed under the direct supervision of the Contractor's Environmental Consultant, as approved by the OEHS.

B. Material Handling Plan:

At least 45 days prior to the commencement of work, the Contractor must submit to the OEHS for review an MHP. The MHP must be approved by the OEHS prior to the Contractor beginning any soil excavation work. The MHP must, at a minimum, consist of:

1. The Contractor's procedures for identifying hazardous soils during excavation, including the specific model and manufacturer of intended organic vapor monitoring equipment and calibration procedures to be used. It should also include the training and experience of the personnel who will operate the equipment.
2. The Contractor's procedures for safely handling hazardous soils or soils which have not yet been tested but are believed to be potentially hazardous. The procedures must include personnel safety and health, as well as environmental protection considerations.
3. Name, address, NYSDOH ELAP status and telephone number of the proposed laboratory for analysis of representative soil samples.

4. Identification of the Contractor's proposed waste transporter(s). This information must include:
 1. Name and Waste Transporter Permit Number;
 2. Address;
 3. Name of responsible contact for the waste transporter;
 4. Telephone number for the contact;
 5. All necessary permit authorizations for each type of waste transported; and,
 6. Previous experience in performing the type of work specified herein.
5. The name and location of the facility where an off-site scale is located. The Contractor must outline the procedures on controlling trucks leaving the work site and enroute to the off-site scale.
6. All staging/stockpiling areas (if stockpiling areas are intended and available), or alternate procedures that will be used. Alternate procedures may include, but are not limited to, agreements from the intended disposal facilities to accept boring data and/or analytical data previously obtained during the site characterization so that materials may be directly loaded into vehicles for shipment to the disposal facility.
7. A backup facility must be provided, should the staging/stockpile areas become unavailable, insufficient in area or not be present by some other unforeseen difficulty.
8. Identification of the Contractor's two proposed Treatment Storage or Disposal (TSD) facilities for hazardous soils (primary and back-up) for final disposal of the hazardous soils. Both primary and backup TSD facilities must be currently USEPA or State-approved RCRA TSD facilities for hazardous soils. The information required for each facility must include:
 - a. General Information
 - i. Facility name and the USEPA identification number;
 - ii. Facility location;
 - iii. Name of responsible contact for the facility;
 - iv. Telephone number for contact;
 - v. Signed letter of agreement to accept waste as specified in this Specification. The letter must indicate agreement to handle and accept the specified estimated quantities and types of material during the time period specified in the project schedule and any time extension as deemed necessary; and,
 - vi. Unit of measure utilized at disposal facility for costing purposes.
 - b. A listing of all permits, licenses, letters of approval, and other authorizations to operate, which are currently held and valid for the proposed facility.
 - c. A listing of all permits, licenses, letters of approval, and other authorizations to operate which have been applied for by the proposed facility but not yet granted or issued.
 - d. The Contractor must specify and describe the disposal/containment unit(s) that the proposed facility will use to manage the waste. The Contractor must identify the capacity available in the units and the capacity reserved for the subject waste.
 - e. The Contractor must provide the date of the proposed facility's last compliance inspection under RCRA.

- f. A list of all active (unresolved) compliance orders (or agreements), enforcement notices, or notices of violations issued to the proposed facility must be provided. The source and nature of the cause of violation must be stated, if known.
- 9. Description of all sampling and field/laboratory analyses that will be needed to obtain disposal facility approval.

8.01 H.2 MATERIALS

- A. The Contractor must provide containers as specified in the USDOT regulations.
- B. The Contractor must provide polyethylene sheeting, which is to be placed under (20 mil. thickness minimum) and over (10 mil. thickness minimum) soil piles.
- C. The Contractor must assure that the waste transporter's appropriate choice of vehicles and operating practices are fitted to prevent spillage or leakage of contaminated material during transportation.
- D. The Contractor must provide, install, and maintain any temporary stockpiling or loading facilities on site as required until completion of material handling activities. The location and design of any such facilities must be included in the MHP.

8.01 H.3 CONSTRUCTION DETAILS

A. Material Handling

- 1. Immediately after excavation of hazardous soil, the Contractor must:
 - a. Load material directly onto drums/trucks/tankers/roll offs for disposal off site. Containers must be labeled as hazardous soil while being held for disposal; or
 - b. If interim stockpiling is required, place hazardous soil on a minimum of 20 mil. polyethylene sheeting and cover it securely with polyethylene sheeting a minimum of 10 mil. to protect against cross contamination, airborne dust, leaching or runoff of contaminants into the subsurface, groundwater, or stormwater. Weight or secure the sheeting by appropriate means and seal seams as approved by the Engineer to prevent tearing or removal by wind or weather. Grade surrounding surface to provide for positive drainage away from pile. Each stockpile must not exceed 500 cubic yards. Hazardous soils must be stockpiled separately from uncontaminated and contaminated soil at an off-site location approved by the Engineer or secured on-site by the Contractor, meeting all required Federal, State and Local stipulations. Stockpiles must be labelled as hazardous soil and situated at least 800 feet away from any sensitive receptors, such as schools, daycare center, hospitals, nursing homes, etc., and at least 100 feet away from any water body.
- 2. Institute appropriate procedures and security measures to ensure the protection of site personnel and the protection of the public from hazardous soils as described in the approved MHP, EHASP, and Item 8.01 S – Environmental Health and Safety.
- 3. Any soil encountered that appears to contain unknown contaminants (based on visual, odor, or other observation), or that vary substantially from the material originally identified must be segregated in stockpiles and the Environmental Consultant promptly notified to collect soil samples for analysis. Construct stockpiles to the same requirements as stated in subsection (A)(1)(b) above.
- 4. Provide any dewatering that is necessary to complete the work. Contaminated water must be disposed of in accordance with Item 8.01 W1 – Removal, Treatment and Discharge/Disposal of Contaminated Water.
- 5. Provide and operate field organic vapor test equipment, a PID or an FID, to detect general organic vapor levels at intervals of approximately 50 cubic yards of soil excavated, when visual or odor observations indicate the material may substantially differ from the soil previously excavated and/or as directed by the Environmental Consultant.

C. Off-Site Transportation to Disposal Facility

1. General

- a. The Contractor must furnish all labor, equipment, supplies and incidental costs required to transport hazardous material from the work area to the off-site disposal facility, and any other items and services required for transporting hazardous material for disposal at an off-site facility.
- b. The Contractor is responsible for obtaining the USEPA hazardous waste generator identification number for the City. The application must be submitted to OEHS for review and approval prior to submission to USEPA. The Contractor must prepare the annual hazardous waste report for the project and submit to the NYSDEC and USEPA.
- c. The Contractor will be responsible for tracking all material/vehicles from the site to the off-site scale and to the approved disposal facility.
- d. The Contractor must provide to the Engineer certified tare and gross weight slips for each load received at the accepted facility which must be attached to each returned manifest. These documents must be maintained and kept with project field records.
- e. Hazardous soils must be delivered to the disposal or treatment facility within 30 calendar days after excavation.
- f. The Contractor must coordinate the schedule for truck arrival and material deliveries at the job site to meet the approved project schedule.
- g. The Contractor must inspect all vehicles leaving the project site to ensure that hazardous soils adhering to the wheels or undercarriage are removed prior to the vehicle leaving the site.
- h. The Contractor must obtain letters of commitment from the waste haulers and the TSD facility to haul and accept shipments.
- i. The Contractor must provide waste profile forms to OEHS for review and approval before transporting hazardous soil to the approved TSD facility.

2. Hauling

- a. The Contractor must coordinate manifesting, placarding of shipments, and vehicle decontamination. All quantities must be measured and recorded upon arrival at the disposal facility. If any deviation between the two records occurs, the matter is to be reported immediately to the Engineer and be resolved by the Contractor to the satisfaction of the Engineer.
- b. The Contractor will be responsible, at its own cost, for any and all actions necessary to remedy situations involving material spilled in transit or mud and dust tracked off-site.
- c. The Contractor must ensure that trucks are protected against contamination by properly covering and lining them with polyethylene sheeting or by decontaminating them prior to and between acceptance of loads. Trucks with loaded hazardous soil must be covered securely with tarp before leaving the project site to prevent generation of airborne dust during hauling.
- d. The Contractor will be responsible for inspecting the access routes for road conditions, overhead clearance, and weight restrictions.
- e. The Contractor must only use the transporter(s) identified in the approved MHP for the performance of work. Only a transporter with a current Part 364 Waste Transporter Permit from NYSDEC may transport hazardous soil. A revised MHP or an addendum to the original approved MHP must be submitted to OEHS for review and approval at no additional cost to the City for any use of substitute or additional transporters.

- f. The Contractor must develop, document, and implement a policy for accident prevention.
 - g. The Contractor must not combine hazardous materials from other projects with material from this project.
 - h. No material will be transported until approval by the Engineer is obtained.
- 3. Off-Site Disposal
 - a. The Contractor must use only the disposal facility(ies) identified in the approved MPH for the performance of the work. A revised MHP or an addendum to the original approved MHP must be submitted to OEHS for review and approval at no additional cost to the City for any use of substitutions or additions of disposal facility.
 - b. The Contractor will be responsible for acceptance of the materials at an approved facility, for ensuring that the facility is properly permitted to accept the stated materials, and for ensuring that the facility provides the stated treatment and/or disposal services.
 - c. The City reserves the right to contact and visit the TSD facility and regulatory agencies to verify the agreement to accept the stated materials and to verify any other information provided.
 - d. In the event that the identified and approved facility ceases to accept the stated materials or the facility ceases operations, it is the Contractor's responsibility to locate an alternate approved and permitted facility(ies) for accepting materials. The alternate facility(ies) must be approved in writing by the Engineer in the same manner and with the same requirements as for the original facility(ies). This must be done at no extra cost or delay to the City.
 - e. The Contractor must obtain manifest forms, and complete the shipment manifest records required by the appropriate regulatory agencies for verifying the material and quantity of each load in unit of volume and weight. Copies of each manifest must be submitted to the Engineer within four (4) business days following shipment, and within three (3) business days after notification of receipt of the facility. The signed manifests must be maintained and kept with the project field records. Any manifest discrepancies must be reported immediately to the Engineer and be resolved by the Contractor to the satisfaction of the Engineer.
 - f. The Contractor must submit all results and weights to the Engineer.
 - g. The Contractor is responsible to pay all fees associated with the generation and disposal of all excavated hazardous waste. These fees include, but are not limited to, the New York State Department of Finance and Taxation (DFT) quarterly fees for hazardous waste and the NYSDEC annual hazardous waste regulatory fee program. The Contractor must submit a copy of proof of payment to the Engineer and OEHS.
- 4. Equipment and Vehicle Decontamination
 - a. The Contractor must design and construct a portable decontamination station to be used to decontaminate equipment and vehicles that have been used to handle hazardous soil. The cost for this work will be paid under Item 8.01 S - Health and Safety.
 - b. Water generated during the decontamination process must be disposed of in accordance with Item 8.01 W1 – Removal, Treatment, and Discharge/Disposal of Contaminated Water.

8.01 H.4 METHOD OF MEASUREMENT

- A. Quantities for hazardous soils will be measured in tons. The tonnage will be determined by off-site truck scales, as per Subsection 8.01 H3(C)(1)(C), that are capable of generating load tickets.
- B. Final disposal of non-contaminated soil will be paid for under Item 8.01 C1 – Handling, Transporting and Disposal of Non-Hazardous Contaminated Soil.
- C. Disposal of decontamination water will be paid for under Item 8.01 W1 – Removal, Treatment and Discharge/Disposal of Contaminated Water.
- D. Backfill will be paid for under its respective item as specified in the contract document.
- E. The Environmental Consultant will be paid under Item 8.01 S – Health and Safety.

8.01 H.5 PRICE TO COVER

The unit bid price bid per ton for Item 8.01 H will include the cost of furnishing all labor, materials, equipment, plan, and insurance for excavation, handling, transportation, disposal, documentation, fees, permits, loading, stockpiling, hauling, and any other incidentals necessary to complete all the work as specified herein for handling, transporting, and disposal of hazardous soil.

Payment will be made under:

Item No.	Description	Pay Unit
8.01 H	HANDLING, TRANSPORTING, AND DISPOSAL OF HAZARDOUS SOIL	TONS

ITEM 8.01 S Health And Safety**8.01 S.1 WORK TO INCLUDE**Health and Safety Requirements**A. Scope of Work**

It is the Contractor's responsibility to stage and conduct the Contractor's work in a safe manner. The Contractor must implement an EHASP for non-hazardous contaminated or hazardous soil intrusive activities as set forth in OSHA Standards 1910.120 and 1926.650-652. The Contractor must ensure that all workers have at a minimum hazard awareness training. The Contractor must segregate contaminated work area in secured exclusion zones. These zones must limit access to Contractor personnel specifically trained to enter the work area. The exclusion zone must be set up to secure the area from the public and untrained personnel. The project health and safety program will apply to all construction personnel including persons entering the work area. In addition, the Contractor must protect the public from on-site hazards, including subsurface contaminants associated with on-site activities. The EHASP must be signed off by a Certified Industrial Hygienist and reviewed and approved by OEHS.

Work must include, but not be limited to:

1. Implementation of a baseline medical program.
2. Providing safety equipment and protective clothing for site personnel, including maintenance of equipment on a daily basis; replacement of disposable equipment as required; decontamination of clothing, equipment and personnel; and providing all other health and safety measures.
3. Providing, installing, operating and maintaining on-site emergency medical first aid equipment as specified in this section for which payment is not provided under other pay items in this Contract.
4. Providing, installing, operating, maintaining and decommissioning all equipment and personnel decontamination facilities specified within this section, including, but not limited to, the decontamination pad, decontamination water supply, decontamination water collection equipment and all other items and services required for the implementation of the health and safety requirements for which pay items are not provided elsewhere in this Contract.
5. Provide the minimum health and safety requirements for excavation activities within the limits of this Contract.
6. Implement and enforce an EHASP: The EHASP as presented in these specifications is dynamic with provisions for change to reflect new information, new practices or procedures, changing site environmental conditions or other situations which may affect site workers and the public. The EHASP will also address measures for community protection, accident prevention, personnel protection, emergency response/contingency planning, air monitoring, odor control and hazardous chemicals expected on site. Providing a Confined Space Entry Program as defined in the Occupational Safety and Health Act, Confined Space Entry Standard, 29 CFR 1910.146.

B. Environmental Consulting Services

The Contractor must retain an Environmental Consultant to obtain all permits and perform all field screening, air monitoring, community air monitoring, soil and water sampling, and health and safety services.

1. If conditions within the exclusion zone are deemed hazardous, then the Contractor and its Environmental Consultant must ensure that all personnel working within identified exclusion zones and/or involved (direct contact) with the handling, storage or transport of hazardous and contaminated materials must have completed a minimum of forty (40) hours of Health and Safety Training on Hazardous Waste Sites in accordance with 29 CFR 1910.120(e). The training program must be conducted by a qualified safety instructor. If conditions in the exclusion zone are deemed to be non-hazardous, the Environmental Consultant must provide site specific training.
2. The Contractor must ensure that on-site management and supervisors directly responsible for or who supervise employees engaged in hazardous waste operations must receive the training specified in above and at least eight (8) additional hours of specialized training on managing such operations at the time of job assignment.

C. Submittals

1. The Contractor must submit a written EHASP, as specified herein, to OEHS for review and approval. The written EHASP must be submitted, within thirty (30) calendar days after the availability of analytical results of the soil and groundwater testing, as required under Section 8.01 C2 and Section 8.01 W2. The Contractor must make all necessary revisions required by OEHS and resubmit the EHASP to OEHS for acceptance. Start-up work for the project will not be permitted until written acceptance has been issued by OEHS.
2. Daily safety logs must be maintained by the Contractor and must be submitted to the Engineer either on request or on completion of the work. Training logs must be maintained by the Contractor and submitted to the Engineer either on request or on completion of the work. Daily logs on air monitoring during excavation activities must be prepared and maintained by the Contractor and submitted to the Engineer either on request or upon completion of the work.
3. A closeout report must be submitted by the Contractor to the Engineer upon completion of the work within the defined exclusion zones. This report must summarize the daily safety and monitoring logs and provides an overview of the Contractor's performance regarding environmental and safety issues. The report must carefully document all areas where contamination has been found including pictures, addresses of locations, and potential sources.
4. Medical Surveillance Examinations: The Contractor must submit to the Engineer the name, office address and telephone number of the medical consultant utilized. Evidence of baseline medical examinations together with the evidence of the ability to wear National Institute for Occupational Safety and Health (NIOSH) approved respirators (as specified in American National Standards Institute (ANSI) Z88.6) must be provided to the Engineer for all construction personnel who are to enter the exclusion zones.
5. Accident Reports: All accidents, spills, or other health and safety incidents must be reported to the Engineer.

D. Health and Safety Plan

The EHASP must comply with OSHA regulations 29 CFR 1910.120/1926.65. This document must at a minimum contain the following:

1. Description of work to be performed
2. Site description
3. Key personnel
4. Worker training procedures
5. Work practices and segregation of work area
6. Hazardous substance evaluation
7. Hazard assessment

8. Personal and community air monitoring procedures and action levels
9. Personal protective equipment
10. Decontamination procedures
11. Safety rules
12. Emergency procedures
13. Spill prevention and control, as well as spill reporting procedures
14. Dust control, vapor/odor suppression procedures
15. Identification of the nearest hospital and route
16. Confined space procedures
17. Excavation safety procedures

8.01 S.2 MEASUREMENT

Health and Safety Requirements

- A. 25% of the lump sum price will be paid when the following items are implemented or mobilized:
 - Medical surveillance program
 - Health and safety training
 - Health and safety plan
 - Environmental and personnel monitoring
 - Instrumentation
 - Spill control
 - Dust control
 - Personnel and equipment decontamination facilities
 - Personnel protective clothing
 - Communications
 - Mobilization
- B. 50% will be paid in proportional monthly amounts over the period of work.
- C. 25% will be paid when the operation is demobilized and removed from the project site.

8.01 S.3 PRICE TO COVER

Health and Safety Requirements

The lump sum price bid for the health and safety requirements will include all labor, materials, equipment, and insurance necessary to complete the work in accordance with these specifications. The price bid will include, but not be limited to, the following:

- A. Providing training, safety personnel, air monitoring and medical examinations as specified.
- B. Providing safety equipment and protective clothing for site personnel, including maintenance of equipment on a daily basis; replacement of disposable equipment as required; decontamination of clothing, equipment and personnel; and all other health and safety activities or costs not paid for under other pay items in this Contract.

- C. Providing, installing, operating and maintaining on-site emergency medical and first aid equipment. This includes all furnishings, equipment, supplies and maintenance of all medical equipment, and all other health and safety items and services for which payment is not provided under other pay items in this Contract.
- D. Providing, installing, operating, maintaining, and decommissioning all personnel and equipment decontamination facilities, including decontamination pad, decontamination water supply, and all other items and services required for the implementation of the health and safety requirements for which pay items are not provided elsewhere in this Contract. Vehicle decontamination pads will be included in the price of this item. Disposal of decontamination fluid will be paid for under Item 8.01 W1 – Removal, Treatment, and Discharge/Disposal of Contaminated Water.
- E. Spill Control
1. Payment will account for furnishing, installing, and maintaining all spill control equipment and facilities. Payment will include equipment and personnel to perform emergency measures required to contain any spillage and to remove spilled materials and soils or liquids that become contaminated due to spillage during work within the exclusion zones and handling of excavated soils and liquids from these areas. This collected spill material will be properly disposed of.
 2. Payment under this item will not include testing, handling, transportation or disposal of petroleum-contaminated/potentially hazardous soils excavated during construction. The price for this work will be paid for under Items 8.01 C1 – Handling, Transporting and Disposal of Non-Hazardous Contaminated Soil, 8.01 C2 – Sampling and Testing of Contaminated/Potentially Hazardous Soil for Disposal Purposes or 8.01 H – Handling, Transporting and Disposal of Hazardous Soil, as appropriate.
- F. Dust Control
- Payment will account for furnishing, installing, and maintaining dust control equipment and facilities to be used whenever applicable dust levels are exceeded. Payment will include all necessary labor, equipment, clean water, foam, and all other materials required by the Dust Control Plan. The NYSDOH Community Air Monitoring Plan (CAMP) may be used as guidance.
- G. Vapor/Odor Suppression
- Payment will account for furnishing, installing and maintaining vapor/odor control equipment and facilities to be used whenever organic vapor monitoring or the presence of odors indicates that vapor suppression is required to protect workers or the public. Payment will include all necessary labor, equipment, clean water, foam and all other materials required by the Vapor/Odor Suppression Plan.
- H. Mobilization/Demobilization
1. Mobilization

Payment will include the following, but not be limited to:

 - a. All work required to furnish, install and maintain all signs, fencing, support zone facilities, parking areas and all temporary utilities;
 - b. All work required to furnish, install, and maintain an office space with phone and utilities for health and safety personnel;
 - c. All work required for complete preparation of lay down area for roll-off containers, including sampling, and any required fencing;
 - d. All direct invoiced cost from bonding companies and government agencies for permits and costs of insurance; and
 - e. All other items and services required for mobilization and site preparation.

2. Demobilization

Payment will include but not be limited to: All work required to sample the area; remove from the site all equipment, temporary utilities and supporting facilities; performance of necessary decontamination and repairs; disposal of disposable equipment and protective gear and other items and services required for complete demobilization.

Payment will be made under:

Item No.	Description	Pay Unit
8.01 S	HEALTH AND SAFETY	LUMP SUM

ITEM 8.01 W1 REMOVAL, TREATMENT, AND DISCHARGE/DISPOSAL OF CONTAMINATED WATER**8.01 W1.1 WORK TO INCLUDE**

General: This work must consist of the proper removal and disposal of all contaminated groundwater and decontamination water generated during construction operations. The Contractor must be solely responsible for the proper disposal or discharge of all contaminated water generated at the job site. The Contractor will have the option of treating water on-site for discharge to the sewer system or removing contaminated water for off-site disposal. The Contractor must be responsible to choose a method compatible to the construction work and will be compensated on a per day basis regardless of method employed. The Contractor will be compensated for only those days where the system is in full operation.

The Contractor must retain a dewatering/water treatment Specialist (hereinafter the "Specialist") and laboratory as specified under Item 8.01 W2 – Sampling and Testing of Contaminated Water, to conduct any testing that may be required for disposal of impacted water.

The dewatering/water treatment Specialist is responsible to obtain all permits; perform all water sampling, testing; and provide ancillary services related to dewatering and water treatment. The Specialist must at a minimum provide documentation to OEHS demonstrating the minimum requirements as set forth below:

1. The Specialist must demonstrate that it has, at a minimum, three (3) years' experience in the design of dewatering plans. The Specialist should demonstrate expertise dealing with issues associated with contaminated water. During that three (3) year period, the Specialist must demonstrate that it provided dewatering and water treatment systems as a routine part of its daily operations.
2. The Specialist must be experienced in work of this nature, size, and complexity and must have previous experience in working with the NYSDEC.
3. The Specialist must furnish a list of at least five (5) projects completed within the last (3) years, identifying the location, nature of services provided, owner, owner's contact, contact's telephone number, project duration and value of the projects.
4. If conditions within the exclusion zone are deemed hazardous, then the Contractor and its Environmental Consultant must ensure that all personnel working within identified exclusion zones and/or involved (direct contact) with the handling, storage or transport of hazardous and contaminated material must have completed a minimum of forty (40) hours of Health and Safety Training on Hazardous Waste Sites in accordance with 29 CFR 1910.120(e). The training program must be conducted by a qualified safety instructor. If conditions in the exclusion zone are deemed to be non-hazardous, the Specialist will be responsible to provide site-specific training to its employees and other affected personnel.
5. The Contractor must ensure that on-site management and supervisors directly responsible for or who supervise employees engaged in hazardous waste operations must receive the training specified in above and at least eight (8) additional hours of specialized training on managing such operations at the time of job assignment.

The Contractor must document all operations associated with the handling, sampling and disposal of contaminated water, and ensure that they are in compliance with applicable Federal, State and Local statutes and regulations.

The Contractor must supply all labor, equipment, transport, plant, material, treatment, and other incidentals required to conduct the specified work of this section.

If water will be disposed of into the sewer system, the Contractor must ensure the Specialist treats the water to comply with the New York City Department of Environmental Protection (NYCDEP) Sewer Effluent Limit concentrations prior to discharge. The Contractor is responsible for providing settling or filtering tanks and any other apparatus required by NYCDEP. Alternatively, the Contractor can provide a plan for transport and disposal at an off-site waste disposal facility.

Within forty-five (45) calendar days after award of Contract, the Contractor must submit to OEHS for review and approval, a Water Handling Plan (WHP). The WHP must be approved by OEHS prior to the Contractor's commencement of work. The minimum requirements for the WHP are specified herein Item 8.01W 1.2, for each type of disposal (disposal into the sewer or off-site disposal). The Contractor must maintain a complete, up to date copy of the WHP on the job site at all times.

8.01 W1.2 CONSTRUCTION DETAILS

For each disposal method the Contractor proposes to utilize (disposal to sewer or off-site disposal), the WHP must include the information required in paragraphs A and B below, as appropriate.

A. On-site treatment and discharge into New York City sewers.

1. Regulations: The Contractor must comply with all applicable regulations. This includes but may not be limited to:

Title 15-New NYCDEP Sewer Use Regulations.

2. Permits: The Contractor is solely responsible to obtain all necessary and appropriate Federal, State and Local permits and approvals. The Contractor will be responsible for performing all and any system pilot tests required for permit approval. This includes but may not be limited to:

- a. Industrial waste approval for the New York City sewer system.
- b. Groundwater discharge permit for the New York City sewer system (NYCDEP Division of Sewer Regulation and Control), if discharge to sewer exceeds 10,000 gallons per day.
- c. The Contractor must comply with NYSDEC State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Runoff from Construction Activity (SPDES General Permit) GP-0-20-001 or its successor.
- d. Long Island well permit for Brooklyn and Queens sites, if well points are used for dewatering.
- e. Wastewater quality control application, NYCDEP.

3. The WHP for this portion of the work must include the following at a minimum:

- a. Identification and design of Contractor's proposed treatment to assure that the water meets the NYCDEP sewer use guidelines prior to discharge to the sewer, including identification of all materials, procedures, settling or filtering tanks, filters and other appurtenances proposed for treatment and disposal of contaminated water.
- b. The name, address and telephone number of the contact for the Contractor's proposed chemical laboratory, as well as the laboratory's certifications under Federal, State or non-governmental bodies.
- c. The name, address and telephone number of the contact for the Contractor's proposed Environmental Consultant.
- d. Copies of all submitted permit applications and approved permits the Contractor have received.

4. Materials

The Contractor must supply all settling or filtering tanks, pumps, filters, treatment devices and other appurtenances for treatment, temporary storage and disposal of contaminated water. All equipment must be suitable for the work described herein.

5. Execution

- a. The Contractor is solely responsible for disposal of all water, in accordance with all Federal, State and Local regulations.
- b. The Contractor is solely responsible for any treatment required to assure that water discharged into the sewer is in compliance with all permits and Federal, State and Local statutes and regulations.
- c. The Contractor is solely responsible for the quality of the water disposed of into the sewers.
- d. The Contractor is responsible for sampling and testing of water for the NYCDEP Sewer Effluent Limit concentrations. The quality of the data is the Contractor's responsibility. Any sampling and testing must be conducted and paid in accordance with Item 8.01 W2 – Sampling and Testing of Contaminated Water.
- e. The Contractor will be responsible to maintain the discharge rate to the sewer such that all permit requirements are met, the capacity of the sewer is not exceeded and no surcharging occurs downstream due to the Contractor's actions. Dewatering by means of well points or deep wells will not be allowed in the Boroughs of Brooklyn or Queens where the rate of pumping exceeds forty-five (45) gallons per minute unless the appropriate permit has been secured from the NYSDEC.
- f. Disposal of Treatment Media
 - (1) The Contractor will be responsible for disposal or recycling of treatment media in accordance with all Federal, State and Local regulations.
 - (2) The Contractor must provide the Engineer with all relevant documentation concerning the disposal of treatment media, including manifests, bills of lading, certificates of recycling or destruction and other applicable documentation.
 - (3) Disposal of treatment media will not be considered a separate pay item; instead it will be considered as incidental work thereto and included in the unit price bid.

B. Off-Site Disposal

1. Regulations: The Contractor must conform to all applicable Federal, State and Local regulations pertaining to the transportation, storage and disposal of any hazardous and/or non-hazardous materials as listed in Attachment 2.
2. The following must be submitted to the Engineer prior to initiating any off-site disposal:
 - a.
 - (1) Name and waste transporter permit number
 - (2) Address
 - (3) Name of responsible contact for the waste transporter
 - (4) Any and all necessary permit authorizations for each type of waste transported
 - (5) Previous experience in performing the type of work specified herein
 - b. General information for each proposed treatment/disposal facility and at least one backup treatment/disposal facility
 - (1) Facility name and USEPA identification number
 - (2) Facility location
 - (3) Name of responsible contact for the facility
 - (4) Telephone number for contact
 - (5) Unit of measure utilized at facility for costing purposes

- c. A listing of all permits, licenses, letters of approval and other authorizations to operate, which are currently held and valid for the proposed facility as they pertain to receipt and management of the wastes derived from this Contract.
 - d. A listing of all permits, licenses, letters of approval and other authorizations to operate which have been applied for by the proposed facility but not yet granted or issued. Provide dates of application(s) submitted. Planned submittals must also be noted.
 - e. The Contractor must specify and describe the disposal/containment unit(s) that the proposed facility will use to manage the waste and provide dates of construction and beginning of use, if applicable. Drawings may be provided. The Contractor must identify the capacity available in the units and the capacity reserved for the subject waste.
 - f. The Contractor must provide the date of the proposed facility's last compliance inspection.
 - g. A list of all active (unresolved) compliance orders, agreements, enforcement notices or notices of violations issued to the proposed facility must be submitted. The source and nature of the cause of violation must be stated, if known. If groundwater contamination is noted, details of the facility's groundwater monitoring program must be provided.
 - h. Description of all sampling and field/laboratory analyses that will be needed to obtain disposal facility approval.
3. Materials
- All vessels for temporary storage and transport to an off-site disposal facility must be as required in DOT regulations.
4. Execution
- a. General
 - (1) The Contractor must organize and maintain the material shipment records/manifests required by Federal, State and Local laws. The Contractor must include all bills of lading, certificates of destruction, recycling or treatment and other applicable documents.
 - (2) The Contractor must coordinate the schedule for truck arrival and material deliveries at the job site to meet the approved project schedule. The schedule must be compatible with the availability of equipment and personnel for material handling at the job site.
 - (3) The Contractor must inspect all vehicles leaving the project site to ensure that contaminated liquids are not spilling and are contained for transport.
 - (4) The Contractor must obtain letters of commitment from the waste haulers and the treatment, disposal or recovery facility to haul and accept shipment. The letter must indicate agreement to handle and accept the specified estimated quantities and types of material during the time period specified in the project schedule and any time extension as deemed as necessary.
 - (5) The Contractor must verify the volume of each shipment of water from the site.
 - (6) The Contractor is responsible for sampling and testing of water for off-site disposal. The quality of the data is the Contractor's responsibility. Any sampling and testing must be conducted and paid in accordance with Item 8.01 W2 – Sampling and Testing of Contaminated Water.
 - (7) The Contractor is responsible for any additional analyses required by the TSD facility, and for the acceptance of the water at an approved TSD facility.

b. Hauling

- (1) The Contractor must not deliver waste to any facility other than the TSD facility(ies) listed on the shipping manifest.
- (2) The Contractor must coordinate manifesting, placarding of shipments, and vehicle decontamination. All quantities must also be measured and recorded upon arrival at the TSD facility(ies). If any deviation between the two records occurs, the matter is to be reported immediately to the Engineer and must be resolved by the Contractor to the satisfaction of the Engineer.
- (3) The Contractor will be responsible for any and all actions necessary to remedy situations involving material spilled in transit or mud and dust tracked off-site. This cleanup must be accomplished at the Contractor's expense.
- (4) The Contractor will be responsible for inspecting the access routes for road conditions, overhead clearance and weight restrictions.
- (5) The Contractor must only use the transporter(s) identified in the WHP for the performance of work. Only a transporter with a current Part 364 Waste Transporter Permit from NYSDEC may transport this material. Any use of substitute or additional transporters must have previous written approval from the Engineer at no additional cost to the City.
- (6) The Contractor must develop, document, and implement a policy for accident prevention.
- (7) The Contractor must not combine waste materials from other projects with material from this project.
- (8) The Contractor must obtain for the City a hazardous waste generator identification number and will sign the manifest as the generator, if necessary.
- (9) No material must be transported until approved by the Engineer.

c. Disposal Facilities

- (1) The Contractor must use only the TSD facility(ies) identified in the WHP for the performance of the work. Substitutions or additions must not be permitted without prior written approval from OEHS, and, if approved, must be at no extra cost to the City.
- (2) The Contractor will be responsible for acceptance of the material at an approved TSD facility, for ensuring that the facility is properly permitted to accept the stated material, and that the facility provides the stated storage and/or disposal services.
- (3) The City reserves the right to contact and visit the disposal facility and regulatory agencies to verify the agreement to accept the stated material and to verify any other information provided. This does not in any way relieve the Contractor of the Contractor's responsibilities under this Contract.
- (4) In the event that the identified and approved facility ceases to accept the stated materials or the facility ceases operations, it is the Contractor's responsibility to locate an alternate approved and permitted facility(ies) for accepting materials. The Contractor is responsible for making the necessary arrangements to utilize the facility(ies), and the alternate facility(ies) must be approved in writing by the Engineer in the same manner and with the same requirements as for the original facility(ies). This must be done with no extra cost or delay to the City.

d. Equipment and Vehicle Decontamination

- (1) The Contractor must design and construct a portable decontamination station to be used to decontaminate equipment and vehicles exiting the exclusion zone. The cost for this work will be paid under Item 8.01 S – Health and Safety.

8.01 W1.3 METHOD OF MEASUREMENT

The quantity for on-site treatment and discharge or off-site disposal will be on a per day basis.

8.01 W1.4 PRICE TO COVER

- A. The per day price bid for Item 8.01 W1 will include the cost of furnishing all labor, materials, equipment, plan, and insurance for handling, transportation, disposal, documentation, permits, hauling, mobilization and demobilization, and any other incidentals thereto to complete the work.
- B. The Contractor will not be paid for water that is within the NYCDEP Sewer Discharge Limits.

Payment will be made under:

Item No.	Description	Pay Unit
8.01 W1	REMOVAL, TREATMENT AND DISCHARGE/DISPOSAL OF CONTAMINATED WATER	DAY

ITEM 8.01 W2 Sampling And Testing Of Contaminated Water

8.01 W2.1 WORK TO INCLUDE

A. Description

The work will consist of sampling and testing of potentially contaminated groundwater, surface runoff within the excavated area and all contaminated water generated during the decontamination process.

B. Sampling and Testing

1. The Contractor is responsible, at a minimum, for sampling and testing of contaminated water for the NYCDEP Sewer Effluent Limit concentrations as listed in Attachment 1, and in accordance with the Engineer-approved FSP and the Investigation HASP, as specified in 8.01 C2. The quality of the data is the Contractor's responsibility. Any additional testing required by the Federal, State and/or disposal facilities must be included in the bid price of this Item.
2. All sampling and testing must be conducted by a person trained in sampling protocols using accepted standard practices and/or the NYSDEC sampling guidelines and protocols.
3. All sample containers must be marked with legible sample labels which must indicate the project name, sample location and/or container, the sample number, the date and time of sampling, preservatives utilized, how the sample was chilled to 4 degrees Celsius, and other information that may be useful in determining the character of the sample.
4. Chain-of-custody must be tracked from laboratory issuance of sample containers through receipt of the samples.
5. The Contractor must maintain a bound sample log book. The Contractor must provide the Engineer access to it at all times and must turn it over to the Engineer in good condition at the completion of the work. The following information, as a minimum, must be recorded to the log:
 - a. Sample identification number
 - b. Sample location
 - c. Field observation
 - d. Sample type
 - e. Analyses
 - f. Date/time of collection
 - g. Collector's name
 - h. Sample procedures and equipment used
 - i. Date sent to laboratory/name of laboratory
6. Only dedicated sampling equipment may be used to collect these samples. All equipment involved in field sampling must be decontaminated before being brought to the site, and must be properly disposed of after use.
7. Samples must be submitted to the Contractor's laboratory within the holding times for the parameters analyzed.
8. All analyses must be done by a laboratory that has received approval from the NYSDOH's ELAP for the methods to be done. The Contractor must specify the laboratory in the WHP.
9. Analytical results for water discharged to the sewer and for off-site disposal must be submitted to the Engineer no later than five (5) days after sample collection.
10. The City reserves the right to direct the Contractor to conduct alternative sampling in lieu of the parameters described above, if the situation warrants. The substitute sampling parameters will be of equal or lesser monetary value than those described above, as determined by industry laboratory pricing standards.

8.01 W2.2 METHOD OF MEASUREMENT

Quantities for samples will be measured as the number of sets of samples that are tested for the NYCDEP Sewer Effluent Limit concentrations. A set will be defined as one (1) representative sample analyzed for the full range of NYCDEP parameters as specified in Attachment 1.

8.01 W2.3 PRICE TO COVER

The unit price bid per set for Item 8.01 W2 will include the cost of furnishing all labor, materials, equipment, plan, and insurance for handling, transport, sampling, testing, documentation, permits, other incidentals necessary to complete the work of sampling and testing of contaminated water. Any additional costs incurred by the Contractor for sampling and testing of contaminated water will be included in the bid price of this Item.

Payment will be made under:

Item No.	Description	Pay Unit
8.01 W2	SAMPLING AND TESTING OF CONTAMINATED WATER	SETS

SECTION 8.22 LWM – Liquid-Applied Waterproofing Membrane

8.22 LWM.1. WORK TO INCLUDE.

Under this section, the Contractor must apply single-component, cold-applied, liquid waterproofing membrane in accordance with the details indicated on the Contract Drawings, specified, or directed by the Engineer.

8.22 LWM.2. REFERENCES.

- A. ASTM C836 - Standard Specification for High Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane for Use with Separate Wearing Course.
- B. ASTM C661 - Standard Test Method for Indentation Hardness of Elastomeric-Type Sealants by Means of a Durometer.
- C. ASTM D816 - Standard Test Methods for Rubber Cements.
- D. ASTM D1644 - Standard Test Methods for Nonvolatile Content of Varnishes.
- E. ASTM D2370 - Standard Test Method for Tensile Properties of Organic Coatings.
- F. ASTM D2697 - Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings.
- G. ASTM E96 - Standard Test Methods for Water Vapor Transmission of Materials.

8.22 LWM.3. SUBMITTALS.

- A. Comply with requirements of Section 1.06 General Conditions.
- B. Product Data:
 - 1. Submit manufacturer's printed product literature, specifications, data sheet, storage and handling requirements, recommendations and installation methods.

8.22 LWM.4. QUALITY ASSURANCE.

- A. Installer Qualifications:
 - a. Use an experienced installer and adequate number of skilled personnel who are thoroughly trained and experienced in the application of fluid applied waterproofing membranes.
- B. Obtain waterproofing materials from a single manufacturer regularly engaged in manufacturing the product.
- C. Provide products which comply with all state and local regulations controlling use of volatile organic compounds (VOCs).

8.22 LWM.5. MOCK-UPS.

- A. Prior to installation of waterproofing membrane, apply waterproofing membrane to 100 ft.2 of deck or wall to demonstrate surface preparation, crack and joint treatment, corner treatment, thickness, and to demonstrate tie-ins with adjoining construction, and other termination conditions, as well as qualities of materials and execution.
- B. Cooperate and coordinate with the owner's inspection and testing agency. Do not cover any installed waterproofing membrane unless it has been inspected, tested and approved.

8.22 LWM.6. DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.
- B. Store materials in a clean, dry area in accordance with manufacturer's instructions.
- C. Store at temperatures between 40° - 70° F (4° - 21° C).
- D. Protect materials during handling and application to prevent damage or contamination.

8.22 LWM.7. ENVIRONMENTAL REQUIREMENTS.

- A. Product not intended for uses subject to abuse or permanent exposure to the elements.
- B. Do not apply membrane when air, material, or surface temperatures are expected to fall below 30° F (-1o C) within four hours of completed application.
- C. Do not apply membrane if rainfall is forecast or imminent within 12 hours.
- D. Do not apply waterproofing membrane to any surfaces containing frost.
- E. Consult manufacturer for applications to green concrete.

8.22 LWM.8. MATERIALS.**MANUFACTURERS:**

- A. W. R. MEADOWS, INC., PO Box 338, Hampshire, Illinois 60140-0338. (800) 342-5976. (847) 683-4500. Fax (847) 683-4544. Web Site www.wrmeadows.com.

- B. KEMPER SYSTEM AMERICA Inc., 1200 North America Drive West Seneca, NY 14224, Phone: (800) 541-5455 Fax: (716) 558-2967. Website <http://www.kemper-system.com/US/eng/home/>
- C. GACO, 200 4th Avenue South Nashville, TN 3720, Phone: 800.331.0196. Website <https://gaco.com/>
- D. Or approved equal.

MATERIALS:

- A. Waterproofing Membrane: single-component, cold-applied, solvent-free, non-shrink, liquid waterproofing membrane.
 - 1. Performance Based Spec: Waterproofing membrane must have the following properties as determined by laboratory testing:
 - a. Solids content:
 - i. By weight, ASTM D1644: 98%.
 - ii. By volume, ASTM D2697: 98%.
 - b. Tensile Strength, ASTM D2370: 70 psi.
 - c. Elongation, ASTM D2370: 440%.
 - d. Water Vapor Transmission, ASTM E96 (Method B): 0.07 perms.
 - e. Shore 00 Hardness, ASTM C661: 55.
 - f. Low Temperature Flexibility, ASTM D816: -20° F (-28.9° C) pass ¼ (6.4mm) mandrel.

ACCESSORIES:

- A. Joint Tape: 6" (150 mm) wide reinforcing fabric for corners, crack, and joint treatment.
 - 1. REINFORCING FABRIC HCR.
- B. Reinforced Joint Tape for outside corners subject to backfill.
 - 1. PRECON TAPE.
- C. Detailing Membrane: BEM
- D. Concrete Repair Materials: MEADOW-PATCH 5 and 20 Concrete Repair Mortars.
- E. Waterproofing Protection Course: PERMINATOR or PROTECTION COURSE.
- F. Rolled Matrix Drainage System: MEL-DRAIN.

8.22 LWM.9. EXAMINATION.

- A. Examine surfaces to receive membrane. Notify the Engineer if surfaces are not acceptable. Do not begin surface preparation or application until unacceptable conditions have been corrected.

SURFACE PREPARATION:

- A. Protect adjacent surfaces not designated to receive waterproofing.
- B. Clean and prepare surfaces to receive waterproofing in accordance with manufacturer's instructions.
- C. Do not apply waterproofing to surfaces unacceptable to manufacturer.
- D. Clean concrete surfaces so they are free of all coatings, dirt, oil, paints and any other contaminants.
- E. Patch all holes and voids and smooth out any surface misalignments.
- F. Remove and patch all concrete form ties.
- G. Treatment of Existing Cracks and All Non-Structural Joints
 1. Identify and install detailing membrane in all cracks and all non-structural joints.
 2. Apply a 30 wet mil coat of the fluid applied membrane ensuring that there is a minimum of 3" (75 mm) of membrane extending onto the wall in all directions.
 3. Embed the non-woven reinforcing fabric over the entire area of this membrane and work in using trowel.
 4. Completely cover the glass mesh with a second coat of the fluid applied membrane at 30 wet mils while the first coat is still wet, again extending 3" onto the wall in all directions.
- H. Treatment of Inside & Outside Corners
 1. Install detailing membrane to create a minimum $\frac{3}{4}$ " fillet in all inside corners.
 2. Apply a 30 wet mil coat of the fluid applied membrane ensuring that there is a minimum of 3" (75 mm) of membrane extending onto the wall in all directions.
 3. Embed the non-woven reinforcing fabric over the entire area of this membrane and work in using trowel.
 4. Completely cover the glass mesh with a second coat of fluid applied membrane at 30 wet mils while the first coat is still wet, again extending 3" onto the wall in all directions.
 5. On outside corners subject to backfilling, install reinforced joint tape in lieu of fabric joint tape following the same procedure.

8.22 LWM.10. APPLICATION/WORKMANSHIP.

- A. Apply waterproofing membrane system in accordance with manufacturer's instructions.
- B. Gently mix membrane prior to application.
- C. Apply membrane by trowel, flat-blade squeegee, or roller, at a minimum coverage rate of 25 sqft/U.S. gal (2.3 m²/3.78 L), providing a thickness of 60 wet mils.
- D. If a two-coat application is required, apply second coat as soon as possible with no more than eight hours between coats providing a minimum total thickness of 60 wet mils.
- E. Frequently inspect surface area to ensure proper adhesion and consistent thickness is achieved.
- F. Work material into any fluted rib forming indentations.
- G. Provide minimum cured membrane thickness of 60 mils dry.

8.22 LWM.11. PROTECTION.

- A. Protect membrane with application of waterproofing protection course, drainage board, or other approved material.
- B. Backfill immediately using care to avoid damaging waterproofing membrane system.

8.22 LWM.12. MEASUREMENT.

The quantity to be measured for payment under this Item must be the number of SQUARE FEET of liquid-applied waterproofing membrane, installed in accordance with the plans, specifications, and directions of the Engineer.

8.22 LWM.13. PRICES TO COVER.

The unit price bid must include the cost of all labor, materials, equipment, insurance, and incidentals necessary to complete the work; all in accordance with the plans, the specifications and the directions of the Engineer.

Payment will be made under:

Item No.	Item	Pay Unit
8.22 LWM	LIQUID-APPLIED WATERPROOFING MEMBRANE	S.F.

The Section below supersedes and replaces Section 9.30 of NYC DOT
Standard Specifications dated May 16, 2022

SECTION 9.30 - Stormwater Pollution Prevention

9.30.1. INTENT.

The intent of this section is to address Erosion and Sediment Control (ESC) and pollution prevention during construction and maintenance and guaranty period. The Contractor is advised that within NYC boundaries, in compliance with the Rules of the City of New York Title 15 Chapter 19.1 (15 RCNY Chapter 19.1), DEP is required to review and approve Stormwater Pollution Prevention Plans (SWPPP) that have been prepared to meet the requirements listed in Chapter 19.1. All covered development projects must implement ESC measures in accordance with the NYS Standards and Specifications for Erosion and Sediment Control (also known as The “NYS DEC Blue Book”), dated November 2016 (<https://www.dec.ny.gov/chemical/8694.html>), as amended.

The objective is to develop and implement a SWPPP that will minimize the pollutants entering the storm sewer systems in compliance with 15 RCNY Chapter 19.1, and the New York State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Runoff from Construction Activity, SPDES General Permit GP-0-20-001 or its successor.

9.30.2. DEFINITIONS.

1. **Designer** – The Design Engineer or Qualified Professional responsible for the design
2. **Qualified Inspector** - A person who is knowledgeable in the principles and practice of erosion sediment control, such as a licensed Professional Engineer, a Certified Professional in Erosion and Sediment Control, or a Registered Landscape Architect.
3. **Qualified Professional** - A person who is knowledgeable in the principles and practice of stormwater management and treatment such as a licensed Professional Engineer or a registered landscape architect or other NYSDEC endorsed individuals.
4. **SWPPP Preparer** - Must be a qualified professional. Creates the SWPPP for review and submittal to the SWPTS (as defined in Section 9.30.3). The SWPPP Preparer must certify that the SWPPP was prepared in accordance with RCNY Title 15 Chapter 19.1.
5. **Trained Contractor**- An employee of the Contractor who has received four hours of NYSDEC endorsed training in the past 3-Years, in the principals and practices of proper erosion and sediment control as required. Such employee must have a certificate of training and wallet card showing their certification number.
6. **Owner** – applicant agency.

9.30.3. SCOPE AND METHODS.

The ESC portion of the SWPPP must include ESC and pollution prevention practices. Practices must be designed in compliance with 15 RCNY Chapter 19.1 and the New York State Standards and NYS DEC Blue Book. Within thirty (30) days after the Contract is registered, the Contractor must submit a completed SWPPP to the NYCDDC Office of Environmental & Hazmat Services (OEHS) for review and acknowledgement. After approval by OEHS, the SWPPP must also be submitted to NYCDEP Stormwater Permitting Unit through the Stormwater Permitting and Tracking System (SWPTS) portal by the SWPPP Preparer for approval.

Contractor and SWPPP Preparer must be registered on SWPTS portal at:

<https://deppermits.microsoftcrmpartals.com/Account/Login?returnUrl=/my-application/>

Projects in Municipal Separate Storm Sewer System (MS4) areas require coverage under SPDES General Permit GP-0-20-001 or its successor and a NYCDEP Stormwater Construction Permit. Project areas serviced by a Combined Sewer System (CSS) will only require SWPPP approval from DEP.

The SWPPP must be prepared considering the topography of the subject area. It must also identify potential sources of pollution at the project site that may reasonably be expected to affect the quality of stormwater discharges. The plan must describe the specifics of Post-Construction Stormwater Management Practices (PCSMs) that are to be used to reduce the pollutants in stormwater discharges, their sequence of implementation and associated design details. All practices included in the SWPPP must be designed in conformance with NYCDEP Stormwater Manual and with the most current version of the Blue Book.

The SWPPP template is available at <https://www1.nyc.gov/site/dep/water/stormwater-permits.page>.

For the Qualified Professional, the Contractor must retain the services of an independent licensed/certified professional with practical experience in the principles and practices of erosion and sediment control and stormwater management, to prepare and certify a site specific SWPPP, along with all necessary shop drawings. The SWPPP Preparer must verify that the SWPPP has been developed in a manner that will assure compliance with the NYCDEC water quality standards and with the substantive intent of the SPDES General Permit GP-0-20-001 or its successor and 15 RCNY Chapter 19.1.

Construction work must only commence in MS4 areas upon issuance of NYSDEC permit identification number and NYCDEP Stormwater Construction Permit. In addition, an initial inspection must be conducted by the Qualified Inspector certifying that the appropriate control measures specified in the SWPPP have been adequately implemented to the satisfaction of the Resident Engineer (RE) and the OEHS Project Manager (PM). In areas serviced by CSS, Work must not commence until issuance of NYCDEP Stormwater Construction Permit and completion of initial inspection.

The Contractor will be responsible for maintenance of the PCSMs during the period of construction and the period of guarantee. The Contractor will be responsible for allowing access to DDC and DEP Inspectors during the guarantee period. The Contractor will be responsible for preparing documentation for Stormwater Maintenance Permit Application which includes the final Operation & Maintenance (O&M) Plan with as-built drawings. The maintenance is outlined in Chapter 5 of the NYC Stormwater Manual; however, the Contractor will also be held to maintaining as directed in the design documents and as per the approved Stormwater Construction Permit. Also, should it be needed, the Contractor will be responsible for preparing the required documents for Lead Agency/landowner to use when renewing the maintenance permit every 5 years as outlined in the NYC Stormwater Manual. At the completion of the guaranty period and upon final approval, the City takes over the responsibility for maintenance.

9.30.4. DEVIATIONS AND AMENDMENTS.

A SWPPP that deviates from the NYCDEP and NYSDEC technical standards must have a section justifying any non-conformance. The justification must include, but not be limited to, the following:

- a. Statement of each deviation from State or City requirements;
- b. Statement of the reasons for each deviation and reasons for supporting adopted alternatives;
- c. Provide information which demonstrates that the deviation or alternative design is equivalent to the Technical Standards; and,
- d. Analysis of the water quality impacts.

In instances when the approved SWPPP is included in the Contract Documents, the Contractor is still responsible for reviewing the SWPPP, updating the Construction team contacts, identifying a need for any major or minor amendments and obtaining OEHS and NYCDEP Stormwater Permitting Unit approvals along with updating coverage under SPDES General Permit.

9.30.5. INSPECTION AND MAINTENANCE.

The Trained Contractor must provide regular inspection and maintenance of the ESC measures which were deployed as part of the Contractor's construction process. Site inspection and Maintenance of ESC must be implemented in accordance with Part IV of SPDES General Permit GP-0-20-001 (or most recent version). The Contractor will also be responsible for maintenance of the PCSMPs which are constructed throughout the construction and period of guarantee according to the requirements of Chapter 5 of the NYC Stormwater Manual or the requirements given in the design documents by the Designer. The Qualified Inspector is responsible to inspect the site at least once every 7-days to assure compliance with the approved SWPPP. The Trained Contractor is also responsible for providing access to NYCDEP or City representatives to inspect the measures for proper maintenance.

9.30.6. CERTIFICATION.

The SWPPP (site logbook) must clearly identify a Trained Contractor for the Contractor and all the Subcontractors that will implement each measure identified in the SWPPP. The Trained Contractors identified in the SWPPP who perform professional services at the site must implement the provisions of the plan and provide certification of the SWPPP in accordance with the provisions of the, NYCDEP Stormwater Construction Permit, the Blue Book, and SPDES General Permit GP-0-20-001 or its successor. The Contractor and all Subcontractors must ensure that updates to construction operations, ESC/PCSMP practices, etc. are communicated/approved by DEP Stormwater Permitting Unit prior to proceeding with implementation. The Lead Agency/landowner is advised that the City must receive yearly certifications that PCSMP's are properly maintained and in support of that certification the Trained Contractor is required to provide a copy of inspections performed.

9.30.7. STABILIZATION.

Stabilization must be implemented in accordance with Part 1.B.1.b of SPDES General Permit GP-0-20-001 or its successor.

9.30.8. CONTRACTOR'S LIABILITY.

The Contractor will be liable for any discharge that either causes or contributes to a violation of water quality standards as contained in Parts 700 through 705 of Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York. Should any stormwater runoff from the site violate the water quality standards, the Contractor will be directed to take immediate steps, at the Contractor's own expense, to rectify the situation and prevent any further sediment from entering the storm sewer system.

In the event that pollutants are discharged to the storm sewer system due to the Contractor's negligence, the RE will direct the Contractor to cease any or all construction activities contributing to the release of these pollutants. The Contractor will be held responsible, at the Contractor's own cost, for any and all necessary actions to remedy the damage.

Furthermore, failure of the Contractor and/or their Subcontractor(s) to strictly adhere to any permit requirements will constitute a permit violation that could result in substantial criminal, civil, and administrative penalties.

It is the Contractor’s responsibility to pay all associated permit fees which includes the DEP Stormwater Construction Permitting Fees and SPDES permit fees. DEP Stormwater Construction Permits must be renewed every two years by submitting to DEP no less than 30 days prior to the permit expiration date and must be accompanied by a processing fee in the amount of \$1,000 dollars in addition to a \$2,000 dollar fee per acre of land disturbed or the applicable amount at the time of renewal. NYSDEC SPDES consists of the yearly regulatory fee, the initial authorization fee per acre of land disturbed and per acre of future impervious area. The Contractor is liable for all penalties incurred due to the Contractor’s failure to pay these fees on time.

9.30.9. MEASUREMENT.

(A) STORM WATER POLLUTION PREVENTION (Lump Sum)

Payment will be made by lump sum.

Ten percent (10%) of the lump sum price bid will be paid when the SWPPP is “satisfactorily” furnished by the Qualified Professional and accepted by the Department.

Seventy percent (70%) will be paid in proportion to the percentage of construction completion.

Twenty percent (20%) will be paid when the construction and the guaranty period is complete, the Stormwater Maintenance Permit has been granted by NYCDEP, the Notice of Termination (NOT) is filed with NYSDEC, and all SPDES permit fees have been paid. For clarity, the Contractor must include the final twenty percent (20%) in the Contractor’s requisition for substantial completion payment; however, this amount will be not payable until completion of the above specified requirements.

(B) STORM WATER POLLUTION PREVENTION (per Month)

The quantity to be measured for payment under this item will be the number of months (to the nearest 1/4-month increment) that the Contractor satisfactorily provides for the Storm Water Pollution Prevention in accordance with these specifications, including winter shut down, holiday embargo, and other work suspension periods for which the Contractor remains responsible for site maintenance. Measurement for this item will not begin until the NYCDEP Stormwater Construction Permit is granted and actual SWPPP work is started at the site.

9.30.10 PRICE TO COVER.

Payment will be made at the lump sum price or monthly price bid for the item , which includes, but is not be limited to, the cost of furnishing all the labor, materials, fees, permits and testing required to provide and construct all ESC devices in accordance with the approved SWPPP; providing a Qualified Professional/Inspector to design, report, inspect and monitor the Work; comply with NYCDEP and NYSDEC permitting requirements and all necessary incidentals to complete the Work in accordance with the specifications and the directions of the Engineer.

For PCSMPs the payment for inspection and permitting administration will be paid from the lump sum price bid for the item 9.30 Stormwater Pollution Prevention. However, the cost of labor, materials, and maintenance associated with PCSMPs will be paid under the relevant pay item for PCSMP construction.

Payment will be made under:

Item No.	Item	Pay Unit
9.30	STORM WATER POLLUTION PREVENTION	L.S.
9.30 B	STORM WATER POLLUTION PREVENTION	MONTH

SECTION 9.77 RSR – Remove, Store and Reset Flagpole**9.77RSR.1 DESCRIPTION.**

This section describes the removal and salvage, off-site storage, and re-installation of the existing stainless-steel flagpoles (henceforth referred to collectively as flagpole or flagpoles) in accordance with the Contract Drawings, the specifications and the directions of the Engineer.

9.77RSR.2 MATERIALS.**(A) OWNERSHIP**

The salvaged flagpoles remain the property of NYCDOT. The flagpoles are to be detached from existing construction, in a manner to prevent damage, prepared for reused, and stored off-site by the Contractor until they are reinstalled on-site as part of this Work. Any pole damaged during the work of this Section will be replaced, in-kind, at no expense to the City.

Storage or sale of removed and salvaged items or materials on-site is not permitted.

(B) MATERIALS

Collar: The ornamental collar at the base of the flagpole must be constructed of cast aluminum alloy 43-F. It must be cast in one piece and must have a minimum thickness of ¼ inch. The profile must be as shown on the detail.

Pole-Tech Inc.	Colonial Flag
97 Gnarled Hollow Road	9390 South 300 West
East Setauket, NY	11733 Sandy, UT 84070
800.633.6733	877.941.3584
www.poletech.com	www.colonialflag.com

or equal as approved by the Engineer.

Grounding: Grounding system must consist of 3 copper bonded ground rods, copper grounding cable (size #2/0), PVC through sleeve, and grounding connectors. Grounding system must comply with all national and local laws, ordinances, and safety standards that apply to lightning protection. All components must be similar to products offered by the following manufacturers:

Heary Brothers Lightning Protection Co.	Northeast Lightning Protection, LLC
11291 Moore Road	10 Peters Road
Springville, NY 14141	Bloomfield, CT 06002
716.941.6141	860.243.0010
www.hearybros.com	www.northeastlightning.com

East Coast Lightning Equipment, Inc.

24 Lanson Drive

Winsted, CT 06098

888.680.9462

www.eclc.biz

or equal as approved by the Engineer.

Granite: Granite must be sound, durable, properly quarried; free from reeds, rifts, laminations, and minerals which, by weathering, would cause discoloration; reasonably uniform in quality and texture throughout; and free from an excess of mica and feldspar, seams, scales, or evidence of disintegration.

Granite must be from one of the following manufacturers:

“Mt. Airy White”

as manufactured by

North Carolina Granite

P.O. Box 151

Mt. Airy, NC 27030

1-800-227-6242

www.sales@ncgranite.com

“Bethel White” or “Barre Gray”

as manufactured by

Prestige Stone Designs

470 Belleville Turnpike

North Arlington, NJ 07031

1-800-734-1185

www.sales@prestigewoodandstone.com

“Iridian”

as manufactured by

Cold Spring Granite

17482 Granite West Road

Cold Spring, MN 56320

1-800-328-5040

www.info@coldspringusa.com

or equal approved by the Engineer.

All exposed surfaces of granite must have a thermal finish. All exposed surfaces must be out of wind, free from waves, projections, or depressions on the faces of the granite. Arrises must be cut sharp and true to square or pattern.

The granite base must consist of a single piece of granite, perforated to leave a hole for the flagpole, and provided with Lewis holes on concealed surfaces, for handling.

(C) INSTALLATION MATERIALS

Mortar for setting and pointing must be one part Portland cement and one part plastic lime hydrate to three parts of clean, non-staining sand. It must be mixed in small batches, using clean, non-alkaline water, until it is thoroughly homogenous, stiff and plastic. After mixing, the mortar must set for not less than one hour or more than two hours before being used.

Sealant and related materials must conform to the following:

- (1) For joint filler provide closed cell extruded neoprene gasket conforming to ASTM C 509, grade 4, color to match stone.
- (2) Sealant: Two (2) part self-leveling polyurethane sealant complying with ASTM C-920, Type M, Class 25, Grade P&NS, equal to Sikaflex-2c NS/SL made by Sika Chemical Co., Tremco or Pecora or approved equal. Color of sealant must match stone, as approved by the Engineer.
- (3) Back-up rod must be "Ethafoam" or approved equal.
- (4) Prime joints using primer recommended by sealant manufacturer.

9.77RSR.3 SUBMITTALS.**(A) INFORMATIONAL SUBMITTALS**

Provide a proposed protection measures report, including drawings, that indicates the measures proposed for protecting individuals and property.

Schedule of removal, salvage and reinstallation activities that includes a detailed sequence of work with starting and ending dates for each activity.

Predemolition photographs or video showing existing conditions of flagpoles and adjoining construction, including finished surfaces, that might be misconstrued as damage caused by removal operations.

Prior to the start of construction, tag each flagpole scheduled for removal, off-site storage, and reinstallation and provide Engineer with an inventory. Inventory must include all accessories and flagpole components; including, but not limited to pole, halyard, finial, collar, cleat and truck.

(B) SHOP DRAWINGS

Include plans, elevations, details, and attachments to other work. Show general arrangement, jointing, fittings, accessories, grounding, anchoring, and support. Include details of grounding system and connections.

(C) SAMPLES

Granite Samples: The Contractor must submit to the Engineer for approval two 8 inch by 12 inch samples of the granite proposed to be used. Samples must be dressed as specified and show the extreme variation in quality, color, and texture that will occur in the granite to be used.

9.77RSR.4 METHODS.**(A) PREINSTALLATION MEETINGS**

A predemolition conference will be conducted on site with the Contractor and Engineer. During the meetings, inspect and discuss condition of construction to be removed and salvaged and the adjacent, impacted construction. Review structural load limitations of existing structure. Review and finalize removal and salvage schedule and verify availability of materials, demolition personnel, equipment, and facilities needed to make progress and avoid delays. Review requirements of work performed by other trades that rely of substrates exposed by removal and salvage operations. Review areas where existing construction is to remain and requires protection. Notify Engineer of discrepancies between existing conditions and Contract Drawings before proceeding with removal and salvage.

(B) EXISTING WARRANTIES

Remove, replace, patch, and repair materials and surfaces cut or damaged during removal and resetting, but methods and with materials and using approved contractors so as not to void existing warranties.

(C) REMOVAL AND SALVAGE

Demolish and remove existing construction only to the extent required for salvaging flagpoles and new construction. Use methods required to complete the work within limitations of governing regulations. Comply with hauling regulations of authorities having jurisdiction for both the hauling of materials to off-site storage and the hauling of materials back to the site for reinstallation.

Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage materials to be salvaged and reinstalled, or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping. Temporarily cover opening to remain. Avoid marring existing finished surface of flagpoles.

Clean and repair items to functional condition adequate for intended reuse. Pack or crate items after cleaning; spiral wrap flagpoles with heavy paper and enclose in hard fiber tube or other protective container. Identify contents of containers. Store items, off-site, in a secure area until resetting. Protect items from damage during transport and storage.

(D) STORAGE

Salvaged materials to be reinstalled must be transported off-site for storage until reinstallation. No salvaged materials must remain on site following removal.

(E) PROTECTION

Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain. Ensure minimal interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.

(F) COORDINATION

Coordinate installation of anchorages for flagpoles. Furnish setting drawings, templates, and directions for installing anchorages that are to be embedded in concrete or masonry. Deliver such items to project site in time for installation.

(G) INSTALLATION

Reinstall flagpoles in locations indicated and according to approved Shop Drawings. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.

The pole must not be set until after the concrete has thoroughly hardened, and in no sooner than eight (8) days after pouring of concrete. The copper grounding cable must be mounted to the grounding pad and sleeved through the concrete foundation before pole is set.

Install baseplate on washers placed over leveling nuts on bolts and adjust until flagpole is plumb. After flagpole is plumb, tighten retaining nuts and fill space under baseplate solidly with nonshrink, nonmetallic grout. Finish exposed grout surfaces smooth and slope 45 degrees away from edges of baseplate.

Anchor brackets and bases securely to structural support with fasteners as indicated on Shop Drawings.

The flagpole must be set into the sleeve assembly so as to wedge securely at the bottom, then carefully plumbed and wedged at top of socket hole with wedges as shown, to hold flagpole securely in a vertical, plumb position. After wedging the flagpole, the space between the flagpole and socket hole must be filled with dry sand to within 2 inches of the top of hole, well compacted by tapping the flagpole and tamping. Sand must be heated to eliminate all moisture.

The annular space at the top of the granite base must then be packed with a non-shrink grout.

9.77RSR.5 MEASUREMENTS

The quantity to be measured for payment under Remove, Store and Reset Flagpole will be the number of posts removed, stored off-site and installed in this new work by the Contractor, as indicated on the Contract Drawings, to the satisfaction of the Engineer.

9.77RSR.6 PRICES TO COVER.

The contract price for Remove, Store and Reset Flagpole will be the unit price bid per each flagpole and will cover all labor, materials, plant, equipment, transport, storage, insurance, and incidentals necessary to remove, store and reset the existing flagpoles, all in accordance with the Contract Drawings, the specifications and the directions of the Engineer.

Payment will be made under:

Item No.	Item	Pay Unit
9.77 RSR	REMOVE, STORE AND RESET FLAGPOLE	EACH

S - PAGES

GENERAL AND SPECIAL PROVISIONS:

- (A) GENERAL PROVISIONS**
 - (B) HIGHWAY PROJECT SPECIFIC PROVISIONS**
 - (C) SEWER & WATER MAIN PROJECT SPECIFIC PROVISIONS**
 - (D) GREEN INFRASTRUCTURE PROVISIONS**
-

NOTICE

THE PAGES CONTAINED HEREIN (S-PAGES) ARE GENERAL AND SPECIAL PROVISIONS THAT MUST APPLY TO AND BECOME PART OF THE CONTRACT.

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(A) GENERAL PROVISIONS

A. LINES AND GRADES. The Contractor must furnish lines and grades in accordance with Section 1.06.27 of the NYCDOT Standard Highway Specifications, except that survey controls established for this project may no longer exist and the Contractor will be required to re-establish the survey control information using official Borough Survey Control Monuments and Bench Marks, where they exist. The Contractor must check with Topographic Section of the Borough President's Office as to the reliability and accuracy of the data to be used for lines and grades.

B. SPECIFIC TRAFFIC STIPULATIONS. Under this contract, the Contractor must perform the work in strict accordance with the requirements of Section 6.70 in the Standard Highway Specifications, specific traffic stipulations as called for on the plans, Office of Construction Mitigation and Coordination (OCMC) Traffic Stipulations attached to the end of these Special Provisions, and the directions of the Engineer. In case of a conflict, the Engineer's decision will be final.

The Contractor must plan and schedule the work in order to accommodate all special events listed in the NYCDOT Special Events Annual Calendars. The calendars are available at the following link:

https://nycdot.sharepoint.com/:f:/s/publicshare/Ei2XN4G99_JFkdrtd_cJ0QBtSPR2xhVrApcqAs1KSLpeA?e=j276PF

In addition, the cost of compliance with requirements of the OCMC Traffic Stipulations, unless otherwise provided for, will be deemed included in the prices bid for all scheduled items..

C. HOLIDAY CONSTRUCTION EMBARGO. A special Holiday Construction Embargo will be in effect on the Friday of the week preceding Thanksgiving Day week from 6:00 AM to 11:59 PM and again from the Monday of Thanksgiving Day week from 6:00 AM through January 2, at 11:59 PM. Roadway and sidewalk construction activities will be restricted during the embargo period on the streets listed below*.

Any permits issued prior to the date of this notice, for work during this embargo period on the streets listed below* which do not already have the permit stipulation "410" are hereby suspended for the period noted above. All permittees must comply with this embargo unless a special waiver is granted by OCMC. Waiver requests must be filed at least thirteen days before Thanksgiving Day, in the Permit Office by filing a "Request for Roadway/Sidewalk Permits During "Embargo Periods" and submitting supporting documentation. Waiver requests should only be submitted for critical reasons for a specific project. If a waiver is granted, the applicant will be notified so they can apply for the approved permits. Waivers **are not** required for ongoing Building Construction Activity Permits which already include the "410" permit stipulation. Waiver request forms may be obtained at any Permit Office or on the Department of Transportation's website at:

<http://www.nyc.gov/html/dot/downloads/pdf/holidayembapp.pdf>

Prior to this embargo period all necessary measures must be taken so that all roadways and sidewalks are in proper condition to allow for the expeditious and safe movement of vehicular, bicycle and pedestrian traffic. Tool carts, cable reels, containers, and material stored on roadways must be removed during the embargo period.

The opening of utility access covers is prohibited on any of the streets noted below** between the hours of 6:00 AM and midnight unless the utility or Contractor files for an Emergency Authorization Number as required by Section 2-07 of the Department of Transportation's Highway Rules. The planned opening of utility access covers may occur during the hours of 12:01 AM and 5:59 AM where no authorization number is required.

Temporary restoration of the streets and sidewalks and removal thereof, if required for the Holiday Embargo period, will be paid for under the appropriate scheduled items.

No extension of time due to the shutdown period will be granted to the Contractor for completion of the work.

* Please note that this embargo only applies to NYCDOT construction permits.

** List of street and maps of the affected locations are available by borough on the Department of Transportation's website at: <http://www.nyc.gov/html/dot/html/motorist/trafalrt.shtml>

D. CONTRACT ITEMS THAT INCLUDE BACKFILL AS A PART OF THEIR WORK. The following will pertain to all contract items that have backfill as a part of their work: Backfilling will comply with Subsection 4.11.3 of the Standard Specifications and no additional payment will be made for any Highway or Street Lighting work item requiring Contractor to furnish additional fill material to meet these requirements when backfilling.

E. ACCELERATED PROJECT SCHEDULE AND COMBINATION OF STAGES. Contractor will plan and/or stage his/her work schedule using all hours/days available. Contractor is advised that all applicable unit prices will include, for the purpose of this contract, all overtime costs, premium time costs, shift differentials required to complete construction within the specified "Time(s) of Completion" stipulated in this contract.

Contractor will be permitted to accelerate this project, to combine stages and/or work sequences. Any such changes will be shown in the construction schedule, to be furnished in accordance with the General Provisions of the Standard Specifications.

F. DISPOSAL OF EXCESS EXCAVATED MATERIAL. All excess excavated material, with the exception of contaminated material, will become the property of the Contractor and will be properly disposed of away from the site, at the Contractor's expense. Contaminated material will be disposed of separately in accordance with contract requirements.

G. NO EXTENSION OF TIME FOR WINTER SHUT-DOWN. Where the Contractor's approved work schedule for installing sidewalk, curb, roadway base and/or pavement falls within the winter period of December 1st through April 1st, the Contractor will NOT be granted an extension of time for completion of this contract due to the winter shut-down period, unless otherwise provided in Schedule A.

H. PRIVATE UTILITY HARDWARE ADJUSTMENTS. will be performed by the owning utility company or its agent, at its expense. The Contractor must notify the utility company 72 hours prior to start of work at each location where its hardware requires adjustment.

I. SURVEY MONUMENTS. When working in the vicinity of survey monument the Contractor will hand excavate per Item 8.02 AB-S, 8.02 A and 8.02 B (as applicable), at City Survey Monuments, for a distance of five (5) feet around each monument, as directed by the Engineer.

J. RESTORATION OF ADJACENT AREAS. The Contractor will be required to remove all form work. In planting strip areas, the Contractor will be required to restore areas damaged as a result of the Contractor's operations, to the satisfaction of the Engineer, with sod. The Contractor will also, as directed by the Engineer, make safe adjacent areas to the Contractor's work, such as: restoring missing or damaged pavement markings that were removed or damaged as a result of the Contractor's operations (as per requirements of Section 6.44 in the Standard Specifications); resetting granite blocks in tree pits; and, applying binder mixture (Item 4.02 CA or as applicable) where badly broken sidewalk or curb may create a dangerous condition just outside his area of operation, where and when directed by the Engineer.

All restoration work must be performed to the satisfaction of the Engineer.

K. FLAGGERS. The Contractor is notified that wherever the Item No. "6.52" and words "flagger", "flagperson" and "flagman" are used in the contract documents and drawings it will mean the Item No. "6.52 CG" and the words "Crossing Guard", respectively. The Contractor is advised that until the Comptroller of the City of New York sets a prevailing wage rate for crossing guards, there are no prevailing wage rates for crossing guards.

For projects that require compliance with the Davis-Bacon Act, wherever the Item No. "6.52" and words "flagger", "flagperson" and "flagman" are used in the contract documents and drawings it will mean the Item No. "6.52 FED" and the words "Uniformed Flagperson", respectively.

L. FUEL COST. The Contractor is notified that the fuel cost per gallon used in the formula under Sub-Article 26.2.8 of the Standard Construction Contract for Extra Work will be derived from the fuel price index for the United States East Coast published weekly by the United States Energy Information Administration ("USEIA"), and available on its website at <http://www.eia.gov/petroleum/gasdiesel/>. The USEIA-published cost per gallon for the applicable fuel on the East Coast for the week in which the first day of each calendar quarter during the contract term occurs (i.e., January 1st, April 1st, July 1st and September 1st) will be used in the reimbursement formula for all **Extra Work** invoiced that was performed during that calendar quarter. Should the USEIA stop publishing this fuel price index, the fuel cost per gallon will be determined by reference to a substitute index to be agreed upon by the Contractor and the City.

M. NYCDPR CONSTRUCTION PERMITS AND OTHER REQUIREMENTS.

1. At least thirty (30) days prior to the upcoming start of construction at or near the New York City Department of Parks and Recreation (NYCDPR) land, the Contractor is required to issue a notice to NYCDPR about the start of construction activity. At least 30 days in advance of the Order to Work Date, the Contractor must notify the New York City Department of Parks and Recreation (NYCDPR) of the upcoming start of construction by emailing interagency@parks.nyc.gov.

2. Parks Construction Permits are required for all work on Parkland. Construction Permits may also be required for work on sidewalks adjacent to Parks properties or other areas maintained by NYCDPR such as Greenstreets depending on the scope of work. It is the Contractor's responsibility to coordinate with Parks via email at interagency@parks.nyc.gov to establish whether Construction Permits are required for the contract scope of work.

3. The Contractor will not be permitted to store, stage, stockpile, barricade, lay down construction materials or equipment, or otherwise impede access to Parkland, Greenstreets, or sidewalks in the right-of-way fronting Park properties unless such permission is granted by NYCDPR via issuance of a Parks Construction Permit.

4. The Contractor must obtain the necessary Parks Construction Permit from NYCDPR prior to the start of work on Parkland or areas under Parks' jurisdiction. The Construction Permit application is found online at <https://www.nycgovparks.org/permits/construction>.

5. When no Construction Permit is required, the contractor must notify Parks at interagency@parks.nyc.gov at least one week in advance of any construction adjacent to Greenstreets or in the right-of-way fronting Parks properties to allow for coordination as needed.

6. The Contractor is responsible for the protection of any Greenstreets, sidewalks, and other landscape features under NYCDPR jurisdiction that are adjacent to or enclosed by the construction area, including hardscape, landscape, shrubs, and trees. Any areas and features disturbed or damaged during construction activity are the responsibility of the Contractor to restore and repair.

7. Many NYCDPR properties are indicated on the publicly accessible online mapping resource of the New York City Department of Information Technology and Telecommunications (DOITT) at <http://maps.nyc.gov/doitt/nycitymap/>. However, the map is not exhaustive, and Contractors should confirm Parks properties in the vicinity of their work with NYCDPR.

8. The Contractor must take necessary precautions to prevent interference with or damage to utilities or other facilities during construction. The cost of all work connected with maintaining and protecting utilities affected by the work be borne by the Contractor and the cost will be deemed included in the price bid for the various items in the contract.

9. In the event the Contractor damages an existing utility or interrupts utility service, the Contractor will immediately notify its owner and the Engineer and must commence repair/replacement work as instructed by the Engineer.

10. In the event the Contractor causes an interruption in utility service, the Contractor will immediately arrange for service to be restored and may not cease the repair work until service is restored. The Contractor will not continue work until the service is restored, unless otherwise directed by the Engineer. All corrective utility work will be acceptable to the engineer and the subject utility owner.

11. If any utility service or connection of unknown ownership is encountered during construction which appears to enter or serve Parkland, Contractor must contact Parks at interagency@parks.nyc.gov to inquire if Parks is the owner of such utility.

N. START OF CONTRACT WORK. The Contractor is notified that a Notice To Proceed (NTP) date will be issued for work to commence within 21 to 30 Days of Contract Registration.

O. STANDARD WORKING HOURS: In absence of OCMC Traffic Stipulations, Section 1.06.23 (P) of NYC DOT STANDARD HIGHWAY SPECIFICATIONS regarding standard working hours is to be followed is to be followed. Work performed outside the standard working hours must be pre-approved by NYC DDC.

P. TREE BARRIERS. The Contractor will furnish, install, maintain and subsequently remove temporary Protective Tree Barriers. Protective Tree Barriers will be Type B, unless otherwise directed by the Engineer, and will be constructed and installed as shown on the Protective Tree Barrier sketch in Department Of Transportation, Standard Highway Details Of Construction, Drawing No. H-1046A, as directed by the Engineer, and in accordance with Department of Parks and Recreation requirements.

Price of the tree barriers must be included in the in the unit prices bid for all scheduled items.

Q. UTILITIES. All utility locations and invert elevations are not guaranteed, nor is there any guarantee that all existing utilities, whether functional or abandoned within the project area are shown.

R. HOUSE CONNECTIONS. All existing house connections will be maintained and supported during construction. The Contractor will replace any existing house connection damaged as a result of the Contractor's construction operations as ordered by the Engineer at no cost to the City.

S. STREET LIGHT AND TRAFFIC SIGNAL. The Contractor is responsible for any damage to the existing street lighting and traffic signal equipment, including underground conduits and the safety of both pedestrian and vehicular traffic for the duration of the contract.

Should any conduits, cables or foundations need repair due to the Contractor's negligent operations during construction, all work will be performed according to NYCDOT Bureau of Traffic's Standard Drawings and Specifications and City of New York DOT System Engineering Specifications (dated November 2013) at the sole expense of the Contractor.

It is the Contractor's responsibility to secure an approved electrical Contractor to perform all traffic signal work (if any). For list of approved electrical Contractors, contact Bjorn Seedan or James Celentano, New York City Department of Transportation at (212) 839-3790.

T. SAW CUT. The Contractor is advised that where the existing roadway pavement is designated to be replaced from curb to curb, then no full depth saw cutting of pavement for sewer and water main trenches will be required, except at the limits of full width pavement restoration. No separate or additional payment will be made for any saw cutting.

U. PRE-CONSTRUCTION STAGE. The Contractor is advised that the Base Contract Duration (consecutive calendar days "ccds") must also include pre-construction stage from the Notice To Proceed date. During this stage the Contractor is required to submit the necessary shop drawings, obtain all permits and submit the health and safety plan for review and approval. The Engineer's field office will also need to be established during this pre-construction stage period. Failure to comply with the pre-construction stage requirements may result in assessing liquidated damages to the Contractor for everyday beyond the pre-construction stage duration. The liquidated damage will be of equivalent value as identified in the Schedule A for work beyond the construction completion date.

V. EXISTING SEWERS, WATER AND APPURTENANCE. The Contractor is notified that at some locations there may exist sewers, manholes, water mains, etc., which are to remain undisturbed and are in close proximity to the line of the proposed work. The Contractor exercise extreme care, minimize the trench width of the proposed sewers and take all necessary precautions in placing sheeting and during excavation of the trenches to prevent any damage to the existing structures, pavement, curbs, and sidewalks that are to remain while working adjacent to them. The Contractor maybe restricted to use wood sheeting at certain critical locations as directed by the Engineer. Should any damage occur to any portion of the existing structures that are to remain due to the Contractor's operations, the Contractor will make all repairs to the existing structures to the satisfaction of and as directed by the Engineer. The cost of such repair will be borne by the Contractor, at no cost to the City. Additional cost to use wood sheeting specifically to ensure integrity of existing sewer structures will be deemed included in all bid items for work.

W. RECONNECTING EXISTING SEWERS TO NEW MANHOLES. If there are locations on the contract plans, where the Contractor is required to reconnect all existing sewers to the proposed manholes in this contract. The said manholes will be fabricated to provide openings for the existing sewers at the specified invert elevations as shown on the contract drawings. The cost of reconnecting existing sewer pipes to new manholes, including concrete collar with steel reinforcements and/or grouting around the existing sewer pipes at the openings and all work necessary to complete the pipe reconnection, to the satisfaction of the Resident Engineer will be deemed included in the prices bid for all items of work. No additional payment will be made.

***[ARTICLE "X" IS ONLY APPLICABLE IF ITEMS FOR VIBRATION MONITORING
ITEM NO. 76.31 IS IN THE BID SCHEDULE]***

X. VIBRATION MONITORING. In case of structures requiring vibration monitoring, the Contractor, in addition to Continuous Real Time Monitoring for Vibrations as determined in the Construction Report must provide Continuous Real Time Monitoring for Vibrations of existing buildings/structures adjacent to or in the proximity of different types of construction activities being conducted including, but not limited to, installation of sheeting for construction of proposed water and sewer mains, installation of sheeting for excavation of jacking/receiving pits, direct jacking of sewers, piling work or as directed by the Engineer.

Y. CITY ASSETS. The Contractor is advised that any City owned light poles, traffic signals, street name signs, traffic signs and encumbrances including, but not limited to, underground conduit

displaced as the result of the installation of the new sewers, water mains, catch basins, catch basin connections and appurtenances will be replaced in kind and as directed by the Engineer. The cost of such work will be deemed included in the prices bid for all items of work under this contract.

[ARTICLE "Z" IS ONLY APPLICABLE FOR WATERMAIN 24-INCHES AND HIGHER]

Z. "AS-BUILT" DRAWINGS FOR WATER MAINS AND APPURTENANCES 24-INCHES (600-MM.) AND LARGER: Upon the completion of the work for each Capital Project and as a condition precedent to obtaining the certificate for Substantial Completion for each Capital Project under Article 44 of the Contract, the Contractor will furnish "As-Built" drawings for water mains and appurtenances 24-inches and larger to the City. The Contractor will prepare and submit the "As-Built" record drawings to the Engineer for approval. Approved "As-Built" drawings will be delivered to the Department of Design and Construction, 30-30 Thomson Avenue, Long Island City, New York, 11101-3045. The following guideline is provided for the preparation of "As-Built" record drawings:

1. The Contractor will prepare the "As-Built" drawings on AutoCAD and will provide to the City two (2) sets of Mylar and AutoCAD files on a CD. The drawings on CD's and the plotted Mylar's will conform to the standard size of 22" x 36" (559-mm. x 914-mm.) using a 1"=30' (1:360) horizontal and 1"=10' (1:120) vertical scale. The Mylar will be 3-mil in thickness.

2. The "As-Built" drawings will include but not be limited to the following guidelines summarized below:

(a) Drawings will consist of the same legend and layout of title boxes shown on the contract drawings.

(b) Each plotted Mylar drawing will contain the signature and stamp of the Contractor's NYS Professional Engineer/Registered Architect.

(c) The drawings will include:

- street name and crossing street(s) or distance from;
- north arrow;
- property lines and widths;
- legal and existing street widths, street alignment and grades;
- "new" curb lines and widths;
- water main center line measured off the "new" curb line;
- horizontal stationing for all valves, hydrants, outlets, blow-offs, house service connections, etc., measured on a horizontal line as established by the Borough Office Bureau of Topographic;
- alignment and appurtenance location stationing, and deflection angles;
- cover and elevations (Datum used will be that of the Borough where work is located);
- location of pipe joints;
- profile of all piping;
- complete details of all outlet piping roundabouts;

- complete details of all blow-off connections to the sewer;
- complete details of all air cocks;
- location of taps and access manholes;
- location of all cathodic protection stations;
- Venturi sensing lines plans and profiles;
- all appropriate notes.

3. The cost of preparing and submitting "As-Built" approved drawings will be deemed included in the prices bid for all scheduled bid items in the contract. No separate or additional payment will be made for this work.

AA. NO ADDITIONAL PAYMENT. The Contractor is advised that any fences, guardrails, boulders, asphalt walkway of the park, fixtures, other encumbrances removed within project limits during construction will be replaced in kind to the satisfaction of the Engineer. The cost of such work will be deemed included in the prices bid for all contract items of work and no additional or separate payment will be made.

AB. SHEETING AND EXCAVATION AT TRANSIT FACILITIES. In case of transit facilities like MTA, LIRR, METRO NORTH etc., the Contractor will exercise extreme caution and take all necessary precautions in placing sheeting and excavation to prevent any damage to the existing underground or overhead structures and its appurtenances during construction work throughout the project area. The Contractor must take full responsibility to protect the said structures and its appurtenances and any damage caused by the Contractor's operations must be made good by the Contractor to the satisfaction of the Engineer at no additional cost to the City.

The Contractor must submit shop drawings to the Transit facilities showing all the details and methods of construction, such as, sheeting and bracing, including the Contractor's procedure and sequence of construction, supporting and/or protection of the existing structures and its appurtenances, with necessary design calculations for approval prior to starting of the construction. The design will be made by a New York State Licensed Professional Engineer skilled in this type of construction and as further evidenced by the imprint of Professional Engineer's seal and signature on all drawings. The cost of this work will be deemed included in the price bid for all items of work under this contract.

AC. ARCHAEOLOGICAL DISCOVERIES. The Contractor is notified that if requested by the Resident Engineer and the City, the Contractor will be required retain the services of an Archaeologist (the "City's Archaeologist") for this project.

The City's Archaeologist will be notified in advance and will be present on site during sub-surface excavations as deemed necessary. The City's Archaeologist will be authorized to halt construction at any time in order to record and/or recover any archaeological resources encountered during excavations, and to stabilize in place any human remains encountered.

For the purpose of evaluating and recording archaeological resources, the City's Archaeologist will be allowed to enter trenches provided all standard safety requirements are met. It is understood that some construction down time may be necessary.

In the event that human remains, and/or other significant archaeological deposits are encountered during construction or archaeological investigations, Landmarks Preservation

Commission (LPC) will be notified as directed by the City's Archaeologist and the State Historic Preservation Office (SHPO) requires that the following protocol is implemented:

1. At all times human remains must be treated with the utmost dignity and respect. Should human remains be encountered work in the general area of the discovery will stop immediately and the location will be immediately secured and protected from damage and disturbance.
2. Human remains or associated artifacts will be left in place and not disturbed. No skeletal remains or materials associated with the remains will be collected or removed until appropriate consultation has taken place and a plan of action has been developed.
3. The County coroner and local law enforcement as well as the SHPO and the involved agency will be notified immediately. The coroner and local law enforcement will make the official ruling on the nature of the remains, being either forensic or archeological. If the remains are archeological in nature, a bio-archaeologist will confirm the identification as human.
4. If human remains are determined to be Native American, the remains will be left in place and protected from further disturbance until a plan for their protection or removal can be generated. The involved agency will consult SHPO and appropriate Native American groups to determine a plan of action that is consistent with the Native American Graves Protection and Repatriation Act (NAGPRA) guidance.
5. If human remains are determined to be Euro-American, African- American, etc., the remains will be left in place and protected from further disturbance until a plan for their avoidance or removal can be generated. Consultation with the SHPO and other appropriate parties will be required to determine a plan of action.

Should extra work be ordered by the Resident Engineer as a result of any archaeological discoveries, it will be paid for from the Fixed Sum included in, and in accordance with Item HW-908 Allowance for Extra Work Due To Archaeological Discoveries.

AD. USE OF CITY WATER. Please refer to NYCDOT STANDARD HIGHWAY SPECIFICATIONS (May 16, 2022), Sub Section 1.06.23 (A), Rules, Laws, and Requirements, for use of City water.

AE. PUBLIC DISSEMINATION OF INFORMATION. The Contractor agrees to hold confidential, both during and after the completion or termination of this Contract, all of the reports, information, or data, furnished to, or prepared, assembled or used by, the Contractor under this Contract. The Contractor agrees to maintain the confidentiality of such reports, information, or data by using a reasonable degree of care, and using at least the same degree of care that the Contractor uses to preserve the confidentiality of its own confidential information. The Contractor agrees that such reports, information, or data will not be made available to any person or entity without the prior written approval of the Commissioner. The obligation under this Section to hold reports, information or data confidential will not apply where the Contractor is legally required to disclose such reports, information or data by virtue of a subpoena, court order or otherwise ("disclosure demand"), provided that the Contractor complies with the following: (1) the Contractor will provide advance notice to the

Commissioner, in writing or by e-mail, that it received a disclosure demand for such reports, information or data and (2) if requested by the Commissioner, the Contractor will not disclose such reports, information or data until the City has exhausted its legal rights, if any, to prevent disclosure of all or a portion of such reports, information, or data. The previous sentence will not apply if the Contractor is prohibited by law from disclosing to the City the disclosure demand for such reports, information or data.

The Contractor will restrict access to confidential information to persons who have a legitimate work-related purpose to access such information. The Contractor agrees that it will instruct its officers, employees, and agents to maintain the confidentiality of any and all information required to be kept confidential by this Contract.

The Contractor, and its officers, employees, and agents will notify the Commissioner, at any time either during or after completion or termination of this Contract, of any intended statement to the press or any intended issuing of any material for publication in any media of communication (print, news, television, radio, Internet, etc.) regarding the services provided or the data collected pursuant to this Contract at least twenty-four (24) hours prior to any statement to the press or at least five (5) business days prior to the submission of the material for publication, or such shorter periods as are reasonable under the circumstances. The Contractor may not issue any statement or submit any material for publication that includes confidential information as prohibited by this Section.

At the request of the Commissioner, the Contractor will return to the Commissioner any and all confidential information in the possession of the Contractor or its Subcontractors. If the Contractor or its Subcontractors are legally required to retain any confidential information, the Contractor will notify the Commissioner in writing and set forth the confidential information that it intends to retain and the reasons why it is legally required to retain such information. The Contractor will confer with the Commissioner, in good faith, regarding any issues that arise from the Contractor retaining such confidential information. If the Commissioner does not request such information, or the Law does not require otherwise, such information will be maintained in accordance with the requirements set forth in the Contract Documents.

AF. PRICES TO INCLUDE. No direct payment will be made for costs incurred in complying with the foregoing Special Provisions, unless otherwise provided. Said costs will be deemed to have been included in the prices bid for all the scheduled contract items.

(B) HIGHWAY PROJECT SPECIFIC PROVISIONS

1. SPECIAL EVENTS. Where the Contractor is notified of a Special Unscheduled Event, such as a civic parade or other official activity, party, etc., then the Holiday Embargo restrictions under Article C, above, shall apply. Temporary restoration of the streets and sidewalks and subsequent removal, if required, for those Special Unscheduled Event periods will be paid for under the appropriate scheduled items 4.02 CB and 6.02 AAN and the Contractor will be granted an extension of time, for the completion of the work, equal to the duration of the ordered shutdown.
2. THE CONTRACTOR IS NOTIFIED that should human remains be encountered during the course of work, the work must be stopped immediately pending the Office of Chief Medical Examiner and the New York Police Department notification and review.
3. VALUE ENGINEERING CHANGE PROPOSAL (VECP)

A. Purpose and Scope. The purpose of a Value Engineering Change Proposal (VECP) is to encourage the use of the Contractor's ingenuity and experience in arriving at alternative construction designs, methods, and procedures that result in a lower direct cost to accomplish a contract requirement. It is the intent of this provision to share with the Contractor any substantial direct cost savings which may be generated as a result of a VECP offered by the Contractor and approved by the Engineer. A VECP is a Contractor-initiated change request. If approved, the changes and payments will be authorized through the change order process. Before a VECP can be implemented, it must pass through three approval processes: conceptual approval, formal approval, and change order approval. To expedite the review process, the Contractor has the option of jointly submitting the conceptual VECP and the formal VECP for simultaneous review. If the VECP receives formal approval, as part of the change order process the Contractor may request that the Engineer consider granting advanced authorization of extra work.

The VECP should produce direct cost savings to the City and the public without, in the sole judgment of the Engineer, impairing essential functions and characteristics of the facility including but not limited to service life, economy of operation, ease of maintenance, desired appearance, and safety. The Contractor, when developing a VECP, shall address the designer's objectives, environmental permit requirements and regulations, commitments made to the public to mitigate the impact of construction, and other such concerns.

The "direct cost savings" is the difference of the "construction savings" generated by implementing the VECP minus reasonable "design costs" associated with the VECP. The "construction savings" is the difference between what it would cost to complete all the contract work without implementing the VECP and the cost to complete all the contract work if the VECP is implemented. This includes any changes to quantities or unit prices across the entire contract if affected by the VECP. If the estimated cost to complete all the contract work without implementing the VECP differs from the contract bid amount for the work, supporting documentation to explain the variance shall be provided. Reimbursable "design costs" are specific to engineering changes (examples: design changes, plan sheet revisions, and quantity estimating). Expenditures toward proposal preparation (examples: scheduling, documentation, cost analysis, material research, etc.) are not reimbursable.

Indirect cost savings (time, user delay, railroad force account costs, inspection costs, etc.), although considered when reviewing the merits of the VECP, are not reimbursed. A VECP may alter the progress schedule and milestone dates, which in turn could affect time-related contract provisions.

Proposals that reduce the time to complete the contract, and only result in indirect cost savings, may be accepted based on the mutual benefit derived. These proposals will be evaluated in accordance with sub-provision **F. Time Savings**, below.

B. Submittal of Conceptual VECP. A conceptual proposal is required for all VECP. It should outline the general technical concepts associated with the VECP and the estimated direct cost savings which may result. Upon review by the Engineer, one of the following actions will be taken:

- Conceptual approval and a request for the Contractor to submit a formal VECP.
- Request for additional information.
- Rejection of the VECP.

The Contractor shall submit an original and three copies of the conceptual VECP to the Engineer along with any additional information requested by the Engineer. The conceptual VECP should contain sufficient information for concept review and evaluation, including the following as a minimum:

1. Conceptual VECP Summary. A summary of the VECP identified as "Conceptual VECP" which includes:
 - a. Short title (description) of the VECP (10 or less words).
 - b. Contract information (Contract ID number, contract description, contractor).
 - c. Original total contract bid price.
 - d. Estimated contract cost. This may be different from the original total contract bid price due to addition or alteration of work (i.e., the estimated cost to complete the work if the VECP is not implemented). The Engineer must concur with the estimated contract cost.
 - e. Estimated contract cost if the VECP is implemented (excludes VECP design cost and any VECP construction savings reimbursement).
 - f. Estimated VECP construction savings (Item d. minus Item e.).
 - g. Estimated VECP design cost (Not all VECP will have design cost).
 - h. Estimated direct cost savings due to the VECP (Item f. minus Item g.).
 - i. Fifty percent of the estimated direct cost savings (This should equal the overall savings to the City).
 - j. Estimated total adjusted contract cost if VECP is implemented (includes VECP savings and design cost reimbursements).

- k. The type of VECP (either "Cost Savings" or "Time Savings Only").
- l. Date by which the authorization of extra work (change order) must be granted.
- m. Identification of any new or existing contract pay items requiring agreed prices.
- n. Identification of any materials with long lead times (to order, fabricate, deliver, etc.) that may require purchase authorization from the Engineer prior to formal approval/disapproval of the VECP, or may delay the implementation of the VECP. Identify any date by which authorization to order these materials must be received without affecting the progress schedule.
- o. A basic description of the VECP and associated benefits and impacts (progress schedule, environmental, maintenance & protection of traffic, quality, etc.).

2. CConceptual Plans. Conceptual plan drawings.

3. Design Criteria. If the VECP proposes design changes, supporting technical design criteria shall be provided.

4. Schedules.

a. The most recently approved baseline progress schedule.

b. The most recently approved construction progress schedule update.

c. A draft, proposed, revised progress schedule illustrating the impacts of the VECP. The schedule shall identify: (1) the time required to develop a formal VECP; (2) the time required to order, fabricate, and deliver materials with long lead times; (3) the time required to obtain any environmental permits or other required approvals; (4) any anticipated progress schedule changes (contract completion date, milestone dates, task durations, etc.); (5) the latest date by which authorization of the VECP extra work must be granted without affecting the schedule.

The draft progress schedule should provide a sufficient level of detail upon which the reasonableness of the VECP can be determined.

Should the Engineer find that insufficient time is available for review and processing, it may reject the VECP solely on such basis. If the Engineer fails to respond to the VECP by the date specified, the Contractor will consider the VECP rejected and will have no basis for a dispute against the City as a result thereof. The Engineer may accept a VECP that requires a contract time extension if sufficient cost savings are anticipated.

5. Estimate of costs. The conceptual VECP estimate of costs should include sufficient information to determine the reasonableness of the VECP. If the proposal requires the ordering of materials, the Contractor needs to provide documentation from the suppliers to justify the cost of the materials.

6. Previous Use or Testing. A description of any previous use or testing of the VECP on another City contract or elsewhere, the conditions and results therewith. The Contractor

shall submit the technical aspects of the VECP in sufficient detail so the Engineer can determine the suitability of the VECP from an engineering perspective. If the technology is new, test information shall be provided to the Engineer's satisfaction. If a similar VECP was previously submitted on another City contract, indicate the date, contract number, and the action taken by the City.

C. Submittal of Formal VECP. Upon notification by the Engineer that the conceptual VECP is approved and a formal VECP is necessary, the Contractor will submit to the Engineer an original and three copies of the following materials and information for each formal VECP along with any additional information requested by the Engineer:

1. **Formal VECP Summary.** A summary of the VECP, identified as "Formal VECP", which follows the conceptual VECP summary format and information requirements (Information and estimates may have changed since the conceptual VECP).
2. **Complete Plans and Specifications.** Complete plans and specifications, which meet City standards, showing the proposed changes relative to the original contract features and requirements. The City requires a Professional Engineer's stamp and signature on any significant engineering changes.
3. **Field Change Sheets.** Field change sheets and/or shop drawings. If the VECP results in a field change, and those items affected require the submission of shop drawings, the shop drawings will not be accepted unless accompanied by corresponding field change sheets.

Documents shall be developed in compliance with City requirements. The City requires a Professional Engineer's stamp and signature on any significant engineering changes.

4. **Schedules.** The same information requirements as for the conceptual VECP apply, except that a formal, proposed, revised progress schedule is required.
5. **Cost Analysis.** A complete cost analysis indicating quantity changes, unit price changes, and new contract pay items. As a minimum it shall include:
 - a. An itemized comparison of estimated costs to complete all the contract work with implementing the VECP and without implementing the VECP.
 - b. Proposed unit prices for any new contract pay items introduced by the VECP and appropriate documentation for review under the Agreed Price process.
 - c. Proposed unit prices for any existing contract pay items for which agreed prices are sought due to a significant change in character of work (quantity or complexity). Appropriate documentation for review under the Agreed Price process is required.
 - d. The cost of any items with long lead times (e.g., materials ordered) required after conceptual approval and before final approval shall be identified.
6. **Differences.** Full descriptions of the difference between the existing contract requirements and the proposed changes, and the comparative advantages and

disadvantages of each, including considerations of service life, economy of operation, ease of maintenance, traffic flow, safety, desired appearance, progress schedule, and any increase/reduction of environmental impacts.

7. Technical Presentation. The Contractor may be required to conduct a technical presentation as part of the review process.
8. Cost Documentation. All formal VECP costs submitted shall be supported by documentation as required by Article 26 of the Standard Construction Contract.

The Engineer will not formally approve any VECP until all required VECP documentation has been submitted and is acceptable to the Engineer.

A formal VECP may be submitted concurrently with the conceptual VECP, however, the Contractor assumes any costs associated with the formal VECP at its own risk. Reimbursable costs will be considered only if the conceptual VECP is approved. Clearly identify whether a VECP is being submitted for conceptual approval, formal approval, or both.

Once a formal VECP has been approved, the VECP will then be submitted as a change order and processed accordingly. The Contractor is responsible for submitting all appropriate information to the Engineer in a timely manner.

D. Conditions. The Contractor shall not base any bid prices on the anticipated approval of a VECP and should recognize that any VECP may be rejected. The following terms and conditions apply to VECP:

1. A VECP will only be considered after the contract is awarded.
2. A VECP applies only to the contract for which it was submitted. One VECP shall not be submitted for multiple contracts. Approval or disapproval of a VECP on one contract does not guarantee approval or disapproval on another contract.
3. The VECP becomes the property of the City and will contain no restrictions imposed by the Contractor on its use or disclosure. The City will have the right to use, duplicate, and disclose in whole or in part any data necessary for the utilization of the VECP. The City retains the right to utilize any accepted or rejected VECP or part thereof on any other project without any obligation to the Contractor.
4. Approval of the conceptual VECP in no way obligates the Engineer to approve the formal VECP. The Contractor will have no claim against the City as a result of the rejection of any such conceptual or formal VECP except as otherwise provided in **Sub-Provision E.4**, below.
5. When the Engineer is in the process of making design and specification revisions and a Contractor submits a VECP with similar revisions, the Engineer will reject the VECP and proceed without any obligation to the Contractor.

6. A VECP will be considered only if reasonable, cost-effective options are not provided in the contract documents.
7. The Engineer will be the sole judge as to whether a VECP qualifies for consideration and evaluation. It may reject any VECP that requires excessive time or costs for design review, evaluation, and/or investigations. The Engineer will be the sole judge in determining if the proposed VECP will result in a sufficient amount of direct or indirect cost savings to offset the City's effort to review the VECP.
8. A VECP shall be consistent with DDC's design policies and basic design criteria, provide the same service life or more, facilitate economy of operations, ease of maintenance, and achieve the desired appearance and safety.
9. A VECP will not be allowed that changes the type and/or thickness of the pavement structure and material, or solely substitutes one material for another. Examples of materials that may fall into this inappropriate substitution situation are drainage pipes, coatings, pavement markings, etc. The simple elimination of work does not necessarily constitute a VECP, however, a VECP which introduces a simple material substitution, or elimination of work, may be considered if it is accompanied by a design change or change in the construction method. A simple material substitution which introduces a new material to the DDC may be also considered.
10. The VECP will not be experimental in nature, but will have been proven to the Engineer's satisfaction under similar or acceptable conditions on another City contract or at another location acceptable to the Engineer.
11. If the Engineer requires any additional information to evaluate the VECP, this information shall be provided in a timely manner. Unless otherwise mutually agreed upon, failure to do so will result in the rejection of the VECP. An incomplete or a poor quality VECP which hinders the Engineer's review may also result in the rejection of the VECP.
12. The Contractor shall encourage submissions of VECP from an approved subcontractor, provided that reimbursement is made by the City to the Contractor and that the terms of payment to the Subcontractor are satisfactorily negotiated and accepted before the VECP is submitted to the Engineer. Subcontractors may not submit a VECP except through the Contractor.
13. A VECP approved by the Engineer is considered to be a revision to the contract documents and progress schedule. Consequently, if unsatisfactory results are being achieved or adjustments are necessary during implementation of a VECP, the rejection of work, removal of work, addition of work, or revision of work shall be evaluated in accordance with the Contract requirements.
14. All contract pay items and quantities referenced in the VECP construction savings analysis shall be Engineer-approved contract provisions. Any extra work, inclusion of an omission of work, or other field changes shall be authorized prior to use in VECP savings calculations.

15. No work related to a VECP will be performed under allowance items. Agreed prices must be reached for any contract pay items related to the VECP before the VECP is approved. If the Contractor is deemed to have taken reasonable diligence in determining the work involved but if during the construction of VECP work a significant change in the character of work occurs, the Engineer may consider new agreed prices.
16. The Contractor will receive written notification from the Engineer when the VECP is approved. Material orders placed prior to VECP approval shall be submitted at the Contractor's risk.
17. Once a VECP has been approved, the VECP will then be submitted as a change order and processed accordingly. The Contractor is responsible for submitting all appropriate information to the Engineer in a timely manner.

E. Payment. If the VECP is accepted by the Engineer, the changes and payments will be authorized through a change order. Reimbursement to the Contractor will be made as follows:

1. A VECP introduces two individual payments, one for VECP construction savings, and one for VECP design cost. The contract pay item changes along with the VECP construction savings and design cost reimbursements to the Contractor should be submitted in one change order.
2. The City will pay to the Contractor 50% of the VECP construction savings. The VECP construction savings is the difference between the actual contract costs with the VECP implemented and a detailed estimate of what it would have cost to complete the contract work without implementing the VECP, based on final construction. If final construction savings differs from the amount estimated in the formal VECP, an adjustment may be made and included in another change order. The VECP construction savings reimbursement to the Contractor will not be paid until the VECP work has been completed (progress payments on the completed VECP work are allowed). The Engineer may withhold all or a portion of the payment for the Contractor's share of the VECP construction savings until the final contract accounting. In the event that at final contract accountings the implementation of VECP actually results in no construction savings, then the Contractor will receive no VECP construction savings payment.

The Engineer is the sole judge in deciding the construction savings due to the implementation of the VECP. The Engineer will withhold VECP construction savings reimbursement until the Contractor supplies all required VECP documents.

3. If a design cost is submitted for a VECP, the City will pay to the Contractor a 50% share of the Contractor's reasonable cost for design incurred after conceptual VECP approval. If the design cost submitted for the Engineer's approval is deemed unreasonable, only 50% of the design cost deemed to be reasonable will be reimbursed. Not every VECP will have a design cost associated with it. The Engineer is the sole judge in determining the reasonableness of the design cost. Reimbursable design costs are for engineering changes. Preparation and submission of the proposal (e.g., savings analysis, progress scheduling, etc.) are not considered design costs and are not reimbursable. Reimbursable VECP design may be performed by a consultant or directly by the

Contractor. The Contractor shall not be charged for, nor can the Contractor claim, any VECP design performed by the City.

The design cost shall be submitted as a lump sum item with supporting documentation. The supporting documentation shall include itemized direct salary costs (rates & hours), overhead (only for consultant design), and direct non-salary costs. Payment for direct salary costs and overhead will be limited to the current City reimbursement policies for Consultant Engineering agreements.

For consultant design, reasonable overhead on the direct technical salaries will be reimbursed. For Contractor design, overhead is not reimbursable for direct salary costs.

Overhead shall not be charged for direct non-salary costs whether incurred by the Contractor or by a consultant. Payment for direct non-salary costs will be made at actual cost paid. Although for certain direct non-salary costs (lodging, meals, mileage) the rates must meet the requirements of Comptroller's Directive 6.

The subtotal of direct salary costs, overhead, and direct non-salary costs shall be considered a "professional service fee" and reimbursed in accordance with §109-05B.3. Service Charges. A maximum 5% for the Contractor's contract supervision and overhead is allowed, in addition to any overhead submitted for consultant direct salary costs. All design costs are subject to audit.

Additional supporting documentation (receipts, time sheets, etc.) shall be supplied in a timely manner if requested by the Engineer.

In the case of a formal VECP being jointly submitted with the conceptual VECP, the City will pay to the Contractor a 50% share of the Contractor's reasonable cost for design specific to the development of the formal VECP (nothing toward the conceptual VECP) if the conceptual VECP is approved.

4. In the event of the Engineer's conceptual approval of a direct cost savings VECP, and the Contractor is directed to proceed with the VECP implementation steps and final approval is not reached, regardless of whether due to the actions of the City or the Contractor, 50% of the total reasonable design costs will still be reimbursed to the Contractor. If "advance" written approval was given to proceed with the work, procure materials, and begin fabrication; and rejection occurs, the work and fabrication costs will be reimbursed in accordance with the Standard Construction Contract. Only those materials not incorporated and unique to the contract (i.e., not restockable) will be evaluated for payment.
5. There will be no reimbursement for any costs incurred for the conceptual VECP or prior preparations.
6. If more than one VECP is approved for a contract, construction savings and design costs shall be tracked separately for each VECP.
7. When multiple submittals of information for a VECP are required to satisfy the information needs of the conceptual or formal VECP procedure, and contract timing will

be negatively impacted before review and subsequent approval can be given by the Engineer, then the VECP may be rejected. In such cases, there will be no claim by the Contractor for design costs or loss of anticipated savings and/or profits.

8. VECP payments only involve direct savings or costs. Indirect savings or costs (time, user delay, contract delay, etc.) are not included in VECP payment calculations. The calculations of VECP payments are independent from the payments or penalties for contract time related issues.

If a VECP revises the progress schedule, the contract milestones upon which time related provisions are based may be affected. Time savings resulting from a VECP may be realized in a time related contract provision. Conversely, if a VECP negatively affects a progress schedule, time related contract provisions may be negatively affected.

F. Time Savings. The Engineer will consider proposals that result in time savings and at the same time may increase the cost of the contract. The Engineer will be the sole judge as to whether the benefits of completing the contract or a phase before the scheduled completion date or milestone offsets any increase in cost. These submittals, while not constituting a Value Engineering Change Proposal, will be reviewed using the VECP approval process. In addition to information required in **Sub-Provision B**, "Submittal of Conceptual VECP" above and **Sub-Provision C**, "Submittal of Formal VECP" above, the Contractor shall provide the Engineer the anticipated amount of time to be saved and sufficient information to enable the Engineer to calculate and evaluate the cost benefit of the savings in user delay. Time savings generated by the VECP may be claimed under an existing time related contract provision. If the time savings VECP increases the cost of the contract, the additional cost shall not be subtracted from any time related contract provision payments.

G. Significant Changes. Once a VECP is approved, any future significant change is no longer based on the original contract bid conditions (quantity, nature or kind of a material involved), but rather on the conditions as adjusted by the VECP (adjusted quantities, anticipated site conditions and materials, etc.).

All significant changes shall be agreed upon prior to formal VECP approval. If after formal VECP approval, an unforeseen change in the VECP work causes a significant change in the character of work, quantities and prices may be adjusted and the VECP savings shall be adjusted accordingly.

4. PRICES TO INCLUDE. No direct payment will be made for costs incurred in complying with the foregoing Special Provisions, unless otherwise provided. Said costs will be deemed to have been included in the prices bid for all the scheduled contract items.

5. OCMC TRAFFIC STIPULATIONS

Department of Transportation

POLLY TROTTEBERG, Commissioner

MARCH 04, 2020

OCMC FILE NO: BNEC-19- 912
 PROJECT ID: HWK2048
 JAMAICA BAY GREENWAY – PAERDEGAT AVENUE NORTH CONNECTOR
 LOCATION: BROOKLYN
 COMMUNITY BOARD: 18

PERMISSION IS HEREBY GRANTED TO THE **NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION** AND ITS DULY AUTHORIZED AGENT, TO ENTER UPON AND RESTRICT THE FLOW OF TRAFFIC AT THE ABOVE LOCATION AND ITS LOCAL ADJACENT STREETS FOR THE PURPOSE OF CARRYING OUT THE ABOVE NOTED PROJECT, SUBJECT TO THE STIPULATIONS, AS NOTED BELOW:

A. SPECIAL STIPULATIONS

1. **BIKE LANES** – FOR ANY WORK IN OR AFFECTING A BIKE LANE, THE PERMITEE MUST COMPLY WITH THE **NEW GUIDELINES FOR THE MAINTENANCE & PROTECTION OF TRAFFIC PLAN FOR CYCLING**, WHICH ARE AVAILABLE AT:
[HTTPS://WWW1.NYC.GOV/HTML/DOT/DOWNLOADS/PDF/BIKE-MPT-GUIDELINES.PDF](https://www1.nyc.gov/html/dot/downloads/pdf/bike-mpt-guidelines.pdf)
2. **BUS STOPS** – THE CONTRACTOR SHALL PROVIDE WRITTEN NOTICE TO NYC DOT OCMC AND NEW YORK CITY TRANSIT (NYCT) A MINIMUM OF FIVE (5) WEEKS IN ADVANCE FOR LANE/STREET CLOSURES THAT AFFECT BUS ROUTES/BUS STOPS.
3. **METERS** – THE CONTRACTOR MAY NOT REMOVE OR RELOCATE PARKING METERS WITHOUT FIRST OBTAINING APPROVAL FROM NYCDOT PARKING METER DIVISION AT 718 – 894 – 8651.
4. **ACCESS TO ABUTTING PROPERTIES** – THE CONTRACTOR SHALL COORDINATE ALL ACTIVITIES WITH ABUTTING PROPERTY OWNERS TO ENSURE ACCESS IS PROVIDED TO/FROM ENTRANCES/DRIVEWAYS AT ALL TIMES.
5. **NOTIFICATION** – THE CONTRACTOR MUST AT LEAST TWO (2) WORKING DAYS BEFORE THE START OF CONSTRUCTION NOTIFY THE NYC FIRE DEPARTMENT, NYC POLICE DEPARTMENT, NYCEMS, LOCAL COMMUNITY BOARD, BOROUGH PRESIDENT’S OFFICE-CHIEF ENGINEER, NYCDOT OCMC OFFICE, AND ALL ABUTTING PROPERTY OWNERS.
6. **ENHANCED MITIGATIONS**
7. **EMBARGOES** – A CONSTRUCTION EMBARGO WILL APPLY TO THOSE LOCATIONS BELOW WHICH FALL WITHIN THE **HOLIDAY EMBARGO** OR ANY OTHER SPECIAL EVENT EMBARGOES AS PUBLISHED BY THE BUREAU OF PERMIT MANAGEMENT AND CONSTRUCTION CONTROL.
 - o **ENHANCED MITIGATIONS PEDESTRIAN FLOW** INCLUDING METAL FENCING, SHALL BE PROVIDED TO ENSURE PEDESTRIAN STAY WITHIN THEIR DESIGNATED PATH/ROUTE. FLAGGERS SHALL BE PROVIDED TO ASSIST WITH PEDESTRIANS AT THE DESIGNATED CROSSWALK AREAS. THESE FLAGGERS SHALL BE ASSIGNED TO THIS FUNCTION ONLY.
 - o **“NO STANDING ANYTIME-TEMPORARY CONSTRUCTION” SIGNS** AND TEMPORARY PAVEMENT MARKINGS SHALL BE INSTALLED AND MAINTAINED AS WARRANTED BY THE MAINTENANCE AND PROTECTION OF TRAFFIC (MPT) REQUIRED TO FACILITATE TRAFFIC MOVEMENTS THROUGH THE WORK ZONE. ALL TEMPORARY SIGNS AND PAVEMENT MARKINGS SHALL BE REMOVED UPON COMPLETION OF THE PROJECT.
 - o **COMMUNITY OUTREACH** SHALL BE PROVIDED FOR THE DURATION OF THE PROJECT.

B. MAINTENANCE AND PROTECTION OF TRAFFIC**FLATLANDS AVENUE FROM RALPH AVENUE TO EAST 76TH STREET**

1. Work hours shall be as follows: 9AM-2PM MONDAY-FRIDAY when school is in session and 7AM to 6PM Monday to Friday only when school is close. May work on Saturday 8AM to 4P.
2. The contractor shall maintain a minimum 5 foot clear sidewalk or maintain a 5 foot clear pedestrian walkway in the roadway.
3. The contractor shall maintain two lanes for traffic, one lane in each direction with flaggers at each end of work zone.
4. Full width of roadway shall be opened to traffic when site is unattended.
5. The contractor must provide with flagmen to intermittently stop the pedestrian flow.
6. The contractor shall occupy 8 foot width of roadway adjacent to the north curb.
7. The contractor must coordinate with school, DOT Bike lane and NYCT Bus prior to mobilizing.

PAERDEGAT AVENUE NORTH FROM FLATLANDS AVENUE TO PAERDEGAT 1ST STREET

- o Work hours shall be as follows: 7:00 AM to 6PM Monday to Friday and Saturday 8AM to 4PM.

NYC Department of Transportation
 Bureau of Permit Management and Construction Control
 55 Water Street- Concourse Level New York, NY 10041
 T: 212.839.9581 F: 212.839.9696
www.nyc.gov/dot

OCMC FILE NO: BNEC-19-912
 PROJECT ID: HWK-2048
 JAMAICA BAY GREENWAY – PAERDEGAT AVENUE NORTH CONNECTOR.
 LOCATION: BROOKLYN
 COMMUNITY BOARD: 18

- Flag person must be provided to stop pedestrian and /or vehicle traffic while lifting materials overhead and also when crossing sidewalk in conjunction with crossing sidewalk permits.
- The contractor shall maintain one eleven foot lane for two way thru traffic with flaggers at each end of work zone.
- Full width of the roadway shall be opened to traffic when site is unattended.
- The contractor shall occupy 8 foot width of the roadway adjacent to the north or south curb line.
- The contractor shall maintain 5 foot clear sidewalk.
- The contractor must coordinate with NYC DOT Bike lane prior to mobilizing.

INTERSECTION OF PAERDEGAT AVENUE NORTH AND SEAVIEW AVENUE

Work hours shall be as follows: 9AM-4PM Monday-Friday and Saturday 8AM to 4PM.

The contractor shall also maintain one (1) 11ft lane for traffic on one-way streets or two (2) 11ft lane for traffic on two-way streets during work hours. Must clear the entire intersection after work hours. The contractor must provide with flagmen to intermittently stop the pedestrian flow.

The contractor must coordinate with DOT Bike lane prior to mobilizing.

INTERSECTION OF FLATLANDS AVENUE AND EAST 74TH STREET

Work hours shall be as follows: 9AM-2PM MONDAY-FRIDAY when school is in session and 9AM to 4PM Monday to Monday-Friday when school is close and Saturday 8AM to 4PM.

The contractor shall also maintain one (1) 11ft lane for traffic on one-way streets or two (2) 11ft lane for traffic on two-way streets during work hours. Must clear the entire intersection after work hours. The contractor must provide with flagmen to intermittently stop the pedestrian flow.

The contractor must coordinate with DOT Bike lane and NYCT Bus prior to mobilizing.

INTERSECTION OF PAERDEGAT AVENUE NORTH AND PAERDEGAT 1ST STREET

Work hours shall be as follows: 9AM-4PM Monday-Friday and Saturday 8AM to 4PM.

The contractor shall also maintain one (1) 11ft lane for traffic on one-way streets or two (2) 11ft lane for traffic on two-way streets during work hours. Must clear the entire intersection after work hours. The contractor must provide with flagmen to intermittently stop the pedestrian flow.

The contractor must coordinate with DOT Bike lane prior to mobilizing.

THIS IS NOT A PERMIT. THIS STIPULATION SHEET MUST BE SUBMITTED WITH ALL REQUESTS FOR PERMITS PERTAINING TO THE ABOVE CONTRACT AND PRESENT AT THE WORK SITE ALONG WITH ALL ACTIVE CONSTRUCTION PERMITS WHEN THE APPROVED WORK IS BEING PERFORMED.

1. ALL RELOCATION WORK BY THE UTILITIES SUCH AS; CON EDISON, TELEPHONE, GAS AND CABLE COMPANIES SHALL PRECEDE THE CONTRACTORS' START OF WORK ON ALL AFFECTED ROADWAYS IN THE IMPACTED CONTRACT AREA.
2. THE CONTRACTOR IS ADVISED THAT OTHER CONTRACTORS MAY BE WORKING IN THE GENERAL AREA DURING THE TERM OF THIS STIPULATION. IN WHICH EVENT, THE CONTRACTOR MAY REQUIRE MODIFICATIONS BY THE OCMC-STREETS.
3. THE PERMITEE IS NOT AUTHORIZED TO ENTER, OCCUPY OR USE ANY PUBLICLY-OWNED OR PRIVATELY OWNED, NON-PAVED, LANDSCAPE OR NON-LANDSCAPED LOCATION WITHOUT SPECIFIC WRITTEN PERMISSION. WHEN THE LOCATION IS WITHIN THE RIGHT-OF-WAY OF A LIMITED-ACCESS ARTERIAL HIGHWAY, **WRITTEN** APPROVAL FROM THE NYCDOT OCMC-HIGHWAYS IS REQUIRED. WHEN THE LOCATION IS WITHIN THE RIGHT-OF-WAY OF A PUBLIC STREET OR PUBLIC PARK, **WRITTEN** APPROVAL FROM THE NEW YORK CITY DEPARTMENT OF TRANSPORTATION OR NEW YORK CITY DEPARTMENT OF PARKS AND RECREATION IS REQUIRED. WHEN THE LOCATION IS WITHIN THE RIGHT-OF-WAY OF ANY OTHER JURISDICTION SUCH AS PRIVATE PROPERTY, STATE, FEDERAL ETC., IT IS THE PERMITEE'S RESPONSIBILITY TO DETERMINE THE PROPERTY OWNER AND OBTAIN THE WRITTEN APPROVAL.
4. THE PERMITEE SHALL ADHERE TO THE NYCDOT BUREAU OF BRIDGES' SPECIAL PROVISIONS FOR LANDSCAPE PROTECTION, MAINTENANCE AND RESTORATION, ITEMS 1.18.15 THROUGH 1.18.19, WHENEVER AND WHEREVER ANY OF THE PERMITEE'S ACTIVITIES OCCUR WITHIN A LIMITED ACCESS ARTERIAL HIGHWAY RIGHT - OF - WAY.
5. NO DEVIATION OR DEPARTURE FROM THESE STIPULATIONS WILL BE PERMITTED WITHOUT THE PRIOR WRITTEN APPROVAL FROM THE OCMC-STREETS. REQUEST FOR SUCH MODIFICATIONS SHALL BE SUBMITTED TO THE OFFICE OF THE OCMC-STREETS, NEW YORK CITY DEPARTMENT OF TRANSPORTATION, A MINIMUM OF TWENTY (20) DAYS IN ADVANCE FOR CONSIDERATION.
6. FOR THIS PROJECT THE CONTRACTOR SHALL FURNISH, INSTALL AND MAINTAIN ALL NECESSARY ADVANCE WARNING AND DETOUR SIGNS, TEMPORARY CONTROL DEVICES, BARRICADES, LIGHTS AND FLASHING ARROW BOARDS IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES," THE TYPICAL SCHEMES INCLUDED IN THIS SPECIFICATION; AND AS ORDERED BY THE ENGINEER-IN-CHARGE AND THE OCMC-STREETS.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING HIS CONSTRUCTION SIGNAGE. THE IDENTIFICATION SHALL INCLUDE THE CONTRACTOR'S NAME, SPONSORING AGENCY NAME AND THE CONTRACT NUMBER. THE IDENTIFICATION SHALL BE PLACED ON THE BACK OF THE SIGN. THE LETTERING SHALL BE THREE (3) INCHES HIGH.
8. THE OCMC-STREETS RESERVES THE RIGHT TO VOID OR MODIFY THESE STIPULATIONS SHOULD CONSTRUCTION FAIL TO COMMENCE WITHIN TWO (2) YEARS OF THE SIGNED DATE OF THESE STIPULATIONS.
9. THE CONTRACTOR MUST COMPLY WITH ALL CONSTRUCTION EMBARGOS ISSUED BY THE NYCDOT INCLUDING THE HOLIDAY EMBARGO.

03/04/20

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OCMC FILE NO: BNEC-19-912
PROJECT ID: HWK-2048
LOCATION: JAMAICA BAY GREENWAY - PAERDEGAT AVENUE NORTH CONNECTOR.
COMMUNITY BOARD: BROOKLYN 18



GARY SMALLS

DIRECTOR
OCMC STREETS



DANIEL PRINCIVIL
PROJECT MANAGER
OCMC-STREETS



Department of Transportation

Ydanis Rodriguez, Commissioner

AMENDMENT#1

January 26, 2023

OCMC FILE NO: BNEC-19- 912
 PROJECT ID: HWK2048
 JAMAICA BAY GREENWAY – PAERDEGAT AVENUE NORTH CONNECTOR
 LOCATION: BROOKLYN
 COMMUNITY BOARD: 18

PERMISSION IS HEREBY GRANTED TO THE NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION AND ITS DULY AUTHORIZED AGENT, TO ENTER UPON AND RESTRICT THE FLOW OF TRAFFIC AT THE ABOVE LOCATION AND ITS LOCAL ADJACENT STREETS FOR THE PURPOSE OF CARRYING OUT THE ABOVE NOTED PROJECT, SUBJECT TO THE STIPULATIONS, AS NOTED BELOW:

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- B. **BIKE LANES** – FOR ANY WORK IN OR AFFECTING A BIKE LANE, THE PERMITTEE MUST COMPLY WITH THE **NEW GUIDELINES FOR THE MAINTENANCE & PROTECTION OF TRAFFIC PLAN FOR CYCLING**, WHICH ARE AVAILABLE AT:
[HTTPS://WWW1.NYC.GOV/HTML/DOT/DOWNLOADS/PDF/BIKE-MPT-GUIDELINES.PDF](https://www1.nyc.gov/html/dot/downloads/pdf/bike-mpt-guidelines.pdf)
- C. **BIKE SHARE STATIONS**: THE PERMITTEE SHALL NOT REMOVE, RELOCATE, DAMAGE OR DISRUPT THE OPERATION OF EXISTING BIKE SHARE STATIONS WITHOUT FIRST CONTACTING NYC BIKE SHARE AT 855-245-3311 FOR THEIR REQUIREMENTS PRIOR TO COMMENCING WORK.
- D. **CITYBENCH**: THE PERMITTEE SHALL NOT REMOVE, RELOCATE, DAMAGE OR DISRUPT AN EXISTING CITYBENCH WITHOUT FIRST CONTACTING NYC DOT AT 212-839-6569, OR VIA EMAIL AT CITYBENCH@DOT.NYC.GOV PRIOR TO COMMENCING WORK.
- E. **PROTECTION OF NYC DEP GREEN INFRASTRUCTURE**: THE PERMITTEE SHALL TAKE PRECAUTION OF NYC DEP GREEN INFRASTRUCTURE IN THE RIGHT-OF-WAY. THE PERMITTEE MUST PROTECT NYC DEP GREEN INFRASTRUCTURE DOWNSTREAM OF THE WORK OR WITHIN FIVE (5) FEET OF THE WORK AREA. THE PERMITTEE MUST EMAIL NYC DEP AT SUSTAINABILITY@DEP.NYC.GOV FOR PROTECTION REQUIREMENTS PRIOR TO COMMENCING WORK. THE PERMITTEE IS RESPONSIBLE FOR RESTORATION OF DAMAGED NYC DEP INFRASTRUCTURE AS DIRECTED BY NYC DEP.
- F. **BUS STOPS** – THE PERMITTEE SHALL PROVIDE WRITTEN NOTICE TO NYC DOT OCMC AND NEW YORK CITY TRANSIT (NYCT) A MINIMUM OF FIVE (5) WEEKS IN ADVANCE FOR LANE/STREET CLOSURES THAT AFFECT BUS ROUTES/BUS STOPS.
- G. **STREET LIGHTS / TRAFFIC SIGNALS**: THE PERMITTEE SHALL NOT REMOVE OR RELOCATE EXISTING STREET LIGHTS OR TRAFFIC SIGNALS WITHOUT FIRST OBTAINING APPROVAL FROM NYCDOT STREET LIGHTING / TRAFFIC SIGNALS UNIT.
- H. **TRAFFIC CAMERAS, DETECTION/COMMUNICATION EQUIPMENT**: IF AT ANY TIME DURING THE APPROVED WORK, THE PERMITTEE ENCOUNTERS TRAFFIC SURVEILLANCE CAMERAS, DETECTION EQUIPMENT OR ANY TYPE OF COMMUNICATION EQUIPMENT (WIRELESS OR HARD-WIRED) ON ANY NYC DOT FACILITY, THAT IS NOT INCLUDED ON THE DESIGN/BUILD DRAWINGS, THE PERMITTEE SHALL IMMEDIATELY NOTIFY NYC DOT TRAFFIC MANAGEMENT BY PHONE AT 718-433-3390 OR 718-433-3340 AND VIA EMAIL AT TMC@DOT.NYC.GOV AND AWAIT DIRECTION PRIOR TO CONTINUING WORK.
- I. **METERS** – THE PERMITTEE SHALL NOT REMOVE OR RELOCATE PARKING METERS WITHOUT FIRST OBTAINING APPROVAL FROM NYCDOT PARKING METER DIVISION AT 718 – 894 – 8651.
- J. **TEST PITS** – THE BELOW TRAFFIC STIPULATIONS DO NOT APPLY TO TEST PIT WORK RELATED TO THIS CONTRACT. WORK HOURS AND OTHER REQUIREMENTS FOR TEST PIT OPERATIONS MAY DIFFER FROM THE STIPULATIONS IDENTIFIED BELOW. THE PERMITTEE SHALL BE REQUIRED TO OBTAIN SEPARATE PERMITS RELATED TO TEST PITS.
- K. **TEMPORARY PARKING REGULATIONS/PAVEMENT MARKINGS** – THE PERMITTEE IS REQUIRED TO INSTALL, MAINTAIN AND REMOVE ALL NECESSARY TEMPORARY PARKING AND REGULATORY SIGNS AND PAVEMENT MARKINGS, AND RESTORE THEIR ORIGINAL CONDITION PER NYC DOT STANDARDS, PRIOR TO EXPIRATION OF THEIR PERMITS. THE PERMITTEE OR AGENCY PERFORMING PUBLIC OUTREACH SHALL POST AND MAINTAIN ADVISORY SIGNS A MINIMUM OF 48 HOURS PRIOR TO CHANGING EXISTING PARKING REGULATION SIGNS TO APPROVED TEMPORARY CONSTRUCTION PARKING REGULATION SIGNS. THE ADVISORY SIGNS SHOULD BE POSTED ON ALL POLES AND DRIVE RAILS ON THE SEGMENT AFFECTED, INDICATING THE DATE OF THE CHANGE, THE NEW REGULATIONS AND A TELEPHONE NUMBER TO OBTAIN MORE INFORMATION.
- L. **ACCESS TO ABUTTING PROPERTIES** – THE PERMITTEE SHALL COORDINATE ALL ACTIVITIES WITH ABUTTING PROPERTY OWNERS TO ENSURE ACCESS IS PROVIDED TO/FROM ENTRANCES/DRIVEWAYS AT ALL TIMES.
- M. **AUTHORIZED PARKING** – PRIOR TO PERFORMING WORK WHICH IMPACTS AUTHORIZED PARKING, THE PERMITTEE SHALL SUBMIT IN WRITING, AND COPY OCMC-STREETS, A REQUEST TO OCCUPY SPACE CURRENTLY USED BY AUTHORIZED VEHICLES. APPROVAL MUST BE RECEIVED FROM AUTHORIZED PARKING PRIOR TO OCCUPYING THESE AREAS.
- N. **NOTIFICATION** – THE PERMITTEE MUST AT LEAST TWO (2) WORKING DAYS BEFORE THE START OF CONSTRUCTION NOTIFY THE NYC FIRE DEPARTMENT, NYC POLICE DEPARTMENT, NYC EMS, LOCAL COMMUNITY BOARD, BOROUGH PRESIDENT'S OFFICE-CHIEF ENGINEER, NYCDOT OCMC OFFICE, AND ALL ABUTTING PROPERTY OWNERS.
- O. **CONSTRUCTION INFORMATIONAL SIGNS** – THIS PROJECT REQUIRES A CONSTRUCTION PROJECT INFORMATIONAL SIGN (CPIS) IN ACCORDANCE WITH NYCDOT HIGHWAY RULE SECTION 2-02 (4) AND (5). CRITERIA AND A PROTOTYPE FOR THIS SIGN MAY BE FOUND ON THE NYCDOT WEBSITE AT:
[HTTP://WWW.NYC.GOV/HTML/DOT/DOWNLOADS/PDF/DOT_CPIS_DIRECTIONS.PDF](http://www.nyc.gov/html/dot/downloads/pdf/dot_cpis_directions.pdf)

NYC Department of Transportation
 Bureau of Permit Management and Construction Control
 55 Water Street- Concourse Level New York, NY 10041
 T: 212.839.9581 F: 212.839.9696
www.nyc.gov/dot

OCMC FILE NO: BNEC-19-912
 PROJECT ID: HWK-2048
 JAMAICA BAY GREENWAY – PAERDEGAT AVENUE NORTH CONNECTOR.
 LOCATION BROOKLYN
 COMMUNITY BOARD 18

P. ENHANCED MITIGATIONS

- **ENHANCED MITIGATIONS FOR PEDESTRIAN FLOW**, INCLUDING METAL FENCING, SHALL BE PROVIDED TO ENSURE PEDESTRIANS STAY WITHIN THEIR DESIGNATED PATH/ROUTE. PEDESTRIAN MANAGERS SHALL BE PROVIDED TO ASSIST WITH PEDESTRIANS AT THE DESIGNATED CROSSWALK AREAS.
- **"NO STANDING ANYTIME-TEMPORARY CONSTRUCTION" SIGNS** AND TEMPORARY PAVEMENT MARKINGS SHALL BE INSTALLED AND MAINTAINED AS WARRANTED BY THE MAINTENANCE AND PROTECTION OF TRAFFIC (MPT) REQUIRED TO FACILITATE TRAFFIC MOVEMENTS THROUGH THE WORK ZONE. ALL TEMPORARY SIGNS AND PAVEMENT MARKINGS SHALL BE REMOVED UPON COMPLETION OF THE PROJECT.
- **COMMUNITY OUTREACH** SHALL BE PROVIDED FOR THE DURATION OF THE PROJECT.

II. MAINTENANCE AND PROTECTION OF TRAFFIC

PAERDEGAT AVENUE NORTH FROM PAERDEGAT 1ST STREET TO PAERDEGAT 2ND STREET

- Work hours shall be as follows: 7:00 AM to 6PM Monday to Friday and Saturday 8AM to 4PM.
- Flag person must be provided to stop pedestrian and /or vehicle traffic while lifting materials overhead and also when crossing sidewalk in conjunction with crossing sidewalk permits.
- The contractor shall maintain one eleven foot lane for traffic.
- Full width of the roadway shall be opened to traffic when site is unattended.
- The contractor shall occupy 8 foot width of the roadway adjacent to the north or south curb line.
- The contractor shall maintain 5 foot clear sidewalk.
- The contractor must coordinate with NYC DOT Bike lane prior to mobilizing.

PAERDEGAT 1ST STREET FROM EAST 77TH STREET TO EAST 78TH STREET

- Work hours shall be as follows: 7:00 AM to 6PM Monday to Friday and Saturday 8AM to 4PM.
- Flag person must be provided to stop pedestrian and /or vehicle traffic while lifting materials overhead and also when crossing sidewalk in conjunction with crossing sidewalk permits.
- The contractor shall maintain two lanes for traffic, one lane in each direction with flaggers at each end of work zone.
- Full width of the roadway shall be opened to traffic when site is unattended.
- The contractor shall occupy 8 foot width of the roadway adjacent to the north or south curb line.
- The contractor shall maintain 5 foot clear sidewalk.
- The contractor must coordinate with NYCDOT Bike lane prior to mobilizing.

EAST 77TH STREET FROM PAERDEGAT 1ST STREET TO FLATLANDS AVENUE

- Work hours shall be as follows: 7:00 AM to 6PM Monday to Friday and Saturday 8AM to 4PM.
- Flag person must be provided to stop pedestrian and /or vehicle traffic while lifting materials overhead and also when crossing sidewalk in conjunction with crossing sidewalk permits.
- The contractor shall maintain one eleven foot lane for traffic.
- Full width of the roadway shall be opened to traffic when site is unattended.
- The contractor shall occupy 8 foot width of the roadway adjacent to the north or south curb line.
- The contractor shall maintain 5 foot clear sidewalk.
- The contractor must coordinate with NYCDOT Bike lane prior to mobilizing.

FLATLANDS AVENUE FROM EAST 76TH STREET TO EAST 77TH STREET

- Work hours shall be as follows: 9:00am – 2:00pm Monday through Friday (when school is in session)
- 9:00 AM to 4PM Monday to Friday when school is not in session and Saturday 8AM to 4PM.
- Flag person must be provided to stop pedestrian and /or vehicle traffic while lifting materials overhead and also when crossing sidewalk in conjunction with crossing sidewalk permits.
- The contractor shall maintain three eleven foot lanes for traffic.
- Full width of the roadway shall be opened to traffic when site is unattended.
- The contractor shall occupy 8 foot width of the roadway adjacent to the north or south line.
- The contractor shall maintain 5 foot clear sidewalk.
- The contractor must coordinate with NYCDOT Bike lane prior to mobilizing.

PAERDEGAT AVENUE NORTH FROM PAERDEGAT 14TH STREET TO SEAVIEW AVENUE

- Work hours shall be as follows: 7:00 AM to 6PM Monday to Friday and Saturday 8AM to 4PM.
- Flag person must be provided to stop pedestrian and /or vehicle traffic while lifting materials overhead and also when crossing sidewalk in conjunction with crossing sidewalk permits.
- The contractor shall maintain one eleven foot lane for traffic.
- Full width of the roadway shall be opened to traffic when site is unattended.
- The contractor shall occupy 8 foot width of the roadway adjacent to the north or south curb line.
- The contractor shall maintain 5 foot clear sidewalk.
- The contractor must coordinate with NYCDOT Bike lane prior to mobilizing.

SEAVIEW AVENUE FROM PAERDEGAT AVENUE NORTH TO EAST 80TH STREET

- Work hours shall be as follows: 7:00 AM to 6PM Monday to Friday and Saturday 8AM to 4PM.
- Flag person must be provided to stop pedestrian and /or vehicle traffic while lifting materials overhead and also when crossing sidewalk in conjunction with crossing sidewalk permits.

OCMC FILE NO: BNEC-19-912
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 JAMAICA BAY GREENWAY – PAERDEGAT AVENUE NORTH CONNECTOR.
 LOCATION: BROOKLYN
 COMMUNITY BOARD: 18

- The contractor shall maintain one eleven foot lane for traffic.
- Full width of the roadway shall be opened to traffic when site is unattended.
- The contractor shall occupy 8 foot width of the roadway adjacent to the north or south curb line.
- The contractor shall maintain 5 foot clear sidewalk.
- The contractor must coordinate with NYCDOT Bike lane prior to mobilizing.

THIS IS NOT A PERMIT. THIS STIPULATION SHEET MUST BE SUBMITTED WITH ALL REQUESTS FOR PERMITS PERTAINING TO THE ABOVE CONTRACT AND PRESENT AT THE WORK SITE ALONG WITH ALL ACTIVE CONSTRUCTION PERMITS WHEN THE APPROVED WORK IS BEING PERFORMED.

1. ALL RELOCATION WORK BY THE UTILITIES SUCH AS; CON EDISON, TELEPHONE, GAS AND CABLE COMPANIES SHALL PRECEDE THE CONTRACTORS' START OF WORK ON ALL AFFECTED ROADWAYS IN THE IMPACTED CONTRACT AREA.
2. THE CONTRACTOR IS ADVISED THAT OTHER CONTRACTORS MAY BE WORKING IN THE GENERAL AREA DURING THE TERM OF THIS STIPULATION. IN WHICH EVENT, THE CONTRACTOR MAY REQUIRE MODIFICATIONS BY THE OCMC-STREETS.
3. THE PERMITTEE IS NOT AUTHORIZED TO ENTER, OCCUPY OR USE ANY PUBLICLY-OWNED OR PRIVATELY OWNED, NON-PAVED, LANDSCAPE OR NON-LANDSCAPED LOCATION WITHOUT SPECIFIC WRITTEN PERMISSION. WHEN THE LOCATION IS WITHIN THE RIGHT-OF-WAY OF A LIMITED-ACCESS ARTERIAL HIGHWAY, **WRITTEN** APPROVAL FROM THE NYCDOT OCMC-HIGHWAYS IS REQUIRED. WHEN THE LOCATION IS WITHIN THE RIGHT-OF-WAY OF A PUBLIC STREET OR PUBLIC PARK, **WRITTEN** APPROVAL FROM THE NEW YORK CITY DEPARTMENT OF TRANSPORTATION OR NEW YORK CITY DEPARTMENT OF PARKS AND RECREATION IS REQUIRED. WHEN THE LOCATION IS WITHIN THE RIGHT-OF-WAY OF ANY OTHER JURISDICTION SUCH AS PRIVATE PROPERTY, STATE, FEDERAL ETC., IT IS THE PERMITTEE'S RESPONSIBILITY TO DETERMINE THE PROPERTY OWNER AND OBTAIN THE WRITTEN APPROVAL.
4. THE PERMITTEE SHALL ADHERE TO THE NYCDOT BUREAU OF BRIDGES' SPECIAL PROVISIONS FOR LANDSCAPE PROTECTION, MAINTENANCE AND RESTORATION, ITEMS 1.18.15 THROUGH 1.18.19, WHENEVER AND WHEREVER ANY OF THE PERMITTEE'S ACTIVITIES OCCUR WITHIN A LIMITED ACCESS ARTERIAL HIGHWAY RIGHT - OF - WAY.
5. NO DEVIATION OR DEPARTURE FROM THESE STIPULATIONS WILL BE PERMITTED WITHOUT THE PRIOR WRITTEN APPROVAL FROM THE OCMC-STREETS. REQUEST FOR SUCH MODIFICATIONS SHALL BE SUBMITTED TO THE OFFICE OF THE OCMC-STREETS, NEW YORK CITY DEPARTMENT OF TRANSPORTATION, A MINIMUM OF TWENTY (20) DAYS IN ADVANCE FOR CONSIDERATION.
6. FOR THIS PROJECT THE CONTRACTOR SHALL FURNISH, INSTALL AND MAINTAIN ALL NECESSARY ADVANCE WARNING AND DETOUR SIGNS, TEMPORARY CONTROL DEVICES, BARRICADES, LIGHTS AND FLASHING ARROW BOARDS IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES," THE TYPICAL SCHEMES INCLUDED IN THIS SPECIFICATION; AND AS ORDERED BY THE ENGINEER-IN-CHARGE AND THE OCMC-STREETS.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING HIS CONSTRUCTION SIGNAGE. THE IDENTIFICATION SHALL INCLUDE THE CONTRACTOR'S NAME, SPONSORING AGENCY NAME AND THE CONTRACT NUMBER. THE IDENTIFICATION SHALL BE PLACED ON THE BACK OF THE SIGN. THE LETTERING SHALL BE THREE (3) INCHES HIGH.
8. THE OCMC-STREETS RESERVES THE RIGHT TO VOID OR MODIFY THESE STIPULATIONS SHOULD CONSTRUCTION FAIL TO COMMENCE WITHIN TWO (2) YEARS OF THE SIGNED DATE OF THESE STIPULATIONS.
9. THE CONTRACTOR MUST COMPLY WITH ALL CONSTRUCTION EMBARGOS ISSUED BY THE NYCDOT INCLUDING THE HOLIDAY EMBARGO.



DUANE BARRA
 DIRECTOR
 OCMC STREETS

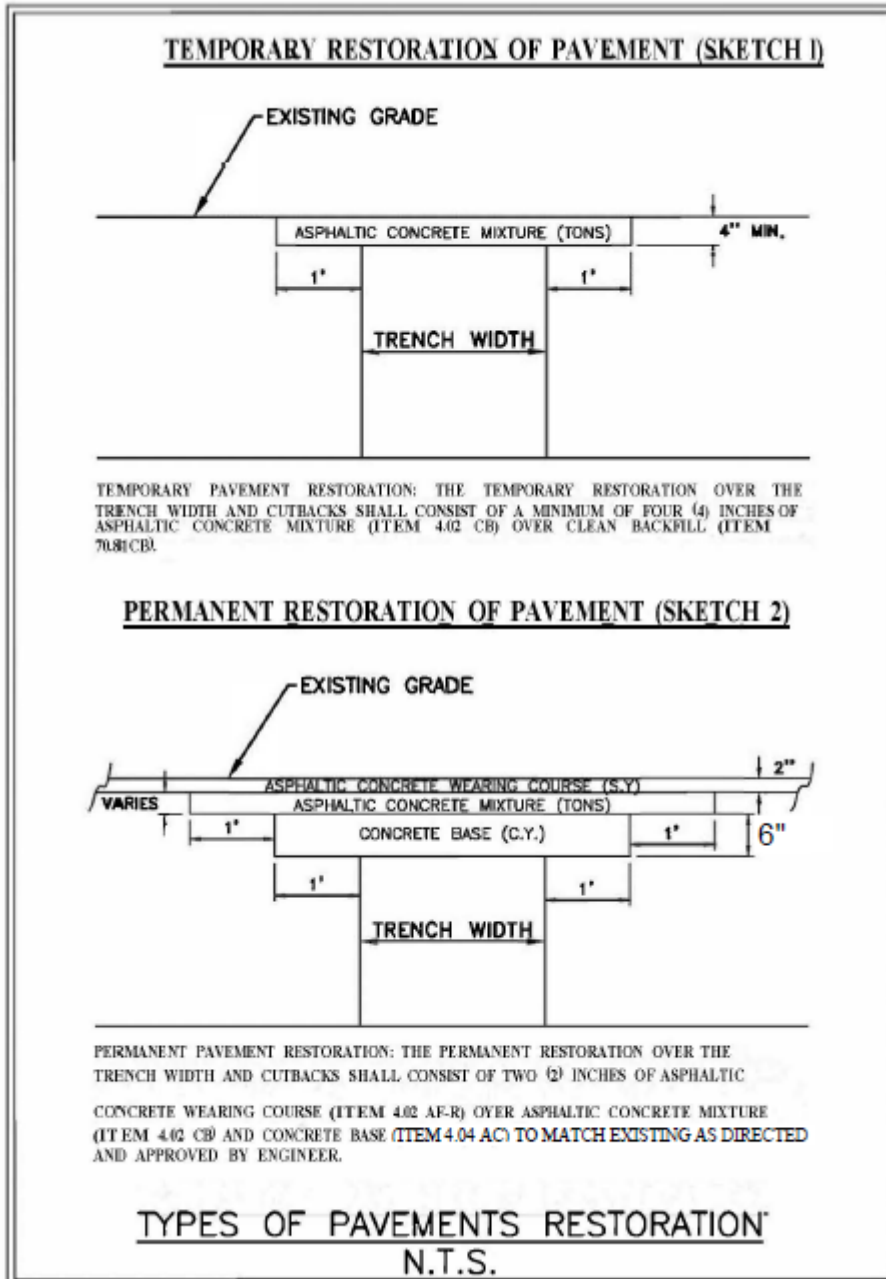


DANIEL PRINCIVIL
 PROJECT MANAGER
 OCMC-STREETS

(C) SEWER & WATER MAIN PROJECT SPECIFIC PROVISIONS

1. EXISTING SEWERS, MANHOLES, ETC. The contractor is advised that at some locations, there presently exist sewers, manholes, water mains, etc., which are to remain undisturbed and are in close proximity to the line of proposed work. The Contractor must exercise extreme care, minimize the trench width of the proposed sanitary or storm sewers and take all necessary precautions in placing sheeting, installing additional support and during excavation to prevent any damages to the said existing structures while working adjacent to them. The cost of the above work including additional supporting or underpinning design, modification of trench sheeting and all necessary work incidental thereto will be deemed to be included in the prices bid for all contract items of work. No additional or separate payment will be made. Any damage to any portion of the said existing structures due to the Contractor's operations must be repaired by him as directed by the Engineer. The cost for such repair will be borne by the Contractor solely at his own expense.

2. PAVEMENT RESTORATION. In trench areas, temporary pavement restoration must follow the sketch 1 shown on the following page.



TRENCH RESTORATION SKETCH N.T.S.

(D) GREEN INFRASTRUCTURE PROVISIONS

1. NOTES REGARDING PROTECTION OF EXISTING GREEN INFRASTRUCTURE:
 1. It is the Contractor's responsibility to verify all existing site conditions, both above and below the surface, prior to commencing work. Any discrepancies between the information shown on the drawings must be brought to the attention of the resident engineer, DDC and DEP in writing prior to commencing work.
 2. The Contractor is responsible for obtaining all necessary permits from the appropriate agencies prior to commencing work.
 3. The Contractor must exercise care during excavation operations to avoid disturbing adjacent facilities, sub grade structures and trees. All damage resulting from the construction will be the contractor's responsibility and must be repaired at no expense to the city. All repair work must be to the satisfaction of the resident engineer.
 4. The Contractor must take special care to protect all existing trees and their root system. Excavations within the drip lines of trees must be kept to a minimum and must be completed by hand only and must be performed in the presence of the resident engineer, at no additional expense to the city. Roots over 2" diameter must not be disturbed and bridge curbs must be constructed where necessary. Bulk material, equipment, or vehicles must not be stockpiled or parked within the dripline of any tree.
 5. In areas where new pavements fall within the drip line of existing trees, the Contractor must minimize excavations at tree roots by reducing the amount of foundation material as directed by engineer.
 6. Contractor must not score within eighteen (18) inches of headers on inlet/outlet surface opening.
 7. The Contractor must maintain 3'-6" minimum clearance from edge of green infrastructure unit to edge of existing or proposed water mains or services.

TF-PAGES

**TIGER/FHWA FUNDED PROJECTS
TIGER/FHWA FUNDING ATTACHMENTS**

(NO TEXT ON THIS PAGE)

Federal Highway Administration (“FHWA”) Transportation Investment Generating Economic Recovery (“TIGER”) Funding Attachments

THE CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
INFRASTRUCTURE DIVISION
BUREAU OF DESIGN

THIS ATTACHMENT IS HEREBY MADE A PART OF THE CONTRACT DOCUMENTS

1. Any substantial modification of the Contract shall be subject to approval by the State Commissioner of Transportation and the Federal Highway Administration, in addition to the New York City (“City”) agencies involved.
2. The Contractor shall be responsible for compliance with all the provisions of the following Schedules of Federal and State requirements which are hereby made a part of the original contract documents and are annexed hereto:

Attachment “A” – Required Contract Provisions for Federal-Aid Construction Contracts – FHWA 1273

Attachment “B” – Standard Clauses for New York State Contracts, Labor and Employment Provisions, and Public Notices

Attachment “C” – Notice to All Prospective Bidders, Federal-Aid Contracts - Assurance of Non-Discrimination, Subcontracts, Appendix A-1 Supplemental Title VI Provisions (Civil Rights Act)

Attachment “D” – Disadvantaged Business Enterprise Requirements

Attachment “E” – “Buy America” Requirements & Waivers and Use of United States-Flag Vessels

Attachment “F” - Equal Employment Opportunity Requirements

Attachment “G” – Standardized Changed Conditions Clauses

Attachment “H” – Civil Rights Monitoring and Reporting

Attachment “I” – False Claims Certification, United States Department of Transportation Hotline, New York State Inspector General Hotline

Attachment “J” – Provisions Relating to the New York State Labor Law, Prevailing Wages, and the Use of Convict Labor and Materials on Federal & State Contracts

In addition to compliance with the above Federal and State requirements, the Contractor shall also be required to comply with all City requirements as depicted in the Information for Bidders and Standard Construction Contract herein. Wherever a conflict may exist, the Federal Regulations shall take precedence.

3. The Contractor shall not pay less than the highest minimum hourly rates as set forth by Federal, State or City laws.
4. The Contractor shall maintain its records in conformity with the current NYSDOT "Manual for Uniform Record Keeping", referred to as MURK, copies of which are available on line at the NYSDOT website www.dot.ny.gov/publications.
5. In accordance with 23 US C315 and Order 1321.1C, FHWA Directives Management, issued January 6, 2010, the construction work performed under this Contract shall be available to be subject to inspection at all times by the New York State Department of Transportation and the Federal Highway Administration.
6. Amendments to Information for Bidders:
 - a) Refer to Pages 6 and 7, Section 21.(C), Rejection of All Bids and Negotiation With All Responsible Bidders;
Delete Section 21.(C) and Article 21.(D) in their entirety and substitute the words "(C) (NO TEXT)." And "(D) (NO TEXT)." respectively.
 - b) Refer to Page 8, Section 26.(A).(2), Bid, Performance and Payment Security;
Delete Section 26.(A).(2) in its entirety;
Substitute the following:
"Within five (5) days after the execution of the Contract and acceptance of the Contractor's bonds, the Comptroller will be notified to return the bid security of the successful bidder."
 - c) Refer to Page 8, Section 26.(B), Performance and Payment Security;
Delete the sentence beginning with the words: "Performance and Payment Security... in its entirety."
Substitute the following:
"Prior to or at the time of execution of the Contract, successful bidder must deliver to the City of New York an executed bond equal to one hundred percent (100%) of the Contract price, to secure the faithful performance of the Contract, and an executed bond in an amount equal to one hundred percent (100%) of the Contract price, as security for the payment of all persons performing labor or furnishing materials in connection with this Contract."
 - d) Refer to Page 9, Section 27. Failure to Execute Contract, 6th, 7th and 8th lines;
Delete the sentence beginning with the words: "No plea of mistake in such . . ." in its entirety.
 - e) Refer to Page 10, Section 30. Labor Law Requirements, Article (A) General;
Add the following at the end of the Article (A): "This provision shall apply to subcontractors also."
 - f) Refer to Page 11, Section 33.(B), Variations from Engineer's Estimate;
Delete Section 33.(B) in its entirety. See Attachment "G", Standardized Change Condition Clauses, Article (3).(iv).(B).
 - g) Refer to Pages 12 and 13, Section 37. Locally Based Enterprise Requirements (LBE);
Delete the Section in its entirety. See Attachment "D" Disadvantaged Business Enterprise Utilization Requirements.

7. Amendments to Standard Construction Contract:

- a) Refer to Page 5, Article 5.2;
Delete the last sentence starting with the words: “In the event of . . .” and ending with the words “. . . shall take precedence.”
Substitute the following:
“In the event of a conflict between the Schedules of Federal and State requirements attached hereto, the other terms of the **Contract**, and the **PPB** Rules, the following order of precedence shall apply: First, the Schedules of Federal and State requirements attached hereto, second the **PPB** Rules, and last, the other terms of the **Contract**.”
- b) Refer to Pages 11 and 12, ARTICLE 7. PROTECTION OF WORK AND OF PERSONS AND PROPERTY; NOTICES AND INDEMNIFICATION;
Add the following:
“7.6 In addition to the requirements stipulated herein, all work performed under this Contract shall comply with the safety and health standards of the Occupational Safety and Health Administration (OSHA) of the U.S. Department of Labor.”
- c) Refer to Page 13, Article 9.3;
Delete the first sentence starting with the words: “If the Contractor . . .” and ending with the words “. . . progress schedule.”
- d) Refer to Page 23, ARTICLE 16. OCCUPATION OR USE PRIOR TO COMPLETION;
Delete Article 16.1.4, in its entirety.
- e) Refer to Page 25, ARTICLE 17. SUBCONTRACTS;
Delete Article 17.11.1, in its entirety;
Substitute the following revised Article 17.11.1:
“17.11.1 Payment to **Subcontractors**: The agreement between the **Contractor** and its **Subcontractors** shall contain the same terms and conditions as to method of payment for **Work**, labor, and materials, as are contained in this **Contract**.”
- f) Refer to Pages 26 and 27, ARTICLE 19. SECURITY DEPOSIT;
Delete Article 19.2, in its entirety;
Substitute the following Article 19.2:
“19.2 If performance and payment bonds are not required, the bid security shall be retained by the **City** as security for the **Contractor's** faithful performance of the **Contract**. If partial payments are provided, the bid security will be returned to the **Contractor** subject to the other provisions of this **Contract**. If partial payments are not provided, the bid security will be released when final payment is certified by the **City** for payment.”
- g) Refer to Pages 29 and 30, ARTICLE 21. RETAINED PERCENTAGE;
Delete Article 21, in its entirety;
Substitute the following:
“ARTICLE 21. (NO TEXT)”
- h) Refer to Page 37, ARTICLE 24. MAINTENANCE AND GUARANTY;
Delete Article 24.1 in its entirety;
Substitute the words “24.1 (NO TEXT)”.

- i) Refer to Page 37, ARTICLE 24. MAINTENANCE AND GUARANTY;
Add the following to Article 24.9;

“If the **Contract** requires the furnishing and/or installing of electrical or mechanical equipment, the **Contractor** shall provide the following:

- (1) Manufacturers' warranties or guarantees on all electrical and mechanical equipment, consistent with those provided as customary trade practice.
- (2) **Contractor's** guarantees providing for satisfactory in-service operation of the mechanical and electrical equipment and related components for a period of not less than one (1) year following **Substantial Completion**.
- (3) If the **Contract** requires maintenance and guarantee for landscape items including trees, the maintenance and guarantee period for such landscape items shall be twenty-four (24) months following **Substantial Completion**.”

- j) Refer to Page 38, ARTICLE 25. CHANGES;
Add the following:

“25.5 **Extra Work**: It is anticipated that the preliminary engineering and the preparation of **Contract Drawings, Specifications and Contract Documents** have been performed with sufficient thoroughness, accuracy and care, and that changes and **Extra Work** during the construction can be held to a minimum and limited almost exclusively to changes necessitated by conditions that could not reasonably be anticipated before the **Project** was advertised for bids or force account operations commenced.”

- k) Refer to Pages 57, 58 and 59, ARTICLE 36. NO DISCRIMINATION;
Add throughout Article 36: “or sex or age” to the expression “race, creed, color or national origin”, and “or sex or age” to the expression “race, color or creed”, wherever these expressions appear in Article 36.

Change in Article 36.1.1, 4th line, “citizen of the State of New York” to “person”;

Add the following:

“36.1.6 To the extent that the requirements of Labor Law Section 220-e conflict with federal law, federal law prevails.”

Add the following sentence to the end of Article 36.2.2:

“To the extent that the requirements of Labor Law Section 220-e conflict with federal law, federal law prevails.”

Delete: Article 36.2.4 in its entirety.

- l) Refer to Page 66, ARTICLE 43. PROMPT PAYMENT;
Add the following sentence to the end of Article 43.5:

“The Contractor shall not hold any retainage, but may deduct an amount necessary to satisfy any claims, liens or judgments against a Subcontractor or materialman which have not been fully discharged.”

- m) Refer to Pages 66 and 67, ARTICLE 44. SUBSTANTIAL COMPLETION PAYMENT;
Delete Articles 44.2 and 44.3, in their entirety;
Substitute the following:

“44.2 The **Commissioner** shall issue a voucher calling for payment of any part or all of the balance due for **Work** performed under the **Contract**, less any and all deductions authorized to be made by the **Commissioner**, under this **Contract** or by **Law**, and less twice the amount the **Commissioner** considers necessary to ensure the completion of the balance of the **Work** by the **Contractor**. Such a payment shall be considered a Partial and not a Final Payment. No **Substantial Completion** payment shall be made under this Article 44 where the **Contractor** shall fail to complete the **Work** within the time fixed for such completion in the Schedule A of the General Conditions, or within the time to which completion may have been extended, until an extension or extensions of time for the completion of **Work** have been acted upon pursuant to Article 13.

44.3 No further partial payments shall be made to the **Contractor** after **Substantial Completion**, except the **Substantial Completion** payment and **Contractor's** requisition that were properly filed with the **Commissioner** prior to the date of **Substantial Completion**; however, the **Commissioner** may grant a waiver for further partial payments after the date of **Substantial Completion** to permit payments for change order **Work** and/or release of deposits pursuant to Article 24. Such waiver shall be in writing.”

- n) Refer to Pages 67 and 68, ARTICLE 45. FINAL PAYMENT;
Delete Article 45.1, in its entirety;
Substitute the following:

“45.1 After completion and **Final Acceptance** of the **Work**, the **Contractor** shall submit all required certificates and documents, together with a requisition for the balance claimed to be due under the **Contract**, less the amount authorized to be retained under Article 24. Such submission shall be within 90 days of the date of the **Commissioner's** written determination of **Final Acceptance**, or within such additional time as may be granted by the **Commissioner** in writing. If the **Contractor** fails to submit all required certificates and documents within the time allowed, no payment of the balance claimed shall be made to the **Contractor** and the **Contractor** shall be deemed to have forfeited its right to payment of any balance claimed. A verified statement similar to that required in connection with applications for partial payments shall also be submitted to the **Commissioner**.”

- o) Refer to Page 74, ARTICLE 59. SERVICE OF NOTICES;
Delete the words “deposited in a post office box regularly maintained by the United States Postal Service in a properly addressed, postage prepaid envelope”.
- p) Refer to Pages 78, 79 and 80, ARTICLE 64. TERMINATION BY THE CITY;
Delete the text of Article 64.1;
Substitute the following:

“64.1 In addition to termination pursuant to any other article of this **Contract**, the **Commissioner** may, by written notice, terminate the **Contract** or any portion thereof if the **Commissioner** determines that termination would be in the best interests of the **City**. Such reasons for termination may include, but need not be necessarily limited to, executive orders of the President relating to prosecution of war or national defense, national emergency which creates a serious shortage of materials, orders from duly constituted authorities relating to energy conservation, and restraining orders or injunctions obtained by third-party citizen action resulting from national or local laws or regulations, or where the issuance of such order or injunction is primarily caused by acts or omissions of persons or agencies other than the **Contractor**, or where the orderly progression of a project is interfered with or delayed by acts or omissions of persons or agencies other than the **Contractor**. The **Contractor** specifically understands that the issuance of such notice by the **Commissioner** shall be conclusive as to its necessity. In such event the **Contractor** shall upon receipt of such notice.”

- q) Refer to Page 82, ARTICLE 67. LOCALLY BASED ENTERPRISE PROGRAM; Delete Article 67, in its entirety, and Substitute the following “ARTICLE 67. (NO TEXT)”. See Attachment “D” Disadvantaged Business Enterprise Requirements.
- r) Refer to Pages 83 and 84, ARTICLE 69. MacBRIDE PRINCIPLES PROVISIONS; Delete Article 69, in its entirety, and Substitute the following “ARTICLE 69. (NO TEXT)”
- s) Refer to Pages 87, 88, 89, 90, 91, 92, 93, and 94, ARTICLE 79. PARTICIPATION BY MINORITY - OWNED AND WOMEN – OWNED BUSINESS ENTERPRISES IN CITY PROCUREMENT; Delete Article 79, in its entirety, and Substitute the following “ARTICLE 79. (NO TEXT)”

8. Amendments to General Conditions of the Standard Highway Specifications:

- a) Refer to Pages 38 and 39, of the Standard Highway Specifications, Article 1.06.46. Project Sign;
Delete the Article 1.06.46, in its entirety;
Substitute the following:

“1.06.46. Project Sign. No project signs will be required on this project.”

9. Amendments to the Standard Highway Specifications:

- a) Refer to Pages 290 through 292, **SECTION 5.05 – Maintenance**; Delete Section 5.05, in its entirety, and any references thereto;
Substitute the following:

“SECTION 5.05 – Maintenance”

(A) CONTRACTOR TO STAY INFORMED OF CONDITIONS OF TREES

The Contractor must stay informed of the condition of the trees which are under maintenance, and will be required to make replacements without notice from the Commissioner. In case of failure or neglect on the Contractor’s part to do so, then the Commissioner will have the right to purchase such plant material as deemed necessary by the Commissioner, and to employ such person or persons as the Commissioner will deem proper, and to undertake and complete said replacements by contract or otherwise and to charge the expense thereof against the Performance Bond or any sum of money retained by The City, as herein provided, and the excess cost to the Contractor, and

the Contractor must pay all such expense to which The City may have been put by reason of the neglect of the Contractor to make such replacements as aforesaid.

(B) CONTRACTOR TO MAKE REPAIRS OR REPLACEMENTS

The Contractor must remove and replace all trees under maintenance which die or, in the opinion of the Engineer, seem unhealthy, stunted or unable to flourish, within the period of maintenance, except as otherwise provided, and replace said trees with new trees of the same size and species as originally planted, except when such death, unhealthiness, stunting or inability to flourish is due to vandalism or damage resulting from causes over which the Contractor has no control, as certified by the Engineer. However, the Engineer may, at his the Engineer's discretion, direct a substitution of species.

(C) PERIOD OF MAINTENANCE

The period of maintenance for each individual tree planted or transplanted will begin upon planting or transplanting and will end twenty-four (24) months thereafter. The Contractor must obtain the said certificate from the Department of Parks and Recreation, in writing, and file such certificate with the Engineer.

(D) MAINTENANCE NOT TO TERMINATE IN WINTER MONTHS

When the termination date of the period of maintenance for planted or transplanted trees will fall outside the planting periods specified in **Section 4.16**, hereof, the interval between the said termination date and next planting period thereafter, or such part as the Commissioner may determine, will not be included in the computation of the period of maintenance during which the replacement of defective trees is to be made by the Contractor, and also, in that case, the payment to be made under the provisions of this contract will not be made until after the date appearing on the Certificate of Acceptance which the Contractor must obtain from the Department of Parks and Recreation, and file with the Engineer, for trees planted as replacements for defective trees within the said next planting period thereafter, unless otherwise specifically permitted by the Commissioner.

(E) EXPIRATION OF MAINTENANCE

Unless otherwise permitted or directed, defective trees, as determined by the Commissioner, must be replaced with new trees by the Contractor.

The furnishing and planting of trees as replacements for defective trees must comply, in all respects, with the contract requirements.

In the event that The City incurs any expense in pursuance of this section of the contract, the certificate of the Commissioner as to the condition of the trees, the nature and extent of the replacements made, and expense incurred for such replacements will be binding and conclusive on the Contractor.

(F) CONTRACTOR TO NOTIFY COMMISSIONER BEFORE MAKING REPAIRS

The Contractor must notify the Commissioner, at least two (2) days before making any replacements of the time and place of beginning such work and must at all times keep the Commissioner or his the Commissioner's representatives informed of the proposed prosecution of the work from day to day."

10. The Contractor is hereby notified that this is a City contract funded through apportionment available under Title 23, U.S. Code, as amended, and that the contract will be awarded by the City of New York, subject to the approval of the Commissioner of the New York State Department of Transportation and the Federal Highway Administration. Furthermore, no extensions in time for completion or other changes affecting the contract work can be

granted by the City of New York without concurrence of the State of New York and approval of the Federal Highway Administration.

11. All reference to the delivery of salvageable materials to a designated City-owned yard do not apply to this Contract. All salvageable materials designated by the Engineer must be stored on site for pick-up by City forces.
12. Wherever references are made within these specifications to “race, creed, color, national origin or sex,” they must be construed to include “sexual orientation and marital status”.

(NO FURTHER TEXT ON THIS PAGE)

REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

- I General
- II Nondiscrimination
- III Non-segregated Facilities
- IV Davis-Bacon and Related Act Provisions
- V Contract Work Hours and Safety Standards Act Provisions
- VI Subletting or Assigning the Contract
- VII Safety: Accident Prevention
- VIII False Statements Concerning Highway Projects
- IX Implementation of Clean Air Act and Federal Water Pollution Control Act
- X Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
- XI Certification Regarding Use of Contract Funds for Lobbying
- XII Use of United States-Flag Vessels:

ATTACHMENTS A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1 Form FHWA-1273 must be physically incorporated in each construction contract funded under title 23, United States Code, as required in 23 CFR 633.102(b) (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services). 23 CFR 633.102(e).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider. 23 CFR 633.102(e).

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services) in accordance with 23 CFR 633.102. The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in solicitation-for-bids or request-for-proposals documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract). 23 CFR 633.102(b).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract. 23 CFR 633.102(d).

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

II. NONDISCRIMINATION (23 CFR 230.107(a); 23 CFR Part 230, Subpart A, Appendix A; EO 11246)

The provisions of this section related to 23 CFR Part 230, Subpart A, Appendix A are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR Part 60, 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60- 1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR Part 60, and 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR Part 230, Subpart A, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal Employment Opportunity (EEO) requirements not to discriminate and to take affirmative action

to assure equal opportunity as set forth under laws, executive orders, rules, regulations (see 28 CFR Part 35, 29 CFR Part 1630, 29 CFR Parts 1625-1627, 41 CFR Part 60 and 49 CFR Part 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140, shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR Part 35 and 29 CFR Part 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract. 23 CFR 230.409 (g)(4) & (5).

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, sexual orientation, gender identity, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees,

or who recommend such action or are substantially involved in such action, will be made fully cognizant of and will implement the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this

requirement, the contractor will identify sources of potential minority group employees and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to ensure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected

persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action 3 within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs (i.e., apprenticeship and on-the-job training programs for the geographical area of contract performance). In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. 23 CFR 230.409. Actions by the contractor, either

directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities:

The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established thereunder. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment:

The contractor shall not discriminate on the grounds of race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors, suppliers, and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurances Required:

a. The requirements of 49 CFR Part 26 and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.

b. The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:

- (1) Withholding monthly progress payments;
- (2) Assessing sanctions;
- (3) Liquidated damages; and/or
- (4) Disqualifying the contractor from future bidding as non-responsible.

c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E are incorporated by reference. 49 CFR Part 21.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women.

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of more than

\$10,000. 41 CFR 60-1.5.

As prescribed by 41 CFR 60-1.8, the contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location under the contractor's control where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5

"Contract provisions and related matters" with minor revisions to conform to the FHWA_1273 format and FHWA program requirements.

1. Minimum wages (29 CFR 5.5)

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place

where it can be easily seen by the workers.

b. (1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and 5

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative,

will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding (29 CFR 5.5)

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay

any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records (29 CFR 5.5)

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b. (1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the

information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency.

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or 6 subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under 29 CFR 5.5(a)(3)(ii), the appropriate information is being maintained under 29 CFR 5.5(a)(3)(i), and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 231.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees (29 CFR 5.5)

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship

program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work

performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the 7 corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. 23 CFR 230.111(e)(2). The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract as provided in 29 CFR 5.5.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract as provided in 29 CFR 5.5.

9. Disputes concerning labor standards. As provided in 29 CFR 5.5, disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility (29 CFR 5.5)

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

Pursuant to 29 CFR 5.5(b), the following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of

forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek. 29 CFR 5.5.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph 1 of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph 1 of this section, in the sum currently provided in 29 CFR 5.5(b)(2)* for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1 of this section. 29 CFR 5.5.

* \$27 as of January 23, 2019 (See 84 FR 213-01, 218) as may be adjusted annually by the Department of Labor; pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990).

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contacting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 2 of this section. 29 CFR 5.5.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs 1 through 4 of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1 through 4 of this section. 29 CFR 5.5.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" in paragraph 1 of Section VI refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions: (based on longstanding interpretation)

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;

(2) the prime contractor remains responsible for the quality of the work of the leased

employees;

(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and

(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), the contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. Pursuant to 23 CFR 635.116(c), the contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract. (based on long standing interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR Part 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract. 23 CFR 635.108.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR Part 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704). 29 CFR 1926.10.

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR Part 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 11, 1916, (39 Stat. 355), as

amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT (42 U.S.C. 7606; 2 CFR 200.88; EO 11738)

This provision is applicable to all Federal-aid construction contracts in excess of \$150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.326.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.326.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200. 2 CFR 180.220 and 1200.220.

1. Instructions for Certification – First Tier Participants:

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction. 2 CFR 180.320.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default. 2 CFR 180.325.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances. 2 CFR 180.345 and 180.350.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900-180.1020, and 1200. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contractor). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant 10 who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has

entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction. 2 CFR 180.330.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold. 2 CFR 180.220 and 180.300.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (<https://www.sam.gov/>). 2 CFR 180.300, 180.320, and 180.325.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default. 2 CFR 180.325.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.335;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property, 2 CFR 180.800;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification, 2 CFR 180.700 and 180.800; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default. 2 CFR 180.335(d).

(5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements).

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

3. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders, and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200). 2 CFR 180.220 and 1200.220.

a. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances. 2 CFR 180.365.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900 – 180.1020, and 1200. You may contact the person to which this proposal is 11 submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated. 2 CFR 1200.220 and 1200.332.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold. 2 CFR 180.220 and 1200.220.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification

is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (<https://www.sam.gov/>), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment. 2 CFR 180.325.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(a) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355;

(b) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(c) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal.

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XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000. 49 CFR Part 20, App. A.

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report

Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier 12 subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

XII. USE OF UNITED STATES-FLAG VESSELS:

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels. 46 CFR 381.7.

2. To furnish within 20 days following the date of loading for shipments originating within the

United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b)(1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.

ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS (23 CFR 633, Subpart B, Appendix B) This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent

information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region. 6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work

**ATTACHMENT “B” – STANDARD CLAUSES FOR NEW YORK
STATE CONTRACTS, LABOR AND EMPLOYMENT
PROVISIONS, AND PUBLIC NOTICES**

“Standard Clauses for New York State Contracts” is Appendix A from the NYS Office of General Services (OGS), as modified by NYS Department of Transportation (NYSDOT).

“Public Notices” text is from NYSDOT Standard Specifications, Section 107-04.

STANDARD CLAUSES FOR NEW YORK STATE CONTRACTS

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STANDARD CLAUSES FOR NYS CONTRACTS

The parties to the attached contract, license, lease, amendment or other agreement of any kind (hereinafter, "the contract" or "this contract") agree to be bound by the following clauses which are hereby made a part of the contract (the word "Contractor" herein refers to any party other than the State, whether a contractor, licenser, licensee, lessor, lessee or any other party):

1. EXECUTORY CLAUSE. In accordance with Section 41 of the State Finance Law, the State shall have no liability under this contract to the Contractor or to anyone else beyond funds appropriated and available for this contract.

2. NON-ASSIGNMENT CLAUSE. In accordance with Section 138 of the State Finance Law, this contract may not be assigned by the Contractor or its right, title or interest therein assigned, transferred, conveyed, sublet or otherwise disposed of without the State's previous written consent, and attempts to do so are null and void. Notwithstanding the foregoing, such prior written consent of an assignment of a contract let pursuant to Article XI of the State Finance Law may be waived at the discretion of the contracting agency and with the concurrence of the State Comptroller where the original contract was subject to the State Comptroller's approval, where the assignment is due to a reorganization, merger or consolidation of the Contractor's business entity or enterprise. The State retains its right to approve an assignment and to require that any Contractor demonstrate its responsibility to do business with the State. The Contractor may, however, assign its right to receive payments without the State's prior written consent unless this contract concerns Certificates of Participation pursuant to Article 5-A of the State Finance Law.

3. COMPTROLLER'S APPROVAL. In accordance with Section 112 of the State Finance Law (or, if this contract is with the State University or City University of New York, Section 355 or Section 6218 of the Education Law), if this contract exceeds \$50,000 (or the minimum thresholds agreed to by the Office of the State Comptroller for certain S.U.N.Y. and C.U.N.Y. contracts), or if this is an amendment for any amount to a contract which, as so amended, exceeds said statutory amount, or if, by this contract, the State agrees to give something other than money when the value or reasonably estimated value of such consideration exceeds \$25,000, it shall not be valid, effective or binding upon the State until it has been approved by the State Comptroller and filed in his office. Comptroller's approval of contracts let by the Office of General Services is required when such contracts exceed \$85,000 (State Finance Law § 163.6-a). However, such pre-approval shall not be required for any contract established as a centralized contract through the Office of General Services or for a purchase order or other transaction issued under such centralized contract.

4. WORKERS' COMPENSATION BENEFITS. In accordance with Section 142 of the State Finance Law, this contract shall be void and of no force and effect unless the

Contractor shall provide and maintain coverage during the life of this contract for the benefit of such employees as are required to be covered by the provisions of the Workers' Compensation Law.

5. NON-DISCRIMINATION REQUIREMENTS. To the extent required by Article 15 of the Executive Law (also known as the Human Rights Law) and all other State and Federal statutory and constitutional non-discrimination provisions, the Contractor will not discriminate against any employee or applicant for employment, nor subject any individual to harassment, because of age, race, creed, color, national origin, sexual orientation, gender identity or expression, military status, sex, disability, predisposing genetic characteristics, familial status, marital status, or domestic violence victim status or because the individual has opposed any practices forbidden under the Human Rights Law or has filed a complaint, testified, or assisted in any proceeding under the Human Rights Law. Furthermore, in accordance with Section 220-e of the Labor Law, if this is a contract for the construction, alteration or repair of any public building or public work or for the manufacture, sale or distribution of materials, equipment or supplies, and to the extent that this contract shall be performed within the State of New York, Contractor agrees that neither it nor its subcontractors shall, by reason of race, creed, color, disability, sex, or national origin: (a) discriminate in hiring against any New York State citizen who is qualified and available to perform the work; or (b) discriminate against or intimidate any employee hired for the performance of work under this contract. If this is a building service contract as defined in Section 230 of the Labor Law, then, in accordance with Section 239 thereof, Contractor agrees that neither it nor its subcontractors shall by reason of race, creed, color, national origin, age, sex or disability: (a) discriminate in hiring against any New York State citizen who is qualified and available to perform the work; or (b) discriminate against or intimidate any employee hired for the performance of work under this contract. Contractor is subject to fines of \$50.00 per person per day for any violation of Section 220-e or Section 239 as well as possible termination of this contract and forfeiture of all moneys due hereunder for a second or subsequent violation.

6. WAGE AND HOURS PROVISIONS. If this is a public work contract covered by Article 8 of the Labor Law or a building service contract covered by Article 9 thereof, neither Contractor's employees nor the employees of its subcontractors may be required or permitted to work more than the number of hours or days stated in said statutes, except as otherwise provided in the Labor Law and as set forth in prevailing wage and supplement schedules issued by the State Labor Department. Furthermore, Contractor and its subcontractors must pay at least the prevailing wage rate and pay or provide the prevailing supplements, including the premium rates for overtime pay, as determined by the State Labor Department in accordance with the Labor Law. Additionally, effective April 28, 2008, if this is a public work contract covered by Article 8 of the Labor Law, the Contractor understands and agrees that the filing of payrolls in a manner consistent with Subdivision 3-

a of Section 220 of the Labor Law shall be a condition precedent to payment by the State of any State approved sums due and owing for work done upon the project.

7. NON-COLLUSIVE BIDDING CERTIFICATION. In accordance with Section 139-d of the State Finance Law, if this contract was awarded based upon the submission of bids, Contractor affirms, under penalty of perjury, that its bid was arrived at independently and without collusion aimed at restricting competition. Contractor further affirms that, at the time Contractor submitted its bid, an authorized and responsible person executed and delivered to the State a non-collusive bidding certification on Contractor's behalf.

8. INTERNATIONAL BOYCOTT PROHIBITION. In accordance with Section 220-f of the Labor Law and Section 139-h of the State Finance Law, if this contract exceeds \$5,000, the Contractor agrees, as a material condition of the contract, that neither the Contractor nor any substantially owned or affiliated person, firm, partnership or corporation has participated, is participating, or shall participate in an international boycott in violation of the federal Export Administration Act of 1979 (50 USC App. Sections 2401 et seq.) or regulations thereunder. If such Contractor, or any of the aforesaid affiliates of Contractor, is convicted or is otherwise found to have violated said laws or regulations upon the final determination of the United States Commerce Department or any other appropriate agency of the United States subsequent to the contract's execution, such contract, amendment or modification thereto shall be rendered forfeit and void. The Contractor shall so notify the State Comptroller within five (5) business days of such conviction, determination or disposition of appeal (2 NYCRR § 105.4).

9. SET-OFF RIGHTS. The State shall have all of its common law, equitable and statutory rights of set-off. These rights shall include, but not be limited to, the State's option to withhold for the purposes of set-off any moneys due to the Contractor under this contract up to any amounts due and owing to the State with regard to this contract, any other contract with any State department or agency, including any contract for a term commencing prior to the term of this contract, plus any amounts due and owing to the State for any other reason including, without limitation, tax delinquencies, fee delinquencies or monetary penalties relative thereto. The State shall exercise its set-off rights in accordance with normal State practices including, in cases of set-off pursuant to an audit, the finalization of such audit by the State agency, its representatives, or the State Comptroller.

10. RECORDS. The Contractor shall establish and maintain complete and accurate books, records, documents, accounts and other evidence directly pertinent to performance under this contract (hereinafter, collectively, the "Records"). The Records must be kept for the balance of the calendar year in which they were made and for six (6) additional years thereafter. The State Comptroller, the Attorney General and any other person or entity authorized to conduct an examination, as well as the

agency or agencies involved in this contract, shall have access to the Records during normal business hours at an office of the Contractor within the State of New York or, if no such office is available, at a mutually agreeable and reasonable venue within the State, for the term specified above for the purposes of inspection, auditing and copying. The State shall take reasonable steps to protect from public disclosure any of the Records which are exempt from disclosure under Section 87 of the Public Officers Law (the "Statute") provided that: (i) the Contractor shall timely inform an appropriate State official, in writing, that said records should not be disclosed; and (ii) said records shall be sufficiently identified; and (iii) designation of said records as exempt under the Statute is reasonable. Nothing contained herein shall diminish, or in any way adversely affect, the State's right to discovery in any pending or future litigation.

11. IDENTIFYING INFORMATION AND PRIVACY NOTIFICATION. (a) Identification Number(s). Every invoice or New York State Claim for Payment submitted to a New York State agency by a payee, for payment for the sale of goods or services or for transactions (e.g., leases, easements, licenses, etc.) related to real or personal property must include the payee's identification number. The number is any or all of the following: (i) the payee's Federal employer identification number, (ii) the payee's Federal social security number, and/or (iii) the payee's Vendor Identification Number assigned by the Statewide Financial System. Failure to include such number or numbers may delay payment. Where the payee does not have such number or numbers, the payee, on its invoice or Claim for Payment, must give the reason or reasons why the payee does not have such number or numbers.

(b) Privacy Notification. (1) The authority to request the above personal information from a seller of goods or services or a lessor of real or personal property, and the authority to maintain such information, is found in Section 5 of the State Tax Law. Disclosure of this information by the seller or lessor to the State is mandatory. The principal purpose for which the information is collected is to enable the State to identify individuals, businesses and others who have been delinquent in filing tax returns or may have understated their tax liabilities and to generally identify persons affected by the taxes administered by the Commissioner of Taxation and Finance. The information will be used for tax administration purposes and for any other purpose authorized by law. (2) The personal information is requested by the purchasing unit of the agency contracting to purchase the goods or services or lease the real or personal property covered by this contract or lease. The information is maintained in the Statewide Financial System by the Vendor Management Unit within the Bureau of State Expenditures, Office of the State Comptroller, 110 State Street, Albany, New York 12236.

12. EQUAL EMPLOYMENT OPPORTUNITIES FOR MINORITIES AND WOMEN. In accordance with Section 312 of the Executive Law and 5 NYCRR Part 143, if this contract is: (i) a written agreement or purchase order instrument, providing for a total expenditure in excess of

\$25,000.00, whereby a contracting agency is committed to expend or does expend funds in return for labor, services, supplies, equipment, materials or any combination of the foregoing, to be performed for, or rendered or furnished to the contracting agency; or (ii) a written agreement in excess of \$100,000.00 whereby a contracting agency is committed to expend or does expend funds for the acquisition, construction, demolition, replacement, major repair or renovation of real property and improvements thereon; or (iii) a written agreement in excess of \$100,000.00 whereby the owner of a State assisted housing project is committed to expend or does expend funds for the acquisition, construction, demolition, replacement, major repair or renovation of real property and improvements thereon for such project, then the following shall apply and by signing this agreement the Contractor certifies and affirms that it is Contractor's equal employment opportunity policy that:

(a) The Contractor will not discriminate against employees or applicants for employment because of race, creed, color, national origin, sex, age, disability or marital status, shall make and document its conscientious and active efforts to employ and utilize minority group members and women in its work force on State contracts and will undertake or continue existing programs of affirmative action to ensure that minority group members and women are afforded equal employment opportunities without discrimination. Affirmative action shall mean recruitment, employment, job assignment, promotion, upgradings, demotion, transfer, layoff, or termination and rates of pay or other forms of compensation;

(b) at the request of the contracting agency, the Contractor shall request each employment agency, labor union, or authorized representative of workers with which it has a collective bargaining or other agreement or understanding, to furnish a written statement that such employment agency, labor union or representative will not discriminate on the basis of race, creed, color, national origin, sex, age, disability or marital status and that such union or representative will affirmatively cooperate in the implementation of the Contractor's obligations herein; and

(c) the Contractor shall state, in all solicitations or advertisements for employees, that, in the performance of the State contract, all qualified applicants will be afforded equal employment opportunities without discrimination because of race, creed, color, national origin, sex, age, disability or marital status.

Contractor will include the provisions of "a," "b," and "c" above, in every subcontract over \$25,000.00 for the construction, demolition, replacement, major repair, renovation, planning or design of real property and improvements thereon (the "Work") except where the Work is for the beneficial use of the Contractor. Section 312 does not apply to: (i) work, goods or services unrelated to this contract; or (ii) employment outside New York State. The State shall consider compliance by a contractor or subcontractor with the requirements of any federal law concerning equal employment opportunity which effectuates the purpose of this clause. The

contracting agency shall determine whether the imposition of the requirements of the provisions hereof duplicate or conflict with any such federal law and if such duplication or conflict exists, the contracting agency shall waive the applicability of Section 312 to the extent of such duplication or conflict. Contractor will comply with all duly promulgated and lawful rules and regulations of the Department of Economic Development's Division of Minority and Women's Business Development pertaining hereto.

13. CONFLICTING TERMS. In the event of a conflict between the terms of the contract (including any and all attachments thereto and amendments thereof) and the terms of this Appendix A, the terms of this Appendix A shall control.

14. GOVERNING LAW. This contract shall be governed by the laws of the State of New York except where the Federal supremacy clause requires otherwise.

15. LATE PAYMENT. Timeliness of payment and any interest to be paid to Contractor for late payment shall be governed by Article 11-A of the State Finance Law to the extent required by law.

16. NO ARBITRATION. Disputes involving this contract, including the breach or alleged breach thereof, may not be submitted to binding arbitration (except where statutorily authorized), but must, instead, be heard in a court of competent jurisdiction of the State of New York.

17. SERVICE OF PROCESS. In addition to the methods of service allowed by the State Civil Practice Law & Rules ("CPLR"), Contractor hereby consents to service of process upon it by registered or certified mail, return receipt requested. Service hereunder shall be complete upon Contractor's actual receipt of process or upon the State's receipt of the return thereof by the United States Postal Service as refused or undeliverable. Contractor must promptly notify the State, in writing, of each and every change of address to which service of process can be made. Service by the State to the last known address shall be sufficient. Contractor will have thirty (30) calendar days after service hereunder is complete in which to respond.

18. PROHIBITION ON PURCHASE OF TROPICAL HARDWOODS. The Contractor certifies and warrants that all wood products to be used under this contract award will be in accordance with, but not limited to, the specifications and provisions of Section 165 of the State Finance Law, (Use of Tropical Hardwoods) which prohibits purchase and use of tropical hardwoods, unless specifically exempted, by the State or any governmental agency or political subdivision or public benefit corporation. Qualification for an exemption under this law will be the responsibility of the contractor to establish to meet with the approval of the State.

In addition, when any portion of this contract involving the use of woods, whether supply or installation, is to be performed by

any subcontractor, the prime Contractor will indicate and certify in the submitted bid proposal that the subcontractor has been informed and is in compliance with specifications and provisions regarding use of tropical hardwoods as detailed in § 165 State Finance Law. Any such use must meet with the approval of the State; otherwise, the bid may not be considered responsive. Under bidder certifications, proof of qualification for exemption will be the responsibility of the Contractor to meet with the approval of the State.

19. MACBRIDE FAIR EMPLOYMENT PRINCIPLES (APPLICABLE ONLY IN NON-FEDERAL AID NEW YORK STATE CONTRACTS). In accordance with the MacBride Fair Employment Principles (Chapter 807 of the Laws of 1992), the Contractor hereby stipulates that the Contractor either (a) has no business operations in Northern Ireland, or (b) shall take lawful steps in good faith to conduct any business operations in Northern Ireland in accordance with the MacBride Fair Employment Principles (as described in Section 165 of the New York State Finance Law), and shall permit independent monitoring of compliance with such principles.

20. OMNIBUS PROCUREMENT ACT OF 1992 (APPLICABLE ONLY IN NON-FEDERAL AID NEW YORK STATE CONTRACTS). It is the policy of New York State to maximize opportunities for the participation of New York State business enterprises, including minority- and women-owned business enterprises as bidders, subcontractors and suppliers on its procurement contracts.

Information on the availability of New York State subcontractors and suppliers is available from:

NYS Department of Economic Development
Division for Small Business
Albany, New York 12245
Telephone: 518-292-5100
Fax: 518-292-5884
email: opa@esd.ny.gov

A directory of certified minority- and women-owned business enterprises is available from:

NYS Department of Economic Development
Division of Minority and Women's Business Development
633 Third Avenue
New York, NY 10017
212-803-2414
email: mwbecertification@esd.ny.gov
<https://ny.newnycontracts.com/FrontEnd/VendorSearchPublic.asp>

The Omnibus Procurement Act of 1992 (Chapter 844 of the Laws of 1992, codified in State Finance Law § 139-i and Public Authorities Law § 2879(3)(n)-(p)) requires that by signing this bid proposal or contract, as applicable, Contractors certify that whenever the total bid amount is greater than \$1 million:

(a) The Contractor has made reasonable efforts to encourage the participation of New York State Business Enterprises as suppliers and subcontractors, including certified minority- and women-owned business enterprises, on this project, and has retained the documentation of these efforts to be provided upon request to the State;

(b) The Contractor has complied with the Federal Equal Opportunity Act of 1972 (P.L. 92-261), as amended;

(c) The Contractor agrees to make reasonable efforts to provide notification to New York State residents of employment opportunities on this project through listing any such positions with the Job Service Division of the New York State Department of Labor, or providing such notification in such manner as is consistent with existing collective bargaining contracts or agreements. The Contractor agrees to document these efforts and to provide said documentation to the State upon request; and

(d) The Contractor acknowledges notice that the State may seek to obtain offset credits from foreign countries as a result of this contract and agrees to cooperate with the State in these efforts.

21. RECIPROCITY AND SANCTIONS PROVISIONS. Bidders are hereby notified that if their principal place of business is located in a country, nation, province, state or political subdivision that penalizes New York State vendors, and if the goods or services they offer will be substantially produced or performed outside New York State, the Omnibus Procurement Act 1994 and 2000 amendments (Chapter 684 and Chapter 383, respectively, codified in State Finance Law § 165(6) and Public Authorities Law § 2879(5)) require that they be denied contracts which they would otherwise obtain. NOTE: As of October 2019, the list of discriminatory jurisdictions subject to this provision includes the states of South Carolina, Alaska, West Virginia, Wyoming, Louisiana and Hawaii.

22. COMPLIANCE WITH BREACH NOTIFICATION AND DATA SECURITY LAWS. Contractor shall comply with the provisions of the New York State Information Security Breach and Notification Act (General Business Law § 899-aa and State Technology Law § 208) and commencing March 21, 2020 shall also comply with General Business Law § 899-bb.

23. COMPLIANCE WITH CONSULTANT DISCLOSURE LAW. If this is a contract for consulting services, defined for purposes of this requirement to include analysis, evaluation, research, training, data processing, computer programming, engineering, environmental, health, and mental health services, accounting, auditing, paralegal, legal or similar services, then, in accordance with Section 163 (4)(g) of the State Finance Law (as amended by Chapter 10 of the Laws of 2006), the Contractor shall timely, accurately and properly comply with the requirement to submit an annual employment report for the contract to the agency that awarded

the contract, the Department of Civil Service and the State Comptroller.

24. PROCUREMENT LOBBYING. To the extent this agreement is a "procurement contract" as defined by State Finance Law §§ 139-j and 139-k, by signing this agreement the contractor certifies and affirms that all disclosures made in accordance with State Finance Law §§ 139-j and 139-k are complete, true and accurate. In the event such certification is found to be intentionally false or intentionally incomplete, the State may terminate the agreement by providing written notification to the Contractor in accordance with the terms of the agreement.

25. CERTIFICATION OF REGISTRATION TO COLLECT SALES AND COMPENSATING USE TAX BY CERTAIN STATE CONTRACTORS, AFFILIATES AND SUBCONTRACTORS.

To the extent this agreement is a contract as defined by Tax Law § 5-a, if the contractor fails to make the certification required by Tax Law § 5-a or if during the term of the contract, the Department of Taxation and Finance or the covered agency, as defined by Tax Law § 5-a, discovers that the certification, made under penalty of perjury, is false, then such failure to file or false certification shall be a material breach of this contract and this contract may be terminated, by providing written notification to the Contractor in accordance with the terms of the agreement, if the covered agency determines that such action is in the best interest of the State.

26. IRAN DIVESTMENT ACT. By entering into this Agreement, Contractor certifies in accordance with State Finance Law § 165-a that it is not on the "Entities Determined to be Non-Responsive Bidders/Offerers pursuant to the New York State Iran Divestment Act of 2012" ("Prohibited Entities List") posted at: <https://ogs.ny.gov/list-entities-determined-be-non-responsive-biddersofferers-pursuant-nys-iran-divestment-act-2012>

Contractor further certifies that it will not utilize on this Contract any subcontractor that is identified on the Prohibited Entities List. Contractor agrees that should it seek to renew or extend this Contract, it must provide the same certification at the time the Contract is renewed or extended. Contractor also agrees that any proposed Assignee of this Contract will be required to certify that it is not on the Prohibited Entities List before the contract assignment will be approved by the State.

During the term of the Contract, should the state agency receive information that a person (as defined in State Finance Law § 165-a) is in violation of the above-referenced certifications, the state agency will review such information and offer the person an opportunity to respond. If the person fails to demonstrate that it has ceased its engagement in the investment activity which is in violation of the Act within 90 days after the determination of such violation, then the state agency shall take such action as may be appropriate and provided for by law, rule, or contract, including, but not limited to, imposing sanctions,

seeking compliance, recovering damages, or declaring the Contractor in default.

The state agency reserves the right to reject any bid, request for assignment, renewal or extension for an entity that appears on the Prohibited Entities List prior to the award, assignment, renewal or extension of a contract, and to pursue a responsibility review with respect to any entity that is awarded a contract and appears on the Prohibited Entities list after contract award.

27. ADMISSIBILITY OF REPRODUCTION OF CONTRACT. Notwithstanding the best evidence rule or any other legal principle or rule of evidence to the contrary, the Contractor acknowledges and agrees that it waives any and all objections to the admissibility into evidence at any court proceeding or to the use at any examination before trial of an electronic reproduction of this contract, in the form approved by the State Comptroller, if such approval was required, regardless of whether the original of said contract is in existence.

LABOR AND EMPLOYMENT PROVISIONS

The provisions of NYS Labor Law, as amended, and referred to in *Standard Clauses for All New York State Contracts*, shall be applicable. On contracts financed with Federal-Aid, any provisions of NYS Labor Law that are in conflict with mandatory Federal-Aid construction contract compliance requirements, as contained in 23 CFR 635.117 are superseded. Any provisions of NYS Labor Law that are not in conflict with mandatory Federal-Aid construction contract compliance requirements, or the Davis-Bacon Act, but are more restrictive, shall apply.

The Contractor shall directly employ those members of its own organization. Employee leasing and other similar arrangements under which workers are employed by another organization are not permitted. No procedures or requirement shall be imposed by any state which will operate to discriminate against the employment of labor from any other state, possession or territory of the United States, in the construction of a Federal-Aid project. The selection of labor to be employed by the Contractor on any Federal-Aid project shall be of its choosing.

The Contractor shall not use convict labor unless performed by convicts who are on parole, supervised release, or probation for construction, maintenance or any other purpose at the site or within the contract limits from the time of contract award until contract final acceptance by DDC (the Department).

A. Wages. The Department will identify in the bid documents whether the NYS Department of Labor (NYSDOL) has determined the work under the contract to be prevailing wage eligible, and if so, the Department will provide the Prevailing Rate Case (PRC) number. The PRC number is found on NYSDOL Form PW-200. The Contractor shall ensure that workers are paid the appropriate wages and supplemental (fringe) benefits. If the contract is prevailing wage eligible, all on-site work shall be paid prevailing wages. When both State and Federal prevailing wages apply, the Contractor shall pay the higher of the combination of the wages and supplemental (fringe) benefits. The Contractor shall obtain periodic wage rate schedule updates from the NYSDOL. Wage rate amendments and supplements are available on the NYSDOL web site at <https://www.labor.ny.gov/workerprotection/publicwork/pwcontents.shtm>. All changes or clarification of labor classification(s) and applicability of prevailing wage rates shall be obtained in writing from the Office of the Director, NYSDOL Bureau of Public Work. The Contractor shall include the cost of changes in prevailing wages and supplemental (fringe) benefits over the contract duration in the contract bid prices.

B. Overtime Dispensation. All bidders, in submitting their bids, should base their bids and work progression on the assumption that Overtime Dispensation pursuant to Article 8 of the New York State Labor Law, for any workers, laborers, and mechanics to work more than 8 hours in any one calendar day or more than 5 days in any one week will not be granted for any operation for the contract duration. Regardless of approval or disapproval of overtime by the NYSDOL, no adjustment will be made in any bid prices.

Subsequent to award, where the contract proposal has imposed specific scheduling and/or phasing requirements or where it is determined by the Department to be in the best interest of the public, the Department may process, for approval by the NYSDOL, requests for overtime dispensation on certain specific operations.

The Contractor shall submit requests for overtime dispensation to the Department on Form PW- 30, Application for Dispensation for Hours, which will be provided by the Engineer upon request. The Department will review applications for overtime dispensation submitted by the Contractor associated with contracts subject to (A+B) Bidding, Incentive/Disincentive (I/D) or Lane Rental work favorably, but the application should not request more than 60 hours per week. The 60 hours per week may be either 6 - 10 hour days or 5 - 12 hour days. Overtime dispensations will be supported by the Department to advance Department goals and priorities, subject to specific circumstances and conditions associated with each contract.

The Department cannot guarantee that the NYSDOL will grant dispensation from restrictions pursuant to the provisions of Article 8 of the State Labor Law, however with the Department's certification, it is anticipated that they will act favorably, provided that the Contractor is in compliance with Labor Law requirements at the time of application.

C. Payrolls. The Contractor shall provide the Engineer with weekly certified payrolls from each firm engaged in work during the preceding weekly payroll period performed by prevailing wage eligible workers.

Certified payrolls shall contain for each employee, name, race, gender, home address, an individually identifying number (e.g. the last 4 digits of the employee's social security number), work class, hours worked, wage rate, supplemental (fringe)

benefits paid or provided, payroll taxes, withholdings and actual wages paid. Certified payrolls shall not include full social security numbers of employees. Certified payrolls shall be submitted on Form WH-347 or Form HC-231-1 for Federal- Aid contracts and on HC-231-1 for non Federal-Aid contracts. At the Contractor's option, other payroll formats, which supply the required data and certifications, may be used. Each certified payroll submitted shall be accompanied by a Statement of Compliance signed by the Contractor. If the firm does not maintain a place of business in New York State and the amount of the contract exceeds \$25,000, payroll records and certifications shall be kept on the worksite.

Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to NYSDOL or USDOL for purposes of an investigation or audit of compliance with prevailing wage requirements. Contractors may require subcontractors to provide addresses and social security numbers to the Contractor for its own records, without weekly submission to the Department.

D. Apprenticeship.

(1) Apprenticeship Program Requirements

Notice to Bidders: Please be advised that, pursuant to the authority granted to the City under Labor Law Section 816-b, the Department of Design and Construction hereby requires that the contractor awarded a contract as a result of this Invitation for Bids, and any of its subcontractors with subcontracts worth two million dollars or over, have, prior to entering into such contract or subcontract, apprenticeship agreements appropriate for the type and scope of work to be performed that have been registered with, and approved by, the New York State Commissioner of Labor. In addition, the contractor and its subcontractors will be required to show that such apprenticeship program/s have successfully passed the two year Probation period following the initial registration date of such program/s with the New York State Department of Labor.

The failure to prove, upon request, that these requirements have been met shall result in the contract not being awarded to the contractor or the subcontract not being approved.

Please be further advised that, pursuant to Labor Law Section 220, the allowable ratio of apprentices to journeypersons in any craft classification shall not be greater than the ratio permitted to the contractor as to its workforce on any job under the registered apprenticeship program.

(2) Apprenticeship Program Questionnaire

The bidder must submit a completed and signed Apprenticeship Program Questionnaire. The Questionnaire is located in the Bid Booklet, in Volume 1 of 3 of this contract.

PUBLIC NOTICES

Before commencing any work on the site, the Contractor shall provide a satisfactory weather resistant surface, and post, in a location accessible to all workers, a copy of the NYSDOL schedules of prevailing wages and supplements for this contract, a copy of all redeterminations of such schedules for the contract, the Workers' Compensation Law notice, required safety notices, and all other notices required by law to be posted at the site. The Contractor shall maintain such notices in a legible manner and shall replace any notice or schedule which is damaged, defaced, illegible or removed for any reason. The notices shall be maintained until all work on the site is complete.

**NOTICE TO ALL PROSPECTIVE BIDDERS
FEDERAL-AID CONTRACTS**

ASSURANCE OF NON-DISCRIMINATION

The New York State Department of Transportation, in accordance with Title VI of the Civil Rights Act of 1964, 78 Stat. 252, 42 U.S.C. 2000d to 2000d-4 and Title 49, Code of Federal Regulations, Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Nondiscrimination in Federally-assisted programs of the Department of Transportation and Title 23 Code of Federal Regulations, Part 200, Title VI Program and Related Statutes, as amended, issued pursuant to such Acts, hereby notifies all bidders that it will affirmatively ensure that in any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, national origin, sex, age, disability/handicap and income status in consideration for an award.

SUBCONTRACTS

The attention of the Contractor is directed to the requirement that the standard contract clauses, as set forth in the Proposal and in the NYS Department of Transportation Labor Compliance Manual (Federal-aid Construction, Appendix D-2, 3) must be physically incorporated in all subcontracts.

Copies of the Labor Compliance Manual referred to above may be examined in the office of the NYS Department of Transportation Regional Director.

SUPPLEMENTAL TITLE VI PROVISIONS (CIVIL RIGHTS ACT)

(To be included in all contracts)

During the performance of this contract, the contractor, for itself, its assignees and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

- (1) **Compliance with Regulations:** The contractor shall comply with the Regulation relative to nondiscrimination in Federally assisted programs of the Department of Transportation of the United States, Title 49, Code of Federal Regulations, Part 21, and the Federal Highway Administration (hereinafter "FHWA") Title 23, Code of Federal Regulations, Part 200 as they may be amended from time to time, (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.
- (2) **Nondiscrimination:** The Contractor, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, religion, age, color, sex or national origin, sex, age, and disability/handicap in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor shall not participate either directly or indirectly in the discrimination prohibited by 49 CFR, section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.

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- (3) Solicitations for Subcontractors, Including Procurements of Materials and Equipment: In all solicitations either by competitive bidding or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the contractor of the contractor's obligations under this contract and the Regulations relative to nondiscrimination on the grounds of race, color, or national origin, sex, age, and disability/handicap.
- (4) Information and Reports: The contractor shall provide all information and reports required by the Regulations or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by NYSDOT or the FHWA to be pertinent to ascertain compliance with such Regulations, orders and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information the contractor shall so certify to NYSDOT's Office of Civil Rights or FHWA, as appropriate, and shall set forth what efforts it has made to obtain the information.
- (5) Sanctions for Noncompliance: In the event of the contractor's noncompliance with the nondiscrimination provisions of this contract, NYSDOT shall impose such contract sanctions as it or the FHWA may determine to be appropriate, including, but not limited to:
- a) Withholding of payments to the contractor under the contract until the contractor complies; and/or
 - b) Cancellation, termination or suspension of the contract, in whole or in part.
- (6) Incorporation of Provisions: The contractor shall include the provisions of paragraphs (1) through (6) in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations, or directives issued pursuant thereto.

The contractor shall take such action with respect to any subcontractor procurement as NYSDOT or the FHWA may direct as a means of enforcing such provisions including sanctions for non-compliance: Provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the contractor may request NYSDOT to enter into such litigation to protect the interests of NYSDOT, and, in addition, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

DISADVANTAGED BUSINESS ENTERPRISE REQUIREMENTS

DBE UTILIZATION. DBE refers to a Disadvantaged Business Enterprise (DBE). The DBE program applies to Federal-Aid contracts. The program seeks to:

- Ensure nondiscrimination in the award and administration of Federal-Aid contracts;
- Create a level playing field on which DBEs can fairly compete for Federal-Aid contracts;
- Ensure that the DBE program is narrowly tailored in accordance with applicable law;
- Ensure that only firms that fully meet DBE eligibility standards are permitted to participate as DBEs;
- Help remove barriers to the participation of DBEs in Federal-Aid contracts;
- Promote the use of DBEs in all types of federally-assisted contracts and procurement activities conducted by recipients of Federal financial assistance;
- Assist in the development of firms that can compete successfully in the marketplace outside the DBE program; and
- Provide appropriate flexibility to recipients of Federal financial assistance in establishing and providing opportunities for DBEs.

The parties to this contract shall take all necessary and reasonable steps in accordance with the laws, rules and regulations cited in this subsection to promote the objectives outlined above. The Contractor shall comply with the applicable laws, rules and regulations and the DBE Program Assurance stated below.

DBE Program Assurance. The Contractor or Subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the award and performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR 26 in the award and administration of Federal-Aid contracts. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as DDC (the Department) deems appropriate, which may include, but is not limited to: (1) withholding contract payments; (2) assessing sanctions; (3) liquidated damages; (4) rejecting the bid as non-responsive; and/or (5) disqualifying the Contractor from future bidding as non-responsible.

A. Statutory Authority. The statutory authority for the DBE Program is contained in the Intermodal Surface Transportation Efficiency Act of 1991 (Public Law 102-240), the Transportation Equity Act for the 21st Century (“TEA-21”) of 1998 (Public Law 105-178, §1101(b)), the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (“SAFETEA-LU”) of 2005 (Public Law 105-59 §1101(b)), the Moving Ahead for Progress in the 21st Century Act (“MAP-21”) of 2012 (Public Law 112-141, §1101(b)), and the Fixing America’s Surface Transportation Act (“FAST-ACT”) of 2015 (Public Law 114-94, §1101(b)). New York State has enacted Section 85 of the Highway Law and Section 428 of the Transportation Law. Regulations have been promulgated under 49 CFR 21, 49 CFR 26 and 17 NYCRR 35.

B. DBE Goal(s). Federal-aid construction contracts have a single DBE goal. The Department will monitor the Contractor’s attainments towards DBE goals and commitments in accordance with Attachment H, *Civil Rights Monitoring and Reporting*.

1. Established Goal(s). Contract utilization goal(s) for DBEs are expressed as a percentage of the total contract price. The goal(s) are stated in the proposal and remain in effect throughout the life of the contract.

2. Zero Percent Goal(s). If a zero goal(s) for participation by DBEs has been established, and the Contractor proposes the use of a subcontractor, the purchase of materials, the use of a service or the use of trucking at any time during the life of the contract, the

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Contractor shall promote the objectives of the DBE Program by providing opportunities for DBEs to participate in these areas.

C. DBE Eligibility. Only the work, services, or products provided by DBE firms that are certified by the New York State Unified Certification Program, under NAICS code(s) which the DBE is certified for, at the time the DBE enters into a contract with the Contractor, can be credited towards the contract goal. DBE certification is not an endorsement of the quality or performance of the business but simply an acknowledgment of the firm's status as a DBE. Furthermore, DBEs must be certified for the type of work to be performed. A directory of certified firms is available on the NYS Unified Certification Program website at <https://nysucp.newnycontracts.com>.

D. Counting DBE Participation Towards the DBE Goal(s). The value of the work performed by a DBE, including that of a DBE prime contractor, will be counted toward the goal(s), provided the utilization is a commercially useful function. A DBE prime contractor shall promote the use of DBEs in all types of contracts and procurement activities. Work performed by DBEs on the contract will be counted as set forth below. If the Department determines that some or all of a DBE's work does not constitute a commercially useful function in accordance with Article I of this Attachment, only the portion of the work considered to be a commercially useful function will be credited toward the goal(s).

1. Subcontractors. A Subcontractor is a firm approved by the Department in accordance with Article VI of Attachment "A" of these TF-Pages to perform on-site work specifically required for the performance of the contract.

100% of the value of the work performed by a DBE Subcontractor will be counted toward the DBE goal(s), including the cost of materials and supplies purchased by the DBE. When a DBE subcontracts part of the work of its contract to another firm, the value of the subcontracted work may be counted toward DBE goals only if the DBE's subcontractor is itself a DBE. Work that a DBE subcontracts to a non-DBE firm does not count toward DBE goals.

2. Joint Ventures. A Joint venture between a DBE and a non-DBE as a Subcontractor will be counted toward the DBE goal(s) in proportion to the total dollar value of the contract equal to the distinct, clearly defined portion of the work that the DBE performs with its own forces. The joint venture agreement is subject to approval by the Department, a copy of which is to be furnished by the Contractor before execution of the contract. The joint venture agreement must include a detailed breakdown of the following:

- a. Responsibility of the DBE for specific contract items of work;
- b. Capital participation by the DBE;
- c. Specific equipment to be provided to the joint venture by the DBE;
- d. Specific responsibilities of the DBE in the control of the joint venture;
- e. Specific staffing and skills to be provided to the joint venture by the DBE; and,
- f. Percentage distribution to the DBE of the projected profit or loss incurred by the joint venture.

3. Manufacturers. A Manufacturer operates or maintains a factory or establishment that produces, on the premises, materials, supplies, articles or equipment of the general character described by the specifications.

100% of the cost of the materials or supplies from a DBE Manufacturer will be counted toward the DBE goal(s). Manufacturers may provide materials to the Contractor, a Subcontractor, or other firm working on the contract for installation. The Department will determine the amount of credit for DBE Manufacturers on a contract-by-contract basis.

4. Material Suppliers. A Material Supplier, also known as a regular dealer, is a firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles or equipment of the general character described by the specifications and required under the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business. A Material Supplier is an established, regular business that engages in, as its principal business, and under its own name, the purchase and sale or lease of the products in question.

A Material Supplier who deals in bulk items such as petroleum products, steel, cement, gravel, stone or asphalt need not own, operate nor maintain a store, warehouse, or other establishment, if it owns and operates distribution equipment for the products. Any supplementing of Material Suppliers' own distribution equipment shall be by a long-term lease agreement and not on an ad hoc or contract-by-contract basis.

60% of the cost of the materials or supplies from a DBE Material Supplier will be counted toward the DBE goal. Material Suppliers may provide materials to the Contractor, a Subcontractor, or other firm working on the contract for installation.

5. Brokers/Manufacturer's Representatives. A Broker/Manufacturer's Representative is a firm that arranges for or expedites transactions for materials.

100% of the expenditures for fees or commissions charged for assistance in the procurement of, or fees for transportation charges for the delivery of, materials or supplies provided by a DBE Broker/Manufacturer's Representative will be counted toward the DBE goal(s), provided they are determined to be reasonable and not excessive as compared with fees customarily allowed for similar services. The cost of the materials and supplies themselves will not be counted. A Broker/Manufacturer's Representative may arrange or expedite transactions for materials to the Contractor, Subcontractor, or other firm working on the contract.

6. Services. A Service is a firm that provides a bona fide service, such as professional, technical, consultant, or managerial services, or provides bonds or insurance specifically required for the performance of the contract.

100% of the expenditure for fees charged by a DBE Service will be counted toward the DBE goal(s), provided the fee is reasonable and not excessive as compared with fees customarily allowed for similar services.

7. Trucking Firms. A DBE trucking firm shall own and operate at least one fully licensed, insured, and operational truck used on the contract and shall be responsible for the management and supervision of the trucking operation for which it is responsible. The DBE trucking firm shall control the day-to-day DBE trucking operations, and shall be responsible for: (1) Negotiating and executing rental/leasing agreements; (2) Controlling the work force; (3) Coordinating the daily trucking needs with the Contractor or Subcontractor; and (4) Scheduling and dispatching trucks.

a. DBE Owned/Leased Trucks. 100% of the value of the trucking operations the DBE provides on the contract using trucks it owns or leases on a long-term basis that are registered, insured, and operated by the DBE using drivers it employs, will be counted toward the DBE goal. A lease shall indicate that the DBE has exclusive use of and control over the truck. This does not preclude the leased truck from working for others during the term of the lease with the consent of the DBE, so long as the lease gives the DBE absolute priority for use of the leased truck. Leased trucks shall display the name and identification number of the DBE.

b. Other DBE Trucks. The DBE may obtain trucks from another DBE, including an owner/operator. 100% of the value of the trucking operations that the other DBE provides will also be counted toward the DBE goal.

c. Non-DBE Trucks. The DBE may obtain trucks from a non-DBE, including an owner-operator. Only the value of the fee or commission that the DBE receives as a result of the arrangement with the non-DBE will be counted toward the DBE goal.

E. Commercially Useful Function. A DBE’s participation will only be counted toward meeting the DBE contract goal(s) when it performs a commercially useful function. In order to be considered as performing a commercially useful function, a DBE shall be responsible for the execution of a distinct element of work on the contract and carry out its responsibilities by actually performing, managing, and supervising the work involved in accordance with normal industry practice.

Regardless of whether an arrangement between the Contractor and the DBE represent standard industry practice, if the arrangement erodes the ownership, control or independence of the DBE or in any other way does not meet the commercially useful function requirement, the Contractor will receive no credit toward the goal(s) and shall take all necessary and reasonable steps to backfill the participation. Additionally, a DBE not performing a commercially useful function may, in some instances, warrant further investigation of the DBE’s certification status or review of the DBE for fraud. A DBE does not perform a commercially useful function if its role is limited to that of an extra participant in a transaction or contract through which funds are passed in order to obtain the appearance of DBE participation. The arrangement cannot be contrived solely for the purpose of meeting the DBE goal(s). The Contractor shall not seek credit toward the goal(s) though any arrangements or actions of others where the Contractor knows, or should know based upon the evidence and circumstances present, that a DBE is not performing a commercially useful function.

1. Work Force. The DBE shall employ a work force, (including administrative and clerical) separate and apart from that employed by the Contractor, other Subcontractors on the contract, or their affiliates. The DBE shall perform or exercise responsibility for at least 30 percent of the total cost of its contract with its own work force. This does not preclude the employment by the DBE of an individual that has been previously employed by another firm involved in the contract, provided that the individual was independently recruited by the DBE in accordance with customary industry practice. The routine transfer of work crews from another employer to the DBE will not be allowed.

2. Supervision. All work performed by the DBE shall be controlled and supervised by the DBE without duplication of supervisory personnel from the Contractor, other Subcontractors on the contract, or their affiliates. This does not preclude routine communication between the supervisory personnel of the DBE and other supervisors necessary to coordinate the contract work.

3. Materials. DBE Subcontractors shall negotiate price, determine quality and quantity, order, install (where applicable) and pay for the material(s) required to perform the work.

4. Equipment. DBE Subcontractors may supplement their equipment by renting or leasing additional equipment in accordance with customary industry practice. The DBE Subcontractor shall obtain approval of the Department prior to renting equipment from the Contractor or its affiliates, and shall provide documentation demonstrating that similar equipment and terms could not be obtained at a lower cost from other customary sources of equipment. The required documentation shall include, but not be limited to, copies of the rental or leasing agreements, and the names, addresses, and terms quoted by other

sources of equipment. Equipment a DBE subcontractor purchases or leases from the Contractor or its affiliate will not be counted toward meeting the DBE contract goal(s).

F. Not Used.

G. Submission of Bids. In submitting a bid, the bidder declares that it shall make commitments to those qualified DBEs whose participation the bidder submits to meet the contract goal(s).

The bidder further declares that if the contract goal(s) is not met in full, then it shall provide documentation of its Good Faith Efforts that demonstrate that the bidder attempted, but could not meet the goal(s).

If the low bidder meets or exceeds the established DBE goal(s) for the contract with commitments to certified DBEs, it is not necessary for the low bidder to submit documentation of good faith efforts.

After contract award, the Contractor shall promptly execute subcontracts, agreements, or purchase orders, as appropriate, with each DBE for the type and amount of work identified in the approved *DBE Utilization Worksheet*.

H. DBE Pre-Award Utilization Package. Together with its bid, each bidder shall submit a completed DBE Schedule of Utilization, as outlined below. While there is no mandatory format for the Schedule of Utilization, the bidder may use NYSDOT form AAP19LL (<https://www.dot.ny.gov/programs/chips/chips-repository/AAP19LL.xls> and in the Bid Booklet). Other forms may be used so long as the bidder states in writing that it can meet the requirements of this section.

A commitment to a DBE is expressed as a dollar amount agreed to by both the bidder and the DBE for the performance of identified work, services or products. Commitments are for quantities of contract pay items, or associated to contract pay items for work, services or products that are not measured in the same manner as the contract pay item. Commitments for less than the full scope of the contract pay item shall be indicated as such in the DBE Schedule of Utilization.

For each DBE Subcontractor, the bidder shall indicate the contract pay item number(s) of the work to be performed. The bidder shall explain, in writing, the scope of work to be performed by the DBE for any item which is not completely performed by the DBE Subcontractor. This does not include items for which the Contractor is performing less than the total contract quantity for that item.

For each DBE Manufacturer, Material Supplier, or Broker, the bidder shall indicate the contract pay item number(s) of the materials, supplies, articles, or equipment to be manufactured, fabricated, supplied, or otherwise provided. If the material, supplies, articles, equipment or service does not correspond to a specific contract pay item, the bidder shall use a contract pay item(s) to which the activity relates.

For each DBE Service, the bidder shall indicate the contract pay item number(s) of the service to be provided. If the equipment or service does not correspond to a specific contract pay item, the bidder shall use a contract pay item(s) to which the activity relates.

For each DBE Trucking Firm, the bidder shall indicate the contract pay item number(s) for which the trucking operations are to be performed. If the trucking operation does not correspond to a specific contract pay item, the bidder shall use a contract pay item(s) to which the activity relates. The bidder shall indicate the type of trucking operation to be performed, the number of trucks owned/leased, the number of trucks working on-site or off-site, rate per hour/ton/load/etc., duration or amount, and total dollar value of the proposed DBE

commitment. The bidder shall provide copies of all lease agreements utilized by the DBE Trucking Firm.

If the bidder has met or exceeded the established DBE goal(s) for the contract utilizing certified DBEs it is not necessary to submit documentation of good faith efforts.

I. Good Faith Efforts. To determine whether a bidder that has failed to meet the DBE contract goal(s) may receive the contract, the Department, in consultation with NYSDOT, will decide whether the efforts the bidder made "good faith efforts" to obtain DBE participation goal(s) pursuant to 49 CFR 26 Appendix A. Efforts to obtain DBE participation that are merely pro forma are not good faith efforts, nor are efforts that, even if they are sincerely motivated, given all relevant circumstances, they could not reasonably be expected to produce a level of DBE participation sufficient to meet the goal(s).

If the bidder has not met the DBE goal(s), it shall submit the *Solicitation Log*, together with other documentation that substantiates good faith efforts. Such documentation shall include, at a minimum, all envelopes of solicitation inquires that were returned as undeliverable, quotations submitted by DBEs that are not included in the *DBE Schedule of Utilization*, and relevant non-DBE quotations with an explanation for the bidder's action in each case.

In order to evaluate the bidder's good faith efforts, the Department will consider the quality, quantity, and intensity of the different kinds of efforts that the bidder has made.

Below is a list of the types of actions which the Department will consider as part of the bidder's good faith efforts to obtain DBE participation. It is not intended to be a mandatory checklist, nor is it intended to be exhaustive or exclusive. Other factors or types of efforts may be relevant in appropriate cases.

1. The bidder shall conduct market research to identify small business contractors and suppliers and soliciting through all reasonable and available means the interest of all certified DBEs that have the capability to perform the work of the contract. This may include attendance at pre-bid and business matchmaking meetings and events, advertising and/or written notices, posting of Notices of Sources Sought and/or Requests for Proposals, written notices or emails to all DBEs listed in the State's directory of certified firms that specialize in the areas of work desired (as noted in the DBE directory) and which are located in the area or surrounding areas of the project.

The bidder should solicit this interest as early in the bidding process as practicable to allow the DBEs to respond to the solicitation and submit a timely offer for the subcontract. The bidder shall determine with certainty if the DBEs are interested by taking appropriate steps, including following up the initial solicitation with at least one additional solicitation via a different media. The bidder shall keep records of efforts to solicit and negotiate with DBEs as evidence of good-faith efforts, using the Solicitation Log as a continuing record.

3. Selecting portions of the work to be performed by DBEs in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units (for example, smaller tasks or quantities) to facilitate DBE participation, even when the Contractor might prefer to perform these work items with its own forces. This may include, where possible, establishing flexible timeframes for performance and delivery schedules in a manner that encourages and facilitates DBE participation.

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4. Providing interested DBEs with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation with their offer for the subcontract.
5. *a. Negotiating in good faith with interested DBEs.* It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBEs that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional Agreements could not be reached for DBEs to perform the work.
b. Additional Costs. A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. The fact that there may be some additional costs involved in finding and using DBEs is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. The ability or desire of a prime contractor to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Prime contractors are not, however, required to accept higher quotes from DBEs if the price difference is excessive or unreasonable.
6. *a. Not rejecting DBEs as being unqualified.* The bidder shall not reject DBEs as unqualified without sound reasons based on a thorough investigation of their capabilities. The contractor's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union status) are not legitimate causes for the rejection or non-solicitation of bids in the contractor's efforts to meet the project goal. Another practice considered an insufficient good faith effort is the rejection of the DBE because its quotation for the work was not the lowest received. Nothing in this paragraph shall be construed to require the bidder or prime contractor to accept unreasonable quotes in order to satisfy contract goals.
b. Replacement Prices. A prime contractor's inability to find a replacement DBE at the original price is not alone sufficient to support a finding that good faith efforts have been made to replace the original DBE. The fact that the contractor has the ability and/or desire to perform the contract work with its own forces does not relieve the contractor of the obligation to make good faith efforts to find a replacement DBE, and it is not a sound basis for rejecting a prospective replacement DBE's reasonable quote.
7. Making efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance as required by the recipient or contractor.
8. Making efforts to assist interested DBEs in obtaining necessary equipment, supplies, materials, or related assistance or services.
9. Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, State, and Federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBEs.
10. A promise to use DBEs after contract award is not considered to be responsive to the contract solicitation or to constitute good faith efforts.

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J. Pre-Award Approval. In order to award a contract to a bidder that has failed to meet the DBE contract goal(s), the Department, in consultation with NYSDOT, must determine that the bidder's good faith efforts were those that, given all relevant circumstances, a bidder actively and aggressively seeking to meet the goal(s) would make.

If the Department determines that the original low bidder has failed to meet the good faith effort requirements before awarding the contract to a subsequent bidder, the Department will provide the original low bidder an opportunity for administrative reconsideration by an official who did not take part in the original determination.

As part of this reconsideration, the original low bidder will have the opportunity to provide written documentation or argument and to meet in person with the Department's reconsideration official concerning the issue of whether it met the goal or made adequate good faith efforts to do so. The Department will send the low bidder a written decision on reconsideration, explaining the basis for finding that the low bidder did or did not meet the goal or make adequate good faith efforts to do so.

K. Bidder's Compliance With DBE Program Requirements. The Department's acceptance of the low bidder's bid is conditioned upon the low bidder's fulfillment of the DBE utilization requirements. If the low bidder fails to submit a complete DBE utilization package with its bid or fails to provide commitments to meet the established goal prior to award without adequate good faith efforts, the bid shall be declared non-responsive and the deposit may be subject to forfeiture pursuant to Section 27 of the Information for Bidders. The low bidder, upon receipt of written notification of its failure to comply with the DBE utilization requirements shall have 5 work days to carry out the corrective action(s) described in the notification.

"BUY AMERICA" REQUIREMENTS & WAIVERS AND USE OF UNITED STATES-FLAG VESSELS.

BUY AMERICA In accordance with 23 USC 313, 23 CFR 635.410, and the Build America, Buy America (BABA) Act in Title IX of the Bipartisan Infrastructure Law (BIL), permanently incorporated predominantly steel and/or iron materials, manufactured products, and construction materials must be domestically produced.

A. Control of Materials.

To qualify as domestic, all manufacturing processes, including melting, manufacturing, fabricating, grinding, drilling, welding, finishing, and coating of any product containing steel and/or iron materials, must have been performed in the United States. A domestic product is a manufactured steel and/or iron materials, manufactured product, and/or construction material that was produced in one of the 50 States, the District of Columbia, or in the territories and possessions of the United States. Raw materials used in the steel and/or iron materials may be imported. Raw materials are materials such as raw iron ore, and waste products which are used in the manufacturing process to produce the steel and/or iron material/product. The FHWA has granted a nationwide waiver for pig iron and processed, pelletized and reduced iron ore. Waste products include scrap (i.e. steel no longer useful in its present form from old automobiles, machinery, pipe, railroad rail, steel trimmings from mills or product manufacturing). Extracting, crushing, and handling the raw materials which are customary to prepare them for transporting are exempt from Buy America. The use of foreign source steel billets or iron ingots are not acceptable under Buy America. All items, regardless of origin, must comply with their individual specification requirements and with the requirements stated elsewhere in this subsection. The Contractor must ensure the domestic steel and/or iron materials are supplied in conformance with the above referenced laws.

The Buy America provisions only applies to articles, materials, and supplies that are consumed in, incorporated into, or affixed to an infrastructure project. As such, it does not apply to tools, equipment, and supplies brought to the construction site and removed at or before the completion of the infrastructure project, such as temporary scaffolding. In addition, it does not apply to equipment and furnishings, such as movable chairs, desks, and portable computer equipment, that are used at or within the finished infrastructure project but are not an integral part of or permanently affixed to the structure.

All iron and steel, manufactured products, and construction materials must be produced/manufactured in the United States as follows:

- a. All iron and steel used in the project must be produced in the United States. This means all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.
- b. All manufactured products used in the project must be produced in the United States. This means the manufactured product was manufactured in the United States, and the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States is greater than 55 percent of the total cost of all components of the manufactured product.
- c. All construction materials must be manufactured in the United States. This means that all manufacturing processes for the construction material occurred in the United States. Construction materials includes an article, material, or supply that is or consists primarily of:
 - Non-ferrous metals;

- Plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables);
- Glass (including optic glass);
- Lumber; or
- Drywall.

Items that consist of two or more of the listed materials that have been combined together through a manufacturing process, and items that include at least one of the listed materials combined with a material that is not listed through a manufacturing process, should be treated as manufactured products, rather than construction materials.

Construction materials do not include an item of primary iron or steel; a manufactured product; cement or cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives.

An article, material, or supply should be classified into only one of the following categories: (1) iron or steel; (2) a manufactured product; or (3) a construction material; An article, material, or supply should not be considered to fall into multiple categories.

The Contractor may permanently incorporate in the construction of this contract a minimal amount of foreign steel and/or iron materials, if the combined cost of such materials does not exceed one-tenth of one percent (0.1%) of the total contract cost or \$2,500, whichever is greater. The combined cost of foreign steel and/or iron materials will be the value of the materials as they are delivered to the contract, documented by invoice or bill of sale to the Contractor.

B. Waivers.

The Contractor may request a waiver if it can be demonstrated that:

- a. the use of domestic steel and/or iron materials would be inconsistent with the public interest (a “public interest waiver”);
- b. types of iron, steel, manufactured products, or construction materials are not produced in the United States in sufficient and reasonably available quantities and of satisfactory quality (a “nonavailability waiver”); or
- c. the inclusion of iron, steel, manufactured products, or construction materials produced in the United States will increase the cost of the overall project by more than 25 percent (an “unreasonable cost waiver”).

The Contractor must submit a waiver request to the Engineer which includes a detailed justification for the use of goods, products, or materials mined, produced, or manufactured outside the United States and including copies of all documentation verifying the unavailability of the material or product.

The Department will submit approved waiver requests to the FHWA for review. The Contractor must investigate and respond to any public comments made to the FHWA Office of Program Administration, indicating that a domestic supplier can provide the material for which a waiver has been requested. Final approval of the Buy America Waiver request will be made by the Administrator, Federal Highway Administration. The waiver will be effective when it is posted in the Federal Register.

C. Certifications.

A Manufacturer's Certification is required to certify that the material/product is of domestic origin. The acceptable statement are:

- *"Conforms (or Does not Conform) to the requirements of 23 CFR 635.410 Buy America Requirements"* (acceptable for steel/iron and manufactured products only), or
- *"Conforms (or Does not conform) to the requirements of the Build America, Buy America Act"* (acceptable for construction materials only)

USE OF UNITED STATES-FLAG VESSELS. In accordance with the Cargo Preference Act and 46 CFR 381, the requirements below apply to material, equipment, or commodities that is acquired for a specific Federal-aid construction contract, and oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment. The requirements are not applicable to goods or materials that come into inventories independent of a specific Federal-aid construction contract.

- A. The Contractor must utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.
- B. The Contractor must furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b) (1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590. MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the Contractor.
- C. The Contractor must insert the substance of the provisions of this section in all subcontracts issued pursuant to the contract.

EQUAL EMPLOYMENT OPPORTUNITY REQUIREMENTS

DDC (The Department) seeks to ensure nondiscrimination in employment under all Department contracts. The Contractor shall comply with the following Equal Employment Opportunity (EEO) requirements. *Goals for Equal Opportunity Employment Participation* are listed in the required contract provisions section of the contract proposal.

For Federal-Aid contracts, Equal Employment Opportunity provisions are also found in Attachment "A" - *Required Contract Provisions Federal-Aid Construction Contracts – FHWA 1273*.

Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

A. Statutory Authority. The Federal statutory authority for Equal Employment Opportunity provisions is contained in 23 U.S.C. 140, Title VII of the Civil Rights Act of 1964, Federal Highway Act of 1968, and Executive Order 11246. State statutory authority is contained in Section 85 of the Highway Law, Section 428 of the Transportation Law, and NYS Executive Law Articles 15 and 15-A, Regulations have been promulgated under 23 CFR 200, 23 CFR 230, 41 CFR 60, 49 CFR 21, and 5 NYCRR 140-145.

B. Definitions.

For Federal-Aid contracts, a minority group member is defined under this subsection as someone who is, and can demonstrate membership in, one of the following groups:

- a. Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
- b. Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
- c. Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
- d. American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

C. Contractor Obligations. The Contractor shall develop and implement an EEO policy in accordance with Attachment A, *Required Contract Provisions Federal-Aid Construction Contracts – FHWA 1273* and in accordance with Attachment B, *Standard Clauses for All New York State Contracts*.

1. Non-Discrimination. The Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability. The Contractor shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability.

To the extent required by Article 15 of the Executive Law and all other State and Federal statutory and constitutional non-discrimination provisions, the Contractor shall not

discriminate against any employee or applicant for employment because of military status, predisposing genetic characteristics, marital status, familial status, or domestic violence victim status; and shall also follow the requirements of the Human Rights Law with regard to non-discrimination on the basis of prior criminal conviction and prior arrest.

Such actions shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor shall post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Department setting forth the provisions of this non-discrimination clause.

2. Solicitations. The Contractor shall state in all solicitations or advertisements for employees placed by or on behalf of the Contractor, that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, military status, disability, predisposing genetic characteristics, marital status, or domestic violence victim status.

3. Compensation Information. The Contractor shall not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the Contractor's legal duty to furnish information.

4. Collective Bargaining Agreements. The Contractor shall send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representative of the Contractor's commitments to equal employment opportunities, under the Equal Opportunity Clause and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

5. Executive Order 11246. The Contractor shall comply with all provisions of Federal Executive Order 11246, and of the rules, regulations, and relevant orders of the U.S. Secretary of Labor.

6. Furnishing Information. The Contractor shall furnish all information and reports required by Executive Order 11246 and by rules, regulations, and orders of the U.S. Secretary of Labor, or pursuant thereto, and will permit access to its books, records, and accounts by the Department and the U.S. Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

7. Non-Compliance. In the event of the Contractor's non-compliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated or suspended in whole or in part and the Contractor may be declared ineligible for further government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246, and such other

sanctions may be imposed and remedies invoked as provided in Executive Order 11246, or by rule, regulation, or order of the U.S. Secretary of Labor, or as otherwise provided by law.

8. Subcontracts/Purchase Orders. The Contractor shall include the provisions of Subsection C, *Contractor Obligations*, of this Attachment F, in every subcontract or purchase order, unless exempted by rules, regulations, or orders of the U.S. Secretary of Labor issued pursuant to section 204 of Executive Order 11246, so that such provisions will be binding upon each subcontractor or vendor. The Contractor shall take such action with respect to any subcontract or purchase order as may be directed by the U.S. Secretary of Labor as a means of enforcing such provisions including sanctions for noncompliance: provided, however, that in the event a Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

D. Employment Goals. Employment goal(s) for minorities and a separate goal for women are presented in the contract documents. The Contractor shall provide equal employment opportunity and shall take affirmative action for all minority groups, both male and female; and women, both minority and non-minority. The covered area is the county or counties in which the work is located. The Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).

The Contractor shall not use the goals or affirmative action standards to discriminate against any person because of race, color, religion, sex, sexual orientation, gender identity, national origin, age, military status, disability, predisposing genetic characteristics, marital status, or domestic violence victim status.

If the Contractor performs work outside of the covered area, it shall apply the goals established for the county where the work is actually performed. The Department will monitor the Contractor's attainments towards EEO goals in accordance with Attachment H - *Civil Rights Monitoring and Reporting*.

The goals set for the contract are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. The Contractor is expected to make substantially uniform progress in meeting its goals in each trade.

The hours of minority and female employment and training shall be substantially uniform throughout the length of the contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its contracts. The transfer of minority or female employees, apprentices, or trainees from contractor to contractor or from contract to contract for the sole purpose of meeting the Contractor's goals is a violation of the contract, the Executive Order and the regulations in 41 CFR 60-4. Compliance with the goals will be measured against the total work hours performed. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations.

The Contractor shall not enter into any subcontract with any person or firm debarred from government contracts pursuant to Executive Order 11246.

The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the

provisions hereof as may be required by the Government and to keep records. Contractor records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, classification (e.g., supervisor, journeyworker, apprentice, or trainee), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

The Contractor's compliance with the Executive Order and 41 CFR 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by these specifications and its efforts to meet the goals.

E. Affirmative Action Steps. The Contractor shall take specific affirmative actions to promote equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its efforts to ensure equal employment opportunity. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

- 1.** Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, shall assign two or more women to each construction contract. The Contractor shall specifically ensure that all forepersons, superintendents, and other onsite supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
- 2.** Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
- 3.** Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefore, along with whatever additional actions the Contractor may have taken.
- 4.** Provide immediate written notification to the Department when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
- 5.** Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by either the NYS Department of Labor or the US Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under E.2. above.

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6. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

7. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with onsite supervisory personnel such as superintendents, forepersons, etc., prior to the initiation of construction work at any contract site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

8. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other contractors and Subcontractors with whom the Contractor does or anticipates doing business.

9. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

10. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of the Contractor's work force.

11. Validate all tests and other selection requirements in accordance with state and Federal laws, rules and regulations.

12. Conduct, at least annually, an inventory and evaluation of all minority and female personnel for promotional opportunities. Encourage these employees to seek or to prepare for promotional opportunities through appropriate training, etc.

13. Ensure that seniority practices, labor classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.

14. Ensure that all facilities and company activities are non-segregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

15. Document and maintain a record of all solicitations of offers for Subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

16. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

F. Complaints of Alleged Discrimination. The Contractor shall promptly investigate all complaints of alleged discrimination made to the Contractor in connection with its obligations under this contract, shall attempt to resolve such complaints, and shall take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, corrective action shall include such other persons. Upon completion of each investigation, the Contractor shall inform every complainant of all available avenues of appeal.

G. Associations. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations. The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the Contractor is a member and participant, may be asserted as fulfilling one or more of its obligations, provided that the Contractor actively participates in the group, makes every effort to ensure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

H. Hometown Plans (Federal-Aid Contracts Only). If a Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the USDOL in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors participating in Hometown Plans shall be able to demonstrate their participation and document their compliance with the provision of the Hometown Plan. Each Contractor participating in an approved plan is individually required to comply with its obligation under the EEO clause and to make a good faith effort to achieve each goal under the plan in each trade in which it has employees. The overall good faith performance by other Contractors toward a goal in an approved plan does not excuse any covered Contractor's failure to take good faith efforts to achieve the Plan goals and timetables.

Notice of Requirement for Affirmative Action To Ensure Equal Employment Opportunity (Executive Order 11246)

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Goals for minority participation and female participation are in the "Goals for Equal Employment Opportunity (EEO) Participation" section at the end of this Attachment "F".
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These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

4. As used in this Notice, and in the contract resulting from this solicitation, the "covered area" is the five Boroughs of New York City.

**Standard Federal Equal Employment Opportunity Construction Contract
Specifications (Executive Order 11246)**

1. As used in these specifications:

- a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;
- b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
- c. "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.
- d. "Minority" includes:
 - (i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
 - (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
 - (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
 - (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.

3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7 a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and

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female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered Construction contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.

6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.

c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.

d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority

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person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.

e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.

f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with onsite supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.

i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's work force.

k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.

l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

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m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.

n. Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these Specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).

10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, sexual orientation, gender identity, or national origin.

11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

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13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.

14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

GOALS FOR EQUAL EMPLOYMENT OPPORTUNITY (EEO) PARTICIPATION

GOALS FOR MINORITY PARTICIPATION

COUNTY	%	COUNTY	%	COUNTY	%
Albany	3.2	Herkimer	2.1	* Richmond	
Allegany	6.3	Jefferson	2.5	Rockland.....	22.6
Broome	1.1	* Kings		St. Lawrence.....	2.5
* Bronx		Lewis	2.5	Saratoga	3.2
Cattaraugus.....	6.3	Livingston	5.3	Schenectady.....	3.2
Cayuga	2.5	Madison	3.8	Schoharie	2.6
Chautauqua	6.3	Monroe	5.3	Schuyler.....	1.2
Chemung	2.2	Montgomery	3.2	Seneca	5.9
Chenango	1.2	Nassau	5.8	Steuben	1.2
Clinton	2.6	* New York		Suffolk.....	5.8
Columbia	2.6	Niagara	7.7	Sullivan	17.0
Cortland	2.5	Oneida	2.1	Tioga.....	1.1
Delaware	1.2	Onondaga	3.8	Tompkins	1.2
Dutchess	6.4	Ontario	5.3	Ulster	17.0
Erie	7.7	Orange	17.0	Warren.....	2.6
Essex	2.6	Orleans	5.3	Washington.....	2.6
Franklin	2.5	Oswego	3.8	Wayne.....	5.3
Fulton	2.6	Otsego	1.2	Westchester.....	22.6
Genesee	5.9	Putnam	22.6	Wyoming.....	6.3
Greene	2.6	* Queens		Yates.....	5.9
Hamilton	2.6	Rensselaer	3.2		

* The following goal ranges are applicable to the indicated trades in the Counties of Bronx, Kings, New York, Queens and Richmond:

Electricians.....	9.0 to 10.2	Asbestos workers	22.8 to 28.0
Carpenters	27.6 to 32.0	Roofers	6.3 to 7.5
Steam fitters	12.2 to 13.5	Iron Workers (ornamental)	22.4 to 23.0
Metal lathers.....	24.6 to 25.6	Cement masons	23.0 to 27.0
Painters	26.0 to 28.6	Glaziers.....	16.0 to 20.0
Operating engineers	25.6 to 26.0	Plasterers.....	15.8 to 18.0
Plumbers	12.0 to 14.5	Teamsters.....	22.0 to 22.5
Iron Workers (structural)	25.9 to 32.0	Boilermakers.....	13.0 to 15.5
Elevator constructors	5.5 to 6.5	All others.....	16.4 to 17.5
Bricklayers.....	13.4 to 15.5		

GOAL FOR PARTICIPATION OF WOMEN

The last publication of a goal for the participation of women was April 7, 1978 (43 FR 14888, 14900). Pursuant to 41CFR 60-4.6, the 6.9% goal published on that date is hereby made the goal for all contracts and grant agreements, until further notice.

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STANDARDIZED CHANGED CONDITIONS CLAUSES

FHWA CHANGED CONDITION CLAUSES (23 CFR 635.109)

(1) Differing site conditions.

(i) During the progress of the work, if subsurface or latent physical conditions are encountered at the site differing materially from those indicated in the contract or if unknown physical conditions of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the work provided for in the contract, are encountered at the site, the party discovering such conditions shall promptly notify the other party in writing of the specific differing conditions before the site is disturbed and before the affected work is performed.

(ii) Upon written notification, the engineer will investigate the conditions, and if it is determined that the conditions materially differ and cause an increase or decrease in the cost or time required for the performance of any work under the contract, an adjustment, excluding anticipated profits, will be made and the contract modified in writing accordingly. The engineer will notify the contractor of the determination whether or not an adjustment of the contract is warranted.

(iii) No contract adjustment which results in a benefit to the contractor will be allowed unless the contractor has provided the required written notice.

(iv) No contract adjustment will be allowed under this clause for any effects caused on unchanged work.

(2) Suspensions of work ordered by the engineer.

(i) If the performance of all or any portion of the work is suspended or delayed by the engineer in writing for an unreasonable period of time (not originally anticipated, customary, or inherent to the construction industry) and the contractor believes that additional compensation and/or contract time is due as a result of such suspension or delay, the contractor shall submit to the engineer in writing a request for adjustment within 7 calendar days of receipt of the notice to resume work. The request shall set forth the reasons and support for such adjustment.

(ii) Upon receipt, the engineer will evaluate the contractor's request. If the engineer agrees that the cost and/or time required for the performance of the contract has increased as a result of such suspension and the suspension was caused by conditions beyond the control of and not the fault of the contractor, its suppliers, or subcontractors at any approved tier, and not caused by weather, the engineer will make an adjustment (excluding profit) and modify the contract in writing accordingly. The contractor will be notified of the engineer's determination whether or not an adjustment of the contract is warranted.

(iii) No contract adjustment will be allowed unless the contractor has submitted the request for adjustment within the time prescribed.

(iv) No contract adjustment will be allowed under this clause to the extent that performance would have been suspended or delayed by any other cause, or for which an adjustment is provided or excluded under any other term or condition of this contract.

(3) Significant changes in the character of work.

(i) The engineer reserves the right to make, in writing, at any time during the work, such changes in quantities and such alterations in the work as are necessary to satisfactorily complete

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the project. Such changes in quantities and alterations shall not invalidate the contract nor release the surety, and the contractor agrees to perform the work as altered.

(ii) If the alterations or changes in quantities significantly change the character of the work under the contract, whether such alterations or changes are in themselves significant changes to the character of the work or by affecting other work cause such other work to become significantly different in character, an adjustment, excluding anticipated profit, will be made to the contract. The basis for the adjustment shall be agreed upon prior to the performance of the work. If a basis cannot be agreed upon, then an adjustment will be made either for or against the contractor in such amount as the engineer may determine to be fair and equitable.

(iii) If the alterations or changes in quantities do not significantly change the character of the work to be performed under the contract, the altered work will be paid for as provided elsewhere in the contract.

(iv) The term "significant change" shall be construed to apply only to the following circumstances:

(A) When the character of the work as altered differs materially in kind or nature from that involved or included in the original proposed construction; or

(B) When a major item of work, as defined elsewhere in the contract, is increased in excess of 125 percent or decreased below 75 percent of the original contract quantity. Any allowance for an increase in quantity shall apply only to that portion in excess of 125 percent of original contract item quantity, or in case of a decrease below 75 percent, to the actual amount of work performed.

MAJOR ITEM OF WORKS

The term "major item" of work shall mean any item for which the original bid price multiplied by the original contract quantity exceeds \$50,000 or 2% of the total contract bid price, whichever is less.

CIVIL RIGHTS MONITORING AND REPORTING

The approved civil rights reporting software is *Equitable Business Opportunity Solution* (EBO). The EBO software is a web-based system owned and maintained by the New York State Department of Transportation, and provided to the Contractor at no cost. The Contractor shall use the approved civil rights reporting software on all contracts. The Contractor shall submit complete, accurate, electronic data to the Department using the approved civil rights reporting software.

A. Civil Rights Officer(s). The Contractor shall designate a Corporate Civil Rights Officer, a Corporate DBE Representative, and a contract site Equal Employment Opportunity (EEO) Representative; and each Subcontractor shall designate a Corporate Civil Rights Officer, and a contract site Equal Employment Opportunity (EEO) Representative in the approved civil rights reporting software. The designated individuals shall have the responsibility to and shall be capable of effectively administering and promoting an active program of equal employment opportunity and who shall be assigned adequate authority and responsibility to do so. A single individual may fulfill multiple roles. The Contractor shall update the approved civil rights reporting software within 10 calendar days of any changes in these roles.

B. Workforce Participation Plan. At the pre-construction meeting, the Contractor shall submit a *Workforce Participation Plan* covering the Contractor's workforce and the workforce of its Subcontractors with subcontracts over \$10,000, together and coordinated with the contract progress schedule that addresses the Equal Employment Opportunity goals.

The Contractor shall not start work until the Department and the Contractor have agreed upon the *Workforce Participation Plan*. The Contractor shall submit a revised plan when a significant work force build-up or reduction will substantially affect goal attainment, or when a revised schedule is requested by the Department. Such revised *Workforce Participation Plan* must be agreed upon by the Department or the original will remain in effect.

C. Equal Employment Opportunity (EEO) Monitoring and Reporting. The Contractor's compliance with the EEO Requirements will be based on its Employment Utilization, affirmative action steps and its good faith efforts to meet the goals.

The Department, in evaluating the Contractor's good faith efforts to meet the EEO goal(s), will first analyze the Contractor's goal attainment on an individual contract. If the Contractor is not meeting the goal(s) for a single trade or contract, the Department will analyze, progressively, the Contractor's goal attainment on all contracts held by the Contractor. This method of analysis shall be applied primarily but not solely to contracts with small population numbers. Other factors to be considered include, but are not limited to; the location of the contracts, the relative proximity of the contracts to each other, and the nature of the work.

1. Employee Utilization Data. The Contractor shall submit employee utilization data for its workforce and for each Subcontractor on a monthly basis, not later than the 10th of the following month. Data shall be submitted showing the total hours for each payroll week separately through the end of the last full payroll week for that month. Payroll weeks are determined based on the firm's established payroll end date. Data shall include employee name, gender, ethnicity, and hours worked by trade(s) and classification. Employment utilization percentages are determined using data from the start of work up to and including the month being reported. For the purpose of determining utilization percentages, the

hours of female and minority employment are tabulated separately and attainment percentages are calculated separately.

2. Federal-Aid Highway Construction Contractors Annual EEO Report. The Contractor shall submit all required employee utilization data to produce a Form FHWA 1391 *Federal-Aid Highway Construction Contractors Annual EEO Report* to the Department annually not later than August 15th, covering the last payroll period worked in July, for all ongoing Federal-Aid contracts. The data shall indicate the number of minority men, minority women, non-minority men, and non-minority women employees currently engaged in each trade.

3. Subcontractor Sanctions. The Contractor shall carry out such sanctions and penalties for violation of Attachment F - Equal Employment Opportunity Requirements, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246.

4. Contractor Compliance with EEO Requirements. If the Contractor fails to meet the EEO goal(s) for minorities or women, or demonstrate good faith efforts, the Department may require training of minorities and women to satisfy the employment goals. If the Contractor fails to meet the EEO goal(s), to demonstrate good faith efforts, or is in noncompliance with the nondiscrimination clauses, the Department may determine that one of the following actions should be taken:

- a. ***entering into an agreement with the Contractor allowing the Contractor to cure the violation;***
- b. ***revoking the Contractor's pre-qualification to bid or make proposals for future contracts;***
- c. ***making a finding that the Contractor is in default of the Contract;***
- d. ***terminating the Contract;***
- e. ***declaring the Contractor to be in breach of Contract;***
- f. ***withholding payment or reimbursement;***
- g. ***determining not to renew the Contract;***
- h. ***assessing actual and consequential damages;***
- i. ***assessing liquidated damages or reducing fees, provided that liquidated damages may be based on amounts representing costs of delays in carrying out the purposes of the EEO Requirements, or in meeting the purposes of the Contract, the costs of meeting utilization goals through additional procurements, the administrative costs of investigation and enforcement, or other factors set forth in the Contract;***
- j. ***exercising rights under the Contract to procure goods, services or construction from another contractor and charge the cost of such contract to the Contractor that has been found to be in noncompliance;***
or
- k. ***taking any other appropriate remedy.***

The Contractor may also be referred to the U.S. Department of Labor, Office of Federal Contract Compliance Programs (OFCCP), which has the sole authority to determine compliance with Executive Order 11246 and its implementing regulations. OFCCP may declare the Contractor ineligible for further Federal-Aid contracts in

accordance with procedures authorized in Executive Order 11246, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246, or by rule, regulation, or order of the U.S. Secretary of Labor, or as otherwise provided by law.

D. DBE Monitoring and Reporting. The Contractor shall utilize the DBEs committed to at pre-award to provide the work, services, or products listed for each DBE. The Engineer will monitor the work to ensure that the identified DBEs perform the work as identified in the Contractor's commitments. Attainments will be measured based on payments made to DBEs.

If the Contractor has executed a subcontract with a DBE before the DBE is notified of removal of its eligibility by the certifying agency due solely to its having exceeded the size standard, the Contractor may continue to use the DBE on the contract in accordance with the executed subcontract, and attainments will be credited toward the contract goal. Any new or extra work performed by the ineligible DBE will not be credited toward the contract goal.

When a contract is awarded with DBE commitment(s) that is are than the contract goal(s), the Contractor shall continue good faith efforts. The Contractor shall periodically review items that are available for DBE participation, typically before the beginning of a new construction season and when significant new items of work are added to the contract, and conduct additional DBE solicitation.

1. Monitoring Commercially Useful Function (CUF) by DBEs.

The Contractor shall monitor the work of the DBEs to ensure each performs a CUF and can be properly counted towards the Contractor's DBE commitments.

The Department will review the work, services, or products provided by each DBE to verify the performance of a CUF in accordance with Attachment D, Subsection E. To determine whether a DBE has performed a CUF, the Department may also examine similar transactions, particularly those in which DBEs do not participate.

Upon request, each DBE Subcontractor shall provide confirmation to the Engineer that the workforce provided meets the requirements of Attachment D, Subsection E.2, *Work Force*. Each DBE Subcontractor shall provide a copy of invoices for all material incorporated into the work to the Engineer, in order to confirm that the DBE has met the requirements of Attachment D, Subsection E.4, *Materials*. Each DBE Subcontractor shall provide a copy of a rental agreement for all non-owned equipment used to perform the work to the Engineer, in order to confirm that the DBE has met the requirements of Attachment D, Subsection E.5, *Equipment*.

Upon request, the Contractor shall provide a copy of a purchase order(s) for all material provided by a DBE Manufacturer, Fabricator or Material Supplier to the Engineer. Upon request, the Contractor shall provide a copy of a rental agreement(s) with each DBE Equipment Rental firm to the Engineer. Upon request, the Contractor shall provide a copy of a purchase order(s) that details the work product(s) provided from each DBE Professional Service to the Engineer.

Should it be determined by the Department that a CUF was not performed by a DBE Subcontractor, only the portion of the work considered to be a CUF will be credited towards the goal, and the DBE Subcontractor and the Contractor may be investigated by

the Department or other agencies to determine why the CUF was not performed. Sanctions beyond no credit for the goal of non-compliance may be applied.

A DBE may present evidence to rebut a determination by the Department that the DBE is not performing a CUF. CUF determinations by the Department are subject to review by the New York State Department of Transportation (NYSDOT) and the Federal Highway Administration (FHWA) but the determination may not be administratively appealed to USDOT.

2. Report of Payments to Subcontractors and DBEs. The Contractor shall submit payment data for all Subcontractors and for all DBEs that are due a payment or have received a payment, within 14 days of receipt of payment from the Department, in order to measure DBE goal attainment and to monitor Contractor compliance with the requirements of Article 43 of the Standard Construction Contract. The Subcontractor or DBE shall acknowledge receipt of payment not later than 7 calendar days after receipt. The date of receipt is: (1) the date the payment was made by electronic funds transfer to an account identified and agreed to by both parties; (2) the date the envelope containing the payment was date stamped by the US Postal Service; or (3) the date the payment was physically provided to a previously authorized representative of the Subcontractor or DBE, either by the Contractor, or by a delivery service.

The Contractor shall enter the final payment to each Subcontractor or DBE and designate it as such when the final payment is made, or as a separate \$0.00 entry indicating final payment has been made, prior to contract final acceptance, excepting those payments due from work contained in a change order(s) that have not been approved. The Subcontractor or DBE shall acknowledge receipt of payment not later than 7 calendar days after receipt or notification by the Contractor that a separate \$0.00 entry indicating final payment was entered in the civil rights reporting software.

3. Revisions to DBE Utilization. The Contractor shall utilize the DBEs committed to perform the work or supply materials for which each is listed. The Contractor shall obtain Department approval for termination or substitution of a DBE on the Utilization Worksheet prior to implementing any proposed change through submission of a revised *DBE Utilization Worksheet* using the approved civil rights reporting software. Unless prior written consent for the revision is granted, the Contractor will not be entitled to any payment for work or material committed to a DBE unless it is performed or supplied by the approved DBE.

If the reduction of the DBE's work or the removal of the DBE, including for reasons of CUF violations, causes the DBE utilization to fall below the goal(s), the Contractor shall make good faith efforts in accordance with Attachment "D", Subsection E to find another DBE to substitute for the original DBE to perform at least the remaining amount of work as the DBE that was terminated, to the extent needed to meet the contract goal(s). Upon Request, the Contractor shall provide documentation of good faith efforts within 7 days, which may be extended for an additional 7 days if necessary, at the request of the Contractor. The Department will provide a written determination to the Contractor stating whether or not good faith efforts have been demonstrated.

A DBE may be substituted if the work committed to the DBE is deleted or reduced by the Department and enough work remains to substitute an equal commitment amount

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to the affected DBE. If not enough work remains, the Department may relieve the Contractor from attaining that portion of the commitments.

The following modifications will be considered a substantial revision in DBE utilization:

1. Adding, removing or substituting a DBE;
2. Adding new item(s) of work to a DBE within a NAICS Code for which the DBE is not currently approved;
3. Significantly reducing the dollar value of or eliminating the DBE's item(s) of work. Significant reduction will be determined by comparison to the total DBE contract goal.

The following modifications will not be considered a substantial revision in DBE utilization:

1. Increasing the dollar value of an item(s) of work or adding new item(s) of work within the same NAICS Code to a DBE;
2. Substituting similar dollar values of work within NAICS Codes that the DBE is currently approved for;
3. Changes in utilization due to differences between estimated quantities and actual work performed.

a. DBE Program. In accordance with 49 CFR 26.53(f)(1), the Contractor shall not terminate a DBE listed on the approved DBE Utilization plan without the prior written consent of the Department. This includes, but is not limited to, instances in which a contractor seeks to perform work originally designated for a DBE subcontractor with its own forces or those of an affiliate, a non-DBE firm, or with another DBE firm.

The Department will consent only if the Contractor has good cause to terminate the DBE firm. Good cause includes, at a minimum, one the following circumstances:

- The listed DBE fails or refuses to execute a written contract;
- The listed DBE fails or refuses to perform the work of its subcontract in a way consistent with normal industry standards. Provided, however, that good cause does not exist if the failure or refusal of the DBE subcontractor to perform its work on the subcontract results from the bad faith or discriminatory action of the Contractor;
- The listed DBE fails or refuses to meet the Contractor's reasonable, nondiscriminatory bond requirements.
- The listed DBE becomes bankrupt, insolvent, or exhibits credit unworthiness;
- The listed DBE is ineligible to work on public works projects because of suspension and debarment proceedings pursuant 2 CFR Parts 180, 215 and 1,200 or applicable state law;
- The Department has determined that the listed DBE is not a responsible contractor;
- The listed DBE voluntarily withdraws from the project and provides to the Department written notice of its withdrawal;
- The listed DBE is ineligible to receive DBE credit for the type of work required;
- A DBE owner dies or becomes disabled with the result that the listed DBE is unable to complete its work on the contract;
- Other documented good cause that you determine compels the termination of the DBE. Provided, that good cause does not exist if the Contractor seeks to terminate a DBE it relied upon to obtain the contract so that the Contractor can

self-perform the work for which the DBE was engaged or so that the Contractor can substitute another DBE or non-DBE contractor after contract award.

Before submitting its request to terminate and/or substitute a DBE to the Department, the Contractor shall give notice in writing to the DBE subcontractor, with a copy to the Engineer, of its intent to request to terminate and/or substitute, and the reason for the request.

The Contractor shall give the DBE five days to respond to the notice and advise the Department and the Contractor of the reasons, if any, why the DBE objects to the proposed termination of its subcontract and why the Department should not approve the Contractor's action. If required in a particular case as a matter of public necessity (e.g., safety), the Department may approve a response period shorter than five days.

3. Contractor's Compliance with DBE Program Requirements. If the Contractor fails to meet the DBE utilization commitments, to exert a good faith effort, or otherwise fails to comply with the DBE Program requirements, the Department will take appropriate actions. Such actions may include, but not be limited to: withholding contract payments, direction to the Contractor to attend a hearing before the Department's Contract Compliance Unit, or any other lawful procedure upon due notice in writing to the Contractor, including cancellation, termination, or suspension in whole or in part accordance with the contract.

If a Contractor, in order to meet DBE contract goals or other DBE program requirements, uses or attempts to use, on the basis of false, fraudulent or deceitful statements or representations or under circumstances indicating a serious lack of business integrity or honesty, a DBE that does not meet the eligibility criteria of 49 CFR 26 Subpart D, the U.S. Department of Transportation may initiate suspension or debarment proceedings against that firm under 2 CFR Parts 180 and 1200.

The Contractor may also be referred to the USDOT for possible suspension or debarment as provided in 49 CFR 29 and such other sanctions as may be imposed and remedies invoked as provided under the authority of 49 CFR 26, or by rule, regulation, or order of the Commissioner or as otherwise provided by law.

E. Apprenticeship Monitoring and Reporting. The Contractor shall report all apprenticeship participation as part of its Employee Utilization Data submitted monthly per Subsection C.1 of this Attachment "H". The Contractor shall provide, with the final request for payment, a Certification of Compliance that:

- a. lists all New York State Department of Labor approved apprenticeship programs utilized in the execution of the Contract;
- b. certifies that all apprenticeship participation has been submitted as part of the monthly Employee Utilization Data;
- c. certifies that the requirements of the above listed apprenticeship programs have been met.

F. Compliance Reviews. The New York State Department of Transportation and the Department conduct annual civil rights contract compliance reviews of selected Federal-aid contracts in accordance with 23 CFR 230.409. A compliance review consists of a thorough review of all civil rights contract requirements, including Nondiscrimination in Labor/Employment, EEO, Training, and DBE requirements. A Contractor will typically not be

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selected for more than one compliance review per year statewide. Based on contract monitoring and/or the results of compliance review(s), the New York State Department of Transportation and the Department may conduct a review of some or all ongoing contracts with a single Contractor, regardless of funding source.

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**False Claims Certification
(31 USC §3729, NYS Finance Law Article 13)**

Under the Federal False Claims Act, 31 US Code §3729, any person or entity who knowingly presents, or causes to be presented to the Federal Government, a false or fraudulent claim for payment or approval is liable to the United State Government for a civil penalty of not less than \$5,000 and not more than \$10,000, plus three times the amount of damages the Government sustains.

Under the New York State False Claims Act, NYS Finance Law Article 13, any person or entity who knowingly presents or causes to be presented to the State of New York or Local Governments within the State of New York, a false or fraudulent claim for payment or approval is liable to the Government for a civil penalty of not less than \$6,000 and not more than \$12,000, plus three times the amount of damages the Government sustains.

“Knowingly” is defined as: (1) actual knowledge; (2) acting in deliberate ignorance of the truth or falsity of information; or (3) acting in reckless disregard of the truth or falsity of information; no proof of specific intent to defraud is required.

The Contractor to whom the above-identified contract is to be awarded does hereby certify to New York State Department of Transportation that it understands the prohibitions under the Federal and New York State False Claims Acts, and that it has not and will not submit or caused to be submitted any fraudulent claims in the submission of this bid or in connection with the above-identified contract. The Contractor further certifies that it understands retaliatory actions, against employees and officers who initiate a *Qui Tam* (public) action on behalf of the government or cooperate in the investigation of a false claim, are prohibited and are subject to an assessment of damages and penalties, under the provisions of the Federal and New York State False Claims Acts.

UNITED STATES DEPARTMENT OF TRANSPORTATION HOTLINE

The U.S. Department of Transportation (USDOT) Office of Inspector General (OIG) maintains a Hotline for receiving allegations of fraud, waste, abuse, or mismanagement in USDOT programs or operations. Persons with knowledge of bid collusion (i.e., contractors, suppliers, work persons, etc.), or other questionable contract related practices (inadequate materials, poor workmanship, theft of materials, etc.), are encouraged to report such activities by calling the Hotline at 1-800-424-9071 at hotline@oig.dot.gov, or in writing to the USDOT Inspector General, 1200 New Jersey Ave SE, West Bldg 7th Floor, Washington, DC 20590. Allegations may be reported 24 hours a day, seven days a week by DOT employees, contractors, or the general public.

NEW YORK STATE INSPECTOR GENERAL HOTLINE

The New York State Office of the Inspector General maintains a Hotline for receiving allegations of governmental misconduct. Reports of New York State governmental misconduct may be made in strict confidence to the Toll Free 24 hour Statewide HOTLINE at 1-800-DO RIGHT (1-800-367-4448), the online complaint form at www.ig.ny.gov or in writing to the New York State Office of the Inspector General; Empire State Plaza, Agency Building 2 - 16th Floor, Albany, New York 12223. Reports of New York State Governmental Misconduct may be made in strict confidence to the New York State Inspector General on the Toll Free Statewide HOTLINE or by writing to the Office of the State Inspector General. The Toll-Free Statewide HOTLINE telephone number is 1-800-367-4448 and calls will be answered between 9:00 A.M. and 5:00 P.M., Monday through Friday. The address of the Office of the Inspector General is P.O. Box 9, One Commerce Plaza, Albany, New York 12260.

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**PROVISIONS RELATING TO THE NEW YORK STATE LABOR LAW,
PREVAILING WAGES, AND THE USE OF CONVICT LABOR AND
MATERIALS ON FEDERAL & STATE CONTRACTS**

GENERAL PROVISIONS. All projects funded with Federal aid and let to contract in New York State shall conform to the provisions of the New York State Labor Law, except that in accordance with the authorization in Article 4, Section 85 of the New York State Highway Law, any provisions of the above referenced Labor Law which are in conflict with the following enumerated mandatory Federal Aid highway construction compliance requirements, as contained in Section 635 of the Code of Federal Regulations, Title 23-Highways, and other Federal legislation, rules, and regulations, as referenced below, are superseded:

CONVICT LABOR. No convict labor, unless performed by convicts who are on parole, supervised release, or probation, shall be employed in construction or used for maintenance or any other purposes at the site or within the limits of any Federal Aid highway construction project from the time of award of the contract or the start of work on force account until final acceptance of the work by the Owner.

SELECTION OF LABOR. No procedures or requirements shall be imposed by any state or municipal subdivision thereof which will operate to discriminate against the employment of labor from any other state, possession, or territory of the United States, in the construction of a Federal Aid project. The selection of labor to be employed by the Contractor on any Federal Aid project shall be of his/her own choosing.

WAGE RATES ON FEDERAL AID PROJECTS. Attention is directed to the statutory provisions governing the prevailing rates of wages for workmen, mechanics, and laborers who are employed on this project. Section 220 of the New York State Labor Law, as amended, requires that the wages paid for a legal day's work shall be not less than the rate of wages plus the supplements prevailing at the time the work is performed, the current schedules of which shall be included in the contract documents. Such schedules may be amended or supplemented from time to time, and such amendments or supplements shall be forwarded to the Contractor.

The Federal Aid Highway Act of 1968 provides for the payment of wages at rates not less than those determined in accordance with the Davis-Bacon Act (40 USC, Section 276-a), the schedule of which shall also be included in the contract documents.

On-site materials suppliers, in addition to all subcontractors, are subject to the provisions of the Davis-Bacon Act. This will not necessarily be construed as causing the on-site material suppliers to be classified as subcontractors as part of the 50% limitation on the subcontracting of this project.

In case of a variance between (1) the schedules of prevailing rates of wages and supplements as determined under Section 220 of the New York State Labor Law, and (2) the schedule of rates of wages as determined pursuant to the Davis-Bacon Act, the Contractor shall accept and use the schedule or schedules that establish the higher rate of wages as the minimum for the workmen who are employed on the project.

CONSTRUCTION BY FEDERAL AGENCIES. When construction on Federal Aid highways is being performed by any Federal agency under its procedures and by Federal contract, the labor standards relating to direct federal contracts shall be applicable.

NON-DISCRIMINATION. Employment shall be provided without regard to race, color, religion, sex, or national origin.

CONVICT-PRODUCED MATERIALS. The use of convict-produced materials on any Federal or Federally-assisted contract must comply with the following requirements:

a. Materials produced by convict labor may only be incorporated in a Federal Aid highway construction project if such materials have been:

1. Produced by convicts who are on parole, supervised release, or probation from a prison; or
2. Produced in a qualified prison facility and the cumulative annual production amount of such materials for use in Federal Aid highway construction does not exceed the amount of such materials produced in such facility for use in Federal Aid highway construction during the 12-month period ending July 1, 1987.

b. "Qualified prison facility" means any prison facility in which convicts, during the 12-month period ending July 1, 1997, produced materials for use in Federal Aid highway construction projects.

c. Standard State and Federal Aid contract procedures may be used to assure compliance with the requirements of this paragraph.

FEDERAL WAGE RATES

The following pages contain the Federal Wage Rates in effect at the time of bidding. Current rates can be found at: www.wdol.gov/wdol/scafiles/davisbacon/ny3.dvb

"General Decision Number: NY20230003 06/30/2023

Superseded General Decision Number: NY20220003

State: New York

Construction Types: Building, Heavy, Highway and Residential

Counties: Bronx, Kings, New York, Queens and Richmond
Counties in New York.

BUILDING & RESIDENTIAL CONSTRUCTION PROJECTS (includes single family homes and apartments up to and including 4 stories),
HEAVY AND HIGHWAY CONSTRUCTION PROJECTS

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60).

<p>If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:</p>	<ul style="list-style-type: none"> . Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least \$16.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2023.
<p>If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:</p>	<ul style="list-style-type: none"> . Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least \$12.15 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2023.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the

Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

Modification Number	Publication Date
0	01/06/2023
1	01/13/2023
2	02/24/2023
3	04/07/2023
4	04/14/2023
5	06/30/2023

ASBE0012-001 06/01/2022

	Rates	Fringes
Asbestos Workers/Insulator Includes application of all insulating materials, protective coverings, coatings and finishes to all types of mechanical systems.....	\$ 70.01	35.16
HAZARDOUS MATERIAL HANDLER.....	\$ 40.50	15.95

BOIL0005-001 01/01/2021

	Rates	Fringes
BOILERMAKER.....	\$ 63.38	33%+47.22+a

FOOTNOTE:

a. PAID HOLIDAYS: New Year's Day, Thanksgiving Day, Memorial Day, Independence Day, Labor Day and Good Friday, Friday after Thanksgiving, Christmas Eve Day and New Year's Eve

BRNY0001-001 07/01/2022

	Rates	Fringes
BRICKLAYER.....	\$ 65.53	31.60
MASON - STONE.....	\$ 69.72	38.67

BRNY0001-002 07/01/2022

	Rates	Fringes
Pointer, cleaner and caulker.....	\$ 59.09	31.02

BRNY0004-001 01/02/2023

	Rates	Fringes
MARBLE MASON.....	\$ 62.82	39.03

BRNY0007-001 07/01/2022

	Rates	Fringes
TERRAZZO FINISHER.....	\$ 55.21	36.97
TERRAZZO WORKER/SETTER.....	\$ 59.75	38.60

BRNY0007-002 12/05/2022

	Rates	Fringes
TILE FINISHER.....	\$ 48.44	33.02

BRNY0020-001 07/04/2022

	Rates	Fringes
MARBLE FINISHER.....	\$ 49.20	36.21

BRNY0024-001 01/02/2023

	Rates	Fringes
BRICKLAYER MARBLE POLISHERS.....	\$ 47.22	30.29

BRNY0052-001 12/05/2022

	Rates	Fringes
Tile Layer.....	\$ 63.04	36.30

CARP0020-001 07/01/2022

Richmond County

	Rates	Fringes
CARPENTER (BUILDING & RESIDENTIAL) Carpenters.....	\$ 55.05	47.83

CARP0020-002 07/01/2022

Richmond County

	Rates	Fringes
CARPENTER (HEAVY & HIGHWAY).....	\$ 58.16	54.26

CARP0045-001 07/01/2022

Queens County

	Rates	Fringes
CARPENTER (BUILDING & RESIDENTIAL)		
Carpenters.....	\$ 55.05	47.83

CARP0045-002 07/01/2022

Queens County

	Rates	Fringes
CARPENTER (HEAVY & HIGHWAY).....	\$ 58.16	54.26

CARP0157-001 07/01/2022

Bronx and New York Counties

	Rates	Fringes
CARPENTER (BUILDING & RESIDENTIAL)		
Carpenters.....	\$ 55.05	47.83

CARP0157-002 07/01/2022

Bronx and New York Counties

	Rates	Fringes
CARPENTER (HEAVY & HIGHWAY).....	\$ 58.16	54.26

CARP0740-001 07/01/2022

	Rates	Fringes
MILLWRIGHT.....	\$ 57.80	55.96

CARP0926-001 07/01/2022

Kings County

	Rates	Fringes
CARPENTER (BUILDING & RESIDENTIAL)		
Carpenters.....	\$ 55.05	47.83

CARP0926-002 07/01/2022

Kings County

	Rates	Fringes
CARPENTER (HEAVY & HIGHWAY).....	\$ 58.16	54.26

CARP1556-006 07/01/2022		

	Rates	Fringes
Dock Builder & Piledrivermen.....	\$ 58.16	53.56

CARP1556-007 07/01/2022		

	Rates	Fringes
Diver Tender.....	\$ 52.57	53.56
Diver.....	\$ 73.03	53.56

CARP1556-011 07/01/2022		

	Rates	Fringes
Carpenters:		
TIMBERMEN.....	\$ 53.05	53.94

CARP2287-004 07/01/2022		

	Rates	Fringes
Carpenters:		
Soft Floor Layers.....	\$ 55.05	47.83

ELEC0003-001 04/13/2022		

	Rates	Fringes
ELECTRICIAN		
Electricians.....	\$ 59.00	77.695%+17.25
Jobbing, and maintenance		
and repair work.....	\$ 28.50	51.243%+7.50+a

PAID HOLIDAYS:

- a. New Years Day, Martin Luther King, Jr.'s Birthday, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Columbus Day, Election Day, Thanksgiving Day, the day after Thanksgiving Day, and Christmas Day

* ELEC1049-001 04/02/2023

QUEENS COUNTY

	Rates	Fringes
Line Construction (Substation		

and Switching structures pipe type cable installation and maintenance jobs or projects; Railroad electrical distribution/transmission systems maintenance (when work is not performed by railroad employees) Overhead and Underground transmission/distribution line work. Fiber optic, telephone cable and equipment)

Groundman.....	\$ 39.15	27.56
Heavy Equipment Operator....	\$ 52.20	31.73
Lineman and Cable Splicer...	\$ 65.25	35.92
Tree Trimmer.....	\$ 30.09	14.12

 ELEV001-002 03/17/2022

	Rates	Fringes
ELEVATOR MECHANIC		
Elevator Constructor.....	\$ 75.14	47.446+a+b
Modernization and Repair....	\$ 59.09	45.564+a+b

FOOTNOTE:

a. PAID HOLIDAYS: New Year's Day, Good Friday, President's Day, Memorial Day, Independence Day, Labor Day, Columbus Day, Veteran's Day, Thanksgiving Day, Friday after Thanksgiving, and Christmas Day.

b. PAID VACATION: An employee who has worked less than 5 years shall receive vacation pay credit on the basis of 4% of his hourly rate for all hours worked; an employee who has worked 5 to 15 years shall receive vacation pay credit on the basis of 6% of his hourly rate for all hours worked; an employee who has worked 15 or more years shall receive vacation pay credit on the basis of 8% of his hourly rate for all hours worked.

 ENGI0014-001 07/01/2022

	Rates	Fringes
POWER EQUIPMENT OPERATOR (HEAVY & HIGHWAY)		
GROUP 1.....	\$ 110.56	35.35
GROUP 2.....	\$ 91.40	35.35
GROUP 3.....	\$ 94.31	35.35
GROUP 4.....	\$ 92.06	35.35
GROUP 5.....	\$ 90.26	35.35
GROUP 6.....	\$ 86.71	35.35
GROUP 7.....	\$ 88.32	35.35
GROUP 8.....	\$ 85.80	35.35

GROUP 9.....	\$ 84.02	35.35
GROUP 10.....	\$ 80.36	35.35
GROUP 11.....	\$ 75.16	35.35
GROUP 12.....	\$ 76.80	35.35
GROUP 13.....	\$ 77.36	35.35
GROUP 14.....	\$ 58.61	35.35
GROUP 15.....	\$ 54.56	35.35
POWER EQUIPMENT OPERATOR (PAVEMENT-HEAVY & HIGHWAY)		
Asphalt Plants.....	\$ 70.88	35.35
Asphalt roller.....	\$ 83.63	35.35
Asphalt spreader.....	\$ 85.80	35.35
POWER EQUIPMENT OPERATOR (STEEL ERECTION)		
Compressors, Welding Machines.....		
	\$ 54.68	35.35
Cranes, Hydraulic Cranes, 2 drum derricks, Forklifts, Boom Trucks.....		
	\$ 91.33	35.35
Three drum derricks.....		
	\$ 95.02	35.35
POWER EQUIPMENT OPERATOR (UTILITY)		
Horizontal Boring Rig.....	\$ 81.67	35.35
Off shift compressors.....	\$ 68.04	35.35
Utility Compressors.....	\$ 54.21	35.35

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Tower crane

GROUP 2: Rubber Tire Backhoes over 37,000 lbs, Track Backhoes, power shovel, Hydraulic clam shells, moles and machines of a similar type

GROUP 3: Mine hoists and crane, etc. used as mine hoists

GROUP 4: Gradalls, keystones, cranes (with digging buckets), bridge cranes, trenching machines, vermeer cutter and machines of a similar nature

GROUP 5: Piledrivers, derrick boats, tunnel shovels

GROUP 6: All drills, and machines of a similar nature

GROUP 7: Back filling machines, cranes, mucking machines, dual drum pavers

GROUP 8: Mixers (concrete w/loading attachments), concrete pavers, cableways, land derricks, power house (low pressure units), concrete pumps

GROUP 9: Concrete plants, well drilling machines, stone crushers double drum hoist, power house (other than above)

GROUP 10: Concrete mixers

GROUP 11: Elevators

GROUP 12: Concrete breaking machine, Hoists (single drum), load masters, locomotive and dinkies over 10 tons

GROUP 13: Vibratory console

GROUP 14: Compressors (portable 3 or more in battery), tugger machine (caissons), well point pumps, chum drill

GROUP 15: Boilers, (high pressure, compressors (portable, single, or 2 in battery, not over 100' apart), pumps (river cofferdam and welding machines (except where arc is operated by members of local 15) push button machines, all engines irrespective of power (power pac) used to drive auxilliary equipment, air, hydraulic etc.

PREMIUMS ON CRANES (Crawler or Truck):

- 100' to 149' boom - add .50
- 150' to 249' boom - add .75
- 250' to 349' boom - add 1.00
- 350' to 450' boom - add 1.50

Premiums for Cranes on Steel Erection:

- 100' to 149' boom - add 1.75
- 150' to 249' boom - add 2.00
- 250' to 349' boom - add 2.25
- 350' to 450' boom - add 2.75
- Tower crane - add 2.00

FOOTNOTE:

a. Paid Holidays: New Year's Day; Lincoln's Birthday; Washington's Birthday; Memorial Day; Independence Day; Labor Day; Veterans Day; Columbus Day; Election Day; Thanksgiving Day; and Christmas Day; provided the employee works one day the payroll week in which the holiday occurs.

ENGI0014-002 07/01/2022

	Rates	Fringes
Power Equipment Operator		
BUILDING & RESIDENTIAL		
GROUP 1.....	\$ 86.78	35.35
GROUP 2.....	\$ 91.86	35.35
GROUP 3.....	\$ 80.52	35.35
GROUP 4.....	\$ 73.28	35.35
GROUP 5.....	\$ 54.94	35.35

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Double drum

GROUP 2: Stone derrick, cranes, hydraulic cranes, boom trucks

GROUP 3: 4 pole Hoist, Single Drum Hoists

GROUP 4: Fork lift, house cars, plaster (platform machine), plaster bucket, concrete pump and all other equipment used for hoisting material

GROUP 5: Compressors, welding machines (cutting concrete work), paint spraying, sand blasting, pumps (with the exclusion of concrete pumps), house car (settlement basis only), all engines irrespective of power (power pac) used to drive auxiliary equipment, air, hydraulic, etc., boilers

Premiums for Cranes:

100'-149' boom - add 1.75
 150'-249' boom - add 2.00
 250'-349' boom - add 2.25
 350'-450' boom - add 2.75
 Tower cranes add 2.00

FOOTNOTE:

a. PAID HOLIDAYS: New Year's Day, Lincoln's Birthday, Memorial Day, Independence Day, Labor Day, Veteran's Day, Columbus Day, Election Day, Thanksgiving Day, and Christmas Day, provided the employee works one day in the payroll week in which the holiday occurs

 ENGI0015-001 07/01/2021

	Rates	Fringes
POWER EQUIPMENT OPERATOR HEAVY AND HIGHWAY		
GROUP 1.....	\$ 74.65	38.00
GROUP 2.....	\$ 72.40	38.00
GROUP 3.....	\$ 68.62	38.00
GROUP 4.....	\$ 64.82	38.00
GROUP 5.....	\$ 44.45	38.00

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Cherrypickers 20 tons and over and loaders (rubber-tired and/or tractor type with a manufacturer's rated capacity of six cubic yards and over

GROUP 2: Rubber Tire Backhoes up to and including 37,000 lbs, Basin Machines, Groover, Mechanical Sweepers, Bobcat, Boom Truck, Barrier Transport (Barrier Mover) and machines of a similar nature, Boat Captains, Boat Operators, operation of Churn Drills and machines of a similar nature, Stetco Silent Hoist and machines of a similar nature, Vac-alls, Meyers Machines, John Beam and machines of a similar nature, Ross Carriers and Travel Lifts and machines of a similar nature, Bulldozers, Scrapers, and Turn-a Pulls, Tugger Hoist (used exclusively for handling excavated

material), Tractors with attachments, Hyster and Roustabout Cranes, Cherrypickers, Austin Western, Grove and machines of a similar nature, Scoopmobiles, Monorails, Conveyors, Trenchers, Loaders- Rubber-tired and Tractor, Barber Greene, Eimco Loaders and Eimco Backhoes, Mighty Midget and similar breakers and tampers, Curb and Gutter Pavers and Motor Patrol, Motor Graders and all machines of a similar nature, Locomotives ten (10) tons or under, Mini-Max, Break-Tech and machines of a similar nature, Milling Machines, robotic and demolition machines and machines of a similar nature including Bobcat, Pile Rig Rubber-tired Excavator (37,000 lbs. and under), 2 man auger

GROUP 3: Minor Equipment such as Tractors, Post Hole Diggers and Drivers, Ditch Witch (Walk Behind), Road Finishing Machines, Rollers (five (5) tons and under), Tugger Hoists, Dual Purpose Trucks, Fork Lifts and Dempsey Dumpsters

GROUP 4: Oilers for the following equipment: (all gasoline, electric, diesel, or air operated) gradalls and concrete pumps or similarly equipment manned by two-men

GROUP 5: Oilers for the following equipment: (all gasoline, electric, diesel, or air operated) shovels, cranes (draglines), backhoes, pavers, trenching machines, gunite machines, compressors (3 or more in battery)

Premiums for Cranes:

- 100'-149' boom - add 1.75
- 150'-249' boom - add 2.00
- 250'-349' boom - add 2.25
- 350'-450' boom - add 2.75
- Tower cranes add 2.00

FOOTNOTE:

a. PAID HOLIDAYS: New Year's Day, Lincoln's Birthday, Memorial Day, Independence Day, Labor Day, Veteran's Day, Columbus Day, Election Day, Thanksgiving Day, and Christmas Day, provided the employee works one day in the payroll week in which the holiday occurs

 ENGI0015-002 07/01/2016

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
BUILDING		
GROUP 1.....	\$ 65.94	32.95
GROUP 2.....	\$ 63.98	32.95
GROUP 3.....	\$ 57.42	32.95

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

- GROUP 1: Oiler
- GROUP 2: Oilers on Crawler Cranes, Backhoes, Trenching machines, Gunite machines, Compressors (3 or more in Battery)

GROUP 3: Gradalls: Concrete Pumps, Power Houses - All equipment in same is manned by two (2) men only, Driving Truck Cranes

FOOTNOTE:

a. PAID HOLIDAYS: New Year's Day, Lincoln's Birthday, Memorial Day, Independence Day, Labor Day, Veteran's Day, Columbus Day, Election Day, Thanksgiving Day, and Christmas Day, provided the employee works one day in the payroll week in which the holiday occurs

IRON0040-002 07/01/2022

BRONX, NEW YORK, RICHMOND

	Rates	Fringes
IRONWORKER, STRUCTURAL.....	\$ 55.70	84.79

IRON0046-003 07/01/2022

	Rates	Fringes
IRONWORKER METALLIC LATHERS AND REINFORCING IRONWORKERS.....	\$ 56.90	27.80

IRON0197-001 07/01/2021

	Rates	Fringes
IRONWORKER STONE DERRICKMAN.....	\$ 55.63	55.10

IRON0361-002 07/01/2022

KINGS, QUEENS

	Rates	Fringes
Ironworkers: (STRUCTURAL).....	\$ 55.70	84.79

IRON0580-001 07/01/2022

	Rates	Fringes
IRONWORKER, ORNAMENTAL.....	\$ 46.65	61.62

LAB00006-001 07/01/2022

	Rates	Fringes
LABORER (Cement and Concrete Workers).....	\$ 49.28	27.05

LABO0029-001 07/01/2017

	Rates	Fringes
Laborers:		
Heavy		
Blasters (hydraulic trac drill).....	\$ 47.15	35.49
Blasters.....	\$ 46.27	35.49
Hydraulic Trac Drill.....	\$ 41.29	35.49
Jackhammers, Chippers, Spaders, Concrete Breakers, All Other Pneumatic Tools, Walk Behind Self-Propelled Hydraulic Asphalt and Concrete Breaker.....	\$ 39.34	35.49
Powder Carriers.....	\$ 35.17	35.49

LABO0078-001 07/04/2022

	Rates	Fringes
LABORERS		
BUILDING CONSTRUCTION		
ASBESTOS (Removal, Abatement, Encapsulation or Decontamination of asbestos); LEAD; & HAZARDOUS WASTE LABORERS (Hazardous Waste, Hazardous Materials, Biochemical and Mold Remediation, HVAC, Duct Cleaning, Re-spray Fireproofing, etc).....		
	\$ 38.55	19.35

LABO0079-001 07/01/2022

	Rates	Fringes
LABORER (Building Construction)		
Demolition Laborers (Interior)		
Tier A.....	\$ 37.44	23.60
Tier B.....	\$ 26.63	17.57
Mason Tender/General Laborer.....	\$ 42.70	29.74

CLASSIFICATIONS

TIER A: Responsible for the removal of all interior partitions and structural partitions that can consist of sheet rock, block or masonry. Also, all structural slab openings for ducts, mechanical, shafts, elevators, slab openings and

exterior walls where the building is not being completely demolished.

TIER B: Responsible for shoveling of debris into containers, pushing containers from the inside to the outside of the building.

LABO0147-001 07/01/2022

	Rates	Fringes
LABORERS (FREE AIR & TUNNEL).....	\$ 64.08	54.00

Maintenance Men, Inside Muck Lock Tenders, Pump Men, Electricians, Cement Finishers, Caulkers, Hydraulic Men, Shield Men, Monorail Operators, Motor Men, Conveyor Men, Powder Carriers, Pan Men, Riggers, Chuck Tenders, Track Men Painters, Nippers, Brakemen, Cable Men, Hose Men, Grout Men, Gravel Men, Form Workers, Concrete Workers, Tunnel Laborers, Mole Nipper (one (1) Mole Sipper per Working Shaft per Shift for up to and including Two (2) Moles

LABO0731-001 07/01/2022

	Rates	Fringes
LABORER		
Building, Heavy and Residential Construction		
LABORER: (Asbestos, Lead, Hazardous Waste Removal (including soil)/CEMENT/CONCRETE.....)	\$ 44.00	48.48
UTILITY LABORER.....	\$ 43.85	48.48

Paid Holidays: Labor Day and Thanksgiving Day

LABO1010-001 07/01/2022

	Rates	Fringes
Laborers:		
HIGHWAY CONSTRUCTION		
Fence Installer & Repairer..	\$ 44.48	49.34
FORMSETTERS.....	\$ 48.35	49.34
LABORERS.....	\$ 44.48	49.34
Landscape Planting & Maintenance.....	\$ 44.48	49.34
Maintenance Safety Surface..	\$ 44.48	49.34
Slurry/Sealcoater/Play Equipment Installer.....	\$ 44.48	49.34
Small Equipment Operator (Not Operating Engineer)...	\$ 44.48	49.34
Small Power Tools Operator..	\$ 44.48	49.34

FOOTNOTES:

a. PAID HOLIDAYS: Memorial Day, Fourth of July, Labor Day, Columbus Day, Election Day and Thanksgiving Day, provided the employee has worked one (1) day in the calendar week in which the said holiday occurs.

LAB01010-002 07/01/2022

	Rates	Fringes
Laborers-Asphalt Construction:		
Micro Paver.....	\$ 48.95	49.34
Raker.....	\$ 48.35	49.34
Screedperson.....	\$ 48.95	49.34
Shoveler (Production Paving Only).....	\$ 44.48	49.34
Small Equipment Operator (Asphalt).....	\$ 44.48	49.34

PAIN0009-001 11/01/2022

	Rates	Fringes
GLAZIER.....	\$ 47.30	50.52
PAINTER		
Painters, Drywall Finishers, Lead Abatement Worker.....	\$ 43.00	38.11
Spray, Scaffold and Sandblasting.....	\$ 46.00	38.11

PAIN0806-001 10/01/2022

	Rates	Fringes
Painters:		
Structural Steel and Bridge.	\$ 54.50	52.73

PAIN1974-001 06/28/2022

	Rates	Fringes
Painters:		
Drywall Tapers/Pointers.....	\$ 48.47	30.21

PLAS0262-001 08/01/2019

	Rates	Fringes
PLASTERER.....	\$ 45.73	30.37

PLAS0262-002 08/01/2019

KINGS AND QUEENS COUNTIES

	Rates	Fringes
PLASTERER.....	\$ 45.73	30.37

PLAS0780-001 07/01/2018		

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 51.97	33.56

PLUM0001-001 07/01/2022		

	Rates	Fringes
PLUMBER		
MECHANICAL EQUIPMENT AND SERVICE		
Any repair and/or replacement of the present plumbing system that does not change the existing roughing.....	\$ 46.60	19.96
PLUMBERS:.....	\$ 72.50	41.45

PLUM0638-001 07/01/2020		

	Rates	Fringes
PLUMBER		
SERVICE FITTERS.....	\$ 41.75	14.00
SPRINKLER FITTERS, STEAMFITTERS.....	\$ 59.05	58.34

Service Fitter work shall consist of all repair, service and maintenance work on domestic, commercial and industrial refrigeration, air conditioning and air cooling, stoker and oil burner apparatus and heating apparatus etc., including but not exclusively the charging, evacuation, leak testing and assembling for all machines for domestic, commercial and industrial refrigeration, air conditioning and heating apparatus. Also, work shall include adjusting, including capacity adjustments, checking and repairing or replacement of all controls and start up of all machines and repairing all defects that may develop on any system for domestic, commercial and industrial refrigeration and all air conditioning, air cooling, stoker and oil burner apparatus and heating apparatus regardless of size or type.

 ROOF0008-003 05/01/2022

	Rates	Fringes
ROOFER.....	\$ 45.25	37.62

SHEE0028-002 07/28/2022

	Rates	Fringes
SHEET METAL WORKER		
BUILDING CONSTRUCTION.....	\$ 52.10	55.18
RESIDENTIAL CONSTRUCTION....	\$ 23.84	8.40

TEAM0282-001 07/01/2020

	Rates	Fringes
TRUCK DRIVER		
Asphalt.....	\$ 42.68	46.9025+a
Euclids & Turnapulls.....	\$ 45.62	50.5625+a
High Rise.....	\$ 53.79	49.2025+a

FOOTNOTES:

PAID HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Columbus Day, Election Day, Veterans' Day (Armistice Day), Thanksgiving Day, Day after Thanksgiving and Christmas Day. Employees working two (2) days in the calendar week in which a holiday falls are to be paid for such holiday, provided that they shape each remaining workday during such calendar week.

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after

award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor

200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISIO"

NOTICE

The Standard Sewer And Water Main Specifications of the Department of Environmental Protection, Sewer Design Standards of the Department of Environmental Protection, Water Main Standard Drawings of the Department of Environmental Protection, Specifications For Trunk Main Work of the Department of Environmental Protection and the Standard Highway Specifications of the Department of Transportation of The City of New York, must be included as part of the contract documents. These said specifications and standard drawings are hereby revised under the following section headings:

- A. NOTICE TO BIDDERS
- B. REVISIONS TO THE STANDARD SEWER AND WATER MAIN SPECIFICATIONS
- C. REVISIONS TO THE SPECIFICATIONS FOR TRUNK MAIN WORK

(NO TEXT ON THIS PAGE)

A. NOTICE TO BIDDERS

NO TEXT

B. REVISIONS TO THE STANDARD SEWER AND WATER MAIN SPECIFICATIONS

- (1) **Refer** to **Subsection 10.15 - Notice To Utility Companies, Etc., To Remove Structures Occupying Place Of Sewers, Water Mains Or Appurtenances**, Page 19:
Add the following to **Subsection 10.15**:

(1) CONSOLIDATED EDISON COMPANY OF NEW YORK (CON EDISON)

There are CON EDISON facilities in the area of construction. The Contractor must notify CON EDISON at least seventy-two (72) hours prior to the start of construction by contacting Mr. Noel Leon at (718) 802-3013.

(2) NATIONAL GRID

There are NATIONAL GRID facilities in the area of construction. The Contractor must notify NATIONAL GRID at least seventy-two (72) hours prior to the start of construction by contacting Mr. Neville Jacobs Jr. at (718) 963-5612.

(3) VERIZON

There are VERIZON facilities in the area of construction. The Contractor must notify VERIZON at least seventy-two (72) hours prior to the start of construction by contacting Mr. Aubrey Makhanlall at (718) 977-8165.

- (2) **Refer** to **Subsection 10.21 - Contractor To Notify City Departments**, Page 21:
Add the following to **Subsection 10.21**:

(1) N.Y.C. D.E.P., BUREAU OF WATER AND SEWERS OPERATIONS

The Contractor must notify Mr. Peter Gordon, P.E. Linear Capital Program Management Division at the Department of Environmental Protection, 59-17 Junction Boulevard, 3rd Floor Low Rise, Corona, NY, 11368 at (718) 595-4347, at least thirty (30) days prior to the start of construction.

(2) N.Y.C. DEPARTMENT OF TRANSPORTATION

The Contractor will notify Mr. Seedan Bjorn / Mr. Akmal Mikhail, Signal / Street Lighting Operations, 34-02 Queens Blvd., Long Island City, N.Y. 11101 at (212) 839-3790 / (212) 839-3368, at least seventy-two (72) hours prior to the start of construction

(3) N.Y.C. TRANSIT AUTHORITY

The Contractor is advised that bus routes as well as bus stops, within the scope of this project may be affected during construction operations. The Contractor shall notify the Transit Authority at least two (2) weeks prior to the start of construction, in order to make the necessary arrangements.

Arrangements shall be made through:

Ms. Sarah Wyss
Acting Director, Operation Planning
New York City Transit
2 Broadway, 17th Floor, Room A17.82
New York, N.Y. 10004
Telephone No. (646) 252-5517
sarah.wyss@nyct.com

- (3) **Refer** to **Subsection 10.24 – Damaged Water Service Pipes To Be Repaired By A Licensed Plumber**, Page 22:
Add the following to **Subsection 10.24**:

If the damaged or cut water service pipe is lead, galvanized steel, or galvanized iron, the service pipe must not be partially replaced, but fully replaced from the main to the house control valve. If the service pipe was damaged, cut, or otherwise interrupted due to the Contractor's actions or means & methods (including selection of shoring systems), the water service pipe will be replaced at the Contractor's own cost.

- (4) **Refer** to **Subsection 10.30 - Contractor To Provide For Traffic**, Page 24:
Add the following to **Subsection 10.30**:

- (1) Traffic Stipulations:

The Contractor shall refer to Traffic Stipulations identified in the maintenance of traffic requirements under Highway Contract No. . HWK2048

- (5) **Refer** to **Subsection 40.02.15 - Disposal Of Water From Trenches**, Page 184:
Add the following to **Subsection 40.02.15**:

(A) The Department of Design and Construction has **not** filed application for Dewatering Permit with the New York State Department of Conservation (NYSDEC), under the Environmental Conservation Law (ECL), Title 15 of Article 15, for a Temporary Well Point System Permit. However, it is anticipated that the criteria for rate of pumping specified herebefore in this section will be exceeded in areas of construction; the Contractor shall be responsible for applying and obtaining the necessary dewatering permit prior to the dewatering of trenches within the scope of this project.

As part of the permit application the Contractor will be required to comply with all the requirements of **Section 40.16** herein.

Copies of all materials submitted to NYSDEC must be sent to the New York City Department of Design and Construction (NYCDDC), Infrastructure/Design.

The following minimum requirements set forth by the New York Department of Environmental Conservation shall be complied with prior to the start of work in areas of construction requiring dewatering permit:

- (1) An analysis must be made of water samples taken. The results are to be submitted to the Regional Permit Administrator. An analysis shall be made for BOD, salinity, oil, and grease. The samples shall be analyzed by a laboratory certified by the New York State Health Department and the results are to be submitted directed to the New York State Department of Environmental Conservation by the laboratory.
- (2) Prior to setting any wells, wellpoints or header pipes, the Contractor must submit to the NYSDEC a layout of the complete dewatering system including the location of the discharge point. When permitted by the NYSDEC, discharge of groundwater on the beach areas shall be done in such a manner as to eliminate any erosion or siltation and will require the installation of splash blocks and/or settling basins.

The Contractor is advised that all work required in obtaining a permit, must be submitted to, and approved by the NYSDEC prior to the commencement of any work in areas of construction requiring dewatering permit. No payment for any item of work will be made, and no shop drawing shall be approved for the areas of construction until such time that a written approval is obtained from the NYSDEC.

(B) The Contractor is advised that all work shall be governed by the provisions and requirements of the obtained permit, and their said provisions and requirements shall be made a part of the contract and the Contractor will be responsible for strict adherence thereto.

The cost of all work required for applying, complying and obtaining required dewatering permits including the cost for any required updating of permits shall be deemed included in the prices bid for all item of this contract. No additional or separate payment will be made for any work required in order to comply with these requirements.

- (6) **Refer** to Page 219:
Add the following new **Section 40.16**:

**SECTION 40.16
DEWATERING PERMITS**

40.16.1 DESCRIPTION

Under this contract, and at locations where groundwater will be present in the trenches and excavations, the Contractor is required to install, maintain and operate a temporary dewatering system of sufficient size and capacity to control ground and surface water flow into the excavation and to allow all work to be accomplished in the “dry condition”.

The Contractor will be required to obtain the following permits in order to operate a temporary dewatering system.

- (A) A Dewatering/Discharge Permit from the New York City Department of Environmental Protection (NYCDEP);
- (B) A Long Island Well Permit from the New York State Department of Environmental Conservation (NYSDEC), under the Environmental Conservation Law (ECL), Title 15 of Article 15, implemented by 6NYCRR Part 601 - Water Supply and Part 602 - Long Island Well. This permit is required only in the Boroughs of Brooklyn and Queens to withdraw water using a well point or deep well system where the total capacity of such well or wells is in excess of 45-gallons per minute (or 64,800-gallons per day); and,
- (C) An Industrial State Pollutant Discharge Elimination System (SPDES) or a Non-Jurisdictional Determination Letter in compliance with Title 8 and 7 of Article 17 of the Environmental Conservation Law of New York State, respectively.

The Contractor is advised that the provisions and requirements of the aforementioned permits shall govern all work, and the said provisions and requirements are hereby made a part of the sewer contract and the Contractor will be responsible for strict adherence thereto.

No dewatering work shall commence until the above-mentioned Permits have been obtained for this project.

The Contractor is advised that in order to comply with all the permits requirements, the Contractor will be required to submit maps, test data, etc. prior to the start of work. In order to expedite the processing of the permit and its requirements, the Contractor will be required to obtain the services of an independent Environmental Scientist as herein described below in **Subsection 40.14.2** to perform this work and act as liaison with NYSDEC and NYCDEP.

40.16.2 QUALIFICATIONS

The Environmental Scientist utilized to perform the work required under this section must have adequate experience in work of this nature (obtaining Long Island Well Permit/Dewatering Permit) and must have previous experience in working with the NYSDEC and the NYCDEP, designing equivalent dewatering systems, and have successfully obtained the type of permits required under this contract. Prior to the start of work, the Contractor will be required to submit the name and resume of the Environmental Scientist for approval.

40.16.3 NYSDEC DEWATERING PERMITS

The dewatering system shall be designed by the Environmental Scientist using accepted and professional methods of design and engineering consistent with the best modern practices.

The material to be submitted shall include, but not be limited to the following:

- (1) Site Plan - Scaled, showing construction activity (e.g. excavation, pathway of the pipe, new outfalls, etc.) locations of well points, header pipes and pumps, and all staging and storage areas.

Also included herein shall be a layout of the complete dewatering system including the location of the discharge point. When permitted by the NYSDEC, discharge of groundwater on beach areas shall be done in such a manner as to prevent any erosion or siltation and will require the design and installation of splash blocks and/or settling basins.

- (2) Dewatering System Specifications:

- | | |
|-------------------------------|-----------------------------|
| (a) Number of Well Points | (h) Total Volume Pumped |
| (b) Diameter of Well Points | (i) Number of Pumps |
| (c) Spacing of Well Points | (j) Capacity of Pumps |
| (d) Length to Screen | (k) Duration of Pumping |
| (e) Depth to Bottom of Screen | (l) Initial and Average GPM |
| (f) Static Water Level | (m) Estimated Daily Pumpage |
| (g) Drawdown Required | (n) Flow Meter |

- (3) Cross Section - Scaled, showing well points, riser, header, annular material (if used) and other equipment associated with each point. A typical construction style drawing may be utilized. Should the Contractor be permitted to use a deep well system, all information regarding it must be submitted.

- (4) Drawdown Contour Map - Based upon a review of the surrounding area affected by the dewatering and upon boring within the project area and characteristics of the soils, the depth and pumping rate of dewatering system and the duration of the pumping, the Environmental Scientist shall submit both a narrative and diagram showing the anticipated maximum cone of depression which shall be shown from both above and in cross section on scaled diagrams. Contour lines on diagrams shall be labeled to show depth from land surface.

- (5) Description of Site and Adjacent Areas - A short narrative shall be prepared describing the land use in the area paying attention to any potential sources of groundwater contamination that may migrate into the well's cone of depression, such as gas stations, chemical plants, wrecking yards, sanitary landfills, etc. Latest map of the area shall be included in the narrative.

- (6) Groundwater Analysis - The Environmental Scientist shall develop and submit a sampling and analysis program subject to NYSDEC Approval (a minimum of one groundwater sample from a site well shall be collected and analyzed). A laboratory certified by the New York State Health Department shall analyze the samples. The sampling and analysis program must include but is not limited to the following:

NYSDEC REGION 2 - DEWATERING PROJECTS SAMPLING INFORMATION

NO.	PARAMETERS	TYPE	EPA METHOD	DETECTION
1	pH	Grab	150.1	EPA min
2	Temperature	°F	After Pumping	EPA min
3	Fecal Coliform	Grab	5-Tubes/3-Dilutions	2-MPN/100-ml
4	Oil & Grease	Grab	413.1	EPA min
5	BOD ₅	Grab	405.1	EPA min
6	Total Suspended Solids	Grab	160.2	EPA min
7	Settleable Solids	Grab	160.5	EPA min
8	Chlorides	Grab	325.1-325.3	EPA min
9	Benzene	Grab	602	EPA min
10	Toluene	Grab	602	EPA min
11	Xylenes	Grab	602	EPA min
12	Ethylbenzene	Grab	602	EPA min
13	PCB's	Grab	608	(See Note 1)
14	Pesticides	Grab	608	EPA min
15	13 Priority Metals	Grab	200 series	EPA min
16	Acids Base/Neutrals	Grab	625-GC/MS	EPA min
17	Halogenated Volatiles	Grab	601-GC	EPA min
18	Nitrate/Nitrite	Grab	300 or 353.3	EPA min
19	Aromatic Volatiles	Grab	602-GC	EPA min
20	Cyanide (total or amenable)	Grab	335.1/335.2	EPA min

NOTE:

- (1) List each individual aroclor found and report the concentration of each aroclor tested. Use the N.Y.S. detection limit, which is 0.065-µg/l.

Small dewatering projects with a total estimated pumped volume up to 15-Million Gallons (MG) require sampling analysis for parameters No.'s 1 through 12.

Medium dewatering projects with a total estimated pumped volume between 15-MG and 60-MG require sampling analysis for parameters No.'s 1 through 14.

Large dewatering projects with a total estimated pumped volume greater than 60-MG require sampling analysis for parameters No.'s 1 through 20.

Samples are to be collected after development of the well by a licensed well driller.

A laboratory certified by the NYS Department of Health must conduct all testing.

Irrespective of the aforementioned sampling requirements based on total estimated pumped volumes, the Department may require sampling of additional parameters if the proposed dewatering site is suspected of being contaminated.

40.16.4 SUBMISSION OF DEWATERING PLAN

The Environmental Scientist will be required to submit two (2) copies of the Dewatering Plan (together with all reports, materials, designs, drawings, maps and plans) to the Infrastructure Engineering Support Unit for review and approval. Once approved the Environmental Scientist shall submit in triplicate the Final Dewatering Plan to both the NYSDEC and the NYCDEP. The Dewatering Plan should be bound

and bear the name of the Contractor, NYSDEC Application Number and the Signature of the preparer. All drawings and maps shall be on sheets 27-inches by 40-inches and to scale not less than 1"=30'.

40.16.5 DAMAGES

The Contractor shall be responsible for and shall repair at no cost to the City any damage caused by inadequate or improper design and operation of the dewatering system, and any mechanical or electrical failure of the dewatering system.

40.16.6 SYSTEM REMOVAL

The Contractor shall remove all dewatering equipment and temporary electrical service from the site. All wells shall be removed or cut off a minimum of three (3) feet below the final ground surface and capped. Holes left from pulling wells or wells that are capped shall be grouted in a manner approved by the Engineer.

40.16.7 PAYMENTS

No additional or separate payment will be made for any work described herein. The costs for all labor, materials, equipment, permit fees, samples, tests, reports, services and insurance required or necessary to perform all the work described herein shall be deemed included in the price bid for all items of work.

- (7) **Refer** to **Subsection 71.41.4 - Specific Pavement Restoration Provisions**, Page 529:
Add the following to **Subsection 71.41.4**:

(E) Specific Pavement Restoration Provisions:

- (1) Within the limits of the highway reconstruction the restoration shall be accomplished and paid for in accordance with Highway Construction Plans, Details and Specifications for Highway Project ID HWK2048. .

C. REVISIONS TO THE SPECIFICATIONS FOR TRUNK MAIN WORK

- 1) **Refer** to **Part 1 – Furnishing And Delivering Steel Pipes And Appurtenances 30 Inches In Diameter And Larger, Section 11. Fabrication**; Page 4;
Add the following to **Section 11**:

All steel water mains shall be spiral welded pipes, and all steel water main fittings shall be fabricated from qualified spiral welded pipe. Can type pipe is not acceptable.

- 2) **Refer** to **Part 1 – Furnishing And Delivering Steel Pipes And Appurtenances 30 Inches In Diameter And Larger, Section 13. Special Fittings**, Page 5;
Add the following to **Section 13**:

The steel reducer shall have a length of seven (7) feet for every twelve (12) inches reduction in diameter.

END OF SECTION
This Section consists of Eight (8) pages.

NO TEXT ON THIS PAGE

EP7 (1.0) - PAGES

**GAS COST SHARING (EP-7)
STANDARD SPECIFICATIONS**

NOTICE

THE PAGES CONTAINED IN THIS SECTION REPRESENT THE GAS COST SHARING WORK THAT SHALL APPLY TO AND BECOME A PART OF THE CONTRACT.

(NO TEXT ON THIS PAGE)

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I - NOTICE TO ALL BIDDERS; GAS COST SHARING WORK

All prospective bidders are hereby advised that, pursuant to the "Gas Facility Cost Allocation Act", ("the Act"), the City of New York has entered into an agreement ("the Agreement") with the gas companies (Con Edison or National Grid (formerly KeySpan Energy Delivery)) operating in their respective areas of the City to "share" the cost of facility relocation and/or support and protection of facilities disturbed by proposed water and/or sewer and related City work specified in this contract. Therefore, bid items, specifications and estimated quantities for the incremental costs of support and protection of certain gas facilities have been included in this contract. The low bid for this contract shall be determined by examining each bid for all work to be performed under this contract including any work of support and protection of gas facilities to be performed. The Contractor shall not seek additional compensation from gas companies except as specifically set forth in its contract.

II - GENERAL PROVISIONS; GAS COST SHARING WORK

1. General:

The Contractor shall perform City work with interferences from existing live and abandoned gas facilities. This shall be defined as utility work. Therefore, this contract includes bid items, specifications and estimated quantities designed to fully compensate him/her for the incremental costs of supporting, protecting, providing accommodations and, avoiding disturbing gas facilities located in the streets shown on the contract drawings. In the event that any other provisions of this contract related to gas facilities (or private utilities) conflict with these provisions, these provisions shall supersede and govern all work related to gas facilities owned by the companies operating in the project area. All utility work, as defined in these specifications, including changes and additions thereto shall be paid solely by the City except when specified otherwise in this contract. Contractor hereby agrees that the facility operator shall not be liable to pay him/her for any work performed including extra utility work. Contractor agrees that its bid prices include all compensation for loss of productivity and efficiency, idle time, delays (including any delays occasioned by negotiation of a contract change), change in operations, mobilization, demobilization, remobilization, added cost or expense, lost of profit, other damages or impact costs that may be suffered by or because of utility work, or the presence of gas facilities in the proximity of City work and that it will not seek additional compensation for these items. All disputes shall be resolved as specified in the contract.

Pursuant to the Act, Agreement, and the New York City Administrative Code, the gas company(ies) has been directed by the Commissioner and is required to perform all maintenance, repairs, replacement, shifting, alteration, relocation, and/or removal work that are not part of this contract. By having bid on this contract, the Contractor understands and agrees that the Commissioner has preasserted any right the City has to require, including the issuance of any directives or so called "order outs" under the New York City Administrative Code, any or all gas companies to maintain, repair, replace, protect, support, shift, alter, relocate, and/or remove all gas facilities that are about to be disturbed by the City contract work. The issuance of additional such directives during the performance of the contract work, where necessary in the sole judgment of the Commissioner, shall be initiated by such Commissioner as set forth in the relevant sections of the Act and Agreement. Contractor further agrees to insert such requirements as set forth herein above into any contracts with its approved subcontractors so that its subcontractors also understand and agree to such contract requirements.

2. Gas Interferences And Accommodations:

During the performance of sewer and water main work funded by the New York City Department of Environmental Protection (NYCDEP), as instructed by the Engineer, the use of any applicable contract bid item is allowed in order to resolve and accommodate all gas facilities interferences with such City work, including the removal of contaminated soil in associated trench excavation. This is in addition to the specified EP-7 bid items in the contract. Payment for such accommodation shall be funded by EP-7 bid item "UTL-GCS-2WS - GAS INTERFERENCES AND ACCOMMODATIONS" (F.S. Fixed Sum). The value of such accommodation shall be computed by multiplying the appropriate unit prices bid to the quantity of work performed, as determined by the Engineer, and applying the total amount thus to be paid

to EP-7 bid item "UTL-GCS-2WS - GAS INTERFERENCES AND ACCOMMODATIONS". When EP-7 bid item "UTL-GCS-2WS - GAS INTERFERENCES AND ACCOMMODATIONS" does not exist, such additional accommodation work shall be at no cost to the City but shall be a matter of adjustment between gas facility operator and Contractor. Private facilities, other than gas, that become in interference due to gas interferences accommodations shall also be accommodated, if so directed by the Resident Engineer, at no additional cost to the City and, provided that its owner agrees to be responsible for all additional costs to Contractor, otherwise, such facility shall be ordered by the City to be maintained, shifted, relocated or replaced by its owner at his/her expenses.

2a. Water Main Accommodations:

When water main construction is to be performed in this contract, Contractor shall be required, if warranted by field conditions, and at locations designated by the Resident or Borough Engineer, to change the vertical or horizontal alignment of water mains including but not limited to all additional labor, material, work method accommodations, furnishing, delivering and laying offset fittings and pipes, etc., necessary in order to complete water main installation and, avoid gas interferences in the project area, including street intersections. Typical work method accommodations shall include, but not be limited to, pier and plate, installation of filter fabric and select fill, etc. Such work shall be performed as directed by the Engineer and in accordance with contract specifications and latest edition of water mains standards and specifications.

2b. Sewer Accommodations:

When sewer construction is to be performed in this contract, Contractor shall be required, if warranted by field conditions, and at locations designated by the Resident or Borough Engineer, to change the horizontal alignment of sewer facilities (if possible) including but not limited to all additional labor, material, work method accommodations, furnishing, delivering and construction of additional manholes or modification of manholes/catch basins, extending chute connections, house connections, using alternate materials and methods, poured-in-place structures, etc., necessary in order to complete sewer installation and, avoid gas interferences in the project area, including street intersections. The term sewer facility shall include, but not be limited to, all sewer pipe and appurtenances, manholes, catch basins, catch basin chutes, etc. Such work shall be performed as directed by the Engineer and in accordance with contract specifications and latest edition of sewer standards and specifications.

3. Quantity Overruns, EP-7 Funded Bid Items:

No quantity overrun, in excess of one hundred twenty five (125) percent, shall be permitted for EP-7 funded bid items (gas) included in this contract, except when Resident Engineer determines that such overruns are caused by field modifications to planned City work, or approved construction methods, or contract scope changes. The Engineer will notify the gas facility operator in writing of overruns. The Contractor must invoice the gas facility operator for payment of all overruns, which will be paid by the gas facility operator at the contract bid price. Gas facility operator will be entitled to reimbursement by NYCDEP under established cost sharing procedures.

4. Changes And Extra Work:

This section is not applicable to work defined under "Emergency Reconstruction Contracts" or so-called "Where and When Contracts" since these projects, by definition, inherently encounter unanticipated gas facilities and cannot be pre-engineered. In all other cases, any contract changes proposed for City work shall also cover and include all associated changes to support and protection of gas facilities affected by such changes to City work. In all other cases where the Contractor finds that City work cannot be performed as planned and specified and/or, as approved because of a need to support, protect and/or alleviate interferences from gas facilities that were not listed and/or shown, or incorrectly shown in contract plans and specifications, he shall immediately notify the Resident Engineer and the facility operators' representative of his findings. Resident Engineer shall promptly examine such claims and determine whether or not such work is covered by contract bid items and /or specifications (contract bid items and specifications shall include city contract items as well as EP-7 items). The Resident Engineer shall also

examine the claim to determine if the application of EP-7 bid item "UTL-GCS-2WS - GAS INTERFERENCES AND ACCOMMODATIONS" is appropriate to resolve the claim. If upon examination, the Engineer determines that such field conditions were unanticipated (not shown and/or listed, or incorrectly shown in contract documents) and are not covered by bid items and contract specifications, he shall then direct the Contractor and the affected facility operator to negotiate the cost of supporting and protecting, and/or alleviating the impact on City work caused by such unanticipated gas facilities with each other with the understanding that the performance of City work shall continue during negotiations. If a cost agreement is reached, the Contractor and facility operator shall adjust such costs between themselves at no additional costs to the City contract. If the Contractor and affected facility operator do not reach an agreement concerning the price to be paid for the extra work within five (5) business days of the Engineer's directive to engage into such negotiations and, after considering: public safety and inconvenience, requirements of laws and regulations applicable to private utilities, integrity of all utility systems, including but not limited to sewer and water, gas, electric, telephone and, cable TV facilities, sound engineering practices, cost (long and short term) to all affected parties, and potential City work delays, then the Resident Engineer, depending on nature and severity of interferences with City work, shall either, direct the facility operator to relocate or replace its facilities at its own discretion and cost, reimbursable by NYCDEP under established gas cost sharing procedures or, direct the Contractor to perform the utility work on actual time, material and equipment costs basis pursuant to relevant contract requirements and amendments. Contract bid prices for any applicable items of work involved shall be applied, or converted to an allowance for time and material charges. Changes shall be for affected portions of utility work and, shall be processed with EP-7 funds.

5. Excavation:

All excavators shall notify the NYC/LI One Call Center at 1-800-272-4480 at least two (2) working days, not including the day of the call, but not more than ten (10) working days in advance of the start of any excavation work. The gas company(ies) will mark out its facilities within the project limits and provide Construction Inspector(s) during all excavation work in close proximity (within twelve (12) inches) to gas facilities. The Contractor shall exercise extreme caution when excavating in the vicinity of any gas facilities. Hand excavation shall be performed within twelve (12) inches of gas facilities. The Contractor prior to excavating underneath these facilities shall adequately support all gas facilities. Standard support details for gas facilities have been included in the specifications. Any damage to gas facilities shall be reported immediately to the gas company(ies). The Contractor shall be responsible for all cost associated with repairs made necessary by damages caused by his operations.

6. Backfilling And Street Restoration:

Backfilling operations and street restorations shall be in accordance with contract requirements.

7. Non-Responsive Bids:

Every gas (EP-7) bid item has a suggested "Not less than" value per unit indicated on contract bid sheet. Bids resulting in cost of less than suggested for EP-7 items are hereby prohibited and if submitted shall be considered NON-RESPONSIVE.

8. Minimum Clearances:

Clearance requirements for City work shall govern and supersede any clearance requirement of gas facility operator. Therefore, a minimum of twelve (12) inches clearance between private utilities and City water mains, sewers or related structures to be installed in this contract shall be maintained. When this clearance is not attainable, the Resident Engineer may allow a minimum of four (4) inches clearance. With less than twelve (12) inches clearance a neoprene/polyethylene shield (to be provided by facility operator) shall be installed as part of all work item specifications. However, if Resident Engineer determines that City work cannot be performed within allowable clearance and no reasonable City accommodation (no-cost change to City work) is possible, the City shall direct the facility operator to remove, relocate, shift, or alter their facility(ies) pursuant to the New York City Administrative Code.

9. Work By Facility Operator:

The facility operator may find it necessary to perform the following types of work during performance of City work: accommodating a contractor's request for gas facilities modifications (in order to facilitate City contractor's proposed construction method) or, remedial and emergency work on gas facilities proper with their own resources and materials if an approved method of construction for City work causes unanticipated disturbances to gas facilities or, replacing defective gas facilities when they are exposed by the Contractor and their actual conditions are observable by the facility operator. Also included in the above category of defective gas facilities are: the presence of environmental contaminants attributable to the gas facility in or around gas facilities. If such work is deemed required by the facility operator or if facility operator is directed by the City to address such deficiencies at any time during the course of construction, the Contractor shall modify the construction schedule at no cost to the City and allow the facility operator five (5) business days to perform such work without interferences. Additional costs to the facility operator (in cases of accommodations) or, Contractor (in cases of defective gas facilities) due to such gas work, if any, shall be the responsibility of the parties involved and not of the City. Such costs shall be a matter of adjustment between the Contractor and the facility operator.

10. Materials Furnished By Facility Operator:

It shall be the Contractor's responsibility to inspect material to be installed by him immediately upon delivery and advise the facility operator through its authorized representative, of all damaged materials. The Contractor at no additional costs to the City or the facility operator shall replace any material that is damaged or lost after the Contractor's inspection.

11. Liability And Insurance:

Notwithstanding the provisions of this contract, the existing division of liabilities to third parties shall remain the same as between the City and the company. Therefore, it is specifically agreed by the City, company and Contractor (by bidding on this contract) that for the purpose of any liabilities to third parties, that the City contractor performing work directly and physically relating to gas company facilities in this project, shall be deemed an agent of the company and not an agent of the City, the New York City Municipal Water Finance Authority, or the New York City Water Board. Contractor shall include the company as an additional insured on all insurance policies maintained to comply with the City's insurance requirements.

12. Width And Depth Of Excavation:

Contractor shall not be authorized to deliberately change trench or excavation widths and/or depth specified without Engineer's approval. Enlargement of any side of excavation up to eighteen (18) inches beyond pay limits (or inside face of sheeting) requested by the Contractor for the installation of certain types of sheeting may be granted. However, such enlargements or those greater than allowable shall not be approved when, in the sole judgment of the City, field conditions allow the water mains and sewer work to be performed within the limits specified and, the sole purpose of such enlargement request is to impact adjacent utilities (public or private) whose support and protection are part of this contract. Any approval shall be given at no additional cost to the City contract, including EP-7 funding, and all costs associated with unauthorized enlargements shall be the sole responsibility of the Contractor.

13. Depth And Crossing Angles Of Gas Facilities:

Where gas facilities are shown (or specified as) crossing proposed alignment of sewers, water mains, catch basins and chute connections or any other proposed excavations at specific angles (as measured off plans or sketches or specified in contract), it shall be understood that actual field measurements may deviate (plus or minus) forty-five (45) degrees from those shown or specified. The cover, or depth from street surface to top of facilities, shall be as shown or specified in contract documents, no deviation is to be assumed. Where gas facilities are not shown on contract documents, but their support and protection are otherwise included in this contract then, all references to facilities crossing at "various angles and depth" in the gas sections shall mean that such facilities are crossing sewer, water, catch basin and, catch basin chute, and other excavations at a ninety (90) degree angle to the proposed sheeting line or side of

excavation (for unsheeted trenches) with an allowable deviation of forty-five (45) degrees in any direction, except for catch basin chute excavation where the allowable deviation shall be sixty (60) degrees. Where the cover is not noted or specified, the bottom face of such facilities shall be assumed to be crossing catch basin chutes at a depth of three (3) foot eight (8) inches or less from the street surface. Paragraph No. 2 above shall apply in cases of distribution water main construction. Appropriate bid items and specifications are provided for cases where angle and depth are greater than stated above. This section also applies to work defined in "Emergency Reconstruction Contracts" or so-called "Where and When Contracts". These contracts are not pre-engineered and consequently have no drawings, sketches or determined locations and so, gas facilities encountered will be crossing existing and proposed sewer, water, catch basin/catch basin chutes and all appurtenances at various angles and depths.

14. Maintenance Of Traffic For Gas Work:

All work pertaining to gas bid items and specifications shall be performed within the contract maintenance of traffic plan as specified in the contract document. The bid price for the Maintenance and Protection of Traffic shall cover all work pertaining to gas items. The City shall make compensation for additional maintenance and protection of traffic items in connection with gas item of work only when such additional work is deemed reasonable and necessary by the Resident Engineer and is approved by him prior to its performance.

15. Relocated Gas And Temporary Systems Installation:

In cases where the Contractor is allowed to select the location for temporary construction such as, installation of dewatering headers, wells, well points, etc., he shall not disturb any gas facilities shown on sketches provided in this section. The only exception shall be, if the affected gas company agrees to such relocation and provided that the cost of such relocation is a matter of adjustment between the company and Contractor, and at no cost to the City.

16. Role Of Company Inspector:

In any case in which the City elects to perform some or all support and protection work with its own employees, personnel or contractors, the facility operator shall provide onsite inspectors to approve and certify such support and protection work (exclusive of City accommodations) performed by the City's own employees, personnel, and contractors. Facility operator's inspectors are not authorized to direct City contractor during the performance of contract work. They shall act through the City Resident Engineer and provide him/her required approvals and certifications, prior to preparing partial payments of EP-7 items, in a format and frequency to be prescribed by the appropriate City Head of Construction.

17. Coordination With Gas Company:

The Contractor shall be required to notify the gas company(ies), in writing, at least two (2) weeks prior to the start of final paving in order to allow companies to complete any unfinished gas work located within the area to be paved. Every effort shall be made to maintain gas service with minimum inconvenience to the public.

III - TECHNICAL SECTION

SECTION 6.01 - Trench Crossings; Support And Protection Of Gas Facilities And Services.

1. Description:

Under this section, the Contractor shall provide all labor, materials, equipment, and incidentals required to

support and/or protect the integrity of gas mains, services and appurtenances of any sizes, configurations, and operating pressures crossing trench excavations above subgrade for planned construction of sewers and water mains facilities. A gas service shall be defined as a gas pipe of three (3) inches in diameter or less branching from the main to a customer pick up point or property valve box. A gas main may be any size pipe that is part of a distribution or transmission network other than services described above. Crossings shall be defined as gas facilities spanning the width of excavation (one side to the other side). These crossings may be at various angles and depth as shown on "Gas Cost Sharing Work Standard Sketches Nos. 1 and 1A", and as specified in "General Provisions; Gas Cost Sharing Work Paragraph No. 13" and, at the locations shown or listed in contract documents. The gas company operating in the area, (facility operator), owns these facilities. The work shall be performed in accordance with contract specifications, plans, and at the directions of the Resident Engineer in consultation with the authorized representatives of the facility operator.

2. Method Of Construction:

- A. Protection: In general, the gas facilities shall be protected as required by New York State Industrial Code 753. In particular, the Contractor shall use hand excavation methods (pick and shovel or hand held power tools) directly below the pavement base to expose the gas facilities (marked out by facility operators) and to ascertain the clearances and cover of the facilities with respect to the proposed excavation. Upon exposing the affected facilities sufficiently, at the discretion of the Resident Engineer, to ascertain the foregoing, Contractor shall be permitted to proceed with a combination of hand and machine excavation, as appropriate, outside a zone of protection whose limit shall be defined as a perimeter located twelve (12) inches from the outside face of each gas facility crossings (See "Gas Cost Sharing Work Standard Sketch No. 2"). If the facilities are in direct interference with City work, meaning that "Minimum Clearances" described in "General Provisions; Gas Cost Sharing Work Paragraph No. 8" cannot be maintained, and excavation has to be temporarily or permanently abandoned then this particular location shall become a test pit and dealt with as specified in Section 6.07, and "General Provisions; Gas Cost Sharing Work Paragraphs Nos. 2 and 8".
- B. Support: Gas mains or services crossing excavations equal or less than four (4) feet wide are generally self supporting, unless field conditions as determined by the Resident Engineer require otherwise. The support requirements for gas mains and services crossing excavations greater than four (4) feet wide shall be as shown on the attached "Gas Cost Sharing Work Standard Sketch No. 1" and Contractor shall use sheeting methods that permit the maintenance of gas facilities in their existing locations and configurations. Alternate methods equivalent to those shown on the sketch or accommodations by the facility operator proposed by the Contractor in order to facilitate the execution of the specified work shall be allowable, provided that prior approval is obtained by the Contractor from the Engineer and the facility operator. The support and protection of gas facilities crossings shown on plans, drawings, listings or otherwise identified in this contract shall not be circumvented with the issuance of so called "order outs".

3. Method Of Measurement:

The Contractor shall be paid for supporting and/or protecting gas facilities crossing trench excavations under the appropriate bid items covered by this section. The Contractor shall be directly responsible to the facility operator for the total cost of using any alternate method requiring the use of resources owned by the facility operator. Regardless of the method used, the City shall pay the bid price for the appropriate support and/or protect item of work. The average rate charged by the facility operator for alternate support and protection work such as, disconnecting and reconnecting gas services is listed in attached "Schedule GCS-A".

4. Payment Restrictions:

These items shall not be paid for: gas services crossing unsheeted water main trench excavation; abandoned gas main/services identified by facility operator; gas mains/services crossing trench excavations for fire hydrant branch connections pipes, catch basins and/or chutes (sewer drain pipe), house sewer and/or water services; gas facilities encroaching any face of excavation for sewer and/or

water construction, all of which are covered under other contract sections. Also this item shall not be paid for new gas mains and services crossing water trenches when trenching for such new facilities has been performed by the Contractor in common with trench excavation for City work (overlapping trench limits). The cost of supporting and protecting such gas facilities crossings shall be deemed included in the cost of trench excavation for the new gas facilities. This payment restriction shall apply even if such common trench gas excavation is not part of the contract. The prices bid for items covered by this section represent full compensation to Contractor to completely perform the work described. No other bid items shall be combined with these items in order to pay for gas main and/or services crossing excavations specified herein.

5. Method Of Payment:

Each (Ea.) gas facility crossing trench excavation as described in these specifications shall be counted for payment.

6. Price To Cover:

The cost of timber/steel supports installed for gas facilities shall be included in the bid price. The bid price for each crossing shall also cover all additional supervision, labor, material (except those provided by the facility operator), equipment and insurance necessary to completely maintain the gas facilities without disruption of service to the customers and in accordance with contract plans, specifications and facility operator standards. The price shall also include: changes of method of operations; sheeting modifications where necessary to accommodate the gas facilities crossings; installation and removal of water pipe under gas facilities (so called "snaking"); extra care during excavation (including hand excavation under existing single and multiple gas facilities); extra backfilling and compaction around, over and under gas facilities; installation and removal of sheeting around gas facilities; associated maintenance and protection of traffic; barricades; and traffic plates that may be required to temporarily close and/or complete the work.

SECTION 6.02 - Extra Excavation For The Installation Of Catch Basin Sewer Drain Pipes With Gas Interferences.

1. Description:

Under this item, the Contractor shall provide all labor, materials, equipment, insurance, and incidentals for the extra excavation associated with the installation of catch basin sewer drain pipes (chute) under gas facilities of various sizes crossing the trench excavation at various angles and depth at the locations shown in the contract documents and also, for the support and protection of these facilities during associated excavation and backfill operations. The gas company operating in the area, (facility operator), owns these facilities.

2. Method Of Measurement:

The bid price shall be per location (Each) where extra excavation is required when catch basin sewer drain pipes are installed at an upstream invert depth lower than four (4) feet (up to a maximum of six (6) feet) from the proposed pavement grade because the bottom faces of interfering gas mains and appurtenances are located at a depth greater than three (3) foot eight (8) inches from proposed pavement surface (See "Gas Cost Sharing Work Standard Sketch No. 4").

3. Method Of Construction:

Incremental cost responsibility for chute excavation is determined by the first private facility encountered starting from catch basin structure proper and that prevents the installation of the chute connection at an upstream cover less than or equal to three (3) feet or any other minimum cover required to avoid City facilities (e.g. water, sewer, etc.) as directed by the Resident Engineer.

4. Payment Restrictions:

This item shall not apply and related bid item shall not be paid in cases where:

- A. Upstream invert chute is more than six (6) feet deep because of gas facilities.
- B. Chute cannot be installed above existing gas facilities because of interferences with other private facilities that are not otherwise covered under this contract, regardless of upstream invert depth.

The above cases shall be at no cost to the City, but shall be a matter of adjustment between the Contractor and the facility operator(s).

5. Price To Cover:

The bid price shall cover the additional cost of all additional supervision, labor, materials, equipment and insurance, to complete the installation of catch basins and associated sewer connections in accordance with the contract plans and specifications. The price shall include: excavation by hand around and under single and multiple gas facilities; locating, supporting and protecting gas facilities; backfilling and all other items necessary to perform all work incidental thereto including: installation and removal of drain pipe under gas facilities ("snaking"); widening of trenches to facilitate the above work; subsequent additional backfill and pavement restoration; modifying precast catch basin window to accommodate connection; changing sheeting method and configuration to accommodate gas facility crossings; maintenance and protection of traffic; barricades; and installation of traffic plates that may be required to temporarily close and/or complete the work. The price shall not include removal of ledge rock and/or excavation of boulders in open cut.

SECTION 6.02.1 - Extra Excavation For The Installation Of Catch Basin Sewer Drain Pipes With Upstream Inverts Greater Than Six (6) Feet.

1. Description:

Under this item, the Contractor shall provide all labor, materials, equipment, insurance and incidentals for the extra excavation of catch basin chutes where the upstream invert is greater than six (6) feet under gas facilities of various sizes crossing the trench excavation at various angles and depth at the locations shown in the contract documents or as determined by field conditions and also, for the support and protection of these facilities during the associated excavation, sheeting and backfilling operations.

2. Method Of Measurement:

The bid price shall be per location (Each) where extra excavation and sheeting is required when the catch basin chute installed at an upstream invert depth lower than six (6) feet from the proposed pavement grade because the bottom faces of the interfering gas mains and appurtenances are located at a greater depth than three foot eight inches from the proposed pavement surface only.

3. Method Of Construction:

Incremental cost responsibility for chute excavation is determined by the first private facility encountered during such excavation when initiated from catch basin structure and that prevents the installation of the chute at an upstream cover less than or equal to three (3) feet or any other cover required to avoid City facilities as directed by the Resident Engineer.

4. Payment Restriction:

This item shall not apply and related bid item shall not be paid in cases where:
Upstream invert chute is less than or equal to six (6) feet deep because of gas facilities. Section 6.02 shall be paid.

5. Price To Cover:

The bid price shall cover the additional cost of all supervision, labor, materials, equipment and insurance to complete the installation of catch basin and associated sewer connections in accordance with the contract plans and specifications. The price shall include: excavation by hand around and under single and multiple gas facilities; locating, supporting and protecting gas facilities incidental thereto; widening of trenches to facilitate the above work; subsequent additional backfilling and pavement restoration; modifying pre-cast basin window to accommodate connection; the installation of catch basin with deeper sumps as specified; additional sheeting and changes in sheeting method and configuration to accommodate gas facility crossings; maintenance and protection of traffic; barricades; and installation of traffic plates that may be required to temporarily close and/or complete the work.

SECTION 6.03 - Removal Of Abandoned Gas Facilities. All Sizes.

1. Description:

Under this section the Contractor shall provide all labor, materials, equipment, insurance and, incidentals required for the removal of abandoned gas mains, services, or appurtenances thereof, located within the street shown on the contract plans, owned by gas company operating in the project area (facility operator), used or to be used for or in connection with or to facilitate the conveying, transportation, distribution or furnishing of gas (natural or manufactured or mixture of both) for light, heat, or power, but does not include property used solely for or in connection with business of selling, distributing or furnishing of gas in enclosed containers. Such removal shall include only abandoned gas facilities that interfere with (i.e. cause additional work) City work.

2. Determination Of Operating Status Of Gas Facilities:

The Contractor shall notify facility operator, as required by New York State Industrial Code 753. Gas facilities shall not be removed without the approval of the facility operator whose authorized representative shall certify in writing (specific facility or area wide facilities certification) and in a timely manner acceptable to the Resident Engineer that abandoned facilities are free of combustible gas and any other environmental contaminants prior to removal. The Resident Engineer shall rely on facility operator's certification. The facility operator may request the excavation of test pits (See Section 6.07) for this determination ahead of City work and, Contractor shall provide safe access, facilitate and permit facility operator to enter test pit excavations for the purpose of testing gas facilities to be removed by the Contractor. However, facility operator may prefer to make this test during performance of City work, in order to issue the above certification. This shall be permitted provided that it is agreed that additional costs, if any resulting from this choice shall be a matter of adjustment between the Contractor and facility operator only, and at no cost to the City.

3. Restrictions:

The facility operator shall be solely responsible for its contaminated gas facilities, surrounding contaminated soil and their disposal and abatement procedures, unless contract bid items are applicable and provided for such work. In such cases, the quantity removed shall be charged to EP-7 bid item "UTL- GCS-2WS - GAS INTERFERENCES AND ACCOMMODATIONS" at the City bid prices.

4. Method Of Measurement:

Abandoned gas pipeline removal shall be measured for payment per linear foot of pipe and appurtenances removed.

5. Price To Cover:

The price shall cover all additional cost of supervision, labor, materials, equipment, and insurance necessary to complete this work in accordance with the contract plans and specifications, including excavation by hand around and under other City and facility operator owned properties and, where necessary, support and protection of such properties. The price shall also cover breaking, cutting, and/or burning of abandoned gas pipes and their disposal from the site; sealing open ends remaining in the excavation with concrete or caps (caps to be provided by the facility operator) and backfilling of the area where the pipeline has been removed with clean backfill. The price shall also include any required dump charges. This item does not include any type of extra excavation, backfilling, compaction, pavement removal and restoration associated with abandoned gas facilities removal, all of which are covered under Section 6.06.

SECTION 6.03.1 - Removal Of Abandoned Gas Facilities With Possible Coal Tar Wrap. All Sizes. (For National Grid Work Only)

1. Description:

Under this section the Contractor shall provide all labor, materials, equipment, insurance and, incidentals required for the removal of abandoned gas mains, services or appurtenances thereof, located within the street shown on the contract plans, owned by the gas company operating in the project area (facility operator), used or to be used for or in connection with or to facilitate the conveying, transportation, distribution or furnishing of gas (natural or manufactured or mixture of both) for light, heat, or power, but does not include property used solely for or in connection with business of selling, distributing or furnishing of gas in enclosed containers. Such removal shall include only abandoned gas facilities that interfere with (i.e. cause additional work) City work. These gas facilities may be coated with Coal Tar Wrap and so, may require special handling and disposal methods as specified in National Grid Standard Operating Procedure 12-2, Coal Tar Wrap Handling and 12NYCRR56.

2. Determination Of Operating Status Of Gas Facilities:

The Contractor shall notify facility operator, as required by New York State Industrial Code 753. Gas facilities shall not be removed without the approval of the facility operator whose authorized representative shall certify in writing (specific facility or area wide facilities certification) and in a timely manner acceptable to the Resident Engineer that abandoned facilities are free of combustible gas and any other environmental contaminants prior to removal. The Resident Engineer shall rely on the facility operator's certification. The facility operator may request the excavation of test pits (See Section 6.07) for this determination ahead of City work and, the Contractor shall provide safe access, facilitate and permit facility operator to enter test pit excavations for the purpose of testing gas facilities to be removed by the Contractor. However, the facility operator may prefer to make this test during performance of City work, in order to issue the above certification. This shall be permitted provided that it is agreed that additional costs, if any, resulting from this choice shall be a matter of adjustment between the Contractor and the facility operator only, and at no cost to the City contract. Should such investigation result in the determination that the abandoned gas facilities do not contain Coal Tar Wrap then the removal of said facilities shall be covered under separate item (See Section 6.03).

3. Requirements:

The City Contractor shall excavate abandoned gas facility sufficiently, either in its entirety, or at locations determined by Contractor to allow the removal of Coal Tar Wrap (if present on the abandoned gas facility) and to facilitate the safe extraction of manageable lengths of abandoned pipe without damage to adjacent facilities, utilities or City structures either parallel to or crossing above or below abandoned gas facility. The Contractor is to allow access to the designated cutting points within the Contractor's trench by authorized National Grid personnel who will remove the Coal Tar Wrap as per National Grid procedures. This work by National Grid personnel shall be performed in a timely fashion and shall not unduly impede the Contractor's progress and/or productivity. Upon completion of the coating removal, the Contractor shall be allowed to cut, burn or grind the gas facility and remove the section of abandoned pipe. The

Contractor at a site designated by the Contractor shall stockpile the removed pipe. The facility operator will be responsible to provide trucking and disposal services with its own personnel and shall remove the stockpiled pipes during off hours or during such time as agreed to by the Contractor. Since the pipe removed will remain the property of the facility operator and is to be disposed of by the facility operator, the facility operator shall be responsible for any required notifications, filings, dump charges and incidentals associated with the disposal of abandoned gas facilities found to contain Coal Tar Wrap.

4. Method Of Measurement:

Abandoned gas pipeline removal shall be measured for payment per linear foot of pipe and appurtenances removed.

5. Price To Cover:

The price shall cover all additional cost of supervision, labor, materials, equipment and insurance necessary to complete this work in accordance with the contract plans and specifications, including excavation by hand around and under other City and facility operator owned properties and, where necessary, the support and protection of such properties. The cost shall also include hand excavation in the area(s) of proposed abandoned pipe cut(s), cutting and/or burning of abandoned gas pipes and stockpile of removed sections of abandoned pipe and associated maintenance and protection of traffic, blocking and temporary fencing if required. The unit price shall also cover sealing open ends remaining in the excavation with concrete or end caps (end caps to be provided by the facility operator) and backfilling of the area where the abandoned pipeline has been removed with clean backfill material. This item does not include any type of extra excavation, backfilling, compaction, pavement removal and/or restoration (temporary and permanent) associated with abandoned pipe removal ("lost trench"), all of which are covered under separate Section 6.06. The price shall also include allowance for any loss of productivity by the Contractor due to required facility operator work to remove pipe coating and prepare pipe for cutting as well as any change in Contractor's excavation method, additional trucking and/or stockpiling costs.

SECTION 6.03.1a - Removal Of Abandoned Gas Facilities With Possible Coal Tar Wrap. All Sizes. (For Con Edison Work Only)

1. Description:

Under this section the Contractor shall provide all labor, material, equipment, insurance and, incidentals required to prepare abandoned gas mains, services and appurtenances thereof located within the street shown on contract plans, owned by the gas company operating in the project area (facility operator), for removal due to interference with proposed City work. These abandoned gas facilities were, at one time, used for or in connection with or to facilitate the conveying, transportation, distribution or furnishing of gas (natural, manufactured or a combination of both) for light, heat, or power, but does not include property used solely for or in connection with business of selling, distribution or furnishing of gas in enclosed containers. Such preparation for removal shall include only abandoned gas facilities that interfere with (i.e. cause additional work) City work. These gas facilities may be coated with Coal Tar Wrap which may contain asbestos or PCB's and so, may require special handling and disposal methods as specified in Con Edison - ASBESTOS MANAGEMENT MANUAL, CHAPTER 6 - ASBESTOS WORK PROCEDURES, SECTION 06.04 - COAL TAR WRAP REMOVAL. For under 25' (feet) in length and an approved NYC-DEP variance for over 25' (feet).

2. Determination Of Operating Status Of Gas Facilities:

The Contractor shall notify facility operator, as required by New York State Industrial Code 753. Gas Facilities shall not be removed without the approval of the facility operator whose authorized representative shall certify in writing (specific facility or area wide facilities certification) and in a timely manner acceptable to the Resident Engineer that abandoned facilities are free of combustible gas and any other environmental contaminants prior to removal. The Resident Engineer shall rely on the facility operator's certification. The facility operator may request the excavation of test pits (See Section 6.07) for

this determination ahead of City work and Contractor shall provide safe access, facilitate and permit facility operator to enter test pit excavations for the purpose of testing gas facilities. However, the facility operator may prefer to make this test during performance of City work in order to issue the above certification. This shall be permitted provided that it is agreed that additional costs, if any, resulting from this choice shall be a matter of adjustment between the Contractor and the facility operator only, and at no cost the City contract. Should such investigation result in the determination that the abandoned gas facilities do not contain Coal Tar Warp then the removal of said facilities shall be covered under separate item (See Section 6.03).

3. Requirements:

The Contractor shall excavate abandoned gas facility sufficiently, either in it's entirety, or at locations determined by Contractor to allow the removal of Coal Tar Wrap (if present on the abandoned gas facility) and to facilitate the safe extraction of manageable lengths of abandoned pipe without damage to adjacent facilities, utilities or city structures either parallel to or crossing above or below abandoned gas facility. The Contractor is to allow access to the designated cutting points within the Contractors trench by authorized Con Edison personnel who will remove the Coal Tar Wrap as per Con Edison and/or NYC-DEP approved procedures. This access shall conform to all applicable codes, rules & regulations. This work by Con Edison personnel shall be performed in a timely fashion and shall not unduly impede the Contractors progress and/or productivity. Upon completion of the coating removal, the Contractor shall be allowed to cut, burn or grind the gas facility and remove the section of abandoned pipe. Contractor shall designate a specific site to stockpile those removed pipes. The facility operator will be responsible to provide trucking and disposal services with its own personnel and shall remove the stockpiled pipes during off hours or during such time as agreed to by the Contractor. Since the pipe removed will remain the property of the facility operator and is to be disposed of by the facility operator, the facility operator shall be responsible for any required notifications, filings, dump charges and incidentals associated with the disposal of abandoned gas facilities found to contain Coal Tar Wrap.

4. Method Of Measurement:

Abandoned gas facility removal shall be measured for payment per linear foot of pipe and appurtenances removed.

5. Price To Cover:

The price shall cover all additional cost of supervision, labor, materials, equipment and insurance necessary to complete this work in accordance with the plans and specifications, including, but not limited to, excavation by hand around and under other City and facility operator owned properties and, where necessary, the support and protection of such properties. The cost shall also include hand excavation in the area(s) of proposed abandoned pipe cut(s), cutting and/or burning of abandoned gas pipes and stockpile of removed sections of abandoned pipe and associated maintenance of traffic, blocking and temporary fencing if required. The unit price shall also cover sealing open ends remaining in the excavation with concrete or end caps (end caps to be supplied by facility operator) and backfilling of the area where the abandoned pipeline has been removed with clean backfill material. This item does not include any type of extra excavation, backfilling, compaction, pavement removal and/or restoration (temporary and permanent) associated with abandoned pipe removal ("lost trench"), all of which are covered under separate Section 6.06. The price shall also include allowance for any loss of productivity by the Contractor due to required facility operator work to remove pipe coating and prepare pipe for cutting as well as any change in Contractor excavation method, additional trucking and/or stockpiling costs.

SECTION 6.04 - Adjust Hardware To Grade Using Spacer Rings/Adaptors. (Street Repaving.)

1. Description:

Under this section, the Contractor shall provide all labor, supervision, materials, equipment, insurance and

incidentals required to adjust to final grade gas street surface hardware located within the contract area boundaries shown on the plans. The gas company operating in the area, (facility operator), owns these facilities. The work shall be performed in accordance with the contract plans, specifications and at the directions of the Resident Engineer in concurrence with authorized representative of the facility operator.

2. Materials:

The facility operator shall furnish and deliver all prefabricated hardware parts required. These include adaptors for the grade adjustment proper and new street hardware if existing ones are found to be defective, all in accordance with the facility operator standards and City rules and regulations. The Contractor shall notify the facility operator of the installation schedule at least three (3) business days before materials are required on the site. Should the facility operator fail to deliver the necessary material according to any schedule mutually agreed upon by the Contractor and facility operator, the City shall not be responsible for any delays attributable thereto, nor for the failure of delivery of such materials. On project where material storage is not permitted on site, the facility operator shall deliver the required material to the Contractor's yard and it shall be the Contractor's responsibility to transport the material to the work site when needed for installation. It shall also be the Contractor's responsibility to inspect the materials to be installed by him immediately upon delivery and advise the facility operator through its authorized representative, of all damaged materials. The Contractor at no additional expense to the City or the facility operator shall replace any material that is damaged or lost after the Contractor's inspection.

3. Method Of Measurement:

The Contractor shall be paid for each six (6) inch round box and/or nine (9) inch square box adjusted to grade regardless of adjustment height requirements.

4. Price To Cover:

The unit price bid for this item shall include all additional labor, supervision, insurance, equipment and material (except those to be provided by the facility operator), required to adjust each box to grade as required in the contract plans and specifications. The bid price shall also include the removal of existing frames and covers from existing facilities to be salvaged and returned to the facility operator and, all material transportation from the Contractor's material storage yard to the work site. In addition the bid price shall include "chipping" around existing box using appropriate means and methods where grinding is required.

SECTION 6.05 - Adjust Hardware To Grade By Resetting. (Road Reconstruction.)

1. Description:

Under this item, the Contractor shall provide all labor, supervision, materials, equipment, insurance and incidentals required to adjust to the proposed grade gas street surface hardware located within the contract area boundaries shown on the plans. The gas company operating in the area, (facility operator), owns these facilities. The work shall consist of either building up or lowering or resetting the casting by removing the existing frame and cover building up or decreasing the existing installation, replacing the frame and/or cover if damaged or worn out, as determined by the Resident Engineer, with a new frame and/or cover furnished by the owner, and setting the frame and cover to new elevation. The work shall be performed in accordance with the contract plans, specifications and at the directions of the Resident Engineer.

2. Materials:

The facility operator shall furnish and deliver all new hardware parts required. The Contractor shall furnish materials such as mortar, bricks and concrete in compliance with contract requirements. At locations where high-early strength concrete is required under this contract to be placed adjacent to gas facilities, then the requirement for concrete shall be high-early strength complying with the current New York State Department of Transportation, Standard Specifications for Class F concrete. Existing castings may be

replaced as required and deemed necessary by the Engineer and by City rules and regulations. The Contractor shall install the new castings of various sizes furnished by the facility operator. The Contractor shall notify the facility operator of the installation schedule at least three (3) business days before materials are required on the site and, shall provide off-loading services to the facility operator. Should the facility operator fail to deliver the necessary material according to any schedule mutually agreed upon by the Contractor and facility operator, the City shall not be responsible for any delays attributable thereto, nor for the failure of delivery of such materials. Such delays shall be a matter of adjustment between the Contractor and the facility operator. On project where material storage is not permitted on site, the facility operator shall deliver the required material to the Contractor's yard and it shall be the Contractor's responsibility to transport the material to the work site when needed for installation. It shall also be the Contractor's responsibility to inspect the materials to be installed by him, immediately upon delivery and advise the facility operator through its authorized representative, of all damaged materials. The Contractor at no additional expense to the City or the facility operator shall replace any material that is damaged or lost after the Contractor's inspection.

3. Methods Of Construction:

The Contractor shall remove and reinstall existing castings or install new castings to the proposed grade. Setting and resetting the castings shall be done with mortar and brick according to the standards of the facility operator. Work shall be performed in a workmanlike manner. Castings that are deemed unacceptable for resetting shall remain the property of the facility operator and he shall be responsible for their removal and proper disposal from site. No traffic shall be allowed on adjusted street hardware until permitted by the Engineer.

4. Method Of Measurement:

The Contractor shall be paid for each gas hardware adjusted to grade regardless of size or adjustment height requirements (up or down).

5. Price To Cover:

The unit price bid for this item shall include all additional labor, supervision, insurance, equipment and material (except those to be provided by the facility operator), required to adjust each gas hardware to grade as required in the contract plans and specifications. The bid price shall also include the removal of existing frames and covers from existing facilities; building up the existing installations with bricks and mortar, or lowering the existing installation by removing bricks and mortar; replacing damaged frames and/or covers with new frames and/or covers furnished by the facility operator; setting the frames and covers to the new elevations; protect existing installations; repair minor structural damages to existing installations prior to resetting frames; unloading of furnished castings at the Contractor's yard and transporting castings from the Contractor's yard to the job site as required; completing the work in accordance with the contract plans, specifications and, at the directions of the Engineer. In addition the bid price shall include "chipping" around existing gas facilities using appropriate means and methods where grinding is required.

SECTION 6.06 - Special Care Excavation And Backfilling.

1. Description:

Under this section, the Contractor shall provide all labor, materials, equipment, insurance and incidentals required to support and protect the integrity of live gas facilities including mains, services, related structures and appurtenances during excavations. The gas company operating in the area, (facility operator), owns these facilities. The work shall be performed in accordance with the contract plans, specifications and at the directions of the Resident Engineer in consultation with authorized representatives of the facility operator.

2. Applicability Of Section:

This section shall apply to live gas facilities of various sizes located within two (2) feet of any face of unsheeted excavation, (unsheeted excavation refers to any excavation performed for city work and includes

excavations performed that are to be subsequently sheeted using approved methods) and paralleling or, encroaching any face of excavation. Also, for crossings greater than forty-five (45) degrees and/or located at a cover depth greater than five (5) feet from existing street surface. Parallel facilities are not exposed at any time during excavation (See "Gas Cost Sharing Work Standard Sketch No. 5"). Encroaching facilities are partially exposed inside the limit of excavation (See "Gas Cost Sharing Work Standard Sketch No. 5"). This section shall also apply to gas facilities crossing catch basins excavation, and catch basins sewer connections (chutes) trench excavation only when extra depth (covered in other section), is not required for chutes installations because of such utilities interferences (See "Gas Cost Sharing Work Standard Sketch No. 3"). This section shall also apply to gas services (if shown or otherwise listed in contract documents) crossing unsheeted excavations for water mains, gas facilities crossing fire hydrant branch connections, house sewer and/or water service connections excavations. This section shall also apply for so called "loss trench", as described further, and for additional excavation (pavement and/or soil), backfilling, compaction, roadway base and pavement restoration due to abandoned gas facilities, only if removed by Contractor. If operating status of gas facilities cannot be determined prior to excavation then such facilities shall be considered live and this section shall fully apply. The excavation around fully exposed live gas facilities along and within limits of excavation (not crossings) shall be covered by this section also (not shown on "Gas Cost Sharing Work Standard Sketch No. 5"), however the support requirement, if any is required, of such facilities is beyond the scope of these specifications and therefore shall be the responsibility of facility operator to determine and prescribe, at no cost to the City contract, but shall be a matter of adjustment between the Contractor and facility operator.

3. Payment Restriction:

No special care excavation shall be paid for abandoned gas facilities paralleling and/or encroaching excavation and therefore are not in direct interference with City work. Except as allowed in this section, the bid item specified under this section shall not be used in combination with items covered under other sections for work done due to a particular gas facility. This item shall not be paid for new gas facilities when trenching for such new facilities has been performed by the Contractor of record in common with trench excavation for City Work (overlapping trench limits). The cost of excavating with care as defined in this section shall be deemed included in the cost of trench excavation for the new gas facilities. This restriction shall apply even if such gas common trench excavation is not part of the contract. If facilities are in direct interference with City work, meaning that "Minimum Clearances" described in "General Provisions; Gas Cost Sharing Work Paragraph No. 8" cannot be maintained and excavation has to be temporarily or permanently abandoned then this particular location shall become a test pit and dealt with as specified in Section 6.07 and "General Provisions; Gas Cost Sharing Work Paragraphs Nos. 2 and 8".

4. Method Of Construction:

All excavation in the vicinity of gas facilities shall be as required by NYS Industrial Code 753. Where these facilities are paralleling and located two (2) feet or less from the limits of the proposed excavation, the Contractor shall use hand excavation methods (pick and shovel or hand held power tools) to ascertain the clearances of these facilities with respect to the proposed excavation. Once the location of these facilities with respect to the proposed excavation is verified to the satisfaction of the Resident Engineer, the Contractor shall then proceed with a combination of hand and machine excavation as required preserving the integrity of the facilities. The installation of timber supports or underpinning, when soil foundation cannot fully support partially exposed pipes, may be required to prevent pipe movement as directed by the Resident Engineer.

5. Method Of Payment:

The unit price for this work item shall be based on cubic yard (CY) of average excavation with care and, is to be considered as an incremental cost for performing City work with gas facilities interferences.

6. Method Of Measurement:

- A. For Paralleling Facilities: Volume calculated as: Depth as measured from existing street surface to the bottom of unsheeted trench excavation allowable by OSHA regulations, multiplied by, the width

measured as one (1) foot from the face of excavation toward the center of excavation, multiplied by the length of parallel facility, divided by twenty-seven (27) cubic feet per cubic yard (See "Gas Cost Sharing Work Standard Sketch No. 5"). The gas facility is no longer considered to be in interference once sheeting has been installed, therefore no further compensation for paralleling facilities as described above will be made.

- B. For Encroaching Facilities: Volume calculated as: Depth of trench as allowable by OSHA, maximum up to five (5) feet multiplied by, the width of partially exposed pipe plus one (1) foot, multiplied by the length of facility encroachment, divided by twenty-seven (27) cubic feet per cubic yard (See "Gas Cost Sharing Work Standard Sketch No. 5").
- C. Fully Exposed Gas Facilities: (Not shown on "Gas Cost Sharing Work Standard Sketch No. 5") along and inside trench and/or crossing trench at an angle greater than forty-five (45) degrees and/or a cover depth greater than five (5) feet from the existing street surface. The volume shall be measured as the depth of trench excavation multiplied by the distance measured along the sheeting line between two (2) points of intersections of the gas facilities and the sides of trench excavation, multiplied by the width of trench excavation.
- D. For Additional Excavation And Restoration Due To So Called "Loss Trench", When The Integrity Of Pavement And Soil Above And Around Existing Live Gas Facilities Cannot Be Maintained Due To Its Lack Of Cohesiveness: Volume shall be calculated as: Depth of unsheeted trench excavation multiplied by width measured as distance of facility from closest edge of unsheeted excavation plus, width of facility proper plus, one (1) foot or a maximum width of three (3) feet multiplied by length of facility fully exposed divided by, twenty-seven (27) cubic feet per cubic yard (not shown on "Gas Cost Sharing Work Standard Sketch No. 5").
- E. For Facilities Crossing Excavation For Catch Basins, Or Chutes Installations (When NYCDEP Funded) Or Fire Hydrant Branch Connections, Or Unsheeted Water Main Trench, Or House Sewer And/Or Water Services: Volume calculated as: Depth as measured from existing street surface to the bottom of the trench excavation multiplied by, the width taken as the outside diameter of pipe or the width of structure plus one (1) foot on either side (two (2) feet), multiplied by, the length of exposed facility crossing the trench, divided by twenty-seven (27) cubic feet per cubic yard (not shown on "Gas Cost Sharing Work Standard Sketch No. 5").

Overlapping volume dimensions measured as described above may occur when multiple facilities are paralleling excavations, encroaching excavations or crossing catch basins and catch basin chute installations. In such cases, all such facilities shall be counted as one limited by the extreme pipes, faces (See "Gas Cost Sharing Work Standard Sketch No. 2"). The volume shall then be calculated as described above.

7. Price To Cover:

The bid price shall also cover all additional supervision, labor, material, equipment and insurance necessary to excavate while protecting and maintaining (excluding supports for fully exposed live gas) gas facilities without disruption of service to the public and in accordance with contract specifications. The price shall also include, changes of sheeting method and excavation width configuration where necessary to accommodate gas facilities in their existing locations; difficulties during the installation of catch basins, chute connections, hydrant branch, and house sewer and water connections under or over gas facilities; loss of productivity due to slower rate of excavation (special care) during excavation, including the use of such methods as: hand excavation around existing single and multiple facilities, extra excavation and backfilling due to lost trench because of existing and adjacent gas facilities, compaction, removal of sheeting from the facilities, extra roadway base restoration and temporary pavement, associated maintenance and protection of traffic, barricades, and traffic plates that may be required to temporarily close and/or complete the work.

**SECTION 6.06A - Special Care Excavation and Backfilling for Transmission Mains.
(Transmission Main is described as any gas main with a MAOP greater than 124 psig)**

1. Description:

Under this section, the contractor shall provide all labor, materials (except for sand to be utilized for backfill of a one-foot envelope around the facility to be furnished by the facility operator), equipment, and incidentals required to support and protect the integrity of Gas Transmission Main during excavations. This facility is owned by the gas company operating in the area, hereafter referred to as facility operator. The work shall be performed in accordance with the contract plans, specifications and at the directions of the Resident Engineer in consultation with authorized representatives of the facility operator.

2. Applicability of Section:

This section shall apply to Transmission Main of various sizes located within any excavation sheeted or unsheeted (excavation refers to any excavation performed for city work and includes excavations performed that are to be subsequently unsheeted/sheeted using approved shoring methods and paralleling, encroaching, and crossing any excavation. Parallel facilities are not exposed at any time during excavation (within 2' of edge of excavation)). Encroaching facilities are partially/fully exposed inside the limit of excavation. This section shall also apply to gas facility crossing catch basins excavation and catch basins sewer connections (chutes), water mains, fire hydrant branch connections, sanitary sewer, storm sewer, combination sewer, house sewer and/or water service connections excavations. The excavation around fully exposed live gas facilities along and within limits of excavation shall be covered by this section also, however the support requirement, if any is required, of such facilities is beyond the scope of these specifications and therefore shall be the responsibility of facility operator to determine and prescribe, at no cost to the City contract, but shall be a matter of adjustment between the contractor and facility operator.

3. Payment Restriction:

The bid item specified under this section shall not be used in combination with items covered under other sections for work done due to a particular gas facility. This item shall not be paid for new gas facilities when trenching for such new facilities has been performed by the contractor of record in common with trench excavation for City Work (overlapping trench limits). The cost of excavating with care as defined in this section shall be deemed included in the cost of trench excavation for the new gas facilities. This restriction shall apply even if such gas common trench excavation is not part of the contract. If facilities are in direct interference with City work, meaning that "minimum clearances" described in the General Provisions for Gas Cost Sharing (Para. No.8) cannot be maintained, the excavation shall be abandoned and the contractor shall be compensated as per the provisions specified in Paragraphs Nos. 5 and 6 of this item (6.06A).

4. Method of Construction:

All excavations in the vicinity of gas facilities shall be as required by NYS Industrial Code 753. No saw cutting of pavement or masonry for gas mains having less than 2 feet of cover to break asphalt/concrete as determined by the facility operator. The contractor shall use power excavation for the removal of pavement or masonry but only to the depth of such pavement or masonry **(breaking of pavement or masonry shall be done by means of hand held pneumatic breaking equipment)**. Upon removal of pavement or masonry the contractor shall use hand excavation methods only **(pick and shovel; no power tools)** to ascertain the clearances of these facilities with respect to the proposed excavation. Once the location of these facilities with respect to the proposed excavation is verified to the satisfaction of the Resident Engineer and the facility operator the contractor shall then proceed with hand only within the zone of protection described as 2 feet from the face of the facility in all directions of the facility as required to preserve the integrity of the facility. Once outside of the zone of protection as described above the contractor may use a combination of hand and machine to complete the excavation.

5. Method of Payment:

The unit price for this work item shall be based on cubic yard (CY) of average excavation with special care and, is to be considered as an incremental cost for performing City work with gas facilities interferences.

6. Method of Measurement:

A. For Paralleling Facilities:

Volume calculated as: Depth as measured from existing street surface to the bottom of facility, multiplied by, the width measured as two (2) feet from the face of excavation toward the center of excavation, multiplied by the length of parallel facility, divided by twenty-seven (27) cubic feet per cubic yard Only hand excavation shall be utilized within the zone of protection identified as 2 feet from face of facility, beyond 2 feet from the face of facility the contractor can use a combination of hand and machine.

B. For Encroaching Facilities:

Volume calculated as: Depth as measured from existing street surface to the bottom of facility, multiplied by, the width measured as two (2) feet plus the exposed facility toward the center of excavation, multiplied by the length of the encroached facility, divided by twenty-seven (27) cubic feet per cubic yard. Only hand excavation shall be utilized within the zone of protection identified as 2 feet from face of facility, beyond 2 feet from the face of facility the contractor can use a combination of hand and machine.

C. Fully Exposed Gas Facilities:

Volume calculated as: Depth as measured from existing street surface to the bottom of facility, multiplied by, the width measured as two (2) feet from the face of the facility on either side plus

the facility, multiplied by the length of the facility, divided by 27 cubic feet per cubic yard. Only hand excavation shall be utilized within the zone of protection identified as 2 feet from face of facility in all directions, beyond 2 feet from the face of facility in all directions the contractor can use a combination of hand and machine.

D. For Additional Excavation And Restoration Due To So Called “Loss Trench”, When The Integrity Of Pavement And Soil Above And Around Existing Live Gas Facilities Cannot Be maintained Due To Its Lack of Cohesiveness:

Volume shall be calculated as: Depth of unsheeted trench excavation multiplied by width measured as distance of facility from closest edge of unsheeted excavation plus, width of facility proper plus, one (1) foot or a maximum width of three (3) feet multiplied by length of facility fully exposed divided by, twenty-seven (27) cubic feet per cubic yard (not shown on “Gas Cost Sharing Work Standard Sketch No. 5”).

E. For Facilities Crossing Excavation For Catch Basins, Or Chutes Installations (When NYCDEP Funded) Or Fire Hydrant Branch Connections, Or Unsheeted Water Main Trench, Or House Sewer And/Or Water Services:

Volume calculated as: Depth as defined above multiplied by, the width taken as the outside diameter of pipe or the width of structure plus one (1) foot on either side (two (2) feet), multiplied by, the length of exposed facility crossing the trench, divided by twenty-seven (27) cubic feet per cubic yard (not shown on “Gas Cost Sharing Work Standard Sketch No. 5”).

7. Price to Cover:

The bid price shall also cover all additional supervision, labor, material, equipment and insurance necessary to excavate while protecting and maintaining (excluding supports for fully exposed live gas) gas facilities without disruption of service to the public and in accordance with contract specifications. The price shall also include, changes of sheeting method and excavation width configuration where necessary to accommodate gas facilities in their existing locations; difficulties during the installation of catch basins, chute connections, hydrant branch, and house sewer, sanitary sewer, storm sewer, combination sewer and water connections under or over gas facilities; loss of productivity due to slower rate of excavation (special care) during excavation, compaction, removal of sheeting from the facilities, extra roadway base restoration and temporary pavement, associated maintenance of traffic, barricades, and traffic plates that may be required to temporarily close and/or complete the work. Breaking shall be done by means of hand held pneumatic breaking equipment. Inspection of exposed mains shall be performed by facility operator in a timely fashion and shall not unduly impede contractor’s progress or productivity.

SECTION 6.07 - Test Pits For Gas Facilities.**1. Description:**

Under this section, the Contractor shall furnish all labor, materials, insurance, equipment and appliances necessary to excavate, sheet and, maintain test pits at locations approved by the Resident Engineer in consultation with the facility operator. Test pits shall be dug in order to ascertain exact locations, cover and invert elevations, clearances, alignment and operating status (live or dead) of existing gas facilities. The Contractor shall inspect jointly with the Resident Engineer and facility operator, gas facilities and other structures uncovered, take all relevant measurements and elevations as directed by the Resident Engineer. Tests to determine operating status of gas facilities shall be performed by facility operator. The pits shall be covered with steel plates during daytime nonworking hours, and uncovered, as required, until the inspection work is completed. Testing of gas facilities may require a maximum of four (4) hours. Then, the pits shall be backfilled with clean fill, and resurfaced with temporary pavement. All traffic shall be maintained and all safety measures as stipulated shall be complied with.

2. Methods Of Construction:

- A. **Excavation:** Existing pavement to be removed shall be neatly cut along lines of removal with a saw or other approved equipment which leaves a neat straight joint line along the juncture with subsequently replaced pavement. Excavation in the vicinity of utilities and other structures shall be performed using hand tools. Use of hand operated pneumatic and electric jackhammers will be permitted only for breaking pavement and removal of masonry, concrete and boulders, or as otherwise directed by the Resident Engineer. The Contractor shall properly dispose of all materials excavated from test pits away from site. Test pits shall be excavated at locations shown on the contract drawings or as directed by the Resident Engineer. Additional test pits may be required and shall be excavated where required, as ordered by the Resident Engineer. All test pits shall be excavated to a depth and size necessary to locate the existing facilities. Sheeting shall be used when depth of excavation exceeds five (5) feet. The sheeting required shall be furnished and installed in full compliance with the State of New York and Federal Safety Codes requirements and as specified in contract, whichever is more stringent. Care shall be taken that no existing gas facilities or other structures are broken or damaged. All broken or damaged facilities shall be reported immediately to facility operator who shall decide whether such facilities shall be repaired or replaced by company forces or by City contractor and in conformance with "General Provisions; Gas Cost Sharing Work Paragraph No. 9". Contractor shall excavate all material encountered, including large masses of concrete, cemented masonry and boulders, as directed by the Resident Engineer. Any type of excavation protection used, shall satisfy the following:
- (a) Industrial Code Rule 753.
 - (b) Prevent injury to workers and the public, and avoid damage to existing water, sewer, and gas pipes or other structures, and to pavements and their foundations, through caving or sliding of the banks of the excavation.

Should it become necessary, as determined by the Resident Engineer, to enlarge any test pit in any dimension after sheeting has been placed, the Contractor shall remove portions of the sheeting, as necessary, enlarge the test pits as directed, and replace the sheeting without additional compensation for this work other than for the additional volume of material excavated.

- B. **Maintenance Of Test Pits:** Excavated test pits shall be maintained free of debris and kept dry by the Contractor in order to permit the inspection and measurements and to determine the locations of facilities. In order to accomplish this, Contractor shall, upon completion of excavation and placement of sheeting (if depth greater than five (5) feet), furnish and install adequate steel plates and posting over the excavated pits and shall temporarily remove all equipment debris and workers, and relocate barricades in order to open the full width of street to traffic during nonworking hours. The Contractor shall then, at no additional cost, relocate such barricades, barrels, cones and other warning devices and remove steel plates, as and when directed by the Resident Engineer to facilitate the inspection of

exposed facilities. When work is being performed and the pits are not covered with steel plates, the Contractor shall provide complete and safe access to the test pits as may be required, and he shall provide construction barricades and maintain traffic at all times as shown or as directed by the Resident Engineer. Upon completion of test pit inspection by the Resident Engineer, the pit shall be backfilled by the Contractor as specified in contract, except that backfill material shall conform to contract specifications for such purpose.

- C. Pavement And Sidewalk Restoration: After backfilling is completed, the Contractor shall construct a temporary pavement consisting of a minimum of four (4) inches thick asphaltic concrete mixture in roadway areas or a two (2) inches thick asphaltic concrete mixture in sidewalk areas in order to maintain existing pedestrian and vehicular traffic. This temporary pavement shall be maintained until permanent pavement and sidewalk replacement is constructed as specified in contract.

3. Measurements:

The quantity to be measured for payment shall be the number of cubic yards of material removed from within the limits of the pit dimensions as directed by the Resident Engineer. The volume occupied by existing pipes or other structures remaining within the maximum payment lines will not be deducted from the total volume measured except, where the cross sectional area of these facilities exceeds four (4) square feet. As determined by the Resident Engineer, the quantity measured for payment may be proportionate to a fair and reasonable estimate of gas responsibility in the total volume excavated.

4. Price To Cover:

The contract price bid per cubic yard for test pits shall cover all additional costs of labor, material, insurance, equipment, appliances and incidentals required to excavate test pits, including removal and disposal of excavated materials, sheeting, steel plating, backfill, compaction and temporary pavement and sidewalk restoration all in accordance with the specifications and as directed by the Resident Engineer. The price shall also include the cost of providing safe access to the excavation by facility operator for the performance of certain test to determine operating status of gas facilities prior to City work. The price shall also include support and protection of all gas facilities crossing excavation, paralleling and/or encroaching any face of excavation.

SECTION 6.08 - "NO TEXT"

SECTION 6.09 - Trench Excavation and Backfill for New Gas Mains and Services (For National Grid Work Only)

1. Description:

Under this section, the contractor shall furnish all labor, materials, equipment, insurance, permits and incidentals required to break/remove roadway and sidewalk pavement, excavate, backfill and restore gas trenches. The trench to be excavated shall be determined by the size of the gas facility to be installed. The work shall be performed in accordance with applicable specifications, and/or at the direction of the Resident Engineer in consultation with the facility operator.

2. Materials:

All materials used to excavate and prepare trenches shall be supplied by the Contractor and be approved by the facility operator in consultation with the Resident Engineer.

3. Method of Construction:

Excavation – The Contractor shall saw cut and/or break and remove existing roadway which may include

but is not limited to, asphalt, concrete and cobblestone, utilizing approved equipment that leaves a neat straight joint line along the juncture with subsequently replaced pavement. Prior to starting the trenching operation, the contractor shall excavate the appropriate gas main tie-in pits at the extremities of the gas main sections to be replaced. Test pits shall be excavated to determine exact location of all tie-in pits and at appropriate intervals along proposed trench excavation to verify lane and clearances as shown on the contract plans. The tie-in pits shall be adequately protected by the contractor using wood fencing or steel traffic plates until such time when the facility operator has completed the tie-in work. The Contractor shall be permitted to excavate utilizing a combination of machine and hand excavation, as field conditions warrant, and as directed by the facility operator. The trench shall be adjusted so as to provide for a nominal cover on the new gas facilities or as required based on field conditions, applicable specifications, or as directed by the facility operator in consultation with the Resident Engineer. The width of the trench shall be as directed by the facility operator in consultation of the Resident Engineer. The bottom of the trench shall be graded smooth with a minimum cushion of 3 inches of clean sand and in conformance with applicable specification and be compacted, to minimize initial settlement and to avoid "point" support of new gas facilities. All stones projecting into the trench bottom shall be removed, and the voids backfilled before the new gas facilities are installed. Where streets are not to final grade, the cover shall be measured from the final grade, or the existing grade, whichever provides the deeper trench. Excavation in the vicinity of utilities and other structures shall be performed using hand tools. The contractor shall properly dispose of all materials excavated away from site. Size and location of excavation shall be as directed by the facility operator in consultation with the Resident Engineer. Trenches shall be excavated to a depth and size necessary to facilitate the installation of the new gas facility and in conformance with the applicable specification. All existing facilities that are encountered during trench excavating shall be protected in a manner suitable to the facility operator in consultation with the Resident Engineer. Tight sheeting shall be used, as required, based on field conditions and/or when the depth of excavation is equal to or greater than five feet. Skeleton type sheeting will not be permitted. The sheeting required shall be furnished and installed in full compliance with the State of New York and Federal Safety Code requirements and in compliance with applicable specifications and/or as directed by the facility operator in consultation with the Resident Engineer. Care shall be taken that no existing gas facilities or other structures are broken or damaged. Contractor shall excavate all material encountered necessary to facilitate the installation of the new gas facilities, and as directed by the facility operator. Care should be taken to avoid damage to existing utility facilities and structures, and to pavements and their foundations, and to avoid caving or sliding banks within the excavation.

Maintenance of Trench Excavation - Excavated trenches shall be maintained free of debris and kept dry by the contractor. In order to accomplish this, contractor shall, upon completion of excavation and placement of sheeting (as required and/or if depth is equal to or greater than five feet), furnish and install adequate steel plates, as directed by the facility operator in consultation with the Resident Engineer, and posting over the excavated trenches and shall temporarily remove all equipment debris and workers, and relocate barricades in order to open the full width of street to traffic during non-working hours, as required based on DOT requirements. National Grid forces will perform all live gas main connections, dead gas main cut-outs, and/or service work associated with disconnecting and reconnecting from old to new gas main. The Contractor shall then, at no additional cost, relocate such barricades barrels, cones and other warning devices and remove steel plates, as and when directed by the facility operator in consultation with the Resident Engineer to facilitate the installation of the new gas facilities. When work is being performed and the excavations are not covered with steel plates, the Contractor shall provide complete and safe access to the trench as may be required, and shall provide construction barricades and maintain traffic at all times as shown or as directed by the facility operator in consultation with the Resident Engineer. The contractor has the responsibility to maintain and set to grade all National Grid hardware during backfill and pavement restoration. Upon completion of installation of the new gas facility, the trench excavation shall be backfilled by the contractor in accordance with Contract requirements and all backfill material shall conform to contract specifications for such purpose.

Pavement and Sidewalk Restoration - After backfilling is completed, the contractor shall install temporary pavement consisting of six inches (6") thick asphaltic concrete mixture in roadway areas or a two inches (2") thick asphaltic concrete mixture in sidewalk areas in order to maintain existing pedestrian and vehicular traffic. This temporary pavement shall be maintained until permanent replacement as specified in contract. Permanent pavement restoration shall be as required by the appropriate contract specifications and as

directed by the Resident Engineer.

4. Method of Measurement:

The quantity to be measured for payment shall be the number of cubic yards (C.Y.) of trench actually excavated, including roadway pavement, base and/or sidewalk concrete removed within the limits of the trench as directed by the Resident Engineer in consultation with the facility operator. The volume occupied by existing pipes or other structures will be deducted from the total volume measured as shown on contract drawing(s) Title: EP-7 SECT. 6.09 GAS SPECIALTY CONTRACTOR WORK, or as encountered based on existing field conditions.

5. Price to Cover:

The unit price bid per cubic yard for excavation shall include the cost of all supervision, labor, material, equipment, insurance and incidentals necessary to complete excavation trenches, including backfill, compaction testing and restoration of trenches and tie-ins pits as specified or shown on the contract, plans. The bid price shall also include the cost of coordinating the sewer and water main work to be performed by the contractor with the gas installation work to be performed by others. The price shall also include, associated maintenance of traffic, and traffic plates and openings and closings of plates as may be required in order to provide access to the facility operator during the new gas facility installation, and installing, removing and maintaining tight sheeting that may be required, cut, break and remove various thickness of surface and base pavement, excavate by hand, furnish, place and compact, in compliance with DOT requirements, clean sand backfill following installation of the gas facility. Any required removing, trucking, storing, and disposing of material shall be deemed included in the unit price. The price shall also include the cost of providing temporary pavement restoration. Permanent pavement restoration shall be deemed included in this item, as required and as directed by the Resident Engineer.

SECTION 6.09a Trench Excavation and Backfill for New Gas Mains and Services (For Con Edison Work Only)

1. Description:

Under this section, the contractor shall furnish all labor, materials, equipment, insurance, permits and incidentals required to break/remove roadway and sidewalk pavement, excavate, backfill and restore gas trenches. The trench to be excavated shall be determined by the size of the gas facility to be installed. The work shall be performed in accordance with applicable specifications, and/or at the direction of the Resident Engineer in consultation with the facility operator.

2. Materials:

All materials used to excavate and prepare trenches shall be supplied by the Contractor and be approved by the facility operator in consultation with the Resident Engineer. Clean sand backfill material shall be used and shall conform to Con Edison specification EO-1181-rev.6, General Specification for Backfilling of Trench and Small Openings.

3. Method of Construction:

Excavation – The Contractor shall saw cut and/or break and remove existing roadway which may include but is not limited to, asphalt, concrete and cobblestone, utilizing approved equipment that leaves a neat straight joint line along the juncture with subsequently replaced pavement. Prior to starting the trenching operation, the contractor shall excavate the appropriate gas main tie-in pits at the extremities of the gas main sections to be replaced. Test pits shall be excavated to determine exact location of all tie-in pits and at appropriate intervals along proposed trench excavation to verify lane and clearances as shown on the contract plans. The tie-in pits shall be adequately protected by the contractor using wood fencing or steel traffic plates until such time when the facility operator has completed the tie-in work. The Contractor shall be permitted to excavate utilizing a combination of machine and hand excavation, as field conditions warrant, and as directed by the facility operator. The trench shall be adjusted so as to provide for a nominal

cover on the new gas facilities or as required based on field conditions, applicable specifications, or as directed by the facility operator in consultation with the Resident Engineer. The width of the trench shall be as directed by the facility operator in consultation of the Resident Engineer. The width and depth of the trench shall conform to Con Edison Gas Operations drawing 309495 rev. 4, Trench Excavation for Gas Mains Up to 350 PSIG, or as directed by the facility operator in consultation of the Resident Engineer. The bottom of the trench shall be graded smooth with a minimum cushion of 3 inches of clean sand and in conformance with applicable specification and be compacted, to minimize initial settlement and to avoid "point" support of new gas facilities. All stones projecting into the trench bottom shall be removed, and the voids backfilled before the new gas facilities are installed. Where streets are not to final grade, the cover shall be measured from the final grade, or the existing grade, whichever provides the deeper trench. Excavation in the vicinity of utilities and other structures shall be performed using hand tools. The contractor shall properly dispose of all materials excavated away from site. Size and location of excavation shall be as directed by the facility operator in consultation with the Resident Engineer. Trenches shall be excavated to a depth and size necessary to facilitate the installation of the new gas facility and in conformance with the applicable specification. All existing facilities that are encountered during trench excavating shall be protected in a manner suitable to the facility operator in consultation with the Resident Engineer. Tight sheeting shall be used, as required, based on field conditions and/or when the depth of excavation is equal to or greater than five feet. Skeleton type sheeting will not be permitted. The sheeting required shall be furnished and installed in full compliance with the State of New York and Federal Safety Code requirements and in compliance with applicable specifications and/or as directed by the facility operator in consultation with the Resident Engineer. Care shall be taken that no existing gas facilities or other structures are broken or damaged. Contractor shall excavate all material encountered necessary to facilitate the installation of the new gas facilities, and as directed by the facility operator. Care should be taken to avoid damage to existing utility facilities and structures, and to pavements and their foundations, and to avoid caving or sliding banks within the excavation.

Maintenance of Trench Excavation - Excavated trenches shall be maintained free of debris and kept dry by the contractor. In order to accomplish this, contractor shall, upon completion of excavation and placement of sheeting (as required and/or if depth is equal to or greater than five feet), furnish and install adequate steel plates, as directed by the facility operator in consultation with the Resident Engineer, and posting over the excavated trenches and shall temporarily remove all equipment debris and workers, and relocate barricades in order to open the full width of street to traffic during non-working hours, as required based on DOT requirements. Con Edison forces will perform all live gas main connections, dead gas main cut-outs, and/or service work associated with disconnecting and reconnecting from old to new gas main. The Contractor shall then, at no additional cost, relocate such barricades barrels, cones and other warning devices and remove steel plates, as and when directed by the facility operator in consultation with the Resident Engineer to facilitate the installation of the new gas facilities. When work is being performed and the excavations are not covered with steel plates, the Contractor shall provide complete and safe access to the trench as may be required, and shall provide construction barricades and maintain traffic at all times as shown or as directed by the facility operator in consultation with the Resident Engineer. The contractor has the responsibility to maintain and set to grade all Con Edison hardware during backfill and pavement restoration. Upon completion of installation of the new gas facility, the trench excavation shall be backfilled by the contractor in accordance with Contract requirements and all backfill material shall conform to contract specifications for such purpose.

Pavement and Sidewalk Restoration - After backfilling is completed, the contractor shall install temporary pavement consisting of six inches (6") thick asphaltic concrete mixture in roadway areas or a two inches (2") thick asphaltic concrete mixture in sidewalk areas in order to maintain existing pedestrian and vehicular traffic. This temporary pavement shall be maintained until permanent replacement as specified in contract. Permanent pavement restoration shall be as required by the appropriate contract specifications and as directed by the Resident Engineer.

4. Method of Measurement:

The quantity to be measured for payment shall be the number of cubic yards (C.Y.) of trench actually excavated, including roadway pavement, base and/or sidewalk concrete removed within the limits of the trench as directed by the Resident Engineer in consultation with the facility operator. The volume occupied

by existing pipes or other structures will be deducted from the total volume measured as shown on contract drawing(s) Title: EP-7 SECT. 6.09 GAS SPECIALTY CONTRACTOR WORK, or as encountered based on existing field conditions.

5. Price to Cover:

The unit price bid per cubic yard for excavation shall include the cost of all supervision, labor, material, equipment, insurance and incidentals necessary to complete excavation trenches, including backfill, compaction testing and restoration of trenches and tie-ins pits as specified or shown on the contract, plans. The bid price shall also include the cost of coordinating the sewer and water main work to be performed by the contractor with the gas installation work to be performed by others. The price shall also include, associated maintenance of traffic, and traffic plates and openings and closings of plates as may be required in order to provide access to the facility operator during the new gas facility installation, and installing, removing and maintaining tight sheeting that may be required, cut, break and remove various thickness of surface and base pavement, excavate by hand, furnish, place and compact, in compliance with DOT requirements, clean sand backfill following installation of the gas facility. Any required removing, trucking, storing, and disposing of material shall be deemed included in the unit price. The price shall also include the cost of providing temporary pavement restoration. Permanent pavement restoration shall be deemed included in this item, as required and as directed by the Resident Engineer.

GAS COST SHARING STANDARD SPECIFICATIONS
SCHEDULE GCS-A

Average rate charged by utility companies to Disconnect and Reconnect Gas Services:

1. National Grid - \$586.90 per Service/and Visit
2. Con Edison - \$524.00 per Service/and Visit

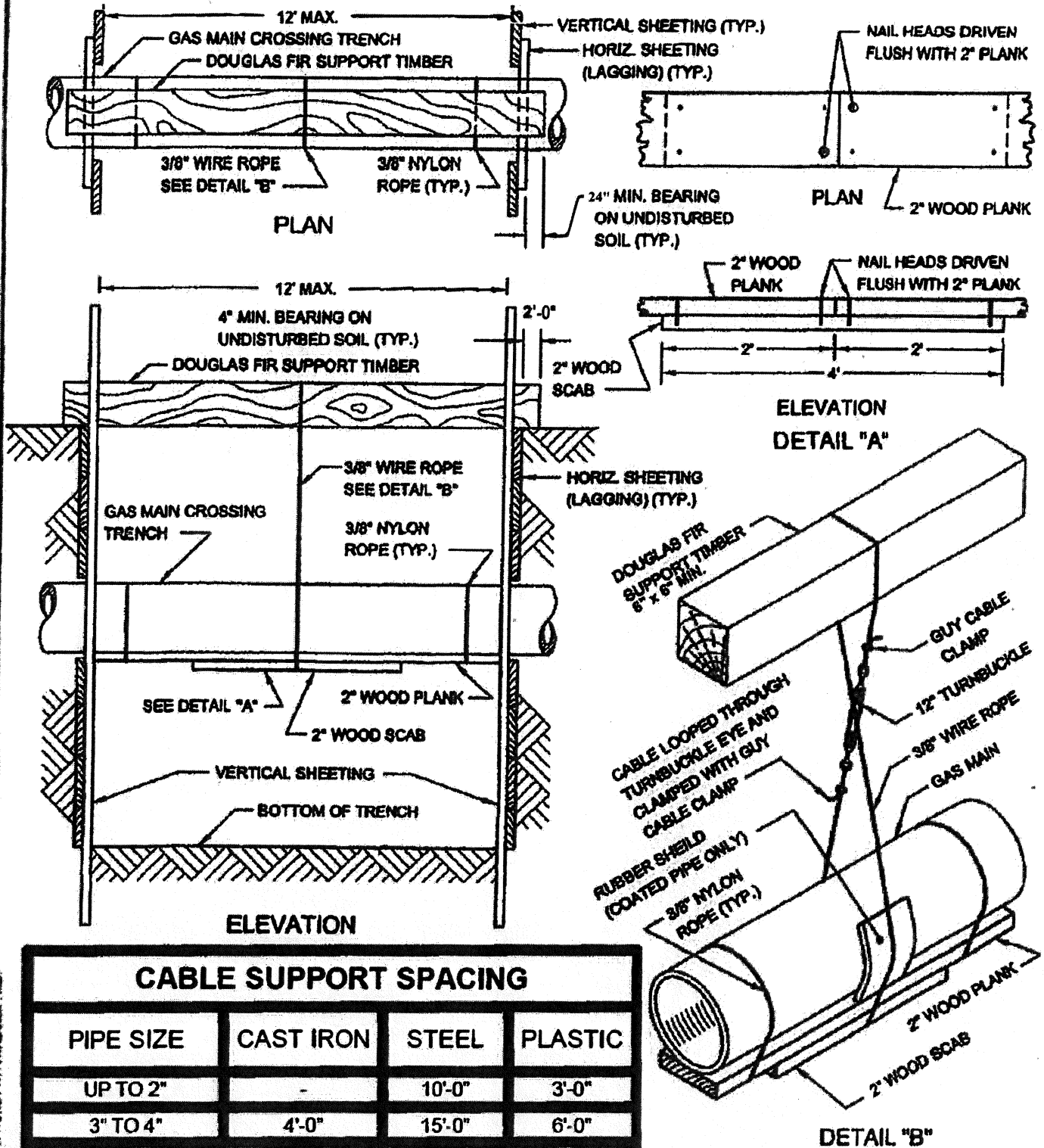
IV - STANDARD SKETCHES; GAS COST SHARING WORK

Hereinafter attached are the following Standard Sketches for Gas Cost Sharing Work:

- Sketch No. 1 - Support Requirements For Gas Mains And Services Crossing Excavation Greater Than 4' - 0" Wide At Any Angle
- Sketch No. 1A - Support Requirements For Gas Mains Over 16" Diameter Up To And Including 48" Diameter Crossing Excavation At Any Angle
- Sketch No. 2 - Typical Methods Of Measurement For Gas Crossings
- Sketch No. 3 - Utility Crossings During Catch Basin Chute Connection Pipe Installation
- Sketch No. 4 - Utility Crossings During Catch Basin Chute Connection Pipe Installation (Extra Depth)
- Sketch No. 5 - Gas Main Encroachment On And/Or Parallel To Excavation Of Unsheeted Trench

GAS COST SHARING WORK (SKETCH NO. 1)

SUPPORT REQUIREMENTS FOR GAS MAINS SUSPENDED IN EXCAVATIONS UP TO 12'-0" WIDE AT ANY ANGLE



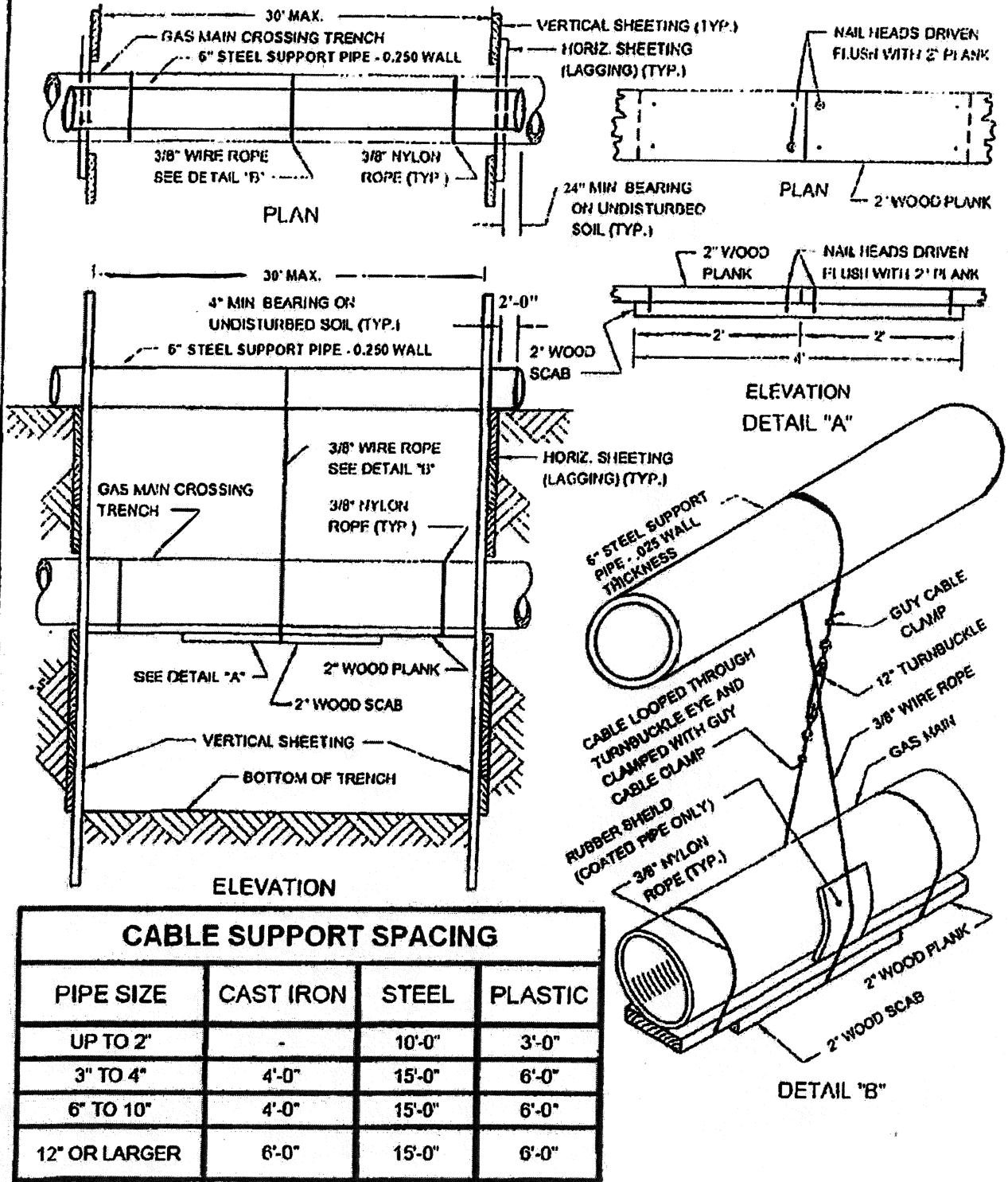
CABLE SUPPORT SPACING

PIPE SIZE	CAST IRON	STEEL	PLASTIC
UP TO 2"	-	10'-0"	3'-0"
3" TO 4"	4'-0"	15'-0"	6'-0"
6" TO 10"	4'-0"	15'-0"	6'-0"
12" OR LARGER	6'-0"	15'-0"	6'-0"

NOTE: SUPPORTS FOR GAS TRANSMISSION FACILITIES SHALL BE REVIEWED WITH GAS ENGINEERING PRIOR TO INSTALLATION.

REVISED DEC. 2019 - J.Y.P.
REVISIONS: 1. 12/1/19 - J.Y.P.
REVISIONS: 2. 12/1/19 - J.Y.P.

GAS COST SHARING WORK (SKETCH NO. 1A)
SUPPORT REQUIREMENTS FOR GAS MAINS SUSPENDED IN
EXCAVATIONS BETWEEN 12'-0" AND 30'-0" WIDE AT ANY ANGLE



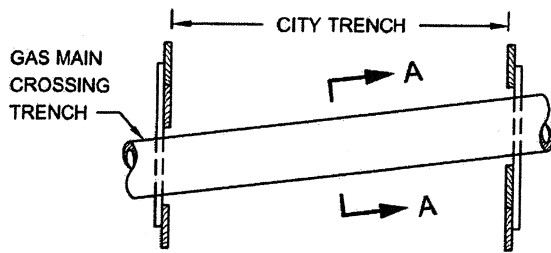
CABLE SUPPORT SPACING

PIPE SIZE	CAST IRON	STEEL	PLASTIC
UP TO 2"	-	10'-0"	3'-0"
3" TO 4"	4'-0"	15'-0"	6'-0"
6" TO 10"	4'-0"	15'-0"	6'-0"
12" OR LARGER	6'-0"	15'-0"	6'-0"

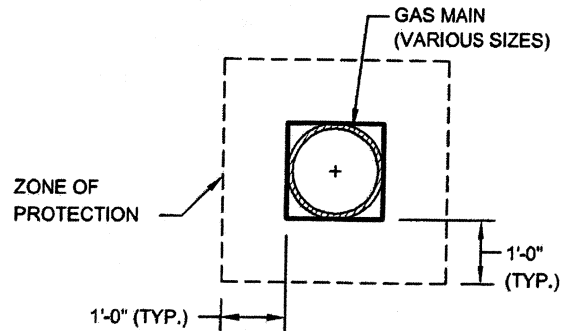
NOTE: SUPPORTS FOR GAS TRANSMISSION FACILITIES SHALL BE REVIEWED WITH GAS ENGINEERING PRIOR TO INSTALLATION.

GAS COST SHARING WORK (SKETCH NO. 2)

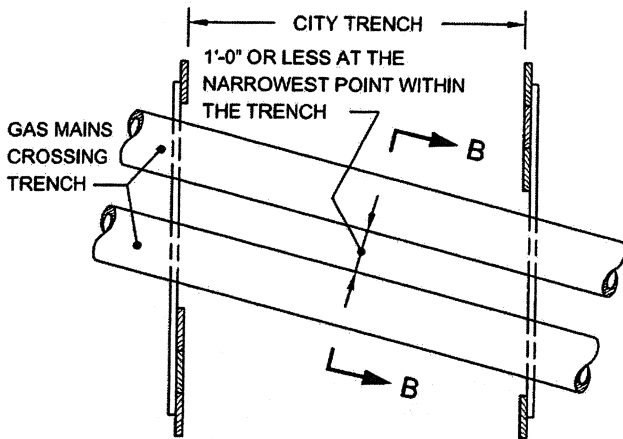
TYPICAL METHODS OF MEASUREMENT FOR GAS CROSSINGS



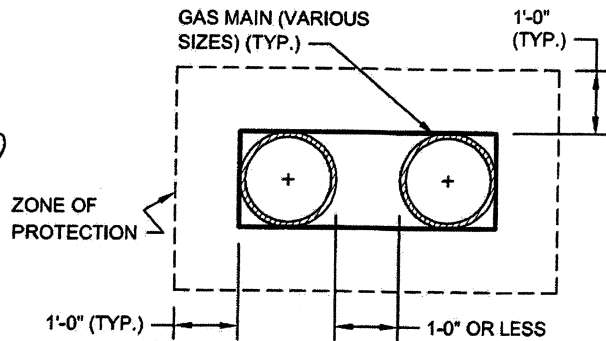
SINGLE FACILITY CROSSING



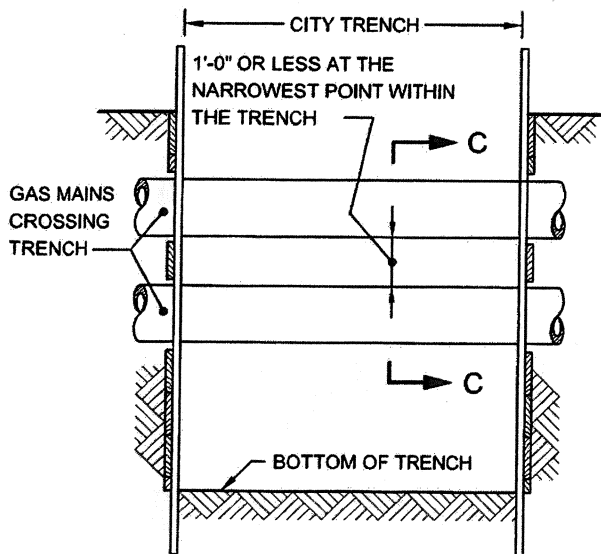
SECTION A-A



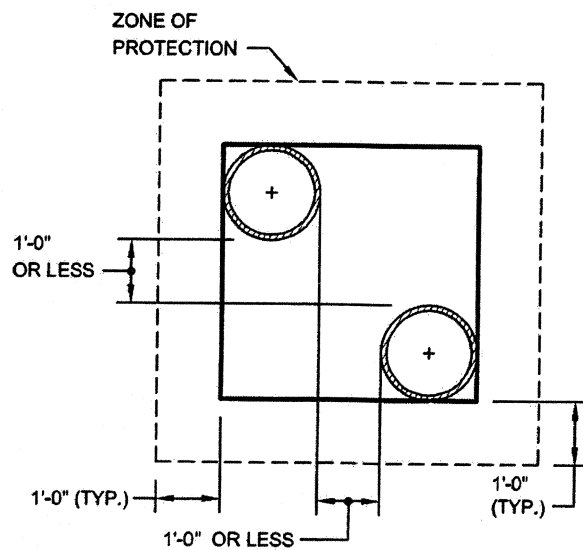
**MULTIPLE FACILITIES
(GAS MAINS AT SAME ELEVATION)**



SECTION B-B



**MULTIPLE FACILITIES
(ONE CROSSING AT DIFFERENT ELEVATIONS)**

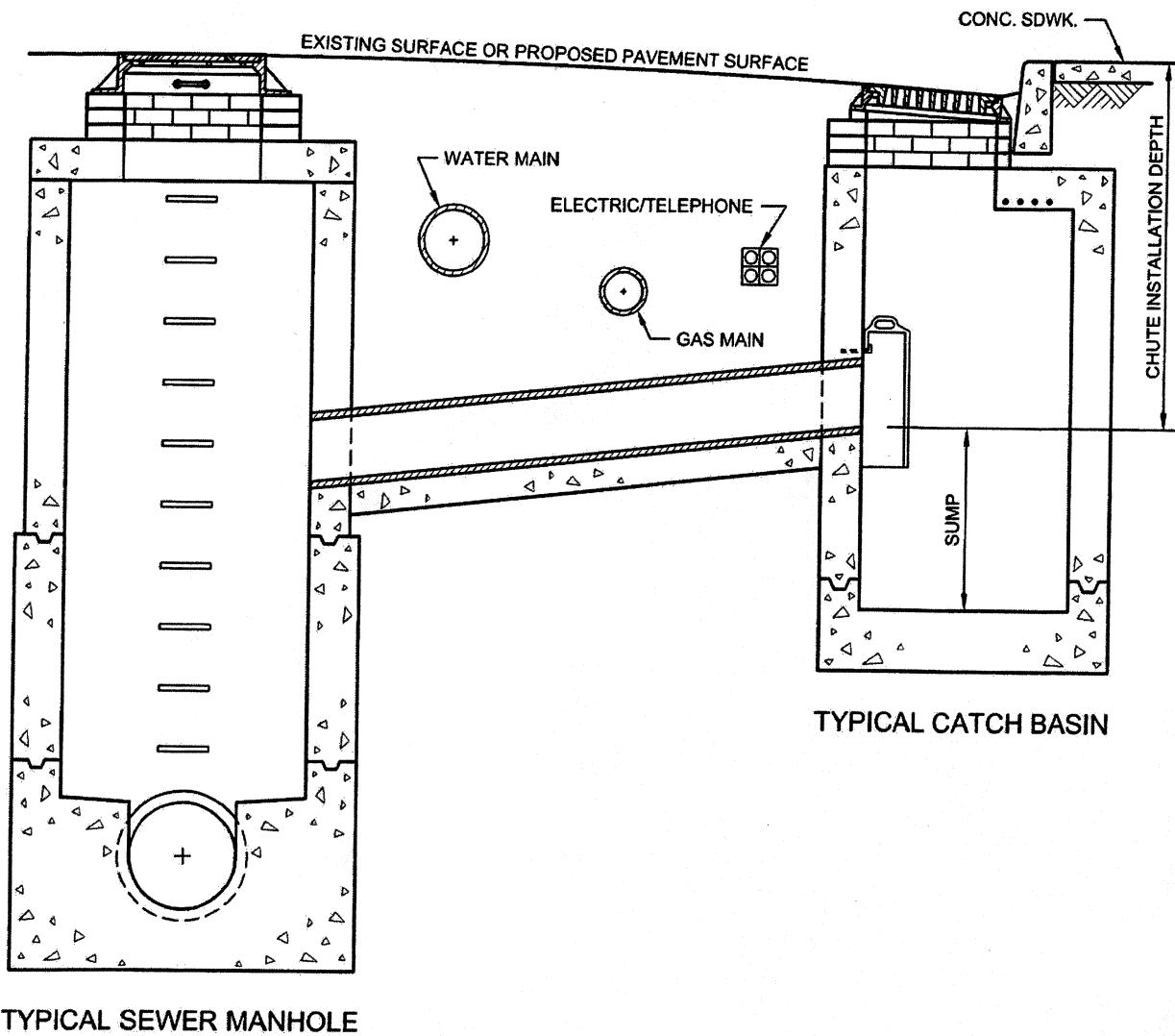


SECTION C-C

NOTE:

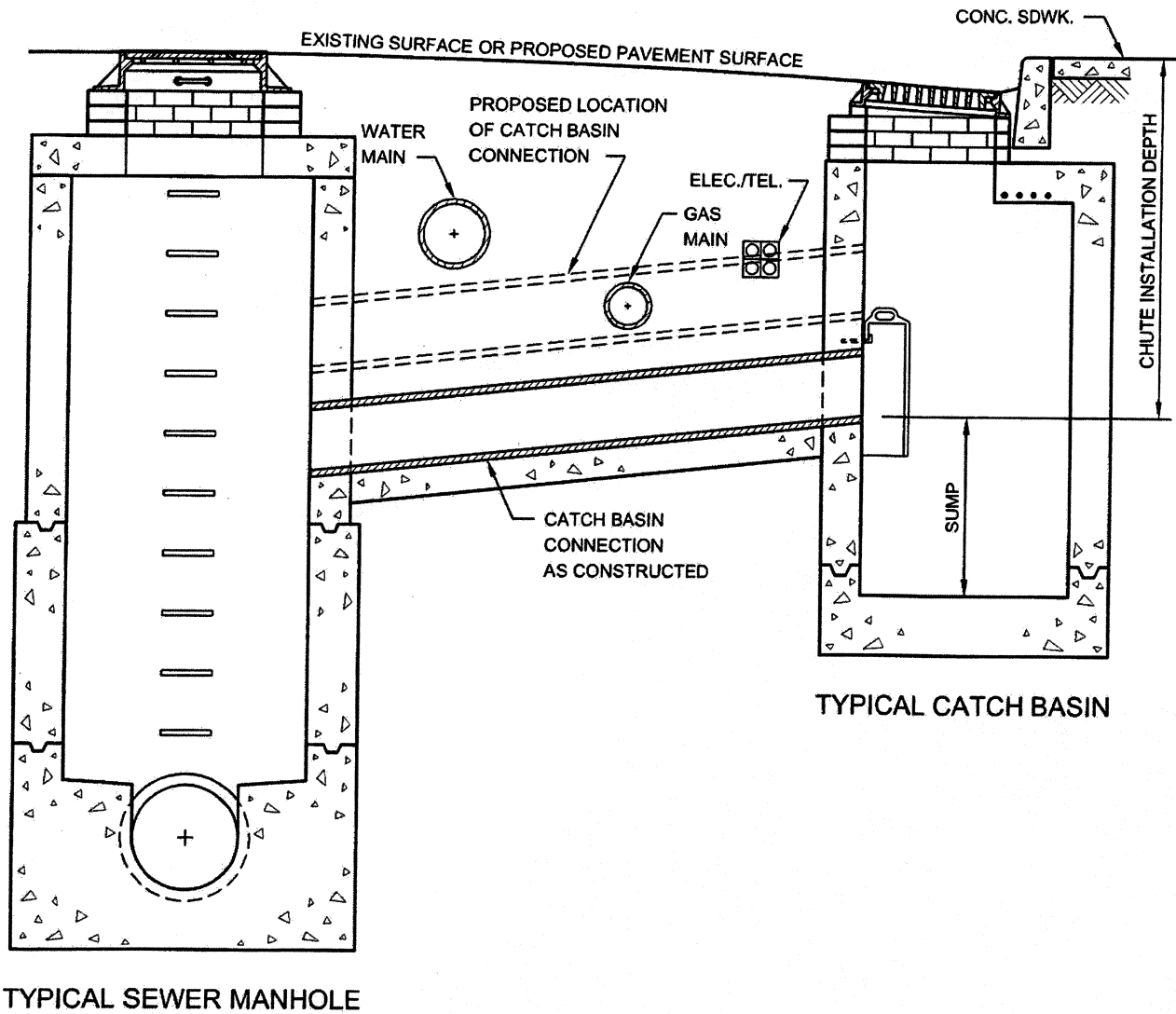
GAS MAINS MAY OR MAY NOT BE PARALLEL TO EACH OTHER.

GAS COST SHARING WORK (SKETCH NO. 3) UTILITY CROSSINGS DURING CATCH BASIN CHUTE CONNECTION PIPE INSTALLATION



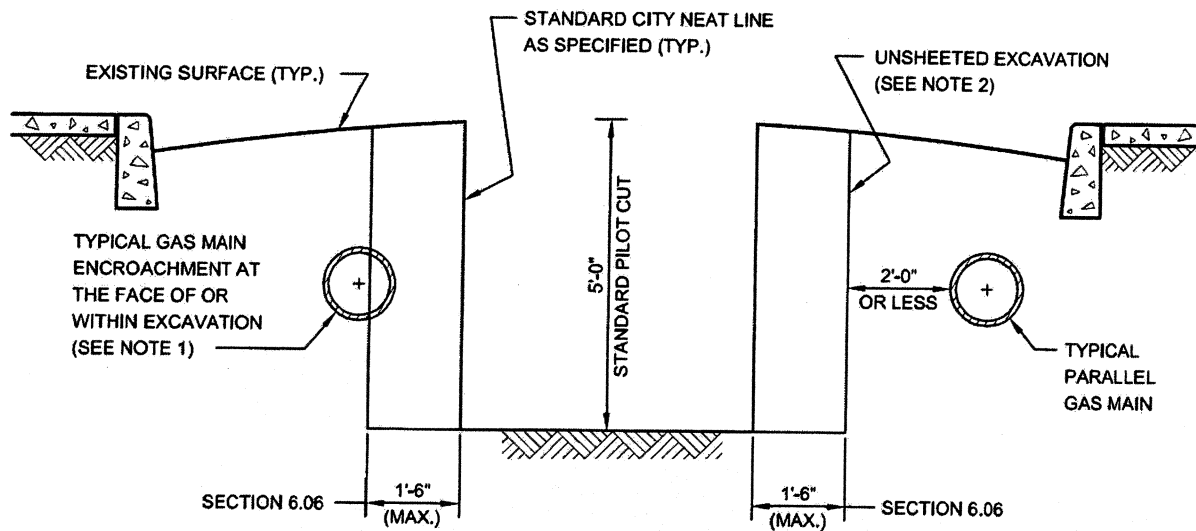
REVISED OCT. 2004 - L. ADRIEN
REVISED OCT. 1998 - J. WONG/M. PATALANO/P. MOY

GAS COST SHARING WORK (SKETCH NO. 4) UTILITY CROSSINGS DURING CATCH BASIN CHUTE CONNECTION PIPE INSTALLATION (EXTRA DEPTH)



REVISED OCT. 2004 - L. ADRIEN
REVISED OCT. 1998 - J. WONGGW. PATALANOP. MOY

GAS COST SHARING WORK (SKETCH NO. 5)
GAS MAIN ENCROACHMENT ON AND/OR PARALLEL
TO EXCAVATION OF UNSHEETED TRENCH



NOTES:

- (1) GAS MAIN LOCATED AS SHOWN MAY HAVE TO BE REMOVED BY THE FACILITY OPERATOR PRIOR TO THE START OF CITY EXCAVATION, OTHERWISE, THE CONTRACTOR WILL BE PAID UNDER SECTION 6.06 FOR THE SAID WORK. IF GAS MAIN IS ABANDONED THEN SECTION 6.03 SHALL APPLY.
- (2) EIGHTEEN (18) INCHES FROM STANDARD NEAT LINE IS THE MAXIMUM ALLOWABLE WIDTH OF AREA THAT MAY BE DISTURBED OR EXCAVATED DURING INSTALLATION OF CERTAIN TYPES OF SHEETING SYSTEMS THAT MEET THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS OF THE DEPARTMENT OF DESIGN AND CONSTRUCTION OF THE CITY OF NEW YORK.

REVISED OCT. 2004 - J. ADRIEN
 REVISED OCT. 1998 - J. WONGW. PATALANOP. MOY

**V - PRELIMINARY GAS WORK TO BE PERFORMED BY
FACILITY OPERATOR.**

APPLICABLE TO ALL GAS DRAWINGS:

- NO CAPITAL WORK IS ANTICIPATED AT THIS TIME.
- ALL SUPPORT AND PROTECTION WORK TO BE PERFORMED BY CITY CONTRACTOR
- IF ADDITIONAL INFORMATION IS NEEDED REGARDING THE FACILITY OPERATOR'S RELOCATION WORK, THE CONTRACTOR IS ADVISED TO CONTACT THE GAS COMPANY REPRESENTATIVE:

Neville Jacobs Jr.
National Grid USA ("National Grid")
287 Maspeth Avenue
Brooklyn, NY 11211
Tel: (718) 963-5612
Neville.Jacobs@nationalgrid.com

(NO TEXT IN THIS AREA, TURN PAGE)

**VI - LISTING OF APPROXIMATE LOCATIONS OF EP-7 BID
ITEMS QUANTITIES.**

(NO TEXT IN THIS AREA, TURN PAGE)

**SCOPE OF WORK
SUPPORT AND PROTECTION
FOR CONTRACT HWK-2048**

The City of New York Department of Design and Construction is proposing to install sewers and/or water mains and all appurtenances in various locations in The City of New York along with all work incidental thereto.

6.01.1(NG) - Gas Main Crossing Sewer Up to 24" in Diameter. (Ea.)

2 in Intersection of Seaview Ave & Paerdegat Ave North.

6.01.8(NG) - Gas Services Crossing Trenches and/or Excavations. (Ea.)

4 in Flatlands Ave bet. East 76 St & Ralph Ave.
3 in East 76 St bet. Flatlands Ave & Paerdegat Ave.

6.01.9(NG) - Gas Main Crossing Water Main Up to 20" in Diameter. (Ea.)

2 in Intersection of East 76 St & Flatlands Ave.

6.03(NG) - Removal of Abandoned Gas Facilities. All Sizes. (L.F.)

125 in Various Locations as Required.

6.03.1(NG) - Removal of Abandoned Gas Facilities with Possible Coal Tar Wrap. All Sizes. (L.F.)
(For National Grid Work Only)

175 in Various Locations as Required.

6.04(NG) - Adjust Hardware to Grade Using Spacer Rings/Adaptors (Street Repaving). (Ea.)

5 in Various Locations as Required.

**SCOPE OF WORK
SUPPORT AND PROTECTION
FOR CONTRACT HWK-2048**

The City of New York Department of Design and Construction is proposing to install sewers and/or water mains and all appurtenances in various locations in The City of New York along with all work incidental thereto.

6.05(NG) - Adjust Hardware to Grade by Resetting (Road Reconstruction). (Ea.)

8 in Various Locations as Required.

6.06(NG) - Special Care Excavation and Backfilling. (C.Y.)

500 in various locations as required, including but not limited to all gas services crossing un-sheeted water main trench.

6.06A(NG) - Special Care Excavation and Backfilling for Transmission Mains. (Transmission main is described as any gas main with a MAOP greater than 124-PSIG). (C.Y.)

75 in Various Locations as Required.

6.07(NG) - Test Pits for Gas Facilities. (C.Y.)

20 in Various Locations as Required.

6.09(NG) - Trench Excavation & Backfill for Gas Mains & Services. Gas Installed by Other (C.Y.) (For National Grid Work Only)

50 in Various Locations as Required.

END OF EP-7 (1.0) PAGES

**THE EP-7 PAGES CONSIST OF FORTY (40) PAGES,
INCLUDING THIS PAGE.**

HAZ - PAGES**SUPPLEMENTAL DOCUMENTATION FOR USE
WITH SPECIFICATIONS FOR HANDLING,
TRANSPORTATION AND DISPOSAL
OF NONHAZARDOUS AND POTENTIALLY
HAZARDOUS CONTAMINATED MATERIALS**

NOTICE

THE PAGES CONTAINED IN THIS SECTION ARE ISSUED FOR THE PURPOSE OF SPECIFYING THE REQUIREMENTS OF THE CONTRACT DOCUMENTS AND HEREBY MADE PART OF SAID CONTRACT DOCUMENTS.

(NO TEXT ON THIS PAGE)

SUPPLEMENTAL DOCUMENTATION FOR USE WITH SPECIFICATIONS FOR
HANDLING, TRANSPORTATION, AND DISPOSAL
OF POTENTIAL AND IDENTIFIED
CONTAMINATED AND HAZARDOUS MATERIALS

JAMAICA BAY GREENWAY - PAERDEGAT AVENUE NORTH CONNECTOR
FLATLANDS AVENUE FROM RALPH AVENUE TO EAST 76TH STREET, ETC.

BOROUGH OF BROOKLYN
CITY OF NEW YORK

Project ID: HWK2048

Prepared By:

 **Department of
Design and
Construction**
30-30 Thomson Avenue
Long Island City, New York 11101

May 27, 2022

These Haz-Pages are to be read in conjunction with the corresponding 8.01 sections of
STANDARD HIGHWAY SPECIFICATIONS, May 16, 2022.

ATTACHMENT 1: PHASE II SUBSURFACE CORRIDOR INVESTIGATION

- Final -

**Phase II Subsurface Corridor Investigation
for
Jamaica Bay Greenway - Paerdegat Avenue North Connector
Flatlands Avenue from Ralph Avenue to East 76th Street, etc.
Brooklyn, New York**

DDC PROJECT NO. HWK2048
WORK ORDER NO. OEHS-20201409799-WOL-119
CONTRACT REGISTRATION NO. 20201409799

Prepared for:



Office of Environmental and Hazmat Services
30-30 Thomson Avenue, 3rd Floor
Long Island City, New York 11101

Prepared by:



Louis Berger U.S., Inc.
96 Morton Street, 8th Floor
New York, NY 10014
Tel. (212) 612-7900 Fax (212) 363-4341
PROJECT NO. 31402661.080

November 12, 2021

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	B	Geologic Boring Logs
	C	Laboratory Analytical Results

EXECUTIVE SUMMARY

On behalf of the New York City Department of Design and Construction (DDC), Louis Berger U.S., Inc., a WSP Company (Louis Berger), conducted a Phase II Subsurface Corridor Investigation (Phase II SCI) for the HWK2048 Corridor located in the Canarsie section of the Borough of Brooklyn, New York (hereinafter referred to as the “Corridor”) to determine if the Corridor’s environmental condition might impact the proposed construction activities.

The activities consist of infrastructure improvement, including the permanent construction of a two-way, grade-separated Greenway path along Flatlands Avenue from Ralph Avenue to Paerdegat Avenue North and from Flatlands Avenue to Paerdegat 1st Street along Paerdegat Avenue North, as well as curb, sidewalk, sewer, water main, street lighting, and traffic work. Additionally, a concrete pedestrian island will be built to provide safer crossing at the intersection of Paerdegat Avenue North and Seaview Avenue, and a missing segment of the existing New York State (NYS) Bike Network will be constructed to connect the Canarsie neighborhood to Canarsie Park and Gateway National Recreation Area. The Corridor consists of two segments, described herein for ease of reference as the Northwestern and Southeastern Corridor Segments.

The approximately 0.61-mile (3,235-foot) long Corridor is identified on Figure 1 Topographic Corridor Location Map and segments are comprised of the following street segments:

Street Segments	Length (feet)
Northwestern Corridor Segment	
Paerdegat Avenue North from East 76 th Street to Paerdegat 2 nd Street	1,070
East 76 th Street from Flatlands Avenue to Paerdegat Avenue North	240
Flatlands Avenue from 20 feet northeast of Paerdegat Avenue North to Ralph Avenue	890
Ralph Avenue from 115 feet north to 170 feet south of Flatlands Avenue	375
Paerdegat Avenue South from Flatlands Avenue to 95 feet northwest of Flatlands Avenue	95
Paerdegat 1 st Street from East 77 th Street to 150 feet northeast of East 77 th Street	150
East 77 th Street from Paerdegat 1 st Street to 115 feet northwest of Paerdegat 1 st Street	115
Southeastern Corridor Segment	
Paerdegat Avenue North from Seaview Avenue to 125 feet northwest of Seaview Avenue	125

Street Segments	Length (feet)
Southeastern Corridor Segment Continued	
Seaview Avenue from 45 feet northeast to 70 feet southwest of Paerdegat Avenue North	175

The proposed depth of excavation for the Corridor was estimated to range from 6 feet below grade (ftbg) to 10 ftbg. Based on the review of available information provided by the DDC and discussions with the DDC Project Manager, Louis Berger proposed the advancement of five soil borings and the collection of soil and groundwater samples to characterize the subsurface conditions that may be encountered during construction. Groundwater samples were proposed to be collected from two soil boring locations, i.e., one each from the Northwestern and Southeastern Corridor Segments. However, groundwater was only encountered at one of the two locations during the Phase II SCI field activities.

The Phase II SCI of the HWK2048 Corridor was conducted by Louis Berger on September 14, 2021, and consisted of the following components:

- The advancement of five soil borings (SB01 to SB05) utilizing hand tools and/or Vactron and air knife. Soil borings were proposed to depths of 6 and 10 ftbg. However, since shallow groundwater was encountered above the proposed excavation depth at soil boring locations SB04 and SB05, the five soil borings were advanced to terminal depths ranging from 4 to 6 ftbg.
- To ensure the clearance of sensitive subsurface utility lines and features, boring locations were advanced to their terminal depths using evasive methods such as hand augers and/or Vactron and air knife;
- Field screening, classification and identification of soils from surface grade to the terminal depth of each boring. Soil samples were visually classified in the field using the Burmister Classification, Unified Soil Classification System (USCS), and Munsell Rock Color charts. Field screening of soils consisted of visual and olfactory indicators of impacts, as well as screening with a photoionization detector (PID);
- The collection of one grab soil sample from each of the five soil borings. The grab soil samples were collected from the 6-inch interval above the proposed bottom depth of the boring, or above the encountered water table. All five grab soil samples were analyzed for Target

Compound List (TCL) volatile organic compounds (VOCs) using U.S. Environmental Protection Agency (USEPA) Method 8260D. Additionally, grab soil samples from soil borings SB04 and SB05 were analyzed for TCL semi-volatile organic compounds (SVOCs) by USEPA Method 8270E, and polychlorinated biphenyls (PCBs) by USEPA Method 8082A to evaluate the presence of an open spill in the area of the proposed construction activities in the Southeastern Corridor Segment.

- The collection of one waste classification soil sample from each soil boring. The waste classification sample was a composite of the soil column from the ground surface to the bottom of the proposed excavation terminal depth or the water table (whichever came first). The waste classification samples were analyzed for Polycyclic Aromatic Hydrocarbons (PAHs) by USEPA Method 8270E, Total Petroleum Hydrocarbons-Diesel Range Organics/Gasoline Range Organics (TPH-DRO/GRO) by USEPA 8015D, PCBs by USEPA Method 8082A/608, Toxicity Characteristic Leaching Procedure (TCLP) Metals (Resource Conservation and Recovery Act [RCRA] 8) by USEPA Method 1311/6010D, and the three RCRA Characteristics, ignitability, reactivity, and corrosivity, by USEPA Methods 9012B/9034, 1030/1010A, and 9045D, as well as Paint Filter Test by USEPA Method 9095B;
- The collection of two groundwater samples from temporary well points (TWP), one to be installed in each Corridor Segment during the Phase II SCI Field activities; however, groundwater was only encountered in the Southeastern Corridor Segment at soil borings SB04 and SB05. Therefore, only one groundwater sample was collected from a TWP installed in boring SB04. The groundwater sample was analyzed for TCL VOCs using USEPA Method 8260D, SVOCs by USEPA Method 8270E, and PCBs by USEPA Method 8082A to evaluate the presence of an open spill in the area of the proposed construction activities in the Southeastern Corridor Segment, as well as for the New York City Department of Environmental Protection (NYCDEP) Sanitary or Combined Sewer Discharge Parameters; and,
- The preparation of this report, which includes tables summarizing the laboratory analytical results, and figures depicting boring locations, significant Corridor features and, if applicable, contamination occurrence and distribution.

In order to evaluate subsurface soil and groundwater quality for waste classification purposes, laboratory analytical results of soil and groundwater samples were compared with regulatory standards identified in: New York State Department of Environmental Conservation (NYSDEC) Subpart 375-6: Commercial Use (Track 2) Soil Cleanup Objectives (SCOs), Toxicity

Characteristic Regulatory Levels for Hazardous Waste published in RCRA and 6 New York Codes, Rules and Regulations (NYCRR) Part 371, NYSDEC Class GA Groundwater Standards and Guidance Values as per NYSDEC Technical and Operational Guidance Series (TOGS), and NYCDEP Sanitary or Combined Sewer Discharge Parameters.

Based on the evaluation of the field screening data and the laboratory analytical results, and a comparison to applicable regulatory standards, the following findings and conclusions are presented:

Findings and Conclusions

- No visual or olfactory indications of contamination were observed in any of the five soil borings, including PID readings;
- Fill material consisting of dusky yellowish brown to light brown, and very light gray to black coarse to medium gravelly sand, and silty sandy to sandy clayey silt was observed in all five borings at depths ranging from 0 to 6 ftbg. Anthropogenic fill (such as wood) was encountered in SB03 at a depth ranging from 1.0 to 6.0 ftbg;
- Bedrock was not encountered at any of the boring locations;
- Groundwater was encountered in soil borings SB04 and SB05 at depths between 3.0 (SB04) and 4.0 ftbg (SB05). Groundwater was also measured in TWP01 at a depth of 4.0 ftbg;

SOIL

- No VOCs were detected above the laboratory's reporting limits in any of the five grab soil samples collected as part of this Phase II SCI;
- Four SVOCs were detected above the laboratory's reporting limits in one of the two grab soil samples; however, all concentrations were below the applicable regulatory standards;
- No PCBs were detected above the laboratory's reporting limits in either of the two grab soil samples collected as part of this Phase II SCI;
- The analytical laboratory results of the five waste classification soil samples show that the RCRA parameters (reactivity, ignitability, and corrosivity) were within the RCRA standards.

Therefore, results of these analyses indicate that the soil samples collected do not exhibit evidence of hazardous waste characteristics for reactivity, ignitability, and corrosivity.

- Waste classification laboratory results indicate that TCLP lead was detected in four of the five samples; however, one waste classification soil sample, SB03 (16 mg/L), exceeded the RCRA Hazardous Waste Action Level of 5 mg/L. Therefore, one soil sample collected from the Corridor exhibits evidence of the hazardous waste characteristic for toxicity. Waste classification laboratory results indicate that TCLP barium was detected in four soil samples; however, all detected concentrations were below the applicable regulatory standards. Lithology indicates the presence of fill material in all soil borings; therefore, the TCLP lead and barium detections may be attributed to contaminants related to fill material;
- TPH-DRO was detected above the laboratory's reporting limits in one of the five waste classification soil samples at a concentration of 120 ppm (SB02), while TPH-GRO was not detected above the laboratory's reporting limits in any of the five waste classification soil samples. There are no regulatory standards for TPH. Lithology indicates the presence of fill material in all soil borings; therefore, the TPH detections may be attributed to contaminants related to fill material;
- No PCBs were detected above the laboratory's reporting limits in any of the waste classification soil samples collected as part of this Phase II SCI;
- Several PAHs were detected above the laboratory's reporting limits in all five of the waste classification soil samples; however, all detected concentrations were below the applicable regulatory standards;

GROUNDWATER

- No VOCs were detected above the laboratory's reporting limits in the groundwater sample collected as part of this Phase II SCI;
- No SVOCs were detected above the laboratory's reporting limits in the groundwater sample collected as part of this Phase II SCI;
- No PCBs were detected above the laboratory's reporting limits in the groundwater sample collected as part of this Phase II SCI;

- Analytical laboratory results of the groundwater sample showed no exceedances of the NYCDEP Sewer Discharge Criteria in the groundwater sample collected during the Phase II SCI activities.

Based on the results of the field investigation and laboratory analytical results, the following recommendations are provided:

Recommendations

- The contract documents should identify provisions and a contingency for managing, handling, transporting and disposing of any hazardous contaminated soils. The Contractor should be required to submit a Material Handling Plan to identify the specific protocol and procedures that will be employed to manage the waste in accordance with applicable regulations;
- Dust control procedures are recommended during excavation activities to minimize the creation and dispersion of fugitive airborne dust. The Contractor may implement dust control measures to minimize potential airborne contaminants (i.e., SVOCs, TPH and metals) released into the ambient environment as a direct result of construction activities;
- Groundwater was encountered during the Phase II SCI activities at depths ranging from 3.0 to 4.0 ftbg in the Southeastern Corridor Segment. If dewatering is necessary, the Contractor will be required to obtain a NYCDEP sewer discharge permit and perform sampling and laboratory analysis prior to discharge into the sanitary or combined sewers;
- In addition, if discharge into storm sewers, which ultimately discharge into a surface water body, is required during dewatering, it may be performed under the appropriate NYSDEC State Pollutant Discharge Elimination System (SPDES) permit. Additional sampling and laboratory analysis may be required to satisfy NYSDEC requirements prior to discharge into storm sewers; and,
- Before beginning any excavation activity, the contractor should submit a Corridor-specific Health and Safety Plan (HASP) that will meet the requirements set forth by the Occupational, Safety and Health Administration (OSHA), the New York State Department of Health (NYSDOH) and any other applicable regulations. The HASP should identify the possible locations and risks associated with the potential contaminants that may be encountered, and the administrative and engineering controls that will be utilized to mitigate concerns.

1.0 INTRODUCTION

On behalf of the New York City Department of Design and Construction (DDC), Louis Berger US, Inc., a WSP Company (Louis Berger) conducted a Phase II Subsurface Corridor Investigation (Phase II SCI) for the HWK2048 Corridor located in the Canarsie section of the Borough of Brooklyn, New York (hereinafter referred to as the “Corridor”) to determine if the Corridor’s environmental condition might impact the proposed construction activities.

The activities consist of infrastructure improvement, including the permanent construction of a two-way, grade-separated Greenway path along Flatlands Avenue from Ralph Avenue to Paerdegat Avenue North and from Flatlands Avenue to Paerdegat 1st Street along Paerdegat Avenue North, as well as curb, sidewalk, sewer, water main, street lighting, and traffic work. Additionally, a concrete pedestrian island will be built to provide safer crossing at the intersection of Paerdegat Avenue North and Seaview Avenue, and a missing segment of the existing New York State (NYS) Bike Network will be constructed to connect the Canarsie neighborhood to Canarsie Park and Gateway National Recreation Area. The Corridor consists of two segments, described herein for ease of reference as the Northwestern and Southeastern Corridor Segments.

The approximately 0.61-mile (3,235-foot) long Corridor is identified on Figure 1 Topographic Corridor Location Map and segments are comprised of the following street segments:

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Paerdegat 1 st Street from East 77 th Street to 150 feet northeast of East 77 th Street	150
East 77 th Street from Paerdegat 1 st Street to 115 feet northwest of Paerdegat 1 st Street	115
Southeastern Corridor Segment	
Paerdegat Avenue North from Seaview Avenue to 125 feet northwest of Seaview Avenue	125

Street Segments	Length (feet)
Southeastern Corridor Segment Continued	
Seaview Avenue from 45 feet northeast to 70 feet southwest of Paerdegat Avenue North	175

The proposed depth of excavation for the Corridor was estimated to range from 6 feet below grade (ftbg) to 10 ftbg. Based on the review of available information provided by the DDC and discussions with the DDC Project Manager, Louis Berger proposed the advancement of five soil borings and the collection of soil and groundwater samples to characterize the subsurface conditions that may be encountered during construction. Groundwater samples were proposed to be collected from two of the soil boring locations. However, groundwater was only encountered at one of the soil boring locations during the Phase II SCI field activities.

1.1 Summary of Previous Environmental Investigations

Louis Berger prepared a Phase I Corridor Assessment Report (CAR) for the HWK2048 Corridor on December 4, 2019. The Phase I CAR presented the results of an investigation to document the current use, a review of Sanborn fire insurance maps to document historical use, and a review of the state and federal government databases to identify sites on or adjoining the Corridor that constitute a potential environmental concern.

Based on the DDC Risk Criteria protocol, Louis Berger initially identified 94 “High” risk sites that might pose potential impacts to the Corridor. After evaluation of additional modifying information, 20 final “High” risk sites were identified.

“High” Risk Sites:

Site No.	Facility Name	Address	Risk Site No.
Northwestern Corridor Segment			
1	New York City Department of Environmental Protection Paerdegat Pumping Station Water Treatment Plant, and Dragonetti Floral Designs NYC (historical fill material)	1875 to 1945 Ralph Avenue, 1051 Bergen Avenue	H#1

Site No.	Facility Name	Address	Risk Site No.
Northwestern Corridor Segment			
2	Intersection of Flatlands and Ralph Avenues (historical gasoline and pump operations)	Intersection of Flatlands Avenue and Ralph Avenue	H#2
3	Arch Diner (historical filling station and tire service operations)	5916 to 5918 Flatlands Avenue, 1866 Ralph Avenue	H#3
4	Undeveloped Lot (historical filling station and auto services)	5801 to 5829 Flatlands Avenue, 965 to 977 East 58 th Street, 892 to 896 East 59 th Street	H#4
5	Arch Auto Parts	5913 to 5929 Flatlands Avenue, 868 to 874 Paerdegat Avenue South	H#5
6	Eris's New Vision Auto Repair	863 Paerdegat Avenue South, 1808 to 1820 Ralph Avenue	H#6
7	Big Apple French Cleaners, Key Foods, 99¢ Plus, Party Supplies Discount, Hair Line Beauty Supple, Image Nation Fashion, Metro PCS, Western Union, Dominos	829 Paerdegat Avenue South, 1772 to 1804 Ralph Avenue, 813 to 839 East 59 th Street, 5902 to 5910 Glenwood Road	H#7
8	Yellow Market, West Indian Market (historical filling station)	801 to 815 Paerdegat Avenue South, 5812 to 5822 Glenwood Road, 820 to 838 East 59 th Street	H#8
9	South Shore Auto Parts (historical filling station)	1770 Ralph Avenue	H#9
10	South Shore High School and Educational Complex (historical filling station, auto wrecking and auto repair operations)	6009 to 7623 Flatlands Avenue, 6002 to 7624 Glenwood Avenue, 1743 to 1833 Ralph Avenue	H#10
11	Asmax Food Inc. (E Designation for hazardous materials)	7721 Flatlands Avenue, 776 East 78 th Street	H#11
12	Wendy's (E Designation for hazardous materials)	7811 Flatlands Avenue, 765 to 775 East 78 th Street, 766 to 776 East 79 th Street	H#12
13	Flatlands Laundromat and Dry Cleaning	7718 to 7720 Flatlands Avenue	H#13
14	BP Gas Station and Mart	7702 to 7714 Flatlands Avenue, 901 to 909 East 77 th Street	H#14
15	McDonalds (E Designation for hazardous materials and historical filling station)	7602 to 7624 Flatlands Avenue, 902 East 77 th Street	H#15
16	New York City Department of Transportation Fleet Services Roadway Repair and Maintenance Flatlands Yard	6006 to 6094 Flatlands Avenue, 928 East 76 th Street	H#16
Southeastern Corridor Segment			
17	Paerdegat Athletic Club, and Midget Squadron Yacht Club (historical fill material)	1330 to 1510 Paerdegat Avenue North, 8001 Seaview Avenue	H#17
18	Private Residence and Dentist (historical fill material)	2 Paerdegat 15 th Street	H#18
19	Private Residences (historical fill material)	7903 Seaview Avenue	H#19
20	Canarsie Park (historical fill material)	7904 to 9006 Seaview Avenue	H#20

1.2 Scope of Work

The Phase II SCI consisted of a field investigation, laboratory analyses, and the preparation of this report, which includes tables summarizing the laboratory analytical results and figures depicting boring locations, significant Corridor features and, if applicable, contamination occurrence and distribution. Hand-clearing activities were performed by PAL Environmental Services (PAL). Soil boring oversight and soil sample collection were conducted by Ms. Michelle Locke, Project Scientist, and Mr. Harry August, Environmental Technician, of Louis Berger. Laboratory analyses were provided by Hampton-Clarke, Inc. (HC) of Fairfield, New Jersey, which is a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP)-certified analytical laboratory (No. 11408). Field-derived Quality Assurance/Quality Control (QA/QC) samples (i.e., blind duplicates, equipment/rinsate blanks, and trip blanks) were not collected for this project.

The field investigation was conducted on September 14, 2021, and consisted of the following components:

- The advancement of five soil borings (SB01 to SB05) utilizing hand tools and/or Vactron and air knife. Soil borings were proposed to depths of 6 and 10 ftbg. However, since shallow groundwater was encountered above the proposed excavation depth at soil boring locations SB04 and SB05, the five soil borings were advanced to terminal depths ranging from 4 to 6 ftbg.
- To ensure the clearance of sensitive subsurface utility lines and features, boring locations were advanced to their terminal depths using evasive methods such as hand augers and/or Vactron and air knife;
- Field screening, classification and identification of soils from surface grade to the terminal depth of each boring. Soil samples were visually classified in the field using the Burmister Classification, Unified Soil Classification System (USCS), and Munsell Rock Color charts. Field screening of soils consisted of visual and olfactory indicators of impacts, as well as screening with a photoionization detector (PID);
- The collection of one grab soil sample from each of the five soil borings. The grab soil samples were collected from the 6-inch interval above the proposed bottom depth of the boring, or above the encountered water table. All five grab soil samples were analyzed for Target Compound List (TCL) volatile organic compounds (VOCs) using U.S. Environmental

Protection Agency (USEPA) Method 8260D. Additionally, soil samples from soil borings SB04 and SB05 were analyzed for TCL semi-volatile organic compounds (SVOCs) by USEPA Method 8270E, and polychlorinated biphenyls (PCBs) by USEPA Method 8082A to evaluate the presence of an open spill in the area of the proposed construction activities in the Southeastern Corridor Segment.

- The collection of one waste classification soil sample from each soil boring. The waste classification sample was a composite of the soil column from the ground surface to the bottom of the proposed excavation terminal depth or the water table (whichever came first). The waste classification samples were analyzed for Polycyclic Aromatic Hydrocarbons (PAHs) by USEPA Method 8270E, Total Petroleum Hydrocarbons-Diesel Range Organics/Gasoline Range Organics (TPH-DRO/GRO) by USEPA 8015D, PCBs by USEPA Method 8082A/608, Toxicity Characteristic Leaching Procedure (TCLP) Metals (Resource Conservation and Recovery Act [RCRA] 8) by USEPA Method 1311/6010D, and the three RCRA Characteristics, ignitability, reactivity, and corrosivity, by USEPA Methods 9012B/9034, 1030/1010A, and 9045D, as well as Paint Filter Test by USEPA Method 9095B;
- The collection of two groundwater samples from temporary well points (TWP), one to be installed in each Corridor Segment during the Phase II SCI Field activities; however, groundwater was only encountered in the Southeastern Corridor Segment at soil borings SB04 and SB05. Therefore, only one groundwater sample was collected from a TWP installed in boring SB04. The groundwater sample was analyzed for TCL VOCs using USEPA Method 8260D, SVOCs by USEPA Method 8270E, and PCBs by USEPA Method 8082A to evaluate the presence of an open spill in the area of the proposed construction activities in the Southeastern Corridor Segment, as well as for the New York City Department of Environmental Protection (NYCDEP) Sanitary or Combined Sewer Discharge Parameters; and,
- The preparation of this report, which includes tables summarizing the laboratory analytical results, and figures depicting boring locations, significant Corridor features and, if applicable, contamination occurrence and distribution.

2.0 CORRIDOR INFORMATION

2.1 Corridor Location, Description and Use

The approximately 0.61-mile (3,235-foot) long Corridor, which consists of the Northwestern and Southeastern Segments, is located in the Canarsie section of the Borough of Brooklyn, New York. Currently, the segments are developed with paved roadways, sidewalk areas, and existing infrastructure systems, and exhibit evidence of utilities, such as manholes, pavement scars, utility mark-outs, and valve covers. This indicates the presence of buried utilities, including gas, sewer, water, electric, and communications; in addition, overhead utilities are also present along the Corridor segments. Adjoining property usage is a mixture of residential, commercial, and institutional, as follows:

Northwestern Corridor Segment

- Two NYC Agency Sites:
 - NYC Department of Environmental Protection Paerdegat Pumping Station Water Treatment Plant at 1875 to 1945 Ralph Avenue, 1051 Bergen Avenue;
 - New York City Department of Transportation Fleet Services Roadway Repair and Maintenance Flatlands Yard at 6006 to 6094 Flatlands Avenue, 928 East 76th Street;
- Two auto service businesses, including:
 - Arch Auto Parts at 5913 to 5929 Flatlands Avenue, 868 to 874 Paerdegat Avenue South;
 - Eris's New Vision Auto Repair at 863 Paerdegat Avenue South, 1808 to 1820 Ralph Avenue;
- South Shore High School and Educational Complex at 6009 to 7623 Flatlands Avenue, 6002 to 7624 Glenwood Avenue, 1743 to 1833 Ralph Avenue.

Southeastern Corridor Segment

- Paerdegat Athletic Club, and Midget Squadron Yacht Club at 1330 to 1510 Paerdegat Avenue North, 8001 Seaview Avenue;
- Canarsie Park at 7904 to 9006 Seaview Avenue.

The areas of the Northwestern and Southeastern Corridor Segments are shown on Figures 2A and 2B, respectively.

2.2 Description of Surrounding Properties

Northwestern Corridor Segment

Surrounding property usage is a mixture of residential and commercial properties to the north and east, State-owned and vacant properties to the south, and commercial properties to the west. Commercial properties to the north and east include restaurants and gas stations. The State-owned property to the south is the Borough of Brooklyn Highways Building. Commercial properties include Big Apple French Cleaners at 1774 Ralph Ave, Yellow Market, West Indian Market at 801 to 815 Paerdegat Avenue South, South Shore Auto Parts at 1770 Ralph Avenue, Flatlands Laundromat and Dry Cleaning at 7718 to 7720 Flatlands Avenue, and a BP gas station at 7702 to 7714 Flatlands Avenue.

Southeastern Corridor Segment

Surrounding property usage is mostly residential properties, with Canarsie Park to the north and east.

2.3 Corridor and Regional Topographic Setting

Northwestern Corridor Segment

Louis Berger reviewed the United States Geologic Survey (USGS) *7.5-minute Topographic Quadrangle Map for Brooklyn, New York* (2017) to identify the topography at the Northwestern Corridor Segment. The northern portion of the Northwestern Corridor Segment is located at approximately 15 feet above mean sea level (msl) and slopes slightly to the southeast to a minimum elevation of 6 feet above msl at the southeastern extent. Under natural conditions, surface runoff at the Northwestern Corridor Segment would be expected to follow the surrounding topography, which slopes toward Paerdegat Basin located 350 feet south of the northern portion of the Corridor segment. Surface runoff would be expected to flow parallel to Paerdegat Basin within the southern portion of the Corridor segment due to the presence of a berm located between Paerdegat Basin and the southern portion of the Corridor segment. However, storm drains manage storm runoff within the Northwestern Corridor Segment.

Southeastern Corridor Segment

Louis Berger reviewed the USGS *7.5-minute Topographic Quadrangle Maps for Brooklyn and Coney Island, New York* (2017) to identify the topography at the Southeastern Corridor Segment. The northern portion of the Southeastern Corridor Segment is located at approximately 8 feet above msl and slopes slightly to the southeast to 6 feet above msl. Under natural conditions, surface runoff at the Corridor segment would be expected to follow the Corridor topography, which slopes

toward Paerdegat Basin located 380 feet south. However, storm drains manage storm runoff within the Southeastern Corridor Segment.

2.4 Corridor and Regional Geology

Northwestern Corridor Segment

Based on the *NYC Detailed Soil Survey* via Web Soil Survey (National Cooperative Soil Survey, Version 6, October 28, 2019), the northern-central portion and a majority of the Northwestern Corridor Segment is situated within the Urban land, tidal marsh substratum (UmA), which consists of 92 percent tidal marsh substratum and 8 percent minor components, with slopes between 0 to 3 percent. The Urban land Flatbush complex (UFA) makes up a large portion of the southern section of the Northwestern Corridor segment and is comprised of Urban land and tidal marsh substratum, which consists of 92 percent tidal marsh substratum and 8 percent minor components, with slopes between 0 to 3 percent. The Urban Land-Verrazano Complex (UVA) and the Urban land, outwash substratum (UoA) comprise less than 2.4 percent of the southern portion of the Northwestern Corridor segment.

The *NYC Reconnaissance Soil Survey* (2005) indicates that the northern portion of the Northwestern Corridor Segment is underlain by the Pavement & Buildings Wet Substratum-Bigapple-Verrazano complex and the Pavement & Buildings-Flatbush-Riverhead complex. The Pavement & Buildings Wet Substratum-Bigapple-Verrazano complex is classified as nearly level to gently sloping areas that have been filled with sandy dredged materials that are well to moderately well drained anthropogenic soils with 50 to 80 percent of the surface covered by impervious pavement and buildings. This complex is located along coastal waterways in Staten Island, Brooklyn, and Queens, with slopes between 0 to 8 percent. The Pavement & Buildings-Flatbush-Riverhead complex is classified as nearly level to gently sloping areas of urban outwash plains that have substantially cut and filled, mostly for residential use, with 50 to 80 percent of the surface covered by impervious pavement and buildings. Slopes range between 0 to 8 percent. The southern portion of the Corridor segment is located completely within the Pavement & Buildings Wet Substratum-Bigapple-Verrazano complex.

Southeastern Corridor Segment

Based on the *NYC Detailed Soil Survey* via Web Soil Survey (National Cooperative Soil Survey, Version 6, October 28, 2019), the majority of the Southeastern Corridor Segment is situated within the Urban land-Verrazano complex (UVA), which consists of 83 percent sandy soils, 12 percent Verrazano and similar type soils, and 5 percent minor components, with slopes between 0 to 3 percent. A small portion of the southeastern section of the Corridor segment is situated within the

Urban land, tidal marsh substratum (UmA), which consists of 92 percent tidal marsh substratum and 8 percent minor components, with slopes between 0 to 3 percent. A small section of the Corridor segment immediately adjacent to and extending beneath Canarsie Park is situated within the Bigapple Fine Sand Complex (BiA).

The *NYC Reconnaissance Soil Survey* (2005) indicates that the Southeastern Corridor Segment is underlain by the Pavement & Buildings Wet Substratum-Bigapple-Verrazano complex. This complex is classified as nearly level to gently sloping areas that have been filled with sandy dredged materials that are well to moderately well drained anthropogenic soils with 50 to 80 percent of the surface covered by impervious pavement and buildings; located along coastal waterways in Staten Island, Brooklyn, and Queens, with slopes between 0 to 8 percent.

Both Corridor Segments

The *Ground-Water Resources of Kings and Queens Counties, Long Island, New York* (1999) and the *Quaternary Geologic Map of the Hudson River 4° x 6° Quadrangle, United States and Canada* (1992) indicate the surficial soils are underlain by Upper Pleistocene deposits consisting of outwash sand, gravel and silt to a depth of approximately 160 ftbg. The Upper Pleistocene deposits are, in turn, underlain by approximately 15 feet of the Gardiners Clay (160 to 175 ftbg), which consists of greenish gray clay and silt and some interbedded sand. Underlying the Gardiners Clay is approximately 125 feet of the Jameco Gravel (175 to 250 ftbg), which consists of fine sand to gravel with some lenses of clay and silt. Underlying the Jameco Gravel is approximately 35 feet of the Magothy Formation (250 to 285 ftbg), which consists of deltaic quartzose, very fine to coarse sand, and silty sand with lesser amounts of clay and silt. Below the Magothy Formation is 325 feet of the Raritan Formation, which is composed of two members. The first Raritan Formation Member is 205 feet of the Raritan Clay Member (285 to 490 ftbg), consisting of clay beds with inclusions of silty clay and clayey silts; and the second Raritan Formation Member is 160 feet of the Lloyd Sand (490 to 650 ftbg). The Lloyd Sand is the final unconsolidated unit before bedrock, and consists of fine to coarse quartz sand. These deposits are, in turn, underlain by crystalline metamorphic bedrock, expected to be encountered at approximately 650 ftbg.

During the advancement of soil borings for this Phase II SCI, fill material consisting of dusky yellowish brown to light brown, and very light gray to black coarse to medium gravelly sand, and silty sandy to sandy clayey silt was observed in all five borings at depths ranging from 0 to 6 ftbg. Anthropogenic fill (such as wood) was observed in soil boring SB03 at a depth ranging from 1.0 to 6.0 ftbg.

2.5 Corridor and Regional Hydrogeology

According to the USGS *Long Island Depth to Water Viewer* (2010), groundwater depth is estimated to range between 12 ftbg in the Northwestern Corridor Segment to 6 ftbg in the Southeastern Corridor Segment. Shallow groundwater in the northwest is expected to have an inward radial flow towards Paerdegat Basin, whereas groundwater is expected to flow west-southwest towards Paerdegat Basin in the southeastern section of the Corridor. Groundwater was encountered at approximately 3 ftbg in the Southeastern Corridor Segment during the Phase II SCI field activities; however, groundwater was not encountered in the Northwestern Corridor Segment. Based on the groundwater contour lines in *Water-Table and Potentiometric-Surface Altitudes in the Upper Glacial, Magothy, and Lloyd Aquifers beneath Long Island, New York, March-April 2006* (Monti and Busciolano, 2009), regional groundwater beneath the Corridor is also expected to flow south-southeast toward Jamaica Bay. All references to groundwater flow direction/hydraulic gradient in this report are based upon these assumptions. Groundwater flow can also be influenced by seasonal fluctuations in precipitation, local variations in geology, underground anthropogenic structures, and/or local dewatering operations.

According to both the U.S. Fish and Wildlife Service (USFWS) *National Wetlands Inventory* and the NYSDEC *Environmental Resource Mapper*, no wetlands are located along the Corridor. The nearest wetland is Paerdegat Basin, which is classified by the USFWS as an Estuarine and Marine Deepwater (E1UBLx to the northwest and E1UBL near the mouth). Wetlands of these classifications are deepwater tidal habitats and adjacent tidal wetlands that are influenced by water runoff from and often semi-enclosed by land, and they have variable salinity due to their proximity to coastlines. They are continuously submerged below and flooded by tidal water, and lay over land that has been altered by humans. The difference between E1UBLx and E1UBL is that E1UBL is not situated over land that has not been altered by humans. Further to the southeast is Jamaica Bay which is classified as Estuarine and Marine Deepwater (E1UBL), which is the same as the classification above except the wetland is not situated over land that has not been altered by humans.

Federal Emergency Management Agency (FEMA) *Flood Insurance Rate Maps* (FIRM) were accessed from the FEMA website. One map panel (*Panel Number 3604970219F*, revision September 5, 2007) shows that no portion of the Southeastern Corridor Segment is within the 100- or 500-year flood zones, and one map panel (*Panel Number 3604970218F*, revision September 5, 2007) shows that no portion of the Northwestern Corridor Segment is within the 100- or 500-year flood zones.

3.0 CORRIDOR EVALUATION

Louis Berger provided oversight for the advancement of five soil borings and collected soil samples during the field investigation conducted on September 14, 2021, in the vicinity of the planned construction. Drilling services for the advancement of the soil borings were provided by PAL. The soil samples from the borings were transferred into laboratory-supplied sample jars and properly labeled. The samples were stored with ice in a cooler to preserve the samples at approximately 4° Celsius prior to and during shipment. A chain-of-custody was prepared prior to sample shipment. A summary of the field observations and details of the soil borings are provided in Table 1.

3.1 Soil Quality Investigation

To ensure the clearance of sensitive subsurface utilities and features, all soil boring locations were advanced via evasive methods (i.e., Vactron and/or air knife and hand auger/hand tools) to terminal depths ranging from 4 to 6 ftbg. In soil borings where the groundwater table was encountered before the planned termination depth of 10 ftbg, the terminal depth was adjusted to the groundwater table. Soil boring locations are depicted on Figure 2A and 2B for the Northwestern and Southeastern Corridor Segments, respectively. The designations and sampling intervals for the samples that were submitted to the laboratory are included in Table 1. Maps depicting each boring location are included in Appendix A. Boring logs, which document soil classification information, including stratigraphy, are provided in Appendix B. The location of each boring is described below:

- **SB01** – Located in a tree pit in the sidewalk along the southeastern side of Flatlands Avenue, 326 feet and 9 inches southwest of the southwestern curb line of East 76th Street, and 68 feet and 10 inches southeast of the northwestern curb line of Flatlands Avenue.
- **SB02** – Located in a tree pit in the sidewalk along the northeastern side of East 76th Street, 35 feet and 6 inches southeast of the southeastern curb line of Flatlands Avenue, and 55 feet and 9 inches northeast of the southwestern curb line of East 76th Street.
- **SB03** – Located in a tree pit in the sidewalk along the southwestern side of Paerdegat Avenue North, 482 feet and 3 inches northwest of the northwestern curb line of Paerdegat 1st Street, and 53 feet and 6 inches southwest of the northeastern curb line of Paerdegat Avenue North.

- **SB04** – Located in a tree pit in the sidewalk along the southwestern side of Paerdegat Avenue North, 52 feet and 6 inches northwest of the northwestern curb line of Seaview Avenue, and 72 feet and 2 inches southwest of the northeastern curb line of Paerdegat Avenue North.
- **SB05** – Located in the grass right-of-way on the sidewalk along the southeastern side of Seaview Avenue, 88 feet and 6 inches northeast of the southwestern curb line of Paerdegat Avenue North, and 91 feet and 10 inches southeast of the northwestern curb line of Seaview Avenue.

Soil from each boring was examined for visual evidence (i.e., staining, discoloration) and any olfactory indications (i.e., odors) of contamination. In addition, a PID was used to screen the soil for VOC vapors at all five boring locations.

In order to identify representative conditions relative to the presence of PAHs, TCLP metals, PCBs, total petroleum hydrocarbons, RCRA characteristics, and conditions relative to waste disposal in each boring, composite soil samples were collected at each boring location. Based on the DDC protocol regarding soil sample collection for waste classification analysis, composite soil samples were collected from the entire soil column except where groundwater was encountered, where the sample was collected from ground surface to the encountered water table. Composite soil samples were collected by mixing the soil from the column in a decontaminated stainless steel bowl.

In order to identify representative conditions relative to the presence of VOCs, grab samples were to be collected from either the 6-inch interval above the groundwater table (when encountered), the 6-inch interval above the bottom of the proposed excavation (where recovery allowed), or from the 6-inch interval showing the highest potential for contamination based on field observations. For soil borings SB04 and SB05 where groundwater was encountered, the grab sample was collected from the 6-inch interval above the encountered groundwater table. Additionally, the grab samples from soil borings SB04 and SB05 were analyzed for TCL SVOCs and PCBs in order to identify representative conditions relative to an open spill in the area of the proposed construction activities.

All equipment was decontaminated by rinsing and scrubbing with Liquinox[®] three times to prevent cross contamination. Following the completion of each boring, the boreholes were backfilled with removed material.

3.2 Groundwater Quality Investigation

One groundwater sample (TWP01) was collected from a temporary well point installed at soil boring SB04 in the Southeastern Corridor Segment. Groundwater in the TWP was measured at a depth of approximately 4.0 ftbg. One additional TWP was attempted at SB03 in the Northwestern Corridor Segment; however, due to the absence of groundwater, a sample was not able to be collected.

The TWP was constructed of ¾-inch schedule 40 PVC and was installed to the base of the boring, such that the screen bridged the water table. Prior to sampling, the TWP was purged using a peristaltic pump and dedicated tubing until approximately three well volumes were purged, and purge water appeared to be clear. After purging, sample TWP01 was collected using a peristaltic pump and dedicated polyethylene tubing directly into laboratory-provided jars.

3.3 Laboratory Analyses

All soil and groundwater samples were analyzed on a 5-day turn-around time (TAT). Soil and groundwater samples were stored on ice in coolers at approximately 4 degrees Celsius under chain of custody prior to delivery to the laboratory. Laboratory analyses for soil and groundwater was provided by Hampton-Clarke (HC) of Fairfield, New Jersey, which is a NYSDOH ELAP-certified analytical laboratory (No. 11408).

The grab soil samples SB01 through SB05 were analyzed for TCL VOCs using USEPA Method 8260D. Additionally, grab soil samples SB04 and SB05 were analyzed for TCL SVOCs by USEPA Method 8270E and PCBs by USEPA Method 8082A. The composite soil samples were analyzed for PAHs by USEPA Method 8270E, TPH-DRO/GRO by USEPA Method 8015D, PCBs by USEPA Method 8082A/608, TCLP Metals (RCRA 8) by USEPA Method 1311/6010D, RCRA Characteristics, including ignitability, reactivity and corrosivity, by USEPA Methods 9012B/9034, 1030/1010A, and 9045D, respectively, as well as Paint Filter Test by USEPA Method 9095B, for waste classification purposes.

The groundwater sample (TWP01) was analyzed for TCL VOCs by USEPA Method 8260D, TCL SVOCs by USEPA Method 8270E, PCBs by USEPA Method 8082A, and NYCDEP Sanitary or Combined Sewer Discharge Parameters.

3.4 Data Evaluation

In order to evaluate surface and subsurface soil quality for waste classification purposes, laboratory analytical results of grab and composite soil samples were compared with regulatory standards identified in: NYSDEC Subpart 375-6: Remedial Program Commercial Use (Track 2) Soil Cleanup Objectives (SCOs) and Toxicity Characteristic Regulatory Levels for Hazardous Waste published in RCRA and 6 New York Codes, Rules and Regulations (NYCRR) Part 371. The analytical results of the groundwater samples were compared to the NYSDEC Class GA Groundwater Standards and Guidance Values as per NYSDEC Technical and Operational Guidance Series (TOGS) and the NYCDEP Sewer Discharge Criteria.

4.0 FINDINGS

This section discusses the analytical data and findings for activities discussed in Section 3.0. Boring logs can be found in Appendix B. A complete laboratory analytical data report is included in Appendix C.

4.1 Field Screening

No visual or olfactory indications of contamination were observed in any of the five borings, including PID readings. A summary of the environmental boring data is presented in Table 1.

4.2 Laboratory Analytical Results

4.2.1 Target Compound List (TCL) Volatile Organic Compounds (VOCs) in Soils

No VOCs were detected above the laboratory's reporting limits in any of the five grab soil samples collected as part of this Phase II SCI. A summary of the VOCs detections is provided as Table 2.

4.2.2 Target Compound List (TCL) Semi-Volatile Organic Compounds (SVOCs) in Soils

Four SVOCs, 3,3'-dichlorobenzidine, 3-nitroaniline, 4-chloroaniline, and 4-nitroaniline, were detected above the laboratory's reporting limits in one of the two grab soil samples (SB04); however, all concentrations were below the applicable regulatory standards. A summary of the SVOC detections is provided as Table 3.

4.2.3 Polychlorinated Biphenyls (PCBs) in Soils

No PCB were detected above the laboratory's reporting limits in either of the two grab soil samples collected as part of this Phase II SCI. A summary of the PCBs detections is provided as Table 4.

4.2.4 Waste Classification of Soil

RCRA Parameters (Reactivity, Corrosivity, Ignitability)

The analytical laboratory results of the five waste classification soil samples show that the RCRA parameters (reactivity, ignitability, or corrosivity) were within the RCRA standards. The pH (corrosivity indicator) of the samples was found to be within the RCRA limits of 2 and 12.5. The flash point was greater than 140 degrees Fahrenheit in all soil samples; therefore, the RCRA

characteristics for ignitability were negative. Reactive cyanide and reactive sulfide were not detected in any of the soil samples.

Therefore, results of these analyses indicate that the waste classification soil samples collected do not exhibit evidence of hazardous waste characteristics with respect to reactivity, corrosivity and ignitability. However, as discussed below, soil sample SB03 is hazardous with respect to toxicity based on the detection of TCLP lead above the RCRA Hazardous Waste Level. A summary of the waste classification parameters is provided as Table 5.

TCLP Metals

Waste classification laboratory results indicate that TCLP lead was detected in four of the five soil samples (SB02 through SB05); however, only one of the soil samples (SB03) exhibited an exceedance of the applicable regulatory standards. Soil sample SB03 exhibited a TCLP lead concentration of 16 mg/L, exceeding the RCRA Hazardous Waste Level of 5 mg/L. TCLP barium was detected in four of the five soil samples (SB02 through SB05), with concentrations ranging from 0.29 mg/L (SB05) to 2.4 mg/L (SB02); however, all concentrations were below the applicable regulatory standard. A summary of the waste classification parameters is provided as Table 5.

Total Petroleum Hydrocarbons (TPH)

TPH-DRO was detected above the laboratory's reporting limits in one of the five waste classification soil samples at a concentration of 120 parts per million (ppm) in soil boring SB02. TPH-GRO was not detected in any of the five waste classification soil samples. No regulatory standards exist for TPH. A summary of the waste classification parameters is provided as Table 5.

Polychlorinated Biphenyls (PCBs)

PCBs were not detected above the laboratory's reporting limits in any of the five waste classification samples. A summary of the waste classification parameters is provided as Table 5.

Polycyclic Aromatic Hydrocarbons (PAHs)

One or more of 12 PAHs were detected in all five of the waste classification sample locations; however, all concentrations were below the applicable regulatory standards. A summary of the waste classification parameters is provided as Table 5.

4.2.5 Target Compound List (TCL) Volatile Organic Compounds (VOCs) in Groundwater

No VOCs were detected above the laboratory's reporting limits in the groundwater sample collected as part of this Phase II SCI. A summary of the VOCs detections is provided as Table 6.

4.2.6 Target Compound List (TCL) Semi-Volatile Organic Compounds (SVOCs) in Groundwater

No SVOCs were detected above the laboratory's reporting limits in the groundwater sample collected as part of this Phase II SCI. A summary of the SVOCs detections is provided as Table 7.

4.2.7 Polychlorinated Biphenyls (PCBs) in Groundwater

No PCBs were detected above the laboratory's reporting limits in the groundwater sample collected as part of this Phase II SCI. A summary of the PCBs detections is provided as Table 8.

4.2.8 NYCDEP Sewer Discharge Parameters

Two metals (lead and zinc), total suspended solids, chloride, total Kjeldahl nitrogen and total solids were present in groundwater sample TWP01. However, there were no exceedances of the NYCDEP Sewer Discharge Criteria.

A summary of the results is provided as Table 9.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the evaluation of the field screening data and the laboratory analytical results, and a comparison to applicable regulatory standards, the following findings, conclusions, and recommendations are presented:

Findings and Conclusions

- No visual or olfactory indications of contamination were observed in any of the five soil borings, including PID readings;
- Fill material consisting of dusky yellowish brown to light brown, and very light gray to black coarse to medium gravelly sand, and silty sandy to sandy clayey silt was observed in all five borings at depths ranging from 0 to 6 ftbg. Anthropogenic fill (such as wood) was encountered in SB03 at a depth ranging from 1.0 to 6.0 ftbg;
- Bedrock was not encountered at any of the boring locations;
- Groundwater was encountered in soil borings SB04 and SB05 at depths between 3.0 (SB04) and 4.0 ftbg (SB05). Groundwater was also measured in TWP01 at a depth of 4.0 ftbg;

SOIL

- No VOCs were detected above the laboratory's reporting limits in any of the five grab soil samples collected as part of this Phase II SCI;
- Four SVOCs were detected above the laboratory's reporting limits in one of the two grab soil samples; however, all concentrations were below the applicable regulatory standards;
- No PCBs were detected above the laboratory's reporting limits in either of the two grab soil samples collected as part of this Phase II SCI;
- The analytical laboratory results of the five waste classification soil samples show that the RCRA parameters (reactivity, ignitability, and corrosivity) were within the RCRA standards. Therefore, results of these analyses indicate that the soil samples collected do not exhibit evidence of hazardous waste characteristics for reactivity, ignitability, and corrosivity.

- Waste classification laboratory results indicate that TCLP lead was detected in four of the five samples; however, one waste classification soil sample, SB03 (16 mg/L), exceeded the RCRA Hazardous Waste Action Level of 5 mg/L. Therefore, one soil sample collected from the Corridor exhibits evidence of the hazardous waste characteristic for toxicity. Waste classification laboratory results indicate that TCLP barium was detected in four soil samples; however, all detected concentrations were below the applicable regulatory standards. Lithology indicates the presence of fill material in all soil borings; therefore, the TCLP lead and barium detections may be attributed to contaminants related to fill material;
- TPH-DRO was detected above the laboratory's reporting limits in one of the five waste classification soil samples at a concentration of 120 ppm (SB02), while TPH-GRO was not detected above the laboratory's reporting limits in any of the five waste classification soil samples. There are no regulatory standards for TPH. Lithology indicates the presence of fill material in all soil borings; therefore, the TPH detections may be attributed to contaminants related to fill material;
- No PCBs were detected above the laboratory's reporting limits in any of the waste classification soil samples collected as part of this Phase II SCI;
- Several PAHs were detected above the laboratory's reporting limits in all five of the waste classification soil samples; however, all detected concentrations were below the applicable regulatory standards;

GROUNDWATER

- No VOCs were detected above the laboratory's reporting limits in the groundwater sample collected as part of this Phase II SCI;
- No SVOCs were detected above the laboratory's reporting limits in the groundwater sample collected as part of this Phase II SCI;
- No PCBs were detected above the laboratory's reporting limits in the groundwater sample collected as part of this Phase II SCI;
- Analytical laboratory results of the groundwater sample showed no exceedances of the NYCDEP Sewer Discharge Criteria in the groundwater sample collected during the Phase II SCI activities.

Based on the results of the field investigation and laboratory analytical results, the following recommendations are provided:

Recommendations

- The contract documents should identify provisions and a contingency for managing, handling, transporting and disposing of any hazardous contaminated soils. The Contractor should be required to submit a Material Handling Plan to identify the specific protocol and procedures that will be employed to manage the waste in accordance with applicable regulations;
- Dust control procedures are recommended during excavation activities to minimize the creation and dispersion of fugitive airborne dust. The Contractor may implement dust control measures to minimize potential airborne contaminants (i.e., SVOCs, TPH and metals) released into the ambient environment as a direct result of construction activities;
- Groundwater was encountered during the Phase II SCI activities at depths ranging from 3.0 to 4.0 ftbg in the Southeastern Corridor Segment. If dewatering is necessary, the Contractor will be required to obtain a NYCDEP sewer discharge permit and perform sampling and laboratory analysis prior to discharge into the sanitary or combined sewers;
- In addition, if discharge into storm sewers, which ultimately discharge into a surface water body, is required during dewatering, it may be performed under the appropriate NYSDEC State Pollutant Discharge Elimination System (SPDES) permit. Additional sampling and laboratory analysis may be required to satisfy NYSDEC requirements prior to discharge into storm sewers; and,
- Before beginning any excavation activity, the contractor should submit a Corridor-specific Health and Safety Plan (HASP) that will meet the requirements set forth by the Occupational, Safety and Health Administration (OSHA), the New York State Department of Health (NYSDOH) and any other applicable regulations. The HASP should identify the possible locations and risks associated with the potential contaminants that may be encountered, and the administrative and engineering controls that will be utilized to mitigate concerns.

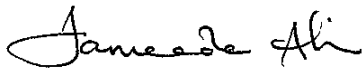
6.0 STATEMENT OF LIMITATIONS

The data presented, and the opinions expressed in this report are qualified as stated in the attachment to this section of the report.

Report Prepared By:



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STATEMENT OF LIMITATIONS

The data presented, and the opinions expressed in this report are qualified as follows:

The sole purpose of the investigation and of this report is to assess the physical characteristics of the Site with respect to the presence or absence in the environment of oil or hazardous materials and substances as defined in the applicable state and federal environmental laws and regulations and to gather information regarding current and past environmental conditions at the Site.

Louis Berger derived the data in this report primarily from visual inspections, examination of records in the public domain, interviews with individuals with information about the Site, and a limited number of subsurface explorations made on the dates indicated. The passage of time, manifestation of latent conditions or occurrence of future events may require further exploration at the Site, analysis of the data, and reevaluation of the findings, observations, and conclusions expressed in the report.

In preparing this report, Louis Berger has relied upon and presumed accurate certain information (or the absence thereof) about the Site and adjacent properties provided by governmental officials and agencies, the Client, and others identified herein. Except as otherwise stated in the report, Louis Berger has not attempted to verify the accuracy or completeness of any such information.

The data reported, and the findings, observations, and conclusions expressed in the report are limited by the Scope of Services, including the extent of subsurface exploration and other tests. The Scope of Services was defined by the requests of the Client, the time and budgetary constraints imposed by the Client, and the availability of access to the Site.

Because of the limitations stated above, the findings, observations, and conclusions expressed by Louis Berger in this report are not, and should not be considered, an opinion concerning the compliance of any past or present owner or operator of the site with any federal, state or local law or regulation. No warranty or guarantee, whether express or implied, is made with respect to the data reported or findings, observations, and conclusions expressed in this report. Further, such data, findings, observations, and conclusions are based solely upon site conditions in existence at the time of investigation.

This report has been prepared on behalf of and for the exclusive use of the Client and is subject to and issued in connection with the Agreement and the provisions thereof.

TABLES

- TABLE 1 – SUMMARY OF ENVIRONMENTAL BORING DATA**
- TABLE 2 – SUMMARY OF TCL VOCs DETECTED IN SOIL**
- TABLE 3 – SUMMARY OF TCL SVOCs DETECTED IN SOIL**
- TABLE 4 – SUMMARY OF PCBs DETECTED IN SOIL**
- TABLE 5 – SUMMARY OF WASTE CLASSIFICATION RESULTS IN SOIL**
- TABLE 6 – SUMMARY OF TCL VOCs DETECTED IN GROUNDWATER**
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- TABLE 8 – SUMMARY OF PCBs DETECTED IN GROUNDWATER**
- TABLE 9 – GROUNDWATER QUALITY COMPARED TO NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION LIMITATIONS FOR EFFLUENT TO SANITARY OR COMBINED SEWERS**

Table 1. Summary of Environmental Boring Data
Phase II Subsurface Corridor Investigation for Jamaica Bay Greenway - Paerdegat Ave North Connector
Flatlands Ave from Ralph Ave to E 76th St, etc., Brooklyn, NY

Boring No.	Sample ID	High PID (ppm)	Sample Interval (ftbg)	Total VOCs (mg/kg)	Total PAHs (mg/kg)	TCLP Metals Exceed (Yes/No) ¹	Depth to Water (ftbg)	Total Depth (ftbg)	Other Comments
SB01	SB01	<1	5.5 - 6.0	ND	-	No	NE	6.0	No visual or olfactory signs of contamination observed. Fill material was observed.
		<1	0.0 - 6.0	-	3.28				
SB02	SB02	<1	5.5 - 6.0	ND	-	No	NE	6.0	No visual or olfactory signs of contamination observed. Fill material was observed.
		<1	0.0 - 6.0	-	11.01				
SB03	SB03	<1	5.5 - 6.0	ND	-	YES	NE	6.0	No visual or olfactory signs of contamination observed. Fill material was observed. Fill material (wood) was observed.
		<1	0.0 - 6.0	-	1.30				
SB04/ TWP01	SB04	<1	2.5 - 3.0	ND	-	No	3	6.0	No visual or olfactory signs of contamination observed. Fill material was observed.
		<1	0.0 - 3.0	-	0.89				
SB05	SB05	<1	3.5 - 4.0	ND	-	No	4	4.0	No visual or olfactory signs of contamination observed. Fill material was observed.
		<1	0.0 - 4.0	-	0.493				

Notes:

¹ - TCLP metal(s) exceeds Resource Conservation and Recovery Act (RCRA) Hazardous Waste

All soil samples were analyzed for Target Compound List (TCL) Volatile Organic Compounds (VOCs), Polycyclic Aromatic Hydrocarbons (PAHs), Polychlorinated Biphenyls (PCBs), Toxicity Characteristic Leaching Procedure (TCLP) for Metals (RCRA 8), Total Petroleum Hydrocarbons, and RCRA Characteristics.

PID = Photoionization detector

ND = Not Detected

NE = Not Encountered

ftbg = feet below grade

**Table 2. Summary of Target Compound List (TCL) Volatile Organic Compounds (VOCs) Detected in Soil
Phase II Subsurface Corridor Investigation for Jamaica Bay Greenway - Paerdegat Ave North Connector
Flatlands Ave from Ralph Ave to E 76th St, etc., Brooklyn, NY**

TCL VOCs	Commercial Use (Track 2) Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth				
		SB01	SB02	SB03	SB04	SB05
		9/14/2021	9/14/2021	9/14/2021	9/14/2021	9/14/2021
		5.5 - 6.0	5.5 - 6.0	5.5 - 6.0	2.5 - 3.0	3.5 - 4.0
VOCs		ND	ND	ND	ND	ND

Notes:
All concentrations are in parts per million or milligrams per kilogram (ppm or mg/kg)
 ND = Compound not detected above method detection limit (see attached lab report for MDLs)
 SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006)

**Table 3. Summary of Target Compound List (TCL) Semi-Volatile Organic Compounds (SVOCs) Detected in Soil
Phase II Subsurface Corridor Investigation for Jamaica Bay Greenway - Paerdegat Ave North Connector
Flatlands Ave from Ralph Ave to E 76th St, etc., Brooklyn, NY**

TCL SVOCs	Commercial Use (Track 2) Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth				
		SB01	SB02	SB03	SB04	SB05
		9/14/2021	9/14/2021	9/14/2021	9/14/2021	9/14/2021
		-	-	-	2.5 - 3.0	3.5 - 4.0
3,3'-Dichlorobenzidine	NS	NA	NA	NA	0.82	ND
3-Nitroaniline	NS	NA	NA	NA	0.79	ND
4-Chloroaniline	NS	NA	NA	NA	0.69	ND
4-Nitroaniline	NS	NA	NA	NA	0.32	ND

Notes:

All concentrations are in parts per million or milligrams per kilogram (ppm or mg/kg)

ND = Compound not detected above method detection limit (see attached lab report for MDLs)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006)

NA = Not Analyzed

NS = No Standard

**Table 4. Summary of Polychlorinated Biphenyls (PCBs) Detected in Soil
Phase II Subsurface Corridor Investigation for Jamaica Bay Greenway - Paerdegat Ave North Connector
Flatlands Ave from Ralph Ave to E 76th St, etc., Brooklyn, NY**

PCBs	Commercial Use (Track 2) Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth				
		SB01	SB02	SB03	SB04	SB05
		9/14/2021	9/14/2021	9/14/2021	9/14/2021	9/14/2021
		-	-	-	2.5 - 3.0	3.5 - 4.0
PCBs (Total)*	1	NA	NA	NA	ND	ND

Notes:
All concentrations are in parts per million or milligrams per kilogram (ppm or mg/kg)
 ND = Compound not detected above method detection limit (see attached lab report for MDLs)
 SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006)
 * Refers to the total concentration of PCBs in the sample
 NA = Not Analyzed

Table 5. Summary of Waste Classification Results in Soil
Phase II Subsurface Corridor Investigation for Jamaica Bay Greenway - Paerdegat Ave North Connector
Flatlands Ave from Ralph Ave to E 76th St, etc., Brooklyn, NY

Analyte	Resource Conservation and Recovery Act (RCRA) Hazardous Waste Levels	Commercial Use (Track 2) Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth				
			SB01	SB02	SB03	SB04	SB05
			9/14/2021 0.0 - 6.0	9/14/2021 0.0 - 6.0	9/14/2021 0.0 - 6.0	9/14/2021 0.0 - 3.0	9/14/2021 0.0 - 4.0
RCRA (Including TCLP Metals)							
pH	2 - 12.5*	NA	8.1	7.6	7.8	6.8	7.4
Ignitability	>140 °F**	NA	NEG	NEG	NEG	NEG	NEG
Paint Filter Test	NS	NA	NEG	NEG	NEG	NEG	NEG
Reactive Cyanide	NS	NA	ND	ND	ND	ND	ND
Reactive Sulfide	NS	NA	ND	ND	ND	ND	ND
Arsenic	5	NA	ND	ND	ND	ND	ND
Barium	100	NA	ND	2.4	2.0	1.3	0.29
Cadmium	1	NA	ND	ND	ND	ND	ND
Chromium	5	NA	ND	ND	ND	ND	ND
Lead	5	NA	ND	1.6	16	0.40	0.11
Mercury	0.2	NA	ND	ND	ND	ND	ND
Nickel	NS	NA	ND	ND	ND	ND	ND
Selenium	1	NA	ND	ND	ND	ND	ND
Silver	5	NA	ND	ND	ND	ND	ND
TPH DRO/GRO (mg/kg)							
Total Petroleum Hydrocarbons	NS	NA	ND	120	ND	ND	ND
Gasoline Range Organics	NS	NA	ND	ND	ND	ND	ND
PCBs (mg/kg)							
PCBs (Total)*	NA	1	ND	ND	ND	ND	ND
PAHs (mg/kg)							
Anthracene	NA	500	0.057	0.21	ND	ND	ND
Benzo[a]anthracene	NA	5.6	0.31	0.96	0.17	0.13	0.055
Benzo[a]pyrene	NA	1	0.29	0.87	0.15	0.12	0.061
Benzo[b]fluoranthene	NA	5.6	0.36	1.3	0.24	0.2	0.088
Benzo[g,h,i]perylene	NA	500	0.20	0.56	ND	ND	0.056
Benzo[k]fluoranthene	NA	56	0.083	0.35	ND	ND	ND
Chrysene	NA	56	0.34	1.0	0.18	ND	0.061
Dibenzo[a,h]anthracene	NA	0.56	0.05	0.16	ND	ND	ND
Fluoranthene	NA	500	0.48	2.0	0.28	0.22	0.081
Indeno[1,2,3-cd]pyrene	NA	5.6	0.16	0.5	ND	ND	ND
Phenanthrene	NA	500	0.28	1.2	ND	ND	ND
Pyrene	NA	500	0.67	1.9	0.28	0.22	0.091

Notes:

All concentrations are in parts per million, milligrams per kilogram, or milligrams per liter (ppm, mg/kg, or mg/L), unless otherwise noted

TCLP = Toxicity Characteristic Leaching Procedure

NS = No Standard

NA = Not Applicable or Not Analyzed

*A solid waste exhibits the characteristic of corrosivity if it has a pH less than or equal to 2 or greater than or equal to 12.5

**A solid waste exhibits the characteristic of ignitability if it has flash point less than 140 °F

°F = Degrees Fahrenheit

NEG = Negative (flash point was not detected below 140 °F) or Negative (free liquids were not detected during Paint Filter Test) or Negative (flame did not propagate down the 200 millimeter track)

ND = Compound not detected above method detection limit (see attached lab report for MDLs)

Shading = Concentration exceeds RCRA Hazardous Waste Levels and/or Commercial Use (Track 2) Soil Cleanup Objectives

**Table 6. Summary of Target Compound List (TCL) Volatile Organic Compounds (VOCs) Detected in Groundwater
Phase II Subsurface Corridor Investigation for Jamaica Bay Greenway - Paerdegat Ave North Connector
Flatlands Ave from Ralph Ave to E 76th St, etc., Brooklyn, NY**

TCL VOCs	NYSDEC Class GA Groundwater Standards and Guidance Values	Sample ID and Date Collected
		TWP01 9/14/2021
VOCs		ND

Notes:

ND = Compound not detected above method detection limit (see attached lab report for MDLs)

**Table 7. Summary of Target Compound List (TCL) Semi-Volatile Organic Compounds (VOCs) Detected in Groundwater
Phase II Subsurface Corridor Investigation for Jamaica Bay Greenway - Paerdegat Ave North Connector
Flatlands Ave from Ralph Ave to E 76th St, etc., Brooklyn, NY**

TCL SVOCs	NYSDEC Class GA Groundwater Standards and Guidance Values	Sample ID and Date Collected
		TWP01 9/14/2021
SVOCs		ND

Notes:

ND = Compound not detected above method detection limit (see attached lab report for MDLs)

**Table 8. Summary of Polychlorinated Biphenyls (PCBs) Detected in Groundwater
Phase II Subsurface Corridor Investigation for Jamaica Bay Greenway - Paerdegat Ave North Connector
Flatlands Ave from Ralph Ave to E 76th St, etc., Brooklyn, NY**

PCBs	NYSDEC Class GA Groundwater Standards and Guidance Values	Sample ID and Date Collected
		TWP01 9/14/2021
PCBs (total)*		ND

Notes:

ND = Compound not detected above method detection limit (see attached lab report for MDLs)

Table 9. Groundwater Quality Compared to New York City Department of Environmental Protection Limitations for Effluent to Sanitary or Combined Sewers
Phase II Subsurface Corridor Investigation for Jamaica Bay Greenway - Paerdegat Ave North Connector
Flatlands Ave from Ralph Ave to E 76th St, etc., Brooklyn, NY

Parameter ¹	NYC DEP Limitations to Sanitary or Combined Sewers	Sample ID and Date Collected
		TWP01 9/14/2021
Non-Polar Material ²	50 mg/L	ND
Flash Point - Liquid/Solid	>140 °F	>141°F
pH	>5 and <12	8.1
Cadmium (Instantaneous or Composite)	2 or 0.69 mg/L	ND
Chromium Hexavalent (VI)	5 mg/L	ND
Copper	5 mg/L	ND
Lead	2 mg/L	0.0076 mg/L
Mercury	0.05 mg/L	ND
Nickel	3 mg/L	ND
Zinc	5 mg/L	0.190 mg/L
Benzene	134 ug/L	ND
Carbon tetrachloride	NS	ND
Chloroform	NS	ND
1,4-Dichlorobenzene	NS	ND
Ethylbenzene	380 ug/L	ND
MTBE (Methyl-Tert-Butyl-Ether)	50 ug/L	ND
Naphthalene	47 ug/L	ND
Phenol	NS	ND
Tetrachloroethene	20 ug/L	ND
Toluene	74 ug/L	ND
1,2,4-Trichlorobenzene	NS	ND
1,1,1-Trichloroethane	NS	ND
Xylenes (Total)	74 ug/L	ND
PCBs (Total) ³	1 ug/L	ND
Total Suspended Solids ⁴	350 mg/L	81 mg/L
CBOD ⁵	NS	ND
Chloride ⁵	NS	590 mg/L
Total Kjeldahl Nitrogen	NS	0.45 mg/L
Total Solids ⁵	NS	1,300 mg/L

Notes:

NS = No Standard

ND = Compound not detected above method detection limit (see attached lab report for MDLs)

¹ All handling and preservation of collected samples and laboratory analyses of samples was performed in accordance with 40 CFR Part 136.

² Analysis for non-polar materials was performed by EPA method 1664.

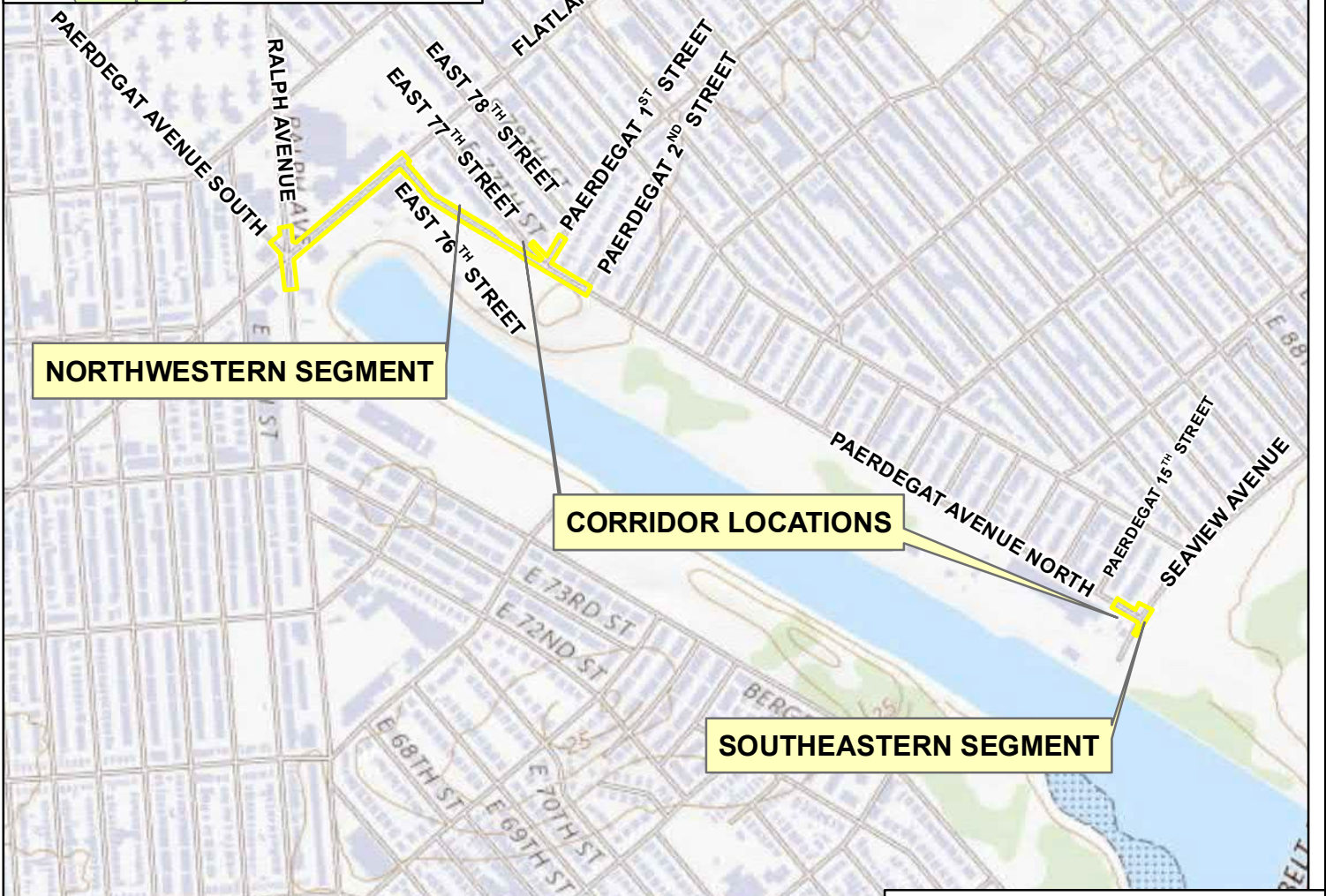
³ Analysis for polychlorinated biphenyls (PCBs) was performed according to EPA method 608 with method detection limit ≤ 65 parts per trillion.

Analysis for PCBs is required if discharge ≥ 10,000 gallons per day (gpd) and duration of discharge > 10 days.


⁴ For discharge ≥ 10,000 gpd, the total suspended solids (TSS) limit is 350 mg/l. For discharge < 10,000 gpd, the limit is determined on a case by case basis.

⁵ Analysis for Carbonaceous Biochemical Oxygen Demand (CBOD), Chloride, Total Solids, and Total Nitrogen are required if proposed discharge ≥ 10,000 gpd.

FIGURE 1 – TOPOGRAPHIC CORRIDOR LOCATION MAP



Legend

 Approximate Corridor Area

NYC DDC Department of Design and Construction

 Louis Berger

DDC PROJECT NO.: HWK2048 WOL NO.: OEHS-20201409799-WOL-119

TOPOGRAPHIC CORRIDOR LOCATION MAP
 PHASE II SUBSURFACE CORRIDOR INVESTIGATION FOR
 JAMAICA BAY GREENWAY - PAERDEGAT AVENUE NORTH
 CONNECTOR, FLATLANDS AVENUE FROM RALPH AVENUE TO
 EAST 76TH STREET, ETC.
 BROOKLYN, NEW YORK

FIGURE 2 – SOIL BORING LOCATION PLAN



Legend

- Soil Boring Location
- DDC Project Corridor Area



DDC PROJECT NO.: HWK2048 WOL NO.: OEHS-20201409799-WOL-119

SOIL BORING LOCATION PLAN
 PHASE II SUBSURFACE CORRIDOR INVESTIGATION FOR
 JAMAICA BAY GREENWAY - PAERDEGAT AVENUE NORTH
 CONNECTOR, FLATLANDS AVENUE FROM RALPH AVENUE TO
 EAST 76TH STREET, ETC.
 NORTHWESTERN CORRIDOR SEGMENT
 BROOKLYN, NEW YORK

SCALE: 1" = 300' Version Date: May 16, 2022



Legend

- Soil Boring Location
- ⊕ Soil Boring Location/Temporary Well Point

DDC Project to HWK2048 Area

HAZ. - 48

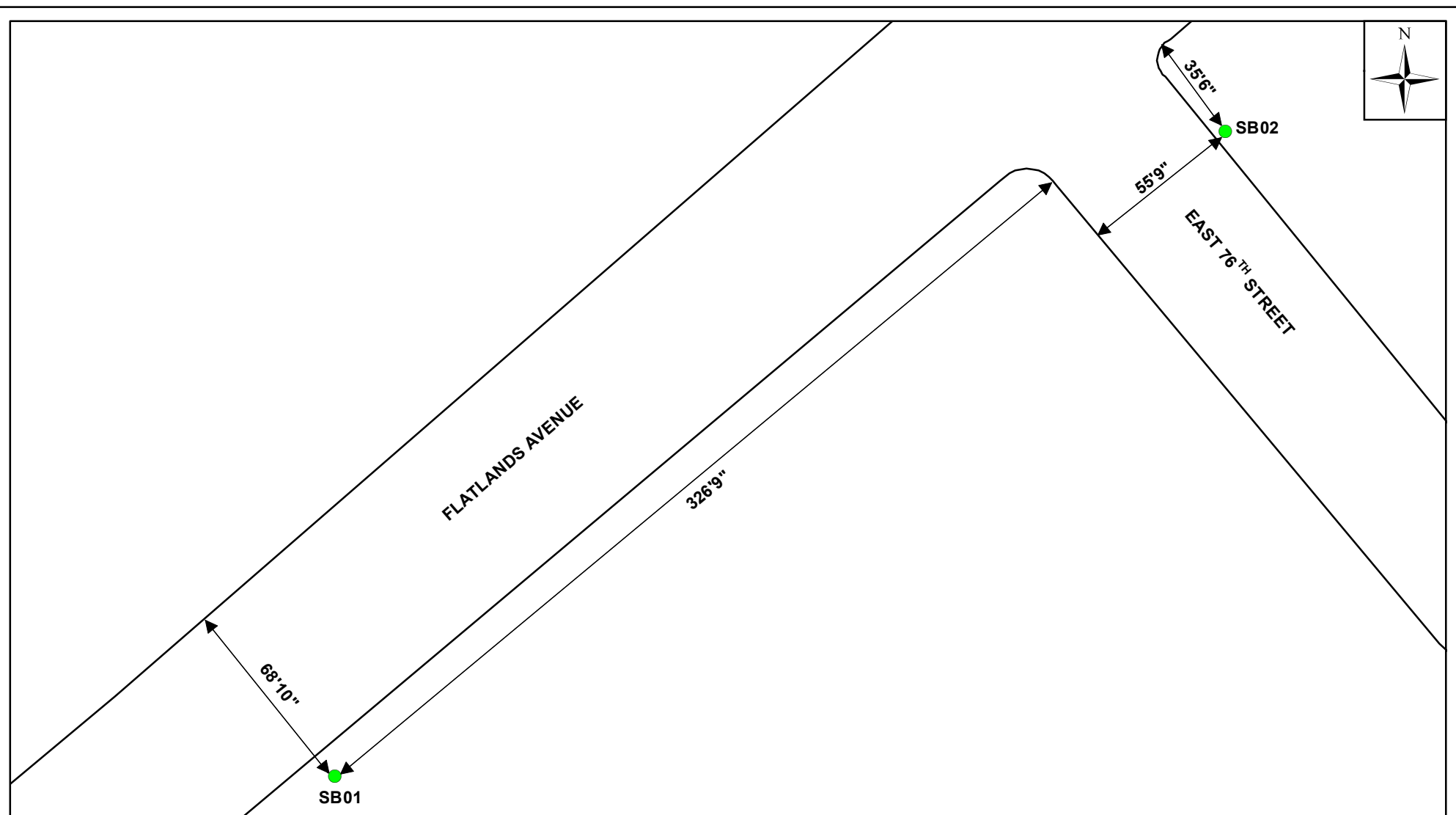


DDC PROJECT NO.: HWK2048 WOL NO.: OEHS-20201409799-WOL-119

SOIL BORING LOCATION PLAN
 PHASE II SUBSURFACE CORRIDOR INVESTIGATION FOR
 JAMAICA BAY GREENWAY - PAERDEGAT AVENUE NORTH
 CONNECTOR FLATLANDS AVENUE FROM RALPH AVENUE TO
 EAST 76TH STREET, ETC.
 SOUTHEASTERN CORRIDOR SEGMENT
 BROOKLYN, NEW YORK

SCALE: 1" = 300' Version Date: May 16, 2022

APPENDIX A
BORING LOCATION PLAN



Legend

● Soil Boring Location
 DDC Project No HWK2048

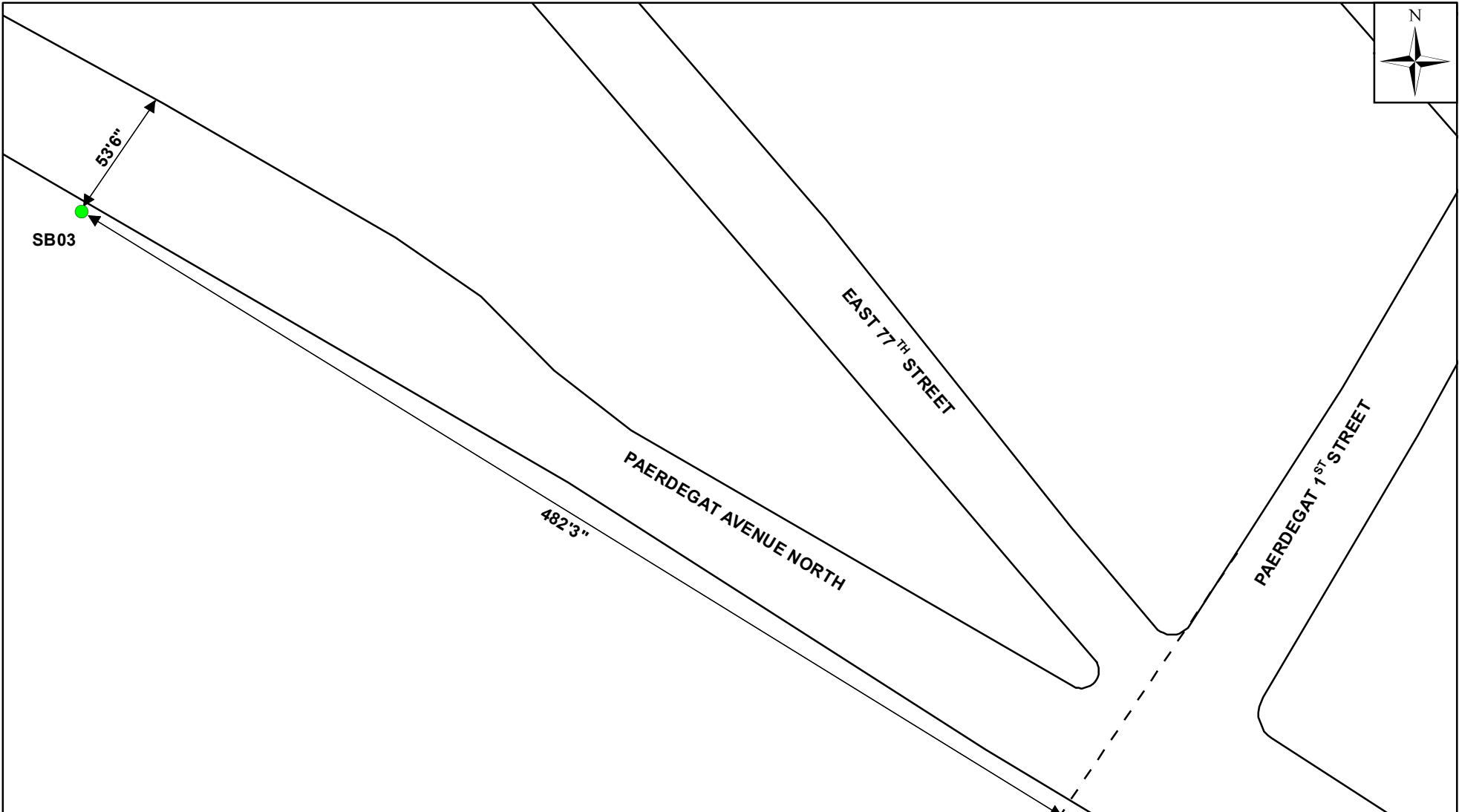
NYC Department of
DDC Design and
 Construction

 Louis Berger

DDC PROJECT NO.: HWK2048 WOL NO.: OEHS-20201409799-WOL-119

BORING LOCATION PLAN
 PHASE II SUBSURFACE CORRIDOR INVESTIGATION FOR
 JAMAICA BAY GREENWAY - PAERDEGAT AVENUE NORTH
 CONNECTOR, FLATLANDS AVENUE FROM RALPH AVENUE TO
 EAST 76TH STREET, ETC.
 BROOKLYN, NEW YORK

SCALE: 1" = 50' DATE: May 16, 2022



SB03

Legend

● Soil Boring Location
DDC Project No HWK2048



DDC PROJECT NO.: HWK2048 WOL NO.:OEHS-20201409799-WOL-119

BORING LOCATION PLAN
PHASE II SUBSURFACE CORRIDOR INVESTIGATION FOR
JAMAICA BAY GREENWAY - PAERDEGAT AVENUE NORTH
CONNECTOR, FLATLANDS AVENUE FROM RALPH AVENUE TO
EAST 76TH STREET, ETC.
BROOKLYN, NEW YORK

SCALE: 1" = 60' Version Date: May 16, 2022 AT 10:22A-2



PAERDEGAT 15TH STREET

PAERDEGAT AVENUE NORTH

SEAVIEW AVENUE

SB04/
TWP01

SB05

72'2"

52'6"

91'10"

88'6"

Legend

- Type**
- Soil Boring Location
 - ⊕ Soil Boring Location/Temporary Well Point



DDC PROJECT NO.: HWK2048 WOL NO.:OEHS-20201409799-WOL-119

BORING LOCATION PLAN
 PHASE II SUBSURFACE CORRIDOR INVESTIGATION FOR
 JAMAICA BAY GREENWAY - PAERDEGAT AVENUE NORTH
 CONNECTOR, FLATLANDS AVENUE FROM RALPH AVENUE TO
 EAST 76TH STREET, ETC.
 BROOKLYN, NEW YORK

SCALE: 1" = 50' DATE: May 16, 2022

APPENDIX B
GEOLOGIC BORING LOGS



Drilling Log

Page 1 of 1

BORING NO.: SB01

LOCATION: Brooklyn, NY

CLIENT: NYC Department of Design and Construction **PROJECT NO.:** 31402661.080

PROJECT: Phase II SCI Jamaica Bay Greenway - Paerdegat Ave North Connector **FMS ID#:** HWK2048

DRILLING CONTRACTOR: PAL Environmental Services **WOL #:** OEHS-20201409799-WOL-119

DRILLING METHOD: Airknife and Vactron **DATE STARTED:** 9/14/2021

BOREHOLE DATA **WELL DATA** **DATE FINISHED:** 9/14/2021

Diameter (in): 6.0 **Well Diameter (in):** N/A **DRILER:** E. Watkins

Total Depth (ft.): 6 **Total Depth (ft.):** N/A **INSPECTOR:** H. August

Depth to Refusal (ft.): N/A **Screen Length (ft.):** N/A **NORTHING (ft):** 169863.7454

Depth to Water (ft.): N/A **Depth to Water (ft.):** N/A **EASTING (ft):** 1007254.641

Depth to Rock (ft.): N/A **Slot Size (in):** N/A **SURFACE ELEVATION (ft):** N/A

NOTES: Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	0		TOPSOIL			<1	Dusky brown (5YR 2/2), medium to fine SAND, trace Silt, little medium to fine Gravel, moist.	Sand (Top Soil)
	1		FILL			<1	Dark yellowish orange (10YR 6/6), medium to fine SAND, trace coarse to fine Gravel, moist.	Sand (Fill)
	2		FILL			<1		
	3		FILL			<1	Moderate yellowish brown (10YR 5/4), medium to fine SAND, trace coarse to fine Gravel, moist.	Collected grab sample SB01 from 5.5 to 6.0 ftbg and composite sample SB01 from 0.0 to 6.0 ftbg.
	4							
	5							
	6							
							Total Depth of Boring 6 feet.	



Drilling Log

Page 1 of 1

BORING NO.: SB02

LOCATION: Brooklyn, NY

CLIENT: NYC Department of Design and Construction	PROJECT NO.: 31402661.080
PROJECT: Phase II SCI Jamaica Bay Greenway - Paerdegat Ave North Connector	FMS ID#: HWK2048
DRILLING CONTRACTOR: PAL Environmental Services	WOL #: OEHS-20201409799-WOL-119
DRILLING METHOD: Airknife and Vactron	DATE STARTED: 9/14/2021

BOREHOLE DATA		WELL DATA		DATE FINISHED:	
Diameter (in): 6.0		Well Diameter (in): N/A		DRILER: E. Watkins	
Total Depth (ft.): 6		Total Depth (ft.): N/A		INSPECTOR: H. August	
Depth to Refusal (ft): N/A		Screen Length (ft): N/A		NORTHING (ft): 170092.7067	
Depth to Water (ft.): N/A		Depth to Water (ft.): N/A		EASTING (ft): 1007571.111	
Depth to Rock (ft.): N/A		Slot Size (in): N/A		SURFACE ELEVATION (ft): N/A	

NOTES: Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	0		TOPSOIL			<1	Dusky yellowish brown (10YR 2/2), coarse to fine SAND, some Silt, moist.	Silty Sand (Topsoil)
	0 - 1		FILL			<1	Olive gray (5Y 4/1), coarse to fine SAND, trace Silt, some medium to fine Gravel, moist.	Gravelly Sand (Fill)
	1 - 2		FILL			<1	Moderate brown (5YR 4/4), coarse to fine SAND, some Clayey Silt, trace medium to fine Gravel, moist.	Clayey Silty Sand (Fill)
	2 - 3		FILL			<1	Dark yellowish brown (10YR 4/2), coarse to fine SAND, little Silt, little medium to fine Gravel, moist.	Sand (Fill)
	3 - 4		FILL			<1	Moderate brown (5YR 4/4), coarse to fine SAND, trace Silt, little medium to fine Gravel, moist.	
	4 - 5		FILL			<1	Moderate brown (5YR 4/4), Clayey SILT, some medium to fine Sand, trace medium to fine Gravel, moist.	Sandy Clayey Silt. Collected grab sample SB02 from 5.5 to 6.0 ftbg and composite sample SB02 from 0 to 6.0 ftbg.
	5 - 6						Total Depth of Boring 6 feet.	



Drilling Log

Page 1 of 1

BORING NO.: SB03

LOCATION: Brooklyn, NY

CLIENT: NYC Department of Design and Construction	PROJECT NO.: 31402661.080
PROJECT: Phase II SCI Jamaica Bay Greenway - Paerdegat Ave North Connector	FMS ID#: HWK2048
DRILLING CONTRACTOR: PAL Environmental Services	WOL #: OEHS-20201409799-WOL-119
DRILLING METHOD: Airknife and Vactron	DATE STARTED: 9/14/2021

BOREHOLE DATA		WELL DATA		DATE FINISHED:	
Diameter (in): 6.0		Well Diameter (in): N/A		DRILER: E. Watkins	
Total Depth (ft.): 6		Total Depth (ft.): N/A		INSPECTOR: H. August	
Depth to Refusal (ft.): N/A		Screen Length (ft.): N/A		NORTHING (ft): 169756.701	
Depth to Water (ft.): N/A		Depth to Water (ft.): N/A		EASTING (ft): 1007892.238	
Depth to Rock (ft.): N/A		Slot Size (in): N/A		SURFACE ELEVATION (ft): N/A	

NOTES: Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	0		FILL			<1	Grayish brown (5YR 3/2), Clayey SILT, and coarse to fine Sand, trace medium to fine Gravel, moist.	Sandy Clayey Silt (Fill)
	1		FILL			<1	Moderate brown (5YR 4/4), SAND, and Clayey Silt (5% fill material: wood), moist.	Clayey Silty Sand (Fill)
	2							
	3		FILL			<1	Moderate brown (5YR 4/4), Clayey SILT, and coarse to fine Sand (5% fill material: wood), moist.	Sandy Clayey Silt (Fill). Collected grab sample SB03 from 5.5 to 6.0 ftbg and composite sample SB03 from 0 to 6.0 ftbg.
	4							
	5							
	6						Total Depth of Boring 6 feet.	



Drilling Log

Page 1 of 1

BORING NO.: SB04/TWP01

LOCATION: Brooklyn, NY

CLIENT: NYC Department of Design and Construction	PROJECT NO.: 31402661.080
PROJECT: Phase II SCI Jamaica Bay Greenway - Paerdegat Ave North Connector	FMS ID#: HWK2048
DRILLING CONTRACTOR: PAL Environmental Services	WOL #: OEHS-20201409799-WOL-119
DRILLING METHOD: Airknife and Vactron	DATE STARTED: 9/14/2021
BOREHOLE DATA	
WELL DATA	
Diameter (in): 6.0	Well Diameter (in): N/A
Total Depth (ft.): 6	Total Depth (ft.): N/A
Depth to Refusal (ft.): N/A	Screen Length (ft.): N/A
Depth to Water (ft.): 3.0	Depth to Water (ft.): N/A
Depth to Rock (ft.): N/A	Slot Size (in): N/A
	DATE FINISHED: 9/14/2021
	DRILER: E. Watkins
	INSPECTOR: H. August
	NORTHING (ft): 167465.6017
	EASTING (ft): 1011752.132
	SURFACE ELEVATION (ft): N/A

NOTES: Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.
Groundwater sample TWP01 collected from a Temporary Well Point

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
▽	1	FILL	FILL	FILL	FILL	<1	Dark yellowish brown (10YR 4/2), coarse to fine SAND, some Silt, little medium to fine Gravel, moist.	Silty Sand (Fill) Sand (Fill). Collected grab sample SB04 from 2.5 to 3.0 ftbg and composite sample SB04 from 0 to 3.0 ftbg.
							Moderate brown (5YR 4/4), coarse to fine SAND, little Silt, little coarse to fine Gravel, moist.	
	2							
	3							
	4							
	5							
	6						Total Depth of Boring 6 feet.	



Drilling Log

Page 1 of 1

BORING NO.: SB05

LOCATION: Brooklyn, NY

CLIENT: NYC Department of Design and Construction	PROJECT NO.: 31402661.080
PROJECT: Phase II SCI Jamaica Bay Greenway - Paerdegat Ave North Connector	FMS ID#: HWK2048
DRILLING CONTRACTOR: PAL Environmental Services	WOL #: OEHS-20201409799-WOL-119
DRILLING METHOD: Airknife and Vactron	DATE STARTED: 9/14/2021

BOREHOLE DATA		WELL DATA		DATE FINISHED:	
Diameter (in):	6.0	Well Diameter (in):	N/A	DRILER:	E. Watkins
Total Depth (ft.):	4	Total Depth (ft.):	N/A	INSPECTOR:	H. August
Depth to Refusal (ft.):	N/A	Screen Length (ft.):	N/A	NORTHING (ft):	167510.5412
Depth to Water (ft.):	4.0	Depth to Water (ft.):	N/A	EASTING (ft):	1011887.825
Depth to Rock (ft.):	N/A	Slot Size (in):	N/A	SURFACE ELEVATION (ft):	N/A

NOTES: Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
			CONCRETE			<1	Very light gray (N8), CONCRETE, dry.	Concrete
	1		FILL			<1	Medium dark gray (N4), coarse to fine GRAVEL, and coarse to fine Sand (Concrete Subbase), dry.	Sandy Gravel (Fill)
			FILL			<1	Black (N1), coarse to fine GRAVEL, and coarse to fine Sand, dry.	
	2		FILL			<1	Moderate brown (5YR 4/4), coarse to fine SAND, little Silt, some coarse to fine Gravel, moist.	Gravelly Sand (Fill). Collected grab sample SB05 from 3.5 to 4.0 ftbg and composite sample SB05 from 0 to 4.0 ftbg.
	3		FILL			<1		
	4						Total Depth of Boring 4 feet.	
	5							
	6							

APPENDIX C
LABORATORY ANALYTICAL RESULTS

Project: Jamaica Bay

Client PO: 31402661.080

Report To: WSP USA, Inc.
96 Morton St.
8th Floor
New York, NY 10014
Attn: Jon Ganz

Received Date: 9/14/2021

Report Date: 10/21/2021

Deliverables: NYDOH-R

Lab ID: AD25976

Lab Project No: 1091507

This report is a true report of results obtained from our tests of this material. The report relates only to those samples received and analyzed by the laboratory. All results meet the requirements of the NELAC Institute standards. Laboratory reports may not be reproduced, except in full, without the written approval of the laboratory.

In lieu of a formal contract document, the total aggregate liability of Hampton-Clarke to all parties shall not exceed Hampton-Clarke's total fee for analytical services rendered.

Sean Berls - Quality Assurance Officer

OR

Jean Revolus - Laboratory Director

NJ (07071)
PA (68-00463)

NY (ELAP11408)
KY (90124)

CT (PH-0671)





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Sample Summary

Client: WSP USA, Inc.
Project: Jamaica Bay

HC Project #: 1091507

Lab#	SampleID	Matrix	Collection Date	Receipt Date
AD25976-001	SB01 GRAB	Soil	9/14/2021	9/14/2021
AD25976-002	SB01 COMP	Soil	9/14/2021	9/14/2021
AD25976-003	SB02 GRAB	Soil	9/14/2021	9/14/2021
AD25976-004	SB02 COMP	Soil	9/14/2021	9/14/2021
AD25976-005	SB03 GRAB	Soil	9/14/2021	9/14/2021
AD25976-006	SB03 COMP	Soil	9/14/2021	9/14/2021
AD25976-007	SB04 GRAB	Soil	9/14/2021	9/14/2021
AD25976-008	SB04 COMP	Soil	9/14/2021	9/14/2021
AD25976-009	SB05 GRAB	Soil	9/14/2021	9/14/2021
AD25976-010	SB05 COMP	Soil	9/14/2021	9/14/2021
AD25976-011	SB04 GW	Aqueous	9/14/2021	9/14/2021

HC Case Narrative

Client: WSP USA, Inc.
Project: Jamaica Bay

HC Project: 1091507

This case narrative is in the form of an exception report. Method specific and/or QA/QC anomalies related to this report only are detailed below.

Volatile Organic Analysis:

The Method Blank Spike for batches 96744, 96752 had recoveries outside QC limits. Please refer to the applicable Form 3 for the recoveries. Please refer to Form 4 to see which samples are associated with the Method Blank Spike.

The MS/MSD RPD, Matrix Spike and/or Matrix Spike Duplicate for batches 96743, 96752, 96753 had recoveries outside QC limits. Please refer to the applicable Form 3 for the recoveries.

Sample AD25976-003 had one or more surrogate recoveries outside QC limits. The sample was reanalyzed confirming recoveries outside QC limits due to matrix interference. The re-analysis is reported. Please refer to the applicable Form 2 for the recoveries.

Sample AD25976-003 had one or more internal standard areas outside +100% / -50% window from most recent calibration verification standard. Please refer to the applicable Form 8 for the areas.

Base Neutral/Acid Extractable Analysis:

The MS/MSD RPD, Matrix Spike and/or Matrix Spike Duplicate for batches 94976, 94984 had recoveries outside QC limits. Please refer to the applicable Form 3 for the recoveries.

Samples WMB94984, AD25969-001(MS), -001(MSD) had one or more surrogates outside QC limits. Please refer to the applicable Form 2 for the recoveries.

PCB Analysis:

Sample AD25976-004 had one or more surrogates outside QC limits. Please refer to the applicable Form 2 for the recoveries.

Total Petroleum Hydrocarbon Analysis:

There is no surrogate recovery data for samples AD25945-002, -002(MS), -002(MSD) due to high sample dilution. Please refer to the applicable Form 2 for the recoveries.

Gasoline Range Organics Analysis:

Data conforms to method requirements.

TCLP Metals Analysis:

The Post Spike, Matrix Spike and/or Matrix Spike Duplicate for batch 94403 had recoveries outside QC limits. Please refer to the applicable Form 5/7 for the recoveries.

Sample AD25976-006 was reported at a dilution for Pb due to concentration over linear range.

Wet Chemistry Analysis:

Samples AD25976-002, -004, -006, -008, -010 were analyzed for Reactivity using SW-846 7.3. SW-846 7.3 is not a NELAP accredited parameter.

Sean Berls
Quality Assurance Officer

Or

Jean Revolus
Laboratory Director

10/21/2021
Date

HC Executive Summary

1091507 0003

Client: WSP USA, Inc.

HC Project #: 1091507

Project: Jamaica Bay

Lab#: AD25976-002

Sample ID: SB01 COMP

Analyte	Units	RL	Result	Analytical Method
pH	ph		8.1	9040C/9045D
Temperature	c		22.9	9040C/9045D
Burning Rate (mm/sec)			NA	EPA 1030
Flame Propagation (POS/NEG)			NEG	EPA 1030
Ignitability (POS/NEG)			NEG	EPA 1030
Anthracene	mg/kg	0.038	0.057	EPA 8270E
Benzo[a]anthracene	mg/kg	0.038	0.31	EPA 8270E
Benzo[a]pyrene	mg/kg	0.038	0.29	EPA 8270E
Benzo[b]fluoranthene	mg/kg	0.038	0.36	EPA 8270E
Benzo[g,h,i]perylene	mg/kg	0.038	0.20	EPA 8270E
Benzo[k]fluoranthene	mg/kg	0.038	0.083	EPA 8270E
Chrysene	mg/kg	0.038	0.34	EPA 8270E
Dibenzo[a,h]anthracene	mg/kg	0.038	0.050	EPA 8270E
Fluoranthene	mg/kg	0.038	0.48	EPA 8270E
Indeno[1,2,3-cd]pyrene	mg/kg	0.038	0.16	EPA 8270E
Phenanthrene	mg/kg	0.038	0.28	EPA 8270E
Pyrene	mg/kg	0.038	0.67	EPA 8270E
Paint Filter Test			NEG	EPA 9095B

Lab#: AD25976-004

Sample ID: SB02 COMP

Analyte	Units	RL	Result	Analytical Method
pH	ph		7.6	9040C/9045D
Temperature	c		22.9	9040C/9045D
Burning Rate (mm/sec)			NA	EPA 1030
Flame Propagation (POS/NEG)			NEG	EPA 1030
Ignitability (POS/NEG)			NEG	EPA 1030
Barium	mg/l	0.25	2.4	EPA 6010D
Lead	mg/l	0.050	1.6	EPA 6010D
Total Petroleum Hydrocarbons	mg/kg	72	120	EPA 8015D
Anthracene	mg/kg	0.12	0.21	EPA 8270E
Benzo[a]anthracene	mg/kg	0.12	0.96	EPA 8270E
Benzo[a]pyrene	mg/kg	0.12	0.87	EPA 8270E
Benzo[b]fluoranthene	mg/kg	0.12	1.3	EPA 8270E
Benzo[g,h,i]perylene	mg/kg	0.12	0.56	EPA 8270E
Benzo[k]fluoranthene	mg/kg	0.12	0.35	EPA 8270E
Chrysene	mg/kg	0.12	1.0	EPA 8270E
Dibenzo[a,h]anthracene	mg/kg	0.12	0.16	EPA 8270E
Fluoranthene	mg/kg	0.12	2.0	EPA 8270E
Indeno[1,2,3-cd]pyrene	mg/kg	0.12	0.50	EPA 8270E
Phenanthrene	mg/kg	0.12	1.2	EPA 8270E
Pyrene	mg/kg	0.12	1.9	EPA 8270E
Paint Filter Test			NEG	EPA 9095B

HC Executive Summary

Client: WSP USA, Inc.

HC Project #: 1091507

Project: Jamaica Bay

Lab#: AD25976-006

Sample ID: SB03 COMP

Analyte	Units	RL	Result	Analytical Method
pH	ph		7.8	9040C/9045D
Temperature	c		22.9	9040C/9045D
Burning Rate (mm/sec)			NA	EPA 1030
Flame Propagation (POS/NEG)			NEG	EPA 1030
Ignitability (POS/NEG)			NEG	EPA 1030
Barium	mg/l	0.25	2.0	EPA 6010D
Lead	mg/l	0.10	16	EPA 6010D
Benzo[a]anthracene	mg/kg	0.12	0.17	EPA 8270E
Benzo[a]pyrene	mg/kg	0.12	0.15	EPA 8270E
Benzo[b]fluoranthene	mg/kg	0.12	0.24	EPA 8270E
Chrysene	mg/kg	0.12	0.18	EPA 8270E
Fluoranthene	mg/kg	0.12	0.28	EPA 8270E
Pyrene	mg/kg	0.12	0.28	EPA 8270E
Paint Filter Test			NEG	EPA 9095B

Lab#: AD25976-007

Sample ID: SB04 GRAB

Analyte	Units	RL	Result	Analytical Method
3,3'-Dichlorobenzidine	mg/kg	0.042	0.82	EPA 8270E
3-Nitroaniline	mg/kg	0.042	0.79	EPA 8270E
4-Chloroaniline	mg/kg	0.018	0.69	EPA 8270E
4-Nitroaniline	mg/kg	0.042	0.32	EPA 8270E

Lab#: AD25976-008

Sample ID: SB04 COMP

Analyte	Units	RL	Result	Analytical Method
pH	ph		6.8	9040C/9045D
Temperature	c		22.9	9040C/9045D
Burning Rate (mm/sec)			NA	EPA 1030
Flame Propagation (POS/NEG)			NEG	EPA 1030
Ignitability (POS/NEG)			NEG	EPA 1030
Barium	mg/l	0.25	1.3	EPA 6010D
Lead	mg/l	0.050	0.40	EPA 6010D
Benzo[a]anthracene	mg/kg	0.12	0.13	EPA 8270E
Benzo[a]pyrene	mg/kg	0.12	0.12	EPA 8270E
Benzo[b]fluoranthene	mg/kg	0.12	0.20	EPA 8270E
Fluoranthene	mg/kg	0.12	0.22	EPA 8270E
Pyrene	mg/kg	0.12	0.22	EPA 8270E
Paint Filter Test			NEG	EPA 9095B

HC Executive Summary

1091507 0005

Client: WSP USA, Inc.

HC Project #: 1091507

Project: Jamaica Bay

Lab#: AD25976-010

Sample ID: SB05 COMP

Analyte	Units	RL	Result	Analytical Method
pH	ph		7.4	9040C/9045D
Temperature	c		22.7	9040C/9045D
Burning Rate (mm/sec)			NA	EPA 1030
Flame Propagation (POS/NEG)			NEG	EPA 1030
Ignitability (POS/NEG)			NEG	EPA 1030
Barium	mg/l	0.25	0.29	EPA 6010D
Lead	mg/l	0.050	0.11	EPA 6010D
Berzo[a]anthracene	mg/kg	0.042	0.055	EPA 8270E
Benzo[a]pyrene	mg/kg	0.042	0.061	EPA 8270E
Benzo[b]fluoranthene	mg/kg	0.042	0.088	EPA 8270E
Benzo[g,h,i]perylene	mg/kg	0.042	0.056	EPA 8270E
Chrysene	mg/kg	0.042	0.061	EPA 8270E
Fluoranthene	mg/kg	0.042	0.081	EPA 8270E
Pyrene	mg/kg	0.042	0.091	EPA 8270E
Paint Filter Test			NEG	EPA 9095B

HC Report of Analysis

Client: WSP USA, Inc.
Project: Jamaica Bay

HC Project #: 1091507

Sample ID: SB01 GRAB
Lab#: AD25976-001
Matrix: Soil

Collection Date: 9/14/2021
Receipt Date: 9/14/2021

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	1	percent		92

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	0.998	mg/kg	0.0022	ND
1,1,2,2-Tetrachloroethane	0.998	mg/kg	0.0022	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	0.998	mg/kg	0.0022	ND
1,1,2-Trichloroethane	0.998	mg/kg	0.0022	ND
1,1-Dichloroethane	0.998	mg/kg	0.0022	ND
1,1-Dichloroethene	0.998	mg/kg	0.0022	ND
1,2,3-Trichlorobenzene	0.998	mg/kg	0.0022	ND
1,2,4-Trichlorobenzene	0.998	mg/kg	0.0022	ND
1,2-Dibromo-3-chloropropane	0.998	mg/kg	0.0022	ND
1,2-Dibromoethane	0.998	mg/kg	0.00054	ND
1,2-Dichlorobenzene	0.998	mg/kg	0.0022	ND
1,2-Dichloroethane	0.998	mg/kg	0.0022	ND
1,2-Dichloropropane	0.998	mg/kg	0.0022	ND
1,3-Dichlorobenzene	0.998	mg/kg	0.0022	ND
1,4-Dichlorobenzene	0.998	mg/kg	0.0022	ND
1,4-Dioxane	0.998	mg/kg	0.11	ND
2-Butanone	0.998	mg/kg	0.0022	ND
2-Hexanone	0.998	mg/kg	0.0022	ND
4-Methyl-2-pentanone	0.998	mg/kg	0.0022	ND
Acetone	0.998	mg/kg	0.011	ND
Benzene	0.998	mg/kg	0.0011	ND
Bromochloromethane	0.998	mg/kg	0.0022	ND
Bromodichloromethane	0.998	mg/kg	0.0022	ND
Bromoform	0.998	mg/kg	0.0022	ND
Bromomethane	0.998	mg/kg	0.0022	ND
Carbon disulfide	0.998	mg/kg	0.0037	ND
Carbon tetrachloride	0.998	mg/kg	0.0022	ND
Chlorobenzene	0.998	mg/kg	0.0022	ND
Chloroethane	0.998	mg/kg	0.0022	ND
Chloroform	0.998	mg/kg	0.0022	ND
Chloromethane	0.998	mg/kg	0.0022	ND
cis-1,2-Dichloroethene	0.998	mg/kg	0.0022	ND
cis-1,3-Dichloropropene	0.998	mg/kg	0.0022	ND
Cyclohexane	0.998	mg/kg	0.0022	ND
Dibromochloromethane	0.998	mg/kg	0.0022	ND
Dichlorodifluoromethane	0.998	mg/kg	0.0022	ND
Ethylbenzene	0.998	mg/kg	0.0011	ND
Isopropylbenzene	0.998	mg/kg	0.0011	ND
m&p-Xylenes	0.998	mg/kg	0.0013	ND
Methyl Acetate	0.998	mg/kg	0.0022	ND
Methylcyclohexane	0.998	mg/kg	0.0022	ND
Methylene chloride	0.998	mg/kg	0.0022	ND
Methyl-t-butyl ether	0.998	mg/kg	0.0011	ND
p-Xylenes	0.998	mg/kg	0.0011	ND

Sample ID: SB01 GRAB
Lab#: AD25976-001
Matrix: Soil

Collection Date: 9/14/2021
Receipt Date: 9/14/2021

Styrene	0.998	mg/kg	0.0022	ND
Tetrachloroethene	0.998	mg/kg	0.0022	ND
Toluene	0.998	mg/kg	0.0011	ND
trans-1,2-Dichloroethene	0.998	mg/kg	0.0022	ND
trans-1,3-Dichloropropene	0.998	mg/kg	0.0022	ND
Trichloroethene	0.998	mg/kg	0.0022	ND
Trichlorofluoromethane	0.998	mg/kg	0.0022	ND
Vinyl chloride	0.998	mg/kg	0.0022	ND
Xylenes (Total)	0.998	mg/kg	0.0011	ND

Sample ID: SB01 COMP
 Lab#: AD25976-002
 Matrix: Soil

Collection Date: 9/14/2021
 Receipt Date: 9/14/2021

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	1	percent		88

Gasoline range organics 8015D(C6-C10)

Analyte	DF	Units	RL	Result
Gasoline Range Organics	99.8	mg/kg	28	ND

Ignitability

Analyte	DF	Units	RL	Result
Burning Rate (mm/sec)	1			NA
Flame Propagation (POS/NEG)	1			NEG
Ignitability (POS/NEG)	1			NEG

Mercury (TCLP) 7470A

Analyte	DF	Units	RL	Result
Mercury	1	mg/l	0.00050	ND

PAH Compounds 8270

Analyte	DF	Units	RL	Result
2-Methylnaphthalene	1	mg/kg	0.038	ND
Acenaphthene	1	mg/kg	0.038	ND
Acenaphthylene	1	mg/kg	0.038	ND
Anthracene	1	mg/kg	0.038	0.057
Benzo[a]anthracene	1	mg/kg	0.038	0.31
Benzo[a]pyrene	1	mg/kg	0.038	0.29
Benzo[b]fluoranthene	1	mg/kg	0.038	0.36
Benzo[g,h,i]perylene	1	mg/kg	0.038	0.20
Benzo[k]fluoranthene	1	mg/kg	0.038	0.083
Chrysene	1	mg/kg	0.038	0.34
Dibenzo[a,h]anthracene	1	mg/kg	0.038	0.050
Fluoranthene	1	mg/kg	0.038	0.48
Fluorene	1	mg/kg	0.038	ND
Indeno[1,2,3-cd]pyrene	1	mg/kg	0.038	0.16
Naphthalene	1	mg/kg	0.011	ND
Phenanthrene	1	mg/kg	0.038	0.28
Pyrene	1	mg/kg	0.038	0.67

Paint Filter Test 9095B

Analyte	DF	Units	RL	Result
Paint Filter Test	1			NEG

PCB 8082

Analyte	DF	Units	RL	Result
Aroclor (Total)	1	mg/kg	0.028	ND
Aroclor-1016	1	mg/kg	0.028	ND
Aroclor-1221	1	mg/kg	0.028	ND
Aroclor-1232	1	mg/kg	0.028	ND
Aroclor-1242	1	mg/kg	0.028	ND
Aroclor-1248	1	mg/kg	0.028	ND
Aroclor-1254	1	mg/kg	0.028	ND
Aroclor-1260	1	mg/kg	0.028	ND
Aroclor-1262	1	mg/kg	0.028	ND
Aroclor-1268	1	mg/kg	0.028	ND

pH 9040C/9045D

Analyte	DF	Units	RL	Result
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Sample ID: SB01 COMP
 Lab#: AD25976-002
 Matrix: Soil

Collection Date: 9/14/2021
 Receipt Date: 9/14/2021

Temperature	1	c		22.9
Reactive Cyanide				
Analyte	DF	Units	RL	Result
Cyanide (Reactive)	1	mg/kg	0.50	ND
Reactive Sulfide				
Analyte	DF	Units	RL	Result
Sulfide (Reactive)	1	mg/kg	100	ND
TCLP Metals 6010				
Analyte	DF	Units	RL	Result
Arsenic	1	mg/l	0.10	ND
Barium	1	mg/l	0.25	ND
Cadmium	1	mg/l	0.050	ND
Chromium	1	mg/l	0.10	ND
Lead	1	mg/l	0.050	ND
Nickel	1	mg/l	0.10	ND
Selenium	1	mg/l	0.10	ND
Silver	1	mg/l	0.050	ND
Total PetroleumHydrocarbons8015D(C8-C40)				
Analyte	DF	Units	RL	Result
Total Petroleum Hydrocarbons	1	mg/kg	68	ND

Sample ID: SB02 GRAB
 Lab#: AD25976-003
 Matrix: Soil

Collection Date: 9/14/2021
 Receipt Date: 9/14/2021

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	1	percent		90

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	0.992	mg/kg	0.0022	ND
1,1,2,2-Tetrachloroethane	0.992	mg/kg	0.0022	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	0.992	mg/kg	0.0022	ND
1,1,2-Trichloroethane	0.992	mg/kg	0.0022	ND
1,1-Dichloroethane	0.992	mg/kg	0.0022	ND
1,1-Dichloroethene	0.992	mg/kg	0.0022	ND
1,2,3-Trichlorobenzene	0.992	mg/kg	0.0022	ND
1,2,4-Trichlorobenzene	0.992	mg/kg	0.0022	ND
1,2-Dibromo-3-chloropropane	0.992	mg/kg	0.0022	ND
1,2-Dibromoethane	0.992	mg/kg	0.00055	ND
1,2-Dichlorobenzene	0.992	mg/kg	0.0022	ND
1,2-Dichloroethane	0.992	mg/kg	0.0022	ND
1,2-Dichloropropane	0.992	mg/kg	0.0022	ND
1,3-Dichlorobenzene	0.992	mg/kg	0.0022	ND
1,4-Dichlorobenzene	0.992	mg/kg	0.0022	ND
1,4-Dioxane	0.992	mg/kg	0.11	ND
2-Butanone	0.992	mg/kg	0.0022	ND
2-Hexanone	0.992	mg/kg	0.0022	ND
4-Methyl-2-pentanone	0.992	mg/kg	0.0022	ND
Acetone	0.992	mg/kg	0.011	ND
Benzene	0.992	mg/kg	0.0011	ND
Bromochloromethane	0.992	mg/kg	0.0022	ND
Bromodichloromethane	0.992	mg/kg	0.0022	ND
Bromofom	0.992	mg/kg	0.0022	ND
Bromomethane	0.992	mg/kg	0.0022	ND
Carbon disulfide	0.992	mg/kg	0.0037	ND
Carbon tetrachloride	0.992	mg/kg	0.0022	ND
Chlorobenzene	0.992	mg/kg	0.0022	ND
Chloroethane	0.992	mg/kg	0.0022	ND
Chloroform	0.992	mg/kg	0.0022	ND
Chloromethane	0.992	mg/kg	0.0022	ND
cis-1,2-Dichloroethene	0.992	mg/kg	0.0022	ND
cis-1,3-Dichloropropene	0.992	mg/kg	0.0022	ND
Cyclohexane	0.992	mg/kg	0.0022	ND
Dibromochloromethane	0.992	mg/kg	0.0022	ND
Dichlorodifluoromethane	0.992	mg/kg	0.0022	ND
Ethylbenzene	0.992	mg/kg	0.0011	ND
Isopropylbenzene	0.992	mg/kg	0.0011	ND
m&p-Xylenes	0.992	mg/kg	0.0013	ND
Methyl Acetate	0.992	mg/kg	0.0022	ND
Methylcyclohexane	0.992	mg/kg	0.0022	ND
Methylene chloride	0.992	mg/kg	0.0022	ND
Methyl-t-butyl ether	0.992	mg/kg	0.0011	ND
o-Xylene	0.992	mg/kg	0.0011	ND
Styrene	0.992	mg/kg	0.0022	ND
Tetrachloroethene	0.992	mg/kg	0.0022	ND
Toluene	0.992	mg/kg	0.0011	ND
trans-1,2-Dichloroethene	0.992	mg/kg	0.0022	ND
trans-1,3-Dichloropropene	0.992	mg/kg	0.0022	ND
Trichloroethene	0.992	mg/kg	0.0022	ND

Sample ID: SB02 GRAB
Lab#: AD25976-003
Matrix: Soil

Collection Date: 9/14/2021
Receipt Date: 9/14/2021

Trichlorofluoromethane	0.992	mg/kg	0.0022	ND
Vinyl chloride	0.992	mg/kg	0.0022	ND
Xylenes (Total)	0.992	mg/kg	0.0011	ND

Sample ID: SB02 COMP
 Lab#: AD25976-004
 Matrix: Soil

Collection Date: 9/14/2021
 Receipt Date: 9/14/2021

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	1	percent		83

Gasoline range organics 8015D(C6-C10)

Analyte	DF	Units	RL	Result
Gasoline Range Organics	99	mg/kg	30	ND

Ignitability (EPA 1030)

Analyte	DF	Units	RL	Result
Burning Rate (mm/sec)	1			NA
Flame Propagation (POS/NEG)	1			NEG
Ignitability (POS/NEG)	1			NEG

Mercury (TCLP) 7470A

Analyte	DF	Units	RL	Result
Mercury	1	mg/l	0.00050	ND

PAH Compounds 8270

Analyte	DF	Units	RL	Result
2-Methylnaphthalene	3	mg/kg	0.12	ND
Acenaphthene	3	mg/kg	0.12	ND
Acenaphthylene	3	mg/kg	0.12	ND
Anthracene	3	mg/kg	0.12	0.21
Benzo[a]anthracene	3	mg/kg	0.12	0.96
Benzo[a]pyrene	3	mg/kg	0.12	0.67
Benzo[b]fluoranthene	3	mg/kg	0.12	1.3
Benzo[g,h,i]perylene	3	mg/kg	0.12	0.56
Benzo[k]fluoranthene	3	mg/kg	0.12	0.35
Chrysene	3	mg/kg	0.12	1.0
Dibenzo[a,h]anthracene	3	mg/kg	0.12	0.16
Fluoranthene	3	mg/kg	0.12	2.0
Fluorene	3	mg/kg	0.12	ND
Indeno[1,2,3-cd]pyrene	3	mg/kg	0.12	0.50
Naphthalene	3	mg/kg	0.035	ND
Phenanthrene	3	mg/kg	0.12	1.2
Pyrene	3	mg/kg	0.12	1.9

Paint Filter Test 9095B

Analyte	DF	Units	RL	Result
Paint Filter Test	1			NEG

PCB 8082

Analyte	DF	Units	RL	Result
Aroclor (Total)	1	mg/kg	0.030	ND
Aroclor-1016	1	mg/kg	0.030	ND
Aroclor-1221	1	mg/kg	0.030	ND
Aroclor-1232	1	mg/kg	0.030	ND
Aroclor-1242	1	mg/kg	0.030	ND
Aroclor-1248	1	mg/kg	0.030	ND
Aroclor-1254	1	mg/kg	0.030	ND
Aroclor-1260	1	mg/kg	0.030	ND
Aroclor-1262	1	mg/kg	0.030	ND
Aroclor-1268	1	mg/kg	0.030	ND

pH 9040C/9045D

Analyte	DF	Units	RL	Result
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Sample ID: SB02 COMP
 Lab#: AD25976-004
 Matrix: Soil

Collection Date: 9/14/2021
 Receipt Date: 9/14/2021

Temperature	1	c	22.9	
Reactive Cyanide				
Analyte	DF	Units	RL	Result
Cyanide (Reactive)	1	mg/kg	0.50	ND
Reactive Sulfide				
Analyte	DF	Units	RL	Result
Sulfide (Reactive)	1	mg/kg	100	ND
TCLP Metals 6010D				
Analyte	DF	Units	RL	Result
Arsenic	1	mg/l	0.10	ND
Barium	1	mg/l	0.25	2.4
Cadmium	1	mg/l	0.050	ND
Chromium	1	mg/l	0.10	ND
Lead	1	mg/l	0.050	1.6
Nickel	1	mg/l	0.10	ND
Selenium	1	mg/l	0.10	ND
Silver	1	mg/l	0.050	ND
Total PetroleumHydrocarbons8015D(C8-C40)				
Analyte	DF	Units	RL	Result
Total Petroleum Hydrocarbons	1	mg/kg	72	120

Sample ID: SB03 GRAB
 Lab#: AD25976-005
 Matrix: Soil

Collection Date: 9/14/2021
 Receipt Date: 9/14/2021

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	1	percent		81

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	0.986	mg/kg	0.0024	ND
1,1,2,2-Tetrachloroethane	0.986	mg/kg	0.0024	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	0.986	mg/kg	0.0024	ND
1,1,2-Trichloroethane	0.986	mg/kg	0.0024	ND
1,1-Dichloroethane	0.986	mg/kg	0.0024	ND
1,1-Dichloroethene	0.986	mg/kg	0.0024	ND
1,2,3-Trichlorobenzene	0.986	mg/kg	0.0024	ND
1,2,4-Trichlorobenzene	0.986	mg/kg	0.0024	ND
1,2-Dibromo-3-chloropropane	0.986	mg/kg	0.0024	ND
1,2-Dibromoethane	0.986	mg/kg	0.00061	ND
1,2-Dichlorobenzene	0.986	mg/kg	0.0024	ND
1,2-Dichloroethane	0.986	mg/kg	0.0024	ND
1,2-Dichloropropane	0.986	mg/kg	0.0024	ND
1,3-Dichlorobenzene	0.986	mg/kg	0.0024	ND
1,4-Dichlorobenzene	0.986	mg/kg	0.0024	ND
1,4-Dioxane	0.986	mg/kg	0.12	ND
2-Butanone	0.986	mg/kg	0.0024	ND
2-Hexanone	0.986	mg/kg	0.0024	ND
4-Methyl-2-pentanone	0.986	mg/kg	0.0024	ND
Acetone	0.986	mg/kg	0.012	ND
Benzene	0.986	mg/kg	0.0012	ND
Bromochloromethane	0.986	mg/kg	0.0024	ND
Bromodichloromethane	0.986	mg/kg	0.0024	ND
Bromoform	0.986	mg/kg	0.0024	ND
Bromomethane	0.986	mg/kg	0.0024	ND
Carbon disulfide	0.986	mg/kg	0.0041	ND
Carbon tetrachloride	0.986	mg/kg	0.0024	ND
Chlorobenzene	0.986	mg/kg	0.0024	ND
Chloroethane	0.986	mg/kg	0.0024	ND
Chloroform	0.986	mg/kg	0.0024	ND
Chloromethane	0.986	mg/kg	0.0024	ND
cis-1,2-Dichloroethene	0.986	mg/kg	0.0024	ND
cis-1,3-Dichloropropene	0.986	mg/kg	0.0024	ND
Cyclohexane	0.986	mg/kg	0.0024	ND
Dibromochloromethane	0.986	mg/kg	0.0024	ND
Dichlorodifluoromethane	0.986	mg/kg	0.0024	ND
Ethylbenzene	0.986	mg/kg	0.0012	ND
Isopropylbenzene	0.986	mg/kg	0.0012	ND
m&p-Xylenes	0.986	mg/kg	0.0015	ND
Methyl Acetate	0.986	mg/kg	0.0024	ND
Methylcyclohexane	0.986	mg/kg	0.0024	ND
Methylene chloride	0.986	mg/kg	0.0024	ND
Methyl-t-butyl ether	0.986	mg/kg	0.0012	ND
o-Xylene	0.986	mg/kg	0.0012	ND
Styrene	0.986	mg/kg	0.0024	ND
Tetrachloroethene	0.986	mg/kg	0.0024	ND
Toluene	0.986	mg/kg	0.0012	ND
trans-1,2-Dichloroethene	0.986	mg/kg	0.0024	ND
trans-1,3-Dichloropropene	0.986	mg/kg	0.0024	ND
Trichloroethene	0.986	mg/kg	0.0024	ND

Sample ID: SB03 GRAB
Lab#: AD25976-005
Matrix: Soil

Collection Date: 9/14/2021
Receipt Date: 9/14/2021

Trichlorofluoromethane	0.986	mg/kg	0.0024	ND
Vinyl chloride	0.986	mg/kg	0.0024	ND
Xylenes (Total)	0.986	mg/kg	0.0012	ND

Sample ID: SB03 COMP
 Lab#: AD25976-006
 Matrix: Soil

Collection Date: 9/14/2021
 Receipt Date: 9/14/2021

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	1	percent		80

Gasoline range organics 8015D(C6-C10)

Analyte	DF	Units	RL	Result
Gasoline Range Organics	99.2	mg/kg	31	ND

Ignitability (EPA 1030)

Analyte	DF	Units	RL	Result
Burning Rate (mm/sec)	1			NA
Flame Propagation (POS/NEG)	1			NEG
Ignitability (POS/NEG)	1			NEG

Mercury (TCLP) 7470A

Analyte	DF	Units	RL	Result
Mercury	1	mg/l	0.00050	ND

PAH Compounds 8270

Analyte	DF	Units	RL	Result
2-Methylnaphthalene	3	mg/kg	0.12	ND
Acenaphthene	3	mg/kg	0.12	ND
Acenaphthylene	3	mg/kg	0.12	ND
Anthracene	3	mg/kg	0.12	ND
Benzo[a]anthracene	3	mg/kg	0.12	0.17
Benzo[a]pyrene	3	mg/kg	0.12	0.15
Benzo[b]fluoranthene	3	mg/kg	0.12	0.24
Benzo[g,h,i]perylene	3	mg/kg	0.12	ND
Benzo[k]fluoranthene	3	mg/kg	0.12	ND
Chrysene	3	mg/kg	0.12	0.18
Dibenzo[a,h]anthracene	3	mg/kg	0.12	ND
Fluoranthene	3	mg/kg	0.12	0.28
Fluorene	3	mg/kg	0.12	ND
Indeno[1,2,3-cd]pyrene	3	mg/kg	0.12	ND
Naphthalene	3	mg/kg	0.036	ND
Phenanthrene	3	mg/kg	0.12	ND
Pyrene	3	mg/kg	0.12	0.28

Paint Filter Test 9095B

Analyte	DF	Units	RL	Result
Paint Filter Test	1			NEG

PCB 8082

Analyte	DF	Units	RL	Result
Aroclor (Total)	1	mg/kg	0.031	ND
Aroclor-1016	1	mg/kg	0.031	ND
Aroclor-1221	1	mg/kg	0.031	ND
Aroclor-1232	1	mg/kg	0.031	ND
Aroclor-1242	1	mg/kg	0.031	ND
Aroclor-1248	1	mg/kg	0.031	ND
Aroclor-1254	1	mg/kg	0.031	ND
Aroclor-1260	1	mg/kg	0.031	ND
Aroclor-1262	1	mg/kg	0.031	ND
Aroclor-1268	1	mg/kg	0.031	ND

pH 9040C/9045D

Analyte	DF	Units	RL	Result
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Sample ID: SB03 COMP
 Lab#: AD25976-006
 Matrix: Soil

Collection Date: 9/14/2021
 Receipt Date: 9/14/2021

Temperature	1	c		22.9
Reactive Cyanide				
Analyte	DF	Units	RL	Result
Cyanide (Reactive)	1	mg/kg	0.50	ND
Reactive Sulfide				
Analyte	DF	Units	RL	Result
Sulfide (Reactive)	1	mg/kg	100	ND
TCLP Metals 6010D				
Analyte	DF	Units	RL	Result
Arsenic	1	mg/l	0.10	ND
Barium	1	mg/l	0.25	2.0
Cadmium	1	mg/l	0.050	ND
Chromium	1	mg/l	0.10	ND
Lead	2	mg/l	0.10	16
Nickel	1	mg/l	0.10	ND
Selenium	1	mg/l	0.10	ND
Silver	1	mg/l	0.050	ND
Total PetroleumHydrocarbons8015D(C8-C40)				
Analyte	DF	Units	RL	Result
Total Petroleum Hydrocarbons	1	mg/kg	75	ND

Sample ID: SB04 GRAB
 Lab#: AD25976-007
 Matrix: Soil

Collection Date: 9/14/2021
 Receipt Date: 9/14/2021

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	1	percent		80

PCB 8082

Analyte	DF	Units	RL	Result
Aroclor (Total)	1	mg/kg	0.031	ND
Aroclor-1016	1	mg/kg	0.031	ND
Aroclor-1221	1	mg/kg	0.031	ND
Aroclor-1232	1	mg/kg	0.031	ND
Aroclor-1242	1	mg/kg	0.031	ND
Aroclor-1248	1	mg/kg	0.031	ND
Aroclor-1254	1	mg/kg	0.031	ND
Aroclor-1260	1	mg/kg	0.031	ND
Aroclor-1262	1	mg/kg	0.031	ND
Aroclor-1268	1	mg/kg	0.031	ND

Semivolatile Organics (no search) 8270

Analyte	DF	Units	RL	Result
1,1'-Biphenyl	1	mg/kg	0.042	ND
1,2,4,5-Tetrachlorobenzene	1	mg/kg	0.042	ND
1,4-Dioxane	1	mg/kg	0.021	ND
2,3,4,6-Tetrachlorophenol	1	mg/kg	0.042	ND
2,4,5-Trichlorophenol	1	mg/kg	0.042	ND
2,4,6-Trichlorophenol	1	mg/kg	0.042	ND
2,4-Dichlorophenol	1	mg/kg	0.016	ND
2,4-Dimethylphenol	1	mg/kg	0.020	ND
2,4-Dinitrophenol	1	mg/kg	0.21	ND
2,4-Dinitrotoluene	1	mg/kg	0.042	ND
2,6-Dinitrotoluene	1	mg/kg	0.042	ND
2-Chloronaphthalene	1	mg/kg	0.042	ND
2-Chlorophenol	1	mg/kg	0.042	ND
2-Methylnaphthalene	1	mg/kg	0.042	ND
2-Methylphenol	1	mg/kg	0.012	ND
2-Nitroaniline	1	mg/kg	0.042	ND
2-Nitrophenol	1	mg/kg	0.042	ND
3&4-Methylphenol	1	mg/kg	0.012	ND
3,3'-Dichlorobenzidine	1	mg/kg	0.042	0.82
3-Nitroaniline	1	mg/kg	0.042	0.79
4,6-Dinitro-2-methylphenol	1	mg/kg	0.15	ND
4-Bromophenyl-phenylether	1	mg/kg	0.042	ND
4-Chloro-3-methylphenol	1	mg/kg	0.042	ND
4-Chloroaniline	1	mg/kg	0.018	0.69
4-Chlorophenyl-phenylether	1	mg/kg	0.042	ND
4-Nitroaniline	1	mg/kg	0.042	0.32
4-Nitrophenol	1	mg/kg	0.042	ND
Acenaphthene	1	mg/kg	0.042	ND
Acenaphthylene	1	mg/kg	0.042	ND
Acetophenone	1	mg/kg	0.042	ND
Anthracene	1	mg/kg	0.042	ND
Atrazine	1	mg/kg	0.042	ND
Benzaldehyde	1	mg/kg	0.45	ND
Benzo[a]anthracene	1	mg/kg	0.042	ND
Benzo[a]pyrene	1	mg/kg	0.042	ND
Benzo[b]fluoranthene	1	mg/kg	0.042	ND
Benzo[g,h,i]perylene	1	mg/kg	0.042	ND
Benzo[k]fluoranthene	1	mg/kg	0.042	ND

Sample ID: SB04 GRAB

Lab#: AD25976-007

Matrix: Soil

Collection Date: 9/14/2021

Receipt Date: 9/14/2021

bis(2-Chloroethoxy)methane	1	mg/kg	0.042	ND
bis(2-Chloroethyl)ether	1	mg/kg	0.010	ND
bis(2-Chloroisopropyl)ether	1	mg/kg	0.042	ND
bis(2-Ethylhexyl)phthalate	1	mg/kg	0.042	ND
Butylbenzylphthalate	1	mg/kg	0.042	ND
Caprolactam	1	mg/kg	0.042	ND
Carbazole	1	mg/kg	0.042	ND
Chrysene	1	mg/kg	0.042	ND
Dibenzo[a,h]anthracene	1	mg/kg	0.042	ND
Dibenzofuran	1	mg/kg	0.011	ND
Diethylphthalate	1	mg/kg	0.042	ND
Dimethylphthalate	1	mg/kg	0.042	ND
Di-n-butylphthalate	1	mg/kg	0.048	ND
Di-n-octylphthalate	1	mg/kg	0.042	ND
Fluoranthene	1	mg/kg	0.042	ND
Fluorene	1	mg/kg	0.042	ND
Hexachlorobenzene	1	mg/kg	0.042	ND
Hexachlorobutadiene	1	mg/kg	0.042	ND
Hexachlorocyclopentadiene	1	mg/kg	0.14	ND
Hexachloroethane	1	mg/kg	0.042	ND
Indeno[1,2,3-cd]pyrene	1	mg/kg	0.042	ND
Isophorone	1	mg/kg	0.042	ND
Naphthalene	1	mg/kg	0.012	ND
Nitrobenzene	1	mg/kg	0.042	ND
N-Nitroso-di-n-propylamine	1	mg/kg	0.016	ND
N-Nitrosodiphenylamine	1	mg/kg	0.14	ND
Pentachlorophenol	1	mg/kg	0.20	ND
Phenanthrene	1	mg/kg	0.042	ND
Phenol	1	mg/kg	0.042	ND
Pyrene	1	mg/kg	0.042	ND

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	0.986	mg/kg	0.0025	ND
1,1,2,2-Tetrachloroethane	0.986	mg/kg	0.0025	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	0.986	mg/kg	0.0025	ND
1,1,2-Trichloroethane	0.986	mg/kg	0.0025	ND
1,1-Dichloroethane	0.986	mg/kg	0.0025	ND
1,1-Dichloroethene	0.986	mg/kg	0.0025	ND
1,2,3-Trichlorobenzene	0.986	mg/kg	0.0025	ND
1,2,4-Trichlorobenzene	0.986	mg/kg	0.0025	ND
1,2-Dibromo-3-chloropropane	0.986	mg/kg	0.0025	ND
1,2-Dibromoethane	0.986	mg/kg	0.00062	ND
1,2-Dichlorobenzene	0.986	mg/kg	0.0025	ND
1,2-Dichloroethane	0.986	mg/kg	0.0025	ND
1,2-Dichloropropane	0.986	mg/kg	0.0025	ND
1,3-Dichlorobenzene	0.986	mg/kg	0.0025	ND
1,4-Dichlorobenzene	0.986	mg/kg	0.0025	ND
1,4-Dioxane	0.986	mg/kg	0.12	ND
2-Butanone	0.986	mg/kg	0.0025	ND
2-Hexanone	0.986	mg/kg	0.0025	ND
4-Methyl-2-pentanone	0.986	mg/kg	0.0025	ND
Acetone	0.986	mg/kg	0.012	ND
Benzene	0.986	mg/kg	0.0012	ND
Bromochloromethane	0.986	mg/kg	0.0025	ND
Bromodichloromethane	0.986	mg/kg	0.0025	ND
Bromoform	0.986	mg/kg	0.0025	ND

Sample ID: SB04 GRAB
 Lab#: AD25976-007
 Matrix: Soil

Collection Date: 9/14/2021
 Receipt Date: 9/14/2021

Bromomethane	0.986	mg/kg	0.0025	ND
Carbon disulfide	0.986	mg/kg	0.0042	ND
Carbon tetrachloride	0.986	mg/kg	0.0025	ND
Chlorobenzene	0.986	mg/kg	0.0025	ND
Chloroethane	0.986	mg/kg	0.0025	ND
Chloroform	0.986	mg/kg	0.0025	ND
Chloromethane	0.986	mg/kg	0.0025	ND
cis-1,2-Dichloroethene	0.986	mg/kg	0.0025	ND
cis-1,3-Dichloropropene	0.986	mg/kg	0.0025	ND
Cyclohexane	0.986	mg/kg	0.0025	ND
Dibromochloromethane	0.986	mg/kg	0.0025	ND
Dichlorodifluoromethane	0.986	mg/kg	0.0025	ND
Ethylbenzene	0.986	mg/kg	0.0012	ND
Isopropylbenzene	0.986	mg/kg	0.0012	ND
m&p-Xylenes	0.986	mg/kg	0.0015	ND
Methyl Acetate	0.986	mg/kg	0.0025	ND
Methylcyclohexane	0.986	mg/kg	0.0025	ND
Methylene chloride	0.986	mg/kg	0.0025	ND
Methyl-t-butyl ether	0.986	mg/kg	0.0012	ND
o-Xylene	0.986	mg/kg	0.0012	ND
Styrene	0.986	mg/kg	0.0025	ND
Tetrachloroethene	0.986	mg/kg	0.0025	ND
Toluene	0.986	mg/kg	0.0012	ND
trans-1,2-Dichloroethene	0.986	mg/kg	0.0025	ND
trans-1,3-Dichloropropene	0.986	mg/kg	0.0025	ND
Trichloroethene	0.986	mg/kg	0.0025	ND
Trichlorofluoromethane	0.986	mg/kg	0.0025	ND
Vinyl chloride	0.986	mg/kg	0.0025	ND
Xylenes (Total)	0.986	mg/kg	0.0012	ND

Sample ID: SB04 COMP
 Lab#: AD25976-008
 Matrix: Soil

Collection Date: 9/14/2021
 Receipt Date: 9/14/2021

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	1	percent		84

Gasoline range organics 8015D(C6-C10)

Analyte	DF	Units	RL	Result
Gasoline Range Organics	98.2	mg/kg	29	ND

Ignitability (EPA 1030)

Analyte	DF	Units	RL	Result
Burning Rate (mm/sec)	1			NA
Flame Propagation (POS/NEG)	1			NEG
Ignitability (POS/NEG)	1			NEG

Mercury (TCLP) 7470A

Analyte	DF	Units	RL	Result
Mercury	1	mg/l	0.00050	ND

PAH Compounds 8270

Analyte	DF	Units	RL	Result
2-Methylnaphthalene	3	mg/kg	0.12	ND
Acenaphthene	3	mg/kg	0.12	ND
Acenaphthylene	3	mg/kg	0.12	ND
Anthracene	3	mg/kg	0.12	ND
Benzo[a]anthracene	3	mg/kg	0.12	0.13
Benzo[a]pyrene	3	mg/kg	0.12	0.12
Benzo[b]fluoranthene	3	mg/kg	0.12	0.20
Benzo[g,h,i]perylene	3	mg/kg	0.12	ND
Benzo[k]fluoranthene	3	mg/kg	0.12	ND
Chrysene	3	mg/kg	0.12	ND
Dibenzo[a,h]anthracene	3	mg/kg	0.12	ND
Fluoranthene	3	mg/kg	0.12	0.22
Fluorene	3	mg/kg	0.12	ND
Indeno[1,2,3-cd]pyrene	3	mg/kg	0.12	ND
Naphthalene	3	mg/kg	0.034	ND
Phenanthrene	3	mg/kg	0.12	ND
Pyrene	3	mg/kg	0.12	0.22

Paint Filter Test 9095B

Analyte	DF	Units	RL	Result
Paint Filter Test	1			NEG

PCB 8082

Analyte	DF	Units	RL	Result
Aroclor (Total)	1	mg/kg	0.030	ND
Aroclor-1016	1	mg/kg	0.030	ND
Aroclor-1221	1	mg/kg	0.030	ND
Aroclor-1232	1	mg/kg	0.030	ND
Aroclor-1242	1	mg/kg	0.030	ND
Aroclor-1248	1	mg/kg	0.030	ND
Aroclor-1254	1	mg/kg	0.030	ND
Aroclor-1260	1	mg/kg	0.030	ND
Aroclor-1262	1	mg/kg	0.030	ND
Aroclor-1268	1	mg/kg	0.030	ND

pH 9040C/9045D

Analyte	DF	Units	RL	Result
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Sample ID: SB04 COMP
 Lab#: AD25976-008
 Matrix: Soil

Collection Date: 9/14/2021
 Receipt Date: 9/14/2021

Temperature	1	c	22.9
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Reactive Cyanide

Analyte	DF	Units	RL	Result
Cyanide (Reactive)	1	mg/kg	0.50	ND

Reactive Sulfide

Analyte	DF	Units	RL	Result
Sulfide (Reactive)	1	mg/kg	100	ND

TCLP Metals 6010D

Analyte	DF	Units	RL	Result
Arsenic	1	mg/l	0.10	ND
Barium	1	mg/l	0.25	1.3
Cadmium	1	mg/l	0.050	ND
Chromium	1	mg/l	0.10	ND
Lead	1	mg/l	0.050	0.40
Nickel	1	mg/l	0.10	ND
Selenium	1	mg/l	0.10	ND
Silver	1	mg/l	0.050	ND

Total PetroleumHydrocarbons8015D(C8-C40)

Analyte	DF	Units	RL	Result
Total Petroleum Hydrocarbons	1	mg/kg	71	ND

Sample ID: SB05 GRAB
 Lab#: AD25976-009
 Matrix: Soil

Collection Date: 9/14/2021
 Receipt Date: 9/14/2021

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	1	percent		84

PCB 8082

Analyte	DF	Units	RL	Result
Aroclor (Total)	1	mg/kg	0.030	ND
Aroclor-1016	1	mg/kg	0.030	ND
Aroclor-1221	1	mg/kg	0.030	ND
Aroclor-1232	1	mg/kg	0.030	ND
Aroclor-1242	1	mg/kg	0.030	ND
Aroclor-1248	1	mg/kg	0.030	ND
Aroclor-1254	1	mg/kg	0.030	ND
Aroclor-1260	1	mg/kg	0.030	ND
Aroclor-1262	1	mg/kg	0.030	ND
Aroclor-1268	1	mg/kg	0.030	ND

Semivolatile Organics (no search) 8270

Analyte	DF	Units	RL	Result
1,1'-Biphenyl	1	mg/kg	0.040	ND
1,2,4,5-Tetrachlorobenzene	1	mg/kg	0.040	ND
1,4-Dioxane	1	mg/kg	0.020	ND
2,3,4,6-Tetrachlorophenol	1	mg/kg	0.040	ND
2,4,5-Trichlorophenol	1	mg/kg	0.040	ND
2,4,6-Trichlorophenol	1	mg/kg	0.040	ND
2,4-Dichlorophenol	1	mg/kg	0.015	ND
2,4-Dimethylphenol	1	mg/kg	0.019	ND
2,4-Dinitrophenol	1	mg/kg	0.20	ND
2,4-Dinitrotoluene	1	mg/kg	0.040	ND
2,6-Dinitrotoluene	1	mg/kg	0.040	ND
2-Chloronaphthalene	1	mg/kg	0.040	ND
2-Chlorophenol	1	mg/kg	0.040	ND
2-Methylnaphthalene	1	mg/kg	0.040	ND
2-Methylphenol	1	mg/kg	0.011	ND
2-Nitroaniline	1	mg/kg	0.040	ND
2-Nitrophenol	1	mg/kg	0.040	ND
3&4-Methylphenol	1	mg/kg	0.012	ND
3,3'-Dichlorobenzidine	1	mg/kg	0.040	ND
3-Nitroaniline	1	mg/kg	0.040	ND
4,6-Dinitro-2-methylphenol	1	mg/kg	0.14	ND
4-Bromophenyl-phenylether	1	mg/kg	0.040	ND
4-Chloro-3-methylphenol	1	mg/kg	0.040	ND
4-Chloroaniline	1	mg/kg	0.017	ND
4-Chlorophenyl-phenylether	1	mg/kg	0.040	ND
4-Nitroaniline	1	mg/kg	0.040	ND
4-Nitrophenol	1	mg/kg	0.040	ND
Acenaphthene	1	mg/kg	0.040	ND
Acenaphthylene	1	mg/kg	0.040	ND
Acetophenone	1	mg/kg	0.040	ND
Anthracene	1	mg/kg	0.040	ND
Atrazine	1	mg/kg	0.040	ND
Benzaldehyde	1	mg/kg	0.43	ND
Benzo[a]anthracene	1	mg/kg	0.040	ND
Benzo[a]pyrene	1	mg/kg	0.040	ND
Benzo[b]fluoranthene	1	mg/kg	0.040	ND
Benzo[g,h,i]perylene	1	mg/kg	0.040	ND
Benzo[k]fluoranthene	1	mg/kg	0.040	ND

Sample ID: SB05 GRAB
 Lab#: AD25976-009
 Matrix: Soil

Collection Date: 9/14/2021
 Receipt Date: 9/14/2021

bis(2-Chloroethoxy)methane	1	mg/kg	0.040	ND
bis(2-Chloroethyl)ether	1	mg/kg	0.0099	ND
bis(2-Chloroisopropyl)ether	1	mg/kg	0.040	ND
bis(2-Ethylhexyl)phthalate	1	mg/kg	0.040	ND
Butylbenzylphthalate	1	mg/kg	0.040	ND
Caprolactam	1	mg/kg	0.040	ND
Carbazole	1	mg/kg	0.040	ND
Chrysene	1	mg/kg	0.040	ND
Dibenzo[a,h]anthracene	1	mg/kg	0.040	ND
Dibenzofuran	1	mg/kg	0.010	ND
Diethylphthalate	1	mg/kg	0.040	ND
Dimethylphthalate	1	mg/kg	0.040	ND
Di-n-butylphthalate	1	mg/kg	0.046	ND
Di-n-octylphthalate	1	mg/kg	0.040	ND
Fluoranthene	1	mg/kg	0.040	ND
Fluorene	1	mg/kg	0.040	ND
Hexachlorobenzene	1	mg/kg	0.040	ND
Hexachlorobutadiene	1	mg/kg	0.040	ND
Hexachlorocyclopentadiene	1	mg/kg	0.13	ND
Hexachloroethane	1	mg/kg	0.040	ND
Indeno[1,2,3-cd]pyrene	1	mg/kg	0.040	ND
Isophorone	1	mg/kg	0.040	ND
Naphthalene	1	mg/kg	0.011	ND
Nitrobenzene	1	mg/kg	0.040	ND
N-Nitroso-di-n-propylamine	1	mg/kg	0.015	ND
N-Nitrosodiphenylamine	1	mg/kg	0.13	ND
Pentachlorophenol	1	mg/kg	0.19	ND
Phenanthrene	1	mg/kg	0.040	ND
Phenol	1	mg/kg	0.040	ND
Pyrene	1	mg/kg	0.040	ND

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	0.99	mg/kg	0.0024	ND
1,1,2,2-Tetrachloroethane	0.99	mg/kg	0.0024	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	0.99	mg/kg	0.0024	ND
1,1,2-Trichloroethane	0.99	mg/kg	0.0024	ND
1,1-Dichloroethane	0.99	mg/kg	0.0024	ND
1,1-Dichloroethene	0.99	mg/kg	0.0024	ND
1,2,3-Trichlorobenzene	0.99	mg/kg	0.0024	ND
1,2,4-Trichlorobenzene	0.99	mg/kg	0.0024	ND
1,2-Dibromo-3-chloropropane	0.99	mg/kg	0.0024	ND
1,2-Dibromoethane	0.99	mg/kg	0.00059	ND
1,2-Dichlorobenzene	0.99	mg/kg	0.0024	ND
1,2-Dichloroethane	0.99	mg/kg	0.0024	ND
1,2-Dichloropropane	0.99	mg/kg	0.0024	ND
1,3-Dichlorobenzene	0.99	mg/kg	0.0024	ND
1,4-Dichlorobenzene	0.99	mg/kg	0.0024	ND
1,4-Dioxane	0.99	mg/kg	0.12	ND
2-Butanone	0.99	mg/kg	0.0024	ND
2-Hexanone	0.99	mg/kg	0.0024	ND
4-Methyl-2-pentanone	0.99	mg/kg	0.0024	ND
Acetone	0.99	mg/kg	0.012	ND
Benzene	0.99	mg/kg	0.0012	ND
Bromochloromethane	0.99	mg/kg	0.0024	ND
Bromodichloromethane	0.99	mg/kg	0.0024	ND
Bromofom	0.99	mg/kg	0.0024	ND

Sample ID: SB05 GRAB
 Lab#: AD25976-009
 Matrix: Soil

Collection Date: 9/14/2021
 Receipt Date: 9/14/2021

Bromomethane	0.99	mg/kg	0.0024	ND
Carbon disulfide	0.99	mg/kg	0.0040	ND
Carbon tetrachloride	0.99	mg/kg	0.0024	ND
Chlorobenzene	0.99	mg/kg	0.0024	ND
Chloroethane	0.99	mg/kg	0.0024	ND
Chloroform	0.99	mg/kg	0.0024	ND
Chloromethane	0.99	mg/kg	0.0024	ND
cis-1,2-Dichloroethene	0.99	mg/kg	0.0024	ND
cis-1,3-Dichloropropene	0.99	mg/kg	0.0024	ND
Cyclohexane	0.99	mg/kg	0.0024	ND
Dibromochloromethane	0.99	mg/kg	0.0024	ND
Dichlorodifluoromethane	0.99	mg/kg	0.0024	ND
Ethylbenzene	0.99	mg/kg	0.0012	ND
Isopropylbenzene	0.99	mg/kg	0.0012	ND
m&p-Xylenes	0.99	mg/kg	0.0014	ND
Methyl Acetate	0.99	mg/kg	0.0024	ND
Methylcyclohexane	0.99	mg/kg	0.0024	ND
Methylene chloride	0.99	mg/kg	0.0024	ND
Methyl-t-butyl ether	0.99	mg/kg	0.0012	ND
o-Xylene	0.99	mg/kg	0.0012	ND
Styrene	0.99	mg/kg	0.0024	ND
Tetrachloroethene	0.99	mg/kg	0.0024	ND
Toluene	0.99	mg/kg	0.0012	ND
trans-1,2-Dichloroethene	0.99	mg/kg	0.0024	ND
trans-1,3-Dichloropropene	0.99	mg/kg	0.0024	ND
Trichloroethene	0.99	mg/kg	0.0024	ND
Trichlorofluoromethane	0.99	mg/kg	0.0024	ND
Vinyl chloride	0.99	mg/kg	0.0024	ND
Xylenes (Total)	0.99	mg/kg	0.0012	ND

Sample ID: SB05 COMP
 Lab#: AD25976-010
 Matrix: Soil

Collection Date: 9/14/2021
 Receipt Date: 9/14/2021

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	1	percent		80

Gasoline range organics 8015D(C6-C10)

Analyte	DF	Units	RL	Result
Gasoline Range Organics	98.4	mg/kg	31	ND

Ignitability (EPA 1030)

Analyte	DF	Units	RL	Result
Burning Rate (mm/sec)	1			NA
Flame Propagation (POS/NEG)	1			NEG
Ignitability (POS/NEG)	1			NEG

Mercury (TCLP) 7470A

Analyte	DF	Units	RL	Result
Mercury	1	mg/l	0.00050	ND

PAH Compounds 8270

Analyte	DF	Units	RL	Result
2-Methylnaphthalene	1	mg/kg	0.042	ND
Acenaphthene	1	mg/kg	0.042	ND
Acenaphthylene	1	mg/kg	0.042	ND
Anthracene	1	mg/kg	0.042	ND
Benzo[a]anthracene	1	mg/kg	0.042	0.055
Benzo[a]pyrene	1	mg/kg	0.042	0.061
Benzo[b]fluoranthene	1	mg/kg	0.042	0.088
Benzo[g,h,i]perylene	1	mg/kg	0.042	0.056
Benzo[k]fluoranthene	1	mg/kg	0.042	ND
Chrysene	1	mg/kg	0.042	0.061
Dibenzo[a,h]anthracene	1	mg/kg	0.042	ND
Fluoranthene	1	mg/kg	0.042	0.081
Fluorene	1	mg/kg	0.042	ND
Indeno[1,2,3-cd]pyrene	1	mg/kg	0.042	ND
Naphthalene	1	mg/kg	0.012	ND
Phenanthrene	1	mg/kg	0.042	ND
Pyrene	1	mg/kg	0.042	0.091

Paint Filter Test 9095B

Analyte	DF	Units	RL	Result
Paint Filter Test	1			NEG

PCB 8082

Analyte	DF	Units	RL	Result
Aroclor (Total)	1	mg/kg	0.031	ND
Aroclor-1016	1	mg/kg	0.031	ND
Aroclor-1221	1	mg/kg	0.031	ND
Aroclor-1232	1	mg/kg	0.031	ND
Aroclor-1242	1	mg/kg	0.031	ND
Aroclor-1248	1	mg/kg	0.031	ND
Aroclor-1254	1	mg/kg	0.031	ND
Aroclor-1260	1	mg/kg	0.031	ND
Aroclor-1262	1	mg/kg	0.031	ND
Aroclor-1268	1	mg/kg	0.031	ND

pH 9040C/9045D

Analyte	DF	Units	RL	Result
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Sample ID: SB05 COMP
 Lab#: AD25976-010
 Matrix: Soil

Collection Date: 9/14/2021
 Receipt Date: 9/14/2021

Temperature	1	c	22.7	
Reactive Cyanide				
Analyte	DF	Units	RL	Result
Cyanide (Reactive)	1	mg/kg	0.50	ND
Reactive Sulfide				
Analyte	DF	Units	RL	Result
Sulfide (Reactive)	1	mg/kg	100	ND
TCLP Metals 6010D				
Analyte	DF	Units	RL	Result
Arsenic	1	mg/l	0.10	ND
Barium	1	mg/l	0.25	0.29
Cadmium	1	mg/l	0.050	ND
Chromium	1	mg/l	0.10	ND
Lead	1	mg/l	0.050	0.11
Nickel	1	mg/l	0.10	ND
Selenium	1	mg/l	0.10	ND
Silver	1	mg/l	0.050	ND
Total PetroleumHydrocarbons8015D(C8-C40)				
Analyte	DF	Units	RL	Result
Total Petroleum Hydrocarbons	1	mg/kg	75	ND

Sample ID: SB04 GW
 Lab#: AD25976-011
 Matrix: Aqueous

Collection Date: 9/14/2021
 Receipt Date: 9/14/2021

PCB 8082

Analyte	DF	Units	RL	Result
Aroclor (Total)	1	ug/l	0.25	ND
Aroclor-1016	1	ug/l	0.25	ND
Aroclor-1221	1	ug/l	0.25	ND
Aroclor-1232	1	ug/l	0.25	ND
Aroclor-1242	1	ug/l	0.25	ND
Aroclor-1248	1	ug/l	0.25	ND
Aroclor-1254	1	ug/l	0.25	ND
Aroclor-1260	1	ug/l	0.25	ND
Aroclor-1262	1	ug/l	0.25	ND
Aroclor-1268	1	ug/l	0.25	ND

Semivolatile Organics (no search) 8270

Analyte	DF	Units	RL	Result
1,1'-Biphenyl	1	ug/l	2.0	ND
1,2,4,5-Tetrachlorobenzene	1	ug/l	2.0	ND
1,4-Dioxane	1	ug/l	0.50	ND
2,3,4,6-Tetrachlorophenol	1	ug/l	2.0	ND
2,4,5-Trichlorophenol	1	ug/l	2.0	ND
2,4,6-Trichlorophenol	1	ug/l	2.0	ND
2,4-Dichlorophenol	1	ug/l	0.50	ND
2,4-Dimethylphenol	1	ug/l	0.55	ND
2,4-Dinitrophenol	1	ug/l	10	ND
2,4-Dinitrotoluene	1	ug/l	2.0	ND
2,6-Dinitrotoluene	1	ug/l	2.0	ND
2-Chloronaphthalene	1	ug/l	2.0	ND
2-Chlorophenol	1	ug/l	2.0	ND
2-Methylnaphthalene	1	ug/l	2.0	ND
2-Methylphenol	1	ug/l	0.50	ND
2-Nitroaniline	1	ug/l	2.0	ND
2-Nitrophenol	1	ug/l	2.0	ND
3&4-Methylphenol	1	ug/l	0.50	ND
3,3'-Dichlorobenzidine	1	ug/l	2.0	ND
3-Nitroaniline	1	ug/l	2.0	ND
4,6-Dinitro-2-methylphenol	1	ug/l	8.1	ND
4-Bromophenyl-phenylether	1	ug/l	2.0	ND
4-Chloro-3-methylphenol	1	ug/l	2.0	ND
4-Chloroaniline	1	ug/l	0.50	ND
4-Chlorophenyl-phenylether	1	ug/l	2.0	ND
4-Nitroaniline	1	ug/l	2.0	ND
4-Nitrophenol	1	ug/l	2.0	ND
Acenaphthene	1	ug/l	2.0	ND
Acenaphthylene	1	ug/l	2.0	ND
Acetophenone	1	ug/l	2.0	ND
Anthracene	1	ug/l	2.0	ND
Atrazine	1	ug/l	2.0	ND
Benzaldehyde	1	ug/l	2.0	ND
Benzo[a]anthracene	1	ug/l	2.0	ND
Benzo[a]pyrene	1	ug/l	2.0	ND
Benzo[b]fluoranthene	1	ug/l	2.0	ND
Benzo[g,h,i]perylene	1	ug/l	2.0	ND
Benzo[k]fluoranthene	1	ug/l	2.0	ND
bis(2-Chloroethoxy)methane	1	ug/l	2.0	ND
bis(2-Chloroethyl)ether	1	ug/l	0.50	ND
bis(2-Chloroisopropyl)ether	1	ug/l	2.0	ND

Sample ID: SB04 GW
 Lab#: AD25976-011
 Matrix: Aqueous

Collection Date: 9/14/2021
 Receipt Date: 9/14/2021

bis(2-Ethylhexyl)phthalate	1	ug/l	2.0	ND
Butylbenzylphthalate	1	ug/l	2.0	ND
Caprolactam	1	ug/l	2.0	ND
Carbazole	1	ug/l	2.0	ND
Chrysene	1	ug/l	2.0	ND
Dibenzo[a,h]anthracene	1	ug/l	2.0	ND
Dibenzofuran	1	ug/l	0.68	ND
Diethylphthalate	1	ug/l	2.0	ND
Dimethylphthalate	1	ug/l	2.0	ND
Di-n-butylphthalate	1	ug/l	1.1	ND
Di-n-octylphthalate	1	ug/l	2.0	ND
Fluoranthene	1	ug/l	2.0	ND
Fluorene	1	ug/l	2.0	ND
Hexachlorobenzene	1	ug/l	2.0	ND
Hexachlorobutadiene	1	ug/l	2.0	ND
Hexachlorocyclopentadiene	1	ug/l	2.0	ND
Hexachloroethane	1	ug/l	2.0	ND
Indeno[1,2,3-cd]pyrene	1	ug/l	2.0	ND
Isophorone	1	ug/l	2.0	ND
Naphthalene	1	ug/l	0.50	ND
Nitrobenzene	1	ug/l	2.0	ND
N-Nitroso-di-n-propylamine	1	ug/l	0.64	ND
N-Nitrosodiphenylamine	1	ug/l	2.0	ND
Pentachlorophenol	1	ug/l	7.6	ND
Phenanthrene	1	ug/l	2.0	ND
Phenol	1	ug/l	2.0	ND
Pyrene	1	ug/l	2.0	ND

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND
1,1,2-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,3-Trichlorobenzene	1	ug/l	1.0	ND
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND
1,2-Dibromoethane	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.64	ND
1,2-Dichloropropane	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dioxane	1	ug/l	50	ND
2-Butanone	1	ug/l	1.0	ND
2-Hexanone	1	ug/l	1.0	ND
4-Methyl-2-pentanone	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Bromochloromethane	1	ug/l	1.0	ND
Bromodichloromethane	1	ug/l	1.0	ND
Bromoform	1	ug/l	1.0	ND
Bromomethane	1	ug/l	1.0	ND
Carbon disulfide	1	ug/l	1.0	ND
Carbon tetrachloride	1	ug/l	1.0	ND

Sample ID: SB04 GW
 Lab#: AD25976-011
 Matrix: Aqueous

Collection Date: 9/14/2021
 Receipt Date: 9/14/2021

Chlorobenzene	1	ug/l	1.0	ND
Chloroethane	1	ug/l	1.0	ND
Chloroform	1	ug/l	2.0	ND
Chloromethane	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	ND
cis-1,3-Dichloropropene	1	ug/l	1.0	ND
Cyclohexane	1	ug/l	1.0	ND
Dibromochloromethane	1	ug/l	1.0	ND
Dichlorodifluoromethane	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl Acetate	1	ug/l	1.0	ND
Methylcyclohexane	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Styrene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	ND
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
trans-1,3-Dichloropropene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	ND
Trichlorofluoromethane	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

HC Reporting Limit Definitions/Data Qualifiers

REPORTING DEFINITIONS

DF = Dilution Factor	MR = Matrix Replicate	PS = Post Digestion Spike
DUP = Duplicate	MS = Matrix Spike	RL* = Reporting Limit
LCS = Laboratory Control Spike	MSD = Matrix Spike Duplicate	RT = Retention Time
MBS = Method Blank Spike	NA = Not Applicable	SD = Serial Dilution
MDL = Method Detection Limit	ND = Not Detected	

**Samples with elevated Reporting Limits (RLs) as a result of a dilution may not achieve client reporting limits in some cases. The elevated RLs are unavoidable consequences of sample dilution required to quantitate target analytes that exceed the calibration range of the instrument.*

DATA QUALIFIERS

- A-** Indicates that the Tentatively Identified Compound (TIC) is suspected to be an aldol-condensation product. These compounds are by-products of acetone and methylene chloride used in the extraction process.
- B-** Indicates analyte was present in the Method Blank and sample.
- d-** For Pesticide and PCB analysis, the concentration between primary and secondary columns is greater than 40%. The lower concentration is generally reported.
- E-** Indicates the concentration exceeded the upper calibration range of the instrument.
- J-** Indicates the value is estimated because it is either a Tentatively Identified Compound (TIC) or the reported concentration is greater than the MDL but less than the RL. For samples results between the MDL and RL there is a possibility of false positives or misidentification at the quantitation levels. Additionally, the acceptance criteria for QC samples may not be met.
- R-** Retention Time is out.
- Y-** Indicates a contaminant found in the blank at less than 10% of the concentration of a contaminant found in the sample.

Laboratory Chronicle

1091507 0032

Client: WSP USA, Inc.

HC Project #: 1091507

Project: Jamaica Bay

Lab#: AD25976-001

Sample ID: SB01 GRAB

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
% Solids SM2540G				SM 2540G	9/16/21 00:00	BEENA
Volatile Organics (no search) 8260	EPA5030/5035			EPA 8260D		
Volatile Organics (no search) 8260	EPA5030/5035			EPA 8260D	9/16/21 21:32	WP

Lab#: AD25976-002

Sample ID: SB01 COMP

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
% Solids SM2540G				SM 2540G	9/16/21 00:00	BEENA
Gasoline range organics 8015D(C6-C10)	EPA5030/5035			EPA 8015D	9/20/21 16:22	JM
Ignitability		09/16/21	SDL	EPA 1030	9/16/21 12:30	SDL
Mercury (TCLP) 7470A	EPA 7470A	09/20/21 12:00	asilva	EPA 7470A	9/21/21 10:33	ANS
PAH Compounds 8270	3510C/3550C	09/20/21 16:39	CN	EPA 8270E	9/21/21 12:23	AH/JB
Paint Filter Test 9095B				EPA 9095B	9/20/21 00:00	SDL
PCB 8082	3510C/3550C	09/17/21 16:46	CN	EPA 8082A	9/19/21 23:01	MS/MLC/MC
pH 9040C/9045D				9040C/9045D	9/16/21 12:12	KS
Reactive Cyanide	SW846 7.3	09/17/21	kshields	SW846 7.3	9/17/21 18:00	jw
Reactive Sulfide	SW846 7.3	09/17/21	KS	SW846 7.3	9/17/21 00:00	KS
TCLP Metals 6010	3005&10/3050	09/20/21 12:00	asilva	EPA 6010D	9/20/21 17:34	CJAG9/21
TCLP Metals 6010	3005&10/3050	09/20/21 12:00	asilva	EPA 6010D	9/21/21 11:54	CJAG9/21
TCLP Metals Extraction 1311	EPA 1311	09/16/21 11:40	ksaez		9/17/21 12:35	ksaez
Total PetroleumHydrocarbons8015D(C8-C40)	Mod. Shaker	09/18/21 04:30	lynda	EPA 8015D	9/20/21 13:57	RR/ABM/AH

Lab#: AD25976-003

Sample ID: SB02 GRAB

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
% Solids SM2540G				SM 2540G	9/16/21 00:00	BEENA
Volatile Organics (no search) 8260	EPA5030/5035			EPA 8260D		
Volatile Organics (no search) 8260	EPA5030/5035			EPA 8260D	9/16/21 21:12	WP

Laboratory Chronicle

1091507 0033

Client: WSP USA, Inc.
Project: Jamaica Bay

HC Project #: 1091507

Lab#: AD25976-004

Sample ID: SB02 COMP

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
% Solids SM2540G				SM 2540G	9/16/21 00:00	BEENA
Gasoline range organics 8015D(C6-C10)	EPA5030/5035			EPA 8015D	9/20/21 16:38	JM
Ignitability (EPA 1030)		09/16/21	SDL	EPA 1030	9/16/21 12:30	SDL
Mercury (TCLP) 7470A	EPA 7470A	09/20/21 12:00	asilva	EPA 7470A	9/21/21 10:37	ANS
PAH Compounds 8270	3510C/3550C	09/20/21 16:39	CN	EPA 8270E	9/21/21 14:41	AH/JB
Paint Filter Test 9095B				EPA 9095B	9/20/21 00:00	SDL
PCB 8082	3510C/3550C	09/17/21 16:46	CN	EPA 8082A	9/19/21 23:17	MS/MLC/MC
pH 9040C/9045D				9040C/9045D	9/16/21 12:12	KS
Reactive Cyanide	SW846 7.3	09/17/21	kshields	SW846 7.3	9/17/21 18:02	jw
Reactive Sulfide	SW846 7.3	09/17/21	KS	SW846 7.3	9/17/21 00:00	KS
TCLP Metals 6010D	3005&10/3050	09/20/21 12:00	asilva	EPA 6010D	9/20/21 18:04	CJAG9/21
TCLP Metals 6010D	3005&10/3050	09/20/21 12:00	asilva	EPA 6010D	9/21/21 11:58	CJAG9/21
TCLP Metals Extraction 1311	EPA 1311	09/16/21 11:40	ksaez		9/17/21 12:35	ksaez
Total PetroleumHydrocarbons8015D(C8-C40)	Mod. Shaker	09/18/21 04:30	lynda	EPA 8015D	9/20/21 14:49	RR/ABM/AH

Lab#: AD25976-005

Sample ID: SB03 GRAB

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
% Solids SM2540G				SM 2540G	9/16/21 00:00	BEENA
Volatile Organics (no search) 8260	EPA5030/5035			EPA 8260D		
Volatile Organics (no search) 8260	EPA5030/5035			EPA 8260D	9/16/21 01:31	WP

Laboratory Chronicle

1091507 0034

Client: WSP USA, Inc.

HC Project #: 1091507

Project: Jamaica Bay

Lab#: AD25976-006

Sample ID: SB03 COMP

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
% Solids SM2540G				SM 2540G	9/16/21 00:00	BEENA
Gasoline range organics 8015D(C6-C10)	EPA5030/5035			EPA 8015D	9/20/21 16:55	JM
Ignitability (EPA 1030)		09/16/21	SDL	EPA 1030	9/16/21 12:30	SDL
Mercury (TCLP) 7470A	EPA 7470A	09/20/21 12:00	asilva	EPA 7470A	9/21/21 10:39	ANS
PAH Compounds 8270	3510C/3550C	09/20/21 16:39	CN	EPA 8270E	9/21/21 14:18	AH/JB
Paint Filter Test 9095B				EPA 9095B	9/20/21 00:00	SDL
PCB 8082	3510C/3550C	09/17/21 16:46	CN	EPA 8082A	9/20/21 00:05	MS/MLC/MC
pH 9040C/9045D				9040C/9045D	9/16/21 12:12	KS
Reactive Cyanide	SW846 7.3	09/17/21	kshields	SW846 7.3	9/17/21 18:04	jw
Reactive Sulfide	SW846 7.3	09/17/21	KS	SW846 7.3	9/17/21 00:00	KS
TCLP Metals 6010D	3005&10/3050	09/20/21 12:00	asilva	EPA 6010D	9/20/21 18:08	CJAG9/21
TCLP Metals 6010D	3005&10/3050	09/20/21 12:00	asilva	EPA 6010D	9/21/21 11:42	CJAG9/21
TCLP Metals 6010D	3005&10/3050	09/20/21 12:00	asilva	EPA 6010D	9/21/21 12:02	CJAG9/21
TCLP Metals Extraction 1311	EPA 1311	09/16/21 11:40	ksaez		9/17/21 12:51	ksaez
Total PetroleumHydrocarbons8015D(C8-C40)	Mod. Shaker	09/18/21 04:30	lynda	EPA 8015D	9/20/21 14:23	RR/ABM/AH

Lab#: AD25976-007

Sample ID: SB04 GRAB

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
% Solids SM2540G				SM 2540G	9/16/21 00:00	BEENA
PCB 8082	3510C/3550C	09/17/21 16:46	CN	EPA 8082A	9/19/21 23:50	MS/MLC/MC
Semivolatile Organics (no search) 8270	3510C/3550C	09/20/21 16:39	CN	EPA 8270E	9/21/21 14:16	AH/JB
Volatile Organics (no search) 8260	EPA5030/5035			EPA 8260D		
Volatile Organics (no search) 8260	EPA5030/5035			EPA 8260D	9/16/21 01:51	WP

Laboratory Chronicle

1091507 0035

Client: WSP USA, Inc.

HC Project #: 1091507

Project: Jamaica Bay

Lab#: AD25976-008

Sample ID: SB04 COMP

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
% Solids SM2540G				SM 2540G	9/16/21 00:00	BEENA
Gasoline range organics 8015D(C6-C10)	EPA5030/5035			EPA 8015D	9/20/21 17:12	JM
Ignitability (EPA 1030)		09/16/21	SDL	EPA 1030	9/16/21 12:30	SDL
Mercury (TCLP) 7470A	EPA 7470A	09/20/21 12:00	asilva	EPA 7470A	9/21/21 10:40	ANS
PAH Compounds 8270	3510C/3550C	09/20/21 16:39	CN	EPA 8270E	9/21/21 13:55	AH/JB
Paint Filter Test 9095B				EPA 9095B	9/20/21 00:00	SDL
PCB 8082	3510C/3550C	09/17/21 16:46	CN	EPA 8082A	9/20/21 02:03	MS/MLC/MC
pH 9040C/9045D				9040C/9045D	9/16/21 12:12	KS
Reactive Cyanide	SW846 7.3	09/17/21	kshields	SW846 7.3	9/17/21 18:07	jw
Reactive Sulfide	SW846 7.3	09/17/21	KS	SW846 7.3	9/17/21 00:00	KS
TCLP Metals 6010D	3005&10/3050	09/20/21 12:00	asilva	EPA 6010D	9/20/21 18:12	CJAG9/21
TCLP Metals 6010D	3005&10/3050	09/20/21 12:00	asilva	EPA 6010D	9/21/21 12:06	CJAG9/21
TCLP Metals Extraction 1311	EPA 1311	09/16/21 11:40	ksaez		9/17/21 12:51	ksaez
Total PetroleumHydrocarbons8015D(C8-C40)	Mod. Shaker	09/18/21 04:30	lynda	EPA 8015D	9/20/21 13:31	RR/ABM/AH

Lab#: AD25976-009

Sample ID: SB05 GRAB

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
% Solids SM2540G				SM 2540G	9/16/21 00:00	BEENA
PCB 8082	3510C/3550C	09/17/21 16:46	CN	EPA 8082A	9/20/21 01:49	MS/MLC/MC
Semivolatile Organics (no search) 8270	3510C/3550C	09/20/21 16:39	CN	EPA 8270E	9/21/21 13:04	AH/JB
Volatile Organics (no search) 8260	EPA5030/5035			EPA 8260D		
Volatile Organics (no search) 8260	EPA5030/5035			EPA 8260D	9/16/21 21:53	WP

Laboratory Chronicle

1091507 0036

Client: WSP USA, Inc.

HC Project #: 1091507

Project: Jamaica Bay

Lab#: AD25976-010

Sample ID: SB05 COMP

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
% Solids SM2540G				SM 2540G	9/16/21 00:00	BEENA
Gasoline range organics 8015D(C6-C10)	EPA5030/5035			EPA 8015D	9/20/21 18:53	JM
Ignitability (EPA 1030)		09/16/21	SDL	EPA 1030	9/16/21 12:30	SDL
Mercury (TCLP) 7470A	EPA 7470A	09/20/21 12:00	asilva	EPA 7470A	9/21/21 10:41	ANS
PAH Compounds 8270	3510C/3550C	09/20/21 16:39	CN	EPA 8270E	9/21/21 14:39	AH/JB
Paint Filter Test 9095B				EPA 9095B	9/20/21 00:00	SDL
PCB 8082	3510C/3550C	09/17/21 16:46	CN	EPA 8082A	9/20/21 01:34	MS/MLC/MC
pH 9040C/9045D				9040C/9045D	9/16/21 12:12	KS
Reactive Cyanide	SW846 7.3	09/17/21	kshields	SW846 7.3	9/17/21 18:09	jw
Reactive Sulfide	SW846 7.3	09/17/21	KS	SW846 7.3	9/17/21 00:00	KS
TCLP Metals 6010D	3005&10/3050	09/20/21 12:00	asilva	EPA 6010D	9/21/21 12:09	CJAG9/21
TCLP Metals 6010D	3005&10/3050	09/20/21 12:00	asilva	EPA 6010D	9/20/21 18:15	CJAG9/21
TCLP Metals Extraction 1311	EPA 1311	09/16/21 11:40	ksaez		9/17/21 13:13	ksaez
Total PetroleumHydrocarbons8015D(C8-C40)	Mod. Shaker	09/18/21 04:30	lynda	EPA 8015D	9/20/21 13:05	RR/ABM/AH

Lab#: AD25976-011

Sample ID: SB04 GW

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
PCB 8082	3510C/3550C	09/20/21 16:14	Jnadler	EPA 8082A	9/21/21 09:41	MS/MLC/MC
Semivolatile Organics (no search) 8270	3510C/3550C	09/21/21 10:08	lynda	EPA 8270E	9/21/21 14:50	AH/JB
Volatile Organics (no search) 8260	EPA5030/5035			EPA 8260D	9/16/21 14:50	WP
Volatile Organics (no search) 8260	EPA5030/5035			EPA 8260D		

Chain of Custody

1091507 0038

Hampton-Clarke, Inc. (WBE/DBE/SBE)

175 Route 46 West and 2 Madison Road, Fairfield, New Jersey 07004
 Ph: 800-426-9992 | 973-244-9770 Fax: 973-244-9787 | 973-439-1458

Service Center: 137-D Gaither Drive, Mount Laurel, New Jersey 08054
 Ph (Service Center): 856-780-6057 Fax: 856-780-6056

NELAC/NJ #07071 | PA #68-00463 | NY #11408 | CT #PH-0671 | KY #90124 | DE HSCA Approved



CHAIN OF CUSTODY RECORD

Project# (Lab Use Only) **1091507**

Page **1** of **2**

3) Reporting Requirements (Please Circle)

Turnaround	Report Type	Electronic Data Deliv.
When Available:	Summary	NJ Hazsite
1 Business Day (100%) *	Results + QC (Waste)	Excel Reg. NJ / NY / PA
2 Business Days (75%) *	Reduced:	EnviroData
3 Business Days (50%) *	[] NJ [] NY	EQUIIS:
4 Business Days (35%) *	[] PA [] Other	[] 4-File [] EZ
5 Business Days (25%)	NJ Full / NY ASP CatB	[] NYDEC
8 Business Days (Stand.)	NY ASP CatA	[] Region 2 or 5
Other: Sday TAT		Other: _____

* Expedited TAT Not Always Available. Please Check with Lab.

Customer Information

1a) Customer: **Louis Berger**
 Address: **96 Morton St. 8th Floor**
New York, NY 10014
 1b) Email/Cell/Fax/Ph: **Jon.Ganz@wsp.com**
 1c) Send Invoice to: **Jonathan Ganz**
 1d) Send Report to: **Jonathan Ganz**

Project Information

2a) Project: **Jamaica Bay**
 2b) Project Mgr: **Jonathan Ganz**
 2c) Project Location (City/State): **Brooklyn, NY**
 2d) Quote/PO # (if Applicable): **31402661.020**

FOR LAB USE ONLY

====> Check If Contingent <====

7) Analysis (specify methods & parameter lists)

<==== Check If Contingent <====

Matrix Codes

DW - Drinking Water S - Soil A - Air
 GW - Ground Water SL - Sludge
 WW - Waste Water OL - Oil
 OT - Other (please specify under item 9, Comments)

Sample Type

Composite (C)
 Grab (G)

8)

of Bottles

Batch # **AD259H**

Lab Sample #	4) Customer Sample ID	5) Matrix	6) Sample		Composite (C)	Grab (G)	7) Analysis (specify methods & parameter lists)											8) # of Bottles							9) Comments												
			Date	Time			TCL VOCs	TCL SVOCs	PCBs (8082)	PAHs (8270C)	TPH DRO/GRO (8015B)	PCBs (8082A/8082B)	TCLP Metals (8270B) (311/601B)	PSRA Character (9010/8410/3110/30/10/60)	PAHs Filter Test (9010/55B)	None	MeOH	En Core	NaOH	HCl	H2SO4	HNO3	Other:														
001	SB01	S	09/11/21	11:25	X	X	X																														
002	SB01			11:25	X	X				X	X	X	X	X	X	X																					
003	SB02			10:25	X	X				X	X	X	X	X	X	X																					
004	SB02			10:25	X	X				X	X	X	X	X	X	X																					
005	SB03			09:30	X	X				X	X	X	X	X	X	X																					
006	SB03			09:30	X	X				X	X	X	X	X	X	X																					
007	SB04			13:15	X	X	X	X																													
008	SB04			13:15	X	X				X	X	X	X	X	X	X																					
009	SB05			13:16	X	X	X	X																													
010	SB05			13:16	X	X				X	X	X	X	X	X	X																					

10) Relinquished by: Harry August	Accepted by: 	Date: 9/14/21	Time: 17:55	Comments, Notes, Special Requirements, HAZARDS
				<p>Indicate if low-level methods required to meet current groundwater standards (SPLP for soil):</p> <input type="checkbox"/> BN or BNA (8270E SIM) <input type="checkbox"/> VOC (8260D SIM or 8011) <input type="checkbox"/> SPLP (BN, BNA, Metals) <input type="checkbox"/> 1,4 Dioxane Check if applicable: <input type="checkbox"/> Project-Specific Reporting Limits <input type="checkbox"/> High Contaminant Concentrations <input type="checkbox"/> NJ LSRP Project (also check boxes above/right)
				<p>For NJ LSRP projects, indicate which standards need to be met:</p> <input type="checkbox"/> NJDEP GWQS <input type="checkbox"/> NJDEP SRS <input type="checkbox"/> NJDEP SPLP <input type="checkbox"/> Other (specify):

11) Sampler (print name): **Harry August** Date: **9/14/21** Cooler Temperature: **2.7**

Additional Notes
 DDC Project No HWK2048 HAZ. - 100
 Please note NUMBERED items. If not completed your analytical work may be delayed.
 A fee of \$5/sample will be assessed for storage should sample not be analyzed for any analysis.
 Version Date: May 16, 2022
 Internal use: sampling plan (check box) HC [] or client [] FSP#

1091507 0039

Hampton-Clarke, Inc. (WBE/DBE/SBE)
 175 Route 46 West and 2 Madison Road, Fairfield, New Jersey 07004
 Ph: 800-426-9992 | 973-244-9770 Fax: 973-244-9787 | 973-439-1458

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HC
Hampton-Clarke
 WBE/DBE/SBE 800-426-9992
 A Women-Owned, Disadvantaged, Small Business Enterprise

CHAIN OF CUSTODY RECORD

Project# (Lab Use Only) 1091507 Page 2 of 2

3) Reporting Requirements (Please Circle)

Turnaround	Report Type	Electronic Data Deliv.
When Available:	Summary	NJ Hazsite
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4 Business Days (35%)*	[] PA [] Other	[] 4-File [] EZ
5 Business Days (25%)	NJ Full / NY ASP CatB	[] NYDEC
8 Business Days (Stand.)	NY ASP CatA	[] Region 2 or 5
Other: <u>Sday TAT</u>		Other: _____

* Expedited TAT Not Always Available. Please Check with Lab.

NELAC/NJ #07071 | PA #68-00463 | NY #11408 | CT #PH-0671 | KY #90124 | DE HSCA Approved

Customer Information	Project Information
1a) Customer: <u>Louis Berger</u>	2a) Project: <u>Jamaica Bay</u>
Address: <u>96 Morton St. 9th Floor</u>	
<u>NYC, New York 10014</u>	
1b) Email/Cell/Fax/Ph: <u>Jon.Ganz@wsp.com</u>	2b) Project Mgr: <u>Jonathan Ganz</u>
1c) Send Invoice to: <u>Jonathan Ganz</u>	2c) Project Location (City/State): <u>Brooklyn, NY</u>
1d) Send Report to: <u>Jonathan Ganz</u>	2d) Quote/PO # (If Applicable): <u>31402661020</u>

FOR LAB USE ONLY ↓	7) Analysis (specify methods & parameter lists)										8) # of Bottles							9) Comments							
	====> Check If Contingent <====										<==== Check If Contingent <====														
Batch #	Matrix Codes			Sample Type																					
Lab Sample #	4) Customer Sample ID	5) Matrix	6) Sample		Composite (C)	Grab (G)											None	MeOH	En Core	NaOH	HCl	H2SO4	HNO3	Other:	
<u>ADD 5976</u>	<u>oil SBO4</u>	<u>GW</u>	<u>09/14/21</u>	<u>14:30</u>	<u>X</u>	<u>X</u>	<u>TCL VOCs (8260)</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>TCL SVOCs (8270)</u>	<u>X</u>	<u>X</u>	<u>PCBs (8082)</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	

10) Relinquished by: <u>Harry August</u>	Accepted by: <u>[Signature]</u>	Date: <u>9/14/21</u>	Time: <u>17:56</u>	Comments, Notes, Special Requirements, HAZARDS Indicate if low-level methods required to meet current groundwater standards (SPLP for soil): <input type="checkbox"/> BN or BNA (8270E SIM) <input type="checkbox"/> VOC (8260D SIM or 8011) <input type="checkbox"/> SPLP (BN, BNA, Metals) <input type="checkbox"/> 1,4 Dioxane Check if applicable: <input type="checkbox"/> Project-Specific Reporting Limits <input type="checkbox"/> High Contaminant Concentrations <input type="checkbox"/> NJ LSRP Project (also check boxes above/right)		For NJ LSRP projects, indicate which standards need to be met: <input type="checkbox"/> NJDEP GWQS <input type="checkbox"/> NJDEP SRS <input type="checkbox"/> NJDEP SPLP <input type="checkbox"/> Other (specify): _____
11) Sampler (print name): <u>Harry August</u>	Date: <u>9/14/21</u>	Cooler Temperature				

Additional Notes
 DDC Project No HWK2048 HAZ. - 101

Please note NUMBERED items. If not completed your analytical work may be delayed.
 A fee of \$5/sample will be assessed for storage should samples not be analyzed for analytes.
 Internal use: sampling plan (check box) HC [] or client [] FSP#

Version Date: May 16, 2022

CONDITION UPON RECEIPT

Batch Number AD25976

Entered By: children

Date Entered 9/15/2021 5:20:00 PM

-
- 1 Yes Is there a corresponding COC included with the samples?
 - 2 Yes Are the samples in a container such as a cooler or Ice chest?
 - 3 Yes Are the COC seals intact?
 - 4 T-461 <--- Thermometer ID. Please specify the Temperature inside the container (in degC).
2.7
 - 5 Yes Are the samples refrigerated (where required)/have they arrived on ice?
 - 6 Yes Are the samples within the holding times for the parameters listed on the COC? IF no, list parameters and samples:
 - 7 Yes Are all of the sample bottles intact? If no, specify sample numbers broken/leaking
 - 8 Yes Are all of the sample labels or numbers legible? If no specify:
 - 9 No Do the contents match the COC? If no, specify
only 1-4oz received for SB-5,4-4oz and 2-16oz receivedfor SB-1
 - 10 Yes Is there enough sample sent for the analyses listed on the COC? If no, specify:
 - 11 Yes Are samples preserved correctly?
 - 12 Yes Was temperature blank present (Place comment below if not)? If not was temperature of samples verified?
 - 13 NA Other comments ...Specify (TB date, sample matrix, any missing info, etc.)
 - 14 NA Corrective actions (Specify item number and corrective action taken).
 - 15 NA Were any samples for ortho-phosphate or dissolved ferrous iron field filtered?

Internal Chain of Custody

1091507 0042

Lab#:	DateTime:	Loc or User	Bot Nu	A/ M	Analysis
AD25976-009	09/16/21 11:54	R12	2	A	NONE
AD25976-009	09/15/21 14:01	R12	3	A	NONE
AD25976-009	09/17/21 16:46	CN	3	A	PCB-SOIL
AD25976-009	09/17/21 16:47	R12	3	A	NONE
AD25976-009	09/20/21 16:39	CN	3	A	BNA-SOIL
AD25976-009	09/20/21 16:40	R12	3	A	NONE
AD25976-010	09/14/21 17:55	SROB	0	M	Received
AD25976-010	09/15/21 12:04	SROB	0	M	Login
AD25976-010	09/15/21 14:01	R12	1	A	NONE
AD25976-010	09/15/21 21:22	PA	1	A	rmx
AD25976-010	09/15/21 21:24	R12	1	A	NONE
AD25976-010	09/16/21 08:34	BCT	1	A	SOLIDS
AD25976-010	09/16/21 12:45	SDL	1	A	IGNIT/PH
AD25976-010	09/16/21 12:45	R12	1	A	NONE
AD25976-010	09/16/21 12:59	KS	1	A	TCLP
AD25976-010	09/16/21 12:59	R12	1	A	NONE
AD25976-010	09/17/21 09:13	KS	1	A	PH-S
AD25976-010	09/17/21 11:19	R12	1	A	NONE
AD25976-010	09/17/21 16:46	CN	1	A	PCB-SOIL
AD25976-010	09/17/21 16:47	R12	1	A	NONE
AD25976-010	09/18/21 07:06	LV	1	A	tph
AD25976-010	09/18/21 07:07	R12	1	A	NONE
AD25976-010	09/20/21 11:45	SDL	1	A	paintfilter
AD25976-010	09/20/21 12:42	R12	1	A	NONE
AD25976-010	09/20/21 16:39	CN	1	A	BNA-SOIL
AD25976-010	09/20/21 16:40	R12	1	A	NONE
AD25976-010	09/17/21 20:17	R30	2	A	NONE
AD25976-010	09/20/21 14:33	JM	2	A	GRO
AD25976-010	09/20/21 14:34	R30	2	A	NONE
AD25976-010	09/20/21 17:09	JM	3	A	GRO
AD25976-010	09/20/21 17:09	R31	3	A	NONE
AD25976-011	09/14/21 17:55	SROB	0	M	Received
AD25976-011	09/15/21 12:04	SROB	0	M	Login
AD25976-011	09/15/21 14:01	R12	1	A	NONE
AD25976-011	09/15/21 14:01	R12	2	A	NONE
AD25976-011	09/20/21 16:14	JN	2	A	P/P
AD25976-011	09/15/21 14:01	R12	3	A	NONE
AD25976-011	09/15/21 14:01	R12	4	A	NONE
AD25976-011	09/21/21 10:08	LV	4	A	BN/BNA
AD25976-011	09/15/21 18:15	JM	5	A	VOA

Lab#:	DateTime:	Loc or User	Bot Nu	A/ M	Analysis
-------	-----------	-------------	--------	------	----------

Samples marked as received are stored in coolers or refrigerator R12, or R24 at 4 deg C until Login

Volatile Data

Form1
ORGANICS VOLATILE REPORT

Sample Number: AD25976-001
Client Id: SB01 GRAB
Data File: 6M144950.D
Analysis Date: 09/16/21 21:32
Date Rec/Extracted: 09/14/21-NA
Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260D
Matrix: Soil
Initial Vol: 5.01g
Final Vol: NA
Dilution: 0.998
Solids: 92

Units: mg/Kg

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	0.0022	U	56-23-5	Carbon Tetrachloride	0.0022	U
79-34-5	1,1,2,2-Tetrachloroethane	0.0022	U	108-90-7	Chlorobenzene	0.0022	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	0.0022	U	75-00-3	Chloroethane	0.0022	U
79-00-5	1,1,2-Trichloroethane	0.0022	U	67-66-3	Chloroform	0.0022	U
75-34-3	1,1-Dichloroethane	0.0022	U	74-87-3	Chloromethane	0.0022	U
75-35-4	1,1-Dichloroethene	0.0022	U	156-59-2	cis-1,2-Dichloroethene	0.0022	U
87-61-6	1,2,3-Trichlorobenzene	0.0022	U	10061-01-5	cis-1,3-Dichloropropene	0.0022	U
120-82-1	1,2,4-Trichlorobenzene	0.0022	U	110-82-7	Cyclohexane	0.0022	U
96-12-8	1,2-Dibromo-3-Chloropropa	0.0022	U	124-48-1	Dibromochloromethane	0.0022	U
106-93-4	1,2-Dibromoethane	0.00054	U	75-71-8	Dichlorodifluoromethane	0.0022	U
95-50-1	1,2-Dichlorobenzene	0.0022	U	100-41-4	Ethylbenzene	0.0011	U
107-06-2	1,2-Dichloroethane	0.0022	U	98-82-8	Isopropylbenzene	0.0011	U
78-87-5	1,2-Dichloropropane	0.0022	U	79601-23-1	m&p-Xylenes	0.0013	U
541-73-1	1,3-Dichlorobenzene	0.0022	U	79-20-9	Methyl Acetate	0.0022	U
106-46-7	1,4-Dichlorobenzene	0.0022	U	108-87-2	Methylcyclohexane	0.0022	U
123-91-1	1,4-Dioxane	0.11	U	75-09-2	Methylene Chloride	0.0022	U
78-93-3	2-Butanone	0.0022	U	1634-04-4	Methyl-t-butyl ether	0.0011	U
591-78-6	2-Hexanone	0.0022	U	95-47-6	o-Xylene	0.0011	U
108-10-1	4-Methyl-2-Pentanone	0.0022	U	100-42-5	Styrene	0.0022	U
67-64-1	Acetone	0.011	U	127-18-4	Tetrachloroethene	0.0022	U
71-43-2	Benzene	0.0011	U	108-88-3	Toluene	0.0011	U
74-97-5	Bromochloromethane	0.0022	U	156-60-5	trans-1,2-Dichloroethene	0.0022	U
75-27-4	Bromodichloromethane	0.0022	U	10061-02-6	trans-1,3-Dichloropropene	0.0022	U
75-25-2	Bromoform	0.0022	U	79-01-6	Trichloroethene	0.0022	U
74-83-9	Bromomethane	0.0022	U	75-69-4	Trichlorofluoromethane	0.0022	U
75-15-0	Carbon Disulfide	0.0037	U	75-01-4	Vinyl Chloride	0.0022	U
1330-20-7	Xylenes (Total)	0.0011	U				

Worksheet #: 609152

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

*U - Indicates the compound was analyzed but not detected.**B - Indicates the analyte was found in the blank as well as in the sample.**E - Indicates the analyte concentration exceeds the calibration range of the instrument.**R - Retention Time Out**J - Indicates an estimated value when a compound is detected at less than the specified detection limit.**d - Pesticide %Diff>40% between columns due to coelution. Lower concentration used**Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.*

SampleID : AD25976-001
 Data File: 6M144950.D
 Acq On : 09/16/21 21:32

Operator : WP
 Sam Mult : 1 Vial# : 22
 Misc : S,5G!3

Qt Meth : 6M_S0915.M
 Qt On : 09/16/21 21:46
 Qt Upd On: 09/16/21 14:33

Data Path : G:\GcMsData\2021\GCMS_6\Data\09-16-21\
 Qt Path : G:\GcMsData\2021\GCMS_6\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	5.129	96	128860	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.763	117	107064	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.050	152	52560	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	4.739	111	39133	32.39	ug/l	0.00
Spiked Amount						
						Recovery = 107.97%
39) 1,2-Dichloroethane-d4	4.940	67	23190	32.31	ug/l	0.00
Spiked Amount						Recovery = 107.70%
66) Toluene-d8	5.989	98	127019	29.49	ug/l	0.00
Spiked Amount						Recovery = 98.30%
76) Bromofluorobenzene	7.391	174	38279	29.53	ug/l	0.00
Spiked Amount						Recovery = 98.43%
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

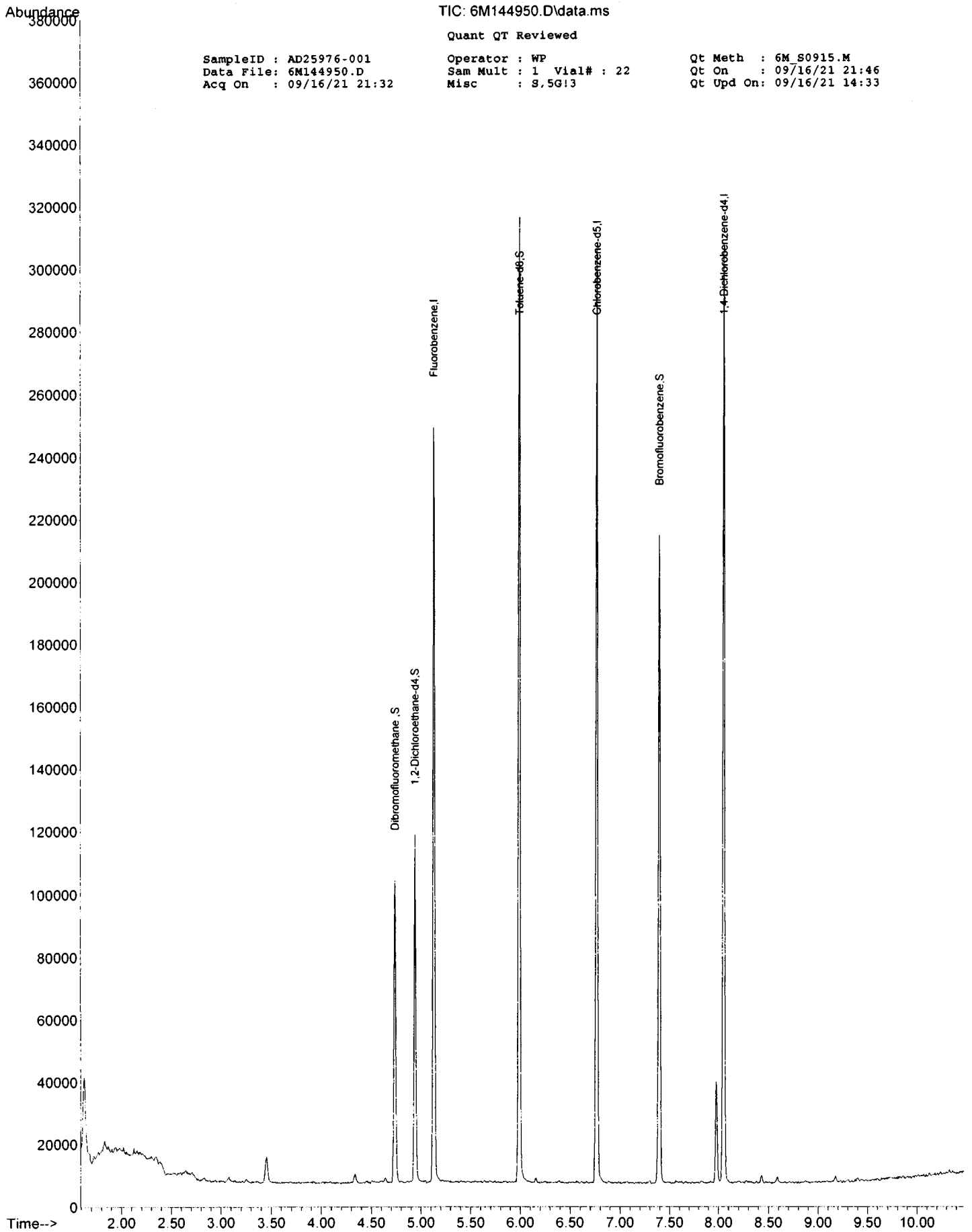
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Quant QT Reviewed

SampleID : AD25976-001
Data File: 6M144950.D
Acq On : 09/16/21 21:32

Operator : WP
Sam Mult : 1 Vial# : 22
Misc : S.5G13

Qt Meth : 6M_S0915.M
Qt On : 09/16/21 21:46
Qt Upd On: 09/16/21 14:33



Form1
ORGANICS VOLATILE REPORT

Sample Number: AD25976-003
Client Id: SB02 GRAB
Data File: 6M144949.D
Analysis Date: 09/16/21 21:12
Date Rec/Extracted: 09/14/21-NA
Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260D
Matrix: Soil
Initial Vol: 5.04g
Final Vol: NA
Dilution: 0.992
Solids: 90

Units: mg/Kg

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	0.0022	U	56-23-5	Carbon Tetrachloride	0.0022	U
79-34-5	1,1,2,2-Tetrachloroethane	0.0022	U	108-90-7	Chlorobenzene	0.0022	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	0.0022	U	75-00-3	Chloroethane	0.0022	U
79-00-5	1,1,2-Trichloroethane	0.0022	U	67-66-3	Chloroform	0.0022	U
75-34-3	1,1-Dichloroethane	0.0022	U	74-87-3	Chloromethane	0.0022	U
75-35-4	1,1-Dichloroethene	0.0022	U	156-59-2	cis-1,2-Dichloroethene	0.0022	U
87-61-6	1,2,3-Trichlorobenzene	0.0022	U	10061-01-5	cis-1,3-Dichloropropene	0.0022	U
120-82-1	1,2,4-Trichlorobenzene	0.0022	U	110-82-7	Cyclohexane	0.0022	U
96-12-8	1,2-Dibromo-3-Chloropropa	0.0022	U	124-48-1	Dibromochloromethane	0.0022	U
106-93-4	1,2-Dibromoethane	0.00055	U	75-71-8	Dichlorodifluoromethane	0.0022	U
95-50-1	1,2-Dichlorobenzene	0.0022	U	100-41-4	Ethylbenzene	0.0011	U
107-06-2	1,2-Dichloroethane	0.0022	U	98-82-8	Isopropylbenzene	0.0011	U
78-87-5	1,2-Dichloropropane	0.0022	U	79601-23-1	m&p-Xylenes	0.0013	U
541-73-1	1,3-Dichlorobenzene	0.0022	U	79-20-9	Methyl Acetate	0.0022	U
106-46-7	1,4-Dichlorobenzene	0.0022	U	108-87-2	Methylcyclohexane	0.0022	U
123-91-1	1,4-Dioxane	0.11	U	75-09-2	Methylene Chloride	0.0022	U
78-93-3	2-Butanone	0.0022	U	1634-04-4	Methyl-t-butyl ether	0.0011	U
591-78-6	2-Hexanone	0.0022	U	95-47-6	o-Xylene	0.0011	U
108-10-1	4-Methyl-2-Pentanone	0.0022	U	100-42-5	Styrene	0.0022	U
67-64-1	Acetone	0.011	U	127-18-4	Tetrachloroethene	0.0022	U
71-43-2	Benzene	0.0011	U	108-88-3	Toluene	0.0011	U
74-97-5	Bromochloromethane	0.0022	U	156-60-5	trans-1,2-Dichloroethene	0.0022	U
75-27-4	Bromodichloromethane	0.0022	U	10061-02-6	trans-1,3-Dichloropropene	0.0022	U
75-25-2	Bromoform	0.0022	U	79-01-6	Trichloroethene	0.0022	U
74-83-9	Bromomethane	0.0022	U	75-69-4	Trichlorofluoromethane	0.0022	U
75-15-0	Carbon Disulfide	0.0037	U	75-01-4	Vinyl Chloride	0.0022	U
1330-20-7	Xylenes (Total)	0.0011	U				

Worksheet #: 609152

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.*B* - Indicates the analyte was found in the blank as well as in the sample.*E* - Indicates the analyte concentration exceeds the calibration range of the instrument.*R* - Retention Time Out*J* - Indicates an estimated value when a compound is detected at less than the specified detection limit.*d* - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a*Chlordane (Total) is sum of α-Chlordane and γ-Chlordane.*

SampleID : AD25976-003
 Data File: 6M144949.D
 Acq On : 09/16/21 21:12

Operator : WP
 Sam Mult : 1 Vial# : 21
 Misc : S,5G!5

Qt Meth : 6M_S0915.M
 Qt On : 09/16/21 21:46
 Qt Upd On: 09/16/21 14:33

Data Path : G:\GcMsData\2021\GCMS_6\Data\09-16-21\
 Qt Path : G:\GcMsData\2021\GCMS_6\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	Qvalue

Internal Standards							
4) Fluorobenzene	5.129	96	131603	30.00	ug/l	0.00	
52) Chlorobenzene-d5	6.763	117	87870	30.00	ug/l	0.00	
70) 1,4-Dichlorobenzene-d4	8.049	152	27766	30.00	ug/l	0.00	
System Monitoring Compounds							
37) Dibromofluoromethane	4.733	111	40285	32.65	ug/l	0.00	
Spiked Amount							Recovery = 108.83%
39) 1,2-Dichloroethane-d4	4.940	67	24621	33.59	ug/l	0.00	
Spiked Amount							Recovery = 111.97%
66) Toluene-d8	5.989	98	118943	33.64	ug/l	0.00	
Spiked Amount							Recovery = 112.13%
76) Bromofluorobenzene	7.391	174	26902	39.28	ug/l	0.00	
Spiked Amount							Recovery = 130.93%

Target Compounds							Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed



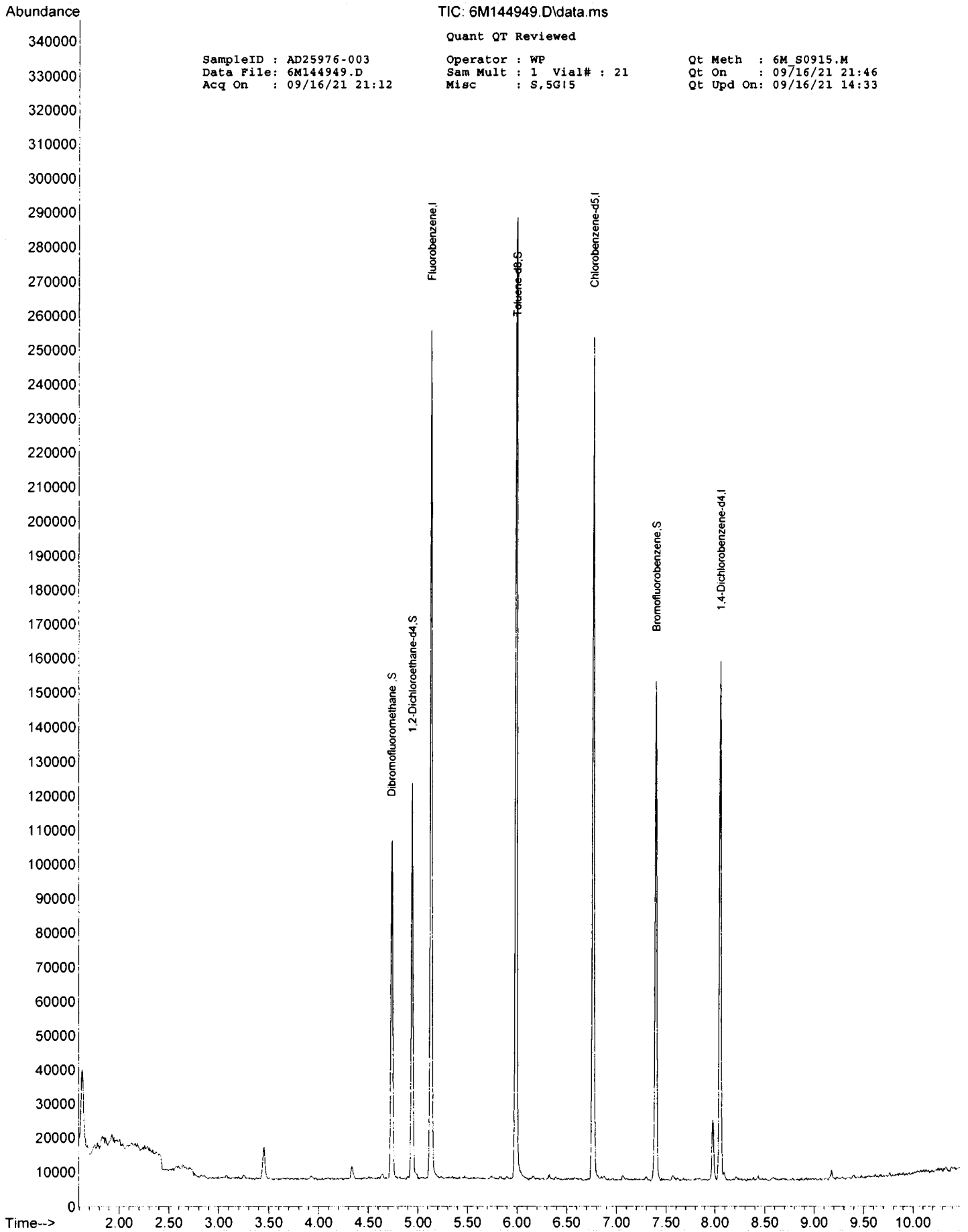
TIC: 6M144949.D\data.ms

Quant QT Reviewed

SampleID : AD25976-003
Data File: 6M144949.D
Acq On : 09/16/21 21:12

Operator : WP
Sam Mult : 1 Vial# : 21
Misc : S,5G15

Qt Meth : 6M_S0915.M
Qt On : 09/16/21 21:46
Qt Upd On: 09/16/21 14:33



Form1

ORGANICS VOLATILE REPORT

Sample Number: AD25976-005

Client Id: SB03 GRAB

Data File: 1M152556.D

Analysis Date: 09/16/21 01:31

Date Rec/Extracted: 09/14/21-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260D

Matrix: Soil

Initial Vol: 5.07g

Final Vol: NA

Dilution: 0.986

Solids: 81

Units: mg/Kg

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	0.0024	U	56-23-5	Carbon Tetrachloride	0.0024	U
79-34-5	1,1,2,2-Tetrachloroethane	0.0024	U	108-90-7	Chlorobenzene	0.0024	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	0.0024	U	75-00-3	Chloroethane	0.0024	U
79-00-5	1,1,2-Trichloroethane	0.0024	U	67-66-3	Chloroform	0.0024	U
75-34-3	1,1-Dichloroethane	0.0024	U	74-87-3	Chloromethane	0.0024	U
75-35-4	1,1-Dichloroethene	0.0024	U	156-59-2	cis-1,2-Dichloroethene	0.0024	U
87-61-6	1,2,3-Trichlorobenzene	0.0024	U	10061-01-5	cis-1,3-Dichloropropene	0.0024	U
120-82-1	1,2,4-Trichlorobenzene	0.0024	U	110-82-7	Cyclohexane	0.0024	U
96-12-8	1,2-Dibromo-3-Chloropropa	0.0024	U	124-48-1	Dibromochloromethane	0.0024	U
106-93-4	1,2-Dibromoethane	0.00061	U	75-71-8	Dichlorodifluoromethane	0.0024	U
95-50-1	1,2-Dichlorobenzene	0.0024	U	100-41-4	Ethylbenzene	0.0012	U
107-06-2	1,2-Dichloroethane	0.0024	U	98-82-8	Isopropylbenzene	0.0012	U
78-87-5	1,2-Dichloropropane	0.0024	U	79601-23-1	m&p-Xylenes	0.0015	U
541-73-1	1,3-Dichlorobenzene	0.0024	U	79-20-9	Methyl Acetate	0.0024	U
106-46-7	1,4-Dichlorobenzene	0.0024	U	108-87-2	Methylcyclohexane	0.0024	U
123-91-1	1,4-Dioxane	0.12	U	75-09-2	Methylene Chloride	0.0024	U
78-93-3	2-Butanone	0.0024	U	1634-04-4	Methyl-t-butyl ether	0.0012	U
591-78-6	2-Hexanone	0.0024	U	95-47-6	o-Xylene	0.0012	U
108-10-1	4-Methyl-2-Pentanone	0.0024	U	100-42-5	Styrene	0.0024	U
67-64-1	Acetone	0.012	U	127-18-4	Tetrachloroethene	0.0024	U
71-43-2	Benzene	0.0012	U	108-88-3	Toluene	0.0012	U
74-97-5	Bromochloromethane	0.0024	U	156-60-5	trans-1,2-Dichloroethene	0.0024	U
75-27-4	Bromodichloromethane	0.0024	U	10061-02-6	trans-1,3-Dichloropropene	0.0024	U
75-25-2	Bromoform	0.0024	U	79-01-6	Trichloroethene	0.0024	U
74-83-9	Bromomethane	0.0024	U	75-69-4	Trichlorofluoromethane	0.0024	U
75-15-0	Carbon Disulfide	0.0041	U	75-01-4	Vinyl Chloride	0.0024	U
1330-20-7	Xylenes (Total)	0.0012	U				

Worksheet #: 609152

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

SampleID : AD25976-005
 Data File: 1M152556.D
 Acq On : 09/16/21 01:31

Operator : WP
 Sam Mult : 1 Vial# : 27
 Misc : S,SG!3

Qt Meth : 1M_S0914.M
 Qt On : 09/16/21 10:45
 Qt Upd On: 09/15/21 17:38

Data Path : G:\GcMsData\2021\GCMS_1\Data\09-15-21\
 Qt Path : G:\GcMsData\2021\GCMS_1\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	5.300	96	287308	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.959	117	209796	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.255	152	95847	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	4.901	111	83586	30.47	ug/l	0.00
Spiked Amount						
						Recovery = 101.57%
39) 1,2-Dichloroethane-d4	5.110	67	44576	28.44	ug/l	0.00
Spiked Amount						Recovery = 94.80%
66) Toluene-d8	6.168	98	279503	33.09	ug/l	0.00
Spiked Amount						Recovery = 110.30%
76) Bromofluorobenzene	7.595	174	81932	35.58	ug/l	0.00
Spiked Amount						Recovery = 118.60%
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

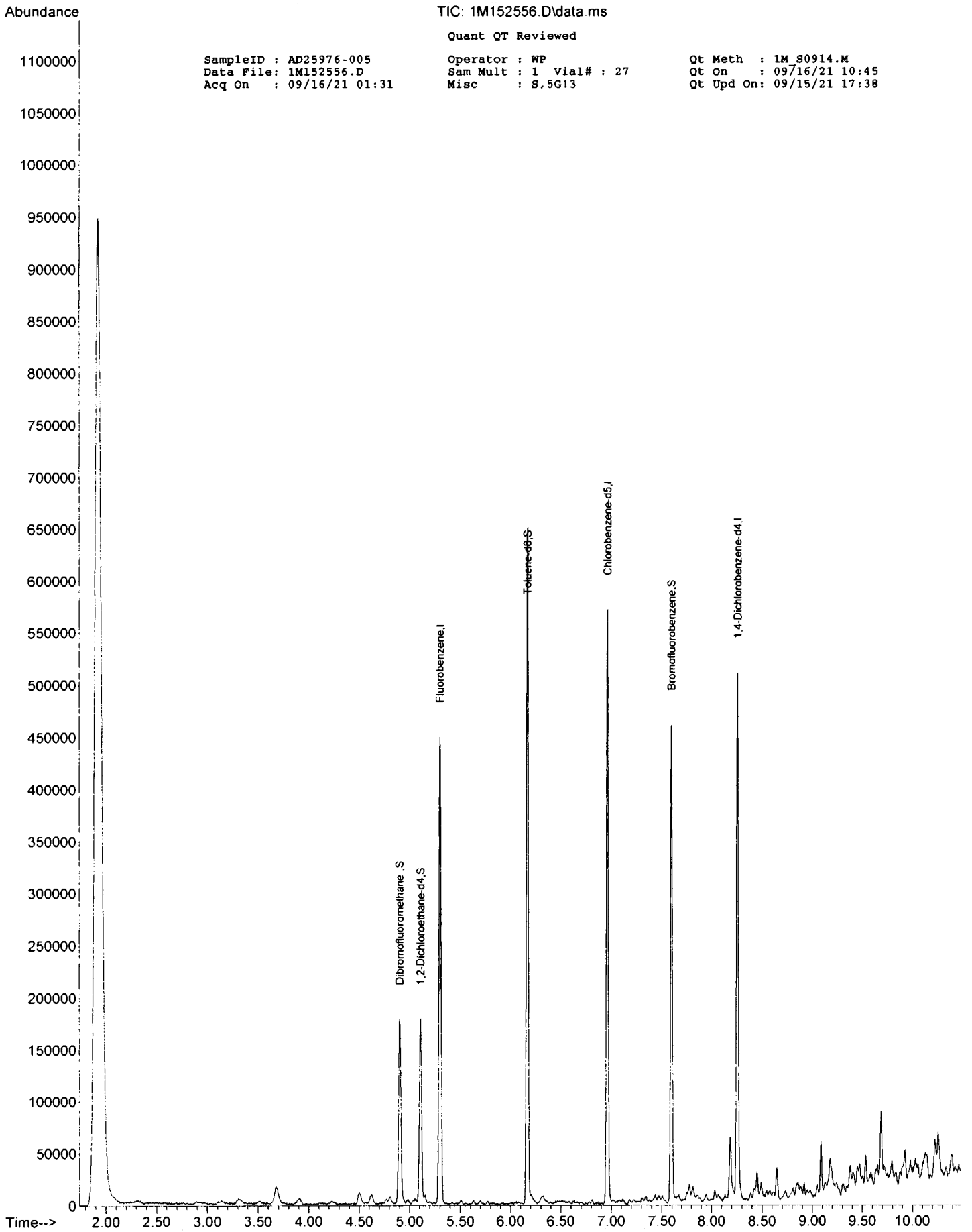
TIC: 1M152556.D\data.ms

Quant QT Reviewed

SampleID : AD25976-005
Data File: 1M152556.D
Acq On : 09/16/21 01:31

Operator : WP
Sam Mult : 1 Vial# : 27
Misc : S,5G13

Qt Meth : 1M_S0914.M
Qt On : 09/16/21 10:45
Qt Upd On: 09/15/21 17:38



Form1
ORGANICS VOLATILE REPORT

Sample Number: AD25976-007
Client Id: SB04 GRAB
Data File: 1M152557.D
Analysis Date: 09/16/21 01:51
Date Rec/Extracted: 09/14/21-NA
Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260D
Matrix: Soil
Initial Vol: 5.07g
Final Vol: NA
Dilution: 0.986
Solids: 80

Units: mg/Kg

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	0.0025	U	56-23-5	Carbon Tetrachloride	0.0025	U
79-34-5	1,1,2,2-Tetrachloroethane	0.0025	U	108-90-7	Chlorobenzene	0.0025	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	0.0025	U	75-00-3	Chloroethane	0.0025	U
79-00-5	1,1,2-Trichloroethane	0.0025	U	67-66-3	Chloroform	0.0025	U
75-34-3	1,1-Dichloroethane	0.0025	U	74-87-3	Chloromethane	0.0025	U
75-35-4	1,1-Dichloroethene	0.0025	U	156-59-2	cis-1,2-Dichloroethene	0.0025	U
87-61-6	1,2,3-Trichlorobenzene	0.0025	U	10061-01-5	cis-1,3-Dichloropropene	0.0025	U
120-82-1	1,2,4-Trichlorobenzene	0.0025	U	110-82-7	Cyclohexane	0.0025	U
96-12-8	1,2-Dibromo-3-Chloropropa	0.0025	U	124-48-1	Dibromochloromethane	0.0025	U
106-93-4	1,2-Dibromoethane	0.00062	U	75-71-8	Dichlorodifluoromethane	0.0025	U
95-50-1	1,2-Dichlorobenzene	0.0025	U	100-41-4	Ethylbenzene	0.0012	U
107-06-2	1,2-Dichloroethane	0.0025	U	98-82-8	Isopropylbenzene	0.0012	U
78-87-5	1,2-Dichloropropane	0.0025	U	79601-23-1	m&p-Xylenes	0.0015	U
541-73-1	1,3-Dichlorobenzene	0.0025	U	79-20-9	Methyl Acetate	0.0025	U
106-46-7	1,4-Dichlorobenzene	0.0025	U	108-87-2	Methylcyclohexane	0.0025	U
123-91-1	1,4-Dioxane	0.12	U	75-09-2	Methylene Chloride	0.0025	U
78-93-3	2-Butanone	0.0025	U	1634-04-4	Methyl-t-butyl ether	0.0012	U
591-78-6	2-Hexanone	0.0025	U	95-47-6	o-Xylene	0.0012	U
108-10-1	4-Methyl-2-Pentanone	0.0025	U	100-42-5	Styrene	0.0025	U
67-64-1	Acetone	0.012	U	127-18-4	Tetrachloroethene	0.0025	U
71-43-2	Benzene	0.0012	U	108-88-3	Toluene	0.0012	U
74-97-5	Bromochloromethane	0.0025	U	156-60-5	trans-1,2-Dichloroethene	0.0025	U
75-27-4	Bromodichloromethane	0.0025	U	10061-02-6	trans-1,3-Dichloropropene	0.0025	U
75-25-2	Bromoform	0.0025	U	79-01-6	Trichloroethene	0.0025	U
74-83-9	Bromomethane	0.0025	U	75-69-4	Trichlorofluoromethane	0.0025	U
75-15-0	Carbon Disulfide	0.0042	U	75-01-4	Vinyl Chloride	0.0025	U
1330-20-7	Xylenes (Total)	0.0012	U				

Worksheet #: 609152

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

SampleID : AD25976-007
 Data File: 1M152557.D
 Acq On : 09/16/21 01:51

Operator : WP
 Sam Mult : 1 Vial# : 28
 Misc : S,5G!4

Qt Meth : 1M_S0914.M
 Qt On : 09/16/21 10:46
 Qt Upd On: 09/15/21 17:38

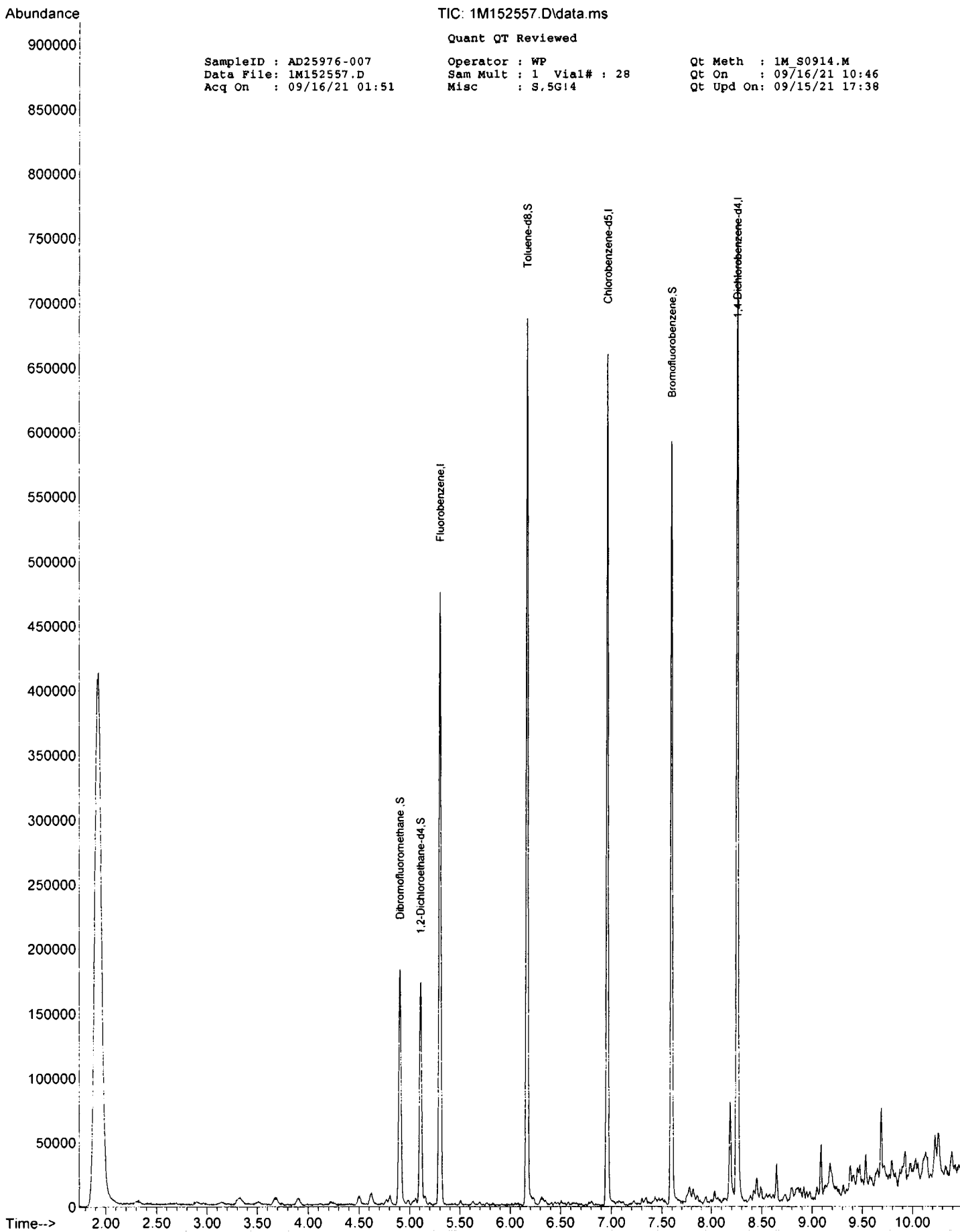
Data Path : G:\GcMsData\2021\GCMS_1\Data\09-15-21\
 Qt Path : G:\GcMsData\2021\GCMS_1\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	Qvalue

Internal Standards							
4) Fluorobenzene	5.300	96	294075	30.00	ug/l	0.00	
52) Chlorobenzene-d5	6.959	117	247068	30.00	ug/l	0.00	
70) 1,4-Dichlorobenzene-d4	8.251	152	143087	30.00	ug/l	0.00	
System Monitoring Compounds							
37) Dibromofluoromethane	4.901	111	85674	30.51	ug/l	0.00	
Spiked Amount	30.000		Recovery	=	101.70%		
39) 1,2-Dichloroethane-d4	5.107	67	45057	28.09	ug/l	0.00	
Spiked Amount	30.000		Recovery	=	93.63%		
66) Toluene-d8	6.165	98	298550	30.01	ug/l	0.00	
Spiked Amount	30.000		Recovery	=	100.03%		
76) Bromofluorobenzene	7.595	174	110904	32.26	ug/l	0.00	
Spiked Amount	30.000		Recovery	=	107.53%		

Target Compounds							Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed



TIC: 1M152557.D\data.ms

Quant QT Reviewed

SampleID : AD25976-007
Data File: 1M152557.D
Acq On : 09/16/21 01:51

Operator : WP
Sam Mult : 1 Vial# : 28
Misc : S,5G14

Qt Meth : 1M_S0914.M
Qt On : 09/16/21 10:46
Qt Upd On: 09/15/21 17:38

Form1
ORGANICS VOLATILE REPORT

Sample Number: AD25976-009
Client Id: SB05 GRAB
Data File: 6M144951.D
Analysis Date: 09/16/21 21:53
Date Rec/Extracted: 09/14/21-NA
Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260D
Matrix: Soil
Initial Vol: 5.05g
Final Vol: NA
Dilution: 0.990
Solids: 84

Units: mg/Kg

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	0.0024	U	56-23-5	Carbon Tetrachloride	0.0024	U
79-34-5	1,1,1,2,2-Tetrachloroethane	0.0024	U	108-90-7	Chlorobenzene	0.0024	U
76-13-1	1,1,1,2-Trichloro-1,2,2-trifluor	0.0024	U	75-00-3	Chloroethane	0.0024	U
79-00-5	1,1,2-Trichloroethane	0.0024	U	67-66-3	Chloroform	0.0024	U
75-34-3	1,1-Dichloroethane	0.0024	U	74-87-3	Chloromethane	0.0024	U
75-35-4	1,1-Dichloroethene	0.0024	U	156-59-2	cis-1,2-Dichloroethene	0.0024	U
87-61-6	1,2,3-Trichlorobenzene	0.0024	U	10061-01-5	cis-1,3-Dichloropropene	0.0024	U
120-82-1	1,2,4-Trichlorobenzene	0.0024	U	110-82-7	Cyclohexane	0.0024	U
96-12-8	1,2-Dibromo-3-Chloropropa	0.0024	U	124-48-1	Dibromochloromethane	0.0024	U
106-93-4	1,2-Dibromoethane	0.00059	U	75-71-8	Dichlorodifluoromethane	0.0024	U
95-50-1	1,2-Dichlorobenzene	0.0024	U	100-41-4	Ethylbenzene	0.0012	U
107-06-2	1,2-Dichloroethane	0.0024	U	98-82-8	Isopropylbenzene	0.0012	U
78-87-5	1,2-Dichloropropane	0.0024	U	79601-23-1	m&p-Xylenes	0.0014	U
541-73-1	1,3-Dichlorobenzene	0.0024	U	79-20-9	Methyl Acetate	0.0024	U
106-46-7	1,4-Dichlorobenzene	0.0024	U	108-87-2	Methylcyclohexane	0.0024	U
123-91-1	1,4-Dioxane	0.12	U	75-09-2	Methylene Chloride	0.0024	U
78-93-3	2-Butanone	0.0024	U	1634-04-4	Methyl-t-butyl ether	0.0012	U
591-78-6	2-Hexanone	0.0024	U	95-47-6	o-Xylene	0.0012	U
108-10-1	4-Methyl-2-Pentanone	0.0024	U	100-42-5	Styrene	0.0024	U
67-64-1	Acetone	0.012	U	127-18-4	Tetrachloroethene	0.0024	U
71-43-2	Benzene	0.0012	U	108-88-3	Toluene	0.0012	U
74-97-5	Bromochloromethane	0.0024	U	156-60-5	trans-1,2-Dichloroethene	0.0024	U
75-27-4	Bromodichloromethane	0.0024	U	10061-02-6	trans-1,3-Dichloropropene	0.0024	U
75-25-2	Bromoform	0.0024	U	79-01-6	Trichloroethene	0.0024	U
74-83-9	Bromomethane	0.0024	U	75-69-4	Trichlorofluoromethane	0.0024	U
75-15-0	Carbon Disulfide	0.0040	U	75-01-4	Vinyl Chloride	0.0024	U
1330-20-7	Xylenes (Total)	0.0012	U				

Worksheet #: 609152

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

SampleID : AD25976-009
 Data File: 6M144951.D
 Acq On : 09/16/21 21:53

Operator : WP
 Sam Mult : 1 Vial# : 23
 Misc : S,5G!4

Qt Meth : 6M_S0915.M
 Qt On : 09/16/21 22:26
 Qt Upd On: 09/16/21 14:33

Data Path : G:\GcMsData\2021\GCMS_6\Data\09-16-21\
 Qt Path : G:\GcMsData\2021\GCMS_6\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	5.129	96	137368	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.763	117	111952	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.049	152	55128	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	4.733	111	41162	31.96	ug/l	0.00
Spiked Amount	30.000					
						Recovery = 106.53%
39) 1,2-Dichloroethane-d4	4.940	67	24326	31.80	ug/l	0.00
Spiked Amount	30.000					
						Recovery = 106.00%
66) Toluene-d8	5.989	98	133517	29.64	ug/l	0.00
Spiked Amount	30.000					
						Recovery = 98.80%
76) Bromofluorobenzene	7.391	174	40689	29.93	ug/l	0.00
Spiked Amount	30.000					
						Recovery = 99.77%
Target Compounds						
						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

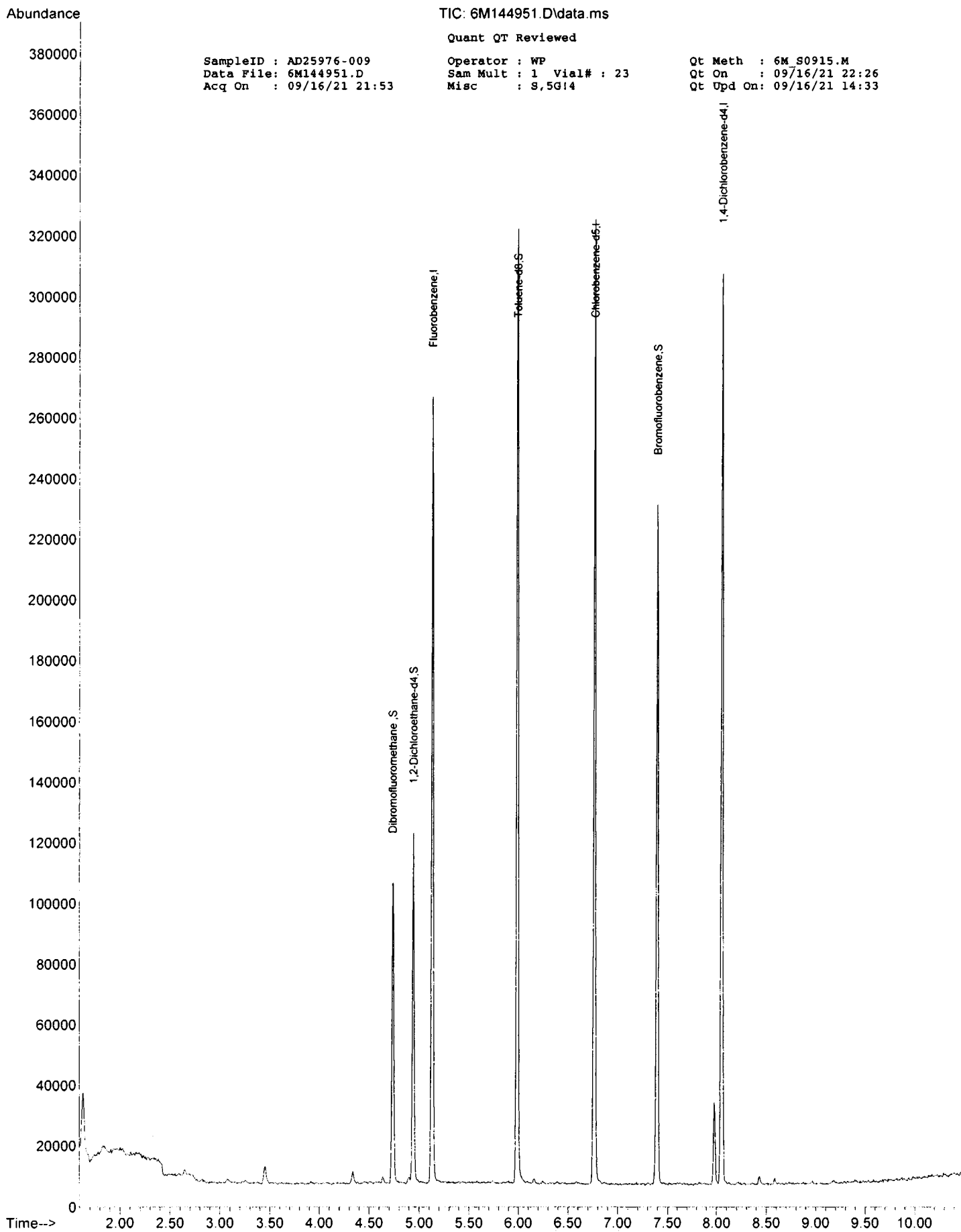
TIC: 6M144951.D\data.ms

Quant QT Reviewed

SampleID : AD25976-009
 Data File: 6M144951.D
 Acq On : 09/16/21 21:53

Operator : WP
 Sam Mult : 1 Vial# : 23
 Misc : S,5G14

Qt Meth : 6M_S0915.M
 Qt On : 09/16/21 22:26
 Qt Upd On: 09/16/21 14:33



Form1

ORGANICS VOLATILE REPORT

Sample Number: AD25976-011

Client Id: SB04 GW

Data File: 2M156859.D

Analysis Date: 09/16/21 14:50

Date Rec/Extracted: 09/14/21-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260D

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	56-23-5	Carbon Tetrachloride	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	108-90-7	Chlorobenzene	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	75-00-3	Chloroethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	67-66-3	Chloroform	2.0	U
75-34-3	1,1-Dichloroethane	1.0	U	74-87-3	Chloromethane	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
87-61-6	1,2,3-Trichlorobenzene	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	110-82-7	Cyclohexane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	124-48-1	Dibromochloromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	100-41-4	Ethylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.64	U	98-82-8	Isopropylbenzene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79601-23-1	m&p-Xylenes	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	79-20-9	Methyl Acetate	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
123-91-1	1,4-Dioxane	50	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	U
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
74-97-5	Bromochloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
75-25-2	Bromoform	1.0	U	79-01-6	Trichloroethene	1.0	U
74-83-9	Bromomethane	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-01-4	Vinyl Chloride	1.0	U
1330-20-7	Xylenes (Total)	1.0	U				

Worksheet #: 609152

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

*U - Indicates the compound was analyzed but not detected.**B - Indicates the analyte was found in the blank as well as in the sample.**E - Indicates the analyte concentration exceeds the calibration range of the instrument.**R - Retention Time Out**J - Indicates an estimated value when a compound is detected at less than the specified detection limit.**d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a**Chlordane (Total) is sum of a-Chlordane and y-Chlordane.*

SampleID : AD25976-011
 Data File: 2M156859.D
 Acq On : 09/16/21 14:50

Operator : WP
 Sam Mult : 1 Vial# : 32
 Misc : A,SML!5

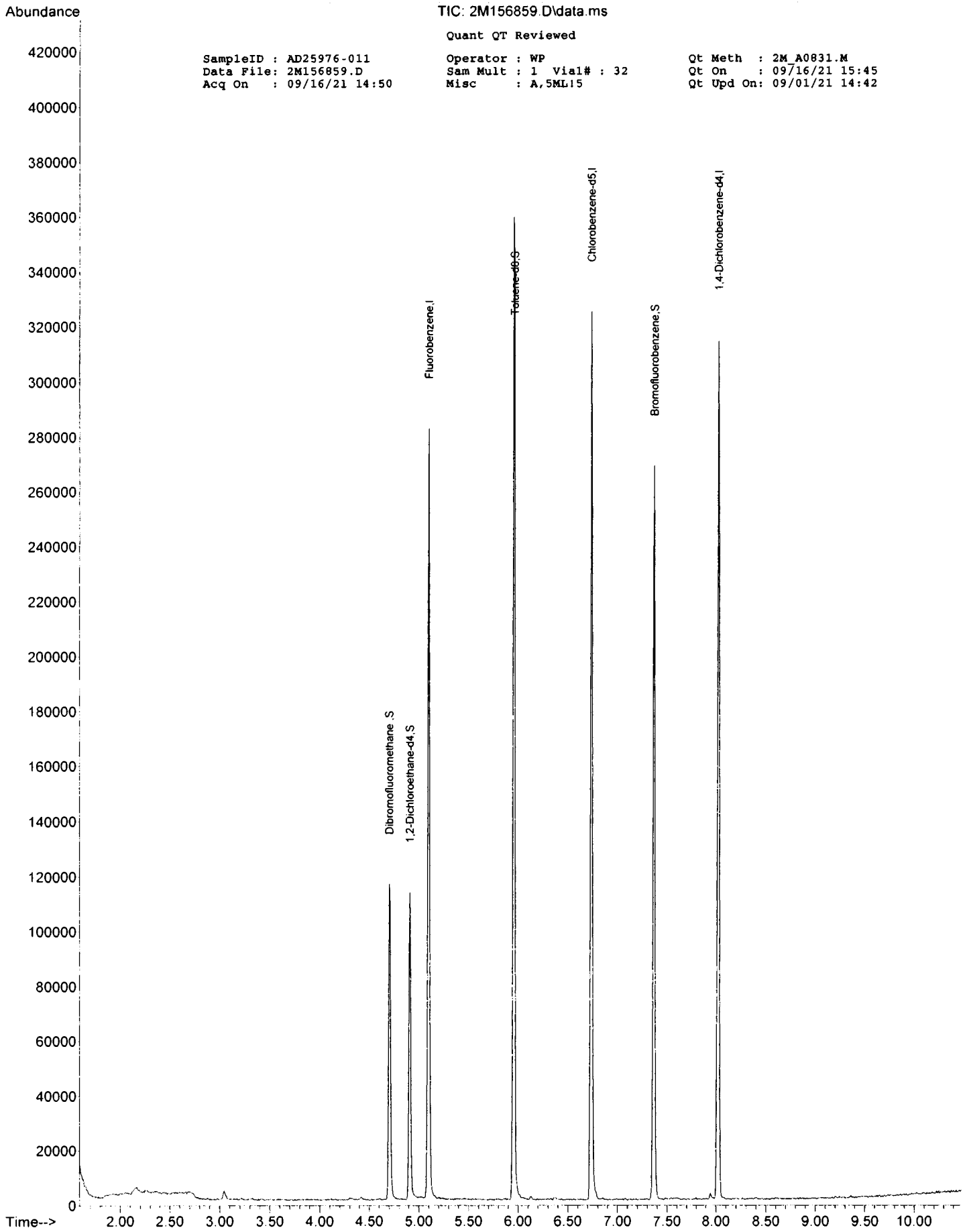
Qt Meth : 2M_A0831.M
 Qt On : 09/16/21 15:45
 Qt Upd On: 09/01/21 14:42

Data Path : G:\GCMSData\2021\GCMS_2\Data\0916-21\
 Qt Path : G:\GCMSData\2021\GCMS_2\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	5.099	96	160479	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.733	117	130701	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.019	152	64176	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	4.702	111	44235	30.25	ug/l	0.00
Spiked Amount						
						Recovery = 100.83%
39) 1,2-Dichloroethane-d4	4.910	67	25222	31.75	ug/l	0.00
Spiked Amount						
						Recovery = 105.83%
66) Toluene-d8	5.958	98	161737	28.50	ug/l	0.00
Spiked Amount						
						Recovery = 95.00%
76) Bromofluorobenzene	7.367	174	58429	29.94	ug/l	0.00
Spiked Amount						
						Recovery = 99.80%
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed



SampleID : AD25976-011
 Data File: 2M156859.D
 Acq On : 09/16/21 14:50

TIC: 2M156859.D\data.ms

Quant QT Reviewed

Operator : WP
 Sam Mult : 1 Vial# : 32
 Misc : A,5ML15

Qt Meth : 2M_A0831.M
 Qt On : 09/16/21 15:45
 Qt Upd On: 09/01/21 14:42

Form1

ORGANICS VOLATILE REPORT

Sample Number: DAILY BLANK

Client Id:

Data File: 1M152538.D

Analysis Date: 09/15/21 19:27

Date Rec/Extracted:

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260D

Matrix: Soil

Initial Vol: 5g

Final Vol: NA

Dilution: 1.00

Solids: 100

Units: mg/Kg

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	0.0020	U	56-23-5	Carbon Tetrachloride	0.0020	U
79-34-5	1,1,2,2-Tetrachloroethane	0.0020	U	108-90-7	Chlorobenzene	0.0020	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	0.0020	U	75-00-3	Chloroethane	0.0020	U
79-00-5	1,1,2-Trichloroethane	0.0020	U	67-66-3	Chloroform	0.0020	U
75-34-3	1,1-Dichloroethane	0.0020	U	74-87-3	Chloromethane	0.0020	U
75-35-4	1,1-Dichloroethene	0.0020	U	156-59-2	cis-1,2-Dichloroethene	0.0020	U
87-61-6	1,2,3-Trichlorobenzene	0.0020	U	10061-01-5	cis-1,3-Dichloropropene	0.0020	U
120-82-1	1,2,4-Trichlorobenzene	0.0020	U	110-82-7	Cyclohexane	0.0020	U
96-12-8	1,2-Dibromo-3-Chloropropa	0.0020	U	124-48-1	Dibromochloromethane	0.0020	U
106-93-4	1,2-Dibromoethane	0.00050	U	75-71-8	Dichlorodifluoromethane	0.0020	U
95-50-1	1,2-Dichlorobenzene	0.0020	U	100-41-4	Ethylbenzene	0.0010	U
107-06-2	1,2-Dichloroethane	0.0020	U	98-82-8	Isopropylbenzene	0.0010	U
78-87-5	1,2-Dichloropropane	0.0020	U	79601-23-1	m&p-Xylenes	0.0012	U
541-73-1	1,3-Dichlorobenzene	0.0020	U	79-20-9	Methyl Acetate	0.0020	U
106-46-7	1,4-Dichlorobenzene	0.0020	U	108-87-2	Methylcyclohexane	0.0020	U
123-91-1	1,4-Dioxane	0.10	U	75-09-2	Methylene Chloride	0.0020	U
78-93-3	2-Butanone	0.0020	U	1634-04-4	Methyl-t-butyl ether	0.0010	U
591-78-6	2-Hexanone	0.0020	U	95-47-6	o-Xylene	0.0010	U
108-10-1	4-Methyl-2-Pentanone	0.0020	U	100-42-5	Styrene	0.0020	U
67-64-1	Acetone	0.010	U	127-18-4	Tetrachloroethene	0.0020	U
71-43-2	Benzene	0.0010	U	108-88-3	Toluene	0.0010	U
74-97-5	Bromochloromethane	0.0020	U	156-60-5	trans-1,2-Dichloroethene	0.0020	U
75-27-4	Bromodichloromethane	0.0020	U	10061-02-6	trans-1,3-Dichloropropene	0.0020	U
75-25-2	Bromoform	0.0020	U	79-01-6	Trichloroethene	0.0020	U
74-83-9	Bromomethane	0.0020	U	75-69-4	Trichlorofluoromethane	0.0020	U
75-15-0	Carbon Disulfide	0.0034	U	75-01-4	Vinyl Chloride	0.0020	U

Worksheet #: 609152

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

SampleID : DAILY BLANK
 Data File: 1M152538.D
 Acq On : 09/15/21 19:27

Operator : WP
 Sam Mult : 1 Vial# : 9
 Misc : S,5G

Qt Meth : 1M_S0914.M
 Qt On : 09/15/21 21:24
 Qt Upd On: 09/15/21 17:38

Data Path : G:\GcMsData\2021\GCMS_1\Data\09-15-21\
 Qt Path : G:\GcMsData\2021\GCMS_1\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	5.300	96	246602	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.959	117	211723	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.254	152	122094	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	4.901	111	71594	30.41	ug/l	0.00
Spiked Amount	30.000		Recovery	=	101.37%	
39) 1,2-Dichloroethane-d4	5.110	67	42063	31.27	ug/l	0.00
Spiked Amount	30.000		Recovery	=	104.23%	
66) Toluene-d8	6.165	98	253972	29.79	ug/l	0.00
Spiked Amount	30.000		Recovery	=	99.30%	
76) Bromofluorobenzene	7.595	174	92569	31.56	ug/l	0.00
Spiked Amount	30.000		Recovery	=	105.20%	
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

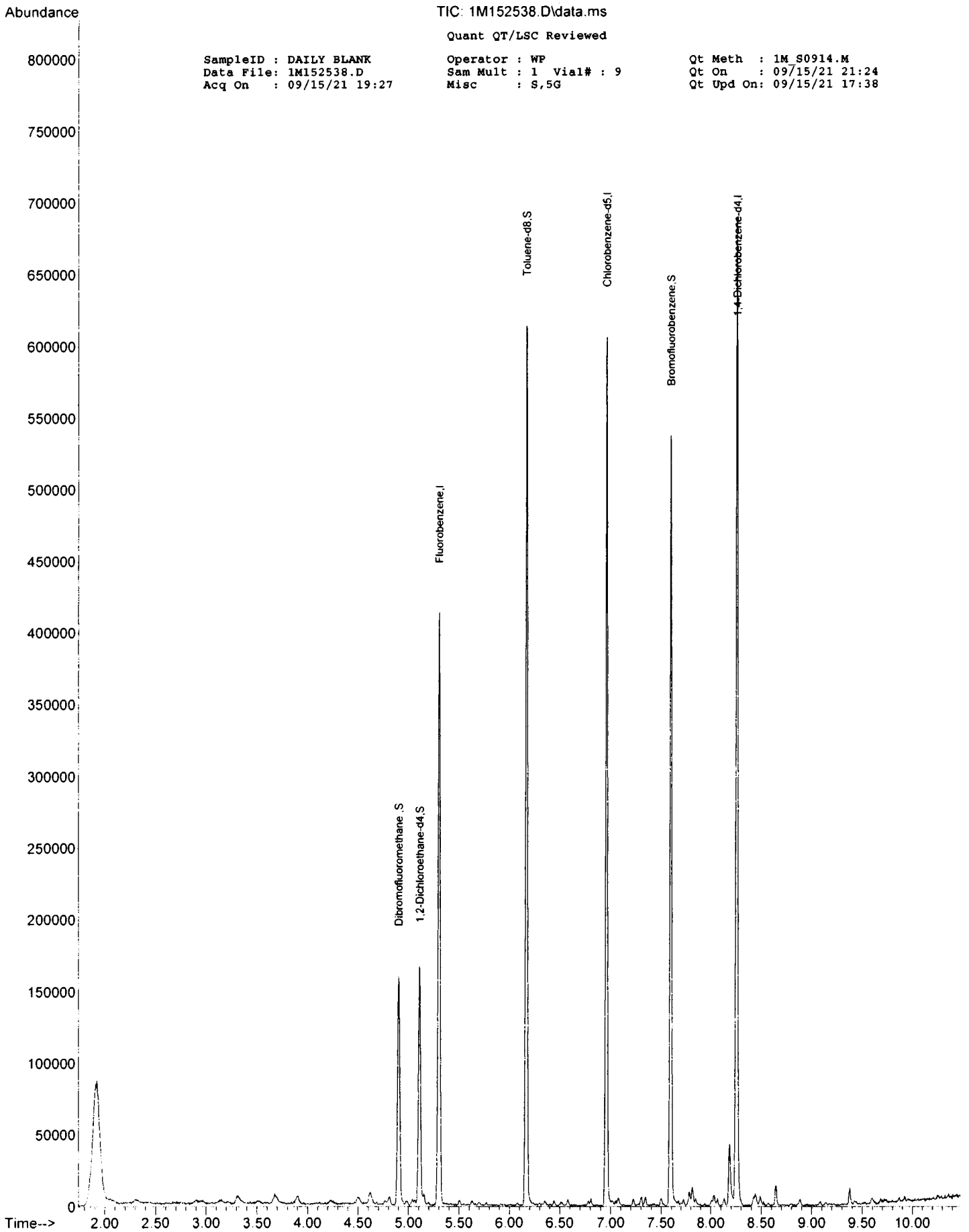
TIC: 1M152538.D\data.ms

Quant QT/LSC Reviewed

SampleID : DAILY BLANK
Data File: 1M152538.D
Acq On : 09/15/21 19:27

Operator : WP
Sam Mult : 1 Vial# : 9
Misc : S,5G

Qt Meth : 1M_S0914.M
Qt On : 09/15/21 21:24
Qt Upd On: 09/15/21 17:38



Form1
ORGANICS VOLATILE REPORT

Sample Number: DAILY BLANK
Client Id:
Data File: 2M156840.D
Analysis Date: 09/16/21 08:39
Date Rec/Extracted:
Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260D
Matrix: Aqueous
Initial Vol: 5ml
Final Vol: NA
Dilution: 1.00
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	56-23-5	Carbon Tetrachloride	1.0	U
79-34-5	1,1,1,2,2-Tetrachloroethane	1.0	U	108-90-7	Chlorobenzene	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	75-00-3	Chloroethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	67-66-3	Chloroform	2.0	U
75-34-3	1,1-Dichloroethane	1.0	U	74-87-3	Chloromethane	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
87-61-6	1,2,3-Trichlorobenzene	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	110-82-7	Cyclohexane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	124-48-1	Dibromochloromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	100-41-4	Ethylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.64	U	98-82-8	Isopropylbenzene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79601-23-1	m&p-Xylenes	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	79-20-9	Methyl Acetate	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
123-91-1	1,4-Dioxane	50	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	U
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
74-97-5	Bromochloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
75-25-2	Bromoform	1.0	U	79-01-6	Trichloroethene	1.0	U
74-83-9	Bromomethane	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-01-4	Vinyl Chloride	1.0	U

Worksheet #: 609152

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.*B* - Indicates the analyte was found in the blank as well as in the sample.*E* - Indicates the analyte concentration exceeds the calibration range of the instrument.*R* - Retention Time Out*J* - Indicates an estimated value when a compound is detected at less than the specified detection limit.*d* - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a*Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.*

SampleID : DAILY BLANK
 Data File: 2M156840.D
 Acq On : 09/16/21 08:39

Operator : WP
 Sam Mult : 1 Vial# : 13
 Misc : A,5ML

Qt Meth : 2M_A0831.M
 Qt On : 09/16/21 15:24
 Qt Upd On: 09/01/21 14:42

Data Path : G:\GcMsData\2021\GCMS_2\Data\0916-21\
 Qt Path : G:\GcMsData\2021\GCMS_2\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	5.099	96	147306	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.733	117	117378	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.019	152	57489	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	4.703	111	40467	30.15	ug/l	0.00
Spiked Amount	30.000					Recovery = 100.50%
39) 1,2-Dichloroethane-d4	4.910	67	22222	30.47	ug/l	0.00
Spiked Amount	30.000					Recovery = 101.57%
66) Toluene-d8	5.952	98	148487	29.13	ug/l	0.00
Spiked Amount	30.000					Recovery = 97.10%
76) Bromofluorobenzene	7.367	174	53342	30.52	ug/l	0.00
Spiked Amount	30.000					Recovery = 101.73%
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

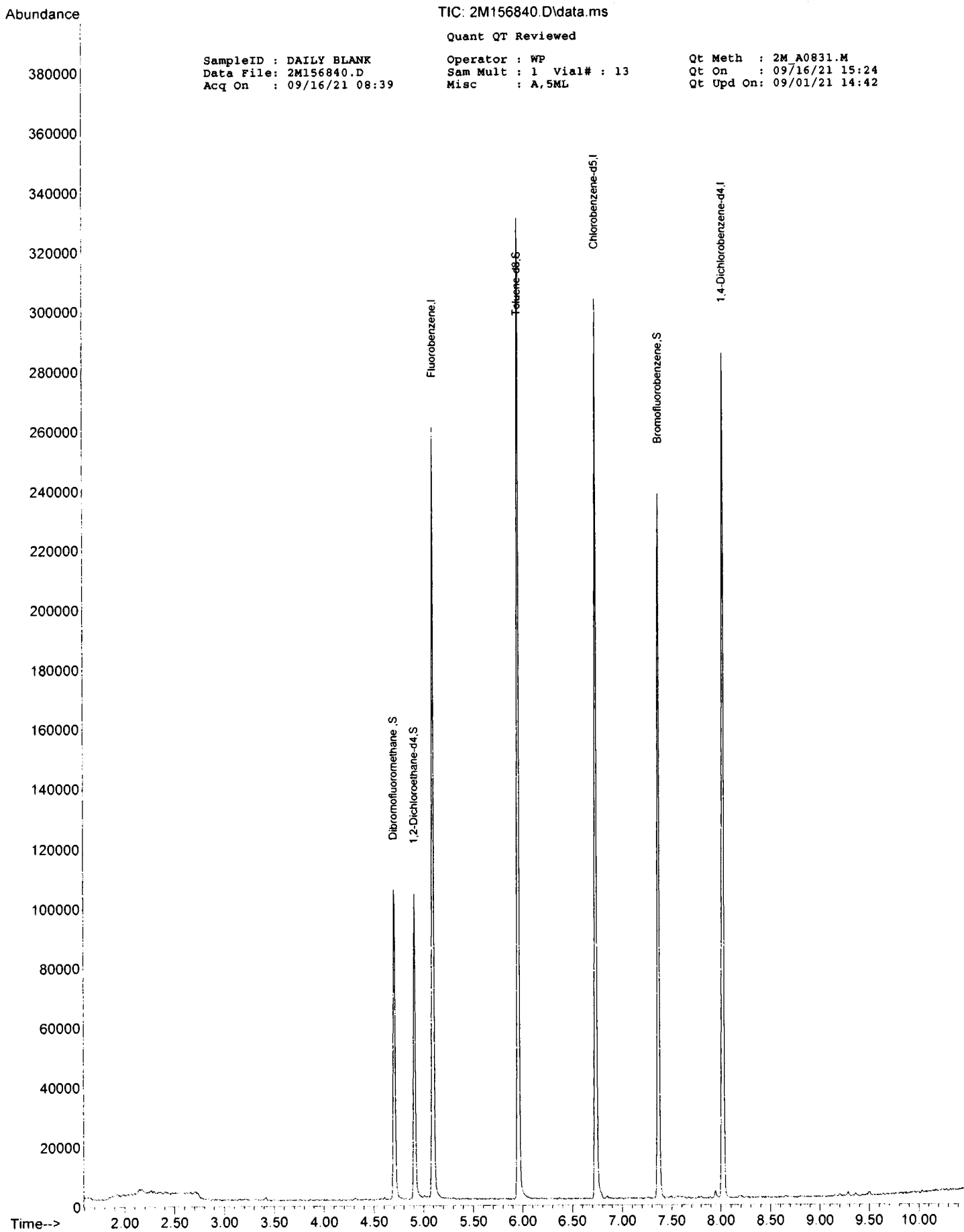
TIC: 2M156840.D\data.ms

Quant QT Reviewed

SampleID : DAILY BLANK
Data File: 2M156840.D
Acq On : 09/16/21 08:39

Operator : WP
Sam Mult : 1 Vial# : 13
Misc : A.5ML

Qt Meth : 2M_A0831.M
Qt On : 09/16/21 15:24
Qt Upd On: 09/01/21 14:42



Form1
ORGANICS VOLATILE REPORT

Sample Number: DAILY BLANK

Client Id:

Data File: 6M144934.D

Analysis Date: 09/16/21 15:56

Date Rec/Extracted:

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260D

Matrix: Soil

Initial Vol: 5g

Final Vol: NA

Dilution: 1.00

Solids: 100

Units: mg/Kg

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	0.0020	U	56-23-5	Carbon Tetrachloride	0.0020	U
79-34-5	1,1,2,2-Tetrachloroethane	0.0020	U	108-90-7	Chlorobenzene	0.0020	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	0.0020	U	75-00-3	Chloroethane	0.0020	U
79-00-5	1,1,2-Trichloroethane	0.0020	U	67-66-3	Chloroform	0.0020	U
75-34-3	1,1-Dichloroethane	0.0020	U	74-87-3	Chloromethane	0.0020	U
75-35-4	1,1-Dichloroethene	0.0020	U	156-59-2	cis-1,2-Dichloroethene	0.0020	U
87-61-6	1,2,3-Trichlorobenzene	0.0020	U	10061-01-5	cis-1,3-Dichloropropene	0.0020	U
120-82-1	1,2,4-Trichlorobenzene	0.0020	U	110-82-7	Cyclohexane	0.0020	U
96-12-8	1,2-Dibromo-3-Chloropropa	0.0020	U	124-48-1	Dibromochloromethane	0.0020	U
106-93-4	1,2-Dibromoethane	0.00050	U	75-71-8	Dichlorodifluoromethane	0.0020	U
95-50-1	1,2-Dichlorobenzene	0.0020	U	100-41-4	Ethylbenzene	0.0010	U
107-06-2	1,2-Dichloroethane	0.0020	U	98-82-8	Isopropylbenzene	0.0010	U
78-87-5	1,2-Dichloropropane	0.0020	U	79601-23-1	m&p-Xylenes	0.0012	U
541-73-1	1,3-Dichlorobenzene	0.0020	U	79-20-9	Methyl Acetate	0.0020	U
106-46-7	1,4-Dichlorobenzene	0.0020	U	108-87-2	Methylcyclohexane	0.0020	U
123-91-1	1,4-Dioxane	0.10	U	75-09-2	Methylene Chloride	0.0020	U
78-93-3	2-Butanone	0.0020	U	1634-04-4	Methyl-t-butyl ether	0.0010	U
591-78-6	2-Hexanone	0.0020	U	95-47-6	o-Xylene	0.0010	U
108-10-1	4-Methyl-2-Pentanone	0.0020	U	100-42-5	Styrene	0.0020	U
67-64-1	Acetone	0.010	U	127-18-4	Tetrachloroethene	0.0020	U
71-43-2	Benzene	0.0010	U	108-88-3	Toluene	0.0010	U
74-97-5	Bromochloromethane	0.0020	U	156-60-5	trans-1,2-Dichloroethene	0.0020	U
75-27-4	Bromodichloromethane	0.0020	U	10061-02-6	trans-1,3-Dichloropropene	0.0020	U
75-25-2	Bromoform	0.0020	U	79-01-6	Trichloroethene	0.0020	U
74-83-9	Bromomethane	0.0020	U	75-69-4	Trichlorofluoromethane	0.0020	U
75-15-0	Carbon Disulfide	0.0034	U	75-01-4	Vinyl Chloride	0.0020	U

Worksheet #: 609152

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

SampleID : DAILY BLANK
 Data File: 6M144934.D
 Acq On : 09/16/21 15:56

Operator : WP
 Sam Mult : 1 Vial# : 6
 Misc : S,SG

Qt Meth : 6M_S0915.M
 Qt On : 09/16/21 17:00
 Qt Upd On: 09/16/21 14:33

Data Path : G:\GcMsData\2021\GCMS_6\Data\09-16-21\
 Qt Path : G:\GcMsData\2021\GCMS_6\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	Qvalue

Internal Standards							
4) Fluorobenzene	5.129	96	140370	30.00	ug/l	0.00	
52) Chlorobenzene-d5	6.763	117	114036	30.00	ug/l	0.00	
70) 1,4-Dichlorobenzene-d4	8.050	152	58663	30.00	ug/l	0.00	
System Monitoring Compounds							
37) Dibromofluoromethane	4.733	111	40299	30.62	ug/l	0.00	
Spiked Amount							
							Recovery = 102.07%
39) 1,2-Dichloroethane-d4	4.940	67	23854	30.51	ug/l	0.00	
Spiked Amount							Recovery = 101.70%
66) Toluene-d8	5.989	98	136408	29.73	ug/l	0.00	
Spiked Amount							Recovery = 99.10%
76) Bromofluorobenzene	7.391	174	43567	30.11	ug/l	0.00	
Spiked Amount							Recovery = 100.37%

Target Compounds							Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed



Abundance

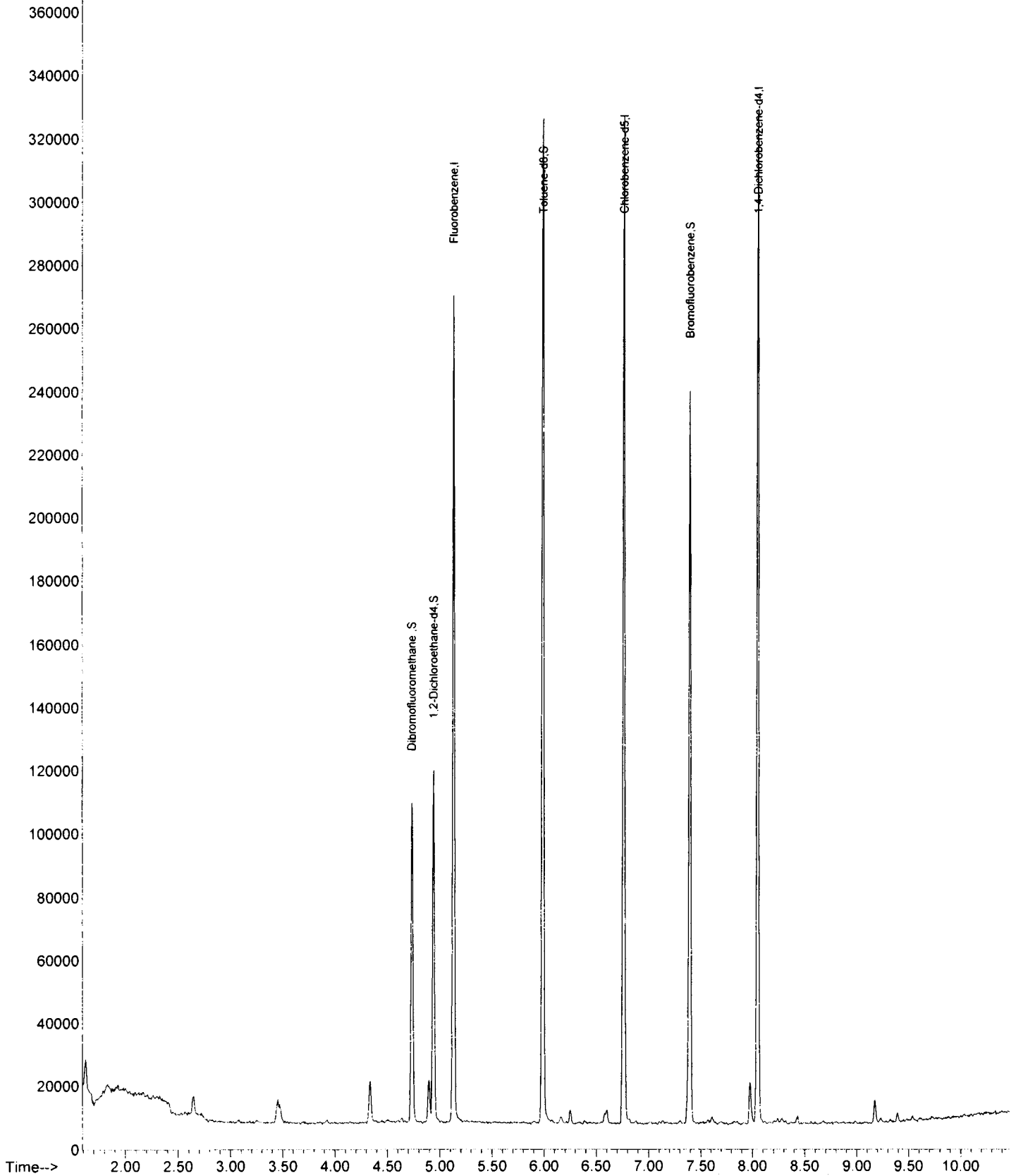
TIC: 6M144934.D\data.ms

Quant QT Reviewed

SampleID : DAILY BLANK
Data File: 6M144934.D
Acq On : 09/16/21 15:56

Operator : WP
Sam Mult : 1 Vial# : 6
Misc : S,5G

Qt Meth : 6M_S0915.M
Qt On : 09/16/21 17:00
Qt Upd On: 09/16/21 14:33



FORM2

Surrogate Recovery

Method: EPA 8260D

Dfile	Sample#	Matrix	Date/Time	Surr Dil	Dilute Out Flag	Column1 S1 Recov	Column1 S2 Recov	Column1 S3 Recov	Column1 S4 Recov	Column0 S5 Recov	Column0 S6 Recov
1M152538	D DAILY BLANK	S	09/15/21 19:27	1		101	104	99	105		
2M156795	D DAILY BLANK	A	09/15/21 18:17	1		100	101	96	103		
2M156840	D DAILY BLANK	A	09/16/21 08:39	1		100	102	97	102		
6M144934	D DAILY BLANK	S	09/16/21 15:56	1		102	102	99	100		
6M144950	D AD25976-001	S	09/16/21 21:32	1		108	108	98	98		
1M152555	D AD25976-003	S	09/16/21 01:11	1		103	99	120	139*		
6M144949	D AD25976-003	S	09/16/21 21:12	1		109	112	112	131*		
1M152556	D AD25976-005	S	09/16/21 01:31	1		102	95	110	119		
1M152557	D AD25976-007	S	09/16/21 01:51	1		102	94	100	108		
6M144951	D AD25976-009	S	09/16/21 21:53	1		107	106	99	100		
2M156859	D AD25976-011	A	09/16/21 14:50	1		101	106	95	100		
1M152542	D AD25964-001	S	09/15/21 20:48	1		105	110	102	105		
1M152546	D MBS96743	S	09/15/21 22:09	1		97	98	104	103		
1M152550	D AD25964-001(MS)	S	09/15/21 23:30	1		96	94	105	109		
1M152551	D AD25964-001(MSD)	S	09/15/21 23:50	1		97	98	104	100		
2M156802	D AD25889-012(T)	A	09/15/21 20:35	1		102	106	94	103		
2M156807	D MBS96744	A	09/15/21 22:13	1		103	103	100	103		
2M156848	D AD25889-012(T:MS)	A	09/16/21 11:15	1		102	104	96	94		
2M156849	D AD25889-012(T:MSD)	A	09/16/21 11:34	1		100	102	98	94		
2M156871	D MBS96752	A	09/16/21 18:46	1		103	103	93	97		
6M144935	D AD25919-009	S	09/16/21 16:17	1		103	109	98	100		
6M144936	D MBS96753	S	09/16/21 16:38	1		100	98	103	101		
6M144937	D AD25919-009(MS)	S	09/16/21 16:58	1		98	101	102	106		
6M144938	D AD25919-009(MSD)	S	09/16/21 17:19	1		97	96	105	109		

Flags: SD=Surrogate diluted out

*=Surrogate out

Method: EPA 8260D

Soil Laboratory Limits

Compound	Spike Amt	Limits
S1=Dibromofluoromethane	30	63-140
S2=1,2-Dichloroethane-d4	30	63-143
S3=Toluene-d8	30	68-122
S4=Bromofluorobenzene	30	64-129

Aqueous Laboratory Limits

Compound	Spike Amt	Limits
S1=Dibromofluoromethane	30	73-131
S2=1,2-Dichloroethane-d4	30	78-128
S3=Toluene-d8	30	79-111
S4=Bromofluorobenzene	30	82-112

Form3
Recovery Data Laboratory Limits
 QC Batch: MBS96743

Data File	Sample ID:	Analysis Date					
Spike or Dup: 1M152546.D	MBS96743	9/15/2021 10:09:00 PM					
Non Spike (If applicable):							
Inst Blank (If applicable):							
Method: 8260D	Matrix: Soil	Units: mg/Kg					
		QC Type: MBS					
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	28.2311	0	50	56	20	130
Dichlorodifluoromethane	1	48.6341	0	50	97	20	130
Chloromethane	1	51.9023	0	50	104	20	130
Bromomethane	1	44.0525	0	50	88	20	130
Vinyl Chloride	1	49.9879	0	50	100	20	130
Chloroethane	1	46.9355	0	50	94	20	130
Trichlorofluoromethane	1	44.9711	0	50	90	20	130
Ethyl ether	1	46.9081	0	50	94	50	130
Furan	1	41.745	0	50	83	50	130
1,1,2-Trichloro-1,2,2-trifluoroethane	1	42.3331	0	50	85	50	130
Methylene Chloride	1	42.2922	0	50	85	50	130
Acrolein	1	188.5435	0	200	94	20	130
Acrylonitrile	1	39.1725	0	50	78	20	130
Iodomethane	1	29.3042	0	50	59	50	130
Acetone	1	199.3952	0	200	100	20	130
Carbon Disulfide	1	35.9535	0	50	72	50	130
t-Butyl Alcohol	1	201.4154	0	200	101	20	130
n-Hexane	1	42.0564	0	50	84	50	130
Di-isopropyl-ether	1	45.3767	0	50	91	50	130
1,1-Dichloroethene	1	46.9355	0	50	94	50	130
Methyl Acetate	1	39.693	0	50	79	50	130
Methyl-t-butyl ether	1	44.8368	0	50	90	50	130
1,1-Dichloroethane	1	45.2102	0	50	90	50	130
trans-1,2-Dichloroethene	1	45.6431	0	50	91	50	130
Ethyl-t-butyl ether	1	49.4025	0	50	99	50	130
cis-1,2-Dichloroethene	1	43.4663	0	50	87	50	130
Bromochloromethane	1	43.2863	0	50	87	50	130
2,2-Dichloropropane	1	45.859	0	50	92	50	130
Ethyl acetate	1	41.9988	0	50	84	50	130
1,4-Dioxane	1	2026.914	0	2500	81	50	130
1,1-Dichloropropene	1	42.8961	0	50	86	50	130
Chloroform	1	43.0022	0	50	86	50	130
Cyclohexane	1	40.6565	0	50	81	50	130
1,2-Dichloroethane	1	43.0182	0	50	86	50	130
2-Butanone	1	40.6727	0	50	81	20	130
1,1,1-Trichloroethane	1	43.2855	0	50	87	50	130
Carbon Tetrachloride	1	41.9103	0	50	84	50	130
Vinyl Acetate	1	43.4993	0	50	87	50	130
Bromodichloromethane	1	41.3142	0	50	83	50	130
Methylcyclohexane	1	42.2587	0	50	85	50	130
Dibromomethane	1	43.5263	0	50	87	50	130
1,2-Dichloropropane	1	43.0119	0	50	86	50	130
Trichloroethene	1	43.4683	0	50	87	50	130
Benzene	1	42.8882	0	50	86	50	130
tert-Amyl methyl ether	1	45.7058	0	50	91	50	130
Iso-propylacetate	1	41.6162	0	50	83	50	130
Methyl methacrylate	1	44.9916	0	50	90	50	130
Dibromochloromethane	1	45.3349	0	50	91	50	130
2-Chloroethylvinylether	1	48.4066	0	50	97	50	130
cis-1,3-Dichloropropene	1	48.5389	0	50	97	50	130
trans-1,3-Dichloropropene	1	48.3497	0	50	97	50	130
Ethyl methacrylate	1	43.0298	0	50	86	50	130
1,1,2-Trichloroethane	1	48.5056	0	50	97	50	130
1,2-Dibromoethane	1	51.4838	0	50	103	50	130
1,3-Dichloropropane	1	46.5002	0	50	93	50	130
4-Methyl-2-Pentanone	1	39.2186	0	50	78	20	130
2-Hexanone	1	38.1665	0	50	76	20	130
Tetrachloroethene	1	43.6899	0	50	87	50	130
Toluene	1	45.8959	0	50	92	50	130
1,1,1,2-Tetrachloroethane	1	44.7234	0	50	89	50	130
Chlorobenzene	1	44.0752	0	50	88	50	130

Form3
Recovery Data Laboratory Limits
QC Batch: MBS96743

Method: 8260D	Matrix: Soil	Units: mg/Kg		QC Type: MBS			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
n-Butyl acrylate	1	44.0827	0	50	88	50	130
n-Amyl acetate	1	44.259	0	50	89	50	130
Bromoform	1	47.28	0	50	95	20	130
Ethylbenzene	1	45.7076	0	50	91	50	130
1,1,2,2-Tetrachloroethane	1	47.2624	0	50	95	50	130
Styrene	1	46.0606	0	50	92	50	130
m&p-Xylenes	1	84.9669	0	100	85	50	130
o-Xylene	1	45.0112	0	50	90	50	130
trans-1,4-Dichloro-2-butene	1	43.3133	0	50	87	20	130
1,3-Dichlorobenzene	1	42.2792	0	50	85	50	130
1,4-Dichlorobenzene	1	42.5149	0	50	85	50	130
1,2-Dichlorobenzene	1	43.7664	0	50	88	50	130
Isopropylbenzene	1	43.4146	0	50	87	50	130
Cyclohexanone	1	185.2892	0	250	74	50	130
Camphene	1	42.6851	0	50	85	50	130
1,2,3-Trichloropropane	1	45.2434	0	50	90	50	130
2-Chlorotoluene	1	43.2523	0	50	87	50	130
p-Ethyltoluene	1	43.8076	0	50	88	50	130
4-Chlorotoluene	1	43.9038	0	50	88	50	130
n-Propylbenzene	1	41.4591	0	50	83	50	130
Bromobenzene	1	44.5075	0	50	89	50	130
1,3,5-Trimethylbenzene	1	43.7817	0	50	88	50	130
Butyl methacrylate	1	46.7528	0	50	94	50	130
t-Butylbenzene	1	41.6372	0	50	83	50	130
1,2,4-Trimethylbenzene	1	42.0905	0	50	84	50	130
sec-Butylbenzene	1	42.2035	0	50	84	50	130
4-Isopropyltoluene	1	41.303	0	50	83	50	130
n-Butylbenzene	1	43.1711	0	50	86	50	130
p-Diethylbenzene	1	51.995	0	50	104	50	130
1,2,4,5-Tetramethylbenzene	1	56.8247	0	50	114	50	130
1,2-Dibromo-3-Chloropropane	1	45.4902	0	50	91	50	130
Camphor	1	547.7034	0	500	110	50	130
Hexachlorobutadiene	1	48.591	0	50	97	50	130
1,2,4-Trichlorobenzene	1	49.6395	0	50	99	50	130
1,2,3-Trichlorobenzene	1	51.5282	0	50	103	50	130
Naphthalene	1	48.6948	0	50	97	50	130

Form3
Recovery Data Laboratory Limits
QC Batch: MBS96743

Data File	Sample ID:	Analysis Date
Spike or Dup: 1M152550.D	AD25964-001(MS)	9/15/2021 11:30:00 PM
Non Spike (If applicable): 1M152542.D	AD25964-001	9/15/2021 8:48:00 PM
Inst Blank (If applicable):		

Method: 8260D Matrix: Soil Units: mg/Kg QC Type: MS

Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	40.3989	0	50	81	20	130
Dichlorodifluoromethane	1	40.9594	0	50	82	20	130
Chloromethane	1	39.4779	0	50	79	20	130
Bromomethane	1	35.469	0	50	71	20	130
Vinyl Chloride	1	41.4249	0	50	83	20	130
Chloroethane	1	39.1627	0	50	78	20	130
Trichlorofluoromethane	1	38.7119	0	50	77	20	130
Ethyl ether	1	35.3225	0	50	71	50	130
Furan	1	32.4516	0	50	65	50	130
1,1,2-Trichloro-1,2,2-trifluoroethane	1	36.7704	0	50	74	50	130
Methylene Chloride	1	34.6513	0	50	69	50	130
Acrolein	1	40.4428	0	200	20	20	130
Acrylonitrile	1	12.3307	0	50	25	20	130
Iodomethane	1	22.1318	0	50	44*	50	130
Acetone	1	152.3722	0	200	76	20	130
Carbon Disulfide	1	30.2454	0	50	60	50	130
t-Butyl Alcohol	1	144.0299	0	200	72	20	130
n-Hexane	1	36.3171	0	50	73	50	130
Di-isopropyl-ether	1	35.4801	0	50	71	50	130
1,1-Dichloroethene	1	39.4723	0	50	79	50	130
Methyl Acetate	1	39.1144	0	50	78	50	130
Methyl-t-butyl ether	1	34.2478	0	50	68	50	130
1,1-Dichloroethane	1	37.2232	0	50	74	50	130
trans-1,2-Dichloroethene	1	38.694	0	50	77	50	130
Ethyl-t-butyl ether	1	37.9983	0	50	76	50	130
cis-1,2-Dichloroethene	1	33.8725	0	50	68	50	130
Bromochloromethane	1	33.2092	0	50	66	50	130
2,2-Dichloropropane	1	39.3349	0	50	79	50	130
Ethyl acetate	1	10.7554	0	50	22*	50	130
1,4-Dioxane	1	1500.947	0	2500	60	50	130
1,1-Dichloropropene	1	38.0277	0	50	76	50	130
Chloroform	1	34.498	0	50	69	50	130
Cyclohexane	1	35.9994	0	50	72	50	130
1,2-Dichloroethane	1	32.924	0	50	66	50	130
2-Butanone	1	13.603	0	50	27	20	130
1,1,1-Trichloroethane	1	37.2459	0	50	74	50	130
Carbon Tetrachloride	1	36.0461	0	50	72	50	130
Vinyl Acetate	1	17.8215	0	50	36*	50	130
Bromodichloromethane	1	33.178	0	50	66	50	130
Methylcyclohexane	1	36.6948	0	50	73	50	130
Dibromomethane	1	35.1125	0	50	70	50	130
1,2-Dichloropropane	1	34.4047	0	50	69	50	130
Trichloroethene	1	37.2234	0	50	74	50	130
Benzene	1	35.267	0	50	71	50	130
tert-Amyl methyl ether	1	35.1663	0	50	70	50	130
Iso-propylacetate	1	19.2894	0	50	39*	50	130
Methyl methacrylate	1	49.9795	0	50	100	50	130
Dibromochloromethane	1	34.5809	0	50	69	50	130
2-Chloroethylvinylether	1	36.7306	0	50	73	50	130
cis-1,3-Dichloropropene	1	38.3916	0	50	77	50	130
trans-1,3-Dichloropropene	1	36.8931	0	50	74	50	130
Ethyl methacrylate	1	17.0086	0	50	34*	50	130
1,1,2-Trichloroethane	1	37.6407	0	50	75	50	130
1,2-Dibromoethane	1	38.8297	0	50	78	50	130
1,3-Dichloropropane	1	36.8524	0	50	74	50	130
4-Methyl-2-Pentanone	1	27.0778	0	50	54	20	130
2-Hexanone	1	25.6158	0	50	51	20	130
Tetrachloroethene	1	39.2627	0	50	79	50	130
Toluene	1	38.909	0	50	78	50	130
1,1,1,2-Tetrachloroethane	1	36.0711	0	50	72	50	130
Chlorobenzene	1	36.1385	0	50	72	50	130

Form3
Recovery Data Laboratory Limits
QC Batch: MBS96743

Method: 8260D	Matrix: Soil	Units: mg/Kg	QC Type: MS				
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
n-Butyl acrylate	1	11.8518	0	50	24*	50	130
n-Amyl acetate	1	9.2878	0	50	19*	50	130
Bromoform	1	36.5232	0	50	73	20	130
Ethylbenzene	1	42.8132	0	50	86	50	130
1,1,2,2-Tetrachloroethane	1	37.4913	0	50	75	50	130
Styrene	1	39.3796	0	50	79	50	130
m&p-Xylenes	1	80.0942	0	100	80	50	130
o-Xylene	1	42.0164	0	50	84	50	130
trans-1,4-Dichloro-2-butene	1	34.5851	0	50	69	20	130
1,3-Dichlorobenzene	1	35.5796	0	50	71	50	130
1,4-Dichlorobenzene	1	34.9511	0	50	70	50	130
1,2-Dichlorobenzene	1	35.1333	0	50	70	50	130
Isopropylbenzene	1	41.7287	0	50	83	50	130
Cyclohexanone	1	162.3803	0	250	65	50	130
Camphene	1	39.0455	0	50	78	50	130
1,2,3-Trichloropropane	1	35.2999	0	50	71	50	130
2-Chlorotoluene	1	38.887	0	50	78	50	130
p-Ethyltoluene	1	40.2837	0	50	81	50	130
4-Chlorotoluene	1	38.2792	0	50	77	50	130
n-Propylbenzene	1	38.6726	0	50	77	50	130
Bromobenzene	1	0	0	50	0*	50	130
1,3,5-Trimethylbenzene	1	40.3504	0	50	81	50	130
Butyl methacrylate	1	22.8695	0	50	46*	50	130
t-Butylbenzene	1	39.1532	0	50	78	50	130
1,2,4-Trimethylbenzene	1	38.1372	0	50	76	50	130
sec-Butylbenzene	1	38.0577	0	50	76	50	130
4-Isopropyltoluene	1	36.9573	0	50	74	50	130
n-Butylbenzene	1	37.4957	0	50	75	50	130
p-Diethylbenzene	1	48.1721	0	50	96	50	130
1,2,4,5-Tetramethylbenzene	1	49.2771	0	50	99	50	130
1,2-Dibromo-3-Chloropropane	1	34.372	0	50	69	50	130
Camphor	1	429.6026	0	500	86	50	130
Hexachlorobutadiene	1	33.815	0	50	68	50	130
1,2,4-Trichlorobenzene	1	0	0	50	0*	50	130
1,2,3-Trichlorobenzene	1	0	0	50	0*	50	130
Naphthalene	1	30.1823	0	50	60	50	130

Form3
Recovery Data Laboratory Limits
QC Batch: MBS96743

Data File	Sample ID:	Analysis Date
Spike or Dup: 1M152551.D	AD25964-001(MSD)	9/15/2021 11:50:00 PM
Non Spike(If applicable): 1M152542.D	AD25964-001	9/15/2021 8:48:00 PM
Inst Blank(If applicable):		

Method: 8260D	Matrix: Soil	Units: mg/Kg	QC Type: MSD				
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	17.1599	0	50	34	20	130
<u>Dichlorodifluoromethane</u>	1	<u>43.0727</u>	0	50	86	20	130
Chloromethane	1	40.39	0	50	81	20	130
<u>Bromomethane</u>	1	<u>34.9778</u>	0	50	70	20	130
<u>Vinyl Chloride</u>	1	<u>41.9395</u>	0	50	84	20	130
<u>Chloroethane</u>	1	<u>40.0178</u>	0	50	80	20	130
<u>Trichlorofluoromethane</u>	1	<u>40.789</u>	0	50	82	20	130
Ethyl ether	1	35.6734	0	50	71	50	130
Furan	1	33.6603	0	50	67	50	130
<u>1,1,2-Trichloro-1,2,2-trifluoroethane</u>	1	<u>39.5304</u>	0	50	79	50	130
<u>Methylene Chloride</u>	1	<u>33.6284</u>	0	50	67	50	130
Acrolein	1	49.9713	0	200	25	20	130
Acrylonitrile	1	25.9078	0	50	52	20	130
Iodomethane	1	25.3062	0	50	51	50	130
<u>Acetone</u>	1	<u>160.1594</u>	0	200	80	20	130
<u>Carbon Disulfide</u>	1	<u>31.051</u>	0	50	62	50	130
t-Butyl Alcohol	1	160.2624	0	200	80	20	130
n-Hexane	1	34.1374	0	50	68	50	130
Di-isopropyl-ether	1	32.1001	0	50	64	50	130
<u>1,1-Dichloroethene</u>	1	<u>41.6584</u>	0	50	83	50	130
<u>Methyl Acetate</u>	1	<u>37.167</u>	0	50	74	50	130
<u>Methyl-t-butyl ether</u>	1	<u>33.1932</u>	0	50	66	50	130
<u>1,1-Dichloroethane</u>	1	<u>35.4488</u>	0	50	71	50	130
<u>trans-1,2-Dichloroethene</u>	1	<u>38.1032</u>	0	50	76	50	130
Ethyl-t-butyl ether	1	35.3227	0	50	71	50	130
<u>cis-1,2-Dichloroethene</u>	1	<u>31.57</u>	0	50	63	50	130
<u>Bromochloromethane</u>	1	<u>30.2052</u>	0	50	60	50	130
2,2-Dichloropropane	1	37.3382	0	50	75	50	130
Ethyl acetate	1	12.5262	0	50	25*	50	130
<u>1,4-Dioxane</u>	1	<u>1596.224</u>	0	2500	64	50	130
1,1-Dichloropropene	1	36.806	0	50	74	50	130
<u>Chloroform</u>	1	<u>32.9703</u>	0	50	66	50	130
<u>Cyclohexane</u>	1	<u>35.1027</u>	0	50	70	50	130
<u>1,2-Dichloroethane</u>	1	<u>32.1478</u>	0	50	64	50	130
<u>2-Butanone</u>	1	<u>15.8426</u>	0	50	32	20	130
<u>1,1,1-Trichloroethane</u>	1	<u>36.8223</u>	0	50	74	50	130
<u>Carbon Tetrachloride</u>	1	<u>36.9298</u>	0	50	74	50	130
Vinyl Acetate	1	17.0243	0	50	34*	50	130
<u>Bromodichloromethane</u>	1	<u>32.988</u>	0	50	66	50	130
<u>Methylcyclohexane</u>	1	<u>36.7501</u>	0	50	74	50	130
Dibromomethane	1	35.0321	0	50	70	50	130
<u>1,2-Dichloropropane</u>	1	<u>33.5315</u>	0	50	67	50	130
<u>Trichloroethene</u>	1	<u>35.9457</u>	0	50	72	50	130
<u>Benzene</u>	1	<u>34.4366</u>	0	50	69	50	130
tert-Amyl methyl ether	1	34.1638	0	50	68	50	130
Iso-propylacetate	1	18.9248	0	50	38*	50	130
Methyl methacrylate	1	43.4939	0	50	87	50	130
<u>Dibromochloromethane</u>	1	<u>33.7232</u>	0	50	67	50	130
2-Chloroethylvinylether	1	35.0363	0	50	70	50	130
<u>cis-1,3-Dichloropropene</u>	1	<u>34.8641</u>	0	50	70	50	130
<u>trans-1,3-Dichloropropene</u>	1	<u>34.7167</u>	0	50	69	50	130
Ethyl methacrylate	1	19.3981	0	50	39*	50	130
<u>1,1,2-Trichloroethane</u>	1	<u>35.6833</u>	0	50	71	50	130
<u>1,2-Dibromoethane</u>	1	<u>37.3572</u>	0	50	75	50	130
1,3-Dichloropropane	1	34.1303	0	50	68	50	130
<u>4-Methyl-2-Pentanone</u>	1	<u>29.8066</u>	0	50	60	20	130
<u>2-Hexanone</u>	1	<u>25.933</u>	0	50	52	20	130
<u>Tetrachloroethene</u>	1	<u>37.5226</u>	0	50	75	50	130
<u>Toluene</u>	1	<u>36.9766</u>	0	50	74	50	130
1,1,1,2-Tetrachloroethane	1	35.1766	0	50	70	50	130
<u>Chlorobenzene</u>	1	<u>34.5538</u>	0	50	69	50	130

Form3
Recovery Data Laboratory Limits
QC Batch: MBS96743

Method: 8260D	Matrix: Soil	Units: mg/Kg		QC Type: MSD			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
n-Butyl acrylate	1	13.0454	0	50	26*	50	130
n-Amyl acetate	1	11.8461	0	50	24*	50	130
Bromoform	1	33.2047	0	50	66	20	130
Ethylbenzene	1	37.0343	0	50	74	50	130
1,1,2,2-Tetrachloroethane	1	33.0341	0	50	66	50	130
Styrene	1	34.8189	0	50	70	50	130
m&p-Xylenes	1	70.8589	0	100	71	50	130
o-Xylene	1	36.4934	0	50	73	50	130
trans-1,4-Dichloro-2-butene	1	30.9315	0	50	62	20	130
1,3-Dichlorobenzene	1	31.2535	0	50	63	50	130
1,4-Dichlorobenzene	1	31.1291	0	50	62	50	130
1,2-Dichlorobenzene	1	30.7281	0	50	61	50	130
Isopropylbenzene	1	36.6639	0	50	73	50	130
Cyclohexanone	1	127.4651	0	250	51	50	130
Camphene	1	35.4594	0	50	71	50	130
1,2,3-Trichloropropane	1	31.3145	0	50	63	50	130
2-Chlorotoluene	1	34.8501	0	50	70	50	130
p-Ethyltoluene	1	34.6748	0	50	69	50	130
4-Chlorotoluene	1	33.0863	0	50	66	50	130
n-Propylbenzene	1	34.3294	0	50	69	50	130
Bromobenzene	1	0	0	50	0*	50	130
1,3,5-Trimethylbenzene	1	35.2912	0	50	71	50	130
Butyl methacrylate	1	20.9909	0	50	42*	50	130
t-Butylbenzene	1	34.9128	0	50	70	50	130
1,2,4-Trimethylbenzene	1	32.637	0	50	65	50	130
sec-Butylbenzene	1	34.1511	0	50	68	50	130
4-Isopropyltoluene	1	32.6082	0	50	65	50	130
n-Butylbenzene	1	32.101	0	50	64	50	130
p-Diethylbenzene	1	35.8191	0	50	72	50	130
1,2,4,5-Tetramethylbenzene	1	36.5353	0	50	73	50	130
1,2-Dibromo-3-Chloropropane	1	32.1119	0	50	64	50	130
Camphor	1	416.8685	0	500	83	50	130
Hexachlorobutadiene	1	30.435	0	50	61	50	130
1,2,4-Trichlorobenzene	1	28.2161	0	50	56	50	130
1,2,3-Trichlorobenzene	1	0	0	50	0*	50	130
Naphthalene	1	26.119	0	50	52	50	130

Form3
RPD Data Laboratory Limits
 QC Batch: MBS96743

Data File		Sample ID:	Analysis Date		
Spike or Dup: 1M152551.D		AD25964-001(MSD)	9/15/2021 11:50:00 PM		
Duplicate(If applicable): 1M152550.D		AD25964-001(MS)	9/15/2021 11:30:00 PM		
Inst Blank(If applicable):					
Method: 8260D	Matrix: Soil	Units: mg/Kg	QC Type: MSD		
Analyte:	Column	Dup/MSD/MBSD Conc	Sample/MS/MBS Conc	RPD	Limit
Chlorodifluoromethane	1	17.1599	40.3989	81 *	30
Dichlorodifluoromethane	1	43.0727	40.9594	5	30
Chloromethane	1	40.39	39.4779	2.3	30
Bromomethane	1	34.9778	35.469	1.4	30
Vinyl Chloride	1	41.9395	41.4249	1.2	40
Chloroethane	1	40.0178	39.1627	2.2	30
Trichlorofluoromethane	1	40.789	38.7119	5.2	30
Ethyl ether	1	35.6734	35.3225	0.99	30
Furan	1	33.6603	32.4516	3.7	30
1,1,2-Trichloro-1,2,2-trifluoroethane	1	39.5304	36.7704	7.2	30
Methylene Chloride	1	33.6284	34.6513	3	30
Acrolein	1	49.9713	40.4428	21	30
Acrylonitrile	1	25.9078	12.3307	71 *	30
Iodomethane	1	25.3062	22.1318	13	30
Acetone	1	160.1594	152.3722	5	30
Carbon Disulfide	1	31.051	30.2454	2.6	30
t-Butyl Alcohol	1	160.2624	144.0299	11	30
n-Hexane	1	34.1374	36.3171	6.2	30
Di-isopropyl-ether	1	32.1001	35.4801	10	30
1,1-Dichloroethene	1	41.6584	39.4723	5.4	40
Methyl Acetate	1	37.167	39.1144	5.1	30
Methyl-t-butyl ether	1	33.1932	34.2478	3.1	30
1,1-Dichloroethane	1	35.4488	37.2232	4.9	40
trans-1,2-Dichloroethene	1	38.1032	38.694	1.5	30
Ethyl-t-butyl ether	1	35.3227	37.9983	7.3	30
cis-1,2-Dichloroethene	1	31.57	33.8725	7	30
Bromochloromethane	1	30.2052	33.2092	9.5	30
2,2-Dichloropropane	1	37.3382	39.3349	5.2	30
Ethyl acetate	1	12.5262	10.7554	15	30
1,4-Dioxane	1	1596.224	1500.947	6.2	30
1,1-Dichloropropene	1	36.806	38.0277	3.3	30
Chloroform	1	32.9703	34.498	4.5	40
Cyclohexane	1	35.1027	35.9994	2.5	30
1,2-Dichloroethane	1	32.1478	32.924	2.4	40
2-Butanone	1	15.8426	13.603	15	40
1,1,1-Trichloroethane	1	36.8223	37.2459	1.1	30
Carbon Tetrachloride	1	36.9298	36.0461	2.4	40
Vinyl Acetate	1	17.0243	17.8215	4.6	30
Bromodichloromethane	1	32.988	33.178	0.57	30
Methylcyclohexane	1	36.7501	36.6948	0.15	30
Dibromomethane	1	35.0321	35.1125	0.23	30
1,2-Dichloropropane	1	33.5315	34.4047	2.6	30
Trichloroethene	1	35.9457	37.2234	3.5	40
Benzene	1	34.4366	35.267	2.4	40
tert-Amyl methyl ether	1	34.1638	35.1663	2.9	30
Iso-propylacetate	1	18.9248	19.2894	1.9	30
Methyl methacrylate	1	43.4939	49.9795	14	30
Dibromochloromethane	1	33.7232	34.5809	2.5	30
2-Chloroethylvinylether	1	35.0363	36.7306	4.7	30
cis-1,3-Dichloropropene	1	34.8641	38.3916	9.6	30
trans-1,3-Dichloropropene	1	34.7167	36.8931	6.1	30
Ethyl methacrylate	1	19.3981	17.0086	13	30
1,1,2-Trichloroethane	1	35.6833	37.6407	5.3	30
1,2-Dibromoethane	1	37.3572	38.8297	3.9	30
1,3-Dichloropropane	1	34.1303	36.8524	7.7	30
4-Methyl-2-Pentanone	1	29.8066	27.0778	9.6	30
2-Hexanone	1	25.933	25.6158	1.2	30
Tetrachloroethene	1	37.5226	39.2627	4.5	40
Toluene	1	36.9766	38.909	5.1	40
1,1,1,2-Tetrachloroethane	1	35.1766	36.0711	2.5	30
Chlorobenzene	1	34.5538	36.1385	4.5	40

Form3 RPD Data Laboratory Limits

QC Batch: MBS96743

Method: 8260D

Matrix: Soil

Units: mg/Kg

QC Type: MSD

Analyte	Column	Dup/MSD/MBSD		Sample/MS/MBS	RPD	Limit
		Conc	Conc	Conc		
n-Butyl acrylate	1	13.0454	11.8518	11.8518	9.6	30
n-Amyl acetate	1	11.8461	9.2878	9.2878	24	30
Bromoform	1	<u>33.2047</u>	<u>36.5232</u>	<u>36.5232</u>	9.5	30
Ethylbenzene	1	<u>37.0343</u>	<u>42.8132</u>	<u>42.8132</u>	14	30
1,1,2,2-Tetrachloroethane	1	<u>33.0341</u>	<u>37.4913</u>	<u>37.4913</u>	13	30
Styrene	1	<u>34.8189</u>	<u>39.3796</u>	<u>39.3796</u>	12	30
m&p-Xylenes	1	<u>70.8589</u>	<u>80.0942</u>	<u>80.0942</u>	12	30
o-Xylene	1	<u>36.4934</u>	<u>42.0164</u>	<u>42.0164</u>	14	30
trans-1,4-Dichloro-2-butene	1	30.9315	34.5851	34.5851	11	30
1,3-Dichlorobenzene	1	<u>31.2535</u>	<u>35.5796</u>	<u>35.5796</u>	13	30
1,4-Dichlorobenzene	1	<u>31.1291</u>	<u>34.9511</u>	<u>34.9511</u>	12	40
1,2-Dichlorobenzene	1	<u>30.7281</u>	<u>35.1333</u>	<u>35.1333</u>	13	40
Isopropylbenzene	1	<u>36.6639</u>	<u>41.7287</u>	<u>41.7287</u>	13	30
Cyclohexanone	1	127.4651	162.3803	162.3803	24	30
Camphene	1	35.4594	39.0455	39.0455	9.6	30
1,2,3-Trichloropropane	1	31.3145	35.2999	35.2999	12	30
2-Chlorotoluene	1	34.8501	38.887	38.887	11	30
p-Ethyltoluene	1	34.6748	40.2837	40.2837	15	30
4-Chlorotoluene	1	33.0863	38.2792	38.2792	15	30
n-Propylbenzene	1	34.3294	38.6726	38.6726	12	40
Bromobenzene	1	0	0	0	NA	30
1,3,5-Trimethylbenzene	1	35.2912	40.3504	40.3504	13	30
Butyl methacrylate	1	20.9909	22.8695	22.8695	8.6	30
t-Butylbenzene	1	34.9128	39.1532	39.1532	11	30
1,2,4-Trimethylbenzene	1	32.637	38.1372	38.1372	16	30
sec-Butylbenzene	1	34.1511	38.0577	38.0577	11	40
4-Isopropyltoluene	1	32.6082	36.9573	36.9573	13	30
n-Butylbenzene	1	32.101	37.4957	37.4957	16	30
p-Diethylbenzene	1	35.8191	48.1721	48.1721	29	30
1,2,4,5-Tetramethylbenzene	1	36.5353	49.2771	49.2771	30	30
1,2-Dibromo-3-Chloropropane	1	<u>32.1119</u>	<u>34.372</u>	<u>34.372</u>	6.8	30
Camphor	1	416.8685	429.6026	429.6026	3	30
Hexachlorobutadiene	1	30.435	33.815	33.815	11	30
1,2,4-Trichlorobenzene	1	<u>28.2161</u>	0	0	200*	30
1,2,3-Trichlorobenzene	1	<u>0</u>	0	0	NA	30
Naphthalene	1	26.119	30.1823	30.1823	14	30

Form3
Recovery Data Laboratory Limits
QC Batch: MBS96744

Data File		Sample ID:		Analysis Date			
Spike or Dup: 2M156807.D		MBS96744		9/15/2021 10:13:00 PM			
Non Spike (If applicable):							
Inst Blank (If applicable):							
Method: 8260D		Matrix: Aqueous		Units: ug/L		QC Type: MBS	
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	18.7803	0	20	94	50	150
<u>Dichlorodifluoromethane</u>	1	<u>9.0834</u>	0	20	<u>45*</u>	50	150
<u>Chloromethane</u>	1	<u>12.4177</u>	0	20	62	50	150
<u>Bromomethane</u>	1	<u>7.0585</u>	0	20	<u>35*</u>	50	150
<u>Vinyl Chloride</u>	1	<u>15.4457</u>	0	20	77	50	150
<u>Chloroethane</u>	1	<u>18.9366</u>	0	20	95	50	150
<u>Trichlorofluoromethane</u>	1	<u>21.7432</u>	0	20	109	50	150
Ethyl ether	1	16.6276	0	20	83	50	150
Furan	1	18.6065	0	20	93	50	150
<u>1,1,2-Trichloro-1,2,2-trifluoroethane</u>	1	<u>17.2698</u>	0	20	86	50	150
<u>Methylene Chloride</u>	1	<u>18.6101</u>	0	20	93	70	130
Acrolein	1	60.9521	0	100	61	50	150
Acrylonitrile	1	16.5824	0	20	83	50	150
Iodomethane	1	9.7884	0	20	49*	50	150
<u>Acetone</u>	1	<u>88.5168</u>	0	100	89	50	150
<u>Carbon Disulfide</u>	1	<u>12.2799</u>	0	20	61	50	150
t-Butyl Alcohol	1	71.4667	0	100	71	50	150
n-Hexane	1	16.7094	0	20	84	70	130
Di-isopropyl-ether	1	18.4315	0	20	92	70	130
<u>1,1-Dichloroethene</u>	1	<u>19.5682</u>	0	20	98	70	130
<u>Methyl Acetate</u>	1	<u>18.1681</u>	0	20	91	50	150
<u>Methyl-t-butyl ether</u>	1	<u>16.616</u>	0	20	83	70	130
<u>1,1-Dichloroethane</u>	1	<u>19.3256</u>	0	20	97	70	130
<u>trans-1,2-Dichloroethene</u>	1	<u>18.2081</u>	0	20	91	70	130
Ethyl-t-butyl ether	1	17.728	0	20	89	70	130
<u>cis-1,2-Dichloroethene</u>	1	<u>18.5605</u>	0	20	93	70	130
<u>Bromochloromethane</u>	1	<u>20.649</u>	0	20	103	70	130
2,2-Dichloropropane	1	17.0147	0	20	85	70	130
Ethyl acetate	1	26.9855	0	20	135	50	150
<u>1,4-Dioxane</u>	1	<u>890.1562</u>	0	1000	89	50	150
1,1-Dichloropropene	1	20.1339	0	20	101	70	130
<u>Chloroform</u>	1	<u>20.3021</u>	0	20	102	70	130
<u>Cyclohexane</u>	1	<u>18.2927</u>	0	20	91	70	130
<u>1,2-Dichloroethane</u>	1	<u>19.5507</u>	0	20	98	70	130
2-Butanone	1	0	0	20	0*	50	150
<u>1,1,1-Trichloroethane</u>	1	<u>20.0152</u>	0	20	100	70	130
<u>Carbon Tetrachloride</u>	1	<u>18.9595</u>	0	20	95	50	150
Vinyl Acetate	1	16.9275	0	20	85	50	150
<u>Bromodichloromethane</u>	1	<u>18.2659</u>	0	20	91	70	130
<u>Methylcyclohexane</u>	1	<u>18.9104</u>	0	20	95	70	130
Dibromomethane	1	19.5874	0	20	98	70	130
<u>1,2-Dichloropropane</u>	1	<u>19.2479</u>	0	20	96	70	130
<u>Trichloroethene</u>	1	<u>20.5183</u>	0	20	103	70	130
<u>Benzene</u>	1	<u>18.854</u>	0	20	94	70	130
tert-Amyl methyl ether	1	16.8463	0	20	84	70	130
Iso-propylacetate	1	16.5515	0	20	83	70	130
Methyl methacrylate	1	18.6398	0	20	93	70	130
<u>Dibromochloromethane</u>	1	<u>17.1145</u>	0	20	86	70	130
2-Chloroethylvinylether	1	13.5826	0	20	68*	70	130
<u>cis-1,3-Dichloropropene</u>	1	<u>16.5453</u>	0	20	83	70	130
<u>trans-1,3-Dichloropropene</u>	1	<u>16.5052</u>	0	20	83	70	130
Ethyl methacrylate	1	17.5169	0	20	88	70	130
<u>1,1,2-Trichloroethane</u>	1	<u>18.2925</u>	0	20	91	70	130
<u>1,2-Dibromoethane</u>	1	<u>17.757</u>	0	20	89	70	130
1,3-Dichloropropane	1	18.7339	0	20	94	70	130
<u>4-Methyl-2-Pentanone</u>	1	<u>17.8032</u>	0	20	89	50	150
<u>2-Hexanone</u>	1	<u>17.6684</u>	0	20	88	50	150
<u>Tetrachloroethene</u>	1	<u>20.4548</u>	0	20	102	50	150
<u>Toluene</u>	1	<u>19.0613</u>	0	20	95	70	130
1,1,1,2-Tetrachloroethane	1	17.5728	0	20	88	70	130
<u>Chlorobenzene</u>	1	<u>18.3795</u>	0	20	92	70	130

Form3
Recovery Data Laboratory Limits
QC Batch: MBS96744

Method: 8260D	Matrix: Aqueous	Units: ug/L		QC Type: MBS			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
n-Butyl acrylate	1	14.0797	0	20	70	70	130
n-Amyl acetate	1	15.5455	0	20	78	70	130
Bromoform	1	14.6029	0	20	73	70	130
Ethylbenzene	1	16.7834	0	20	84	70	130
1,1,2,2-Tetrachloroethane	1	16.4872	0	20	82	70	130
Styrene	1	17.0187	0	20	85	70	130
m&p-Xylenes	1	33.7514	0	40	84	70	130
o-Xylene	1	17.361	0	20	87	70	130
trans-1,4-Dichloro-2-butene	1	15.389	0	20	77	50	150
1,3-Dichlorobenzene	1	17.8726	0	20	89	70	130
1,4-Dichlorobenzene	1	17.5921	0	20	88	70	130
1,2-Dichlorobenzene	1	16.7359	0	20	84	70	130
Isopropylbenzene	1	18.1134	0	20	91	70	130
Cyclohexanone	1	62.1682	0	100	62	50	150
Camphene	1	17.5278	0	20	88	70	130
1,2,3-Trichloropropane	1	15.679	0	20	78	70	130
2-Chlorotoluene	1	17.8323	0	20	89	70	130
p-Ethyltoluene	1	15.6265	0	20	78	70	130
4-Chlorotoluene	1	16.6258	0	20	83	70	130
n-Propylbenzene	1	18.2226	0	20	91	70	130
Bromobenzene	1	16.6436	0	20	83	70	130
1,3,5-Trimethylbenzene	1	19.2319	0	20	96	70	130
Butyl methacrylate	1	16.4084	0	20	82	70	130
t-Butylbenzene	1	17.7677	0	20	89	70	130
1,2,4-Trimethylbenzene	1	17.3991	0	20	87	70	130
sec-Butylbenzene	1	17.6395	0	20	88	70	130
4-Isopropyltoluene	1	17.3524	0	20	87	70	130
n-Butylbenzene	1	18.8964	0	20	94	70	130
p-Diethylbenzene	1	17.0826	0	20	85	70	130
1,2,4,5-Tetramethylbenzene	1	16.3877	0	20	82	70	130
1,2-Dibromo-3-Chloropropane	1	13.0664	0	20	65	50	150
Camphor	1	130.9016	0	200	65	20	150
Hexachlorobutadiene	1	16.0762	0	20	80	50	150
1,2,4-Trichlorobenzene	1	15.9499	0	20	80	70	130
1,2,3-Trichlorobenzene	1	14.1215	0	20	71	70	130
Naphthalene	1	18.8107	0	20	94	50	150

Form3
Recovery Data Laboratory Limits
 QC Batch: MBS96752

Data File		Sample ID:		Analysis Date			
Spike or Dup: 2M156871.D		MBS96752		9/16/2021 6:46:00 PM			
Non Spike (If applicable):							
Inst Blank (If applicable):							
Method: 8260D		Matrix: Aqueous		Units: ug/L		QC Type: MBS	
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	19.3436	0	20	97	50	150
Dichlorodifluoromethane	1	8.6637	0	20	43*	50	150
Chloromethane	1	14.0443	0	20	70	50	150
Bromomethane	1	17.6399	0	20	88	50	150
Vinyl Chloride	1	15.6385	0	20	78	50	150
Chloroethane	1	18.832	0	20	94	50	150
Trichlorofluoromethane	1	22.4241	0	20	112	50	150
Ethyl ether	1	15.8439	0	20	79	50	150
Furan	1	17.6767	0	20	88	50	150
1,1,2-Trichloro-1,2,2-trifluoroethane	1	18.0117	0	20	90	50	150
Methylene Chloride	1	17.4407	0	20	87	70	130
Acrolein	1	81.8693	0	100	82	50	150
Acrylonitrile	1	17.2439	0	20	86	50	150
Iodomethane	1	9.636	0	20	48*	50	150
Acetone	1	84.0168	0	100	84	50	150
Carbon Disulfide	1	13.7485	0	20	69	50	150
t-Butyl Alcohol	1	160.6451	0	100	161*	50	150
n-Hexane	1	17.2204	0	20	86	70	130
Di-isopropyl-ether	1	18.6882	0	20	93	70	130
1,1-Dichloroethene	1	17.8374	0	20	89	70	130
Methyl Acetate	1	17.5245	0	20	88	50	150
Methyl-t-butyl ether	1	18.6069	0	20	93	70	130
1,1-Dichloroethane	1	18.774	0	20	94	70	130
trans-1,2-Dichloroethene	1	18.1144	0	20	91	70	130
Ethyl-t-butyl ether	1	17.6583	0	20	88	70	130
cis-1,2-Dichloroethene	1	18.6389	0	20	93	70	130
Bromochloromethane	1	20.1815	0	20	101	70	130
2,2-Dichloropropane	1	17.4941	0	20	87	70	130
Ethyl acetate	1	18.4172	0	20	92	50	150
1,4-Dioxane	1	913.6985	0	1000	91	50	150
1,1-Dichloropropene	1	19.7195	0	20	99	70	130
Chloroform	1	19.7661	0	20	99	70	130
Cyclohexane	1	17.8498	0	20	89	70	130
1,2-Dichloroethane	1	19.195	0	20	96	70	130
2-Butanone	1	18.0107	0	20	90	50	150
1,1,1-Trichloroethane	1	19.4921	0	20	97	70	130
Carbon Tetrachloride	1	18.58	0	20	93	50	150
Vinyl Acetate	1	17.7219	0	20	89	50	150
Bromodichloromethane	1	18.0769	0	20	90	70	130
Methylcyclohexane	1	19.8776	0	20	99	70	130
Dibromomethane	1	20.309	0	20	102	70	130
1,2-Dichloropropane	1	19.1021	0	20	96	70	130
Trichloroethene	1	19.951	0	20	100	70	130
Benzene	1	18.2535	0	20	91	70	130
tert-Amyl methyl ether	1	17.9251	0	20	90	70	130
Iso-propylacetate	1	15.6223	0	20	78	70	130
Methyl methacrylate	1	17.196	0	20	86	70	130
Dibromochloromethane	1	15.9866	0	20	80	70	130
2-Chloroethylvinylether	1	14.0157	0	20	70	70	130
cis-1,3-Dichloropropene	1	14.9847	0	20	75	70	130
trans-1,3-Dichloropropene	1	15.0953	0	20	75	70	130
Ethyl methacrylate	1	17.063	0	20	85	70	130
1,1,2-Trichloroethane	1	17.0639	0	20	85	70	130
1,2-Dibromoethane	1	16.8222	0	20	84	70	130
1,3-Dichloropropane	1	16.8714	0	20	84	70	130
4-Methyl-2-Pentanone	1	16.5006	0	20	83	50	150
2-Hexanone	1	16.4352	0	20	82	50	150
Tetrachloroethene	1	19.632	0	20	98	50	150
Toluene	1	17.7365	0	20	89	70	130
1,1,1,2-Tetrachloroethane	1	17.7265	0	20	89	70	130
Chlorobenzene	1	18.0997	0	20	90	70	130

Form3
Recovery Data Laboratory Limits
QC Batch: MBS96752

Method: 8260D	Matrix: Aqueous	Units: ug/L		QC Type: MBS			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
n-Butyl acrylate	1	14.6135	0	20	73	70	130
n-Amyl acetate	1	14.6331	0	20	73	70	130
Bromoform	1	14.4662	0	20	72	70	130
Ethylbenzene	1	15.6009	0	20	78	70	130
1,1,2,2-Tetrachloroethane	1	14.9875	0	20	75	70	130
Styrene	1	15.9963	0	20	80	70	130
m&p-Xylenes	1	31.4554	0	40	79	70	130
o-Xylene	1	16.17	0	20	81	70	130
trans-1,4-Dichloro-2-butene	1	14.7587	0	20	74	50	150
1,3-Dichlorobenzene	1	16.8229	0	20	84	70	130
1,4-Dichlorobenzene	1	17.3818	0	20	87	70	130
1,2-Dichlorobenzene	1	16.5655	0	20	83	70	130
Isopropylbenzene	1	16.661	0	20	83	70	130
Cyclohexanone	1	62.5003	0	100	63	50	150
Camphene	1	16.5325	0	20	83	70	130
1,2,3-Trichloropropane	1	14.1478	0	20	71	70	130
2-Chlorotoluene	1	17.1885	0	20	86	70	130
p-Ethyltoluene	1	15.3911	0	20	77	70	130
4-Chlorotoluene	1	16.483	0	20	82	70	130
n-Propylbenzene	1	17.0245	0	20	85	70	130
Bromobenzene	1	15.4179	0	20	77	70	130
1,3,5-Trimethylbenzene	1	19.3523	0	20	97	70	130
Butyl methacrylate	1	16.5029	0	20	83	70	130
t-Butylbenzene	1	17.0501	0	20	85	70	130
1,2,4-Trimethylbenzene	1	15.9717	0	20	80	70	130
sec-Butylbenzene	1	16.8707	0	20	84	70	130
4-Isopropyltoluene	1	17.5047	0	20	88	70	130
n-Butylbenzene	1	15.7353	0	20	79	70	130
p-Diethylbenzene	1	16.6493	0	20	83	70	130
1,2,4,5-Tetramethylbenzene	1	15.7795	0	20	79	70	130
1,2-Dibromo-3-Chloropropane	1	12.2072	0	20	61	50	150
Camphor	1	139.1515	0	200	70	20	150
Hexachlorobutadiene	1	14.3208	0	20	72	50	150
1,2,4-Trichlorobenzene	1	15.2198	0	20	76	70	130
1,2,3-Trichlorobenzene	1	14.5204	0	20	73	70	130
Naphthalene	1	13.6731	0	20	68	50	150

Form3
Recovery Data Laboratory Limits
QC Batch: MBS96752

Data File		Sample ID:		Analysis Date			
Spike or Dup: 2M156848.D		AD25889-012(T:MS)		9/16/2021 11:15:00 AM			
Non Spike(If applicable): 2M156802.D		AD25889-012(T)		9/15/2021 8:35:00 PM			
Inst Blank(If applicable):							
Method: 8260D		Matrix: Aqueous		Units: ug/L		QC Type: MS	
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	23.1708	0	20	116	50	150
<u>Dichlorodifluoromethane</u>	1	<u>9.7484</u>	0	20	<u>49*</u>	50	150
Chloromethane	1	15.7564	0	20	79	50	150
<u>Bromomethane</u>	1	<u>11.5045</u>	0	20	<u>58</u>	50	150
<u>Vinyl Chloride</u>	1	<u>18.105</u>	0	20	<u>91</u>	50	150
<u>Chloroethane</u>	1	<u>22.1279</u>	0	20	<u>111</u>	50	150
<u>Trichlorofluoromethane</u>	1	<u>25.9888</u>	0	20	<u>130</u>	50	150
Ethyl ether	1	20.1257	0	20	101	50	150
Furan	1	21.6682	0	20	108	50	150
<u>1,1,2-Trichloro-1,2,2-trifluoroethane</u>	1	<u>20.5115</u>	0	20	<u>103</u>	50	150
<u>Methylene Chloride</u>	1	<u>29.5144</u>	<u>13.5925</u>	20	<u>80</u>	70	130
Acrolein	1	68.0979	0	100	68	50	150
Acrylonitrile	1	21.0286	0	20	105	50	150
Iodomethane	1	16.5738	0	20	83	50	150
<u>Acetone</u>	1	<u>115.8649</u>	0	100	<u>116</u>	50	150
<u>Carbon Disulfide</u>	1	<u>14.9644</u>	0	20	<u>75</u>	50	150
t-Butyl Alcohol	1	98.662	0	100	99	50	150
n-Hexane	1	20.1024	0	20	101	70	130
Di-isopropyl-ether	1	21.8689	0	20	109	70	130
<u>1,1-Dichloroethene</u>	1	<u>22.8226</u>	0	20	<u>114</u>	70	130
<u>Methyl Acetate</u>	1	<u>24.1965</u>	0	20	<u>121</u>	50	150
<u>Methyl-t-butyl ether</u>	1	<u>20.0815</u>	0	20	<u>100</u>	70	130
<u>1,1-Dichloroethane</u>	1	<u>22.9619</u>	0	20	<u>115</u>	70	130
<u>trans-1,2-Dichloroethene</u>	1	<u>22.7595</u>	0	20	<u>114</u>	70	130
Ethyl-t-butyl ether	1	21.6335	0	20	108	70	130
<u>cis-1,2-Dichloroethene</u>	1	<u>21.7318</u>	0	20	<u>109</u>	70	130
<u>Bromochloromethane</u>	1	<u>24.604</u>	0	20	<u>123</u>	70	130
2,2-Dichloropropane	1	17.0939	0	20	85	70	130
Ethyl acetate	1	31.0565	0	20	155*	50	150
<u>1,4-Dioxane</u>	1	<u>1223.77</u>	0	1000	<u>122</u>	50	150
1,1-Dichloropropene	1	24.0812	0	20	120	70	130
<u>Chloroform</u>	1	<u>24.0081</u>	0	20	<u>120</u>	70	130
<u>Cyclohexane</u>	1	<u>21.3777</u>	0	20	<u>107</u>	70	130
<u>1,2-Dichloroethane</u>	1	<u>22.9431</u>	0	20	<u>115</u>	70	130
<u>2-Butanone</u>	1	<u>0</u>	0	20	<u>0*</u>	50	150
<u>1,1,1-Trichloroethane</u>	1	<u>24.4346</u>	0	20	<u>122</u>	70	130
<u>Carbon Tetrachloride</u>	1	<u>23.0441</u>	0	20	<u>115</u>	50	150
Vinyl Acetate	1	17.1745	0	20	86	50	150
<u>Bromodichloromethane</u>	1	<u>22.0819</u>	0	20	<u>110</u>	70	130
<u>Methylcyclohexane</u>	1	<u>23.741</u>	0	20	<u>119</u>	70	130
Dibromomethane	1	23.5333	0	20	118	70	130
<u>1,2-Dichloropropane</u>	1	<u>23.0018</u>	0	20	<u>115</u>	70	130
<u>Trichloroethene</u>	1	<u>24.086</u>	0	20	<u>120</u>	70	130
<u>Benzene</u>	1	<u>22.71</u>	0	20	<u>114</u>	70	130
tert-Amyl methyl ether	1	19.972	0	20	100	70	130
Iso-propylacetate	1	17.504	0	20	88	70	130
Methyl methacrylate	1	21.1975	0	20	106	70	130
<u>Dibromochloromethane</u>	1	<u>19.0455</u>	0	20	<u>95</u>	70	130
2-Chloroethylvinylether	1	16.8746	0	20	84	70	130
<u>cis-1,3-Dichloropropene</u>	1	<u>17.981</u>	0	20	<u>90</u>	70	130
<u>trans-1,3-Dichloropropene</u>	1	<u>17.7788</u>	0	20	<u>89</u>	70	130
Ethyl methacrylate	1	19.0457	0	20	95	70	130
<u>1,1,2-Trichloroethane</u>	1	<u>21.1044</u>	0	20	<u>106</u>	70	130
<u>1,2-Dibromoethane</u>	1	<u>21.0024</u>	0	20	<u>105</u>	70	130
1,3-Dichloropropane	1	20.8911	0	20	104	70	130
<u>4-Methyl-2-Pentanone</u>	1	<u>19.002</u>	0	20	<u>95</u>	50	150
<u>2-Hexanone</u>	1	<u>20.1034</u>	0	20	<u>101</u>	50	150
<u>Tetrachloroethene</u>	1	<u>23.3696</u>	0	20	<u>117</u>	50	150
<u>Toluene</u>	1	<u>21.5127</u>	0	20	<u>108</u>	70	130
1,1,1,2-Tetrachloroethane	1	20.6815	0	20	103	70	130
<u>Chlorobenzene</u>	1	<u>21.7937</u>	0	20	<u>109</u>	70	130

Form3
Recovery Data Laboratory Limits
QC Batch: MBS96752

Method: 8260D	Matrix: Aqueous	Units: ug/L		QC Type: MS			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
n-Butyl acrylate	1	13.6123	0	20	68*	70	130
n-Amyl acetate	1	13.7059	0	20	69*	70	130
Bromoform	1	15.3666	0	20	77	70	130
Ethylbenzene	1	17.5456	0	20	88	70	130
1,1,2,2-Tetrachloroethane	1	16.7964	0	20	84	70	130
Styrene	1	18.4368	0	20	92	70	130
m&p-Xylenes	1	36.0444	0	40	90	70	130
o-Xylene	1	18.272	0	20	91	70	130
trans-1,4-Dichloro-2-butene	1	14.1642	0	20	71	50	150
1,3-Dichlorobenzene	1	20.3766	0	20	102	70	130
1,4-Dichlorobenzene	1	19.9439	0	20	100	70	130
1,2-Dichlorobenzene	1	19.1607	0	20	96	70	130
Isopropylbenzene	1	19.3127	0	20	97	70	130
Cyclohexanone	1	74.8895	0	100	75	50	150
Camphene	1	19.0423	0	20	95	70	130
1,2,3-Trichloropropane	1	15.7089	0	20	79	70	130
2-Chlorotoluene	1	18.3003	0	20	92	70	130
p-Ethyltoluene	1	17.3244	0	20	87	70	130
4-Chlorotoluene	1	19.1776	0	20	96	70	130
n-Propylbenzene	1	19.153	0	20	96	70	130
Bromobenzene	1	17.8596	0	20	89	70	130
1,3,5-Trimethylbenzene	1	21.6669	0	20	108	70	130
Butyl methacrylate	1	16.1374	0	20	81	70	130
t-Butylbenzene	1	19.435	0	20	97	70	130
1,2,4-Trimethylbenzene	1	19.2083	0	20	96	70	130
sec-Butylbenzene	1	19.7167	0	20	99	70	130
4-Isopropyltoluene	1	20.2739	0	20	101	70	130
n-Butylbenzene	1	19.8729	0	20	99	70	130
p-Diethylbenzene	1	19.4428	0	20	97	70	130
1,2,4,5-Tetramethylbenzene	1	18.7251	0	20	94	70	130
1,2-Dibromo-3-Chloropropane	1	15.0116	0	20	75	50	150
Camphor	1	164.9035	0	200	82	20	150
Hexachlorobutadiene	1	21.5378	0	20	108	50	150
1,2,4-Trichlorobenzene	1	19.0625	0	20	95	70	130
1,2,3-Trichlorobenzene	1	18.418	0	20	92	70	130
Naphthalene	1	16.9598	0	20	85	50	150

Form3
Recovery Data Laboratory Limits
 QC Batch: MBS96752

Data File		Sample ID:		Analysis Date			
Spike or Dup: 2M156849.D		AD25889-012(T:MSD)		9/16/2021 11:34:00 AM			
Non Spike(If applicable): 2M156802.D		AD25889-012(T)		9/15/2021 8:35:00 PM			
Inst Blank(If applicable):							
Method: 8260D		Matrix: Aqueous		Units: ug/L		QC Type: MSD	
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	21.5893	0	20	108	50	150
Dichlorodifluoromethane	1	9.1827	0	20	46*	50	150
Chloromethane	1	14.0067	0	20	70	50	150
Bromomethane	1	10.5301	0	20	53	50	150
Vinyl Chloride	1	16.4098	0	20	82	50	150
Chloroethane	1	21.8113	0	20	109	50	150
Trichlorofluoromethane	1	24.9067	0	20	125	50	150
Ethyl ether	1	18.4816	0	20	92	50	150
Furan	1	20.5144	0	20	103	50	150
1,1,2-Trichloro-1,2,2-trifluoroethane	1	19.2991	0	20	96	50	150
Methylene Chloride	1	26.7518	13.5925	20	66*	70	130
Acrolein	1	62.192	0	100	62	50	150
Acrylonitrile	1	18.5384	0	20	93	50	150
Iodomethane	1	16.0014	0	20	80	50	150
Acetone	1	103.0628	0	100	103	50	150
Carbon Disulfide	1	13.3414	0	20	67	50	150
t-Butyl Alcohol	1	88.4995	0	100	88	50	150
n-Hexane	1	20.0403	0	20	100	70	130
Di-isopropyl-ether	1	20.7375	0	20	104	70	130
1,1-Dichloroethene	1	21.8732	0	20	109	70	130
Methyl Acetate	1	22.3612	0	20	112	50	150
Methyl-t-butyl ether	1	18.5391	0	20	93	70	130
1,1-Dichloroethane	1	21.4996	0	20	107	70	130
trans-1,2-Dichloroethene	1	21.0835	0	20	105	70	130
Ethyl-t-butyl ether	1	20.3611	0	20	102	70	130
cis-1,2-Dichloroethene	1	20.3289	0	20	102	70	130
Bromochloromethane	1	22.6976	0	20	113	70	130
2,2-Dichloropropane	1	15.186	0	20	76	70	130
Ethyl acetate	1	28.8215	0	20	144	50	150
1,4-Dioxane	1	1135.157	0	1000	114	50	150
1,1-Dichloropropene	1	22.6786	0	20	113	70	130
Chloroform	1	22.4798	0	20	112	70	130
Cyclohexane	1	21.069	0	20	105	70	130
1,2-Dichloroethane	1	21.81	0	20	109	70	130
2-Butanone	1	0	0	20	0*	50	150
1,1,1-Trichloroethane	1	22.4447	0	20	112	70	130
Carbon Tetrachloride	1	22.1409	0	20	111	50	150
Vinyl Acetate	1	16.3769	0	20	82	50	150
Bromodichloromethane	1	20.9265	0	20	105	70	130
Methylcyclohexane	1	23.4637	0	20	117	70	130
Dibromomethane	1	22.9308	0	20	115	70	130
1,2-Dichloropropane	1	22.0947	0	20	110	70	130
Trichloroethene	1	23.2754	0	20	116	70	130
Benzene	1	20.9852	0	20	105	70	130
tert-Amyl methyl ether	1	18.8021	0	20	94	70	130
Iso-propylacetate	1	16.6096	0	20	83	70	130
Methyl methacrylate	1	20.3083	0	20	102	70	130
Dibromochloromethane	1	19.0961	0	20	95	70	130
2-Chloroethylvinylether	1	16.2576	0	20	81	70	130
cis-1,3-Dichloropropene	1	17.6931	0	20	88	70	130
trans-1,3-Dichloropropene	1	17.6365	0	20	88	70	130
Ethyl methacrylate	1	18.2904	0	20	91	70	130
1,1,2-Trichloroethane	1	20.186	0	20	101	70	130
1,2-Dibromoethane	1	19.4611	0	20	97	70	130
1,3-Dichloropropane	1	20.3751	0	20	102	70	130
4-Methyl-2-Pentanone	1	19.0307	0	20	95	50	150
2-Hexanone	1	18.6987	0	20	93	50	150
Tetrachloroethene	1	23.5724	0	20	118	50	150
Toluene	1	21.177	0	20	106	70	130
1,1,1,2-Tetrachloroethane	1	19.9609	0	20	100	70	130
Chlorobenzene	1	21.0866	0	20	105	70	130

Form3
Recovery Data Laboratory Limits
QC Batch: MBS96752

Method: 8260D	Matrix: Aqueous	Units: ug/L		QC Type: MSD			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
n-Butyl acrylate	1	13.8455	0	20	69*	70	130
n-Amyl acetate	1	14.0418	0	20	70	70	130
Bromoform	1	15.5767	0	20	78	70	130
Ethylbenzene	1	17.734	0	20	89	70	130
1,1,2,2-Tetrachloroethane	1	16.5141	0	20	83	70	130
Styrene	1	18.3412	0	20	92	70	130
m&p-Xylenes	1	36.6836	0	40	92	70	130
o-Xylene	1	19.0123	0	20	95	70	130
trans-1,4-Dichloro-2-butene	1	14.6603	0	20	73	50	150
1,3-Dichlorobenzene	1	21.1374	0	20	106	70	130
1,4-Dichlorobenzene	1	20.4689	0	20	102	70	130
1,2-Dichlorobenzene	1	20.177	0	20	101	70	130
Isopropylbenzene	1	20.5013	0	20	103	70	130
Cyclohexanone	1	74.2733	0	100	74	50	150
Camphene	1	19.8573	0	20	99	70	130
1,2,3-Trichloropropane	1	15.1676	0	20	76	70	130
2-Chlorotoluene	1	20.1272	0	20	101	70	130
p-Ethyltoluene	1	18.0414	0	20	90	70	130
4-Chlorotoluene	1	19.222	0	20	96	70	130
n-Propylbenzene	1	20.5376	0	20	103	70	130
Bromobenzene	1	17.8791	0	20	89	70	130
1,3,5-Trimethylbenzene	1	23.0996	0	20	115	70	130
Butyl methacrylate	1	16.2349	0	20	81	70	130
t-Butylbenzene	1	21.5417	0	20	108	70	130
1,2,4-Trimethylbenzene	1	20.0285	0	20	100	70	130
sec-Butylbenzene	1	21.0548	0	20	105	70	130
4-Isopropyltoluene	1	21.9843	0	20	110	70	130
n-Butylbenzene	1	21.1613	0	20	106	70	130
p-Diethylbenzene	1	20.6156	0	20	103	70	130
1,2,4,5-Tetramethylbenzene	1	20.261	0	20	101	70	130
1,2-Dibromo-3-Chloropropane	1	15.0011	0	20	75	50	150
Camphor	1	157.6872	0	200	79	20	150
Hexachlorobutadiene	1	19.3177	0	20	97	50	150
1,2,4-Trichlorobenzene	1	20.1114	0	20	101	70	130
1,2,3-Trichlorobenzene	1	19.2237	0	20	96	70	130
Naphthalene	1	17.8057	0	20	89	50	150

Form3
RPD Data Laboratory Limits

QC Batch: MBS96752

Data File	Sample ID:	Analysis Date
Spike or Dup: 2M156849.D	AD25889-012(T:MSD)	9/16/2021 11:34:00 AM
Duplicate:(If applicable): 2M156848.D	AD25889-012(T:MS)	9/16/2021 11:15:00 AM
Inst Blank:(If applicable):		

Method: 8260D Matrix: Aqueous Units: ug/L QC Type: MSD

Analyte:	Column	Dup/MSD/MBSD Conc	Sample/MS/MBSD Conc	RPD	Limit
Chlorodifluoromethane	1	21.5893	23.1708	7.1	30
Dichlorodifluoromethane	1	9.1827	9.7484	6	30
Chloromethane	1	14.0067	15.7564	12	30
Bromomethane	1	10.5301	11.5045	8.8	30
Vinyl Chloride	1	16.4098	18.105	9.8	40
Chloroethane	1	21.8113	22.1279	1.4	30
Trichlorofluoromethane	1	24.9067	25.9888	4.3	30
Ethyl ether	1	18.4816	20.1257	8.5	30
Furan	1	20.5144	21.6682	5.5	30
1,1,2-Trichloro-1,2,2-trifluoroethane	1	19.2991	20.5115	6.1	30
Methylene Chloride	1	26.7518	29.5144	9.8	30
Acrolein	1	62.192	68.0979	9.1	30
Acrylonitrile	1	18.5384	21.0286	13	30
Iodomethane	1	16.0014	16.5738	3.5	30
Acetone	1	103.0628	115.8649	12	30
Carbon Disulfide	1	13.3414	14.9644	11	30
t-Butyl Alcohol	1	88.4995	98.662	11	30
n-Hexane	1	20.0403	20.1024	0.31	30
Di-isopropyl-ether	1	20.7375	21.8689	5.3	30
1,1-Dichloroethene	1	21.8732	22.8226	4.2	40
Methyl Acetate	1	22.3612	24.1965	7.9	30
Methyl-t-butyl ether	1	18.5391	20.0815	8	30
1,1-Dichloroethane	1	21.4996	22.9619	6.6	40
trans-1,2-Dichloroethene	1	21.0835	22.7595	7.6	30
Ethyl-t-butyl ether	1	20.3611	21.6335	6.1	30
cis-1,2-Dichloroethene	1	20.3289	21.7318	6.7	30
Bromochloromethane	1	22.6976	24.604	8.1	30
2,2-Dichloropropane	1	15.186	17.0939	12	30
Ethyl acetate	1	28.8215	31.0565	7.5	30
1,4-Dioxane	1	1135.157	1223.77	7.5	30
1,1-Dichloropropene	1	22.6786	24.0812	6	30
Chloroform	1	22.4798	24.0081	6.6	40
Cyclohexane	1	21.069	21.3777	1.5	30
1,2-Dichloroethane	1	21.81	22.9431	5.1	40
2-Butanone	1	0	0	NA	40
1,1,1-Trichloroethane	1	22.4447	24.4346	8.5	30
Carbon Tetrachloride	1	22.1409	23.0441	4	40
Vinyl Acetate	1	16.3769	17.1745	4.8	30
Bromodichloromethane	1	20.9265	22.0819	5.4	30
Methylcyclohexane	1	23.4637	23.741	1.2	30
Dibromomethane	1	22.9308	23.5333	2.6	30
1,2-Dichloropropane	1	22.0947	23.0018	4	30
Trichloroethene	1	23.2754	24.086	3.4	40
Benzene	1	20.9852	22.71	7.9	40
tert-Amyl methyl ether	1	18.8021	19.972	6	30
Iso-propylacetate	1	16.6096	17.504	5.2	30
Methyl methacrylate	1	20.3083	21.1975	4.3	30
Dibromochloromethane	1	19.0961	19.0455	0.27	30
2-Chloroethylvinylether	1	16.2576	16.8746	3.7	30
cis-1,3-Dichloropropene	1	17.6931	17.981	1.6	30
trans-1,3-Dichloropropene	1	17.6365	17.7788	0.8	30
Ethyl methacrylate	1	18.2904	19.0457	4	30
1,1,2-Trichloroethane	1	20.186	21.1044	4.4	30
1,2-Dibromoethane	1	19.4611	21.0024	7.6	30
1,3-Dichloropropane	1	20.3751	20.8911	2.5	30
4-Methyl-2-Pentanone	1	19.0307	19.002	0.15	30
2-Hexanone	1	18.6987	20.1034	7.2	30
Tetrachloroethene	1	23.5724	23.3696	0.86	40
Toluene	1	21.177	21.5127	1.6	40
1,1,1,2-Tetrachloroethane	1	19.9609	20.6815	3.5	30
Chlorobenzene	1	21.0866	21.7937	3.3	40

Form3
RPD Data Laboratory Limits

QC Batch: MBS96752

Method: 8260D

Matrix: Aqueous

Units: ug/L

QC Type: MSD

Analyte:	Column	Dup/MSD/MBSD		Sample/MS/MBS	RPD	Limit
		Conc	Conc	Conc		
n-Butyl acrylate	1	13.8455		13.6123	1.7	30
n-Amyl acetate	1	14.0418		13.7059	2.4	30
Bromoform	1	15.5767		15.3666	1.4	30
Ethylbenzene	1	17.734		17.5456	1.1	30
1,1,2,2-Tetrachloroethane	1	16.5141		16.7964	1.7	30
Styrene	1	18.3412		18.4368	0.52	30
m&p-Xylenes	1	36.6836		36.0444	1.8	30
o-Xylene	1	19.0123		18.272	4	30
trans-1,4-Dichloro-2-butene	1	14.6603		14.1642	3.4	30
1,3-Dichlorobenzene	1	21.1374		20.3766	3.7	30
1,4-Dichlorobenzene	1	20.4689		19.9439	2.6	40
1,2-Dichlorobenzene	1	20.177		19.1607	5.2	40
Isopropylbenzene	1	20.5013		19.3127	6	30
Cyclohexanone	1	74.2733		74.8895	0.83	30
Camphene	1	19.8573		19.0423	4.2	30
1,2,3-Trichloropropane	1	15.1676		15.7089	3.5	30
2-Chlorotoluene	1	20.1272		18.3003	9.5	30
p-Ethyltoluene	1	18.0414		17.3244	4.1	30
4-Chlorotoluene	1	19.222		19.1776	0.23	30
n-Propylbenzene	1	20.5376		19.153	7	40
Bromobenzene	1	17.8791		17.8596	0.11	30
1,3,5-Trimethylbenzene	1	23.0996		21.6669	6.4	30
Butyl methacrylate	1	16.2349		16.1374	0.6	30
t-Butylbenzene	1	21.5417		19.435	10	30
1,2,4-Trimethylbenzene	1	20.0285		19.2083	4.2	30
sec-Butylbenzene	1	21.0548		19.7167	6.6	40
4-Isopropyltoluene	1	21.9843		20.2739	8.1	30
n-Butylbenzene	1	21.1613		19.8729	6.3	30
p-Diethylbenzene	1	20.6156		19.4428	5.9	30
1,2,4,5-Tetramethylbenzene	1	20.261		18.7251	7.9	30
1,2-Dibromo-3-Chloropropane	1	15.0011		15.0116	0.07	30
Camphor	1	157.6872		164.9035	4.5	30
Hexachlorobutadiene	1	19.3177		21.5378	11	30
1,2,4-Trichlorobenzene	1	20.1114		19.0625	5.4	30
1,2,3-Trichlorobenzene	1	19.2237		18.418	4.3	30
Naphthalene	1	17.8057		16.9598	4.9	30

Form3
Recovery Data Laboratory Limits
 QC Batch: MBS96753

Data File		Sample ID:		Analysis Date			
Spike or Dup: 6M144936.D		MBS96753		9/16/2021 4:38:00 PM			
Non Spike (If applicable):							
Inst Blank (If applicable):							
Method: 8260D		Matrix: Soil		Units: mg/Kg		QC Type: MBS	
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	47.4606	0	50	95	20	130
Dichlorodifluoromethane	1	34.672	0	50	69	20	130
Chloromethane	1	42.9504	0	50	86	20	130
Bromomethane	1	49.2613	0	50	99	20	130
Vinyl Chloride	1	44.2933	0	50	89	20	130
Chloroethane	1	45.6978	0	50	91	20	130
Trichlorofluoromethane	1	43.8926	0	50	88	20	130
Ethyl ether	1	43.5302	0	50	87	50	130
Furan	1	44.2673	0	50	89	50	130
1,1,2-Trichloro-1,2,2-trifluoroethane	1	42.9228	0	50	86	50	130
Methylene Chloride	1	42.1522	0	50	84	50	130
Acrolein	1	230.6209	0	200	115	20	130
Acrylonitrile	1	42.273	0	50	85	20	130
Iodomethane	1	31.1599	0	50	62	50	130
Acetone	1	209.4393	0	200	105	20	130
Carbon Disulfide	1	38.7113	0	50	77	50	130
t-Butyl Alcohol	1	218.3321	0	200	109	20	130
n-Hexane	1	43.9148	0	50	88	50	130
Di-isopropyl-ether	1	44.4205	0	50	89	50	130
1,1-Dichloroethene	1	42.1323	0	50	84	50	130
Methyl Acetate	1	41.5686	0	50	83	50	130
Methyl-t-butyl ether	1	42.9703	0	50	86	50	130
1,1-Dichloroethane	1	44.0176	0	50	88	50	130
trans-1,2-Dichloroethene	1	42.0445	0	50	84	50	130
Ethyl-t-butyl ether	1	44.7441	0	50	89	50	130
cis-1,2-Dichloroethene	1	43.7964	0	50	88	50	130
Bromochloromethane	1	42.7834	0	50	86	50	130
2,2-Dichloropropane	1	35.2646	0	50	71	50	130
Ethyl acetate	1	44.26	0	50	89	50	130
1,4-Dioxane	1	2292.205	0	2500	92	50	130
1,1-Dichloropropene	1	42.6644	0	50	85	50	130
Chloroform	1	42.2308	0	50	84	50	130
Cyclohexane	1	40.7111	0	50	81	50	130
1,2-Dichloroethane	1	43.1912	0	50	86	50	130
2-Butanone	1	38.7822	0	50	78	20	130
1,1,1-Trichloroethane	1	42.5571	0	50	85	50	130
Carbon Tetrachloride	1	43.8005	0	50	88	50	130
Vinyl Acetate	1	44.3516	0	50	89	50	130
Bromodichloromethane	1	41.7676	0	50	84	50	130
Methylcyclohexane	1	42.2796	0	50	85	50	130
Dibromomethane	1	42.581	0	50	85	50	130
1,2-Dichloropropane	1	41.6985	0	50	83	50	130
Trichloroethene	1	41.936	0	50	84	50	130
Benzene	1	42.7589	0	50	86	50	130
tert-Amyl methyl ether	1	44.6084	0	50	89	50	130
Iso-propylacetate	1	45.1798	0	50	90	50	130
Methyl methacrylate	1	47.5934	0	50	95	50	130
Dibromochloromethane	1	43.6597	0	50	87	50	130
2-Chloroethylvinylether	1	46.3568	0	50	93	50	130
cis-1,3-Dichloropropene	1	43.9543	0	50	88	50	130
trans-1,3-Dichloropropene	1	45.6179	0	50	91	50	130
Ethyl methacrylate	1	45.3762	0	50	91	50	130
1,1,2-Trichloroethane	1	42.9588	0	50	86	50	130
1,2-Dibromoethane	1	42.0204	0	50	84	50	130
1,3-Dichloropropane	1	43.8254	0	50	88	50	130
4-Methyl-2-Pentanone	1	45.1852	0	50	90	20	130
2-Hexanone	1	46.0717	0	50	92	20	130
Tetrachloroethene	1	40.4848	0	50	81	50	130
Toluene	1	42.2812	0	50	85	50	130
1,1,1,2-Tetrachloroethane	1	41.7833	0	50	84	50	130
Chlorobenzene	1	40.8363	0	50	82	50	130

Form3
Recovery Data Laboratory Limits
QC Batch: MBS96753

Method: 8260D	Matrix: Soil	Units: mg/Kg		QC Type: MBS			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
n-Butyl acrylate	1	46.0739	0	50	92	50	130
n-Amyl acetate	1	47.5523	0	50	95	50	130
Bromoform	1	43.4438	0	50	87	20	130
Ethylbenzene	1	42.7324	0	50	85	50	130
1,1,2,2-Tetrachloroethane	1	44.0559	0	50	88	50	130
Styrene	1	43.0273	0	50	86	50	130
m&p-Xylenes	1	89.7554	0	100	90	50	130
o-Xylene	1	43.7905	0	50	88	50	130
trans-1,4-Dichloro-2-butene	1	43.4508	0	50	87	20	130
1,3-Dichlorobenzene	1	41.8895	0	50	84	50	130
1,4-Dichlorobenzene	1	40.6976	0	50	81	50	130
1,2-Dichlorobenzene	1	41.6118	0	50	83	50	130
Isopropylbenzene	1	43.4644	0	50	87	50	130
Cyclohexanone	1	232.1489	0	250	93	50	130
Camphene	1	42.8768	0	50	86	50	130
1,2,3-Trichloropropane	1	43.2788	0	50	87	50	130
2-Chlorotoluene	1	41.9733	0	50	84	50	130
p-Ethyltoluene	1	42.8628	0	50	86	50	130
4-Chlorotoluene	1	43.0947	0	50	86	50	130
n-Propylbenzene	1	43.5146	0	50	87	50	130
Bromobenzene	1	42.2394	0	50	84	50	130
1,3,5-Trimethylbenzene	1	43.5931	0	50	87	50	130
Butyl methacrylate	1	44.8341	0	50	90	50	130
t-Butylbenzene	1	42.8873	0	50	86	50	130
1,2,4-Trimethylbenzene	1	42.9217	0	50	86	50	130
sec-Butylbenzene	1	43.7066	0	50	87	50	130
4-Isopropyltoluene	1	41.991	0	50	84	50	130
n-Butylbenzene	1	43.6053	0	50	87	50	130
p-Diethylbenzene	1	42.1616	0	50	84	50	130
1,2,4,5-Tetramethylbenzene	1	41.4077	0	50	83	50	130
1,2-Dibromo-3-Chloropropane	1	42.8983	0	50	86	50	130
Camphor	1	369.9831	0	500	74	50	130
Hexachlorobutadiene	1	40.4046	0	50	81	50	130
1,2,4-Trichlorobenzene	1	41.9936	0	50	84	50	130
1,2,3-Trichlorobenzene	1	39.2134	0	50	78	50	130
Naphthalene	1	35.6183	0	50	71	50	130

Form3
Recovery Data Laboratory Limits
 QC Batch: MBS96753

Data File	Sample ID:	Analysis Date
Spike or Dup: 6M144937.D	AD25919-009(MS)	9/16/2021 4:58:00 PM
Non Spike(If applicable): 6M144935.D	AD25919-009	9/16/2021 4:17:00 PM
Inst Blank(If applicable):		

Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	21.2227	5.5823	50	31	20	130
Dichlorodifluoromethane	1	18.8561	0	50	38	20	130
Chloromethane	1	24.1547	0	50	48	20	130
Bromomethane	1	26.3401	0	50	53	20	130
Vinyl Chloride	1	20.7319	0	50	41	20	130
Chloroethane	1	25.6416	0	50	51	20	130
Trichlorofluoromethane	1	20.5724	0	50	41	20	130
Ethyl ether	1	40.436	0	50	81	50	130
Furan	1	27.8338	0	50	56	50	130
1,1,2-Trichloro-1,2,2-trifluoroethane	1	19.6109	0	50	39*	50	130
Methylene Chloride	1	31.3267	0	50	63	50	130
Acrolein	1	0	0	200	0*	20	130
Acrylonitrile	1	24.3724	0	50	49	20	130
Iodomethane	1	15.478	0	50	31*	50	130
Acetone	1	198.3326	0	200	99	20	130
Carbon Disulfide	1	17.774	0	50	36*	50	130
t-Butyl Alcohol	1	243.7599	0	200	122	20	130
n-Hexane	1	13.9341	0	50	28*	50	130
Di-isopropyl-ether	1	35.9781	0	50	72	50	130
1,1-Dichloroethene	1	20.6478	0	50	41*	50	130
Methyl Acetate	1	52.3778	0	50	105	50	130
Methyl-t-butyl ether	1	41.4738	0	50	83	50	130
1,1-Dichloroethane	1	27.9132	0	50	56	50	130
trans-1,2-Dichloroethene	1	22.0403	0	50	44*	50	130
Ethyl-t-butyl ether	1	39.8336	0	50	80	50	130
cis-1,2-Dichloroethene	1	25.141	0	50	50	50	130
Bromochloromethane	1	35.0641	0	50	70	50	130
2,2-Dichloropropane	1	14.6846	0	50	29*	50	130
Ethyl acetate	1	14.6722	0	50	29*	50	130
1,4-Dioxane	1	2336.108	0	2500	93	50	130
1,1-Dichloropropene	1	19.9789	0	50	40*	50	130
Chloroform	1	28.8681	0	50	58	50	130
Cyclohexane	1	16.9941	0	50	34*	50	130
1,2-Dichloroethane	1	36.2541	0	50	73	50	130
2-Butanone	1	32.8903	0	50	66	20	130
1,1,1-Trichloroethane	1	23.007	0	50	46*	50	130
Carbon Tetrachloride	1	20.476	0	50	41*	50	130
Vinyl Acetate	1	20.6014	0	50	41*	50	130
Bromodichloromethane	1	31.8394	0	50	64	50	130
Methylcyclohexane	1	15.4205	0	50	31*	50	130
Dibromomethane	1	36.6212	0	50	73	50	130
1,2-Dichloropropane	1	31.3154	0	50	63	50	130
Trichloroethene	1	24.0278	0	50	48*	50	130
Benzene	1	26.8068	0	50	54	50	130
tert-Amyl methyl ether	1	40.5315	0	50	81	50	130
Iso-propylacetate	1	0	0	50	0*	50	130
Methyl methacrylate	1	60.7627	0	50	122	50	130
Dibromochloromethane	1	34.4296	0	50	69	50	130
2-Chloroethylvinylether	1	44.9196	0	50	90	50	130
cis-1,3-Dichloropropene	1	26.2083	0	50	52	50	130
trans-1,3-Dichloropropene	1	29.3311	0	50	59	50	130
Ethyl methacrylate	1	0	0	50	0*	50	130
1,1,2-Trichloroethane	1	37.5077	0	50	75	50	130
1,2-Dibromoethane	1	35.3191	0	50	71	50	130
1,3-Dichloropropane	1	37.4848	0	50	75	50	130
4-Methyl-2-Pentanone	1	23.9204	0	50	48	20	130
2-Hexanone	1	9.9115	0	50	20	20	130
Tetrachloroethene	1	19.8343	0	50	40*	50	130
Toluene	1	25.185	0	50	50	50	130
1,1,1,2-Tetrachloroethane	1	31.5265	0	50	63	50	130
Chlorobenzene	1	25.6498	0	50	51	50	130

Form3
Recovery Data Laboratory Limits
QC Batch: MBS96753

Method: 8260D	Matrix: Soil	Units: mg/Kg		QC Type: MS			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
n-Butyl acrylate	1	0	0	50	0*	50	130
n-Amyl acetate	1	0	0	50	0*	50	130
Bromoform	1	37.6989	0	50	75	20	130
Ethylbenzene	1	24.2681	0	50	49*	50	130
1,1,2,2-Tetrachloroethane	1	38.6744	0	50	77	50	130
Styrene	1	24.0177	0	50	48*	50	130
m&p-Xylenes	1	50.776	0	100	51	50	130
o-Xylene	1	28.0744	0	50	56	50	130
trans-1,4-Dichloro-2-butene	1	17.5301	0	50	35	20	130
1,3-Dichlorobenzene	1	22.6655	0	50	45*	50	130
1,4-Dichlorobenzene	1	22.221	0	50	44*	50	130
1,2-Dichlorobenzene	1	24.8022	0	50	50	50	130
Isopropylbenzene	1	22.9678	0	50	46*	50	130
Cyclohexanone	1	115.6287	0	250	46*	50	130
Camphene	1	15.3953	0	50	31*	50	130
1,2,3-Trichloropropane	1	35.4475	0	50	71	50	130
2-Chlorotoluene	1	23.8638	0	50	48*	50	130
p-Ethyltoluene	1	18.7404	0	50	37*	50	130
4-Chlorotoluene	1	23.3142	0	50	47*	50	130
n-Propylbenzene	1	21.3456	0	50	43*	50	130
Bromobenzene	1	27.2024	0	50	54	50	130
1,3,5-Trimethylbenzene	1	22.1964	0	50	44*	50	130
Butyl methacrylate	1	0	0	50	0*	50	130
t-Butylbenzene	1	21.0409	0	50	42*	50	130
1,2,4-Trimethylbenzene	1	21.5826	0	50	43*	50	130
sec-Butylbenzene	1	18.3136	0	50	37*	50	130
4-Isopropyltoluene	1	12.474	0	50	25*	50	130
n-Butylbenzene	1	14.6114	0	50	29*	50	130
p-Diethylbenzene	1	15.2049	0	50	30*	50	130
1,2,4,5-Tetramethylbenzene	1	17.1157	0	50	34*	50	130
1,2-Dibromo-3-Chloropropane	1	39.3224	0	50	79	50	130
Camphor	1	403.9896	0	500	81	50	130
Hexachlorobutadiene	1	11.3804	0	50	23*	50	130
1,2,4-Trichlorobenzene	1	16.4112	0	50	33*	50	130
1,2,3-Trichlorobenzene	1	16.1563	0	50	32*	50	130
Naphthalene	1	16.6585	0	50	33*	50	130

Form3
Recovery Data Laboratory Limits
 QC Batch: MBS96753

Data File	Sample ID:	Analysis Date
Spike or Dup: 6M144938.D	AD25919-009(MSD)	9/16/2021 5:19:00 PM
Non Spike(If applicable): 6M144935.D	AD25919-009	9/16/2021 4:17:00 PM
Inst Blank(If applicable):		

Method: 8260D	Matrix: Soil	Units: mg/Kg		QC Type: MSD			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	21.8523	5.5823	50	33	20	130
Dichlorodifluoromethane	1	19.3201	0	50	39	20	130
Chloromethane	1	23.8879	0	50	48	20	130
Bromomethane	1	25.167	0	50	50	20	130
Vinyl Chloride	1	20.9689	0	50	42	20	130
Chloroethane	1	27.1149	0	50	54	20	130
Trichlorofluoromethane	1	21.4258	0	50	43	20	130
Ethyl ether	1	40.6488	0	50	81	50	130
Furan	1	28.6777	0	50	57	50	130
1,1,2-Trichloro-1,2,2-trifluoroethane	1	20.33	0	50	41*	50	130
Methylene Chloride	1	32.7455	0	50	65	50	130
Acrolein	1	0	0	200	0*	20	130
Acrylonitrile	1	24.0147	0	50	48	20	130
Iodomethane	1	14.825	0	50	30*	50	130
Acetone	1	193.736	0	200	97	20	130
Carbon Disulfide	1	18.8264	0	50	38*	50	130
t-Butyl Alcohol	1	226.113	0	200	113	20	130
n-Hexane	1	14.8188	0	50	30*	50	130
Di-isopropyl-ether	1	37.0672	0	50	74	50	130
1,1-Dichloroethene	1	21.5191	0	50	43*	50	130
Methyl Acetate	1	18.8069	0	50	38*	50	130
Methyl-t-butyl ether	1	42.3268	0	50	85	50	130
1,1-Dichloroethane	1	29.248	0	50	58	50	130
trans-1,2-Dichloroethene	1	23.6726	0	50	47*	50	130
Ethyl-t-butyl ether	1	40.7777	0	50	82	50	130
cis-1,2-Dichloroethene	1	26.5734	0	50	53	50	130
Bromochloromethane	1	36.8417	0	50	74	50	130
2,2-Dichloropropane	1	14.767	0	50	30*	50	130
Ethyl acetate	1	11.0739	0	50	22*	50	130
1,4-Dioxane	1	2385.143	0	2500	95	50	130
1,1-Dichloropropene	1	21.1815	0	50	42*	50	130
Chloroform	1	30.874	0	50	62	50	130
Cyclohexane	1	19.3932	0	50	39*	50	130
1,2-Dichloroethane	1	36.9637	0	50	74	50	130
2-Butanone	1	24.827	0	50	50	20	130
1,1,1-Trichloroethane	1	25.0996	0	50	50	50	130
Carbon Tetrachloride	1	22.3685	0	50	45*	50	130
Vinyl Acetate	1	21.7475	0	50	43*	50	130
Bromodichloromethane	1	33.8733	0	50	68	50	130
Methylcyclohexane	1	16.7866	0	50	34*	50	130
Dibromomethane	1	38.1937	0	50	76	50	130
1,2-Dichloropropane	1	32.8648	0	50	66	50	130
Trichloroethene	1	25.9624	0	50	52	50	130
Benzene	1	28.0722	0	50	56	50	130
tert-Amyl methyl ether	1	41.6514	0	50	83	50	130
Iso-propylacetate	1	0	0	50	0*	50	130
Methyl methacrylate	1	31.6387	0	50	63	50	130
Dibromochloromethane	1	39.6861	0	50	79	50	130
2-Chloroethylvinylether	1	47.2656	0	50	95	50	130
cis-1,3-Dichloropropene	1	29.7974	0	50	60	50	130
trans-1,3-Dichloropropene	1	31.869	0	50	64	50	130
Ethyl methacrylate	1	0	0	50	0*	50	130
1,1,2-Trichloroethane	1	41.0204	0	50	82	50	130
1,2-Dibromoethane	1	39.2701	0	50	79	50	130
1,3-Dichloropropane	1	41.1477	0	50	82	50	130
4-Methyl-2-Pentanone	1	17.522	0	50	35	20	130
2-Hexanone	1	6.3317	0	50	13*	20	130
Tetrachloroethene	1	22.7659	0	50	46*	50	130
Toluene	1	28.4851	0	50	57	50	130
1,1,1,2-Tetrachloroethane	1	34.5416	0	50	69	50	130
Chlorobenzene	1	28.6231	0	50	57	50	130

Form3
Recovery Data Laboratory Limits
 QC Batch: MBS96753

Method: 8260D	Matrix: Soil	Units: mg/Kg	QC Type: MSD				
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
n-Butyl acrylate	1	0	0	50	0*	50	130
n-Amyl acetate	1	0	0	50	0*	50	130
Bromoform	1	42.9901	0	50	86	20	130
Ethylbenzene	1	28.0948	0	50	56	50	130
1,1,2,2-Tetrachloroethane	1	43.1778	0	50	86	50	130
Styrene	1	26.7011	0	50	53	50	130
m&p-Xylenes	1	55.8685	0	100	56	50	130
o-Xylene	1	32.4146	0	50	65	50	130
trans-1,4-Dichloro-2-butene	1	20.2505	0	50	41	20	130
1,3-Dichlorobenzene	1	26.4875	0	50	53	50	130
1,4-Dichlorobenzene	1	25.4981	0	50	51	50	130
1,2-Dichlorobenzene	1	29.1266	0	50	58	50	130
Isopropylbenzene	1	25.8299	0	50	52	50	130
Cyclohexanone	1	80.8336	0	250	32*	50	130
Camphene	1	17.7676	0	50	36*	50	130
1,2,3-Trichloropropane	1	38.4739	0	50	77	50	130
2-Chlorotoluene	1	26.8237	0	50	54	50	130
p-Ethyltoluene	1	20.9148	0	50	42*	50	130
4-Chlorotoluene	1	26.9329	0	50	54	50	130
n-Propylbenzene	1	23.8026	0	50	48*	50	130
Bromobenzene	1	30.493	0	50	61	50	130
1,3,5-Trimethylbenzene	1	24.9132	0	50	50	50	130
Butyl methacrylate	1	0	0	50	0*	50	130
t-Butylbenzene	1	23.7789	0	50	48*	50	130
1,2,4-Trimethylbenzene	1	23.2501	0	50	47*	50	130
sec-Butylbenzene	1	20.8361	0	50	42*	50	130
4-Isopropyltoluene	1	13.5275	0	50	27*	50	130
n-Butylbenzene	1	15.9264	0	50	32*	50	130
p-Diethylbenzene	1	17.2164	0	50	34*	50	130
1,2,4,5-Tetramethylbenzene	1	19.2164	0	50	38*	50	130
1,2-Dibromo-3-Chloropropane	1	44.9752	0	50	90	50	130
Camphor	1	408.3061	0	500	82	50	130
Hexachlorobutadiene	1	12.0781	0	50	24*	50	130
1,2,4-Trichlorobenzene	1	18.913	0	50	38*	50	130
1,2,3-Trichlorobenzene	1	18.5714	0	50	37*	50	130
Naphthalene	1	17.4145	0	50	35*	50	130

Form3
RPD Data Laboratory Limits
QC Batch: MBS96753

Data File	Sample ID:	Analysis Date
Spike or Dup: 6M144938.D	AD25919-009(MSD)	9/16/2021 5:19:00 PM
Duplicate (If applicable): 6M144937.D	AD25919-009(MS)	9/16/2021 4:58:00 PM
Inst Blank (If applicable):		

Method: 8260D	Matrix: Soil	Units: mg/Kg	QC Type: MSD		
Analyte:	Column	Dup/MSD/MBSD Conc	Sample/MS/MBS Conc	RPD	Limit
Chlorodifluoromethane	1	21.8523	21.2227	2.9	30
Dichlorodifluoromethane	1	19.3201	18.8561	2.4	30
Chloromethane	1	23.8879	24.1547	1.1	30
Bromomethane	1	25.167	26.3401	4.6	30
Vinyl Chloride	1	20.9689	20.7319	1.1	40
Chloroethane	1	27.1149	25.6416	5.6	30
Trichlorofluoromethane	1	21.4258	20.5724	4.1	30
Ethyl ether	1	40.6488	40.436	0.52	30
Furan	1	28.6777	27.8338	3	30
1,1,2-Trichloro-1,2,2-trifluoroethane	1	20.33	19.6109	3.6	30
Methylene Chloride	1	32.7455	31.3267	4.4	30
Acrolein	1	0	0	NA	30
Acrylonitrile	1	24.0147	24.3724	1.5	30
Iodomethane	1	14.825	15.478	4.3	30
Acetone	1	193.736	198.3326	2.3	30
Carbon Disulfide	1	18.8264	17.774	5.8	30
t-Butyl Alcohol	1	226.113	243.7599	7.5	30
n-Hexane	1	14.8188	13.9341	6.2	30
Di-isopropyl-ether	1	37.0672	35.9781	3	30
1,1-Dichloroethene	1	21.5191	20.6478	4.1	40
Methyl Acetate	1	18.8069	52.3778	94*	30
Methyl-t-butyl ether	1	42.3268	41.4738	2	30
1,1-Dichloroethane	1	29.248	27.9132	4.7	40
trans-1,2-Dichloroethene	1	23.6726	22.0403	7.1	30
Ethyl-t-butyl ether	1	40.7777	39.8336	2.3	30
cis-1,2-Dichloroethene	1	26.5734	25.141	5.5	30
Bromochloromethane	1	36.8417	35.0641	4.9	30
2,2-Dichloropropane	1	14.767	14.6846	0.56	30
Ethyl acetate	1	11.0739	14.6722	28	30
1,4-Dioxane	1	2385.143	2336.108	2.1	30
1,1-Dichloropropene	1	21.1815	19.9789	5.8	30
Chloroform	1	30.874	28.8681	6.7	40
Cyclohexane	1	19.3932	16.9941	13	30
1,2-Dichloroethane	1	36.9637	36.2541	1.9	40
2-Butanone	1	24.827	32.8903	28	40
1,1,1-Trichloroethane	1	25.0996	23.007	8.7	30
Carbon Tetrachloride	1	22.3685	20.476	8.8	40
Vinyl Acetate	1	21.7475	20.6014	5.4	30
Bromodichloromethane	1	33.8733	31.8394	6.2	30
Methylcyclohexane	1	16.7866	15.4205	8.5	30
Dibromomethane	1	38.1937	36.6212	4.2	30
1,2-Dichloropropane	1	32.8648	31.3154	4.8	30
Trichloroethene	1	25.9624	24.0278	7.7	40
Benzene	1	28.0722	26.8068	4.6	40
tert-Amyl methyl ether	1	41.6514	40.5315	2.7	30
Iso-propylacetate	1	0	0	NA	30
Methyl methacrylate	1	31.6387	60.7627	63*	30
Dibromochloromethane	1	39.6861	34.4296	14	30
2-Chloroethylvinylether	1	47.2656	44.9196	5.1	30
cis-1,3-Dichloropropene	1	29.7974	26.2083	13	30
trans-1,3-Dichloropropene	1	31.869	29.3311	8.3	30
Ethyl methacrylate	1	0	0	NA	30
1,1,2-Trichloroethane	1	41.0204	37.5077	8.9	30
1,2-Dibromoethane	1	39.2701	35.3191	11	30
1,3-Dichloropropane	1	41.1477	37.4848	9.3	30
4-Methyl-2-Pentanone	1	17.522	23.9204	31*	30
2-Hexanone	1	6.3317	9.9115	44*	30
Tetrachloroethene	1	22.7659	19.8343	14	40
Toluene	1	28.4851	25.185	12	40
1,1,1,2-Tetrachloroethane	1	34.5416	31.5265	9.1	30
Chlorobenzene	1	28.6231	25.6498	11	40

Form3 RPD Data Laboratory Limits

QC Batch: MBS96753

Method: 8260D

Matrix: Soil

Units: mg/Kg

QC Type: MSD

Analyte:	Column	Dup/MSD/MBSD		Sample/MS/MBS		RPD	Limit
		Conc	Conc	Conc	Conc		
n-Butyl acrylate	1	0	0	0	0	NA	30
n-Amyl acetate	1	0	0	0	0	NA	30
Bromoform	1	42.9901	37.6989	13	30		
Ethylbenzene	1	28.0948	24.2681	15	30		
1,1,2,2-Tetrachloroethane	1	43.1778	38.6744	11	30		
Styrene	1	26.7011	24.0177	11	30		
m&p-Xylenes	1	55.8685	50.776	9.6	30		
o-Xylene	1	32.4146	28.0744	14	30		
trans-1,4-Dichloro-2-butene	1	20.2505	17.5301	14	30		
1,3-Dichlorobenzene	1	26.4875	22.6655	16	30		
1,4-Dichlorobenzene	1	25.4981	22.221	14	40		
1,2-Dichlorobenzene	1	29.1266	24.8022	16	40		
Isopropylbenzene	1	25.8299	22.9678	12	30		
Cyclohexanone	1	80.8336	115.6287	35*	30		
Camphene	1	17.7676	15.3953	14	30		
1,2,3-Trichloropropane	1	38.4739	35.4475	8.2	30		
2-Chlorotoluene	1	26.8237	23.8638	12	30		
p-Ethyltoluene	1	20.9148	18.7404	11	30		
4-Chlorotoluene	1	26.9329	23.3142	14	30		
n-Propylbenzene	1	23.8026	21.3456	11	40		
Bromobenzene	1	30.493	27.2024	11	30		
1,3,5-Trimethylbenzene	1	24.9132	22.1964	12	30		
Butyl methacrylate	1	0	0	NA	30		
t-Butylbenzene	1	23.7789	21.0409	12	30		
1,2,4-Trimethylbenzene	1	23.2501	21.5826	7.4	30		
sec-Butylbenzene	1	20.8361	18.3136	13	40		
4-Isopropyltoluene	1	13.5275	12.474	8.1	30		
n-Butylbenzene	1	15.9264	14.6114	8.6	30		
p-Diethylbenzene	1	17.2164	15.2049	12	30		
1,2,4,5-Tetramethylbenzene	1	19.2164	17.1157	12	30		
1,2-Dibromo-3-Chloropropane	1	44.9752	39.3224	13	30		
Camphor	1	408.3061	403.9896	1.1	30		
Hexachlorobutadiene	1	12.0781	11.3804	5.9	30		
1,2,4-Trichlorobenzene	1	18.913	16.4112	14	30		
1,2,3-Trichlorobenzene	1	18.5714	16.1563	14	30		
Naphthalene	1	17.4145	16.6585	4.4	30		

* Indicates outside of limits

NA - Both concentrations=0... no result can be calculated

FORM 4
Blank SummaryBlank Number: DAILY BLANK
Blank Data File: 2M156795.D
Matrix: AqueousBlank Analysis Date: 09/15/21 18:17
Blank Extraction Date: NA
(If Applicable)
Method: EPA 8260D

Sample Number	Data File	Analysis Date
AD25889-012(T)	2M156802.D	09/15/21 20:35
MBS96744	2M156807.D	09/15/21 22:13

FORM 4
Blank SummaryBlank Number: DAILY BLANK
Blank Data File: 1M152538.D
Matrix: SoilBlank Analysis Date: 09/15/21 19:27
Blank Extraction Date: NA
(If Applicable)
Method: EPA 8260D

Sample Number	Data File	Analysis Date
AD25976-005	1M152556.D	09/16/21 01:31
AD25976-007	1M152557.D	09/16/21 01:51
AD25964-001(MSD)	1M152551.D	09/15/21 23:50
AD25964-001(MS)	1M152550.D	09/15/21 23:30
MBS96743	1M152546.D	09/15/21 22:09
AD25964-001	1M152542.D	09/15/21 20:48

FORM 4
Blank SummaryBlank Number: DAILY BLANK
Blank Data File: 2M156840.D
Matrix: AqueousBlank Analysis Date: 09/16/21 08:39
Blank Extraction Date: NA
(If Applicable)
Method: EPA 8260D

Sample Number	Data File	Analysis Date
AD25976-011	2M156859.D	09/16/21 14:50
MBS96752	2M156871.D	09/16/21 18:46
AD25889-012(T:M)	2M156849.D	09/16/21 11:34
AD25889-012(T:M)	2M156848.D	09/16/21 11:15

FORM 4
Blank Summary

Blank Number: DAILY BLANK
Blank Data File: 6M144934.D
Matrix: Soil

Blank Analysis Date: 09/16/21 15:56
Blank Extraction Date: NA
(If Applicable)
Method: EPA 8260D

Sample Number	Data File	Analysis Date
AD25976-001	6M144950.D	09/16/21 21:32
AD25976-003	6M144949.D	09/16/21 21:12
AD25976-009	6M144951.D	09/16/21 21:53
AD25919-009	6M144935.D	09/16/21 16:17
MBS96753	6M144936.D	09/16/21 16:38
AD25919-009(MSD	6M144938.D	09/16/21 17:19
AD25919-009(MS)	6M144937.D	09/16/21 16:58

Form 5

Tune Name: BFB TUNE

Data File: 2M156178.D

Instrument: GCMS 2

Analysis Date: 08/31/21 19:36

Method: EPA 8260D

Tune Scan/Time Range: Average of 7.342 to 7.379 min

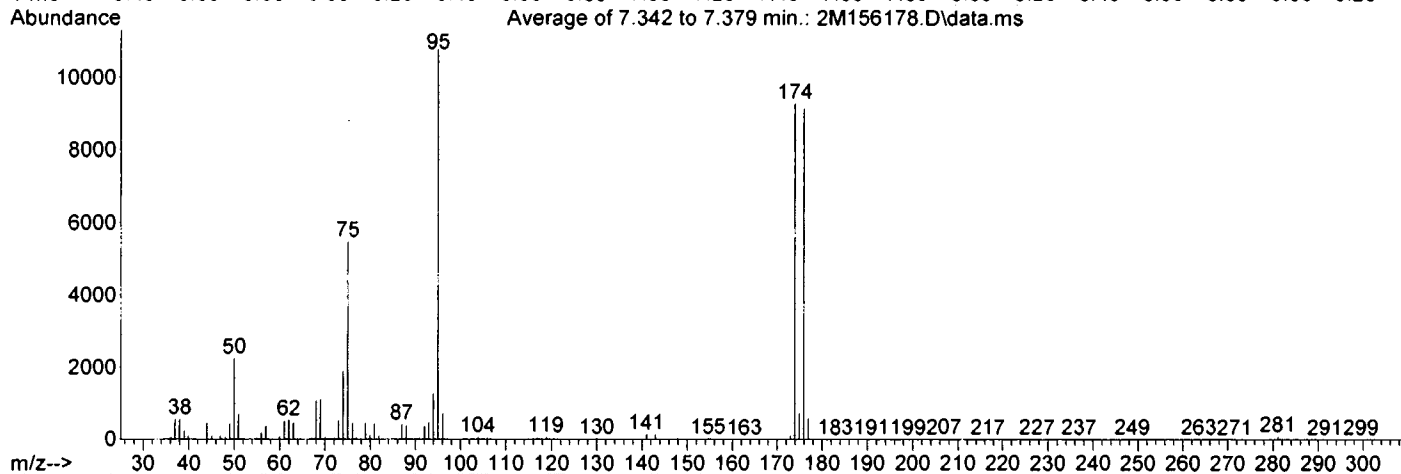
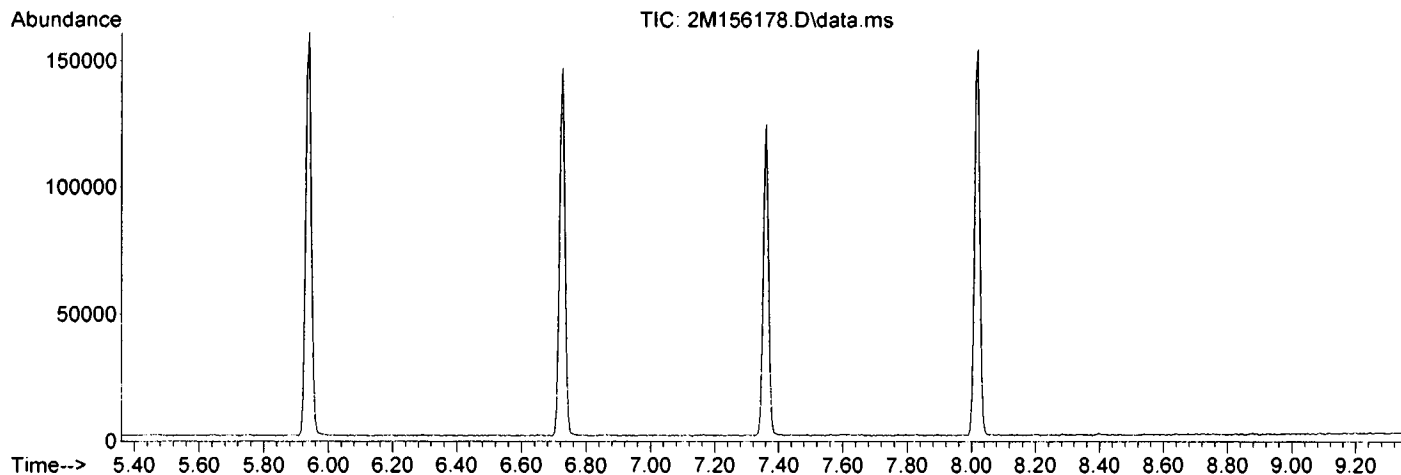
Tgt Mass	Rel Mass	Lo Lim	Hi Lim	Rel Abund	Raw Abund	Pass/ Fail
50	95	15	40	20.8	2246	PASS
75	95	30	60	50.8	5472	PASS
95	95	100	100	100.0	10778	PASS
96	95	5	9	6.7	720	PASS
173	174	0.00	2	1.1	101	PASS
174	95	50	100	86.0	9272	PASS
175	174	5	9	7.9	731	PASS
176	174	95	101	98.6	9138	PASS
177	176	5	9	6.4	587	PASS

Data File	Sample Number	Analysis Date:
2M156181.D	CAL @0.5 PPB	08/31/21 20:31
2M156182.D	CAL @1 PPB	08/31/21 20:51
2M156183.D	CAL @ 5 PPB	08/31/21 21:10
2M156184.D	CAL @10 PPB	08/31/21 21:30
2M156185.D	CAL @20 PPB	08/31/21 21:50
2M156186.D	CAL @50 PPB	08/31/21 22:09
2M156187.D	CAL @500 PPB	08/31/21 22:29
2M156189.D	CAL @250 PPB	08/31/21 23:08
2M156191.D	CAL @100 PPB	08/31/21 23:47
2M156192.D	250 PPB	09/01/21 00:07
2M156196.D	STD	09/01/21 01:25
2M156197.D	ICV	09/01/21 01:44
2M156198.D	BLK	09/01/21 02:04

Data Path : G:\GcMsData\2021\GCMS_2\Data\08-31-21\
 Data File : 2M156178.D
 Acq On : 31 Aug 2021 19:36
 Operator : WP
 Sample : BFB TUNE
 Misc : A,5ML
 ALS Vial : 18 Sample Multiplier: 1

Integration File: RTEINT.P

Method : G:\GcMsData\2021\GCMS_2\MethodQt\2M_A0625.M
 Title : @GCMS_2,ug,624,8260
 Last Update : Fri Jun 25 16:49:17 2021



Spectrum Information: Average of 7.342 to 7.379 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.8	2246	PASS
75	95	30	60	50.8	5472	PASS
95	95	100	100	100.0	10778	PASS
96	95	5	9	6.7	720	PASS
173	174	0.00	2	1.1	101	PASS
174	95	50	100	86.0	9272	PASS
175	174	5	9	7.9	731	PASS
176	174	95	101	98.6	9138	PASS
177	176	5	9	6.4	587	PASS

Form 5

Tune Name: BFB TUNE
Instrument: GCMS I

Data File: 1M152471.D
Analysis Date: 09/14/21 15:51
Method: EPA 8260D

Tune Scan/Time Range: Average of 7.566 to 7.608 min

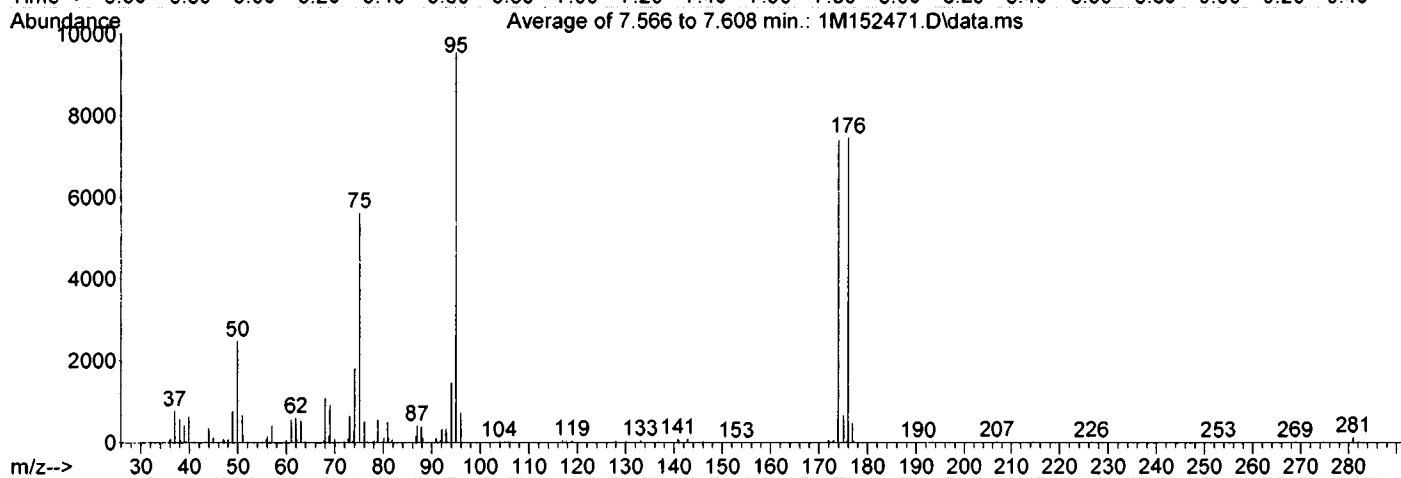
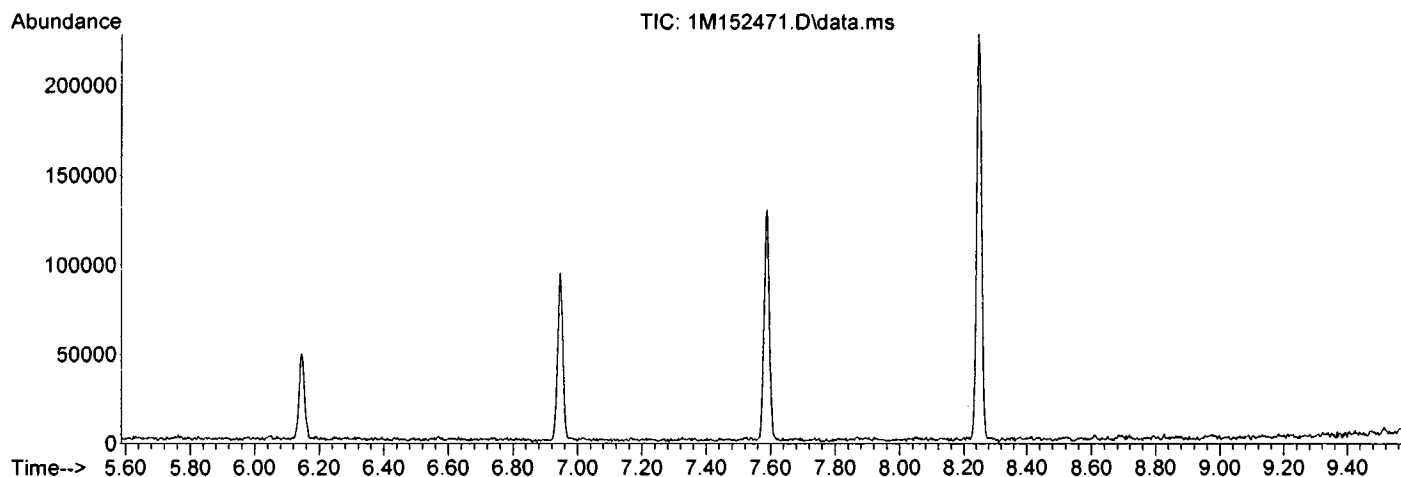
Tgt Mass	Rel Mass	Lo Lim	Hi Lim	Rel Abund	Raw Abund	Pass/ Fail
50	95	15	40	25.9	2476	PASS
75	95	30	60	58.9	5625	PASS
95	95	100	100	100.0	9548	PASS
96	95	5	9	7.7	732	PASS
173	174	0.00	2	0.7	54	PASS
174	95	50	100	77.6	7411	PASS
175	174	5	9	9.0	666	PASS
176	174	95	101	100.8	7470	PASS
177	176	5	9	6.4	477	PASS

Data File	Sample Number	Analysis Date:
1M152474.D	CAL @ 0.5 PPB	09/14/21 16:49
1M152475.D	CAL @ 1 PPB	09/14/21 17:09
1M152476.D	CAL @ 5 PPB	09/14/21 17:29
1M152477.D	CAL @ 2 PPB	09/14/21 17:49
1M152478.D	CAL @ 20 PPB	09/14/21 18:10
1M152479.D	CAL @ 50 PPB	09/14/21 18:30
1M152480.D	CAL @ 500 PPB	09/14/21 18:50
1M152482.D	CAL @ 250 PPB	09/14/21 19:31
1M152484.D	CAL @ 100 PPB	09/14/21 20:11
1M152487.D	ICV	09/14/21 21:12

Data Path : G:\GcMsData\2021\GCMS_1\Data\09-14-21\
 Data File : 1M152471.D
 Acq On : 14 Sep 2021 15:51
 Operator : WP
 Sample : BFB TUNE
 Misc : S,5G
 ALS Vial : 5 Sample Multiplier: 1

Integration File: RTEINT.P

Method : G:\GcMsData\2021\GCMS_1\MethodQt\1M_S0908.M
 Title : @GCMS_1,ug,624,8260
 Last Update : Thu Sep 09 15:44:33 2021



Spectrum Information: Average of 7.566 to 7.608 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	25.9	2476	PASS
75	95	30	60	58.9	5625	PASS
95	95	100	100	100.0	9548	PASS
96	95	5	9	7.7	732	PASS
173	174	0.00	2	0.7	54	PASS
174	95	50	100	77.6	7411	PASS
175	174	5	9	9.0	666	PASS
176	174	95	101	100.8	7470	PASS
177	176	5	9	6.4	477	PASS

Form 5

Tune Name: BFB TUNE
Instrument: GCMS 6

Data File: 6M144906.D
Analysis Date: 09/15/21 19:07
Method: EPA 8260D

Tune Scan/Time Range: Average of 7.367 to 7.409 min

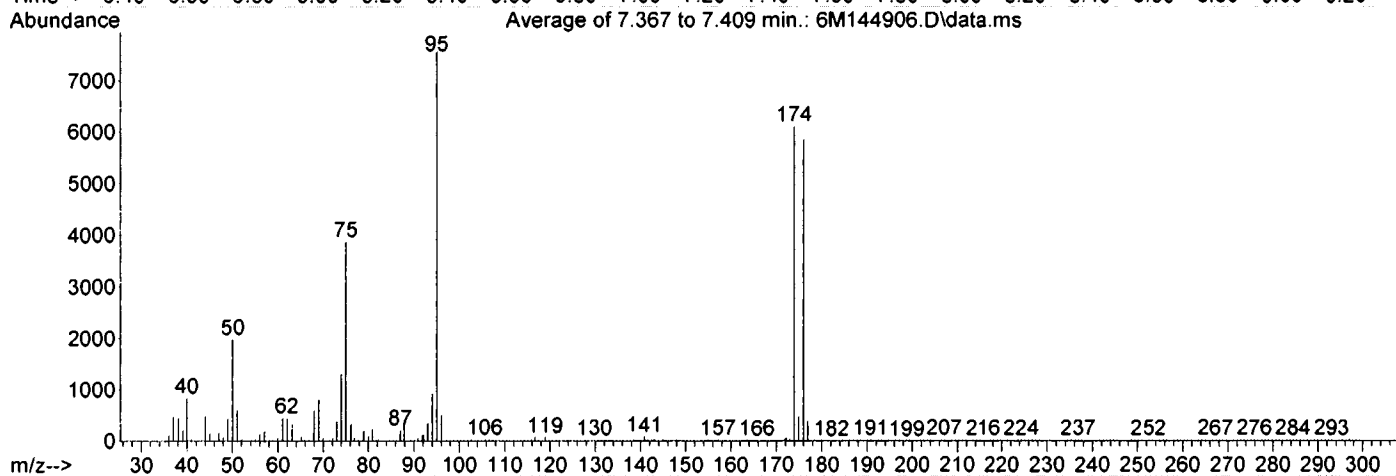
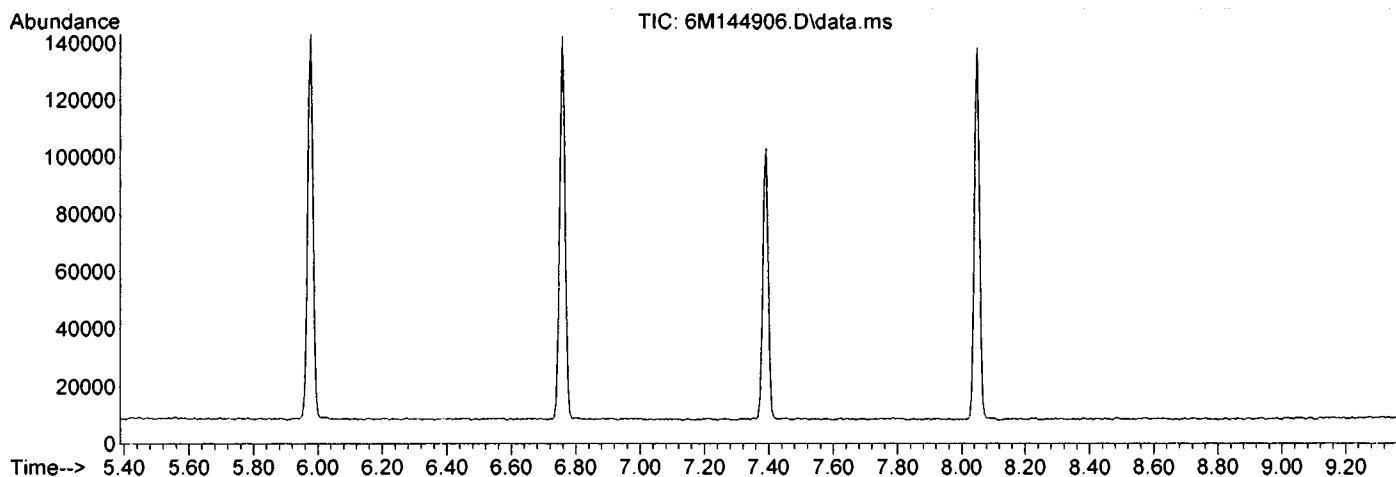
Tgt Mass	Rel Mass	Lo Lim	Hi Lim	Rel Abund	Raw Abund	Pass/ Fail
50	95	15	40	26.2	1981	PASS
75	95	30	60	51.2	3874	PASS
95	95	100	100	100.0	7571	PASS
96	95	5	9	6.8	513	PASS
173	174	0.00	2	0.6	36	PASS
174	95	50	100	80.7	6111	PASS
175	174	5	9	7.7	472	PASS
176	174	95	101	95.8	5854	PASS
177	176	5	9	6.7	395	PASS

Data File	Sample Number	Analysis Date:
6M144909.D	CAL @ 0.5 PPB	09/15/21 20:13
6M144910.D	CAL @ 1 PPB	09/15/21 20:34
6M144911.D	CAL @ 2 PPB	09/15/21 20:55
6M144912.D	CAL @ 5 PPB	09/15/21 21:16
6M144913.D	CAL @ 20 PPB	09/15/21 21:36
6M144914.D	CAL @ 50 PPB	09/15/21 21:57
6M144915.D	CAL @ 500 PPB	09/15/21 22:18
6M144917.D	CAL @ 250 PPB	09/15/21 22:59
6M144919.D	CAL @ 100 PPB	09/15/21 23:40
6M144922.D	ICV	09/16/21 00:42

Data Path : G:\GcMsData\2021\GCMS_6\Data\09-15-21\
 Data File : 6M144906.D
 Acq On : 15 Sep 2021 19:07
 Operator : WP
 Sample : BFB TUNE
 Misc : S,5G
 ALS Vial : 3 Sample Multiplier: 1

Integration File: RTEINT.P

Method : G:\GcMsData\2021\GCMS_6\MethodQt\6M_S0915.M
 Title : @GCMS_6,ug,624,8260
 Last Update : Thu Sep 16 14:20:25 2021



Spectrum Information: Average of 7.367 to 7.409 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	26.2	1981	PASS
75	95	30	60	51.2	3874	PASS
95	95	100	100	100.0	7571	PASS
96	95	5	9	6.8	513	PASS
173	174	0.00	2	0.6	36	PASS
174	95	50	100	80.7	6111	PASS
175	174	5	9	7.7	472	PASS
176	174	95	101	95.8	5854	PASS
177	176	5	9	6.7	395	PASS

Form 5

Tune Name: BFB TUNE

Data File: 2M156789.D

Instrument: GCMS 2

Analysis Date: 09/15/21 16:22

Method: EPA 8260D

Tune Scan/Time Range: Average of 7.348 to 7.354 min

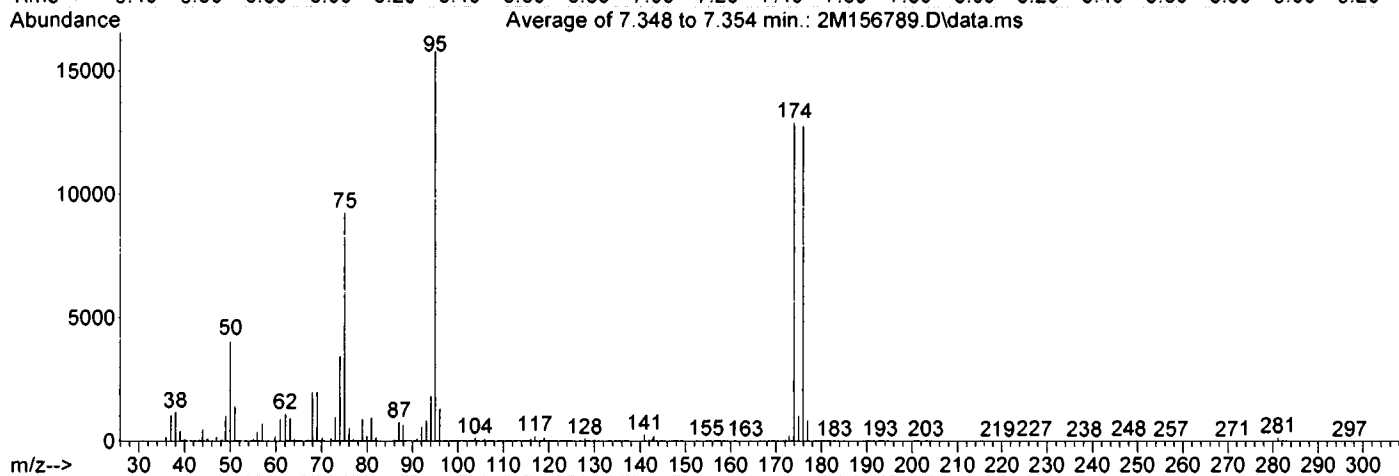
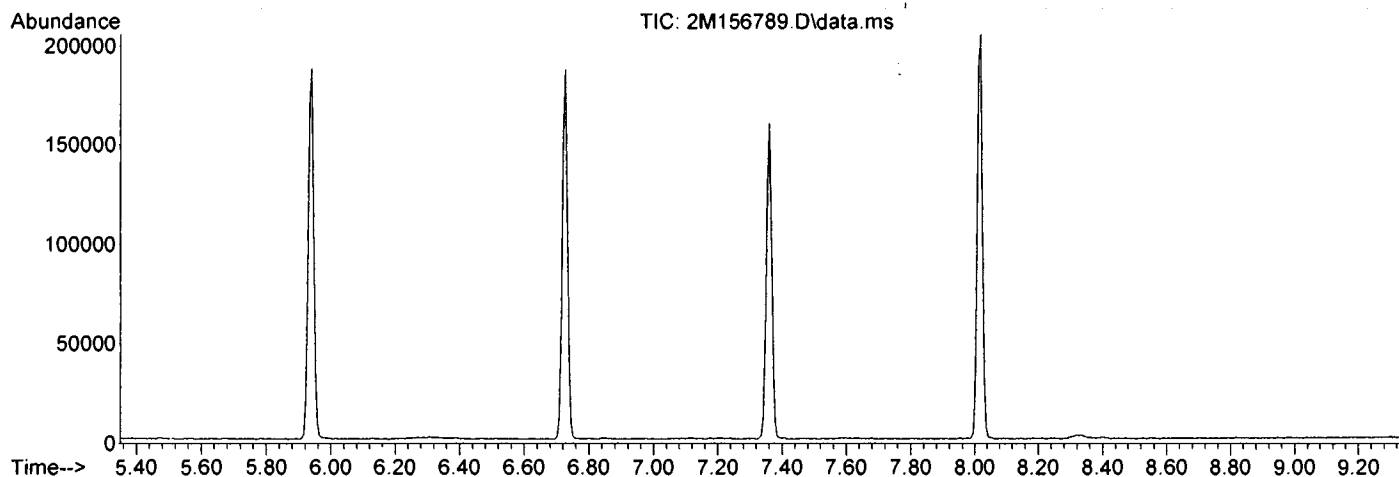
Tgt Mass	Rel Mass	Lo Lim	Hi Lim	Rel Abund	Raw Abund	Pass/ Fail
50	95	15	40	26.1	4129	PASS
75	95	30	60	58.6	9266	PASS
95	95	100	100	100.0	15799	PASS
96	95	5	9	8.3	1310	PASS
173	174	0.00	2	1.7	217	PASS
174	95	50	100	81.7	12908	PASS
175	174	5	9	8.0	1033	PASS
176	174	95	101	98.9	12767	PASS
177	176	5	9	6.6	846	PASS

Data File	Sample Number	Analysis Date:
2M156791.D	CAL @ 20 PPB	09/15/21 16:57
2M156792.D	20 PPB	09/15/21 17:16
2M156793.D	BLK	09/15/21 17:36
2M156794.D	BLK	09/15/21 17:58
2M156795.D	DAILY BLANK	09/15/21 18:17
2M156796.D	DAILY BLANK	09/15/21 18:37
2M156797.D	AD25978-015	09/15/21 18:56
2M156798.D	AD25978-017	09/15/21 19:16
2M156799.D	AD25973-004	09/15/21 19:36
2M156800.D	AD25973-005	09/15/21 19:55
2M156801.D	25889-013(5X)(T)	09/15/21 20:15
2M156802.D	AD25889-012(T)	09/15/21 20:35
2M156803.D	AD25889-013(T)	09/15/21 20:54
2M156804.D	AD25918-003	09/15/21 21:14
2M156805.D	AD25951-002(5X)	09/15/21 21:33
2M156806.D	AD25963-004	09/15/21 21:53
2M156807.D	MBS96744	09/15/21 22:13
2M156808.D	MBS96745	09/15/21 22:32
2M156809.D	AD25889-013(T:M)	09/15/21 22:52
2M156810.D	AD25889-013(T:M)	09/15/21 23:11
2M156811.D	BLK	09/15/21 23:31
2M156812.D	BLK	09/15/21 23:50
2M156813.D	AD25948-004	09/16/21 00:10
2M156814.D	AD25968-006	09/16/21 00:29
2M156815.D	AD25978-015	09/16/21 00:49
2M156816.D	AD25963-003	09/16/21 01:08
2M156817.D	AD25978-003	09/16/21 01:28
2M156818.D	AD25978-005	09/16/21 01:48
2M156819.D	AD25978-007	09/16/21 02:07
2M156820.D	AD25978-009	09/16/21 02:27
2M156821.D	AD25978-011	09/16/21 02:46
2M156822.D	AD25978-013	09/16/21 03:06
2M156823.D	AD25973-001	09/16/21 03:26
2M156824.D	AD25973-002	09/16/21 03:45
2M156825.D	AD25973-003	09/16/21 04:05
2M156827.D	AD25978-001(5X)	09/16/21 04:25
2M156828.D	BLK	09/16/21 04:44
2M156829.D	BLK	09/16/21 05:04
2M156830.D	BLK	09/16/21 05:23
2M156831.D	BLK	09/16/21 05:43
2M156832.D	BLK	09/16/21 06:03
2M156833.D	BLK	09/16/21 06:22

Data Path : G:\GcMsData\2021\GCMS_2\Data\09-15-21\
 Data File : 2M156789.D
 Acq On : 15 Sep 2021 16:22
 Operator : WP
 Sample : BFB TUNE
 Misc : A, 5ML
 ALS Vial : 44 Sample Multiplier: 1

Integration File: RTEINT.P

Method : G:\GcMsData\2021\GCMS_2\MethodQt\2M_A0831.M
 Title : @GCMS_2,ug,624,8260
 Last Update : Wed Sep 01 14:42:05 2021



Spectrum Information: Average of 7.348 to 7.354 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	26.1	4129	PASS
75	95	30	60	58.6	9266	PASS
95	95	100	100	100.0	15799	PASS
96	95	5	9	8.3	1310	PASS
173	174	0.00	2	1.7	217	PASS
174	95	50	100	81.7	12908	PASS
175	174	5	9	8.0	1033	PASS
176	174	95	101	98.9	12767	PASS
177	176	5	9	6.6	846	PASS

Form 5

Tune Name: BFB TUNE

Data File: 1M152529.D

Instrument: GCMS I

Analysis Date: 09/15/21 16:30

Method: EPA 8260D

Tune Scan/Time Range: Average of 7.592 to 7.602 min

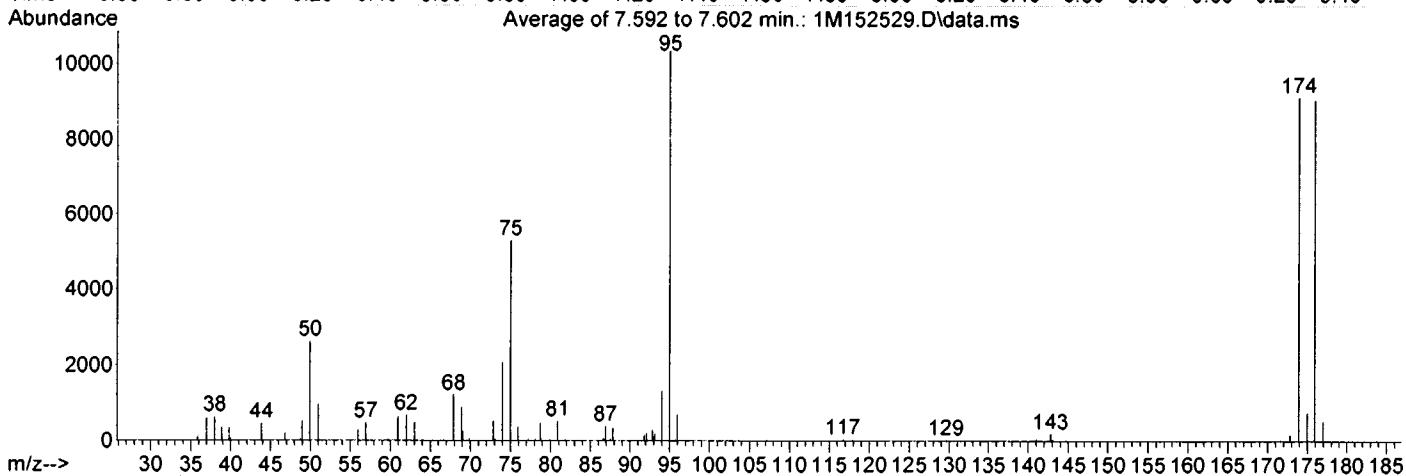
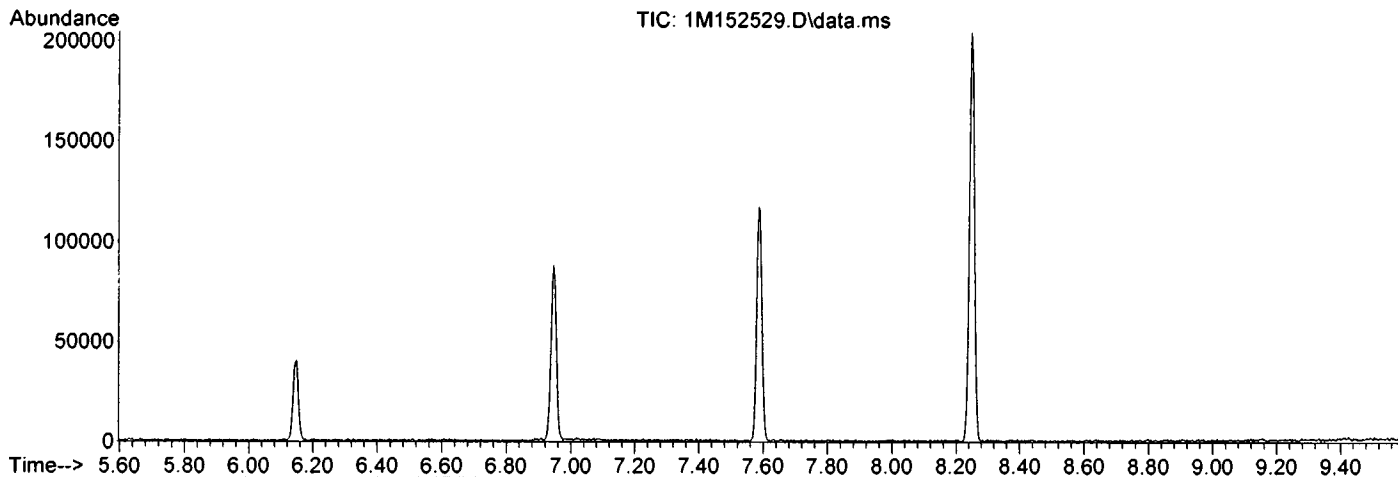
Tgt Mass	Rel Mass	Lo Lim	Hi Lim	Rel Abund	Raw Abund	Pass/ Fail
50	95	15	40	25.4	2636	PASS
75	95	30	60	51.3	5319	PASS
95	95	100	100	100.0	10360	PASS
96	95	5	9	6.8	708	PASS
173	174	0.00	2	1.9	176	PASS
174	95	50	100	88.2	9138	PASS
175	174	5	9	8.3	760	PASS
176	174	95	101	99.1	9055	PASS
177	176	5	9	5.9	533	PASS

Data File	Sample Number	Analysis Date:
1M152531.D	CAL @ 50 PPB	09/15/21 17:05
1M152532.D	50 PPB	09/15/21 17:25
1M152533.D	BLK	09/15/21 17:46
1M152534.D	BLK	09/15/21 18:06
1M152535.D	BLK	09/15/21 18:26
1M152536.D	BLK	09/15/21 18:46
1M152537.D	BLK	09/15/21 19:07
1M152538.D	DAILY BLANK	09/15/21 19:27
1M152539.D	BLK	09/15/21 19:47
1M152540.D	1 PPB	09/15/21 20:07
1M152541.D	1 PPB	09/15/21 20:28
1M152542.D	AD25964-001	09/15/21 20:48
1M152543.D	AD25964-005	09/15/21 21:08
1M152544.D	AD25964-007(5X)	09/15/21 21:28
1M152545.D	AD25964-008	09/15/21 21:48
1M152546.D	MBS96743	09/15/21 22:09
1M152547.D	BLK	09/15/21 22:29
1M152548.D	AD25964-008(5X)	09/15/21 22:49
1M152549.D	AD25964-007(5X)	09/15/21 23:09
1M152550.D	AD25964-001(MS)	09/15/21 23:30
1M152551.D	AD25964-001(MSD)	09/15/21 23:50
1M152552.D	BLK	09/16/21 00:10
1M152553.D	BLK	09/16/21 00:30
1M152554.D	BLK	09/16/21 00:50
1M152555.D	AD25976-003	09/16/21 01:11
1M152556.D	AD25976-005	09/16/21 01:31
1M152557.D	AD25976-007	09/16/21 01:51
1M152558.D	AD25896-003	09/16/21 02:11
1M152559.D	AD25896-002	09/16/21 02:31
1M152560.D	AD25896-001	09/16/21 02:52
1M152561.D	AD25945-001 (5X)	09/16/21 03:12
1M152562.D	BLK	09/16/21 03:32
1M152563.D	AD25947-001	09/16/21 03:52
1M152564.D	BLK	09/16/21 04:12

Data Path : G:\GcMsData\2021\GCMS_1\Data\09-15-21\
 Data File : 1M152529.D
 Acq On : 15 Sep 2021 16:30
 Operator : WP
 Sample : BFB TUNE
 Misc : S,5G
 ALS Vial : 63 Sample Multiplier: 1

Integration File: RTEINT.P

Method : G:\GcMsData\2021\GCMS_1\MethodQt\1M_S0914.M
 Title : @GCMS_1,ug,624,8260
 Last Update : Tue Sep 14 22:35:33 2021



Spectrum Information: Average of 7.592 to 7.602 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	25.4	2636	PASS
75	95	30	60	51.3	5319	PASS
95	95	100	100	100.0	10360	PASS
96	95	5	9	6.8	708	PASS
173	174	0.00	2	1.9	176	PASS
174	95	50	100	88.2	9138	PASS
175	174	5	9	8.3	760	PASS
176	174	95	101	99.1	9055	PASS
177	176	5	9	5.9	533	PASS

Form 5

Tune Name: BFB TUNE

Data File: 2M156835.D

Instrument: GCMS 2

Analysis Date: 09/16/21 07:01

Method: EPA 8260D

Tune Scan/Time Range: Average of 7.348 to 7.367 min

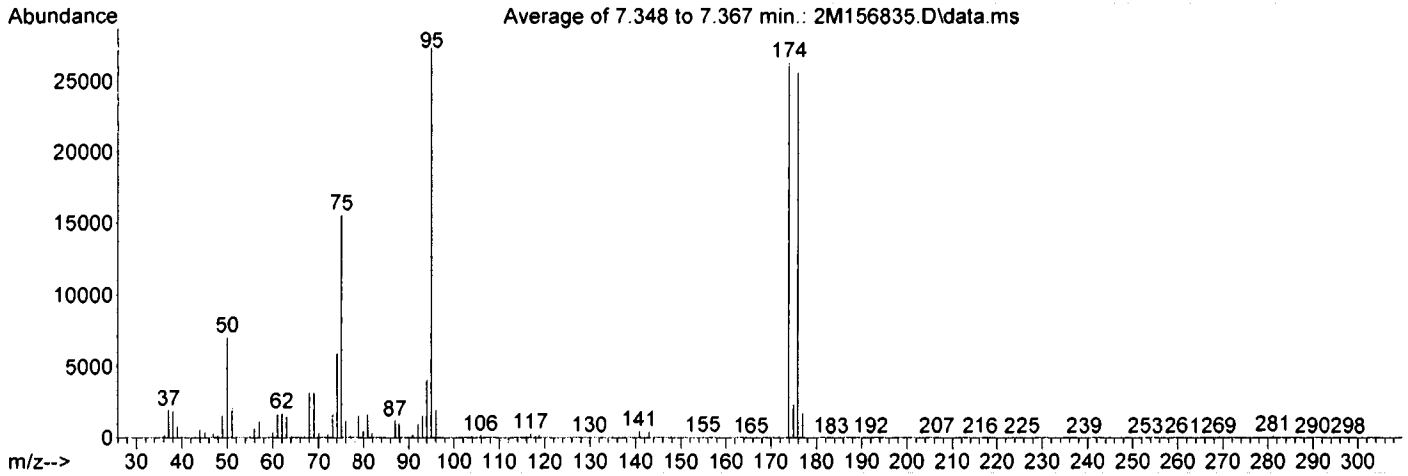
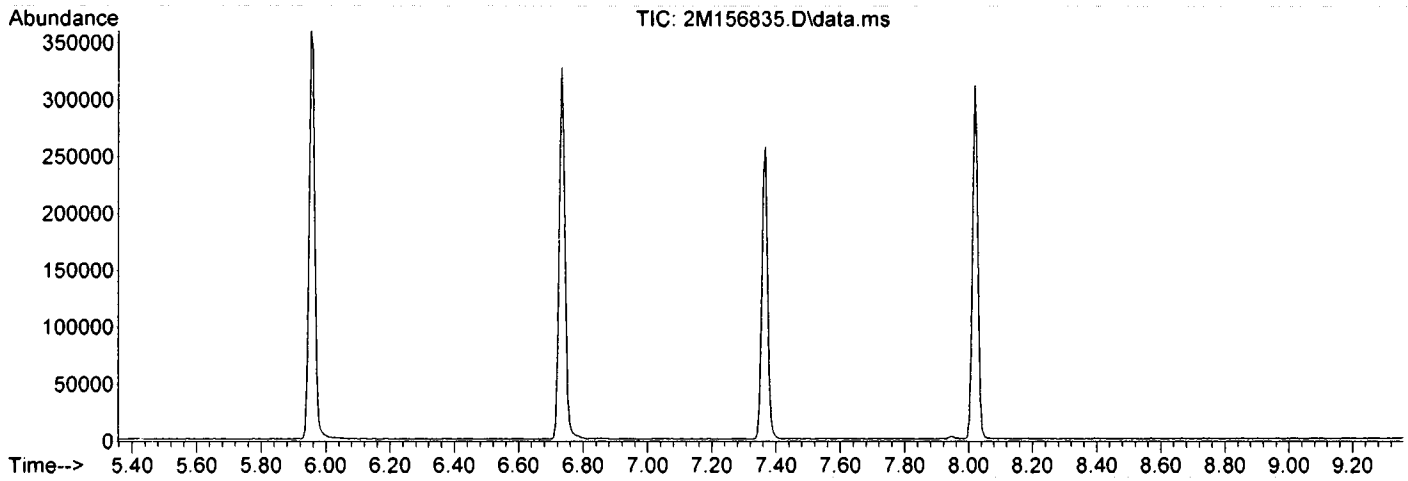
Tgt Mass	Rel Mass	Lo Lim	Hi Lim	Rel Abund	Raw Abund	Pass/ Fail
50	95	15	40	25.8	7072	PASS
75	95	30	60	57.0	15613	PASS
95	95	100	100	100.0	27377	PASS
96	95	5	9	7.2	1984	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	96.3	26363	PASS
175	174	5	9	8.9	2344	PASS
176	174	95	101	97.1	25596	PASS
177	176	5	9	6.8	1750	PASS

Data File	Sample Number	Analysis Date:
2M156836.D	20 PPB	09/16/21 07:21
2M156837.D	CAL @ 20 PPB	09/16/21 07:40
2M156840.D	DAILY BLANK	09/16/21 08:39
2M156841.D	DAILY BLANK	09/16/21 08:58
2M156842.D	AD25947-003(80uL)	09/16/21 09:18
2M156843.D	AD25947-002(80uL)	09/16/21 09:37
2M156844.D	AD25947-001(MS)	09/16/21 09:57
2M156845.D	AD25947-001(MSD)	09/16/21 10:16
2M156846.D	MBS96748	09/16/21 10:36
2M156847.D	MBS96749	09/16/21 10:55
2M156848.D	AD25889-012(T:M)	09/16/21 11:15
2M156849.D	AD25889-012(T:M)	09/16/21 11:34
2M156850.D	AD25947-001	09/16/21 11:54
2M156851.D	EF-3-V-13600(0910)	09/16/21 12:13
2M156852.D	AD25889-014(T)	09/16/21 12:33
2M156853.D	AD25889-015(T)	09/16/21 12:52
2M156854.D	AD25889-016(T)	09/16/21 13:12
2M156855.D	AD25889-017(T)	09/16/21 13:32
2M156856.D	AD25889-018(T)	09/16/21 13:51
2M156857.D	AD25889-019(T)	09/16/21 14:11
2M156858.D	AD25889-020(T)	09/16/21 14:31
2M156859.D	AD25976-011	09/16/21 14:50
2M156860.D	AD25889-021(T)	09/16/21 15:10
2M156861.D	AD25889-022(T)	09/16/21 15:29
2M156862.D	AD25889-023(T)	09/16/21 15:49
2M156863.D	AD25973-003	09/16/21 16:09
2M156864.D	AD25978-009	09/16/21 16:28
2M156865.D	AD25781-003	09/16/21 16:48
2M156866.D	AD25978-001(5X)	09/16/21 17:08
2M156867.D	BLK	09/16/21 17:27
2M156868.D	AD25974-001	09/16/21 17:47
2M156869.D	AD25996-002	09/16/21 18:06
2M156870.D	AD25996-001	09/16/21 18:26
2M156871.D	MBS96752	09/16/21 18:46

Data Path : G:\GcMsData\2021\GCMS_2\Data\0916-21\
 Data File : 2M156835.D
 Acq On : 16 Sep 2021 07:01
 Operator : WP
 Sample : BFB TUNE
 Misc : A, 5ML
 ALS Vial : 8 Sample Multiplier: 1

Integration File: RTEINT.P

Method : G:\GcMsData\2021\GCMS_2\MethodQt\2M_A0831.M
 Title : @GCMS_2,ug,624,8260
 Last Update : Wed Sep 01 14:42:05 2021



Spectrum Information: Average of 7.348 to 7.367 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	25.8	7072	PASS
75	95	30	60	57.0	15613	PASS
95	95	100	100	100.0	27377	PASS
96	95	5	9	7.2	1984	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	96.3	26363	PASS
175	174	5	9	8.9	2344	PASS
176	174	95	101	97.1	25596	PASS
177	176	5	9	6.8	1750	PASS

Form 5

Tune Name: BFB TUNE
Instrument: GCMS 6

Data File: 6M144928.D
Analysis Date: 09/16/21 13:58
Method: EPA 8260D

Tune Scan/Time Range: Average of 7.366 to 7.409 min

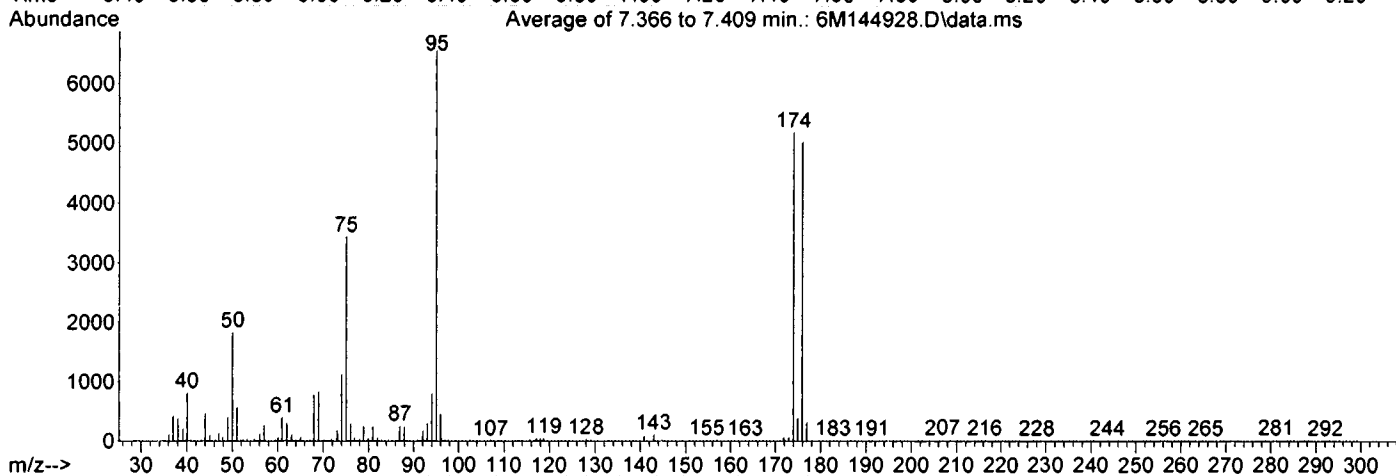
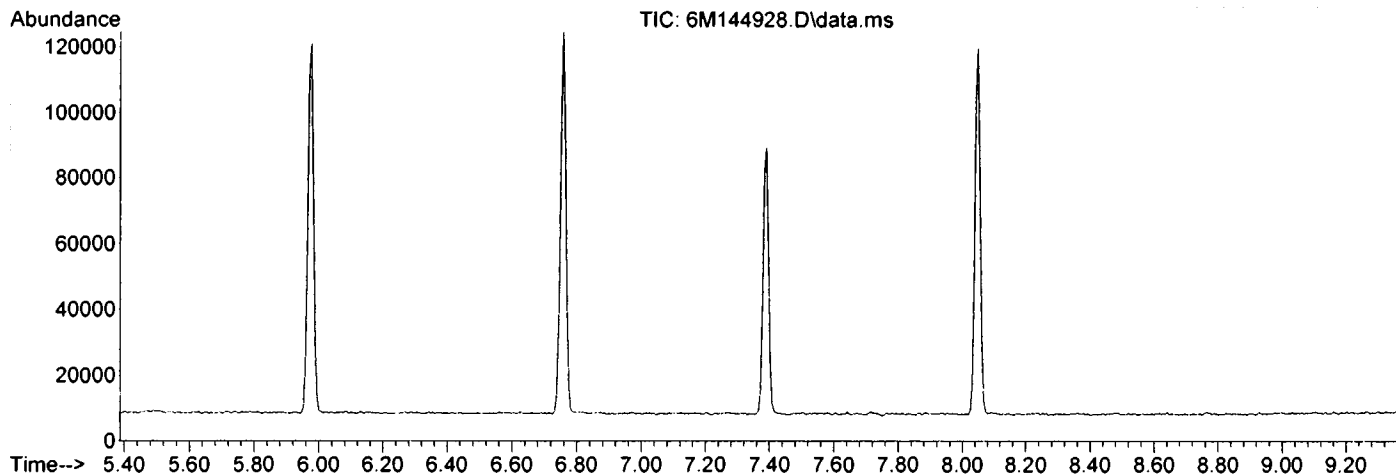
Tgt Mass	Rel Mass	Lo Lim	Hi Lim	Rel Abund	Raw Abund	Pass/ Fail
50	95	15	40	27.9	1833	PASS
75	95	30	60	52.5	3445	PASS
95	95	100	100	100.0	6559	PASS
96	95	5	9	6.9	454	PASS
173	174	0.00	2	1.4	72	PASS
174	95	50	100	79.1	5185	PASS
175	174	5	9	7.5	391	PASS
176	174	95	101	96.9	5023	PASS
177	176	5	9	6.5	327	PASS

Data File	Sample Number	Analysis Date:
6M144929.D	STD	09/16/21 14:13
6M144930.D	CAL @ 50 PPB	09/16/21 14:34
6M144931.D	50 PPB	09/16/21 14:54
6M144932.D	BLK	09/16/21 15:15
6M144933.D	BLK	09/16/21 15:36
6M144934.D	DAILY BLANK	09/16/21 15:56
6M144935.D	AD25919-009	09/16/21 16:17
6M144936.D	MBS96753	09/16/21 16:38
6M144937.D	AD25919-009(MS)	09/16/21 16:58
6M144938.D	AD25919-009(MSD)	09/16/21 17:19
6M144939.D	BLK	09/16/21 17:40
6M144940.D	AD25919-001	09/16/21 18:00
6M144941.D	AD25919-003	09/16/21 18:21
6M144942.D	AD25919-005	09/16/21 18:42
6M144943.D	AD25919-007	09/16/21 19:02
6M144944.D	AD25919-011	09/16/21 19:28
6M144945.D	AD25919-013	09/16/21 19:49
6M144946.D	AD25919-015	09/16/21 20:10
6M144947.D	AD25919-017	09/16/21 20:30
6M144948.D	AD25919-019	09/16/21 20:51
6M144949.D	AD25976-003	09/16/21 21:12
6M144950.D	AD25976-001	09/16/21 21:32
6M144951.D	AD25976-009	09/16/21 21:53
6M144952.D	AD25972-008	09/16/21 22:13
6M144953.D	AD25972-009	09/16/21 22:34
6M144954.D	AD25972-010	09/16/21 22:55
6M144955.D	AD25972-011	09/16/21 23:15
6M144956.D	AD25972-012	09/16/21 23:36
6M144957.D	AD25995-001	09/16/21 23:56
6M144958.D	AD25995-003	09/17/21 00:17
6M144959.D	AD25995-005	09/17/21 00:38
6M144960.D	MBS96755	09/17/21 00:58
6M144961.D	AD25974-002	09/17/21 01:19
6M144962.D	AD26004-002	09/17/21 01:40
6M144963.D	AD26004-004	09/17/21 02:00
6M144964.D	AD26004-005	09/17/21 02:21
6M144965.D	AD26004-006	09/17/21 02:42
6M144966.D	BLK	09/17/21 03:02
6M144967.D	BLK	09/17/21 03:23
6M144968.D	BLK	09/17/21 03:43
6M144969.D	BLK	09/17/21 04:04

Data Path : G:\GcMsData\2021\GCMS_6\Data\09-16-21\
 Data File : 6M144928.D
 Acq On : 16 Sep 2021 13:58
 Operator : WP
 Sample : BFB TUNE
 Misc : S,5G
 ALS Vial : 25 Sample Multiplier: 1

Integration File: RTEINT.P

Method : G:\GcMsData\2021\GCMS_6\MethodQt\6M_S0915.M
 Title : @GCMS_6,ug,624,8260
 Last Update : Thu Sep 16 14:20:25 2021



Spectrum Information: Average of 7.366 to 7.409 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	27.9	1833	PASS
75	95	30	60	52.5	3445	PASS
95	95	100	100	100.0	6559	PASS
96	95	5	9	6.9	454	PASS
173	174	0.00	2	1.4	72	PASS
174	95	50	100	79.1	5185	PASS
175	174	5	9	7.5	391	PASS
176	174	95	101	96.9	5023	PASS
177	176	5	9	6.5	327	PASS

Level #	Data File	Cal Identifier	Analysis Date/Time	Level #	Data File	Cal Identifier	Analysis Date/Time	Calibration Level Concentrations																			
1	2M156185.D	CAL @20 PPB	08/31/21 21:50	2	2M156183.D	CAL @ 5 PPB	08/31/21 21:10	Lvl1 Lvl2 Lvl3 Lvl4 Lvl5 Lvl6 Lvl7 Lvl8 Lvl9																			
3	2M156184.D	CAL @10 PPB	08/31/21 21:30	4	2M156186.D	CAL @50 PPB	08/31/21 22:09																				
5	2M156191.D	CAL @100 PPB	08/31/21 23:47	6	2M156189.D	CAL @250 PPB	08/31/21 23:08																				
7	2M156187.D	CAL @500 PPB	08/31/21 22:29	8	2M156182.D	CAL @1 PPB	08/31/21 20:51																				
9	2M156181.D	CAL @0.5 PPB	08/31/21 20:31																								
Compound	Col	Mr	Fit	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	RF9	AvgRt	RT	Corr1	Corr2	%Rsd	Lvl1	Lvl2	Lvl3	Lvl4	Lvl5	Lvl6	Lvl7	Lvl8	Lvl9	
p-Ethyltoluene	1	0	Avg	2.4560	2.5351	2.8023	2.2728	2.2197	2.5098	2.4177	2.4647	---	2.4775	54	0.999	0.999	7.5	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00		
4-Chlorotoluene	1	0	Avg	1.4605	1.5924	1.6256	1.4378	1.4025	1.4254	1.4812	1.4723	---	1.4976	62	1.00	1.00	5.4	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00		
n-Propylbenzene	1	0	Avg	2.6689	2.9432	3.0500	2.7389	2.6339	2.6915	2.5573	2.8166	---	2.7674	49	0.999	1.00	6.0	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00		
Bromobenzene	1	0	Avg	1.5352	1.6760	1.7487	1.5246	1.4488	1.5053	1.5292	1.7545	---	1.5974	46	1.00	1.00	7.4	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00		
1,3,5-Trimethylbenzen	1	0	Avg	1.5867	1.6940	1.8041	1.8767	1.8468	1.6647	1.7624	1.6297	---	1.7375	57	0.999	0.999	6.1	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00		
Butyl methacrylate	1	0	Avg	0.8483	0.9026	0.9664	0.8368	0.7962	0.9000	0.9389	0.7502	---	0.8677	58	0.999	1.00	8.4	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00		
t-Butylbenzene	1	0	Avg	1.7310	1.7522	1.9145	1.8243	1.8037	1.8589	1.8060	1.7122	---	1.8077	77	1.00	1.00	3.8	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00		
1,2,4-Trimethylbenzen	1	0	Avg	1.9093	1.9995	2.0747	1.9206	1.8899	1.9460	1.8697	2.1753	---	1.9779	79	1.00	1.00	5.3	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00		
sec-Butylbenzene	1	0	Avg	2.0517	2.1194	2.3355	2.1150	2.0918	2.1685	2.0654	2.0085	---	2.1278	89	0.999	1.00	4.7	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00		
4-Isopropyltoluene	1	0	Avg	1.7117	1.7205	1.8680	1.7941	1.8027	1.8425	1.7678	1.7126	---	1.7879	96	1.00	1.00	3.4	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00		
n-Butylbenzene	1	0	Avg	1.8018	1.9171	2.0560	1.8406	1.7782	1.8394	1.7697	1.9400	---	1.8782	20	1.00	1.00	5.2	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00		
p-Diethylbenzene	1	0	Avg	0.9625	0.9748	1.0682	1.0300	1.0189	1.0597	1.0262	1.0283	---	1.0281	18	1.00	1.00	3.6	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00		
1,2,4,5-Tetramethylbe	1	0	Avg	1.1931	1.1643	1.2857	1.2791	1.2808	1.3255	1.2737	1.2173	---	1.2586	65	1.00	1.00	4.4	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00		
1,2-Dibromo-3-Chloro	1	0	Avg	0.1965	0.1709	0.1985	0.2196	0.2394	0.2563	0.2551	0.1630	---	0.2128	87	1.00	1.00	17	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00		
Camphor	1	0	Avg	0.0894	0.0870	0.1007	0.0905	0.0920	0.0937	0.0920	0.0852	0.1247	---	0.0951	91	1.00	1.00	13	20.00	50.00	100.0	500.0	1000.0	2500.0	5000.0	10.00	5.00
Hexachlorobutadiene	1	0	Avg	0.2419	0.2468	0.2658	0.2847	0.3311	0.3413	0.3233	0.2897	---	0.2919	27	0.999	1.00	13	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00		
1,2,4-Trichlorobenzen	1	0	Avg	0.5283	0.5323	0.5625	0.6106	0.6278	0.6717	0.6433	0.5303	---	0.5889	20	0.999	1.00	9.7	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00		
1,2,3-Trichlorobenzen	1	0	Avg	0.4737	0.4693	0.5216	0.5391	0.5570	0.5877	0.5546	0.5246	---	0.5289	49	0.999	1.00	7.7	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00		
Naphthalene	1	0	Avg	1.7557	1.6677	1.9021	1.8759	1.9377	1.9738	1.8487	1.7404	---	1.8493	35	0.999	1.00	5.8	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00		

Flags
 a - failed the min of criteria
 c - failed the minimum correlation coeff criteria(if applicable)

Note:
 Corr 1 = Correlation Coefficient for linear Eq.
 Corr 2 = Correlation Coefficient for quad Eq.
 Fit = Indicates whether Avg Rt, Linear, or Quadratic Curve was used for compound

Avg Rsd: 6.894

Level #	Data File	Cal Identifier	Analysis Date/Time	Level #	Data File	Cal Identifier	Analysis Date/Time	Calibration Level Concentrations
1	1M152478.D	CAL @ 20 PPB	09/14/21 18:10	2	1M152476.D	CAL @ 5 PPB	09/14/21 17:29	Lv1 Lv2 Lv3 Lv4 Lv5 Lv6 Lv7 Lv8 Lv9
3	1M152477.D	CAL @ 2 PPB	09/14/21 17:49	4	1M152479.D	CAL @ 50 PPB	09/14/21 18:30	200.0 500.0
5	1M152484.D	CAL @ 100 PPB	09/14/21 20:11	6	1M152482.D	CAL @ 250 PPB	09/14/21 19:31	200.0 500.0 1000.0 2500.0
7	1M152480.D	CAL @ 500 PPB	09/14/21 18:50	8	1M152475.D	CAL @ 1 PPB	09/14/21 17:09	20.0 50.0 100.0 250.0 500.0
9	1M152474.D	CAL @ 0.5 PPB	09/14/21 16:49					

Compound	Col	Mr	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	RF9	AvgRt	RT	Corr1	Corr2	%Red	Lv1	Lv2	Lv3	Lv4	Lv5	Lv6	Lv7	Lv8	Lv9	
p-Ethyltoluene	1	0	2.0442	2.1158	2.4231	2.1367	2.2992	2.2734	2.2222			2.22779	1.00	1.00	5.8		20.0	50.0	100.0	250.0	500.0					
4-Chlorotoluene	1	0	1.3093	1.2761	1.4306	1.3512	1.4117	1.3942	1.3673			1.36785	1.00	1.00	4.1		20.0	50.0	100.0	250.0	500.0					
n-Propylbenzene	1	0	2.5435	2.5099	2.8863	2.6449	2.7901	2.6117	2.4828	3.4183		2.74773	0.999	1.00	11		20.0	50.0	100.0	250.0	500.0					
Bromobenzene	1	0	1.1743	1.2715	1.4463	1.1986	1.2498	1.2007	1.1819			1.25770	1.00	1.00	7.6		20.0	50.0	100.0	250.0	500.0					
1,3,5-Trimethylbenzen	1	0	1.7568	1.6447	2.0107	1.7865	1.8946	1.8298	1.9372	2.2624		1.89781	0.999	1.00	10		20.0	50.0	100.0	250.0	500.0					
Butyl methacrylate	1	0	0.6184	0.7736	0.8374	0.6267	0.6720	0.6925	0.7079	1.2380		0.771782	1.00	1.00	26	0.50	20.0	50.0	100.0	250.0	500.0					
t-Butylbenzene	1	0	1.6792	1.6039	1.8557	1.7813	1.9375	1.9138	1.8842	2.3118		1.87801	1.00	1.00	11		20.0	50.0	100.0	250.0	500.0					
1,2,4-Trimethylbenzen	1	0	1.7629	1.7940	2.0414	1.8028	1.9138	1.9412	1.9306	2.8197		2.00803	1.00	1.00	17		20.0	50.0	100.0	250.0	500.0					
sec-Butylbenzene	1	0	2.2756	2.1408	2.4422	2.4058	2.6145	2.6105	2.4781	2.9767		2.49814	0.999	1.00	10		20.0	50.0	100.0	250.0	500.0					
4-Isopropyltoluene	1	0	1.8581	1.7837	2.0399	1.9502	2.1149	2.1979	2.1471	2.6872		2.10821	1.00	1.00	13		20.0	50.0	100.0	250.0	500.0					
n-Butylbenzene	1	0	2.2608	2.1708	2.3844	2.3468	2.5674	2.6655	2.5452	2.9782		2.49844	0.999	1.00	10		20.0	50.0	100.0	250.0	500.0					
p-Diethylbenzene	1	0	1.0750	1.0710	1.2552	1.1682	1.2778	1.3451	1.3151			1.22843	1.00	1.00	9.2		20.0	50.0	100.0	250.0	500.0					
1,2,4,5-Tetramethylbe	1	0	1.4290	1.3036	1.5532	1.5255	1.6937	1.8514	1.7707			1.59889	0.999	0.999	12		20.0	50.0	100.0	250.0	500.0					
1,2-Dibromo-3-Chloro	1	0	0.1255	0.1283	0.1291	0.1294	0.1348	0.1516	0.1345			0.133894	0.996	0.999	6.6	0.05	20.0	50.0	100.0	250.0	500.0					
Camphor	1	0	0.0535	0.0633	0.0717	0.0550	0.0637	0.0665	0.0558			0.0614938	0.992	0.999	11		20.0	50.0	100.0	250.0	500.0					
Hexachlorobutadiene	1	0	0.4094	0.3744	0.3809	0.4241	0.4980	0.4989	0.4585			0.435952	0.998	1.00	12		20.0	50.0	100.0	250.0	500.0					
1,2,4-Trichlorobenzen	1	0	0.7172	0.6624	0.7618	0.7371	0.7863	0.8389	0.7824			0.755944	0.999	1.00	7.5	0.20	20.0	50.0	100.0	250.0	500.0					
1,2,3-Trichlorobenzen	1	0	0.7047	0.6647	0.7114	0.7157	0.7502	0.7864	0.7228			0.722974	0.998	1.00	5.3		20.0	50.0	100.0	250.0	500.0					
Naphthalene	1	0	1.7410	1.7260	1.9130	1.7908	1.8974	2.0244	1.7870	2.4401		1.92960	0.996	0.999	12		20.0	50.0	100.0	250.0	500.0					

Flags
a - failed the min of criteria
c - failed the minimum correlation coeff criteria (if applicable)

Note:
Corr 1 = Correlation Coefficient for linear Eq.
Corr 2 = Correlation Coefficient for quad Eq.
Fit = Indicates whether Avg Rf, Linear, or Quadratic Curve was used for compound.

Avg Rsd: 8.946

Level #	Data File	Cal Identifier	Analysis Date/Time	Level #	Data File	Cal Identifier	Analysis Date/Time	Calibration Level Concentrations																					
1	6M144913.D	CAL @ 20 PPB	09/15/21 21:36	2	6M144912.D	CAL @ 5 PPB	09/15/21 21:16	Lvl1	Lvl2	Lvl3	Lvl4	Lvl5	Lvl6	Lvl7	Lvl8	Lvl9													
3	6M144911.D	CAL @ 2 PPB	09/15/21 20:55	4	6M144914.D	CAL @ 50 PPB	09/15/21 21:57	20.00	5.00	2.00	50.00	100.0	250.0	500.0	500.0														
5	6M144919.D	CAL @ 100 PPB	09/15/21 23:40	6	6M144917.D	CAL @ 250 PPB	09/15/21 22:59	20.00	5.00	2.00	50.00	100.0	250.0	500.0	1.00														
7	6M144915.D	CAL @ 500 PPB	09/15/21 22:18	8	6M144910.D	CAL @ 1 PPB	09/15/21 20:34	20.00	5.00	2.00	50.00	100.0	250.0	500.0	1.00														
9	6M144909.D	CAL @ 0.5 PPB	09/15/21 20:13					20.00	5.00	2.00	50.00	100.0	250.0	500.0	1.00														
Compound	Col	Mr	Fit	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	RF9	AvgRt	RT	Corr1	Corr2	%Rsd	Lvl1	Lvl2	Lvl3	Lvl4	Lvl5	Lvl6	Lvl7	Lvl8	Lvl9			
p-Ethyltoluene	1	0	Avg	2.3782	2.3685	2.3716	2.3795	2.5061	2.7661	2.5352	---	---	2.4775	8	0.998	0.999	5.9	20.00	5.00	2.00	50.00	100.0	250.0	500.0	500.0				
4-Chlorotoluene	1	0	Avg	1.5321	1.5595	1.5126	1.4977	1.5859	1.7125	1.5288	---	---	1.5676	5	0.997	0.999	4.7	20.00	5.00	2.00	50.00	100.0	250.0	500.0	500.0				
n-Propylbenzene	1	0	Avg	2.8104	2.8693	2.8504	2.8416	3.0102	3.2459	2.9490	2.5002	---	2.8875	2	0.998	0.999	7.3	20.00	5.00	2.00	50.00	100.0	250.0	500.0	1.00				
Bromobenzene	1	0	Avg	1.4774	1.5929	1.6483	1.4765	1.5648	1.6786	1.5540	---	---	1.5774	9	0.998	0.999	4.9	20.00	5.00	2.00	50.00	100.0	250.0	500.0	500.0				
1,3,5-Trimethylbenzen	1	0	Avg	1.9807	1.9260	1.8133	1.9102	2.0718	2.2129	2.0649	1.4820	---	1.9376	6	0.999	0.999	11	20.00	5.00	2.00	50.00	100.0	250.0	500.0	1.00				
Butyl methacrylate	1	0	Avg	0.9183	0.8802	0.8393	0.9082	0.9864	1.0595	0.9942	0.6686	---	0.9077	1	0.999	0.999	13	20.00	5.00	2.00	50.00	100.0	250.0	500.0	1.00				
t-Butylbenzene	1	0	Avg	1.8580	1.9463	1.7530	1.8732	2.0350	2.2199	2.0774	1.5770	---	1.9278	1	0.999	0.999	10	20.00	5.00	2.00	50.00	100.0	250.0	500.0	1.00				
1,2,4-Trimethylbenzen	1	0	Avg	1.9624	1.9225	1.8346	1.9454	2.0788	2.2782	2.1103	1.7743	---	1.9978	3	0.998	0.999	8.1	20.00	5.00	2.00	50.00	100.0	250.0	500.0	1.00				
sec-Butylbenzene	1	0	Avg	2.4687	2.4340	2.3929	2.4953	2.6842	2.9235	2.7281	1.9376	---	2.5179	3	0.999	0.999	12	20.00	5.00	2.00	50.00	100.0	250.0	500.0	1.00				
4-Isopropyltoluene	1	0	Avg	2.0026	2.0466	2.1116	2.0105	2.1749	2.4028	2.2512	2.2163	---	2.1580	3	0.999	0.999	6.4	20.00	5.00	2.00	50.00	100.0	250.0	500.0	1.00				
n-Butylbenzene	1	0	Avg	2.4243	2.3653	2.2672	2.3986	2.5394	2.8098	2.6237	2.1982	---	2.4582	4	0.999	0.999	8.1	20.00	5.00	2.00	50.00	100.0	250.0	500.0	1.00				
p-Diethylbenzene	1	0	Avg	1.1492	1.1418	1.0018	1.1953	1.2998	1.4670	1.4126	---	---	1.2482	2	0.999	0.999	13	20.00	5.00	2.00	50.00	100.0	250.0	500.0	500.0				
1,2,4,5-Tetramethylbe	1	0	Avg	1.3265	1.2603	1.1915	1.4305	1.6556	1.9103	1.8745	---	---	1.5286	8	0.999	0.999	19	20.00	5.00	2.00	50.00	100.0	250.0	500.0	500.0				
1,2-Dibromo-3-Chloro	1	0	Avg	0.1307	0.1313	0.1174	0.1373	0.1410	0.1558	0.1535	---	---	0.1388	7	1.00	1.00	9.7	20.00	5.00	2.00	50.00	100.0	250.0	500.0	500.0				
Camphor	1	0	Qua	0.0400	0.0407	0.0463	0.0513	0.0608	0.0672	0.0671	---	---	0.0534	9	0.999	0.999	22	20.00	50.00	20.00	500.0	1000	2500	5000	5000				
Hexachlorobutadiene	1	0	Avg	0.3878	0.4140	0.4035	0.3736	0.4066	0.4509	0.4429	---	---	0.4119	3	0.999	0.999	6.7	20.00	5.00	2.00	50.00	100.0	250.0	500.0	500.0				
1,2,4-Trichlorobenzen	1	0	Avg	0.6265	0.6613	0.6771	0.6484	0.7048	0.7981	0.7964	---	---	0.7029	2	0.999	0.999	9.9	20.00	5.00	2.00	50.00	100.0	250.0	500.0	500.0				
1,2,3-Trichlorobenzen	1	0	Avg	0.5852	0.6426	0.6282	0.5915	0.6555	0.7432	0.7516	---	---	0.6579	5	0.999	0.999	10	20.00	5.00	2.00	50.00	100.0	250.0	500.0	500.0				
Naphthalene	1	0	Qua	1.4178	1.2518	1.1737	1.5910	1.7724	2.0143	1.9819	1.0591	---	1.5394	4	0.999	0.999	24	20.00	5.00	2.00	50.00	100.0	250.0	500.0	1.00				

Flags
a - failed the min of criteria
c - failed the minimum correlation coeff criteria if applicable

Note:
Avg Rsd: 9.002
Corr 1 = Correlation Coefficient for linear Eq.
Corr 2 = Correlation Coefficient for quad Eq.
Fit = Indicates whether Avg Rf, Linear, or Quadratic Curve was used for compound.

Form 7

Continuing Calibration

Calibration Name: CAL @ 20 PPB
Cont Calibration Date/Time 9/15/2021 4:57:00 PData File: 2M156791.D
Method: EPA 8260D

Instrument: GCMS 2

TxtCompd:	Col#	Multi Num	Type	RT	Conc	Conc Exp	Lo Lim	MIN RF	Initial RF	RF	%Diff	Flag
Fluorobenzene	1	0	I	5.10	30.00	30	**			0.000	0.00	
Chlorodifluoromethane	1	0		1.70	19.50	20	20	0.1	0.265	0.325	2.49	
Dichlorodifluoromethane	1	0		1.68	14.46	20	20	0.1	0.143	0.103	27.71	C1
Chloromethane	1	0		1.86	17.72	20	20	0.1	0.192	0.170	11.42	
Bromomethane	1	0		2.25	12.86	20	20	0.1	0.136	0.111	35.70	C1
Vinyl Chloride	1	0		1.95	19.21	20	20	0.1	0.217	0.208	3.93	
Chloroethane	1	0		2.34	21.81	20	20	0.1	0.149	0.162	9.03	
Trichlorofluoromethane	1	0		2.56	23.15	20	20	0.1	0.375	0.434	15.76	
Ethyl ether	1	0		2.80	19.21	20	20	0.5	0.152	0.146	3.93	
Furan	1	0		2.84	21.30	20	20	0.5	0.304	0.323	6.49	
1,1,2-Trichloro-1,2,2-trifluoroetha	1	0		3.00	19.62	20	20	0.1	0.185	0.182	1.90	
Methylene Chloride	1	0		3.42	20.25	20	20	0.1	0.225	0.228	1.24	
Acrolein	1	0		2.92	98.29	100	20		0.042	0.041	1.71	
Acrylonitrile	1	0		3.62	20.62	20	20		0.117	0.120	3.12	
Iodomethane	1	0		3.15	14.02	20	20		0.219	0.160	29.89	C1
Acetone	1	0		3.04	93.00	100	20	0.1	0.090	0.084	7.00	
Carbon Disulfide	1	0		3.21	16.66	20	20	0.1	0.592	0.493	16.69	
t-Butyl Alcohol	1	0		3.48	80.75	100	20		0.033	0.027	19.25	
n-Hexane	1	0		3.87	19.30	20	20		0.223	0.215	3.52	
Di-isopropyl-ether	1	0		4.03	21.15	20	20		0.728	0.770	5.73	
1,1-Dichloroethene	1	0		3.01	20.32	20	20	0.1	0.308	0.313	1.58	
Methyl Acetate	1	0		3.32	20.19	20	20	0.1	0.271	0.274	0.97	
Methyl-t-butyl ether	1	0		3.64	19.05	20	20	0.1	0.639	0.608	4.76	
1,1-Dichloroethane	1	0		3.99	21.49	20	20	0.2	0.380	0.408	7.46	
trans-1,2-Dichloroethene	1	0		3.65	20.56	20	20	0.1	0.222	0.228	2.79	
Ethyl-t-butyl ether	1	0		4.29	20.12	20	20	0.5	0.619	0.623	0.59	
cis-1,2-Dichloroethene	1	0		4.41	21.39	20	20	0.1	0.393	0.420	6.94	
Bromochloromethane	1	0		4.57	23.01	20	20		0.188	0.217	15.05	
2,2-Dichloropropane	1	0		4.42	18.61	20	20		0.321	0.298	6.94	
Ethyl acetate	1	0		4.44	22.03	20	20		0.299	0.329	10.17	
1,4-Dioxane	1	0		5.49	1065.64	1000	20		0.004	0.004	6.56	
1,1-Dichloropropene	1	0		4.82	21.08	20	20		0.299	0.315	5.40	
Chloroform	1	0		4.60	22.02	20	20	0.2	0.392	0.432	10.12	
Dibromofluoromethane	1	0	S	4.70	30.53	30	**		0.273	0.278	1.77	
Cyclohexane	1	0		4.77	19.36	20	20	0.1	0.306	0.296	3.21	
1,2-Dichloroethane-d4	1	0	S	4.91	30.43	30	**		0.149	0.151	1.44	
1,2-Dichloroethane	1	0		4.95	21.71	20	20	0.1	0.330	0.358	8.56	
2-Butanone	1	0		4.41	19.08	20	20	0.1	0.152	0.145	4.59	
1,1,1-Trichloroethane	1	0		4.73	21.06	20	20	0.1	0.351	0.369	5.31	
Carbon Tetrachloride	1	0		4.83	19.14	20	20	0.1	0.311	0.298	4.28	
Vinyl Acetate	1	0		4.03	20.48	20	20		0.794	0.813	2.38	
Bromodichloromethane	1	0		5.57	20.33	20	20	0.2	0.308	0.313	1.63	
Methylcyclohexane	1	0		5.42	20.06	20	20	0.1	0.269	0.270	0.30	
Dibromomethane	1	0		5.49	21.58	20	20		0.183	0.198	7.88	
1,2-Dichloropropane	1	0		5.43	21.88	20	20	0.1	0.226	0.247	9.42	
Trichloroethene	1	0		5.30	22.18	20	20	0.2	0.248	0.275	10.88	
Benzene	1	0		4.95	20.76	20	20	0.5	0.875	0.909	3.81	
tert-Amyl methyl ether	1	0		4.99	19.86	20	20		0.635	0.630	0.68	
Chlorobenzene-d5	1	0	I	6.73	30.00	30	**			0.000	0.00	
Iso-propylacetate	1	0		4.95	19.39	20	20	0.5	0.736	0.713	3.07	
Methyl methacrylate	1	0		5.46	21.66	20	20	0.5	0.317	0.344	8.28	
Dibromochloromethane	1	0		6.42	18.65	20	20	0.1	0.336	0.313	6.77	

S-Surrogate Compound

I-Internal Standard Compound

Page 1 of 2

N/O or N/Q - Not applicable for this run

CI-Compound %Diff exceeds limits

** - No limit specified in method

Form 7

Continuing Calibration

Calibration Name: CAL @ 20 PPB
Cont Calibration Date/Time 9/15/2021 4:57:00 P

Data File: 2M156791.D
Method: EPA 8260D

Instrument: GCMS 2

TxtCompd:	Col#	Multi Num	Type	RT	Conc	Conc Exp	Lo Lim	MIN RF	Initial RF	RF	%Diff	Flag
2-Chloroethylvinylether	1	0		5.71	16.63	20	20	0.225	0.187	0.187	16.86	
cis-1,3-Dichloropropene	1	0		5.81	18.11	20	20	0.2	0.471	0.427	9.46	
trans-1,3-Dichloropropene	1	0		6.09	18.10	20	20	0.1	0.437	0.396	9.52	
Ethyl methacrylate	1	0		6.11	21.20	20	20	0.5	0.325	0.344	6.00	
1,1,2-Trichloroethane	1	0		6.20	20.47	20	20	0.1	0.287	0.294	2.35	
1,2-Dibromoethane	1	0		6.49	20.33	20	20	0.1	0.314	0.319	1.63	
1,3-Dichloropropane	1	0		6.29	20.92	20	20		0.480	0.502	4.59	
4-Methyl-2-Pentanone	1	0		5.87	20.38	20	20	0.1	0.392	0.399	1.91	
2-Hexanone	1	0		6.31	20.24	20	20	0.1	0.293	0.297	1.20	
Tetrachloroethene	1	0		6.29	21.34	20	20	0.2	0.268	0.286	6.68	
Toluene-d8	1	0	S	5.95	30.31	30	**		1.303	1.316	1.02	
Toluene	1	0		5.99	20.01	20	20	0.4	0.746	0.746	0.02	
1,1,1,2-Tetrachloroethane	1	0		6.79	19.98	20	20		0.297	0.297	0.08	
Chlorobenzene	1	0		6.75	20.30	20	20	0.5	0.829	0.842	1.52	
1,4-Dichlorobenzene-d4	1	0	I	8.02	30.00	30	**			0.000	0.00	
n-Butyl acrylate	1	0		6.99	16.97	20	20	0.5	1.269	1.077	15.17	
n-Amyl acetate	1	0		7.11	17.84	20	20	0.5	1.246	1.111	10.82	
Bromoform	1	0		7.20	15.56	20	20	0.1	0.561	0.436	22.18	C1
Ethylbenzene	1	0		6.79	18.69	20	20	0.1	0.743	0.694	6.53	
1,1,2,2-Tetrachloroethane	1	0		7.42	18.84	20	20	0.1	0.848	0.799	5.79	
Bromofluorobenzene	1	0	S	7.37	29.37	30	**		0.912	0.893	2.09	
Styrene	1	0		7.07	18.24	20	20	0.3	1.802	1.643	8.81	
m&p-Xylenes	1	0		6.85	35.91	40	20	0.1	1.104	0.991	10.22	
o-Xylene	1	0		7.07	18.50	20	20	0.3	1.055	0.976	7.48	
trans-1,4-Dichloro-2-butene	1	0		7.45	16.63	20	20		0.359	0.299	16.84	
1,3-Dichlorobenzene	1	0		7.99	18.71	20	20	0.6	1.189	1.113	6.44	
1,4-Dichlorobenzene	1	0		8.04	19.09	20	20	0.5	1.217	1.161	4.55	
1,2-Dichlorobenzene	1	0		8.26	18.92	20	20	0.4	1.141	1.080	5.38	
Isopropylbenzene	1	0		7.26	18.42	20	20	0.1	2.452	2.259	7.89	
Cyclohexanone	1	0		7.34	74.54	100	20		0.037	0.028	25.46	C1
Camphene	1	0		7.43	19.01	20	20		0.597	0.567	4.95	
1,2,3-Trichloropropane	1	0		7.46	17.64	20	20		1.084	0.956	11.82	
2-Chlorotoluene	1	0		7.56	18.73	20	20		1.480	1.387	6.35	
p-Ethyltoluene	1	0		7.55	19.64	20	20		2.472	2.428	1.78	
4-Chlorotoluene	1	0		7.62	18.80	20	20		1.487	1.398	5.98	
n-Propylbenzene	1	0		7.49	19.12	20	20		2.763	2.642	4.38	
Bromobenzene	1	0		7.46	18.30	20	20		1.590	1.455	8.49	
1,3,5-Trimethylbenzene	1	0		7.58	18.28	20	20		1.732	1.583	8.58	
Butyl methacrylate	1	0		7.59	19.49	20	20	0.5	0.867	0.845	2.54	
t-Butylbenzene	1	0		7.77	18.89	20	20		1.800	1.700	5.57	
1,2,4-Trimethylbenzene	1	0		7.80	18.35	20	20		1.973	1.811	8.24	
sec-Butylbenzene	1	0		7.90	19.21	20	20		2.120	2.036	3.93	
4-Isopropyltoluene	1	0		7.97	19.03	20	20		1.778	1.692	4.84	
n-Butylbenzene	1	0		8.20	19.47	20	20		1.868	1.819	2.63	
p-Diethylbenzene	1	0		8.19	19.38	20	20		1.021	0.990	3.08	
1,2,4,5-Tetramethylbenzene	1	0		8.65	18.44	20	20		1.252	1.155	7.81	
1,2-Dibromo-3-Chloropropane	1	0		8.71	14.83	20	20	0.05	0.212	0.157	25.87	C1
Camphor	1	0		9.15	146.68	200	20		0.095	0.070	26.66	C1
Hexachlorobutadiene	1	0		9.28	19.27	20	20		0.291	0.280	3.64	
1,2,4-Trichlorobenzene	1	0		9.20	19.14	20	20	0.2	0.588	0.563	4.30	
1,2,3-Trichlorobenzene	1	0		9.50	17.20	20	20		0.528	0.454	14.00	
Naphthalene	1	0		9.36	19.47	20	20		1.838	1.789	2.64	

S-Surrogate Compound

I-Internal Standard Compound

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N/O or N/Q - Not applicable for this run

CI-Compound %Diff exceeds limits

** - No limit specified in method

Form 7

Continuing Calibration

Calibration Name: CAL @ 50 PPB
Cont Calibration Date/Time 9/15/2021 5:05:00 P

Data File: IM152531.D
Method: EPA 8260D

Instrument: GCMS I

TxtCompd:	Col#	Multi Num	Type	RT	Conc	Conc Exp	Lo Lim	MIN RF	Initial RF	RF	%Diff	Flag
Fluorobenzene	1	0	I	5.30	30.00	30	**			0.000	0.00	
Chlorodifluoromethane	1	0		2.08	41.90	50	20	0.1	0.489	0.410	16.20	
Dichlorodifluoromethane	1	0		2.08	73.49	50	20	0.1	0.074	0.108	46.98	C1
Chloromethane	1	0		2.24	67.93	50	20	0.1	0.214	0.272	35.86	C1
Bromomethane	1	0		2.60	53.81	50	20	0.1	0.163	0.175	7.61	
Vinyl Chloride	1	0		2.33	59.18	50	20	0.1	0.207	0.245	18.36	
Chloroethane	1	0		2.69	52.20	50	20	0.1	0.158	0.165	4.39	
Trichlorofluoromethane	1	0		2.90	48.88	50	20	0.1	0.360	0.351	2.24	
Ethyl ether	1	0		3.11	48.62	50	20	0.5	0.179	0.174	2.77	
Furan	1	0		3.15	49.62	50	20	0.5	0.370	0.367	0.76	
1,1,2-Trichloro-1,2,2-trifluoroethane	1	0		3.30	47.65	50	20	0.1	0.189	0.180	4.69	
Methylene Chloride	1	0		3.68	44.74	50	20	0.1	0.253	0.226	10.52	
Acrolein	1	0		3.21	252.62	250	20		0.040	0.041	1.05	
Acrylonitrile	1	0		3.86	43.21	50	20		0.119	0.103	13.59	
Iodomethane	1	0		3.44	20.32	50	20		0.088	0.059	59.37	C1
Acetone	1	0		3.33	213.95	250	20	0.1	0.085	0.072	14.42	
Carbon Disulfide	1	0		3.51	49.51	50	20	0.1	0.610	0.604	0.99	
t-Butyl Alcohol	1	0		3.74	203.60	250	20		0.040	0.033	18.56	
n-Hexane	1	0		4.11	51.03	50	20		0.333	0.340	2.06	
Di-isopropyl-ether	1	0		4.26	50.15	50	20		0.823	0.825	0.31	
1,1-Dichloroethene	1	0		3.31	49.15	50	20	0.1	0.387	0.381	1.70	
Methyl Acetate	1	0		3.59	45.50	50	20	0.1	0.240	0.218	9.00	
Methyl-t-butyl ether	1	0		3.90	44.66	50	20	0.1	0.620	0.553	10.68	
1,1-Dichloroethane	1	0		4.22	48.38	50	20	0.2	0.472	0.456	3.24	
trans-1,2-Dichloroethene	1	0		3.90	47.21	50	20	0.1	0.225	0.212	5.57	
Ethyl-t-butyl ether	1	0		4.51	47.71	50	20	0.5	0.735	0.701	4.57	
cis-1,2-Dichloroethene	1	0		4.62	44.79	50	20	0.1	0.514	0.461	10.42	
Bromochloromethane	1	0		4.77	47.76	50	20		0.272	0.260	4.48	
2,2-Dichloropropane	1	0		4.62	48.14	50	20		0.376	0.362	3.72	
Ethyl acetate	1	0		4.64	46.48	50	20		0.302	0.281	7.05	
1,4-Dioxane	1	0		5.70	2139.14	2500	20		0.004	0.003	14.43	
1,1-Dichloropropene	1	0		5.03	47.30	50	20		0.313	0.296	5.40	
Chloroform	1	0		4.81	46.52	50	20	0.2	0.453	0.421	6.96	
Dibromofluoromethane	1	0	S	4.90	29.25	75	**		0.286	0.279	2.50	
Cyclohexane	1	0		4.98	45.56	50	20	0.1	0.405	0.369	8.88	
1,2-Dichloroethane-d4	1	0	S	5.11	30.24	75	**		0.164	0.165	0.80	
1,2-Dichloroethane	1	0		5.15	47.26	50	20	0.1	0.390	0.368	5.49	
2-Butanone	1	0		4.64	47.12	50	20	0.1	0.239	0.225	5.76	
1,1,1-Trichloroethane	1	0		4.94	46.51	50	20	0.1	0.398	0.370	6.98	
Carbon Tetrachloride	1	0		5.04	47.28	50	20	0.1	0.335	0.316	5.44	
Vinyl Acetate	1	0		4.25	50.86	50	20		0.810	0.823	1.71	
Bromodichloromethane	1	0		5.77	48.46	50	20	0.2	0.327	0.317	3.07	
Methylcyclohexane	1	0		5.63	45.46	50	20	0.1	0.351	0.320	9.09	
Dibromomethane	1	0		5.70	46.95	50	20		0.149	0.140	6.10	
1,2-Dichloropropane	1	0		5.63	48.97	50	20	0.1	0.261	0.255	2.07	
Trichloroethene	1	0		5.51	45.32	50	20	0.2	0.242	0.219	9.35	
Benzene	1	0		5.16	47.05	50	20	0.5	0.885	0.833	5.91	
tert-Amyl methyl ether	1	0		5.20	49.11	50	20		0.565	0.555	1.77	
Chlorobenzene-d5	1	0	I	6.96	30.00	30	**			0.000	0.00	
Iso-propylacetate	1	0		5.15	45.58	50	20	0.5	0.600	0.547	8.85	
Methyl methacrylate	1	0		5.66	49.92	50	20	0.5	0.223	0.223	0.16	
Dibromochloromethane	1	0		6.64	48.10	50	20	0.1	0.267	0.257	3.81	

S-Surrogate Compound
N/O or N/Q - Not applicable for this run

I-Internal Standard Compound
CI-Compound %Diff exceeds limits

** - No limit specified in method

Page 1 of 2

Form7
Continuing Calibration

Calibration Name: CAL @ 50 PPB
Cont Calibration Date/Time 9/15/2021 5:05:00 P

Data File: IM152531.D
Method: EPA 8260D

Instrument: GCMS I

TxtCompd:	Col#	Multi Num	Type	RT	Conc	Conc Exp	Lo Lim	MIN RF	Initial RF	RF	%Diff	Flag
2-Chloroethylvinylether	1	0		5.91	48.26	50	20	0.155	0.149	3.47		
cis-1,3-Dichloropropene	1	0		6.01	50.16	50	20	0.2	0.408	0.409	0.31	
trans-1,3-Dichloropropene	1	0		6.30	49.97	50	20	0.1	0.381	0.381	0.06	
Ethyl methacrylate	1	0		6.33	46.26	50	20	0.5	0.265	0.245	7.47	
1,1,2-Trichloroethane	1	0		6.41	48.74	50	20	0.1	0.227	0.222	2.52	
1,2-Dibromoethane	1	0		6.71	51.12	50	20	0.1	0.218	0.223	2.24	
1,3-Dichloropropane	1	0		6.50	48.29	50	20		0.404	0.390	3.42	
4-Methyl-2-Pentanone	1	0		6.08	41.40	50	20	0.1	0.313	0.259	17.20	
2-Hexanone	1	0		6.52	41.01	50	20	0.1	0.232	0.190	17.98	
Tetrachloroethene	1	0		6.51	44.73	50	20	0.2	0.237	0.212	10.54	
Toluene-d8	1	0	S	6.17	30.80	75	**		1.208	1.240	2.68	
Toluene	1	0		6.20	46.71	50	20	0.4	0.665	0.621	6.59	
1,1,1,2-Tetrachloroethane	1	0		7.01	46.17	50	20		0.257	0.237	7.66	
Chlorobenzene	1	0		6.97	45.61	50	20	0.5	0.751	0.685	8.77	
1,4-Dichlorobenzene-d4	1	0	I	8.25	30.00	30	**			0.000	0.00	
n-Butyl acrylate	1	0		7.23	44.58	50	20	0.5	0.949	0.846	10.83	
n-Amyl acetate	1	0		7.34	44.01	50	20	0.5	0.808	0.712	11.98	
Bromoform	1	0		7.43	50.75	50	20	0.1	0.288	0.292	1.51	
Ethylbenzene	1	0		7.02	45.43	50	20	0.1	0.582	0.529	9.14	
1,1,2,2-Tetrachloroethane	1	0		7.65	47.50	50	20	0.1	0.510	0.485	5.01	
Bromofluorobenzene	1	0	S	7.60	30.11	75	**		0.721	0.723	0.36	
Styrene	1	0		7.31	46.84	50	20	0.3	1.368	1.281	6.32	
m&p-Xylenes	1	0		7.08	90.50	100	20	0.1	0.873	0.763	9.50	
o-Xylene	1	0		7.30	44.16	50	20	0.3	0.809	0.715	11.69	
trans-1,4-Dichloro-2-butene	1	0		7.67	47.01	50	20		0.334	0.314	5.97	
1,3-Dichlorobenzene	1	0		8.22	44.41	50	20	0.6	1.055	0.937	11.19	
1,4-Dichlorobenzene	1	0		8.27	44.89	50	20	0.5	1.079	0.969	10.21	
1,2-Dichlorobenzene	1	0		8.49	44.08	50	20	0.4	1.007	0.887	11.84	
Isopropylbenzene	1	0		7.50	43.90	50	20	0.1	2.203	1.934	12.21	
Cyclohexanone	1	0		7.57	210.51	250	20		0.038	0.029	15.79	
Camphene	1	0		7.67	44.81	50	20		0.746	0.669	10.38	
1,2,3-Trichloropropane	1	0		7.69	47.30	50	20		0.686	0.649	5.39	
2-Chlorotoluene	1	0		7.79	44.94	50	20		1.396	1.255	10.12	
p-Ethyltoluene	1	0		7.79	44.77	50	20		2.216	1.985	10.46	
4-Chlorotoluene	1	0		7.85	44.67	50	20		1.363	1.218	10.66	
n-Propylbenzene	1	0		7.72	43.53	50	20		2.736	2.382	12.95	
Bromobenzene	1	0		7.70	48.94	50	20		1.246	1.220	2.12	
1,3,5-Trimethylbenzene	1	0		7.81	42.18	50	20		1.890	1.595	15.64	
Butyl methacrylate	1	0		7.82	44.54	50	20	0.5	0.771	0.598	10.91	
t-Butylbenzene	1	0		8.01	42.18	50	20		1.871	1.578	15.65	
1,2,4-Trimethylbenzene	1	0		8.03	40.60	50	20		2.001	1.625	18.80	
sec-Butylbenzene	1	0		8.13	42.86	50	20		2.493	2.137	14.28	
4-Isopropyltoluene	1	0		8.20	41.87	50	20		2.097	1.756	16.27	
n-Butylbenzene	1	0		8.44	43.85	50	20		2.490	2.184	12.29	
p-Diethylbenzene	1	0		8.42	43.73	50	20		1.215	1.063	12.55	
1,2,4,5-Tetramethylbenzene	1	0		8.88	44.12	50	20		1.590	1.403	11.75	
1,2-Dibromo-3-Chloropropane	1	0		8.94	44.47	50	20	0.05	0.133	0.119	11.07	
Camphor	1	0		9.38	427.04	500	20		0.061	0.052	14.59	
Hexachlorobutadiene	1	0		9.52	47.70	50	20		0.435	0.415	4.60	
1,2,4-Trichlorobenzene	1	0		9.43	48.25	50	20	0.2	0.755	0.729	3.49	
1,2,3-Trichlorobenzene	1	0		9.73	48.03	50	20		0.722	0.694	3.94	
Naphthalene	1	0		9.59	42.52	50	20		1.915	1.628	14.97	

S-Surrogate Compound
N/O or N/Q - Not applicable for this run

I-Internal Standard Compound
CI-Compound %Diff exceeds limits

** - No limit specified in method

Form7
Continuing Calibration

Calibration Name: CAL @ 20 PPB
Cont Calibration Date/Time 9/16/2021 7:40:00 A

Data File: 2M156837.D
Method: EPA 8260D

Instrument: GCMS 2

TxtCompd:	Col#	Multi Num	Type	RT	Conc	Conc Exp	Lo Lim	MIN RF	Initial RF	RF	%Diff	Flag
Fluorobenzene	1	0	I	5.10	30.00	30	**			0.000	0.00	
Chlorodifluoromethane	1	0		1.70	18.62	20	20	0.1	0.265	0.310	6.92	
Dichlorodifluoromethane	1	0		1.68	12.91	20	20	0.1	0.143	0.092	35.45	C1
Chloromethane	1	0		1.86	16.44	20	20	0.1	0.192	0.158	17.78	
Bromomethane	1	0		2.25	11.01	20	20	0.1	0.136	0.095	44.97	C1
Vinyl Chloride	1	0		1.95	16.86	20	20	0.1	0.217	0.183	15.72	
Chloroethane	1	0		2.34	19.81	20	20	0.1	0.149	0.147	0.93	
Trichlorofluoromethane	1	0		2.56	22.18	20	20	0.1	0.375	0.416	10.92	
Ethyl ether	1	0		2.80	18.54	20	20	0.5	0.152	0.141	7.31	
Furan	1	0		2.84	20.78	20	20	0.5	0.304	0.315	3.90	
1,1,2-Trichloro-1,2,2-trifluoroetha	1	0		3.00	17.36	20	20	0.1	0.185	0.161	13.19	
Methylene Chloride	1	0		3.42	18.93	20	20	0.1	0.225	0.213	5.36	
Acrolein	1	0		2.92	79.99	100	20		0.042	0.034	20.01	
Acrylonitrile	1	0		3.62	20.41	20	20		0.117	0.119	2.03	
Iodomethane	1	0		3.15	13.90	20	20		0.219	0.159	30.49	C1
Acetone	1	0		3.04	92.54	100	20	0.1	0.090	0.083	7.46	
Carbon Disulfide	1	0		3.21	14.78	20	20	0.1	0.592	0.437	26.11	C1
t-Butyl Alcohol	1	0		3.48	86.06	100	20		0.033	0.028	13.94	
n-Hexane	1	0		3.87	15.58	20	20		0.223	0.173	22.12	C1
Di-isopropyl-ether	1	0		4.03	19.88	20	20		0.728	0.724	0.58	
1,1-Dichloroethene	1	0		3.01	18.61	20	20	0.1	0.308	0.286	6.96	
Methyl Acetate	1	0		3.32	22.81	20	20	0.1	0.271	0.310	14.04	
Methyl-t-butyl ether	1	0		3.64	18.22	20	20	0.1	0.639	0.582	8.88	
1,1-Dichloroethane	1	0		4.00	19.04	20	20	0.2	0.380	0.361	4.81	
trans-1,2-Dichloroethene	1	0		3.65	18.45	20	20	0.1	0.222	0.205	7.74	
Ethyl-t-butyl ether	1	0		4.29	18.86	20	20	0.5	0.619	0.584	5.69	
cis-1,2-Dichloroethene	1	0		4.41	18.74	20	20	0.1	0.393	0.368	6.28	
Bromochloromethane	1	0		4.57	21.81	20	20		0.188	0.205	9.07	
2,2-Dichloropropane	1	0		4.42	12.69	20	20		0.321	0.204	36.54	C1
Ethyl acetate	1	0		4.44	19.35	20	20		0.299	0.289	3.23	
1,4-Dioxane	1	0		5.49	1146.61	1000	20		0.004	0.005	14.66	
1,1-Dichloropropene	1	0		4.82	19.38	20	20		0.299	0.289	3.12	
Chloroform	1	0		4.60	20.53	20	20	0.2	0.392	0.402	2.63	
Dibromofluoromethane	1	0	S	4.70	30.56	30	**		0.273	0.278	1.86	
Cyclohexane	1	0		4.77	18.42	20	20	0.1	0.306	0.282	7.89	
1,2-Dichloroethane-d4	1	0	S	4.91	30.76	30	**		0.149	0.152	2.54	
1,2-Dichloroethane	1	0		4.95	21.11	20	20	0.1	0.330	0.348	5.55	
2-Butanone	1	0		4.41	19.46	20	20	0.1	0.152	0.148	2.70	
1,1,1-Trichloroethane	1	0		4.73	19.48	20	20	0.1	0.351	0.341	2.59	
Carbon Tetrachloride	1	0		4.83	18.86	20	20	0.1	0.311	0.294	5.68	
Vinyl Acetate	1	0		4.03	16.37	20	20		0.794	0.650	18.17	
Bromodichloromethane	1	0		5.57	20.13	20	20	0.2	0.308	0.310	0.63	
Methylcyclohexane	1	0		5.42	19.69	20	20	0.1	0.269	0.265	1.54	
Dibromomethane	1	0		5.49	21.56	20	20		0.183	0.198	7.81	
1,2-Dichloropropane	1	0		5.43	20.56	20	20	0.1	0.226	0.232	2.82	
Trichloroethene	1	0		5.30	19.83	20	20	0.2	0.248	0.246	0.86	
Benzene	1	0		4.95	19.56	20	20	0.5	0.875	0.856	2.18	
tert-Amyl methyl ether	1	0		4.99	19.38	20	20		0.635	0.615	3.12	
Chlorobenzene-d5	1	0	I	6.73	30.00	30	**			0.000	0.00	
Iso-propylacetate	1	0		4.95	17.18	20	20	0.5	0.736	0.632	14.08	
Methyl methacrylate	1	0		5.45	21.57	20	20	0.5	0.317	0.342	7.86	
Dibromochloromethane	1	0		6.42	17.87	20	20	0.1	0.336	0.300	10.63	

S-Surrogate Compound
N/O or N/Q - Not applicable for this run

I-Internal Standard Compound
CI-Compound %Diff exceeds limits

** - No limit specified in method

Form 7
Continuing Calibration

Calibration Name: CAL @ 20 PPB
Cont Calibration Date/Time 9/16/2021 7:40:00 A

Data File: 2M156837.D
Method: EPA 8260D

Instrument: GCMS 2

TxtCompd:	Col#	Multi Num	Type	RT	Conc	Conc Exp	Lo Lim	MIN RF	Initial RF	RF	%Diff	Flag
2-Chloroethylvinylether	1	0		5.71	16.03	20	20	0.225	0.180	19.84		
cis-1,3-Dichloropropene	1	0		5.81	16.16	20	20	0.2	0.471	0.381	19.19	
trans-1,3-Dichloropropene	1	0		6.09	16.24	20	20	0.1	0.437	0.355	18.81	
Ethyl methacrylate	1	0		6.11	17.31	20	20	0.5	0.325	0.281	13.46	
1,1,2-Trichloroethane	1	0		6.20	18.68	20	20	0.1	0.287	0.268	6.58	
1,2-Dibromoethane	1	0		6.49	18.78	20	20	0.1	0.314	0.295	6.08	
1,3-Dichloropropane	1	0		6.29	19.02	20	20		0.480	0.456	4.89	
4-Methyl-2-Pentanone	1	0		5.87	19.47	20	20	0.1	0.392	0.381	2.65	
2-Hexanone	1	0		6.31	19.01	20	20	0.1	0.293	0.279	4.93	
Tetrachloroethene	1	0		6.29	19.79	20	20	0.2	0.268	0.265	1.07	
Toluene-d8	1	0	S	5.95	29.15	30	**		1.303	1.266	2.85	
Toluene	1	0		5.99	18.89	20	20	0.4	0.746	0.705	5.57	
1,1,1,2-Tetrachloroethane	1	0		6.79	18.90	20	20		0.297	0.281	5.49	
Chlorobenzene	1	0		6.75	18.75	20	20	0.5	0.829	0.777	6.26	
1,4-Dichlorobenzene-d4	1	0	I	8.02	30.00	30	**			0.000	0.00	
n-Butyl acrylate	1	0		6.99	14.44	20	20	0.5	1.269	0.917	27.78	C1
n-Amyl acetate	1	0		7.11	14.91	20	20	0.5	1.246	0.928	25.47	C1
Bromoform	1	0		7.20	15.29	20	20	0.1	0.561	0.429	23.55	C1
Ethylbenzene	1	0		6.79	16.28	20	20	0.1	0.743	0.604	18.62	
1,1,2,2-Tetrachloroethane	1	0		7.42	17.49	20	20	0.1	0.848	0.742	12.55	
Bromofluorobenzene	1	0	S	7.37	29.75	30	**		0.912	0.905	0.83	
Styrene	1	0		7.07	17.37	20	20	0.3	1.802	1.565	13.15	
m&p-Xylenes	1	0		6.85	33.96	40	20	0.1	1.104	0.937	15.10	
o-Xylene	1	0		7.07	17.36	20	20	0.3	1.055	0.916	13.21	
trans-1,4-Dichloro-2-butene	1	0		7.45	14.46	20	20		0.359	0.260	27.70	C1
1,3-Dichlorobenzene	1	0		7.99	18.91	20	20	0.6	1.189	1.124	5.47	
1,4-Dichlorobenzene	1	0		8.04	18.30	20	20	0.5	1.217	1.114	8.48	
1,2-Dichlorobenzene	1	0		8.26	18.22	20	20	0.4	1.141	1.040	8.90	
Isopropylbenzene	1	0		7.26	17.86	20	20	0.1	2.452	2.189	10.72	
Cyclohexanone	1	0		7.34	85.00	100	20		0.037	0.032	15.00	
Camphene	1	0		7.43	17.42	20	20		0.597	0.520	12.90	
1,2,3-Trichloropropane	1	0		7.46	15.94	20	20		1.084	0.864	20.28	
2-Chlorotoluene	1	0		7.56	18.30	20	20		1.480	1.354	8.52	
p-Ethyltoluene	1	0		7.55	16.92	20	20		2.472	2.091	15.41	
4-Chlorotoluene	1	0		7.62	17.86	20	20		1.487	1.328	10.68	
n-Propylbenzene	1	0		7.49	18.21	20	20		2.763	2.515	8.97	
Bromobenzene	1	0		7.46	17.33	20	20		1.590	1.378	13.34	
1,3,5-Trimethylbenzene	1	0		7.58	20.43	20	20		1.732	1.769	2.13	
Butyl methacrylate	1	0		7.59	17.56	20	20	0.5	0.867	0.761	12.22	
t-Butylbenzene	1	0		7.78	18.59	20	20		1.800	1.673	7.06	
1,2,4-Trimethylbenzene	1	0		7.80	17.76	20	20		1.973	1.753	11.18	
sec-Butylbenzene	1	0		7.90	18.49	20	20		2.120	1.959	7.56	
4-Isopropyltoluene	1	0		7.96	18.33	20	20		1.778	1.629	8.33	
n-Butylbenzene	1	0		8.21	17.99	20	20		1.868	1.680	10.06	
p-Diethylbenzene	1	0		8.19	18.27	20	20		1.021	0.933	8.63	
1,2,4,5-Tetramethylbenzene	1	0		8.65	17.99	20	20		1.252	1.127	10.05	
1,2-Dibromo-3-Chloropropane	1	0		8.71	15.93	20	20	0.05	0.212	0.169	20.36	
Camphor	1	0		9.15	157.40	200	20		0.095	0.075	21.30	C1
Hexachlorobutadiene	1	0		9.28	16.02	20	20		0.291	0.233	19.91	
1,2,4-Trichlorobenzene	1	0		9.20	19.39	20	20	0.2	0.588	0.570	3.07	
1,2,3-Trichlorobenzene	1	0		9.50	18.46	20	20		0.528	0.488	7.68	
Naphthalene	1	0		9.36	17.76	20	20		1.838	1.632	11.18	

S-Surrogate Compound
N/O or N/Q - Not applicable for this run

I-Internal Standard Compound
CI-Compound %Diff exceeds limits

** - No limit specified in method

Form 7

Continuing Calibration

Calibration Name: CAL @ 50 PPB
Cont Calibration Date/Time 9/16/2021 2:34:00 PData File: 6M144930.D
Method: EPA 8260D

Instrument: GCMS 6

TxtCompd:	Col#	Multi Num	Type	RT	Conc	Conc Exp	Lo Lim	MIN RF	Initial RF	RF	%Diff	Flag
Fluorobenzene	1	0	I	5.13	30.00	30	**			0.000	0.00	
Chlorodifluoromethane	1	0		1.67	49.62	50	20	0.1	0.484	0.480	0.77	
Dichlorodifluoromethane	1	0		1.65	59.24	50	20	0.1	0.121	0.143	18.49	
Chloromethane	1	0		1.84	65.24	50	20	0.1	0.324	0.423	30.47	C1
Bromomethane	1	0		2.25	59.65	50	20	0.1	0.176	0.195	19.30	
Vinyl Chloride	1	0		1.93	57.20	50	20	0.1	0.292	0.334	14.39	
Chloroethane	1	0		2.34	59.34	50	20	0.1	0.173	0.206	18.68	
Trichlorofluoromethane	1	0		2.57	57.77	50	20	0.1	0.361	0.417	15.54	
Ethyl ether	1	0		2.82	51.16	50	20	0.5	0.198	0.203	2.33	
Furan	1	0		2.86	54.25	50	20	0.5	0.398	0.432	8.51	
1,1,2-Trichloro-1,2,2-trifluoroetha	1	0		3.03	57.08	50	20	0.1	0.197	0.224	14.15	
Methylene Chloride	1	0		3.45	49.64	50	20	0.1	0.254	0.253	0.71	
Acrolein	1	0		2.94	285.96	250	20		0.044	0.051	14.38	
Acrylonitrile	1	0		3.65	49.39	50	20		0.123	0.122	1.22	
Iodomethane	1	0		3.18	28.73	50	20		0.169	0.127	42.54	C1
Acetone	1	0		3.07	246.30	250	20	0.1	0.096	0.094	1.48	
Carbon Disulfide	1	0		3.25	53.52	50	20	0.1	0.693	0.741	7.05	
t-Butyl Alcohol	1	0		3.51	270.99	250	20		0.032	0.035	8.39	
n-Hexane	1	0		3.92	62.16	50	20		0.363	0.451	24.33	C1
Di-isopropyl-ether	1	0		4.07	52.68	50	20		0.992	1.045	5.36	
1,1-Dichloroethene	1	0		3.04	55.53	50	20	0.1	0.399	0.443	11.06	
Methyl Acetate	1	0		3.36	50.77	50	20	0.1	0.270	0.274	1.54	
Methyl-t-butyl ether	1	0		3.68	49.94	50	20	0.1	0.581	0.580	0.12	
1,1-Dichloroethane	1	0		4.04	53.44	50	20	0.2	0.488	0.522	6.88	
trans-1,2-Dichloroethene	1	0		3.70	52.09	50	20	0.1	0.237	0.247	4.17	
Ethyl-t-butyl ether	1	0		4.33	52.78	50	20	0.5	0.725	0.765	5.56	
cis-1,2-Dichloroethene	1	0		4.45	54.74	50	20	0.1	0.494	0.541	9.49	
Bromochloromethane	1	0		4.60	50.46	50	20		0.294	0.297	0.93	
2,2-Dichloropropane	1	0		4.45	51.76	50	20		0.251	0.341	3.51	
Ethyl acetate	1	0		4.47	52.31	50	20		0.324	0.339	4.62	
1,4-Dioxane	1	0		5.52	2870.09	2500	20		0.003	0.003	14.80	
1,1-Dichloropropene	1	0		4.86	55.41	50	20		0.326	0.362	10.82	
Chloroform	1	0		4.64	49.93	50	20	0.2	0.471	0.470	0.14	
Dibromofluoromethane	1	0	S	4.73	29.25	75	**		0.281	0.274	2.50	
Cyclohexane	1	0		4.81	57.64	50	20	0.1	0.454	0.523	15.28	
1,2-Dichloroethane-d4	1	0	S	4.94	28.57	75	**		0.167	0.159	4.78	
1,2-Dichloroethane	1	0		4.98	49.95	50	20	0.1	0.419	0.418	0.10	
2-Butanone	1	0		4.45	50.32	50	20	0.1	0.145	0.146	0.64	
1,1,1-Trichloroethane	1	0		4.77	54.18	50	20	0.1	0.396	0.429	8.36	
Carbon Tetrachloride	1	0		4.87	56.27	50	20	0.1	0.323	0.364	12.54	
Vinyl Acetate	1	0		4.07	56.74	50	20		0.854	0.969	13.48	
Bromodichloromethane	1	0		5.60	50.41	50	20	0.2	0.368	0.371	0.81	
Methylcyclohexane	1	0		5.45	59.12	50	20	0.1	0.367	0.433	18.25	
Dibromomethane	1	0		5.53	49.68	50	20		0.156	0.155	0.65	
1,2-Dichloropropane	1	0		5.46	50.98	50	20	0.1	0.297	0.303	1.97	
Trichloroethene	1	0		5.34	53.41	50	20	0.2	0.253	0.270	6.82	
Benzene	1	0		4.98	52.30	50	20	0.5	0.928	0.971	4.61	
tert-Amyl methyl ether	1	0		5.03	52.70	50	20		0.565	0.596	5.40	
Chlorobenzene-d5	1	0	I	6.76	30.00	30	**			0.000	0.00	
Iso-propylacetate	1	0		4.98	55.21	50	20	0.5	0.696	0.769	10.42	
Methyl methacrylate	1	0		5.48	55.52	50	20	0.5	0.328	0.364	11.03	
Dibromochloromethane	1	0		6.45	54.26	50	20	0.1	0.323	0.350	8.52	

S-Surrogate Compound
N/O or N/Q - Not applicable for this runI-Internal Standard Compound
CI-Compound %Diff exceeds limits

** - No limit specified in method

Page 1 of 2

Form7

Continuing Calibration

Calibration Name: CAL @ 50 PPB
Cont Calibration Date/Time 9/16/2021 2:34:00 PData File: 6M144930.D
Method: EPA 8260D

Instrument: GCMS 6

TxtCompd:	Co#	Multi Num	Type	RT	Conc	Conc Exp	Lo Lim	MIN RF	Initial RF	RF	%Diff	Flag
2-Chloroethylvinylether	1	0		5.78	106.95	50	20	0.006	0.005	113.91	C1	
cis-1,3-Dichloropropene	1	0		5.83	55.59	50	20	0.2	0.448	0.498	11.17	
trans-1,3-Dichloropropene	1	0		6.12	58.67	50	20	0.1	0.391	0.458	17.33	
Ethyl methacrylate	1	0		6.14	58.39	50	20	0.5	0.349	0.408	16.79	
1,1,2-Trichloroethane	1	0		6.22	52.58	50	20	0.1	0.277	0.292	5.16	
1,2-Dibromoethane	1	0		6.53	51.62	50	20	0.1	0.283	0.292	3.24	
1,3-Dichloropropane	1	0		6.32	53.38	50	20		0.477	0.510	6.76	
4-Methyl-2-Pentanone	1	0		5.90	56.44	50	20	0.1	0.381	0.430	12.88	
2-Hexanone	1	0		6.33	57.56	50	20	0.1	0.266	0.306	15.13	
Tetrachloroethene	1	0		6.32	55.41	50	20	0.2	0.249	0.276	10.82	
Toluene-d8	1	0	S	5.99	31.34	75	**		1.207	1.261	4.48	
Toluene	1	0		6.03	55.09	50	20	0.4	0.737	0.812	10.19	
1,1,1,2-Tetrachloroethane	1	0		6.81	54.07	50	20		0.289	0.313	8.14	
Chlorobenzene	1	0		6.78	53.72	50	20	0.5	0.834	0.896	7.45	
1,4-Dichlorobenzene-d4	1	0	I	8.05	30.00	30	**			0.000	0.00	
n-Butyl acrylate	1	0		7.02	58.70	50	20	0.5	1.127	1.323	17.40	
n-Amyl acetate	1	0		7.14	60.09	50	20	0.5	1.008	1.212	20.19	
Bromoform	1	0		7.23	54.92	50	20	0.1	0.384	0.421	9.84	
Ethylbenzene	1	0		6.82	58.96	50	20	0.1	0.635	0.749	17.93	
1,1,2,2-Tetrachloroethane	1	0		7.44	55.73	50	20	0.1	0.661	0.736	11.47	
Bromofluorobenzene	1	0	S	7.39	30.37	75	**		0.740	0.749	1.24	
Styrene	1	0		7.10	57.49	50	20	0.3	1.559	1.793	14.99	
m&p-Xylenes	1	0		6.88	121.65	100	20	0.1	0.890	1.082	21.65	
o-Xylene	1	0		7.10	58.86	50	20	0.3	0.898	1.058	17.71	
trans-1,4-Dichloro-2-butene	1	0		7.47	57.69	50	20		0.387	0.447	15.39	
1,3-Dichlorobenzene	1	0		8.02	55.97	50	20	0.6	1.144	1.281	11.95	
1,4-Dichlorobenzene	1	0		8.06	55.31	50	20	0.5	1.155	1.277	10.63	
1,2-Dichlorobenzene	1	0		8.29	54.84	50	20	0.4	1.088	1.193	9.69	
Isopropylbenzene	1	0		7.29	59.70	50	20	0.1	2.363	2.821	19.40	
Cyclohexanone	1	0		7.37	364.71	250	20		0.029	0.043	45.88	
Camphene	1	0		7.47	60.20	50	20		0.845	1.017	20.40	
1,2,3-Trichloropropane	1	0		7.48	54.89	50	20		0.825	0.905	9.78	
2-Chlorotoluene	1	0		7.59	56.77	50	20		1.601	1.817	13.55	
p-Ethyltoluene	1	0		7.58	59.83	50	20		2.472	2.958	19.66	
4-Chlorotoluene	1	0		7.65	59.00	50	20		1.561	1.842	18.00	
n-Propylbenzene	1	0		7.52	60.27	50	20		2.885	3.477	20.54	
Bromobenzene	1	0		7.49	55.96	50	20		1.570	1.757	11.91	
1,3,5-Trimethylbenzene	1	0		7.60	58.67	50	20		1.933	2.268	17.35	
Butyl methacrylate	1	0		7.61	59.65	50	20	0.5	0.907	1.082	19.30	
t-Butylbenzene	1	0		7.81	59.52	50	20		1.918	2.283	19.04	
1,2,4-Trimethylbenzene	1	0		7.83	59.57	50	20		1.988	2.369	19.15	
sec-Butylbenzene	1	0		7.93	61.41	50	20		2.508	3.080	22.82	
4-Isopropyltoluene	1	0		8.00	58.63	50	20		2.152	2.524	17.27	
n-Butylbenzene	1	0		8.24	62.32	50	20		2.453	3.058	24.64	
p-Diethylbenzene	1	0		8.22	61.87	50	20		1.238	1.532	23.74	
1,2,4,5-Tetramethylbenzene	1	0		8.68	59.94	50	20		1.521	1.824	19.87	
1,2-Dibromo-3-Chloropropane	1	0		8.74	58.65	50	20	0.05	0.138	0.162	17.31	
Camphor	1	0		9.18	550.02	500	20		0.053	0.070	10.00	
Hexachlorobutadiene	1	0		9.32	57.15	50	20		0.411	0.470	14.29	
1,2,4-Trichlorobenzene	1	0		9.23	58.69	50	20	0.2	0.702	0.824	17.38	
1,2,3-Trichlorobenzene	1	0		9.54	56.36	50	20		0.657	0.740	12.71	
Naphthalene	1	0		9.39	51.72	50	20		1.533	1.979	3.45	

S-Surrogate Compound

N/O or N/Q - Not applicable for this run

I-Internal Standard Compound

CI-Compound %Diff exceeds limits

Page 2 of 2

** - No limit specified in method

FORM 8

Internal Standard Areas

Evaluation Std Data File: 2M156185.D

Analysis Date/Time: 08/31/21 21:50

Lab File ID: CAL @20 PPB

Method: EPA 8260D

	11		12		13		14		15		16		17	
Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	
298016	5.10	214495	6.73	106962	8.02									
Eval File Area Limit:	149008-596032	107248-428990	53481-213924											
Eval File RI Limit:	4.6-5.6	6.23-7.23	7.52-8.52											

Data File	Sample#	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT
2M156181.D	CAL @0.5 PPB	291942	5.10	210942	6.73	94196	8.02						
2M156182.D	CAL @1 PPB	300686	5.10	215569	6.73	95889	8.02						
2M156183.D	CAL @5 PPB	299730	5.10	217020	6.73	102747	8.02						
2M156184.D	CAL @10 PPB	301936	5.10	218401	6.73	102721	8.02						
2M156185.D	CAL @20 PPB	298016	5.10	214495	6.73	106962	8.02						
2M156186.D	CAL @50 PPB	295164	5.10	227457	6.73	116673	8.02						
2M156187.D	CAL @500 PPB	303998	5.10	245550	6.73	127734	8.03						
2M156189.D	CAL @250 PPB	315374	5.10	251795	6.73	130852	8.02						
2M156191.D	CAL @100 PPB	327149	5.10	251919	6.73	136041	8.02						
2M156192.D	250 PPB	320530	5.10	253001	6.73	129946	8.02						
2M156196.D	STD	285972	5.10	214201	6.73	107065	8.02						
2M156197.D	ICV	303556	5.10	231374	6.73	118887	8.02						
2M156198.D	BLK	298619	5.10	220774	6.74	99580	8.02						

11 =	Fluorobenzene	14 =
12 =	Chlorobenzene-d5	15 =
13 =	1,4-Dichlorobenzene-d4	16 =
		17 =

624/8270 Internal Standard concentration = 40 mg/L (in final extract)
 624/8260 Internal Standard concentration = 30 ug/L
 524 Internal Standard concentration = 5ug/L

Internal Standard Areas

Upper Limit = + 100% of internal standard area from daily cal or mid pt.

Lower Limit = - 50% of internal standard area from daily cal or mid pt.

Flags:

A - Indicates the compound failed the internal standard area criteria

R - Indicates the compound failed the internal standard retention time criteria.

Retention Times:

Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.

FORM8

Internal Standard Areas
 Evaluation Std Data File: 1M152478.D
 Analysis Date/Time: 09/14/21 18:10

Method: EPA 8260D

Lab File ID: CAL @ 20 PPB

	11	12	13	14	15	16	17
Area	RT	Area	RT	Area	RT	Area	RT
Eval File Area/RT:	237067 5.30	197780 6.96	122034 8.25				
Eval File Area Limit:	118534-474134	98890-395560	61017-244068				
Eval File RI Limit:	4.8-5.8	6.46-7.46	7.75-8.75				

Data File	Sample#	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT
1M152474.D	CAL @ 0.5 PPB	229422	5.30	196579	6.96	115291	8.25						
1M152475.D	CAL @ 1 PPB	240484	5.30	204879	6.96	119488	8.25						
1M152476.D	CAL @ 5 PPB	236531	5.30	202531	6.96	118653	8.25						
1M152477.D	CAL @ 2 PPB	263855	5.30	225235	6.96	133094	8.25						
1M152478.D	CAL @ 20 PPB	237067	5.30	197780	6.96	122034	8.25						
1M152479.D	CAL @ 50 PPB	248030	5.30	204499	6.96	126109	8.25						
1M152480.D	CAL @ 500 PPB	280572	5.30	242394	6.96	189035	8.25						
1M152482.D	CAL @ 250 PPB	273880	5.30	230769	6.96	159771	8.25						
1M152484.D	CAL @ 100 PPB	257957	5.30	211490	6.96	130491	8.25						
1M152487.D	ICV	247897	5.30	201663	6.96	122639	8.25						

- 11 = Fluorobenzene
- 12 = Chlorobenzene-d5
- 13 = 1,4-Dichlorobenzene-d4
- 14 =
- 15 =
- 16 =
- 17 =

625/8270 Internal Standard concentration = 40 mg/L (in final extract)
 624/8260 Internal Standard concentration = 30ug/L
 524 Internal Standard concentration = 5ug/L

Internal Standard Areas

Upper Limit = + 100% of internal standard area from daily cal or mid pt.
 Lower Limit = - 50% of internal standard area from daily cal or mid pt.

Flags:

A - Indicates the compound failed the internal standard area criteria
 R - Indicates the compound failed the internal standard retention time criteria.

Retention Times:

Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.

FORM 8

Internal Standard Areas

Evaluation Std Data File: 6M144913.D

Method: EPA 8260D

Analysis Date/Time: 09/15/21 21:36

Lab File ID: CAL @ 20 PPB

	11		12		13		14		15		16		17	
Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	
Eval File Area/RT:	155180	5.13	124317	6.76	71473	8.05								
Eval File Area Limit:	77590-310360		62158-248634		35736-142946									
Eval File RI Limit:	4.63-5.63		6.26-7.26		7.55-8.55									

Data File	Sample#	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT
6M144909.D	CAL @ 0.5 PPB	146738	5.13	122143	6.76	65206	8.05						
6M144910.D	CAL @ 1 PPB	142879	5.13	122100	6.76	64470	8.05						
6M144911.D	CAL @ 2 PPB	146695	5.13	121578	6.76	65637	8.05						
6M144912.D	CAL @ 5 PPB	148614	5.13	120215	6.76	65898	8.05						
6M144913.D	CAL @ 20 PPB	155180	5.13	124317	6.76	71473	8.05						
6M144914.D	CAL @ 50 PPB	161330	5.13	126806	6.76	72834	8.05						
6M144915.D	CAL @ 500 PPB	162352	5.13	135190	6.76	76396	8.05						
6M144917.D	CAL @ 250 PPB	164184	5.13	132714	6.76	71260	8.05						
6M144919.D	CAL @ 100 PPB	171847	5.13	136855	6.76	74816	8.05						
6M144922.D	ICV	170763	5.13	135559	6.76	73961	8.05						

11 =	Fluorobenzene	14 =	17 =
12 =	Chlorobenzene-d5	15 =	625/8270 Internal Standard concentration = 40 mg/L (in final extract)
13 =	1,4-Dichlorobenzene-d4	16 =	624/8260 Internal Standard concentration = 30mg/L
			524 Internal Standard concentration = 5mg/L

Internal Standard Areas

Upper Limit = + 100% of internal standard area from daily cal or mid pt.

Lower Limit = - 50% of internal standard area from daily cal or mid pt.

Flags:

A - Indicates the compound failed the internal standard area criteria

R - Indicates the compound failed the internal standard retention time criteria.

Retention Times:

Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.

06136
01507
1091507

FORM8

Internal Standard Areas
Evaluation Std Data File: 1M152531.D
Analysis Date/Time: 09/15/21 17:05
Method: EPA 8260D
Lab File ID: CAL @ 50 PPB

	11	12	13	14	15	16	17
Area	RT	Area	RT	Area	RT	Area	RT
Eval File Area/RT:	259330 5.30	213973 6.96	127549 8.25				
Eval File Area Limit:	129665-518660	106986-427946	63774-255098				
Eval File RT Limit:	4.8-5.8	6.46-7.46	7.75-8.75				

Sample#	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT
1M152532.D 50 PPB	257772	5.30	210459	6.96	129321	8.25				
1M152533.D BLK	252064	5.30	206504	6.96	123274	8.25				
1M152534.D BLK	261065	5.30	215334	6.96	127464	8.25				
1M152535.D BLK	251635	5.30	214127	6.96	120795	8.25				
1M152536.D BLK	253046	5.30	211988	6.96	124878	8.25				
1M152537.D BLK	245856	5.30	211691	6.96	122024	8.25				
1M152538.D DAILY BLANK	246602	5.30	211723	6.96	122094	8.25				
1M152539.D BLK	243171	5.30	209787	6.96	125387	8.25				
1M152540.D 1 PPB	235786	5.30	201022	6.96	119740	8.25				
1M152541.D 1 PPB	222324	5.30	188185	6.96	109552	8.25				
1M152542.D AD25964-001	223715	5.30	185360	6.96	100413	8.25				
1M152543.D AD25964-005	192581	5.30	159633	6.96	79462	8.25				
1M152544.D AD25964-007(5X)	254914	5.30	262826	6.96	345152A	8.26				
1M152545.D AD25964-008	291972	5.30	233182	6.96	181153	8.24				
1M152546.D MBS96743	400300	5.30	311995	6.96	186451	8.25				
1M152547.D BLK	354882	5.30	290458	6.96	174326	8.25				
1M152548.D AD25964-008(5X)	292555	5.30	264738	6.96	292558A	8.26				
1M152549.D AD25964-007(5X)	323358	5.30	290594	6.96	346026A	8.26				
1M152550.D AD25964-001(MS)	372212	5.30	283615	6.96	156144	8.25				
1M152551.D AD25964-001(MSD)	322528	5.30	258277	6.96	156802	8.25				
1M152552.D BLK	347866	5.30	285409	6.96	169701	8.25				
1M152553.D BLK	332942	5.30	278335	6.96	169079	8.25				
1M152554.D BLK	319777	5.30	265119	6.96	162942	8.25				
1M152555.D AD25976-003	277260	5.30	177569	6.96	68380	8.25				
1M152556.D AD25976-005	287308	5.30	209796	6.96	95847	8.25				
1M152557.D AD25976-007	294075	5.30	247068	6.96	143087	8.25				
1M152558.D AD25896-003	283346	5.30	238625	6.96	142122	8.25				
1M152559.D AD25896-002	290643	5.30	244590	6.96	148738	8.25				
1M152560.D AD25896-001	278698	5.30	219480	6.96	112495	8.25				
1M152561.D AD25945-001 (5X)	279788	5.30	254593	6.96	272457A	8.26				
1M152562.D BLK	326486	5.30	269735	6.96	162561	8.25				
1M152563.D AD25947-001	332990	5.30	301929	6.96	223046	8.25				

11 = Fluorobenzene	14 =	17 =
12 = Chlorobenzene-d5	15 =	
13 = 1,4-Dichlorobenzene-d4	16 =	
		625/8270 Internal Standard concentration = 40 mg/L (in final extract)
		624/8260 Internal Standard concentration = 30ug/L
		524 Internal Standard concentration = 5ug/L

Internal Standard Areas

Upper Limit = + 100% of internal standard area from daily cal or mid pt. A - Indicates the compound failed the internal standard area criteria
 Lower Limit = - 50% of internal standard area from daily cal or mid pt. R - Indicates the compound failed the internal standard retention time criteria.

Retention Times:

Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.

Flags:

A - Indicates the compound failed the internal standard area criteria
 R - Indicates the compound failed the internal standard retention time criteria.

FORM 8

Internal Standard Areas

Evaluation Std Data File: 1M152531.D

Analysis Date/Time: 09/15/21 17:05

Lab File ID: CAL @ 50 PPB

Method: EPA 8260D

	11	12	13	14	15	16	17
Area	RT	Area	RT	Area	RT	Area	RT
Eval File Area/RT:	259330	5.30	213973	6.96	127549	8.25	
Eval File Area Limit:	129665-518660		106986-427946		63774-255098		
Eval File RT Limit:	4.8-5.8		6.46-7.46		7.75-8.75		

Data File Sample# 1M152564.D BLK 319989 5.30 259632 6.96 155410 8.25

11 =	Fluorobenzene	14 =		17 =	6258270 Internal Standard concentration = 40 mg/L (in final extract)
12 =	Chlorobenzene-d5	15 =			6248260 Internal Standard concentration = 30ug/L
13 =	1,4-Dichlorobenzene-d4	16 =			524 Internal Standard concentration = 5ug/L

Internal Standard Areas

Upper Limit = + 100% of internal standard area from daily cal or mid pt.

Lower Limit = - 50% of internal standard area from daily cal or mid pt.

Flags:

A - Indicates the compound failed the internal standard area criteria

R - Indicates the compound failed the internal standard retention time criteria.

Retention Times:

Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.

FORM 8

Internal Standard Areas

Method: EPA 8260D

Evaluation Std Data File: 2M156791.D

Analysis Date/Time: 09/15/21 16:57

Lab File ID: CAL @ 20 PPB

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Eval File Area/RT:	11 Area	RT	12 Area	RT	13 Area	RT	14 Area	RT	15 Area	RT	16 Area	RT	17 Area	RT
152513	5.10	118698	6.73	64362	8.02									
Eval File Area Limit:	76256-305026		59349-237396		32181-128724									
Eval File RI Limit:	4.6-5.6		6.23-7.23		7.52-8.52									

Sample#	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT
2M156792.D	20 PPB	157862	5.10	125751	6.73	64726	8.02							
2M156793.D	BLK	161380	5.10	126642	6.73	59017	8.02							
2M156794.D	BLK	153424	5.10	120680	6.73	57706	8.02							
2M156795.D	DAILY BLANK	153191	5.10	120519	6.73	55499	8.02							
2M156796.D	DAILY BLANK	151704	5.09	121102	6.73	60381	8.02							
2M156797.D	AD25978-015	152980	5.10	122658	6.73	58950	8.02							
2M156798.D	AD25978-017	155162	5.10	124924	6.74	57682	8.02							
2M156799.D	AD25973-004	157036	5.10	124460	6.73	58724	8.03							
2M156800.D	AD25973-005	153536	5.10	123487	6.73	59405	8.02							
2M156801.D	25889-013(5X)(T)	149484	5.10	119907	6.73	59667	8.02							
2M156802.D	AD25889-012(T)	163753	5.10	132625	6.73	62807	8.02							
2M156803.D	AD25889-013(T)	145567	5.10	117918	6.73	55716	8.02							
2M156804.D	AD25918-003	148000	5.10	117096	6.73	56254	8.02							
2M156805.D	AD25951-002(5X)	147148	5.10	117555	6.73	57071	8.02							
2M156807.D	MBS96744	158285	5.10	122446	6.73	64417	8.02							
2M156808.D	MBS96745	155724	5.09	124854	6.73	69440	8.02							
2M156809.D	AD25889-013(T:MS)	157955	5.10	125043	6.73	65895	8.02							
2M156810.D	AD25889-013(T:MSD)	173724	5.10	135473	6.73	73621	8.02							
2M156811.D	BLK	166903	5.10	133862	6.73	63336	8.02							
2M156812.D	BLK	158673	5.10	124753	6.73	60635	8.02							
2M156813.D	AD25948-004	153878	5.10	123110	6.73	61850	8.02							
2M156814.D	AD25968-006	154334	5.10	122576	6.73	58731	8.02							
2M156815.D	AD25978-015	152302	5.10	118469	6.73	57747	8.02							
2M156817.D	AD25978-003	156174	5.10	124406	6.73	58416	8.02							
2M156818.D	AD25978-005	154638	5.10	124183	6.73	59092	8.02							
2M156819.D	AD25978-007	157111	5.10	126564	6.73	61054	8.02							
2M156820.D	AD25978-009	158873	5.10	127152	6.73	61720	8.02							
2M156821.D	AD25978-011	154626	5.10	125653	6.73	60585	8.02							
2M156822.D	AD25978-013	150024	5.10	119567	6.73	58274	8.02							
2M156823.D	AD25973-001	151903	5.10	123794	6.73	59206	8.02							
2M156824.D	AD25973-002	151387	5.10	120733	6.74	60211	8.02							
2M156825.D	AD25973-003	152324	5.10	121234	6.73	59065	8.02							

11 = Fluorobenzene
 12 = Chlorobenzene-d5
 13 = 1,4-Dichlorobenzene-d4
 14 =
 15 =
 16 =
 17 =

625/8270 Internal Standard concentration = 40 mg/L (in final extract)
 624/8260 Internal Standard concentration = 30ug/L
 524 Internal Standard concentration = 5ug/L

Internal Standard Areas

Upper Limit = + 100% of internal standard area from daily cal or mid pt.
Lower Limit = - 50% of internal standard area from daily cal or mid pt.

Retention Times:

Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.

Flags:

A - Indicates the compound failed the internal standard area criteria
R - Indicates the compound failed the internal standard retention time criteria.

FORM 8

Internal Standard Areas

Evaluation Std Data File: 2M156791.D

Method: EPA 8260D

Analysis Date/Time: 09/15/21 16:57

Lab File ID: CAL @ 20 PPB

	11	12	13	14	15	16	17
Area	RT	Area	RT	Area	RT	Area	RT
Eval File Area/RT:	152513	5.10	118698	6.73	64362	8.02	
Eval File Area Limit:	76256-305026		59349-237396		32181-128724		
Eval File RT Limit:	4.6-5.6		6.23-7.23		7.52-8.52		

Data File	Sample#	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT
2M156827.D	AD25978-001(5X)	154547	5.10	124282	6.73	64964	8.02				
2M156828.D	BLK	153021	5.10	120421	6.73	59065	8.02				
2M156829.D	BLK	160037	5.10	128890	6.73	59923	8.02				
2M156830.D	BLK	155960	5.10	122368	6.73	60571	8.02				
2M156831.D	BLK	152125	5.10	119607	6.73	54253	8.02				
2M156832.D	BLK	150988	5.10	120118	6.73	59121	8.02				
2M156833.D	BLK	146623	5.10	120460	6.73	57789	8.02				

11 =	Fluorobenzene	14 =	17 =	6258270 Internal Standard concentration = 40 mg/L (in final extract)
12 =	Chlorobenzene-d5	15 =		6248260 Internal Standard concentration = 30ug/L
13 =	1,4-Dichlorobenzene-d4	16 =		524 Internal Standard concentration = 5ug/L

Internal Standard Areas

Upper Limit = + 100% of internal standard area from daily cal or mid pt.
 Lower Limit = - 50% of internal standard area from daily cal or mid pt.

Flags:

A - Indicates the compound failed the internal standard area criteria
 R - Indicates the compound failed the internal standard retention time criteria.

Retention Times:

Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.

FORM B

Internal Standard Areas

Evaluation Std Data File: 2M156837.D Method: EPA 8260D

Analysis Date/Time: 09/16/21 07:40

Lab File ID: CAL @ 20 PPB

Eval File Area/RT:	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT
155780	5.10	125797	6.73	66983	8.02							
77890-311560		62898-251594		33492-133966								
Eval File Area Limit:		6.23-7.23		7.52-8.52								
Eval File RT Limit:	4.6-5.6											

Data File	Sample#	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT
2M156836.D	20 PPB	143025	5.10	114678	6.73	61326	8.02						
2M156840.D	DAILY BLANK	147306	5.10	117378	6.73	57489	8.02						
2M156841.D	DAILY BLANK	150095	5.09	121391	6.73	57831	8.02						
2M156842.D	AD25947-003(80uL)	151384	5.10	120678	6.73	59478	8.02						
2M156843.D	AD25947-002(80uL)	163383	5.10	132418	6.73	77481	8.02						
2M156844.D	AD25947-001(MSD)	165963	5.09	136920	6.73	77426	8.02						
2M156845.D	AD25947-001(MSD)	192460	5.09	159477	6.73	88351	8.02						
2M156846.D	MBS96748	192792	5.09	157833	6.73	87317	8.02						
2M156847.D	MBS96749	193945	5.10	160065	6.73	92108	8.02						
2M156848.D	AD25889-012(L:MS)	174524	5.10	144589	6.73	86113	8.02						
2M156849.D	AD25889-012(T:MSD)	177551	5.10	151292	6.73	86936	8.02						
2M156850.D	AD25947-001	188310	5.09	157009	6.73	79167	8.02						
2M156851.D	EF-3-V-13600(091021)	181800	5.10	145250	6.73	73772	8.02						
2M156852.D	AD25889-014(T)	178658	5.10	145299	6.73	70091	8.02						
2M156853.D	AD25889-015(T)	170872	5.10	134644	6.73	63101	8.02						
2M156854.D	AD25889-016(T)	167228	5.10	137570	6.73	66434	8.02						
2M156855.D	AD25889-017(T)	169517	5.10	132458	6.73	61323	8.02						
2M156856.D	AD25889-018(T)	162746	5.10	129189	6.73	63132	8.02						
2M156857.D	AD25889-019(T)	179766	5.10	146592	6.73	69976	8.02						
2M156858.D	AD25889-020(T)	167265	5.10	133022	6.73	63213	8.02						
2M156859.D	AD25976-011	160479	5.10	130701	6.73	64176	8.02						
2M156860.D	AD25889-021(T)	157543	5.10	127124	6.73	61446	8.02						
2M156861.D	AD25889-022(T)	166715	5.10	133433	6.73	65239	8.02						
2M156862.D	AD25889-023(T)	156657	5.10	125901	6.73	61694	8.02						
2M156863.D	AD25973-003	157340	5.10	123141	6.73	61406	8.02						
2M156864.D	AD25978-009	155735	5.10	124220	6.73	62865	8.02						
2M156865.D	AD25781-003	153910	5.10	120127	6.73	58402	8.02						
2M156866.D	AD25978-001(SX)	154101	5.10	124698	6.73	67841	8.02						
2M156867.D	BLK	164823	5.10	133255	6.73	64445	8.02						
2M156868.D	AD25974-001	180891	5.09	147502	6.73	73933	8.02						
2M156871.D	MBS96752	168210	5.10	140493	6.73	78887	8.02						

11 =	Fluorobenzene	14 =		17 =	625/8270 Internal Standard concentration = 40 mg/L (in final extract)
12 =	Chlorobenzene-d5	15 =			624/8260 Internal Standard concentration = 30ug/L
13 =	1,4-Dichlorobenzene-d4	16 =			524 Internal Standard concentration = 5ug/L

Internal Standard Areas

Upper Limit = + 100% of internal standard area from daily cal or mid pt. A - Indicates the compound failed the internal standard area criteria

Lower Limit = - 50% of internal standard area from daily cal or mid pt. R - Indicates the compound failed the internal standard retention time criteria.

Retention Times:

Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.

Flags:

FORM8

Internal Standard Areas

Evaluation Std Data File: 6M144930.D

Method: EPA 8260D

Analysis Date/Time: 09/16/21 14:34

Lab File ID: CAL @ 50 PPB

1091507 0141

Eval File Area/RT:	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT
163527	5.13	126485	6.76	70593	8.05							
81764-327054		63242-252970		35296-141186								
Eval File RI Limit:	4.63-5.63	6.26-7.26		7.55-8.55								

Data File	Sample#	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT
6M144929.D	STD	165002	5.13	126630	6.76	57386	8.05						
6M144931.D	50 PPB	169366	5.13	131913	6.76	71724	8.05						
6M144932.D	BLK	153182	5.13	124599	6.76	63409	8.05						
6M144933.D	BLK	146745	5.13	118450	6.76	61240	8.05						
6M144934.D	DAILY BLANK	140370	5.13	114036	6.76	58663	8.05						
6M144935.D	AD25919-009	149645	5.13	120727	6.76	61702	8.05						
6M144936.D	MBS96753	158844	5.13	124635	6.76	69494	8.05						
6M144937.D	AD25919-009(MS)	160151	5.13	124080	6.76	63547	8.05						
6M144938.D	AD25919-009(MSD)	162071	5.13	121636	6.76	63022	8.05						
6M144939.D	BLK	152640	5.13	124586	6.76	64309	8.05						
6M144940.D	AD25919-001	149626	5.13	117105	6.76	53401	8.05						
6M144941.D	AD25919-003	140955	5.13	112349	6.76	52957	8.05						
6M144942.D	AD25919-005	145190	5.13	116360	6.76	51820	8.05						
6M144943.D	AD25919-007	142129	5.13	116132	6.76	52842	8.05						
6M144944.D	AD25919-011	140889	5.13	111602	6.76	52707	8.05						
6M144945.D	AD25919-013	139581	5.13	111754	6.76	51082	8.05						
6M144946.D	AD25919-015	137625	5.13	109676	6.76	49489	8.05						
6M144947.D	AD25919-017	140772	5.13	113495	6.76	51231	8.05						
6M144948.D	AD25919-019	141267	5.13	112636	6.76	51884	8.05						
6M144949.D	AD25976-003	131603	5.13	87870	6.76	27766A	8.05						
6M144950.D	AD25976-001	128860	5.13	107064	6.76	52560	8.05						
6M144951.D	AD25976-009	137368	5.13	111952	6.76	55128	8.05						
6M144952.D	AD25972-008	138687	5.13	111973	6.76	55066	8.05						
6M144953.D	AD25972-009	127358	5.13	104514	6.76	52068	8.05						
6M144954.D	AD25972-010	136659	5.13	111150	6.76	55958	8.05						
6M144955.D	AD25972-011	131186	5.13	109113	6.76	54252	8.05						
6M144956.D	AD25972-012	138263	5.13	111994	6.76	56193	8.05						
6M144957.D	AD25995-001	132444	5.13	106627	6.76	53092	8.05						
6M144958.D	AD25995-003	133098	5.13	105358	6.76	50363	8.05						
6M144959.D	AD25995-005	127296	5.13	98730	6.76	42618	8.05						
6M144960.D	MBS96755	148675	5.13	115707	6.76	61848	8.05						
6M144961.D	AD25974-002	134154	5.13	106388	6.76	52594	8.05						

11 = Fluorobenzene
 12 = Chlorobenzene-d5
 13 = 1,4-Dichlorobenzene-d4

14 =
 15 =
 16 =

625/8270 Internal Standard concentration = 40 mg/L (in final extract)
 624/8260 Internal Standard concentration = 30ug/L
 524 Internal Standard concentration = 5ug/L

Internal Standard Areas

Upper Limit = + 100% of internal standard area from daily cal or mid pt.
 Lower Limit = - 50% of internal standard area from daily cal or mid pt.

Flags:

A - Indicates the compound failed the internal standard area criteria
 R - Indicates the compound failed the internal standard retention time criteria.

Retention Times:

Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.

FORM8

Internal Standard Areas

Evaluation Std Data File: 6M144930.D

Method: EPA 8260D

Analysis Date/Time: 09/16/21 14:34

Lab File ID: CAL @ 50 PPB

Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT
11		12		13		14		15		16		17	
163527	5.13	126485	6.76	70593	8.05								
Eval File Area Limit:													
81764-327054	63242-252970	35296-141186											
Eval File RT Limit:													
4.63-5.63	6.26-7.26	7.55-8.55											

Data File	Sample#	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT
6M144962.D	AD26004-002	129808	5.13	105746	6.76	52478	8.05						
6M144963.D	AD26004-004	126260	5.13	101781	6.76	49544	8.05						
6M144964.D	AD26004-005	122137	5.13	99248	6.76	48481	8.05						
6M144965.D	AD26004-006	123341	5.13	98667	6.76	48817	8.05						
6M144966.D	BLK	129308	5.13	104779	6.76	51733	8.05						
6M144967.D	BLK	130153	5.13	104407	6.76	50548	8.05						
6M144968.D	BLK	131753	5.13	107404	6.76	53434	8.05						
6M144969.D	BLK	131723	5.13	106637	6.76	53341	8.05						

11 =	Fluorobenzene	14 =	17 =
12 =	Chlorobenzene-d5	15 =	625/8270 Internal Standard concentration = 40 mg/L (in final extract)
13 =	1,4-Dichlorobenzene-d4	16 =	624/8260 Internal Standard concentration = 30mg/L
			524 Internal Standard concentration = 5mg/L

Internal Standard Areas

Upper Limit = + 100% of internal standard area from daily cal or mid pt.
 Lower Limit = - 50% of internal standard area from daily cal or mid pt.

Flags:

A - Indicates the compound failed the internal standard area criteria
 R - Indicates the compound failed the internal standard retention time criteria.

Retention Times:

Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.

Base Neutral/Acid Extractable Data

Form1

ORGANICS SEMIVOLATILE REPORT

Sample Number: AD25976-002

Client Id: SB01 COMP

Data File: 9M108413.D

Analysis Date: 09/21/21 12:23

Date Rec/Extracted: 09/14/21-09/20/21

Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270E

Matrix: Soil

Initial Vol: 30g

Final Vol: 0.5ml

Dilution: 1

Solids: 88

Units: mg/Kg

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
91-57-6	2-Methylnaphthalene	0.038	U	218-01-9	Chrysene	0.038	0.34
83-32-9	Acenaphthene	0.038	U	53-70-3	Dibenzo[a,h]anthracene	0.038	0.050
208-96-8	Acenaphthylene	0.038	U	206-44-0	Fluoranthene	0.038	0.48
120-12-7	Anthracene	0.038	0.057	86-73-7	Fluorene	0.038	U
56-55-3	Benzo[a]anthracene	0.038	0.31	193-39-5	Indeno[1,2,3-cd]pyrene	0.038	0.16
50-32-8	Benzo[a]pyrene	0.038	0.29	91-20-3	Naphthalene	0.011	U
205-99-2	Benzo[b]fluoranthene	0.038	0.36	85-01-8	Phenanthrene	0.038	0.28
191-24-2	Benzo[g,h,i]perylene	0.038	0.20	129-00-0	Pyrene	0.038	0.67
207-08-9	Benzo[k]fluoranthene	0.038	0.083				

Worksheet #: 609228

Total Target Concentration 3.3

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.*B* - Indicates the analyte was found in the blank as well as in the sample.*E* - Indicates the analyte concentration exceeds the calibration range of the instrument.*R* - Retention Time Out*J* - Indicates an estimated value when a compound is detected at less than the specified detection limit.*d* - Pesticide %Diff>40% between columns due to coelution. Lower concentration use aChlordane (Total) is sum of α -Chlordane and γ -Chlordane.

SampleID : AD25976-002
 Data File: 9M108413.D
 Acq On : 09/21/21 12:23

Operator : AH/JB
 Sam Mult : 1 Vial# : 7
 Misc : S,BNA

Qt Meth : 9M_0722.M
 Qt On : 09/21/21 13:29
 Qt Upd On: 07/22/21 14:06

Data Path : G:\GcMsData\2021\GCMS_9\Data\09-21-21\
 Qt Path : G:\GCMSDATA\2021\GCMS_9\METHODQT\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIOn	Response	Conc	Units	Dev(Min)	

Internal Standards							
7) 1,4-Dioxane-d8 (INT)	2.702	96	25188	40.00	ng	-0.05	
21) 1,4-Dichlorobenzene-d4	5.907	152	56896	40.00	ng	-0.02	
31) Naphthalene-d8	6.919	136	221693	40.00	ng	-0.02	
50) Acenaphthene-d10	8.360	164	117416	40.00	ng	-0.03	
77) Phenanthrene-d10	9.842	188	235996	40.00	ng	-0.02	
91) Chrysene-d12	12.919	240	222589	40.00	ng	-0.02	
103) Perylene-d12	14.577	264	247495	40.00	ng	-0.04	
System Monitoring Compounds							
11) 2-Fluorophenol	4.737	112	145149	96.39	ng	0.00	
Spiked Amount	100.000		Recovery	=	96.39%		
16) Phenol-d5	5.613	99	174114	95.45	ng	0.00	
Spiked Amount	100.000		Recovery	=	95.45%		
32) Nitrobenzene-d5	6.366	128	37680	44.77	ng	-0.02	
Spiked Amount	50.000		Recovery	=	89.54%		
55) 2-Fluorobiphenyl	7.760	172	199002	46.68	ng	-0.03	
Spiked Amount	50.000		Recovery	=	93.36%		
80) 2,4,6-Tribromophenol	9.113	330	75204	113.81	ng	-0.02	
Spiked Amount	100.000		Recovery	=	113.81%		
94) Terphenyl-d14	11.648	244	190655	50.79	ng	-0.02	
Spiked Amount	50.000		Recovery	=	101.58%		
Target Compounds							
86) Phenanthrene	9.866	178	94789	14.5286	ng		97
87) Anthracene	9.925	178	19846m	3.0072	ng		
90) Fluoranthene	11.213	202	177999	25.5646	ng		85
92) Pyrene	11.483	202	243972	35.2863	ng		81
100) Benzo[a]anthracene	12.907	228	109918	16.4613	ng		99
101) Chrysene	12.954	228	118077m	17.9475	ng		
105) Benzo[b]fluoranthene	14.136	252	128068m	18.7712	ng		
106) Benzo[k]fluoranthene	14.165	252	29444m	4.3862	ng		
107) Benzo[a]pyrene	14.513	252	97738	15.2394	ng		90
108) Indeno[1,2,3-cd]pyrene	15.983	276	64013	8.4044	ng		72
109) Dibenzo[a,h]anthracene	15.983	278	16877m	2.6258	ng		
110) Benzo[g,h,i]perylene	16.389	276	65703	10.3750	ng		70

(#) = qualifier out of range (m) = manual integration (+) = signals summed

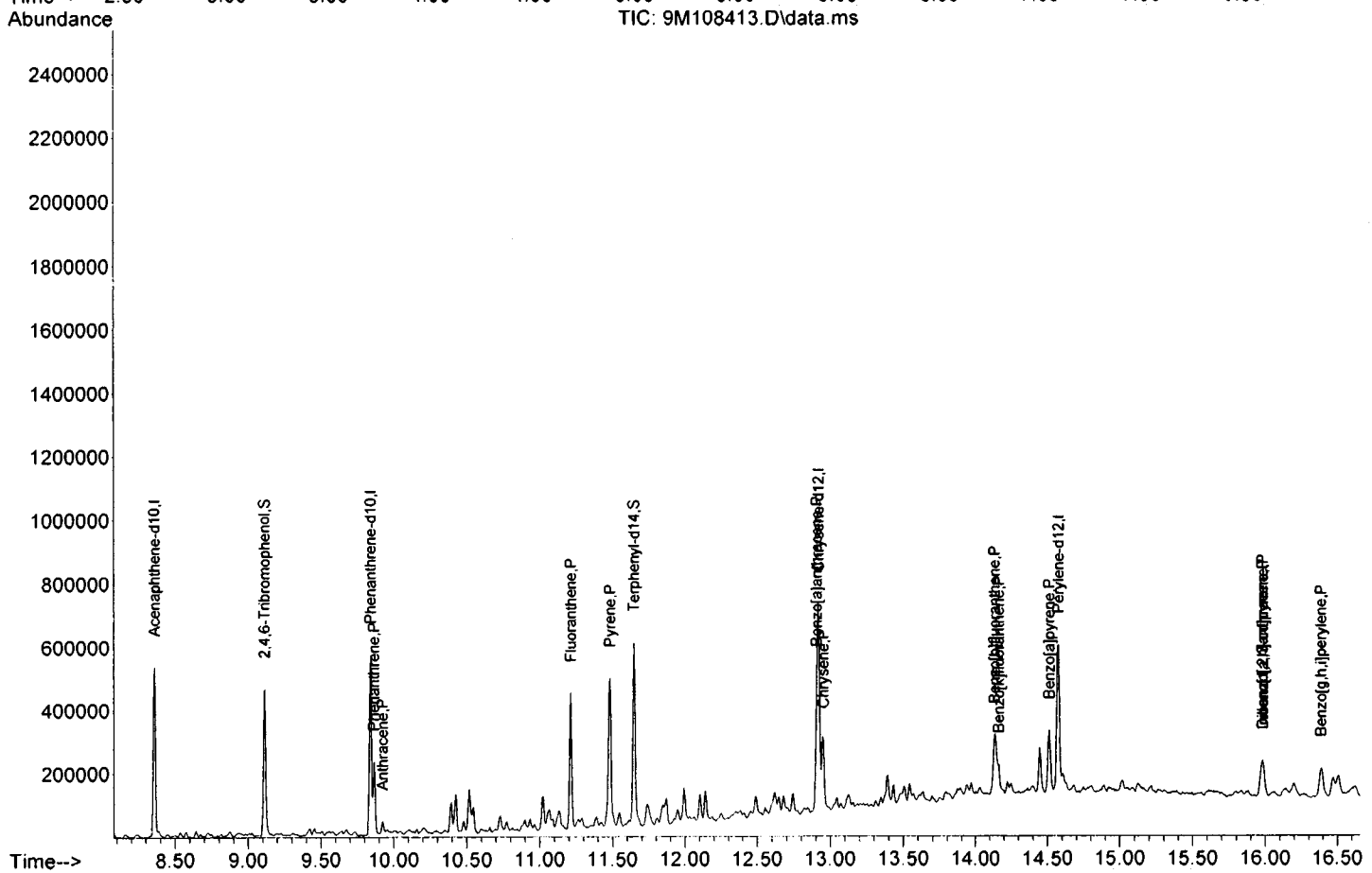
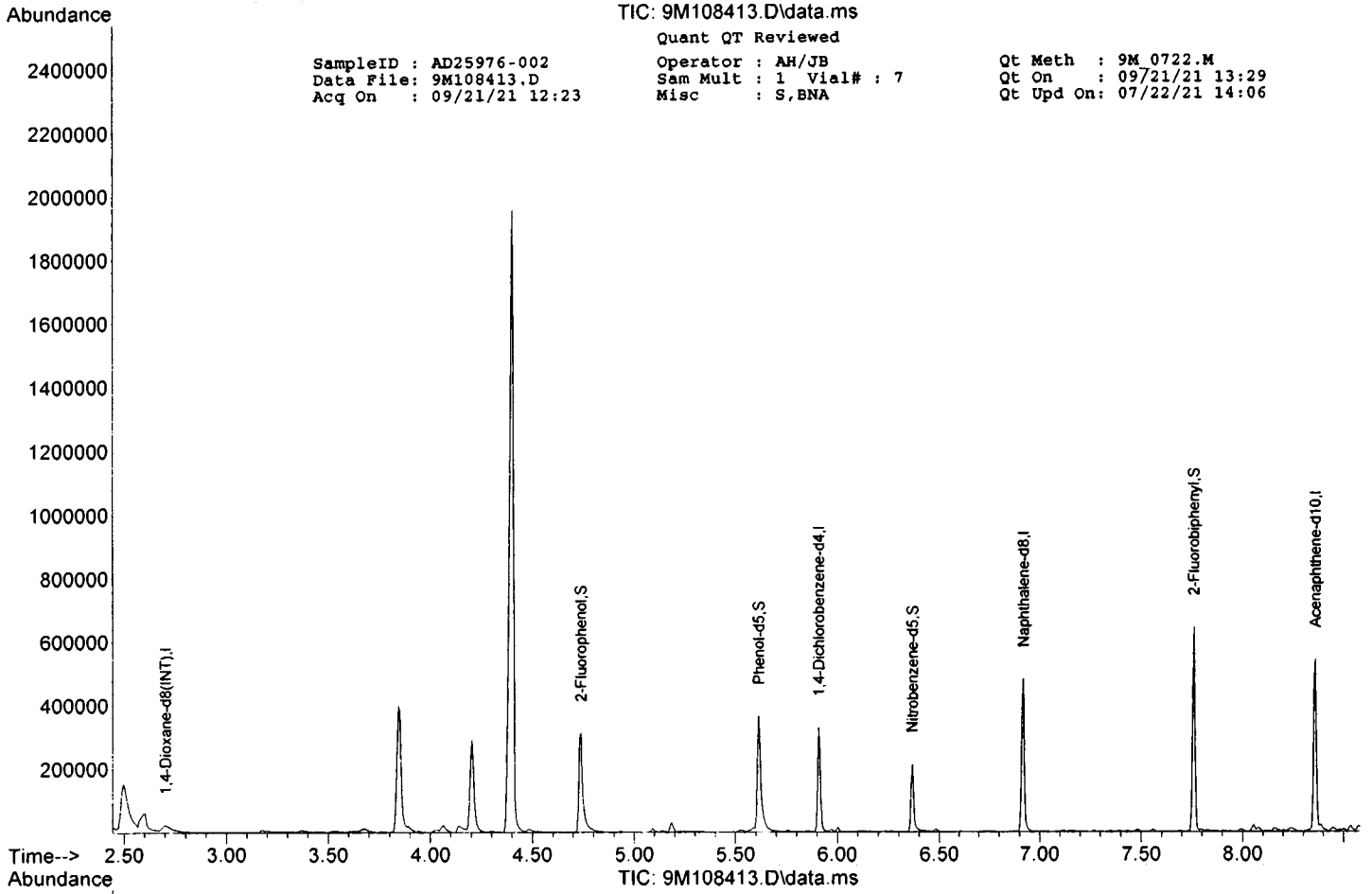
TIC: 9M108413.D\data.ms

Quant QT Reviewed

SampleID : AD25976-002
 Data File: 9M108413.D
 Acq On : 09/21/21 12:23

Operator : AH/JB
 Sam Mult : 1 Vial# : 7
 Misc : S.BNA

Qt Meth : 9M_0722.M
 Qt On : 09/21/21 13:29
 Qt Upd On: 07/22/21 14:06



Form1

ORGANICS SEMIVOLATILE REPORT

Sample Number: AD25976-004(3X)

Client Id: SB02 COMP

Data File: 9M108419.D

Analysis Date: 09/21/21 14:41

Date Rec/Extracted: 09/14/21-09/20/21

Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270E

Matrix: Soil

Initial Vol: 30g

Final Vol: 0.5ml

Dilution: 3

Solids: 83

Units: mg/Kg

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
91-57-6	2-Methylnaphthalene	0.12	U	218-01-9	Chrysene	0.12	1.0
83-32-9	Acenaphthene	0.12	U	53-70-3	Dibenzo[a,h]anthracene	0.12	0.16
208-96-8	Acenaphthylene	0.12	U	206-44-0	Fluoranthene	0.12	2.0
120-12-7	Anthracene	0.12	0.21	86-73-7	Fluorene	0.12	U
56-55-3	Benzo[a]anthracene	0.12	0.96	193-39-5	Indeno[1,2,3-cd]pyrene	0.12	0.50
50-32-8	Benzo[a]pyrene	0.12	0.87	91-20-3	Naphthalene	0.035	U
205-99-2	Benzo[b]fluoranthene	0.12	1.3	85-01-8	Phenanthrene	0.12	1.2
191-24-2	Benzo[g,h,i]perylene	0.12	0.56	129-00-0	Pyrene	0.12	1.9
207-08-9	Benzo[k]fluoranthene	0.12	0.35				

Worksheet #: 609246

Total Target Concentration 11

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.*B* - Indicates the analyte was found in the blank as well as in the sample.*E* - Indicates the analyte concentration exceeds the calibration range of the instrument.*R* - Retention Time Out*J* - Indicates an estimated value when a compound is detected at less than the specified detection limit.*d* - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a*Chlordane (Total)* is sum of *α-Chlordane* and *γ-Chlordane*.

SampleID : AD25976-004 (3X)
 Data File: 9M108419.D
 Acq On : 09/21/21 14:41

Operator : AH/JB
 Sam Mult : 1 Vial# : 13
 Misc : S,BNA:3

Qt Meth : 9M_0722.M
 Qt On : 09/21/21 15:06
 Qt Upd On: 07/22/21 14:06

Data Path : G:\GcMsData\2021\GCMS_9\Data\09-21-21\
 Qt Path : G:\GCMSDATA\2021\GCMS_9\METHODQT\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	

Internal Standards							
7) 1,4-Dioxane-d8 (INT)	2.707	96	28330	40.00	ng	-0.04	
21) 1,4-Dichlorobenzene-d4	5.907	152	63709	40.00	ng	-0.02	
31) Naphthalene-d8	6.919	136	248122	40.00	ng	-0.02	
50) Acenaphthene-d10	8.360	164	131767	40.00	ng	-0.03	
77) Phenanthrene-d10	9.842	188	259741	40.00	ng	-0.02	
91) Chrysene-d12	12.919	240	237327	40.00	ng	-0.02	
103) Perylene-d12	14.577	264	266123	40.00	ng	-0.04	
System Monitoring Compounds							
11) 2-Fluorophenol	4.737	112	48822	28.83	ng	0.00	
Spiked Amount	100.000		Recovery	=	28.83%		
16) Phenol-d5	5.613	99	60041	29.26	ng	0.00	
Spiked Amount	100.000		Recovery	=	29.26%		
32) Nitrobenzene-d5	6.366	128	12792	13.58	ng	-0.02	
Spiked Amount	50.000		Recovery	=	27.16%		
55) 2-Fluorobiphenyl	7.760	172	68959	14.41	ng	-0.03	
Spiked Amount	50.000		Recovery	=	28.82%		
80) 2,4,6-Tribromophenol	9.119	330	24636	33.87	ng	-0.02	
Spiked Amount	100.000		Recovery	=	33.87%		
94) Terphenyl-d14	11.648	244	66388	16.59	ng	-0.02	
Spiked Amount	50.000		Recovery	=	33.18%		
Target Compounds							
86) Phenanthrene	9.866	178	139239	19.3905	ng		100
87) Anthracene	9.925	178	25791m	3.5507	ng		
90) Fluoranthene	11.213	202	255034	33.2800	ng		85
92) Pyrene	11.483	202	232227	31.5018	ng		81
100) Benzo[a]anthracene	12.907	228	113520	15.9450	ng		98
101) Chrysene	12.948	228	117220m	16.7108	ng		
105) Benzo[b]fluoranthene	14.142	252	152815m	20.8306	ng		
106) Benzo[k]fluoranthene	14.165	252	42387m	5.8722	ng		
107) Benzo[a]pyrene	14.513	252	99728	14.4613	ng		89
108) Indeno[1,2,3-cd]pyrene	15.983	276	67519	8.2442	ng		67
109) Dibenzo[a,h]anthracene	15.989	278	17927m	2.5939	ng		
110) Benzo[g,h,i]perylene	16.395	276	63725	9.3583	ng		71

(#) = qualifier out of range (m) = manual integration (+) = signals summed



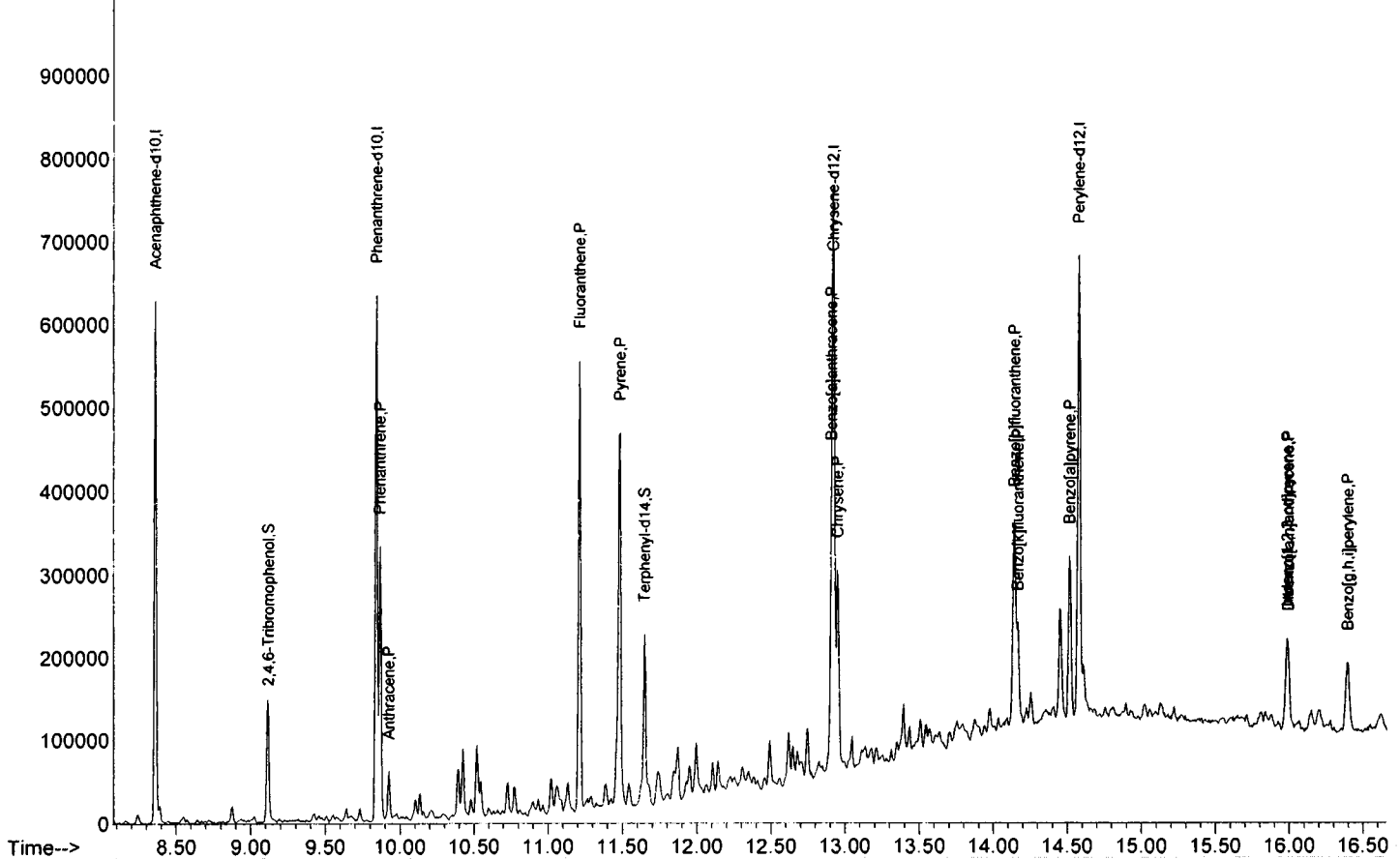
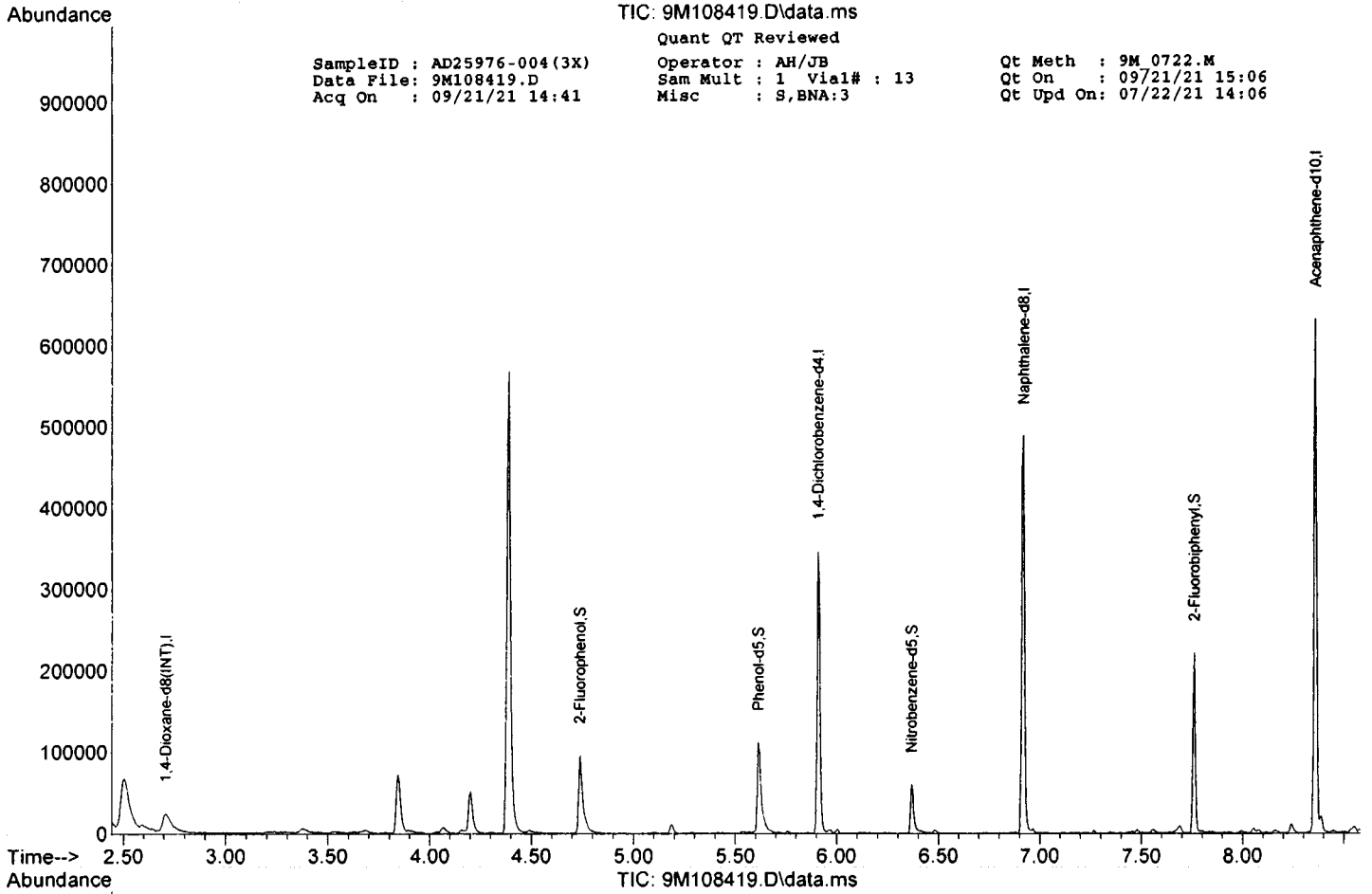
TIC: 9M108419.D\data.ms

Quant QT Reviewed

SampleID : AD25976-004(3X)
 Data File: 9M108419.D
 Acq On : 09/21/21 14:41

Operator : AH/JB
 Sam Mult : 1 Vial# : 13
 Misc : S,BNA:3

Qt Meth : 9M_0722.M
 Qt On : 09/21/21 15:06
 Qt Upd On: 07/22/21 14:06



Form1

ORGANICS SEMIVOLATILE REPORT

Sample Number: AD25976-006(3X)

Client Id: SB03 COMP

Data File: 9M108418.D

Analysis Date: 09/21/21 14:18

Date Rec/Extracted: 09/14/21-09/20/21

Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270E

Matrix: Soil

Initial Vol: 30g

Final Vol: 0.5ml

Dilution: 3

Solids: 80

Units: mg/Kg

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
91-57-6	2-Methylnaphthalene	0.12	U	218-01-9	Chrysene	0.12	0.18
83-32-9	Acenaphthene	0.12	U	53-70-3	Dibenzo[a,h]anthracene	0.12	U
208-96-8	Acenaphthylene	0.12	U	206-44-0	Fluoranthene	0.12	0.28
120-12-7	Anthracene	0.12	U	86-73-7	Fluorene	0.12	U
56-55-3	Benzo[a]anthracene	0.12	0.17	193-39-5	Indeno[1,2,3-cd]pyrene	0.12	U
50-32-8	Benzo[a]pyrene	0.12	0.15	91-20-3	Naphthalene	0.036	U
205-99-2	Benzo[b]fluoranthene	0.12	0.24	85-01-8	Phenanthrene	0.12	U
191-24-2	Benzo[g,h,i]perylene	0.12	U	129-00-0	Pyrene	0.12	0.28
207-08-9	Benzo[k]fluoranthene	0.12	U				

Worksheet #: 609246

Total Target Concentration 1.3

ColumnID: (^) Indicates results from 2nd column

*U - Indicates the compound was analyzed but not detected.**B - Indicates the analyte was found in the blank as well as in the sample.**E - Indicates the analyte concentration exceeds the calibration range of the instrument.**R - Retention Time Out**J - Indicates an estimated value when a compound is detected at less than the specified detection limit.**d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a**Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.*

SampleID : AD25976-006(3X) Operator : AH/JB Qt Meth : 9M_0722.M
 Data File: 9M108418.D Sam Mult : 1 Vial# : 12 Qt On : 09/21/21 14:49
 Acq On : 09/21/21 14:18 Misc : S,BNA:3 Qt Upd On: 07/22/21 14:06

Data Path : G:\GcMsData\2021\GCMS_9\Data\09-21-21\
 Qt Path : G:\GCMSDATA\2021\GCMS_9\METHODQT\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QI	Response	Conc	Units	Dev(Min)	

Internal Standards							
7) 1,4-Dioxane-d8 (INT)	2.713	96	27271	40.00	ng	-0.04	
21) 1,4-Dichlorobenzene-d4	5.907	152	61465	40.00	ng	-0.02	
31) Naphthalene-d8	6.919	136	235685	40.00	ng	-0.02	
50) Acenaphthene-d10	8.360	164	128734	40.00	ng	-0.03	
77) Phenanthrene-d10	9.842	188	249853	40.00	ng	-0.02	
91) Chrysene-d12	12.919	240	226298	40.00	ng	-0.02	
103) Perylene-d12	14.583	264	250844	40.00	ng	-0.04	
System Monitoring Compounds							
11) 2-Fluorophenol	4.737	112	46127	28.29	ng	0.00	
Spiked Amount 100.000			Recovery =	28.29%			
16) Phenol-d5	5.613	99	55565	28.13	ng	0.00	
Spiked Amount 100.000			Recovery =	28.13%			
32) Nitrobenzene-d5	6.366	128	11532	12.89	ng	-0.02	
Spiked Amount 50.000			Recovery =	25.78%			
55) 2-Fluorobiphenyl	7.760	172	65429	14.00	ng	-0.03	
Spiked Amount 50.000			Recovery =	28.00%			
80) 2,4,6-Tribromophenol	9.119	330	23740	33.93	ng	-0.02	
Spiked Amount 100.000			Recovery =	33.93%			
94) Terphenyl-d14	11.648	244	59431	15.57	ng	-0.02	
Spiked Amount 50.000			Recovery =	31.14%			
Target Compounds							
90) Fluoranthene	11.213	202	33125	4.4936	ng		87
92) Pyrene	11.483	202	31686	4.5077	ng		80
100) Benzo[a]anthracene	12.907	228	18187	2.6790	ng		98
101) Chrysene	12.948	228	18774m	2.8068	ng		
105) Benzo[b]fluoranthene	14.148	252	26314m	3.8054	ng		
107) Benzo[a]pyrene	14.519	252	16109	2.4782	ng		89

(#) = qualifier out of range (m) = manual integration (+) = signals summed

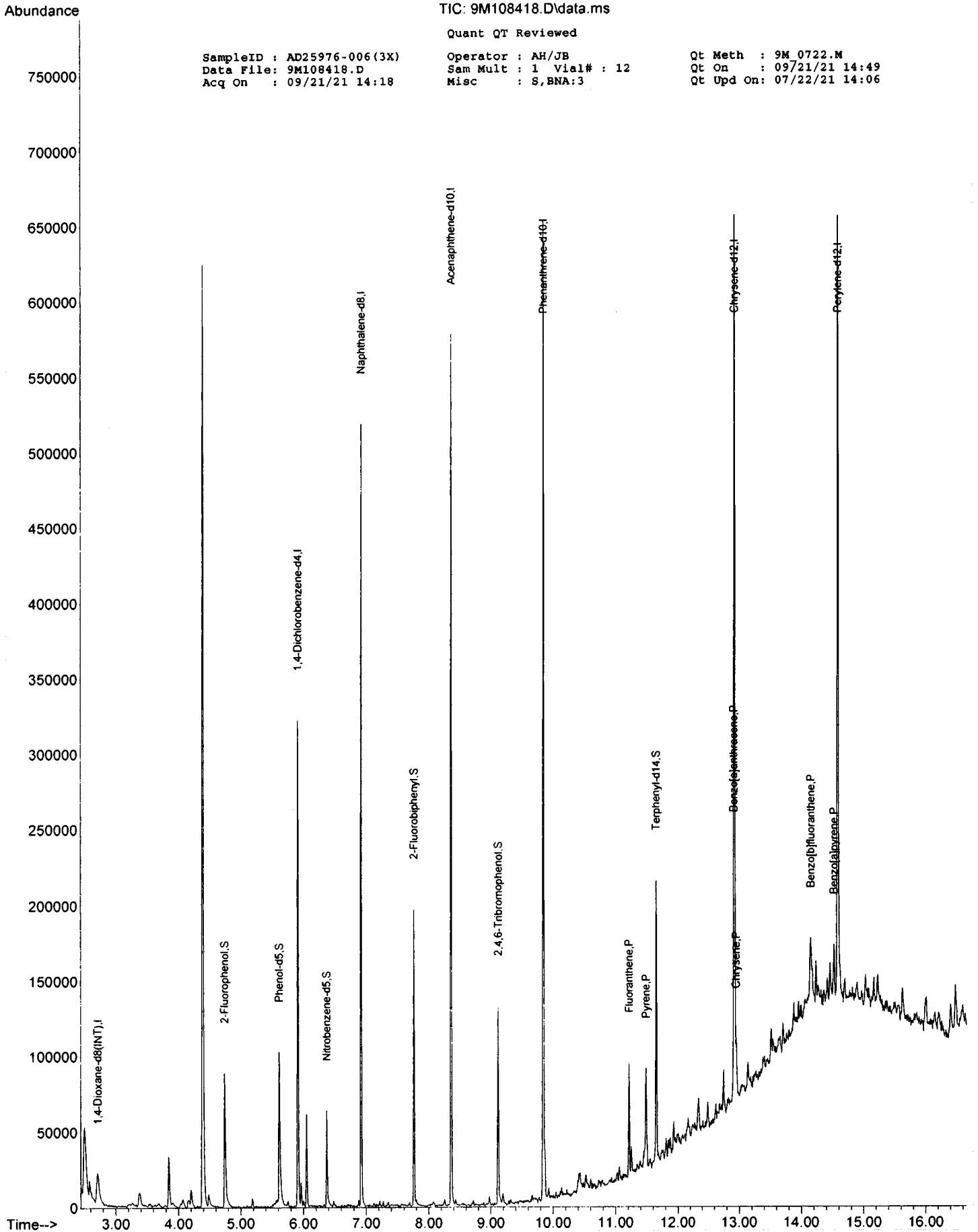
TIC: 9M108418.D\data.ms

Quant QT Reviewed

SampleID : AD25976-006(3X)
 Data File: 9M108418.D
 Acq On : 09/21/21 14:18

Operator : AH/JB
 Sam Mult : 1 Vial# : 12
 Misc : S,BNA:3

Qt Meth : 9M_0722.M
 Qt On : 09/21/21 14:49
 Qt Upd On: 07/22/21 14:06



Form1

ORGANICS SEMIVOLATILE REPORT

Sample Number: AD25976-007

Client Id: SB04 GRAB

Data File: 7M116612.D

Analysis Date: 09/21/21 14:16

Date Rec/Extracted: 09/14/21-09/20/21

Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270E

Matrix: Soil

Initial Vol: 30g

Final Vol: 0.5ml

Dilution: 1

Solids: 80

Units: mg/Kg

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
92-52-4	1,1'-Biphenyl	0.042	U	50-32-8	Benzo[a]pyrene	0.042	U
95-94-3	1,2,4,5-Tetrachlorobenzene	0.042	U	205-99-2	Benzo[b]fluoranthene	0.042	U
123-91-1	1,4-Dioxane	0.021	U	191-24-2	Benzo[g,h,i]perylene	0.042	U
58-90-2	2,3,4,6-Tetrachlorophenol	0.042	U	207-08-9	Benzo[k]fluoranthene	0.042	U
95-95-4	2,4,5-Trichlorophenol	0.042	U	111-91-1	bis(2-Chloroethoxy)methan	0.042	U
88-06-2	2,4,6-Trichlorophenol	0.042	U	111-44-4	bis(2-Chloroethyl)ether	0.010	U
120-83-2	2,4-Dichlorophenol	0.016	U	108-60-1	bis(2-chloroisopropyl)ether	0.042	U
105-67-9	2,4-Dimethylphenol	0.020	U	117-81-7	bis(2-Ethylhexyl)phthalate	0.042	U
51-28-5	2,4-Dinitrophenol	0.21	U	85-68-7	Butylbenzylphthalate	0.042	U
121-14-2	2,4-Dinitrotoluene	0.042	U	105-60-2	Caprolactam	0.042	U
606-20-2	2,6-Dinitrotoluene	0.042	U	86-74-8	Carbazole	0.042	U
91-58-7	2-Chloronaphthalene	0.042	U	218-01-9	Chrysene	0.042	U
95-57-8	2-Chlorophenol	0.042	U	53-70-3	Dibenzo[a,h]anthracene	0.042	U
91-57-6	2-Methylnaphthalene	0.042	U	132-64-9	Dibenzofuran	0.011	U
95-48-7	2-Methylphenol	0.012	U	84-66-2	Diethylphthalate	0.042	U
88-74-4	2-Nitroaniline	0.042	U	131-11-3	Dimethylphthalate	0.042	U
88-75-5	2-Nitrophenol	0.042	U	84-74-2	Di-n-butylphthalate	0.048	U
106-44-5	3&4-Methylphenol	0.012	U	117-84-0	Di-n-octylphthalate	0.042	U
91-94-1	3,3'-Dichlorobenzidine	0.042	0.82	206-44-0	Fluoranthene	0.042	U
99-09-2	3-Nitroaniline	0.042	0.79	86-73-7	Fluorene	0.042	U
534-52-1	4,6-Dinitro-2-methylphenol	0.15	U	118-74-1	Hexachlorobenzene	0.042	U
101-55-3	4-Bromophenyl-phenylether	0.042	U	87-68-3	Hexachlorobutadiene	0.042	U
59-50-7	4-Chloro-3-methylphenol	0.042	U	77-47-4	Hexachlorocyclopentadiene	0.14	U
106-47-8	4-Chloroaniline	0.018	0.69	67-72-1	Hexachloroethane	0.042	U
7005-72-3	4-Chlorophenyl-phenylether	0.042	U	193-39-5	Indeno[1,2,3-cd]pyrene	0.042	U
100-01-6	4-Nitroaniline	0.042	0.32	78-59-1	Isophorone	0.042	U
100-02-7	4-Nitrophenol	0.042	U	91-20-3	Naphthalene	0.012	U
83-32-9	Acenaphthene	0.042	U	98-95-3	Nitrobenzene	0.042	U
208-96-8	Acenaphthylene	0.042	U	621-64-7	N-Nitroso-di-n-propylamine	0.016	U
98-86-2	Acetophenone	0.042	U	86-30-6	n-Nitrosodiphenylamine	0.14	U
120-12-7	Anthracene	0.042	U	87-86-5	Pentachlorophenol	0.20	U
1912-24-9	Atrazine	0.042	U	85-01-8	Phenanthrene	0.042	U
100-52-7	Benzaldehyde	0.45	U	108-95-2	Phenol	0.042	U
56-55-3	Benzo[a]anthracene	0.042	U	129-00-0	Pyrene	0.042	U

Worksheet #: 609260

Total Target Concentration 2.6

ColumnID: (^) Indicates results from 2nd column

*U - Indicates the compound was analyzed but not detected.**B - Indicates the analyte was found in the blank as well as in the sample.**E - Indicates the analyte concentration exceeds the calibration range of the instrument.**R - Retention Time Out**J - Indicates an estimated value when a compound is detected at less than the specified detection limit.**d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a**N-Nitrosodiphenylamine decomposes in the GC inlet and is detected as diphenylamine**Chlordane (Total) is sum of a-Chlordane and y-Chlordane.*

SampleID : AD25976-007
 Data File: 7M116612.D
 Acq On : 09/21/21 14:16

Operator : AH/JB
 Sam Mult : 1 Vial# : 12
 Misc : S,BNA

Qt Meth : 7M_0920.M
 Qt On : 09/21/21 14:40
 Qt Upd On: 09/20/21 14:15

Data Path : G:\GcMsData\2021\GCMS_7\Data\09-21-21\
 Qt Path : G:\GCMSDATA\2021\GCMS_7\METHODQT\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIOn	Response	Conc	Units	Dev(Min)	

Internal Standards							
7) 1,4-Dioxane-d8 (INT)	2.717	96	113837	40.00	ng	-0.01	
21) 1,4-Dichlorobenzene-d4	5.919	152	209280	40.00	ng	0.00	
31) Naphthalene-d8	6.935	136	850339	40.00	ng	0.00	
50) Acenaphthene-d10	8.398	164	411672	40.00	ng	0.00	
77) Phenanthrene-d10	9.891	188	766800	40.00	ng	0.00	
91) Chrysene-d12	12.981	240	638413	40.00	ng	0.00	
103) Perylene-d12	14.667	264	707909	40.00	ng	0.00	
System Monitoring Compounds							
11) 2-Fluorophenol	4.750	112	596852	99.10	ng	0.01	
Spiked Amount			Recovery	=	99.10%		
16) Phenol-d5	5.613	99	730347	106.66	ng	0.00	
Spiked Amount			Recovery	=	106.66%		
32) Nitrobenzene-d5	6.371	128	157372	49.51	ng	0.00	
Spiked Amount			Recovery	=	99.02%		
55) 2-Fluorobiphenyl	7.793	172	671123	51.30	ng	0.00	
Spiked Amount			Recovery	=	102.60%		
80) 2,4,6-Tribromophenol	9.156	330	205048	100.39	ng	0.00	
Spiked Amount			Recovery	=	100.39%		
94) Terphenyl-d14	11.718	244	592134	55.94	ng	0.00	
Spiked Amount			Recovery	=	111.88%		
Target Compounds							
42) 4-Chloroaniline	6.988	127	261848	33.0956	ng	95	
66) 3-Nitroaniline	8.351	138	137764	38.1117	ng	71	
75) 4-Nitroaniline	8.927	138	59442	15.4943	ng	74	
99) 3,3'-Dichlorobenzidine	12.946	252	294778	39.5669	ng	95	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

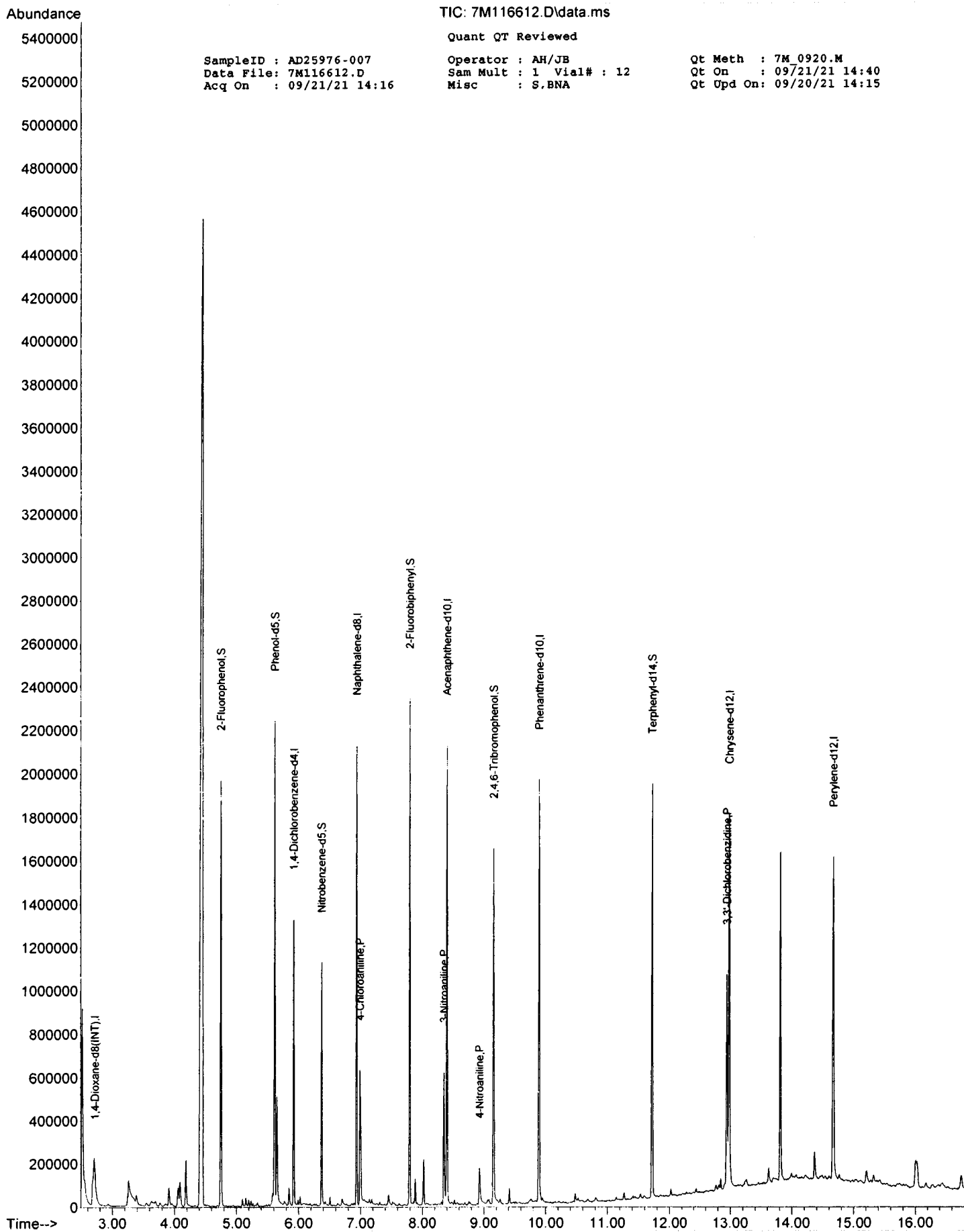
TIC: 7M116612.D\data.ms

Quant QT Reviewed

SampleID : AD25976-007
 Data File: 7M116612.D
 Acq On : 09/21/21 14:16

Operator : AH/JB
 Sam Mult : 1 Vial# : 12
 Misc : S.BNA

Qt Meth : 7M_0920.M
 Qt On : 09/21/21 14:40
 Qt Upd On: 09/20/21 14:15



Form1

ORGANICS SEMIVOLATILE REPORT

Sample Number: AD25976-008(3X)

Client Id: SB04 COMP

Data File: 9M108417.D

Analysis Date: 09/21/21 13:55

Date Rec/Extracted: 09/14/21-09/20/21

Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270E

Matrix: Soil

Initial Vol: 30g

Final Vol: 0.5ml

Dilution: 3

Solids: 84

Units: mg/Kg

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
91-57-6	2-Methylnaphthalene	0.12	U	218-01-9	Chrysene	0.12	U
83-32-9	Acenaphthene	0.12	U	53-70-3	Dibenzo[a,h]anthracene	0.12	U
208-96-8	Acenaphthylene	0.12	U	206-44-0	Fluoranthene	0.12	0.22
120-12-7	Anthracene	0.12	U	86-73-7	Fluorene	0.12	U
56-55-3	Benzo[a]anthracene	0.12	0.13	193-39-5	Indeno[1,2,3-cd]pyrene	0.12	U
50-32-8	Benzo[a]pyrene	0.12	0.12	91-20-3	Naphthalene	0.034	U
205-99-2	Benzo[b]fluoranthene	0.12	0.20	85-01-8	Phenanthrene	0.12	U
191-24-2	Benzo[g,h,i]perylene	0.12	U	129-00-0	Pyrene	0.12	0.22
207-08-9	Benzo[k]fluoranthene	0.12	U				

Worksheet #: 609246

Total Target Concentration 0.89

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.*B* - Indicates the analyte was found in the blank as well as in the sample.*E* - Indicates the analyte concentration exceeds the calibration range of the instrument.*R* - Retention Time Out*J* - Indicates an estimated value when a compound is detected at less than the specified detection limit.*d* - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a*Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.*

SampleID : AD25976-008(3X)
 Data File: 9M108417.D
 Acq On : 09/21/21 13:55

Operator : AH/JB
 Sam Mult : 1 Vial# : 11
 Misc : S,BNA:3

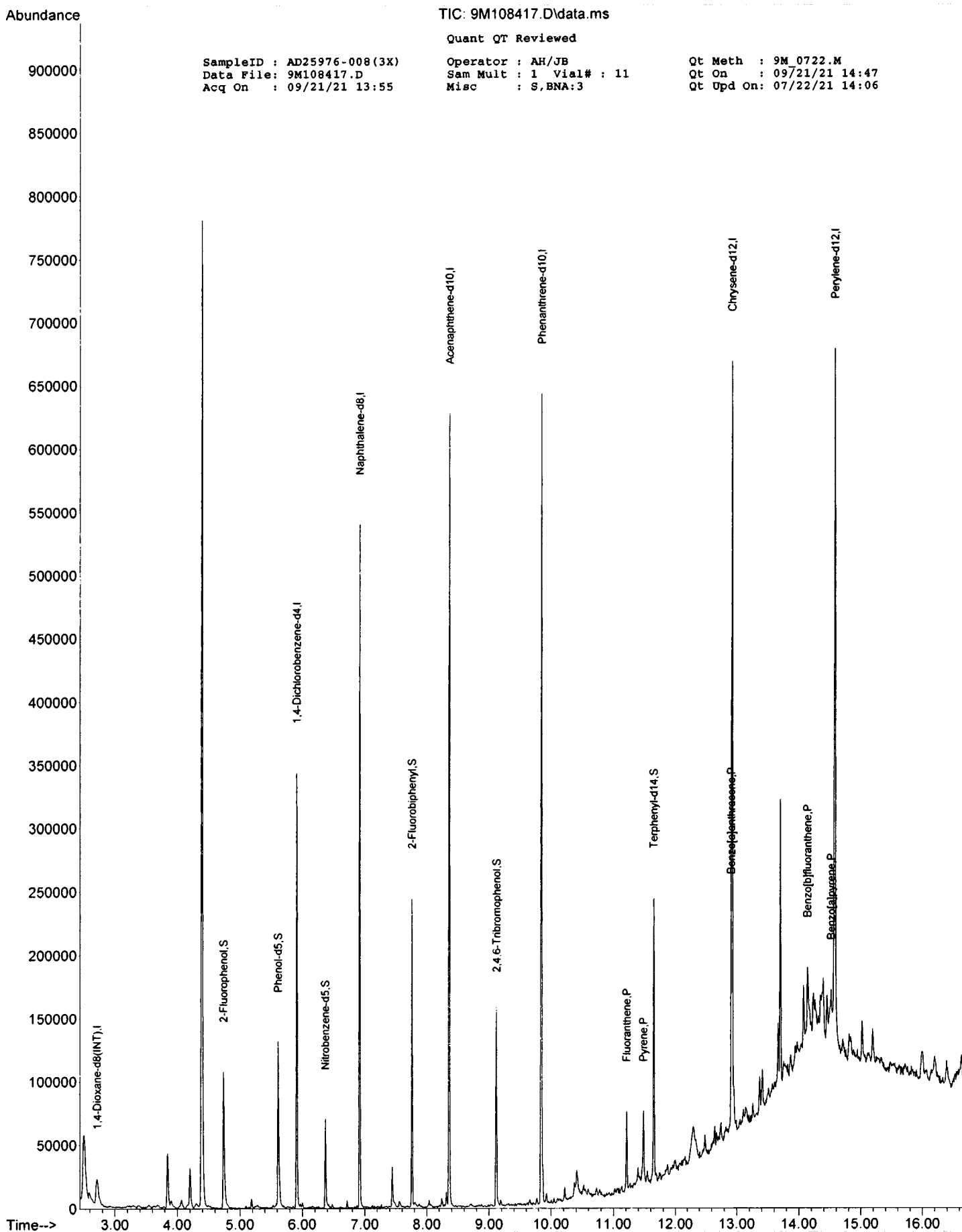
Qt Meth : 9M_0722.M
 Qt On : 09/21/21 14:47
 Qt Upd On: 07/22/21 14:06

Data Path : G:\GcMsData\2021\GCMS_9\Data\09-21-21\
 Qt Path : G:\GCMSDATA\2021\GCMS_9\METHODQT\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIOn	Response	Conc	Units	Dev(Min)	

Internal Standards							
7) 1,4-Dioxane-d8 (INT)	2.713	96	27705	40.00	ng	-0.04	
21) 1,4-Dichlorobenzene-d4	5.907	152	63565	40.00	ng	-0.02	
31) Naphthalene-d8	6.919	136	246612	40.00	ng	-0.02	
50) Acenaphthene-d10	8.360	164	135583	40.00	ng	-0.03	
77) Phenanthrene-d10	9.842	188	262276	40.00	ng	-0.02	
91) Chrysene-d12	12.918	240	238335	40.00	ng	-0.02	
103) Perylene-d12	14.577	264	261061	40.00	ng	-0.04	
System Monitoring Compounds							
11) 2-Fluorophenol	4.737	112	52324	31.59	ng	0.00	
Spiked Amount			Recovery	=	31.59%		
16) Phenol-d5	5.613	99	63796	31.80	ng	0.00	
Spiked Amount			Recovery	=	31.80%		
32) Nitrobenzene-d5	6.366	128	14119	15.08	ng	-0.02	
Spiked Amount			Recovery	=	30.16%		
55) 2-Fluorobiphenyl	7.760	172	75689	15.38	ng	-0.03	
Spiked Amount			Recovery	=	30.76%		
80) 2,4,6-Tribromophenol	9.119	330	28193	38.39	ng	-0.02	
Spiked Amount			Recovery	=	38.39%		
94) Terphenyl-d14	11.648	244	72766	18.10	ng	-0.02	
Spiked Amount			Recovery	=	36.20%		
Target Compounds							
90) Fluoranthene	11.213	202	28768	3.7177	ng	89	
92) Pyrene	11.483	202	27775	3.7518	ng	82	
100) Benzo[a]anthracene	12.907	228	15115	2.1141	ng	95	
105) Benzo[b]fluoranthene	14.136	252	24068m	3.3444	ng		
107) Benzo[a]pyrene	14.518	252	14052m	2.0771	ng		

(#) = qualifier out of range (m) = manual integration (+) = signals summed



SampleID : AD25976-008(3X)
Data File: 9M108417.D
Acq On : 09/21/21 13:55

TIC: 9M108417.D\data.ms

Quant QT Reviewed

Operator : AH/JB
Sam Mult : 1 Vial# : 11
Misc : S,BNA:3

Qt Meth : 9M_0722.M
Qt On : 09/21/21 14:47
Qt Upd On: 07/22/21 14:06

Form1

ORGANICS SEMIVOLATILE REPORT

Sample Number: AD25976-009

Client Id: SB05 GRAB

Data File: 7M116609.D

Analysis Date: 09/21/21 13:04

Date Rec/Extracted: 09/14/21-09/20/21

Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270E

Matrix: Soil

Initial Vol: 30g

Final Vol: 0.5ml

Dilution: 1

Solids: 84

Units: mg/Kg

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
92-52-4	1,1'-Biphenyl	0.040	U	50-32-8	Benzo[a]pyrene	0.040	U
95-94-3	1,2,4,5-Tetrachlorobenzene	0.040	U	205-99-2	Benzo[b]fluoranthene	0.040	U
123-91-1	1,4-Dioxane	0.020	U	191-24-2	Benzo[g,h,i]perylene	0.040	U
58-90-2	2,3,4,6-Tetrachlorophenol	0.040	U	207-08-9	Benzo[k]fluoranthene	0.040	U
95-95-4	2,4,5-Trichlorophenol	0.040	U	111-91-1	bis(2-Chloroethoxy)methan	0.040	U
88-06-2	2,4,6-Trichlorophenol	0.040	U	111-44-4	bis(2-Chloroethyl)ether	0.0099	U
120-83-2	2,4-Dichlorophenol	0.015	U	108-60-1	bis(2-chloroisopropyl)ether	0.040	U
105-67-9	2,4-Dimethylphenol	0.019	U	117-81-7	bis(2-Ethylhexyl)phthalate	0.040	U
51-28-5	2,4-Dinitrophenol	0.20	U	85-68-7	Butylbenzylphthalate	0.040	U
121-14-2	2,4-Dinitrotoluene	0.040	U	105-60-2	Caprolactam	0.040	U
606-20-2	2,6-Dinitrotoluene	0.040	U	86-74-8	Carbazole	0.040	U
91-58-7	2-Chloronaphthalene	0.040	U	218-01-9	Chrysene	0.040	U
95-57-8	2-Chlorophenol	0.040	U	53-70-3	Dibenzo[a,h]anthracene	0.040	U
91-57-6	2-Methylnaphthalene	0.040	U	132-64-9	Dibenzofuran	0.010	U
95-48-7	2-Methylphenol	0.011	U	84-66-2	Diethylphthalate	0.040	U
88-74-4	2-Nitroaniline	0.040	U	131-11-3	Dimethylphthalate	0.040	U
88-75-5	2-Nitrophenol	0.040	U	84-74-2	Di-n-butylphthalate	0.046	U
106-44-5	3&4-Methylphenol	0.012	U	117-84-0	Di-n-octylphthalate	0.040	U
91-94-1	3,3'-Dichlorobenzidine	0.040	U	206-44-0	Fluoranthene	0.040	U
99-09-2	3-Nitroaniline	0.040	U	86-73-7	Fluorene	0.040	U
534-52-1	4,6-Dinitro-2-methylphenol	0.14	U	118-74-1	Hexachlorobenzene	0.040	U
101-55-3	4-Bromophenyl-phenylether	0.040	U	87-68-3	Hexachlorobutadiene	0.040	U
59-50-7	4-Chloro-3-methylphenol	0.040	U	77-47-4	Hexachlorocyclopentadiene	0.13	U
106-47-8	4-Chloroaniline	0.017	U	67-72-1	Hexachloroethane	0.040	U
7005-72-3	4-Chlorophenyl-phenylether	0.040	U	193-39-5	Indeno[1,2,3-cd]pyrene	0.040	U
100-01-6	4-Nitroaniline	0.040	U	78-59-1	Isophorone	0.040	U
100-02-7	4-Nitrophenol	0.040	U	91-20-3	Naphthalene	0.011	U
83-32-9	Acenaphthene	0.040	U	98-95-3	Nitrobenzene	0.040	U
208-96-8	Acenaphthylene	0.040	U	621-64-7	N-Nitroso-di-n-propylamine	0.015	U
98-86-2	Acetophenone	0.040	U	86-30-6	n-Nitrosodiphenylamine	0.13	U
120-12-7	Anthracene	0.040	U	87-86-5	Pentachlorophenol	0.19	U
1912-24-9	Atrazine	0.040	U	85-01-8	Phenanthrene	0.040	U
100-52-7	Benzaldehyde	0.43	U	108-95-2	Phenol	0.040	U
56-55-3	Benzo[a]anthracene	0.040	U	129-00-0	Pyrene	0.040	U

Worksheet #: 609226

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

N-Nitrosodiphenylamine decomposes in the GC inlet and is detected as diphenylamine

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

SampleID : AD25976-009
 Data File: 7M116609.D
 Acq On : 09/21/21 13:04

Operator : AH/JB
 Sam Mult : 1 Vial# : 9
 Misc : S,BNA

Qt Meth : 7M_0920.M
 Qt On : 09/21/21 13:24
 Qt Upd On: 09/20/21 14:15

Data Path : G:\GcMsData\2021\GCMS_7\Data\09-21-21\
 Qt Path : G:\GCMSDATA\2021\GCMS_7\METHODQT\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
7) 1,4-Dioxane-d8 (INT)	2.711	96	110247	40.00	ng	-0.02
21) 1,4-Dichlorobenzene-d4	5.919	152	203556	40.00	ng	0.00
31) Naphthalene-d8	6.941	136	802090	40.00	ng	0.00
50) Acenaphthene-d10	8.404	164	394587	40.00	ng	0.00
77) Phenanthrene-d10	9.896	188	731976	40.00	ng	0.00
91) Chrysene-d12	12.987	240	620979	40.00	ng	0.00
103) Perylene-d12	14.685	264	679549	40.00	ng	0.01
System Monitoring Compounds						
11) 2-Fluorophenol	4.744	112	562363	96.41	ng	0.00
Spiked Amount 100.000			Recovery =	96.41%		
16) Phenol-d5	5.607	99	681744	102.80	ng	0.00
Spiked Amount 100.000			Recovery =	102.80%		
32) Nitrobenzene-d5	6.371	128	147364	49.15	ng	0.00
Spiked Amount 50.000			Recovery =	98.30%		
55) 2-Fluorobiphenyl	7.799	172	645500	51.47	ng	0.00
Spiked Amount 50.000			Recovery =	102.94%		
80) 2,4,6-Tribromophenol	9.162	330	186118	95.73	ng	0.00
Spiked Amount 100.000			Recovery =	95.73%		
94) Terphenyl-d14	11.718	244	594827	57.77	ng	0.00
Spiked Amount 50.000			Recovery =	115.54%		
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

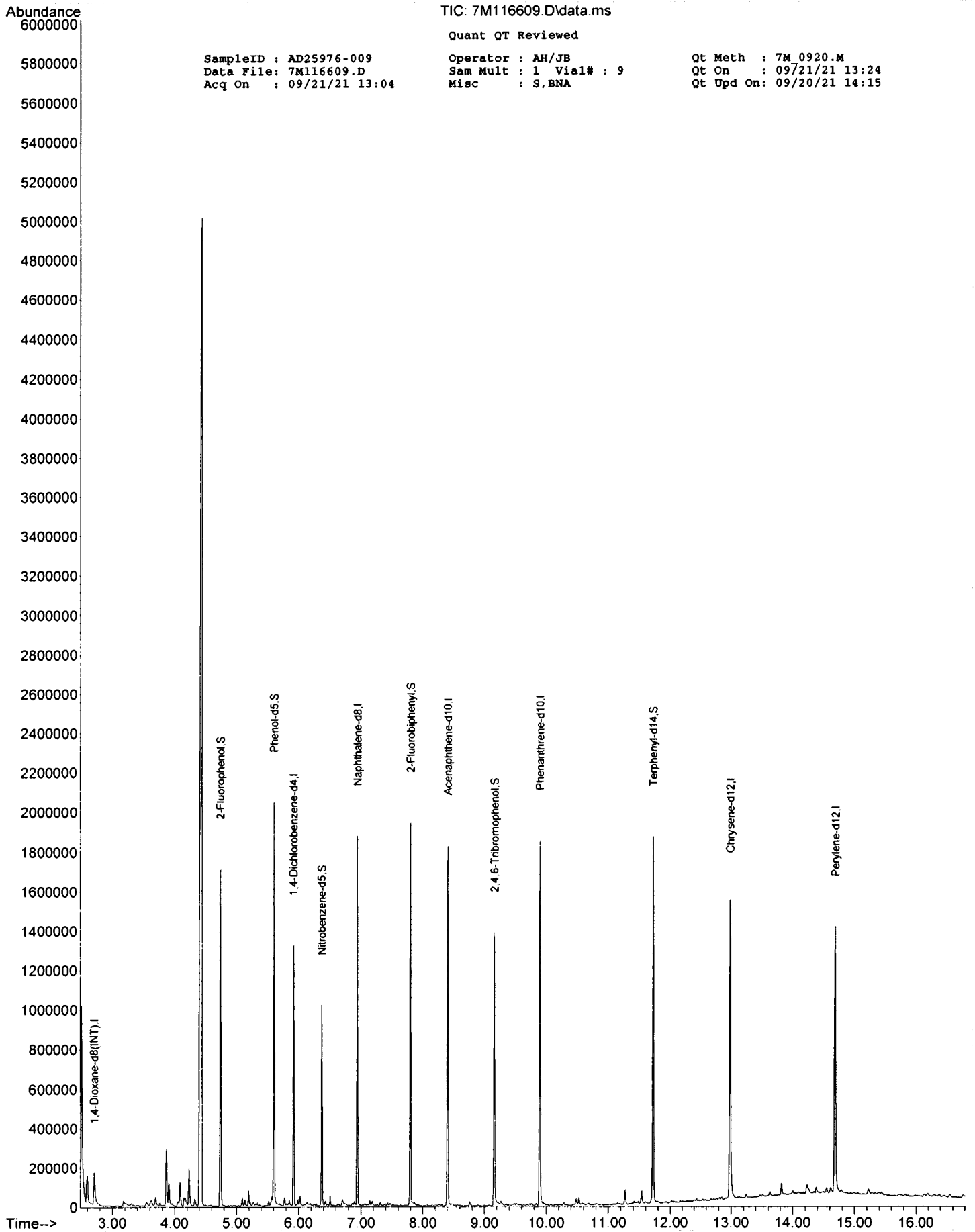
TIC: 7M116609.D\data.ms

Quant QT Reviewed

SampleID : AD25976-009
 Data File : 7M116609.D
 Acq On : 09/21/21 13:04

Operator : AH/JB
 Sam Mult : 1 Vial# : 9
 Misc : S,BNA

Qt Meth : 7M_0920.M
 Qt On : 09/21/21 13:24
 Qt Upd On: 09/20/21 14:15



Form1

ORGANICS SEMIVOLATILE REPORT

Sample Number: AD25976-010

Client Id: SB05 COMP

Data File: 7M116613.D

Analysis Date: 09/21/21 14:39

Date Rec/Extracted: 09/14/21-09/20/21

Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270E

Matrix: Soil

Initial Vol: 30g

Final Vol: 0.5ml

Dilution: 1

Solids: 80

Units: mg/Kg

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
91-57-6	2-Methylnaphthalene	0.042	U	218-01-9	Chrysene	0.042	0.061
83-32-9	Acenaphthene	0.042	U	53-70-3	Dibenzo[a,h]anthracene	0.042	U
208-96-8	Acenaphthylene	0.042	U	206-44-0	Fluoranthene	0.042	0.081
120-12-7	Anthracene	0.042	U	86-73-7	Fluorene	0.042	U
56-55-3	Benzo[a]anthracene	0.042	0.055	193-39-5	Indeno[1,2,3-cd]pyrene	0.042	U
50-32-8	Benzo[a]pyrene	0.042	0.061	91-20-3	Naphthalene	0.012	U
205-99-2	Benzo[b]fluoranthene	0.042	0.088	85-01-8	Phenanthrene	0.042	U
191-24-2	Benzo[g,h,i]perylene	0.042	0.056	129-00-0	Pyrene	0.042	0.091
207-08-9	Benzo[k]fluoranthene	0.042	U				

Worksheet #: 609246

Total Target Concentration 0.49

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.*B* - Indicates the analyte was found in the blank as well as in the sample.*E* - Indicates the analyte concentration exceeds the calibration range of the instrument.*R* - Retention Time Out*J* - Indicates an estimated value when a compound is detected at less than the specified detection limit.*d* - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a*Chlordane (Total)* is sum of *α-Chlordane* and *γ-Chlordane*.

SampleID : AD25976-010
 Data File: 7M116613.D
 Acq On : 09/21/21 14:39

Operator : AH/JP
 Sam Mult : 1 Vial# : 13
 Misc : S,BNA

Qt Meth : 7M_0920.M
 Qt On : 09/21/21 15:05
 Qt Upd On: 09/20/21 14:15

Data Path : G:\GcMsData\2021\GCMS_7\Data\09-21-21\
 Qt Path : G:\GCMSDATA\2021\GCMS_7\METHODQT\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	

Internal Standards							
7) 1,4-Dioxane-d8 (INT)	2.716	96	125411	40.00	ng	-0.01	
21) 1,4-Dichlorobenzene-d4	5.924	152	231712	40.00	ng	0.00	
31) Naphthalene-d8	6.935	136	914641	40.00	ng	0.00	
50) Acenaphthene-d10	8.398	164	447046	40.00	ng	0.00	
77) Phenanthrene-d10	9.896	188	821332	40.00	ng	0.00	
91) Chrysene-d12	12.987	240	678010	40.00	ng	0.00	
103) Perylene-d12	14.691	264	762729	40.00	ng	0.02	
System Monitoring Compounds							
11) 2-Fluorophenol	4.743	112	619970	93.43	ng	0.00	
Spiked Amount			Recovery	=	93.43%		
16) Phenol-d5	5.607	99	747491	99.09	ng	0.00	
Spiked Amount			Recovery	=	99.09%		
32) Nitrobenzene-d5	6.371	128	164985	48.25	ng	0.00	
Spiked Amount			Recovery	=	96.50%		
55) 2-Fluorobiphenyl	7.793	172	709838	49.96	ng	0.00	
Spiked Amount			Recovery	=	99.92%		
80) 2,4,6-Tribromophenol	9.156	330	204518	93.86	ng	0.00	
Spiked Amount			Recovery	=	93.86%		
94) Terphenyl-d14	11.718	244	602257	53.57	ng	0.00	
Spiked Amount			Recovery	=	107.14%		
Target Compounds							
90) Fluoranthene	11.265	202	80739	3.9055	ng		Qvalue 98
92) Pyrene	11.536	202	86237	4.3515	ng		93
100) Benzo[a]anthracene	12.975	228	50024m	2.6546	ng		
101) Chrysene	13.016	228	52659m	2.9150	ng		
105) Benzo[b]fluoranthene	14.238	252	77330m	4.2113	ng		
107) Benzo[a]pyrene	14.620	252	51952	2.9393	ng		92
110) Benzo[g,h,i]perylene	16.559	276	43742	2.6886	ng		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

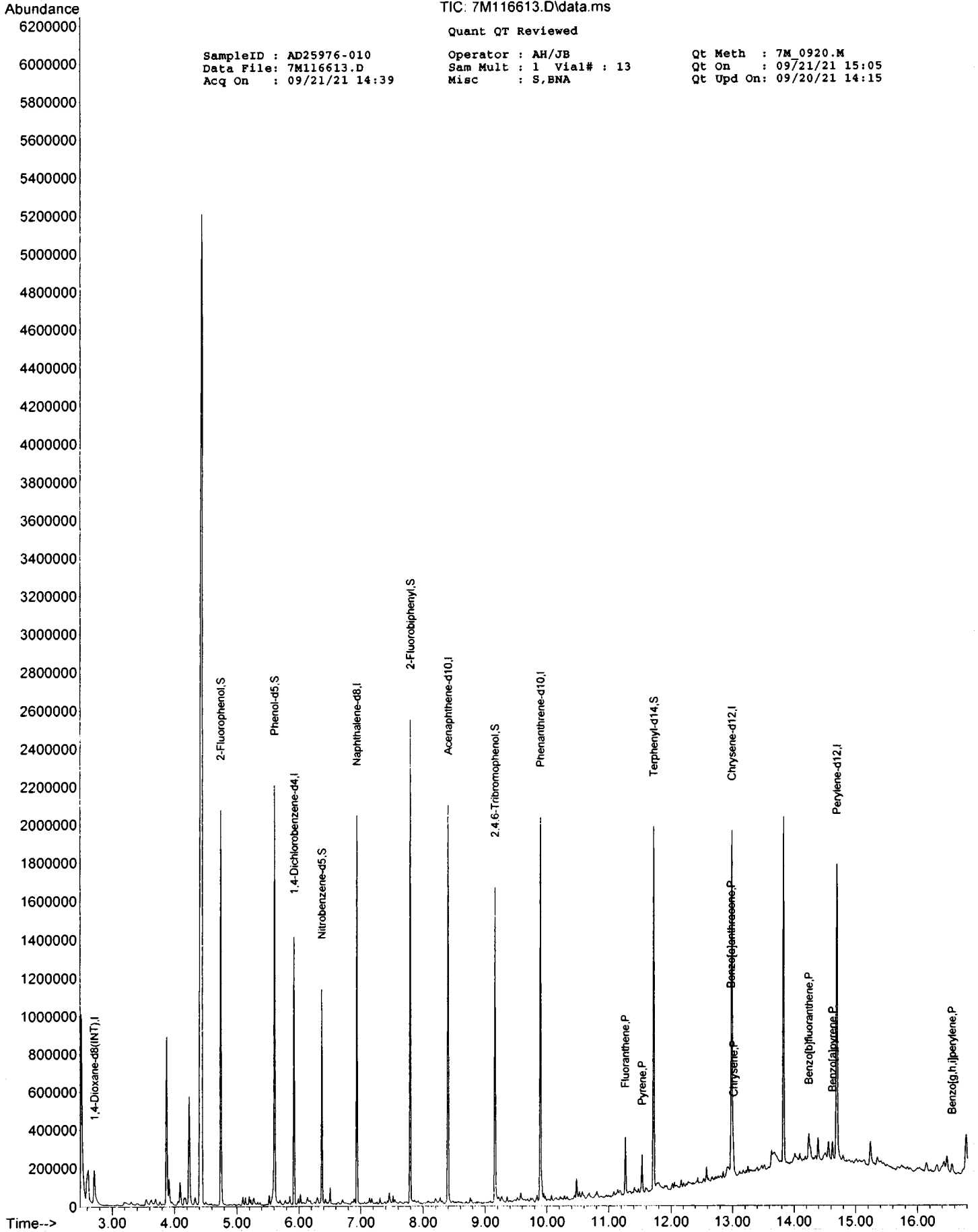
TIC: 7M116613.D\data.ms

Quant QT Reviewed

SampleID : AD25976-010
Data File: 7M116613.D
Acq On : 09/21/21 14:39

Operator : AH/JB
Sam Mult : 1 Vial# : 13
Misc : S,BNA

Qt Meth : 7M_0920.M
Qt On : 09/21/21 15:05
Qt Upd On: 09/20/21 14:15



Form1

ORGANICS SEMIVOLATILE REPORT

Sample Number: AD25976-011

Client Id: SB04 GW

Data File: 5M117937.D

Analysis Date: 09/21/21 14:50

Date Rec/Extracted: 09/14/21-09/21/21

Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270E

Matrix: Aqueous

Initial Vol: 1000ml

Final Vol: 1ml

Dilution: 1

Solids: 0

Units: ug/L							
Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
92-52-4	1,1'-Biphenyl	2.0	U	50-32-8	Benzo[a]pyrene	2.0	U
95-94-3	1,2,4,5-Tetrachlorobenzene	2.0	U	205-99-2	Benzo[b]fluoranthene	2.0	U
123-91-1	1,4-Dioxane	0.50	U	191-24-2	Benzo[g,h,i]perylene	2.0	U
58-90-2	2,3,4,6-Tetrachlorophenol	2.0	U	207-08-9	Benzo[k]fluoranthene	2.0	U
95-95-4	2,4,5-Trichlorophenol	2.0	U	111-91-1	bis(2-Chloroethoxy)methan	2.0	U
88-06-2	2,4,6-Trichlorophenol	2.0	U	111-44-4	bis(2-Chloroethyl)ether	0.50	U
120-83-2	2,4-Dichlorophenol	0.50	U	108-60-1	bis(2-chloroisopropyl)ether	2.0	U
105-67-9	2,4-Dimethylphenol	0.55	U	117-81-7	bis(2-Ethylhexyl)phthalate	2.0	U
51-28-5	2,4-Dinitrophenol	10	U	85-68-7	Butylbenzylphthalate	2.0	U
121-14-2	2,4-Dinitrotoluene	2.0	U	105-60-2	Caprolactam	2.0	U
606-20-2	2,6-Dinitrotoluene	2.0	U	86-74-8	Carbazole	2.0	U
91-58-7	2-Chloronaphthalene	2.0	U	218-01-9	Chrysene	2.0	U
95-57-8	2-Chlorophenol	2.0	U	53-70-3	Dibenzo[a,h]anthracene	2.0	U
91-57-6	2-Methylnaphthalene	2.0	U	132-64-9	Dibenzofuran	0.68	U
95-48-7	2-Methylphenol	0.50	U	84-66-2	Diethylphthalate	2.0	U
88-74-4	2-Nitroaniline	2.0	U	131-11-3	Dimethylphthalate	2.0	U
88-75-5	2-Nitrophenol	2.0	U	84-74-2	Di-n-butylphthalate	1.1	U
106-44-5	3&4-Methylphenol	0.50	U	117-84-0	Di-n-octylphthalate	2.0	U
91-94-1	3,3'-Dichlorobenzidine	2.0	U	206-44-0	Fluoranthene	2.0	U
99-09-2	3-Nitroaniline	2.0	U	86-73-7	Fluorene	2.0	U
534-52-1	4,6-Dinitro-2-methylphenol	8.1	U	118-74-1	Hexachlorobenzene	2.0	U
101-55-3	4-Bromophenyl-phenylether	2.0	U	87-68-3	Hexachlorobutadiene	2.0	U
59-50-7	4-Chloro-3-methylphenol	2.0	U	77-47-4	Hexachlorocyclopentadiene	2.0	U
106-47-8	4-Chloroaniline	0.50	U	67-72-1	Hexachloroethane	2.0	U
7005-72-3	4-Chlorophenyl-phenylether	2.0	U	193-39-5	Indeno[1,2,3-cd]pyrene	2.0	U
100-01-6	4-Nitroaniline	2.0	U	78-59-1	Isophorone	2.0	U
100-02-7	4-Nitrophenol	2.0	U	91-20-3	Naphthalene	0.50	U
83-32-9	Acenaphthene	2.0	U	98-95-3	Nitrobenzene	2.0	U
208-96-8	Acenaphthylene	2.0	U	621-64-7	N-Nitroso-di-n-propylamine	0.64	U
98-86-2	Acetophenone	2.0	U	86-30-6	n-Nitrosodiphenylamine	2.0	U
120-12-7	Anthracene	2.0	U	87-86-5	Pentachlorophenol	7.6	U
1912-24-9	Atrazine	2.0	U	85-01-8	Phenanthrene	2.0	U
100-52-7	Benzaldehyde	2.0	U	108-95-2	Phenol	2.0	U
56-55-3	Benzo[a]anthracene	2.0	U	129-00-0	Pyrene	2.0	U

Worksheet #: 609260

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

N-Nitrosodiphenylamine decomposes in the GC inlet and is detected as diphenylamine

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

SampleID : AD25976-011
 Data File: 5M117937.D
 Acq On : 09/21/21 14:50

Operator : AH/JB
 Sam Mult : 1 Vial# : 4
 Misc : A,BNA

Qt Meth : 5M_0920.M
 Qt On : 09/21/21 15:07
 Qt Upd On: 09/20/21 13:03

Data Path : G:\GcMsData\2021\GCMS_5\Data\09-21-21\
 Qt Path : G:\GCMSDATA\2021\GCMS_5\METHODQT\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIOn	Response	Conc	Units	Dev(Min)

Internal Standards						
7) 1,4-Dioxane-d8 (INT)	2.590	96	47324	40.00	ng	0.00
21) 1,4-Dichlorobenzene-d4	5.817	152	62698	40.00	ng	0.00
31) Naphthalene-d8	6.821	136	242703	40.00	ng	0.00
50) Acenaphthene-d10	8.247	164	124511	40.00	ng	0.00
77) Phenanthrene-d10	9.711	188	244710	40.00	ng	0.00
91) Chrysene-d12	12.762	240	237987	40.00	ng	-0.01
103) Perylene-d12	14.380	264	248859	40.00	ng	0.00
System Monitoring Compounds						
11) 2-Fluorophenol	4.609	112	118005	69.52	ng	0.00
Spiked Amount 100.000			Recovery =	69.52%		
16) Phenol-d5	5.491	99	110810	54.50	ng	0.00
Spiked Amount 100.000			Recovery =	54.50%		
32) Nitrobenzene-d5	6.265	128	42146	50.89	ng	0.00
Spiked Amount 50.000			Recovery =	101.78%		
55) 2-Fluorobiphenyl	7.660	172	217050	53.57	ng	0.00
Spiked Amount 50.000			Recovery =	107.14%		
80) 2,4,6-Tribromophenol	8.990	330	72720	124.65	ng	0.00
Spiked Amount 100.000			Recovery =	124.65%		
94) Terphenyl-d14	11.517	244	223254	62.13	ng	0.00
Spiked Amount 50.000			Recovery =	124.26%		

Target Compounds Qvalue

 (#) = qualifier out of range (m) = manual integration (+) = signals summed

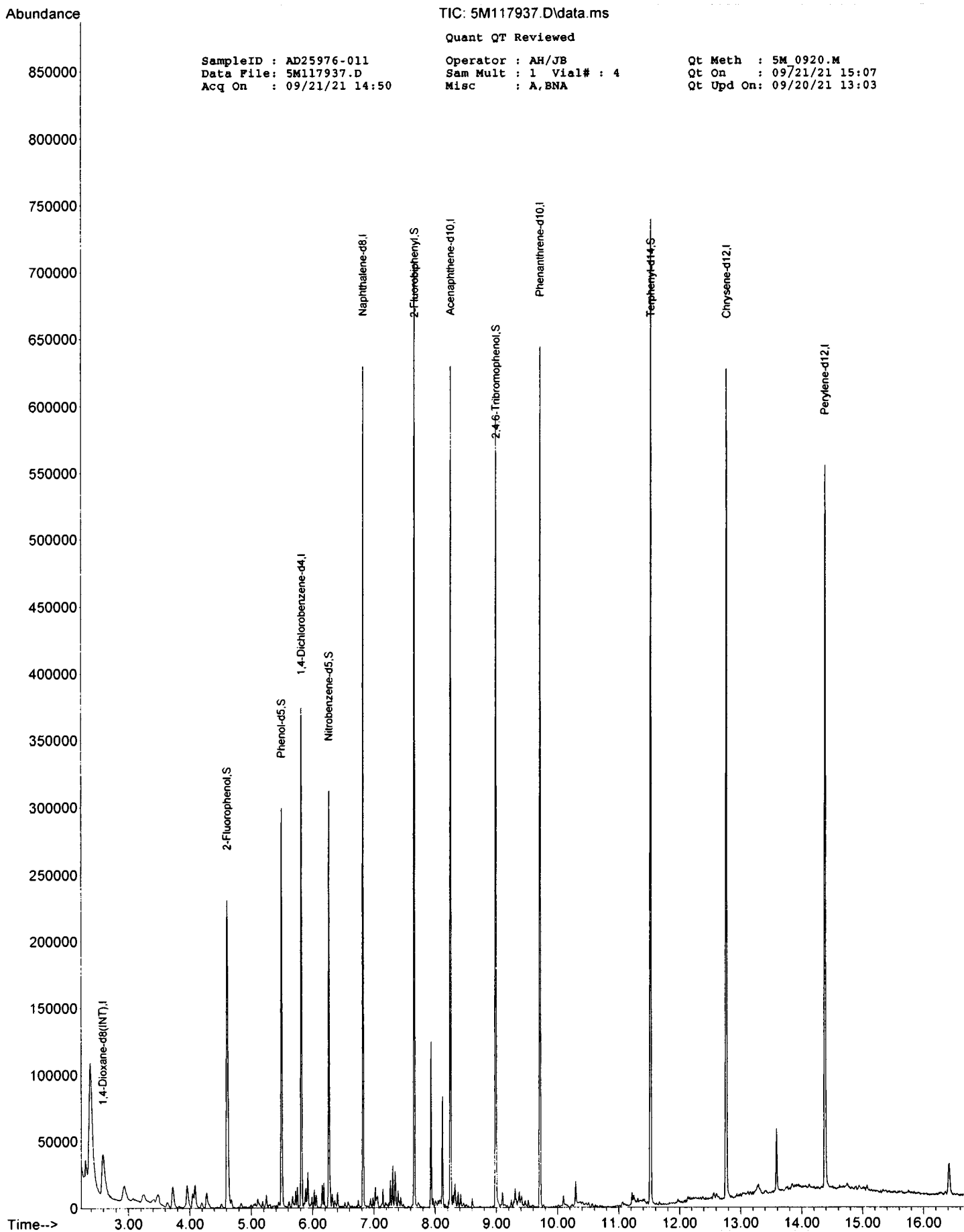
TIC: 5M117937.D\data.ms

Quant QT Reviewed

SampleID : AD25976-011
 Data File: 5M117937.D
 Acq On : 09/21/21 14:50

Operator : AH/JB
 Sam Mult : 1 Vial# : 4
 Misc : A,BNA

QT Meth : 5M_0920.M
 QT On : 09/21/21 15:07
 QT Upd On: 09/20/21 13:03



Form1

ORGANICS SEMIVOLATILE REPORT

Sample Number: WMB94984

Client Id:

Data File: 5M117936.D

Analysis Date: 09/21/21 14:27

Date Rec/Extracted: NA-09/21/21

Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270E

Matrix: Aqueous

Initial Vol: 1000ml

Final Vol: 1ml

Dilution: 1

Solids: 0

		Units: ug/L					
Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
92-52-4	1,1'-Biphenyl	2.0	U	50-32-8	Benzo[a]pyrene	2.0	U
95-94-3	1,2,4,5-Tetrachlorobenzene	2.0	U	205-99-2	Benzo[b]fluoranthene	2.0	U
123-91-1	1,4-Dioxane	0.50	U	191-24-2	Benzo[g,h,i]perylene	2.0	U
58-90-2	2,3,4,6-Tetrachlorophenol	2.0	U	207-08-9	Benzo[k]fluoranthene	2.0	U
95-95-4	2,4,5-Trichlorophenol	2.0	U	111-91-1	bis(2-Chloroethoxy)methan	2.0	U
88-06-2	2,4,6-Trichlorophenol	2.0	U	111-44-4	bis(2-Chloroethyl)ether	0.50	U
120-83-2	2,4-Dichlorophenol	0.50	U	108-60-1	bis(2-chloroisopropyl)ether	2.0	U
105-67-9	2,4-Dimethylphenol	0.55	U	117-81-7	bis(2-Ethylhexyl)phthalate	2.0	U
51-28-5	2,4-Dinitrophenol	10	U	85-68-7	Butylbenzylphthalate	2.0	U
121-14-2	2,4-Dinitrotoluene	2.0	U	105-60-2	Caprolactam	2.0	U
606-20-2	2,6-Dinitrotoluene	2.0	U	86-74-8	Carbazole	2.0	U
91-58-7	2-Chloronaphthalene	2.0	U	218-01-9	Chrysene	2.0	U
95-57-8	2-Chlorophenol	2.0	U	53-70-3	Dibenzo[a,h]anthracene	2.0	U
91-57-6	2-Methylnaphthalene	2.0	U	132-64-9	Dibenzofuran	0.68	U
95-48-7	2-Methylphenol	0.50	U	84-66-2	Diethylphthalate	2.0	U
88-74-4	2-Nitroaniline	2.0	U	131-11-3	Dimethylphthalate	2.0	U
88-75-5	2-Nitrophenol	2.0	U	84-74-2	Di-n-butylphthalate	1.1	U
106-44-5	3&4-Methylphenol	0.50	U	117-84-0	Di-n-octylphthalate	2.0	U
91-94-1	3,3'-Dichlorobenzidine	2.0	U	206-44-0	Fluoranthene	2.0	U
99-09-2	3-Nitroaniline	2.0	U	86-73-7	Fluorene	2.0	U
534-52-1	4,6-Dinitro-2-methylphenol	8.1	U	118-74-1	Hexachlorobenzene	2.0	U
101-55-3	4-Bromophenyl-phenylether	2.0	U	87-68-3	Hexachlorobutadiene	2.0	U
59-50-7	4-Chloro-3-methylphenol	2.0	U	77-47-4	Hexachlorocyclopentadiene	2.0	U
106-47-8	4-Chloroaniline	0.50	U	67-72-1	Hexachloroethane	2.0	U
7005-72-3	4-Chlorophenyl-phenylether	2.0	U	193-39-5	Indeno[1,2,3-cd]pyrene	2.0	U
100-01-6	4-Nitroaniline	2.0	U	78-59-1	Isophorone	2.0	U
100-02-7	4-Nitrophenol	2.0	U	91-20-3	Naphthalene	0.50	U
83-32-9	Acenaphthene	2.0	U	98-95-3	Nitrobenzene	2.0	U
208-96-8	Acenaphthylene	2.0	U	621-64-7	N-Nitroso-di-n-propylamine	0.64	U
98-86-2	Acetophenone	2.0	U	86-30-6	n-Nitrosodiphenylamine	2.0	U
120-12-7	Anthracene	2.0	U	87-86-5	Pentachlorophenol	7.6	U
1912-24-9	Atrazine	2.0	U	85-01-8	Phenanthrene	2.0	U
100-52-7	Benzaldehyde	2.0	U	108-95-2	Phenol	2.0	U
56-55-3	Benzo[a]anthracene	2.0	U	129-00-0	Pyrene	2.0	U

Worksheet #: 609260

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

N-Nitrosodiphenylamine decomposes in the GC inlet and is detected as diphenylamine

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

SampleID : WMB94984
 Data File: 5M117936.D
 Acq On : 09/21/21 14:27

Operator : AH/JB
 Sam Mult : 1 Vial# : 3
 Misc : A,BNA

Qt Meth : 5M_0920.M
 Qt On : 09/21/21 15:01
 Qt Upd On: 09/20/21 13:03

Data Path : G:\GcMsData\2021\GCMS_5\Data\09-21-21\
 Qt Path : G:\GCMSDATA\2021\GCMS_5\METHODQT\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
7) 1,4-Dioxane-d8 (INT)	2.585	96	63822	40.00	ng	-0.01
21) 1,4-Dichlorobenzene-d4	5.811	152	81854	40.00	ng	0.00
31) Naphthalene-d8	6.821	136	313750	40.00	ng	0.00
50) Acenaphthene-d10	8.247	164	157682	40.00	ng	0.00
77) Phenanthrene-d10	9.711	188	304910	40.00	ng	0.00
91) Chrysene-d12	12.767	240	298082	40.00	ng	0.00
103) Perylene-d12	14.386	264	319370	40.00	ng	0.00
System Monitoring Compounds						
11) 2-Fluorophenol	4.609	112	187253	81.80	ng	0.00
Spiked Amount 100.000			Recovery =	81.80%		
16) Phenol-d5	5.491	99	156174	56.96	ng	0.00
Spiked Amount 100.000			Recovery =	56.96%		
32) Nitrobenzene-d5	6.265	128	69304	64.73	ng	0.00
Spiked Amount 50.000			Recovery =	129.46%		
55) 2-Fluorobiphenyl	7.660	172	345379	67.31	ng	0.00
Spiked Amount 50.000			Recovery =	134.62%		
80) 2,4,6-Tribromophenol	8.990	330	103956	143.01	ng	0.00
Spiked Amount 100.000			Recovery =	143.01%		
94) Terphenyl-d14	11.522	244	326945	72.64	ng	0.00
Spiked Amount 50.000			Recovery =	145.28%		

Target Compounds Qvalue

 (#) = qualifier out of range (m) = manual integration (+) = signals summed

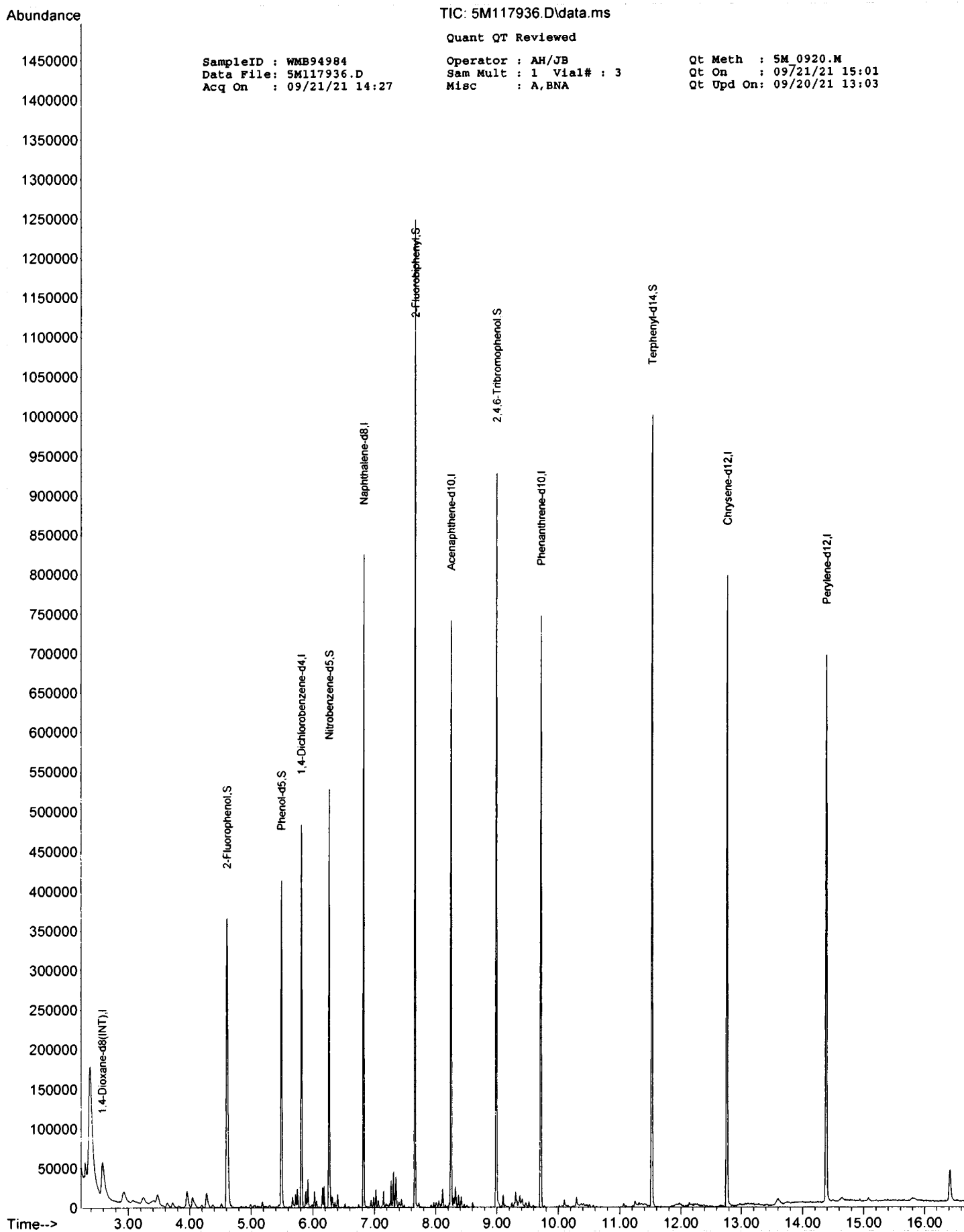
TIC: 5M117936.D\data.ms

Quant QT Reviewed

SampleID : WMB94984
 Data File: 5M117936.D
 Acq On : 09/21/21 14:27

Operator : AH/JB
 Sam Mult : 1 Vial# : 3
 Misc : A,BNA

Qt Meth : 5M_0920.M
 Qt On : 09/21/21 15:01
 Qt Upd On: 09/20/21 13:03



Form1

ORGANICS SEMIVOLATILE REPORT

Sample Number: SMB94976

Client Id:

Data File: 7M116603.D

Analysis Date: 09/21/21 10:30

Date Rec/Extracted: NA-09/20/21

Column: DB-5MS 30M 0.250mm ID 0.25um film

Method: EPA 8270E

Matrix: Soil

Initial Vol: 30g

Final Vol: 0.5ml

Dilution: 1

Solids: 100

Units: mg/Kg

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
92-52-4	1,1'-Biphenyl	0.033	U	50-32-8	Benzo[a]pyrene	0.033	U
95-94-3	1,2,4,5-Tetrachlorobenzene	0.033	U	205-99-2	Benzo[b]fluoranthene	0.033	U
123-91-1	1,4-Dioxane	0.017	U	191-24-2	Benzo[g,h,i]perylene	0.033	U
58-90-2	2,3,4,6-Tetrachlorophenol	0.033	U	207-08-9	Benzo[k]fluoranthene	0.033	U
95-95-4	2,4,5-Trichlorophenol	0.033	U	111-91-1	bis(2-Chloroethoxy)methan	0.033	U
88-06-2	2,4,6-Trichlorophenol	0.033	U	111-44-4	bis(2-Chloroethyl)ether	0.0083	U
120-83-2	2,4-Dichlorophenol	0.013	U	108-60-1	bis(2-chloroisopropyl)ether	0.033	U
105-67-9	2,4-Dimethylphenol	0.016	U	117-81-7	bis(2-Ethylhexyl)phthalate	0.033	U
51-28-5	2,4-Dinitrophenol	0.17	U	85-68-7	Butylbenzylphthalate	0.033	U
121-14-2	2,4-Dinitrotoluene	0.033	U	105-60-2	Caprolactam	0.033	U
606-20-2	2,6-Dinitrotoluene	0.033	U	86-74-8	Carbazole	0.033	U
91-58-7	2-Chloronaphthalene	0.033	U	218-01-9	Chrysene	0.033	U
95-57-8	2-Chlorophenol	0.033	U	53-70-3	Dibenzo[a,h]anthracene	0.033	U
91-57-6	2-Methylnaphthalene	0.033	U	132-64-9	Dibenzofuran	0.0084	U
95-48-7	2-Methylphenol	0.0096	U	84-66-2	Diethylphthalate	0.033	U
88-74-4	2-Nitroaniline	0.033	U	131-11-3	Dimethylphthalate	0.033	U
88-75-5	2-Nitrophenol	0.033	U	84-74-2	Di-n-butylphthalate	0.038	U
106-44-5	3&4-Methylphenol	0.0097	U	117-84-0	Di-n-octylphthalate	0.033	U
91-94-1	3,3'-Dichlorobenzidine	0.033	U	206-44-0	Fluoranthene	0.033	U
99-09-2	3-Nitroaniline	0.033	U	86-73-7	Fluorene	0.033	U
534-52-1	4,6-Dinitro-2-methylphenol	0.12	U	118-74-1	Hexachlorobenzene	0.033	U
101-55-3	4-Bromophenyl-phenylether	0.033	U	87-68-3	Hexachlorobutadiene	0.033	U
59-50-7	4-Chloro-3-methylphenol	0.033	U	77-47-4	Hexachlorocyclopentadiene	0.11	U
106-47-8	4-Chloroaniline	0.015	U	67-72-1	Hexachloroethane	0.033	U
7005-72-3	4-Chlorophenyl-phenylether	0.033	U	193-39-5	Indeno[1,2,3-cd]pyrene	0.033	U
100-01-6	4-Nitroaniline	0.033	U	78-59-1	Isophorone	0.033	U
100-02-7	4-Nitrophenol	0.033	U	91-20-3	Naphthalene	0.0096	U
83-32-9	Acenaphthene	0.033	U	98-95-3	Nitrobenzene	0.033	U
208-96-8	Acenaphthylene	0.033	U	621-64-7	N-Nitroso-di-n-propylamine	0.013	U
98-86-2	Acetophenone	0.033	U	86-30-6	n-Nitrosodiphenylamine	0.11	U
120-12-7	Anthracene	0.033	U	87-86-5	Pentachlorophenol	0.16	U
1912-24-9	Atrazine	0.033	U	85-01-8	Phenanthrene	0.033	U
100-52-7	Benzaldehyde	0.36	U	108-95-2	Phenol	0.033	U
56-55-3	Benzo[a]anthracene	0.033	U	129-00-0	Pyrene	0.033	U

Worksheet #: 609226

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

N-Nitrosodiphenylamine decomposes in the GC inlet and is detected as diphenylamine

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

SampleID : SMB94976
 Data File: 7M116603.D
 Acq On : 09/21/21 10:30

Operator : AH/JB
 Sam Mult : 1 Vial# : 3
 Misc : S,BNA

Qt Meth : 7M_0920.M
 Qt On : 09/21/21 10:50
 Qt Upd On: 09/20/21 14:15

Data Path : G:\GcMsData\2021\GCMS_7\Data\09-21-21\
 Qt Path : G:\GCMSDATA\2021\GCMS_7\METHODQT\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
7) 1,4-Dioxane-d8 (INT)	2.716	96	134430	40.00	ng	-0.01
21) 1,4-Dichlorobenzene-d4	5.925	152	207634	40.00	ng	0.00
31) Naphthalene-d8	6.947	136	836707	40.00	ng	0.00
50) Acenaphthene-d10	8.416	164	407873	40.00	ng	0.01
77) Phenanthrene-d10	9.902	188	757336	40.00	ng	0.00
91) Chrysene-d12	12.993	240	650828	40.00	ng	0.00
103) Perylene-d12	14.697	264	714128	40.00	ng	0.02
System Monitoring Compounds						
11) 2-Fluorophenol	4.749	112	598692	84.17	ng	0.01
Spiked Amount 100.000			Recovery =	84.17%		
16) Phenol-d5	5.613	99	730769	90.37	ng	0.00
Spiked Amount 100.000			Recovery =	90.37%		
32) Nitrobenzene-d5	6.377	128	158614	50.71	ng	0.00
Spiked Amount 50.000			Recovery =	101.42%		
55) 2-Fluorobiphenyl	7.811	172	671025	51.77	ng	0.01
Spiked Amount 50.000			Recovery =	103.54%		
80) 2,4,6-Tribromophenol	9.174	330	191553	95.26	ng	0.01
Spiked Amount 100.000			Recovery =	95.26%		
94) Terphenyl-d14	11.730	244	596680	55.30	ng	0.01
Spiked Amount 50.000			Recovery =	110.60%		
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

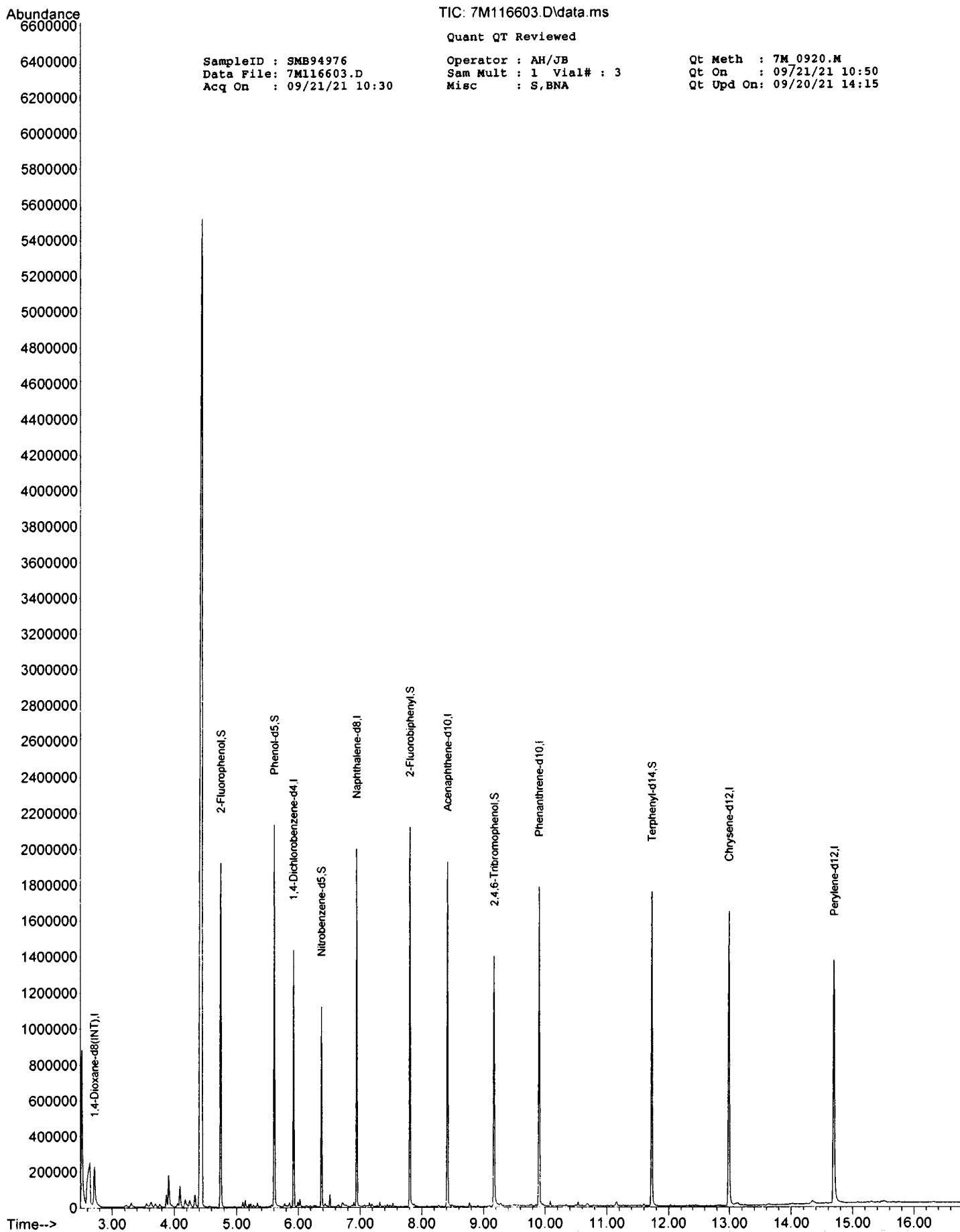
TIC: 7M116603.D\data.ms

Quant QT Reviewed

SampleID : SMB94976
 Data File: 7M116603.D
 Acq On : 09/21/21 10:30

Operator : AH/JB
 Sam Mult : 1 Vial# : 3
 Misc : S,BNA

Qt Meth : 7M_0920.M
 Qt On : 09/21/21 10:50
 Qt Upd On: 09/20/21 14:15



Form1

ORGANICS SEMIVOLATILE REPORT

Sample Number: SMB94976

Method: EPA 8270E

Client Id:

Matrix: Soil

Data File: 9M108409.D

Initial Vol: 30g

Analysis Date: 09/21/21 10:52

Final Vol: 0.5ml

Date Rec/Extracted: NA-09/20/21

Dilution: 1

Column: DB-5MS 30M 0.250mm ID 0.25um film

Solids: 100

Units: mg/Kg

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
91-57-6	2-Methylnaphthalene	0.033	U	218-01-9	Chrysene	0.033	U
83-32-9	Acenaphthene	0.033	U	53-70-3	Dibenzo[a,h]anthracene	0.033	U
208-96-8	Acenaphthylene	0.033	U	206-44-0	Fluoranthene	0.033	U
120-12-7	Anthracene	0.033	U	86-73-7	Fluorene	0.033	U
56-55-3	Benzo[a]anthracene	0.033	U	193-39-5	Indeno[1,2,3-cd]pyrene	0.033	U
50-32-8	Benzo[a]pyrene	0.033	U	91-20-3	Naphthalene	0.0096	U
205-99-2	Benzo[b]fluoranthene	0.033	U	85-01-8	Phenanthrene	0.033	U
191-24-2	Benzo[g,h,i]perylene	0.033	U	129-00-0	Pyrene	0.033	U
207-08-9	Benzo[k]fluoranthene	0.033	U				

Worksheet #: 609228

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

*U - Indicates the compound was analyzed but not detected.**B - Indicates the analyte was found in the blank as well as in the sample.**E - Indicates the analyte concentration exceeds the calibration range of the instrument.**R - Retention Time Out**J - Indicates an estimated value when a compound is detected at less than the specified detection limit.**d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a**Chlordane (Total) is sum of a-Chlordane and y-Chlordane.*

SampleID : SMB94976
 Data File: 9M108409.D
 Acq On : 09/21/21 10:52

Operator : AH/JB
 Sam Mult : 1 Vial# : 3
 Misc : S,BNA

Qt Meth : 9M_0722.M
 Qt On : 09/21/21 11:18
 Qt Upd On: 07/22/21 14:06

Data Path : G:\GcmsData\2021\GCMS_9\Data\09-21-21\
 Qt Path : G:\GCMSDATA\2021\GCMS_9\METHODQT\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
7) 1,4-Dioxane-d8 (INT)	2.690	96	24971	40.00	ng	-0.06
21) 1,4-Dichlorobenzene-d4	5.907	152	51173	40.00	ng	-0.02
31) Naphthalene-d8	6.919	136	199616	40.00	ng	-0.02
50) Acenaphthene-d10	8.360	164	111072	40.00	ng	-0.03
77) Phenanthrene-d10	9.842	188	224256	40.00	ng	-0.02
91) Chrysene-d12	12.919	240	227266	40.00	ng	-0.02
103) Perylene-d12	14.589	264	252691	40.00	ng	-0.03

System Monitoring Compounds						
11) 2-Fluorophenol	4.737	112	139204	93.24	ng	0.00
Spiked Amount	100.000		Recovery	=	93.24%	
16) Phenol-d5	5.613	99	169402	93.67	ng	0.00
Spiked Amount	100.000		Recovery	=	93.67%	
32) Nitrobenzene-d5	6.366	128	36441	48.08	ng	-0.02
Spiked Amount	50.000		Recovery	=	96.16%	
55) 2-Fluorobiphenyl	7.760	172	186545	46.26	ng	-0.03
Spiked Amount	50.000		Recovery	=	92.52%	
80) 2,4,6-Tribromophenol	9.119	330	73998	117.84	ng	-0.02
Spiked Amount	100.000		Recovery	=	117.84%	
94) Terphenyl-d14	11.648	244	207277	54.08	ng	-0.02
Spiked Amount	50.000		Recovery	=	108.16%	

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

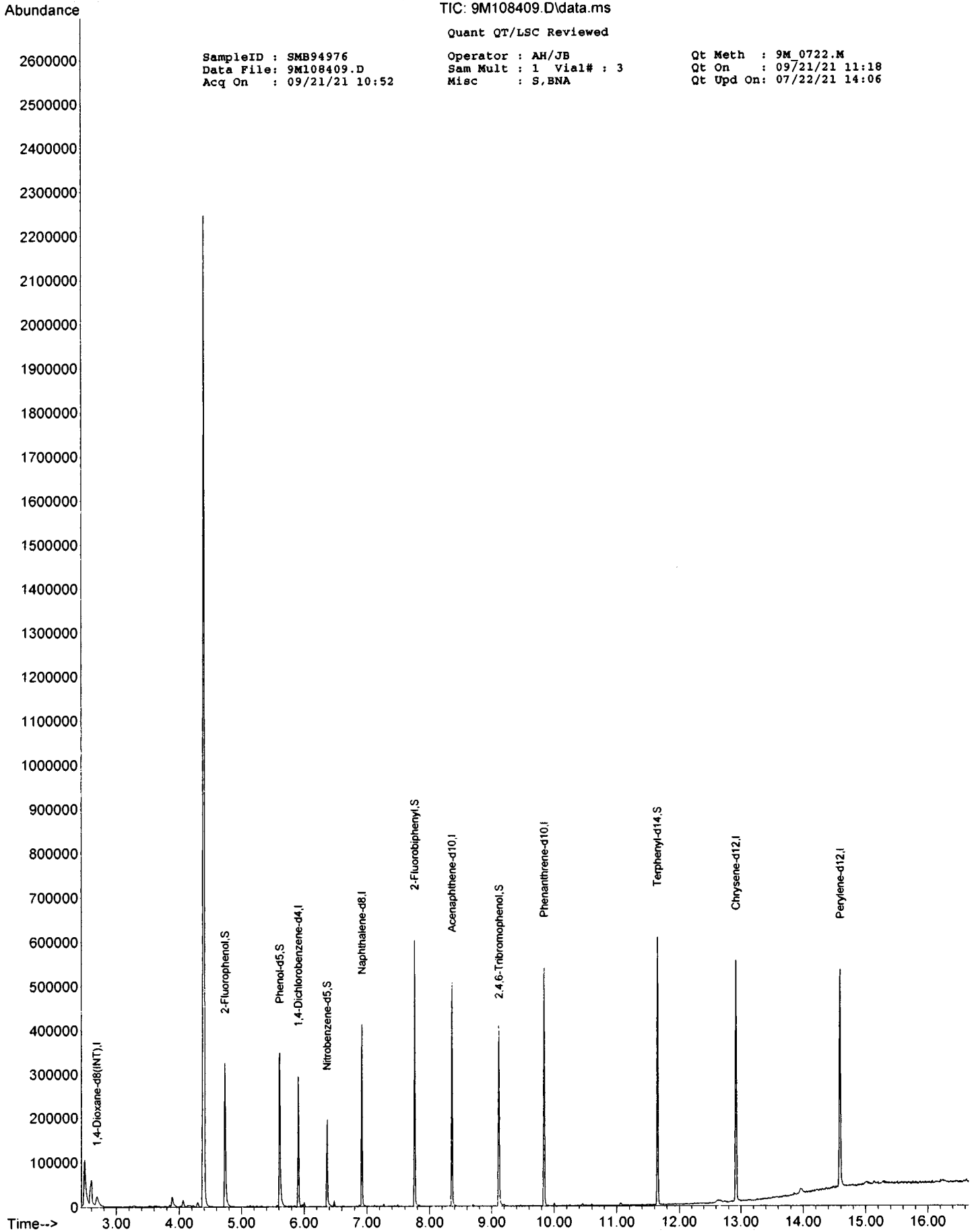
TIC: 9M108409.D\data.ms

Quant QT/LSC Reviewed

SampleID : SMB94976
 Data File: 9M108409.D
 Acq On : 09/21/21 10:52

Operator : AH/JB
 Sam Mult : 1 Vial# : 3
 Misc : S,BNA

Qt Meth : 9M_0722.M
 Qt On : 09/21/21 11:18
 Qt Upd On: 07/22/21 14:06



FORM2

Surrogate Recovery

Method: EPA 8270E

Dfile	Sample#	Matrix	Date/Time	Surr Dil	Dilute Out Flag	Column1 S1 Recov	Column1 S2 Recov	Column1 S3 Recov	Column1 S4 Recov	Column1 S5 Recov	Column1 S6 Recov
9M108409.D	SMB94976	S	09/21/21 10:52	1		NA	NA	96	93	NA	108
9M108413.D	DAD25976-002	S	09/21/21 12:23	1		NA	NA	90	93	NA	102
9M108419.D	DAD25976-004(3X)	S	09/21/21 14:41	3		NA	NA	81	86	NA	100
9M108418.D	DAD25976-006(3X)	S	09/21/21 14:18	3		NA	NA	77	84	NA	93
9M108417.D	DAD25976-008(3X)	S	09/21/21 13:55	3		NA	NA	90	92	NA	109
7M116613.D	DAD25976-010	S	09/21/21 14:39	1		NA	NA	97	100	NA	107
7M116604.D	SMB94976(MS)	S	09/21/21 10:54	1		NA	NA	108	108	NA	122
7M116616.D	DAD25995-004	S	09/21/21 15:57	1		NA	NA	95	100	NA	112
7M116617.D	DAD25995-004(MS)	S	09/21/21 16:21	1		NA	NA	99	102	NA	115
7M116618.D	DAD25995-004(MSD)	S	09/21/21 16:44	1		NA	NA	102	104	NA	119

Flags: SD=Surrogate diluted out

*=Surrogate out

Method: EPA 8270E

Soil Laboratory Limits

Compound	Spike Amt	Limits
S1=2-Fluorophenol	100	43-128
S2=Phenol-d5	100	49-129
S3=Nitrobenzene-d5	50	52-129
S4=2-Fluorobiphenyl	50	58-125
S5=2,4,6-Tribromophenol	100	54-145
S6=Terphenyl-d14	50	58-148

FORM2

Surrogate Recovery

Method: EPA 8270E

Dfile	Sample#	Matrix	Date/Time	Surr Dil	Dilute Out Flag	Column1 S1 Recov	Column1 S2 Recov	Column1 S3 Recov	Column1 S4 Recov	Column1 S5 Recov	Column1 S6 Recov
5M117936	DWMB94984	A	09/21/21 14:27	1		82	57	129	135*	143	145
7M116603	DSMB94976	S	09/21/21 10:30	1		84	90	101	104	95	111
7M116612	DAD25976-007	S	09/21/21 14:16	1		99	107	99	103	100	112
7M116609	DAD25976-009	S	09/21/21 13:04	1		96	103	98	103	96	116
5M117937	DAD25976-011	A	09/21/21 14:50	1		70	55	102	107	125	124
5M117938	DWMB94984(MS)	A	09/21/21 15:14	1		78	54	121	113	142	136
5M117939	DAD25969-001(MS)	A	09/21/21 16:45	1		79	73	121	132*	152*	153*
5M117940	DAD25969-001(MSD)	A	09/21/21 17:09	1		118*	101	138	144*	156*	154*
5M117941	DAD25969-001	A	09/21/21 17:32	1		95	86	121	124	143	140
7M116604	DSMB94976(MS)	S	09/21/21 10:54	1		86	91	108	108	113	122
7M116616	DAD25995-004	S	09/21/21 15:57	1		94	100	95	100	91	112
7M116617	DAD25995-004(MS)	S	09/21/21 16:21	1		96	101	99	102	107	115
7M116618	DAD25995-004(MSD)	S	09/21/21 16:44	1		105	109	102	104	108	119

Flags: SD=Surrogate diluted out

*=Surrogate out

Method: EPA 8270E

Soil Laboratory Limits

Compound	Spike Amt	Limits
S1=2-Fluorophenol	100	43-128
S2=Phenol-d5	100	49-129
S3=Nitrobenzene-d5	50	52-129
S4=2-Fluorobiphenyl	50	58-125
S5=2,4,6-Tribromophenol	100	54-145
S6=Terphenyl-d14	50	58-148

Aqueous Laboratory Limits

Compound	Spike Amt	Limits
S1=2-Fluorophenol	100	29-113
S2=Phenol-d5	100	27-115
S3=Nitrobenzene-d5	50	51-139
S4=2-Fluorobiphenyl	50	53-129
S5=2,4,6-Tribromophenol	100	54-149
S6=Terphenyl-d14	50	55-146

Form3
Recovery Data Laboratory Limits
 QC Batch: SMB94976

Data File		Sample ID:		Analysis Date			
Spike or Dup: 7M116604.D		SMB94976(MS)		9/21/2021 10:54:00 AM			
Non Spike (If applicable):							
Inst Blank (If applicable):							
Method: 8270E		Matrix: Soil		Units: mg/Kg		QC Type: MBS	
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Pyridine	1	37.7914	0	50	76	1	150
N-Nitrosodimethylamine	1	35.606	0	50	71	50	130
Benzaldehyde	1	21.6191	0	50	43	20	220
Aniline	1	25.2776	0	50	51	20	150
Pentachloroethane	1	38.3899	0	50	77	50	130
bis(2-Chloroethyl)ether	1	38.766	0	50	78	50	130
Phenol	1	72.178	0	100	72	20	150
2-Chlorophenol	1	74.5903	0	100	75	50	130
N-Decane	1	34.9909	0	50	70	20	130
1,3-Dichlorobenzene	1	36.2765	0	50	73	60	130
1,4-Dichlorobenzene	1	44.1325	0	50	88	60	130
1,2-Dichlorobenzene	1	43.4172	0	50	87	50	130
Benzyl alcohol	1	50.4906	0	50	101	20	130
bis(2-chloroisopropyl)ether	1	40.8725	0	50	82	40	130
2-Methylphenol	1	82.0699	0	100	82	50	130
Acetophenone	1	48.2411	0	50	96	50	130
Hexachloroethane	1	44.0682	0	50	88	50	130
N-Nitroso-di-n-propylamine	1	42.0214	0	50	84	40	130
3&4-Methylphenol	1	91.7342	0	100	92	70	130
Nitrobenzene	1	47.0485	0	50	94	70	130
Isophorone	1	43.6101	0	50	87	60	130
2-Nitrophenol	1	91.177	0	100	91	70	130
2,4-Dimethylphenol	1	90.4926	0	100	90	40	130
Benzoic Acid	1	109.6824	0	100	110	20	130
bis(2-Chloroethoxy)methane	1	46.81	0	50	94	60	130
2,4-Dichlorophenol	1	92.3833	0	100	92	70	130
1,2,4-Trichlorobenzene	1	46.4445	0	50	93	50	130
Naphthalene	1	43.9394	0	50	88	50	130
4-Chloroaniline	1	30.259	0	50	61	10	150
Hexachlorobutadiene	1	44.4458	0	50	89	60	130
Caprolactam	1	49.8807	0	50	100	50	130
4-Chloro-3-methylphenol	1	95.1564	0	100	95	50	130
2-Methylnaphthalene	1	48.8199	0	50	98	70	130
1-Methylnaphthalene	1	54.8004	0	50	110	70	130
1,1'-Biphenyl	1	51.2927	0	50	103	60	130
1,2,4,5-Tetrachlorobenzene	1	49.8557	0	50	100	70	130
Hexachlorocyclopentadiene	1	45.1842	0	50	90	20	160
2,4,6-Trichlorophenol	1	95.1747	0	100	95	70	130
2,4,5-Trichlorophenol	1	95.5316	0	100	96	70	130
2-Chloronaphthalene	1	48.6712	0	50	97	70	130
1,4-Dimethylnaphthalene	1	51.3933	0	50	103	70	130
Diphenyl Ether	1	51.5203	0	50	103	70	130
2-Nitroaniline	1	51.2718	0	50	103	50	130
Coumarin	1	57.0458	0	50	114	70	130
Acenaphthylene	1	49.7976	0	50	100	70	130
Dimethylphthalate	1	49.2538	0	50	99	70	130
2,6-Dinitrotoluene	1	50.0263	0	50	100	70	130
Acenaphthene	1	49.1778	0	50	98	50	130
3-Nitroaniline	1	39.7029	0	50	79	10	130
2,4-Dinitrophenol	1	76.0012	0	100	76	20	150
Dibenzofuran	1	49.8031	0	50	100	70	130
2,4-Dinitrotoluene	1	48.3961	0	50	97	40	130
4-Nitrophenol	1	101.1113	0	100	101	20	150
2,3,4,6-Tetrachlorophenol	1	89.9439	0	100	90	70	130
Fluorene	1	49.1995	0	50	98	50	130
4-Chlorophenyl-phenylether	1	50.523	0	50	101	70	130
Diethylphthalate	1	49.8152	0	50	100	70	130
4-Nitroaniline	1	48.592	0	50	97	50	130
Atrazine	1	52.5558	0	50	105	50	130
4,6-Dinitro-2-methylphenol	1	90.93	0	100	91	40	130
n-Nitrosodiphenylamine	1	41.9075	0	50	84	50	130

* - Indicates outside of limits # - Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits
 QC Batch: SMB94976

Method: 8270E	Matrix: Soil	Units: mg/Kg		QC Type: MBS			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
1,2-Diphenylhydrazine	1	51.1814	0	50	102	70	130
4-Bromophenyl-phenylether	1	49.6215	0	50	99	70	130
Hexachlorobenzene	1	47.5719	0	50	95	70	130
N-Octadecane	1	56.4839	0	50	113	70	130
Pentachlorophenol	1	106.0012	0	100	106	40	130
Phenanthrene	1	50.9967	0	50	102	70	130
Anthracene	1	49.8568	0	50	100	70	130
Carbazole	1	53.2424	0	50	106	70	130
Di-n-butylphthalate	1	51.1728	0	50	102	70	130
Fluoranthene	1	51.2184	0	50	102	70	130
Pyrene	1	50.3145	0	50	101	50	130
Benzidine	1	3.1044	0	50	6.2	0	130
Butylbenzylphthalate	1	53.084	0	50	106	50	130
3,3'-Dichlorobenzidine	1	31.6454	0	50	63	10	130
Benzo[a]anthracene	1	46.4516	0	50	93	70	130
Chrysene	1	51.6639	0	50	103	60	130
bis(2-Ethylhexyl)phthalate	1	53.7943	0	50	108	70	130
Di-n-octylphthalate	1	56.3378	0	50	113	70	130
Benzo[b]fluoranthene	1	52.2649	0	50	105	70	130
Benzo[k]fluoranthene	1	53.935	0	50	108	70	130
Benzo[a]pyrene	1	50.3248	0	50	101	70	130
Indeno[1,2,3-cd]pyrene	1	52.1252	0	50	104	70	130
Dibenzo[a,h]anthracene	1	51.6705	0	50	103	60	130
Benzo[q,h,i]perylene	1	51.1431	0	50	102	70	130

* - Indicates outside of limits # - Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits
QC Batch: SMB94976

Data File		Sample ID:		Analysis Date			
Spike or Dup: 7M116617.D		AD25995-004(MS)		9/21/2021 4:21:00 PM			
Non Spike (If applicable): 7M116616.D		AD25995-004		9/21/2021 3:57:00 PM			
Inst Blank (If applicable):							
Method: 8270E		Matrix: Soil		Units: mg/Kg		QC Type: MS	
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Pyridine	1	35.6657	0	50	71	1	150
N-Nitrosodimethylamine	1	37.88	0	50	76	50	130
Benzaldehyde	1	23.283	0	50	47	20	220
Aniline	1	21.394	0	50	43	20	150
Pentachloroethane	1	40.6334	0	50	81	50	130
bis(2-Chloroethyl)ether	1	44.5727	0	50	89	50	130
Phenol	1	78.9377	0	100	79	20	150
2-Chlorophenol	1	83.1744	0	100	83	50	130
N-Decane	1	36.4401	0	50	73	20	130
1,3-Dichlorobenzene	1	40.9643	0	50	82	60	130
1,4-Dichlorobenzene	1	41.4762	0	50	83	60	130
1,2-Dichlorobenzene	1	40.8048	0	50	82	50	130
Benzyl alcohol	1	48.1236	0	50	96	20	130
bis(2-chloroisopropyl)ether	1	37.4322	0	50	75	40	130
2-Methylphenol	1	74.6596	0	100	75	50	130
Acetophenone	1	42.6362	0	50	85	50	130
Hexachloroethane	1	39.3217	0	50	79	50	130
N-Nitroso-di-n-propylamine	1	39.2722	0	50	79	40	130
3&4-Methylphenol	1	82.7349	0	100	83	70	130
Nitrobenzene	1	42.8171	0	50	86	70	130
Isophorone	1	40.3608	0	50	81	60	130
2-Nitrophenol	1	81.6288	0	100	82	70	130
2,4-Dimethylphenol	1	73.1929	0	100	73	40	130
Benzoic Acid	1	90.949	0	100	91	20	130
bis(2-Chloroethoxy)methane	1	43.5595	0	50	87	60	130
2,4-Dichlorophenol	1	84.6075	0	100	85	70	130
1,2,4-Trichlorobenzene	1	44.3013	0	50	89	50	130
Naphthalene	1	41.4451	2.488	50	78	50	130
4-Chloroaniline	1	24.1982	0	50	48	10	150
Hexachlorobutadiene	1	42.5692	0	50	85	60	130
Caprolactam	1	43.795	0	50	88	50	130
4-Chloro-3-methylphenol	1	85.4603	0	100	85	50	130
2-Methylnaphthalene	1	46.2782	0	50	93	70	130
1-Methylnaphthalene	1	48.9675	0	50	98	70	130
1,1'-Biphenyl	1	45.3346	0	50	91	60	130
1,2,4,5-Tetrachlorobenzene	1	46.1755	0	50	92	70	130
Hexachlorocyclopentadiene	1	21.983	0	50	44	20	160
2,4,6-Trichlorophenol	1	93.523	0	100	94	70	130
2,4,5-Trichlorophenol	1	87.7817	0	100	88	70	130
2-Chloronaphthalene	1	46.6683	0	50	93	70	130
1,4-Dimethylnaphthalene	1	46.3233	0	50	93	70	130
Diphenyl Ether	1	46.5964	0	50	93	70	130
2-Nitroaniline	1	47.2368	0	50	94	50	130
Coumarin	1	50.6617	0	50	101	70	130
Acenaphthylene	1	46.638	0	50	93	70	130
Dimethylphthalate	1	46.54	0	50	93	70	130
2,6-Dinitrotoluene	1	46.8067	0	50	94	70	130
Acenaphthene	1	46.9089	8.3502	50	77	50	130
3-Nitroaniline	1	37.2106	0	50	74	70	130
2,4-Dinitrophenol	1	54.3333	0	100	54	20	150
Dibenzofuran	1	47.3947	3.2376	50	88	70	130
2,4-Dinitrotoluene	1	43.6916	0	50	87	40	130
4-Nitrophenol	1	92.8354	0	100	93	20	150
2,3,4,6-Tetrachlorophenol	1	82.2483	0	100	82	70	130
Fluorene	1	46.4473	6.9568	50	79	50	130
4-Chlorophenyl-phenylether	1	48.3252	0	50	97	70	130
Diethylphthalate	1	46.4366	0	50	93	70	130
4-Nitroaniline	1	41.4242	0	50	83	50	130
Atrazine	1	47.0433	0	50	94	50	130
4,6-Dinitro-2-methylphenol	1	66.534	0	100	67	40	130
n-Nitrosodiphenylamine	1	40.0505	0	50	80	50	130

* - Indicates outside of limits # - Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits
QC Batch: SMB94976

Method: 8270E	Matrix: Soil	Units: mg/Kg		QC Type: MS			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
1,2-Diphenylhydrazine	1	43.6341	0	50	87	70	130
4-Bromophenyl-phenylether	1	47.5684	0	50	95	70	130
Hexachlorobenzene	1	45.0372	0	50	90	70	130
N-Octadecane	1	50.8903	0	50	102	70	130
Pentachlorophenol	1	96.3276	0	100	96	40	130
Phenanthrene	1	53.1556	79.4114	50	-53*	70	130
Anthracene	1	47.7692	12.3635	50	71	70	130
Carbazole	1	47.2988	6.5888	50	81	70	130
Di-n-butylphthalate	1	48.5008	0	50	97	70	130
Fluoranthene	1	57.5352	75.4811	50	-36*	70	130
Pyrene	1	60.2893	73.3466	50	-26*	50	130
Benzidine	1	0	0	50	0	0	130
Butylbenzylphthalate	1	50.3953	0	50	101	50	130
3,3'-Dichlorobenzidine	1	33.614	0	50	67	10	130
Benzo[a]anthracene	1	51.023	34.9507	50	32*	70	130
Chrysene	1	54.311	34.3452	50	40*	60	130
bis(2-Ethylhexyl)phthalate	1	51.5997	0	50	103	70	130
Di-n-octylphthalate	1	52.8386	0	50	106	70	130
Benzo[b]fluoranthene	1	57.9825	37.3935	50	41*	70	130
Benzo[k]fluoranthene	1	52.5109	15.3614	50	74	70	130
Benzo[a]pyrene	1	53.2107	30.166	50	46*	70	130
Indeno[1,2,3-cd]pyrene	1	53.9763	16.0828	50	76	70	130
Dibenzo[a,h]anthracene	1	52.5568	4.2246	50	97	60	130
Benzo[g,h,i]perylene	1	54.5748	18.9899	50	71	70	130

* - Indicates outside of limits # - Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits
QC Batch: SMB94976

Data File		Sample ID:		Analysis Date			
Spike or Dup: 7M116618.D		AD25995-004(MSD)		9/21/2021 4:44:00 PM			
Non Spike(If applicable): 7M116616.D		AD25995-004		9/21/2021 3:57:00 PM			
Inst Blank(If applicable):							
Method: 8270E		Matrix: Soil		Units: mg/Kg		QC Type: MSD	
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Pyridine	1	38.9306	0	50	78	1	150
N-Nitrosodimethylamine	1	40.0371	0	50	80	50	130
Benzaldehyde	1	25.4996	0	50	51	20	220
Aniline	1	33.3905	0	50	67	20	150
Pentachloroethane	1	44.5624	0	50	89	50	130
bis(2-Chloroethyl)ether	1	48.0789	0	50	96	50	130
Phenol	1	88.181	0	100	88	20	150
2-Chlorophenol	1	92.3935	0	100	92	50	130
N-Decane	1	39.7613	0	50	80	20	130
1,3-Dichlorobenzene	1	44.4363	0	50	89	60	130
1,4-Dichlorobenzene	1	42.4609	0	50	85	60	130
1,2-Dichlorobenzene	1	41.9714	0	50	84	50	130
Benzyl alcohol	1	49.3634	0	50	99	20	130
bis(2-chloroisopropyl)ether	1	38.9614	0	50	78	40	130
2-Methylphenol	1	78.409	0	100	78	50	130
Acetophenone	1	44.8111	0	50	90	50	130
Hexachloroethane	1	40.4778	0	50	81	50	130
N-Nitroso-di-n-propylamine	1	40.5955	0	50	81	40	130
3&4-Methylphenol	1	87.4631	0	100	87	70	130
Nitrobenzene	1	44.248	0	50	88	70	130
Isophorone	1	41.6471	0	50	83	60	130
2-Nitrophenol	1	85.2048	0	100	85	70	130
2,4-Dimethylphenol	1	84.2213	0	100	84	40	130
Benzoic Acid	1	89.1328	0	100	89	20	130
bis(2-Chloroethoxy)methane	1	44.6021	0	50	89	60	130
2,4-Dichlorophenol	1	88.0219	0	100	88	70	130
1,2,4-Trichlorobenzene	1	45.8028	0	50	92	50	130
Naphthalene	1	42.5693	2.488	50	80	50	130
4-Chloroaniline	1	29.717	0	50	59	10	150
Hexachlorobutadiene	1	43.6046	0	50	87	60	130
Caprolactam	1	44.5552	0	50	89	50	130
4-Chloro-3-methylphenol	1	86.8608	0	100	87	50	130
2-Methylnaphthalene	1	47.193	0	50	94	70	130
1-Methylnaphthalene	1	50.2937	0	50	101	70	130
1,1'-Biphenyl	1	46.2155	0	50	92	60	130
1,2,4,5-Tetrachlorobenzene	1	46.6446	0	50	93	70	130
Hexachlorocyclopentadiene	1	21.5904	0	50	43	20	160
2,4,6-Trichlorophenol	1	90.5999	0	100	91	70	130
2,4,5-Trichlorophenol	1	90.5006	0	100	91	70	130
2-Chloronaphthalene	1	47.1921	0	50	94	70	130
1,4-Dimethylnaphthalene	1	47.1399	0	50	94	70	130
Diphenyl Ether	1	46.999	0	50	94	70	130
2-Nitroaniline	1	48.6366	0	50	97	50	130
Coumarin	1	51.1735	0	50	102	70	130
Acenaphthylene	1	47.4707	0	50	95	70	130
Dimethylphthalate	1	46.701	0	50	93	70	130
2,6-Dinitrotoluene	1	47.8302	0	50	96	70	130
Acenaphthene	1	47.2203	8.3502	50	78	50	130
3-Nitroaniline	1	42.3118	0	50	85	70	130
2,4-Dinitrophenol	1	38.1563	0	100	38	20	150
Dibenzofuran	1	47.6503	3.2376	50	89	70	130
2,4-Dinitrotoluene	1	44.5947	0	50	89	40	130
4-Nitrophenol	1	94.8794	0	100	95	20	150
2,3,4,6-Tetrachlorophenol	1	82.0509	0	100	82	70	130
Fluorene	1	47.2833	6.9568	50	81	50	130
4-Chlorophenyl-phenylether	1	48.1189	0	50	96	70	130
Diethylphthalate	1	46.7708	0	50	94	70	130
4-Nitroaniline	1	45.2012	0	50	90	50	130
Atrazine	1	47.552	0	50	95	50	130
4,6-Dinitro-2-methylphenol	1	56.6	0	100	57	40	130
n-Nitrosodiphenylamine	1	40.317	0	50	81	50	130

* - Indicates outside of limits # - Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits
QC Batch: SMB94976

Method: 8270E	Matrix: Soil	Units: mg/Kg		QC Type: MSD			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
1,2-Diphenylhydrazine	1	47.729	0	50	95	70	130
4-Bromophenyl-phenylether	1	47.4898	0	50	95	70	130
Hexachlorobenzene	1	46.1795	0	50	92	70	130
N-Octadecane	1	51.7929	0	50	104	70	130
Pentachlorophenol	1	90.5438	0	100	91	40	130
Phenanthrene	1	51.9229	79.4114	50	-55*	70	130
Anthracene	1	48.3504	12.3635	50	72	70	130
Carbazole	1	48.0393	6.5888	50	83	70	130
Di-n-butylphthalate	1	49.6645	0	50	99	70	130
Fluoranthene	1	55.2057	75.4811	50	-41*	70	130
Pyrene	1	57.2902	73.3466	50	-32*	50	130
Benzidine	1	3.5079	0	50	7	0	130
Butylbenzylphthalate	1	51.4629	0	50	103	50	130
3,3'-Dichlorobenzidine	1	41.46	0	50	83	10	130
Benzo[a]anthracene	1	50.4157	34.9507	50	31*	70	130
Chrysene	1	53.1479	34.3452	50	38*	60	130
bis(2-Ethylhexyl)phthalate	1	54.3886	0	50	109	70	130
Di-n-octylphthalate	1	56.3455	0	50	113	70	130
Benzo[b]fluoranthene	1	60.8532	37.3935	50	47*	70	130
Benzo[k]fluoranthene	1	51.1452	15.3614	50	72	70	130
Benzo[a]pyrene	1	53.9009	30.166	50	47*	70	130
Indeno[1,2,3-cd]pyrene	1	56.0437	16.0828	50	80	70	130
Dibenzo[a,h]anthracene	1	54.1142	4.2246	50	100	60	130
Benzo[g,h,i]perylene	1	56.0481	18.9899	50	74	70	130

* - Indicates outside of limits # - Indicates outside of standard limits but within method exceedance limits

Form3
RPD Data Laboratory Limits

QC Batch: SMB94976

Data File		Sample ID:		Analysis Date	
Spike or Dup: 7M116618.D		AD25995-004(MSD)		9/21/2021 4:44:00 PM	
Duplicate(If applicable): 7M116617.D		AD25995-004(MS)		9/21/2021 4:21:00 PM	
Inst Blank(If applicable):					
Method: 8270E		Matrix: Soil		Units: mg/Kg	
QC Type: MSD					
Analyte:	Column	Dup/MSD/MBSD Conc	Sample/MS/MBS Conc	RPD	Limit
Pyridine	1	38.9306	35.6657	8.8	30
N-Nitrosodimethylamine	1	40.0371	37.88	5.5	30
Benzaldehyde	1	25.4996	23.283	9.1	30
Aniline	1	33.3905	21.394	44*	30
Pentachloroethane	1	44.5624	40.6334	9.2	30
bis(2-Chloroethyl)ether	1	48.0789	44.5727	7.6	30
Phenol	1	88.181	78.9377	11	40
2-Chlorophenol	1	92.3935	83.1744	11	40
N-Decane	1	39.7613	36.4401	8.7	30
1,3-Dichlorobenzene	1	44.4363	40.9643	8.1	30
1,4-Dichlorobenzene	1	42.4609	41.4762	2.3	40
1,2-Dichlorobenzene	1	41.9714	40.8048	2.8	30
Benzyl alcohol	1	49.3634	48.1236	2.5	30
bis(2-chloroisopropyl)ether	1	38.9614	37.4322	4	30
2-Methylphenol	1	78.409	74.6596	4.9	40
Acetophenone	1	44.8111	42.6362	5	30
Hexachloroethane	1	40.4778	39.3217	2.9	30
N-Nitroso-di-n-propylamine	1	40.5955	39.2722	3.3	40
3&4-Methylphenol	1	87.4631	82.7349	5.6	30
Nitrobenzene	1	44.248	42.8171	3.3	30
Isophorone	1	41.6471	40.3608	3.1	30
2-Nitrophenol	1	85.2048	81.6288	4.3	30
2,4-Dimethylphenol	1	84.2213	73.1929	14	40
Benzoic Acid	1	89.1328	90.949	2	30
bis(2-Chloroethoxy)methane	1	44.6021	43.5595	2.4	30
2,4-Dichlorophenol	1	88.0219	84.6075	4	30
1,2,4-Trichlorobenzene	1	45.8028	44.3013	3.3	40
Naphthalene	1	42.5693	41.4451	2.7	40
4-Chloroaniline	1	29.717	24.1982	20	30
Hexachlorobutadiene	1	43.6046	42.5692	2.4	30
Caprolactam	1	44.5552	43.795	1.7	30
4-Chloro-3-methylphenol	1	86.8608	85.4603	1.6	40
2-Methylnaphthalene	1	47.193	46.2782	2	30
1-Methylnaphthalene	1	50.2937	48.9675	2.7	30
1,1'-Biphenyl	1	46.2155	45.3346	1.9	30
1,2,4,5-Tetrachlorobenzene	1	46.6446	46.1755	1	30
Hexachlorocyclopentadiene	1	21.5904	21.983	1.8	30
2,4,6-Trichlorophenol	1	90.5999	93.523	3.2	30
2,4,5-Trichlorophenol	1	90.5006	87.7817	3.1	30
2-Chloronaphthalene	1	47.1921	46.6683	1.1	30
1,4-Dimethylnaphthalene	1	47.1399	46.3233	1.7	30
Diphenyl Ether	1	46.999	46.5964	0.86	30
2-Nitroaniline	1	48.6366	47.2368	2.9	30
Coumarin	1	51.1735	50.6617	1	30
Acenaphthylene	1	47.4707	46.638	1.8	30
Dimethylphthalate	1	46.701	46.54	0.35	30
2,6-Dinitrotoluene	1	47.8302	46.8067	2.2	30
Acenaphthene	1	47.2203	46.9089	0.66	40
3-Nitroaniline	1	42.3118	37.2106	13	30
2,4-Dinitrophenol	1	38.1563	54.3333	35*	30
Dibenzofuran	1	47.6503	47.3947	0.54	30
2,4-Dinitrotoluene	1	44.5947	43.6916	2	40
4-Nitrophenol	1	94.8794	92.8354	2.2	40
2,3,4,6-Tetrachlorophenol	1	82.0509	82.2483	0.24	30
Fluorene	1	47.2833	46.4473	1.8	40
4-Chlorophenyl-phenylether	1	48.1189	48.3252	0.43	30
Diethylphthalate	1	46.7708	46.4366	0.72	30
4-Nitroaniline	1	45.2012	41.4242	8.7	30
Atrazine	1	47.552	47.0433	1.1	30
4,6-Dinitro-2-methylphenol	1	56.6	66.534	16	30
n-Nitrosodiphenylamine	1	40.317	40.0505	0.66	30

* - Indicates outside of limits

NA - Both concentrations=0... no result can be calculated

Form3
RPD Data Laboratory Limits

QC Batch: SMB94976

Method: 8270E

Matrix: Soil

Units: mg/Kg

QC Type: MSD

Analyte:	Column	Dup/MSD/MBSD	Sample/MS/MBS	RPD	Limit
		Conc	Conc		
1,2-Diphenylhydrazine	1	47.729	43.6341	9	30
4-Bromophenyl-phenylether	1	47.4898	47.5684	0.17	30
Hexachlorobenzene	1	46.1795	45.0372	2.5	30
N-Octadecane	1	51.7929	50.8903	1.8	30
Pentachlorophenol	1	90.5438	96.3276	6.2	40
Phenanthrene	1	51.9229	53.1556	2.3	30
Anthracene	1	48.3504	47.7692	1.2	30
Carbazole	1	48.0393	47.2988	1.6	30
Di-n-butylphthalate	1	49.6645	48.5008	2.4	30
Fluoranthene	1	55.2057	57.5352	4.1	30
Pyrene	1	57.2902	60.2893	5.1	40
Benzidine	1	3.5079	0	200*	30
Butylbenzylphthalate	1	51.4629	50.3953	2.1	40
3,3'-Dichlorobenzidine	1	41.46	33.614	21	30
Benzoflanthracene	1	50.4157	51.023	1.2	30
Chrysene	1	53.1479	54.311	2.2	30
bis(2-Ethylhexyl)phthalate	1	54.3886	51.5997	5.3	30
Di-n-octylphthalate	1	56.3455	52.8386	6.4	30
Benzoblfuoranthene	1	60.8532	57.9825	4.8	30
Benzoklfuoranthene	1	51.1452	52.5109	2.6	30
Benzofalpyrene	1	53.9009	53.2107	1.3	30
Indenof1,2,3-cdIpyrene	1	56.0437	53.9763	3.8	30
Dibenzo[a,h]anthracene	1	54.1142	52.5568	2.9	30
Benzofg,h,ilperylene	1	56.0481	54.5748	2.7	30

* - Indicates outside of limits

NA - Both concentrations=0... no result can be calculated

Form3
Recovery Data Laboratory Limits
 QC Batch: WMB94984

Data File: 5M117938.D Sample ID: WMB94984(MS) Analysis Date: 9/21/2021 3:14:00 PM
 Spike or Dup: 5M117938.D
 Non Spike(If applicable):
 Inst Blank(If applicable):

Method: 8270E	Matrix: Aqueous	Units: ug/L	QC Type: MBS				
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
1,4-Dioxane	1	69.8706	0	100	70	20	160
Pyridine	1	27.1862	0	100	27	5	150
N-Nitrosodimethylamine	1	64.0277	0	100	64	50	150
Benzaldehyde	1	58.4368	0	100	58	20	220
Aniline	1	59.935	0	100	60	20	150
Pentachloroethane	1	91.3893	0	100	91	50	130
bis(2-Chloroethyl)ether	1	87.3277	0	100	87	50	130
Phenol	1	46.17	0	100	46	20	150
2-Chlorophenol	1	95.6433	0	100	96	70	130
N-Decane	1	88.2289	0	100	88	40	130
1,3-Dichlorobenzene	1	82.8003	0	100	83	50	130
1,4-Dichlorobenzene	1	81.42	0	100	81	50	130
1,2-Dichlorobenzene	1	79.8838	0	100	80	50	130
Benzyl alcohol	1	91.3254	0	100	91	70	130
bis(2-chloroisopropyl)ether	1	73.8357	0	100	74	40	130
2-Methylphenol	1	85.4563	0	100	85	60	130
Acetophenone	1	93.3169	0	100	93	50	130
Hexachloroethane	1	81.2428	0	100	81	50	130
N-Nitroso-di-n-propylamine	1	86.0622	0	100	86	50	130
3&4-Methylphenol	1	82.5937	0	100	83	50	130
Nitrobenzene	1	88.9564	0	100	89	70	130
Isophorone	1	86.3814	0	100	86	70	130
2-Nitrophenol	1	100.7704	0	100	101	70	130
2,4-Dimethylphenol	1	99.9393	0	100	100	40	130
Benzoic Acid	1	66.5825	0	100	67	20	130
bis(2-Chloroethoxy)methane	1	88.711	0	100	89	70	130
2,4-Dichlorophenol	1	100.4481	0	100	100	70	130
1,2,4-Trichlorobenzene	1	87.3876	0	100	87	50	130
Naphthalene	1	81.9094	0	100	82	70	130
4-Chloroaniline	1	102.1463	0	100	102	50	150
Hexachlorobutadiene	1	85.7505	0	100	86	70	130
Caprolactam	1	46.316	0	100	46	20	130
4-Chloro-3-methylphenol	1	105.4844	0	100	105	70	130
2-Methylnaphthalene	1	91.3856	0	100	91	70	130
1-Methylnaphthalene	1	102.2785	0	100	102	70	130
1,1'-Biphenyl	1	99.7028	0	100	100	70	130
1,2,4,5-Tetrachlorobenzene	1	98.6651	0	100	99	70	130
Hexachlorocyclopentadiene	1	99.473	0	100	99	20	130
2,4,6-Trichlorophenol	1	108.7166	0	100	109	70	130
2,4,5-Trichlorophenol	1	110.9652	0	100	111	70	130
2-Chloronaphthalene	1	91.2617	0	100	91	70	130
1,4-Dimethylnaphthalene	1	97.3464	0	100	97	70	130
Diphenyl Ether	1	99.3904	0	100	99	70	130
2-Nitroaniline	1	108.383	0	100	108	50	150
Coumarin	1	108.2652	0	100	108	70	130
Acenaphthylene	1	93.985	0	100	94	70	130
Dimethylphthalate	1	94.5362	0	100	95	70	130
2,6-Dinitrotoluene	1	95.7777	0	100	96	70	130
Acenaphthene	1	92.4988	0	100	92	70	130
3-Nitroaniline	1	113.7721	0	100	114	50	150
2,4-Dinitrophenol	1	107.5823	0	100	108	20	150
Dibenzofuran	1	98.9736	0	100	99	70	130
2,4-Dinitrotoluene	1	91.2631	0	100	91	40	130
4-Nitrophenol	1	55.1357	0	100	55	20	150
2,3,4,6-Tetrachlorophenol	1	104.4725	0	100	104	70	130
Fluorene	1	92.7173	0	100	93	70	130
4-Chlorophenyl-phenylether	1	95.1718	0	100	95	70	130
Diethylphthalate	1	97.6789	0	100	98	50	130
4-Nitroaniline	1	114.5823	0	100	115	50	150
Atrazine	1	80.29	0	100	80	50	130
4,6-Dinitro-2-methylphenol	1	111.8624	0	100	112	40	130

* - Indicates outside of limits # - Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits
QC Batch: WMB94984

Method: 8270E	Matrix: Aqueous	Units: ug/L	QC Type: MBS				
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
n-Nitrosodiphenylamine	1	79.8539	0	100	80	50	130
1,2-Diphenylhydrazine	1	91.4427	0	100	91	70	130
4-Bromophenyl-phenylether	1	99.3235	0	100	99	70	130
Hexachlorobenzene	1	92.0703	0	100	92	70	130
N-Octadecane	1	109.7069	0	100	110	70	130
Pentachlorophenol	1	120.3175	0	100	120	40	130
Phenanthrene	1	95.4797	0	100	95	70	130
Anthracene	1	93.1724	0	100	93	70	130
Carbazole	1	108.1004	0	100	108	70	130
Di-n-butylphthalate	1	98.0593	0	100	98	70	130
Fluoranthene	1	99.3564	0	100	99	70	130
Pyrene	1	92.6039	0	100	93	70	130
Benzidine	1	6.8353	0	100	6.8	0	134
Butylbenzylphthalate	1	97.2484	0	100	97	50	130
3,3'-Dichlorobenzidine	1	94.8071	0	100	95	1	150
Benzo[a]anthracene	1	91.2925	0	100	91	70	130
Chrysene	1	95.7967	0	100	96	50	130
bis(2-Ethylhexyl)phthalate	1	99.2998	0	100	99	70	130
Di-n-octylphthalate	1	103.2518	0	100	103	70	130
Benzo[b]fluoranthene	1	102.4002	0	100	102	70	130
Benzo[k]fluoranthene	1	99.4923	0	100	99	70	130
Benzo[a]pyrene	1	99.5191	0	100	100	70	130
Indeno[1,2,3-cd]pyrene	1	99.7275	0	100	100	70	130
Dibenzo[fa,h]anthracene	1	99.9662	0	100	100	70	130
Benzo[ghi]perylene	1	97.7774	0	100	98	70	130

* - Indicates outside of limits # - Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits
 QC Batch: WMB94984

Data File		Sample ID:		Analysis Date			
Spike or Dup: 5M117939.D		AD25969-001(MS)		9/21/2021 4:45:00 PM			
Non Spike(If applicable): 5M117941.D		AD25969-001		9/21/2021 5:32:00 PM			
Inst Blank(If applicable):							
Method: 8270E		Matrix: Aqueous		Units: ug/L		QC Type: MS	
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
1,4-Dioxane	1	0	0.765	100	-0.76*	20	160
Pyridine	1	37.5128	0	100	38	5	150
N-Nitrosodimethylamine	1	68.7036	0	100	69	50	150
Benzaldehyde	1	48.6533	0	100	49	20	220
Aniline	1	49.0381	0	100	49	20	150
Pentachloroethane	1	76.41	0	100	76	50	130
bis(2-Chloroethyl)ether	1	75.6248	0	100	76	50	130
Phenol	1	63.3605	0	100	63	20	150
2-Chlorophenol	1	87.8093	0	100	88	70	130
N-Decane	1	74.8127	0	100	75	40	130
1,3-Dichlorobenzene	1	69.2662	0	100	69	50	130
1,4-Dichlorobenzene	1	72.368	0	100	72	50	130
1,2-Dichlorobenzene	1	73.3948	0	100	73	50	130
Benzyl alcohol	1	96.8666	0	100	97	70	130
bis(2-chloroisopropyl)ether	1	71.6848	0	100	72	40	130
2-Methylphenol	1	91.9277	0	100	92	60	130
Acetophenone	1	93.0495	0	100	93	50	130
Hexachloroethane	1	70.5022	0	100	71	50	130
N-Nitroso-di-n-propylamine	1	89.4885	0	100	89	50	130
3&4-Methylphenol	1	99.4726	0	100	99	50	130
Nitrobenzene	1	90.8282	0	100	91	70	130
Isophorone	1	91.2017	0	100	91	70	130
2-Nitrophenol	1	108.6746	0	100	109	70	130
2,4-Dimethylphenol	1	111.3915	0	100	111	40	130
Benzoic Acid	1	115.8347	0	100	116	20	130
bis(2-Chloroethoxy)methane	1	88.9208	0	100	89	70	130
2,4-Dichlorophenol	1	109.0871	0	100	109	70	130
1,2,4-Trichlorobenzene	1	87.1596	0	100	87	50	130
Naphthalene	1	82.4096	0	100	82	70	130
4-Chloroaniline	1	95.3961	0	100	95	50	150
Hexachlorobutadiene	1	87.1351	0	100	87	70	130
Caprolactam	1	89.5682	0	100	90	20	130
4-Chloro-3-methylphenol	1	113.9833	0	100	114	70	130
2-Methylnaphthalene	1	98.0069	0	100	98	70	130
1-Methylnaphthalene	1	107.3439	0	100	107	70	130
1,1'-Biphenyl	1	103.1883	0	100	103	70	130
1,2,4,5-Tetrachlorobenzene	1	107.2643	0	100	107	70	130
Hexachlorocyclopentadiene	1	105.343	0	100	105	20	130
2,4,6-Trichlorophenol	1	121.4276	0	100	121	70	130
2,4,5-Trichlorophenol	1	124.2342	0	100	124	70	130
2-Chloronaphthalene	1	97.8077	0	100	98	70	130
1,4-Dimethylnaphthalene	1	109.0389	5.4056	100	104	70	130
Diphenyl Ether	1	109.7186	0	100	110	70	130
2-Nitroaniline	1	121.2507	0	100	121	50	150
Coumarin	1	115.33	0	100	115	70	130
Acenaphthylene	1	100.9601	0	100	101	70	130
Dimethylphthalate	1	103.21	0	100	103	70	130
2,6-Dinitrotoluene	1	107.1806	0	100	107	70	130
Acenaphthene	1	99.1225	0	100	99	70	130
3-Nitroaniline	1	123.8946	0	100	124	50	150
2,4-Dinitrophenol	1	128.7109	0	100	129	20	150
Dibenzofuran	1	109.3277	0	100	109	70	130
2,4-Dinitrotoluene	1	102.9937	0	100	103	40	130
4-Nitrophenol	1	93.5822	0	100	94	20	150
2,3,4,6-Tetrachlorophenol	1	121.7276	0	100	122	70	130
Fluorene	1	101.4492	0	100	101	70	130
4-Chlorophenyl-phenylether	1	105.0144	0	100	105	70	130
Diethylphthalate	1	104.9811	0	100	105	50	130
4-Nitroaniline	1	118.7688	0	100	119	50	150
Atrazine	1	83.2568	0	100	83	50	130
4,6-Dinitro-2-methylphenol	1	132.9559	0	100	133*	40	130

* - Indicates outside of limits # - Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits
QC Batch: WMB94984

Method: 8270E	Matrix: Aqueous	Units: ug/L	QC Type: MS				
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
n-Nitrosodiphenylamine	1	97.6581	0	100	98	50	130
1,2-Diphenylhydrazine	1	102.2298	0	100	102	70	130
4-Bromophenyl-phenylether	1	107.8839	0	100	108	70	130
Hexachlorobenzene	1	101.5696	0	100	102	70	130
N-Octadecane	1	134.2602	0	100	134*	70	130
Pentachlorophenol	1	142.2536	0	100	142*	40	130
Phenanthrene	1	107.6099	0	100	108	70	130
Anthracene	1	109.1642	0	100	109	70	130
Carbazole	1	120.0698	0	100	120	70	130
Di-n-butylphthalate	1	105.8711	0	100	106	70	130
Fluoranthene	1	109.3785	0	100	109	70	130
Pyrene	1	107.3274	0	100	107	70	130
Benzidine	1	2.1256	0	100	2.1	0	134
Butylbenzylphthalate	1	108.7789	0	100	109	50	130
3,3'-Dichlorobenzidine	1	79.1449	0	100	79	1	150
Benzo[a]anthracene	1	100.7263	0	100	101	70	130
Chrysene	1	108.4521	0	100	108	50	130
bis(2-Ethylhexyl)phthalate	1	110.8835	0	100	111	70	130
Di-n-octylphthalate	1	112.4675	0	100	112	70	130
Benzo[b]fluoranthene	1	116.8739	0	100	117	70	130
Benzo[k]fluoranthene	1	107.8396	0	100	108	70	130
Benzo[a]pyrene	1	107.4991	0	100	107	70	130
Indeno[1,2,3-cd]pyrene	1	112.4923	0	100	112	70	130
Dibenzo[a,h]anthracene	1	111.3439	0	100	111	70	130
Benzo[g,h,i]perylene	1	108.26	0	100	108	70	130

* - Indicates outside of limits # - Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits
 QC Batch: WMB94984

Data File	Sample ID:	Analysis Date
Spike or Dup: 5M117940.D	AD25969-001(MSD)	9/21/2021 5:09:00 PM
Non Spike (If applicable): 5M117941.D	AD25969-001	9/21/2021 5:32:00 PM
Inst Blank (If applicable):		

Method: 8270E	Matrix: Aqueous	Units: ug/L	QC Type: MSD				
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
1,4-Dioxane	1	83.8216	0.765	100	83	20	160
Pyridine	1	40.3328	0	100	40	5	150
N-Nitrosodimethylamine	1	91.7429	0	100	92	50	150
Benzaldehyde	1	67.0187	0	100	67	20	220
Aniline	1	61.2688	0	100	61	20	150
Pentachloroethane	1	111.8835	0	100	112	50	130
bis(2-Chloroethyl)ether	1	103.1313	0	100	103	50	130
Phenol	1	85.6972	0	100	86	20	150
2-Chlorophenol	1	120.1822	0	100	120	70	130
N-Decane	1	107.2141	0	100	107	40	130
1,3-Dichlorobenzene	1	95.08	0	100	95	50	130
1,4-Dichlorobenzene	1	89.0509	0	100	89	50	130
1,2-Dichlorobenzene	1	89.5587	0	100	90	50	130
Benzyl alcohol	1	115.7103	0	100	116	70	130
bis(2-chloroisopropyl)ether	1	84.9156	0	100	85	40	130
2-Methylphenol	1	113.2961	0	100	113	60	130
Acetophenone	1	107.6943	0	100	108	50	130
Hexachloroethane	1	90.4558	0	100	90	50	130
N-Nitroso-di-n-propylamine	1	101.4047	0	100	101	50	130
3&4-Methylphenol	1	115.1282	0	100	115	50	130
Nitrobenzene	1	106.4941	0	100	106	70	130
Isophorone	1	102.0159	0	100	102	70	130
2-Nitrophenol	1	127.8504	0	100	128	70	130
2,4-Dimethylphenol	1	125.8599	0	100	126	40	130
Benzoic Acid	1	134.5212	0	100	135*	20	130
bis(2-Chloroethoxy)methane	1	104.2495	0	100	104	70	130
2,4-Dichlorophenol	1	124.5232	0	100	125	70	130
1,2,4-Trichlorobenzene	1	103.913	0	100	104	50	130
Naphthalene	1	94.843	0	100	95	70	130
4-Chloroaniline	1	106.1494	0	100	106	50	150
Hexachlorobutadiene	1	103.4899	0	100	103	70	130
Caprolactam	1	85.9431	0	100	86	20	130
4-Chloro-3-methylphenol	1	127.8831	0	100	128	70	130
2-Methylnaphthalene	1	110.037	0	100	110	70	130
1-Methylnaphthalene	1	115.3706	0	100	115	70	130
1,1'-Biphenyl	1	109.3301	0	100	109	70	130
1,2,4,5-Tetrachlorobenzene	1	119.5899	0	100	120	70	130
Hexachlorocyclopentadiene	1	121.9527	0	100	122	20	130
2,4,6-Trichlorophenol	1	133.0907	0	100	133*	70	130
2,4,5-Trichlorophenol	1	134.2861	0	100	134*	70	130
2-Chloronaphthalene	1	109.5652	0	100	110	70	130
1,4-Dimethylnaphthalene	1	116.62	5.4056	100	111	70	130
Diphenyl Ether	1	118.093	0	100	118	70	130
2-Nitroaniline	1	129.1795	0	100	129	50	150
Coumarin	1	121.4113	0	100	121	70	130
Acenaphthylene	1	108.1147	0	100	108	70	130
Dimethylphthalate	1	110.0919	0	100	110	70	130
2,6-Dinitrotoluene	1	113.5394	0	100	114	70	130
Acenaphthene	1	107.9638	0	100	108	70	130
3-Nitroaniline	1	128.2273	0	100	128	50	150
2,4-Dinitrophenol	1	139.212	0	100	139	20	150
Dibenzofuran	1	120.1672	0	100	120	70	130
2,4-Dinitrotoluene	1	111.3644	0	100	111	40	130
4-Nitrophenol	1	100.5712	0	100	101	20	150
2,3,4,6-Tetrachlorophenol	1	128.6048	0	100	129	70	130
Fluorene	1	106.5384	0	100	107	70	130
4-Chlorophenyl-phenylether	1	113.687	0	100	114	70	130
Diethylphthalate	1	113.1258	0	100	113	50	130
4-Nitroaniline	1	122.7454	0	100	123	50	150
Atrazine	1	86.0531	0	100	86	50	130
4,6-Dinitro-2-methylphenol	1	138.6931	0	100	139*	40	130

* - Indicates outside of limits # - Indicates outside of standard limits but within method exceedance limits

Recovery Data Laboratory Limits

QC Batch: WMB94984

Method: 8270E	Matrix: Aqueous	Units: ug/L	QC Type: MSD				
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
n-Nitrosodiphenylamine	1	98.3917	0	100	98	50	130
1,2-Diphenylhydrazine	1	105.4036	0	100	105	70	130
4-Bromophenyl-phenylether	1	116.0285	0	100	116	70	130
Hexachlorobenzene	1	105.695	0	100	106	70	130
N-Octadecane	1	128.6556	0	100	129	70	130
Pentachlorophenol	1	149.5389	0	100	150*	40	130
Phenanthrene	1	110.0574	0	100	110	70	130
Anthracene	1	112.1081	0	100	112	70	130
Carbazole	1	122.4254	0	100	122	70	130
Di-n-butylphthalate	1	112.8013	0	100	113	70	130
Fluoranthene	1	113.0484	0	100	113	70	130
Pyrene	1	108.9571	0	100	109	70	130
Benzidine	1	0	0	100	0	0	134
Butylbenzylphthalate	1	112.1066	0	100	112	50	130
3,3'-Dichlorobenzidine	1	73.4097	0	100	73	1	150
Benzo[a]anthracene	1	102.0772	0	100	102	70	130
Chrysene	1	111.6145	0	100	112	50	130
bis(2-Ethylhexyl)phthalate	1	115.3772	0	100	115	70	130
Di-n-octylphthalate	1	116.2082	0	100	116	70	130
Benzo[b]fluoranthene	1	120.1705	0	100	120	70	130
Benzo[k]fluoranthene	1	118.4774	0	100	118	70	130
Benzo[a]pyrene	1	112.3185	0	100	112	70	130
Indeno[1,2,3-cd]pyrene	1	117.5378	0	100	118	70	130
Dibenzo[a,h]anthracene	1	116.56	0	100	117	70	130
Benzo[g,h,i]perylene	1	113.849	0	100	114	70	130

* - Indicates outside of limits # - Indicates outside of standard limits but within method exceedance limits

Form3
RPD Data Laboratory Limits

QC Batch: WMB94984

Data File	Sample ID:	Analysis Date
Spike or Dup: 5M117940.D	AD25969-001(MSD)	9/21/2021 5:09:00 PM
Duplicate(If applicable): 5M117939.D	AD25969-001(MS)	9/21/2021 4:45:00 PM
Inst Blank(If applicable):		
Method: 8270E	Matrix: Aqueous	Units: ug/L
		QC Type: MSD

Analyte:	Column	Dup/MSD/MBSD Conc	Sample/MS/MBS Conc	RPD	Limit
<u>1,4-Dioxane</u>	1	83.8216	0	200*	20
Pyridine	1	40.3328	37.5128	7.2	40
N-Nitrosodimethylamine	1	91.7429	68.7036	29*	20
<u>Benzaldehyde</u>	1	67.0187	48.6533	32*	20
Aniline	1	61.2688	49.0381	22*	20
Pentachloroethane	1	111.8835	76.41	38*	20
<u>bis(2-Chloroethyl)ether</u>	1	103.1313	75.6248	31*	20
<u>Phenol</u>	1	85.6972	63.3605	30	40
<u>2-Chlorophenol</u>	1	120.1822	87.8093	31	40
N-Decane	1	107.2141	74.8127	36*	20
1,3-Dichlorobenzene	1	95.08	69.2662	31*	20
1,4-Dichlorobenzene	1	89.0509	72.368	21	40
1,2-Dichlorobenzene	1	89.5587	73.3948	20	20
Benzyl alcohol	1	115.7103	96.8666	18	20
<u>bis(2-chloroisopropyl)ether</u>	1	84.9156	71.6848	17	20
<u>2-Methylphenol</u>	1	113.2961	91.9277	21	40
<u>Acetophenone</u>	1	107.6943	93.0495	15	20
<u>Hexachloroethane</u>	1	90.4558	70.5022	25	40
<u>N-Nitroso-di-n-propylamine</u>	1	101.4047	89.4885	12	40
<u>3&4-Methylphenol</u>	1	115.1282	99.4726	15	40
<u>Nitrobenzene</u>	1	106.4941	90.8282	16	40
<u>Isophorone</u>	1	102.0159	91.2017	11	20
<u>2-Nitrophenol</u>	1	127.8504	108.6746	16	20
<u>2,4-Dimethylphenol</u>	1	125.8599	111.3915	12	40
Benzoic Acid	1	134.5212	115.8347	15	20
<u>bis(2-Chloroethoxy)methane</u>	1	104.2495	88.9208	16	20
<u>2,4-Dichlorophenol</u>	1	124.5232	109.0871	13	20
1,2,4-Trichlorobenzene	1	103.913	87.1596	18	40
<u>Naphthalene</u>	1	94.843	82.4096	14	40
<u>4-Chloroaniline</u>	1	106.1494	95.3961	11	20
<u>Hexachlorobutadiene</u>	1	103.4899	87.1351	17	40
<u>Caprolactam</u>	1	85.9431	89.5682	4.1	20
<u>4-Chloro-3-methylphenol</u>	1	127.8831	113.9833	11	40
<u>2-Methylnaphthalene</u>	1	110.037	98.0069	12	20
1-Methylnaphthalene	1	115.3706	107.3439	7.2	20
<u>1,1'-Biphenyl</u>	1	109.3301	103.1883	5.8	20
<u>1,2,4,5-Tetrachlorobenzene</u>	1	119.5899	107.2643	11	20
<u>Hexachlorocyclopentadiene</u>	1	121.9527	105.343	15	20
<u>2,4,6-Trichlorophenol</u>	1	133.0907	121.4276	9.2	40
<u>2,4,5-Trichlorophenol</u>	1	134.2861	124.2342	7.8	40
<u>2-Chloronaphthalene</u>	1	109.5652	97.8077	11	20
1,4-Dimethylnaphthalene	1	116.62	109.0389	6.7	20
Diphenyl Ether	1	118.093	109.7186	7.4	20
<u>2-Nitroaniline</u>	1	129.1795	121.2507	6.3	20
Coumarin	1	121.4113	115.33	5.1	20
<u>Acenaphthylene</u>	1	108.1147	100.9601	6.8	20
<u>Dimethylphthalate</u>	1	110.0919	103.21	6.5	20
<u>2,6-Dinitrotoluene</u>	1	113.5394	107.1806	5.8	20
<u>Acenaphthene</u>	1	107.9638	99.1225	8.5	40
<u>3-Nitroaniline</u>	1	128.2273	123.8946	3.4	20
<u>2,4-Dinitrophenol</u>	1	139.212	128.7109	7.8	20
<u>Dibenzofuran</u>	1	120.1672	109.3277	9.4	20
<u>2,4-Dinitrotoluene</u>	1	111.3644	102.9937	7.8	40
<u>4-Nitrophenol</u>	1	100.5712	93.5822	7.2	40
<u>2,3,4,6-Tetrachlorophenol</u>	1	128.6048	121.7276	5.5	20
<u>Fluorene</u>	1	106.5384	101.4492	4.9	40
<u>4-Chlorophenyl-phenylether</u>	1	113.687	105.0144	7.9	20
<u>Diethylphthalate</u>	1	113.1258	104.9811	7.5	20
<u>4-Nitroaniline</u>	1	122.7454	118.7688	3.3	20
<u>Atrazine</u>	1	86.0531	83.2568	3.3	20
<u>4,6-Dinitro-2-methylphenol</u>	1	138.6931	132.9559	4.2	20

* - Indicates outside of limits

NA - Both concentrations=0... no result can be calculated

Form3
RPD Data Laboratory Limits

QC Batch: WMB94984

Method: 8270E

Matrix: Aqueous

Units: ug/L

QC Type: MSD

Analyte:	Column	Dup/MSD/MBSD Conc	Sample/MS/MBS Conc	RPD	Limit
<u>n-Nitrosodiphenylamine</u>	1	<u>98.3917</u>	<u>97.6581</u>	<u>0.75</u>	<u>20</u>
1,2-Diphenylhydrazine	1	105.4036	102.2298	3.1	20
<u>4-Bromophenyl-phenylether</u>	1	<u>116.0285</u>	<u>107.8839</u>	<u>7.3</u>	<u>20</u>
<u>Hexachlorobenzene</u>	1	<u>105.695</u>	<u>101.5696</u>	<u>4</u>	<u>40</u>
N-Octadecane	1	128.6556	134.2602	4.3	20
<u>Pentachlorophenol</u>	1	<u>149.5389</u>	<u>142.2536</u>	<u>5</u>	<u>40</u>
<u>Phenanthrene</u>	1	<u>110.0574</u>	<u>107.6099</u>	<u>2.2</u>	<u>20</u>
<u>Anthracene</u>	1	<u>112.1081</u>	<u>109.1642</u>	<u>2.7</u>	<u>20</u>
<u>Carbazole</u>	1	<u>122.4254</u>	<u>120.0698</u>	<u>1.9</u>	<u>20</u>
<u>Di-n-butylphthalate</u>	1	<u>112.8013</u>	<u>105.8711</u>	<u>6.3</u>	<u>20</u>
<u>Fluoranthene</u>	1	<u>113.0484</u>	<u>109.3785</u>	<u>3.3</u>	<u>20</u>
<u>Pyrene</u>	1	<u>108.9571</u>	<u>107.3274</u>	<u>1.5</u>	<u>40</u>
Benzidine	1	0	2.1256	200*	20
<u>Butylbenzylphthalate</u>	1	<u>112.1066</u>	<u>108.7789</u>	<u>3</u>	<u>40</u>
<u>3,3'-Dichlorobenzidine</u>	1	<u>73.4097</u>	<u>79.1449</u>	<u>7.5</u>	<u>20</u>
<u>Benzoflanthracene</u>	1	<u>102.0772</u>	<u>100.7263</u>	<u>1.3</u>	<u>20</u>
<u>Chrysene</u>	1	<u>111.6145</u>	<u>108.4521</u>	<u>2.9</u>	<u>20</u>
<u>bis(2-Ethylhexyl)phthalate</u>	1	<u>115.3772</u>	<u>110.8835</u>	<u>4</u>	<u>20</u>
<u>Di-n-octylphthalate</u>	1	<u>116.2082</u>	<u>112.4675</u>	<u>3.3</u>	<u>20</u>
<u>Benzoflfluoranthene</u>	1	<u>120.1705</u>	<u>116.8739</u>	<u>2.8</u>	<u>20</u>
<u>Benzoklfluoranthene</u>	1	<u>118.4774</u>	<u>107.8396</u>	<u>9.4</u>	<u>20</u>
<u>Benzofalpyrene</u>	1	<u>112.3185</u>	<u>107.4991</u>	<u>4.4</u>	<u>20</u>
<u>Indeno[1,2,3-cd]pyrene</u>	1	<u>117.5378</u>	<u>112.4923</u>	<u>4.4</u>	<u>20</u>
<u>Dibenzo[a,h]anthracene</u>	1	<u>116.56</u>	<u>111.3439</u>	<u>4.6</u>	<u>20</u>
<u>Benzofg,h,i]perylene</u>	1	<u>113.849</u>	<u>108.26</u>	<u>5</u>	<u>20</u>

* - Indicates outside of limits

NA - Both concentrations=0... no result can be calculated

FORM 4
Blank SummaryBlank Number: SMB94976
Blank Data File: 9M108409.D
Matrix: SoilBlank Analysis Date: 09/21/21 10:52
Blank Extraction Date: 09/20/21
(If Applicable)
Method: EPA 8270E

Sample Number	Data File	Analysis Date
AD25976-002	9M108413.D	09/21/21 12:23
AD25976-004(3X)	9M108419.D	09/21/21 14:41
AD25976-006(3X)	9M108418.D	09/21/21 14:18
AD25976-008(3X)	9M108417.D	09/21/21 13:55
AD25976-010	7M116613.D	09/21/21 14:39
AD25995-004(MS)	7M116617.D	09/21/21 16:21
AD25995-004	7M116616.D	09/21/21 15:57
SMB94976(MS)	7M116604.D	09/21/21 10:54
AD25995-004(MSD)	7M116618.D	09/21/21 16:44

FORM 4
Blank SummaryBlank Number: SMB94976
Blank Data File: 7M116603.D
Matrix: SoilBlank Analysis Date: 09/21/21 10:30
Blank Extraction Date: 09/20/21
(If Applicable)
Method: EPA 8270E

Sample Number	Data File	Analysis Date
AD25976-007	7M116612.D	09/21/21 14:16
AD25976-009	7M116609.D	09/21/21 13:04
AD25995-004(MSD)	7M116618.D	09/21/21 16:44
AD25995-004(MS)	7M116617.D	09/21/21 16:21
AD25995-004	7M116616.D	09/21/21 15:57
SMB94976(MS)	7M116604.D	09/21/21 10:54

FORM 4
Blank SummaryBlank Number: WMB94984
Blank Data File: 5M117936.D
Matrix: AqueousBlank Analysis Date: 09/21/21 14:27
Blank Extraction Date: 09/21/21
(If Applicable)
Method: EPA 8270E

Sample Number	Data File	Analysis Date
AD25976-011	5M117937.D	09/21/21 14:50
AD25969-001	5M117941.D	09/21/21 17:32
AD25969-001(MSD	5M117940.D	09/21/21 17:09
AD25969-001(MS)	5M117939.D	09/21/21 16:45
WMB94984(MS)	5M117938.D	09/21/21 15:14

Form 5

Tune Name: CAL DFTPP
Instrument: GCMS 9

Data File: 9M106797.D
Analysis Date: 07/22/21 09:05
Method: EPA 8270E

Tune Scan/Time Range: Average of 10.125 to 10.131 min

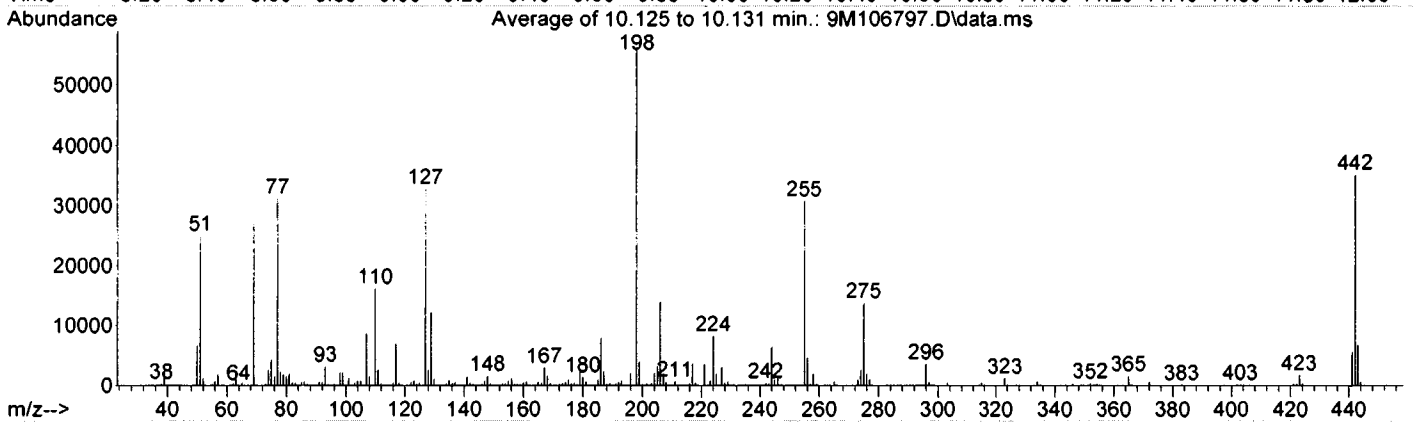
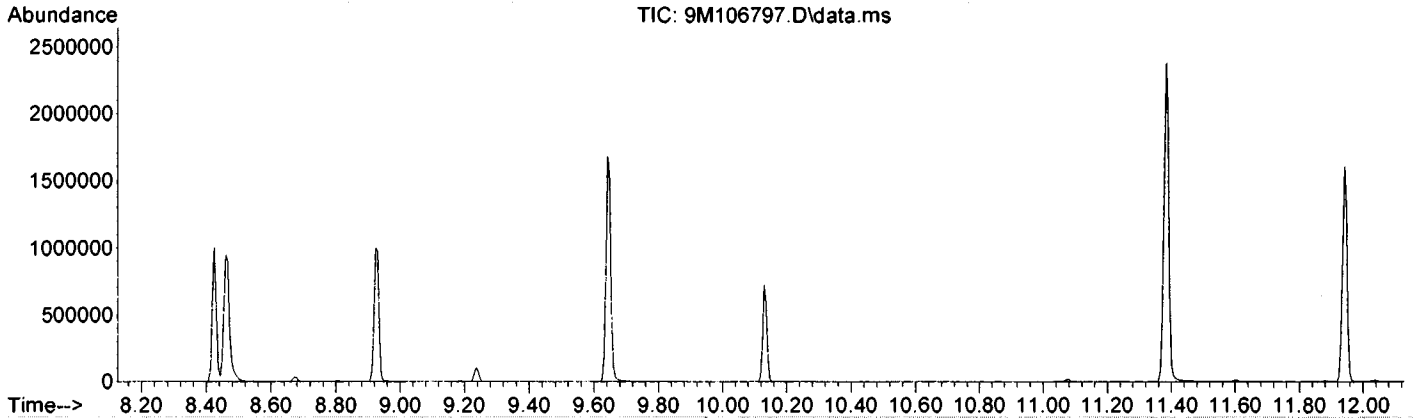
Tgt Mass	Rel Mass	Lo Lim	Hi Lim	Rel Abund	Raw Abund	Pass/ Fail
51	198	30	60	44.6	25084	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	48.0	26968	PASS
70	69	0.00	2	0.4	105	PASS
127	198	40	60	58.4	32824	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	56232	PASS
199	198	5	9	7.0	3947	PASS
275	198	10	30	24.7	13864	PASS
365	198	1	100	2.8	1591	PASS
441	443	0.01	100	83.0	5686	PASS
442	198	40	100	62.5	35163	PASS
443	442	17	23	19.5	6848	PASS

Data File	Sample Number	Analysis Date:
9M106798.D	CAL BNA@10PPM	07/22/21 09:28
9M106799.D	CAL BNA@2PPM	07/22/21 09:51
9M106800.D	CAL BNA@196PP	07/22/21 10:15
9M106801.D	CAL BNA@160PP	07/22/21 10:38
9M106802.D	CAL BNA@120PP	07/22/21 11:01
9M106803.D	CAL BNA@80PPM	07/22/21 11:24
9M106804.D	CAL BNA@20PPM	07/22/21 11:47
9M106805.D	CAL BNA@0.5PP	07/22/21 12:11
9M106806.D	CAL BNA@50PPM	07/22/21 12:34
9M106807.D	ICV BNA@50PPM	07/22/21 12:57

Data Path : G:\GcMsData\2021\GCMS_9\Data\07-22-21\
 Data File : 9M106797.D
 Acq On : 22 Jul 2021 9:05
 Operator : AH/JB
 Sample : CAL DFTPP
 Misc : A,BNA
 ALS Vial : 1 Sample Multiplier: 1

Integration File: LSCINT.P

Method : G:\GCMSDATA\2021\GCMS_9\METHODQT\9M_0615.M
 Title : @GCMS_9,mg,625,8270
 Last Update : Tue Jun 15 13:40:21 2021



Spectrum Information: Average of 10.125 to 10.131 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	44.6	25084	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	48.0	26968	PASS
70	69	0.00	2	0.4	105	PASS
127	198	40	60	58.4	32824	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	56232	PASS
199	198	5	9	7.0	3947	PASS
275	198	10	30	24.7	13864	PASS
365	198	1	100	2.8	1591	PASS
441	443	0.01	100	83.0	5686	PASS
442	198	40	100	62.5	35163	PASS
443	442	17	23	19.5	6848	PASS

Form 5

Tune Name: CAL DFTPP
Instrument: GCMS 7

Data File: 7M116590.D
Analysis Date: 09/20/21 09:09
Method: EPA 8270E

Tune Scan/Time Range: Average of 10.161 to 10.173 min

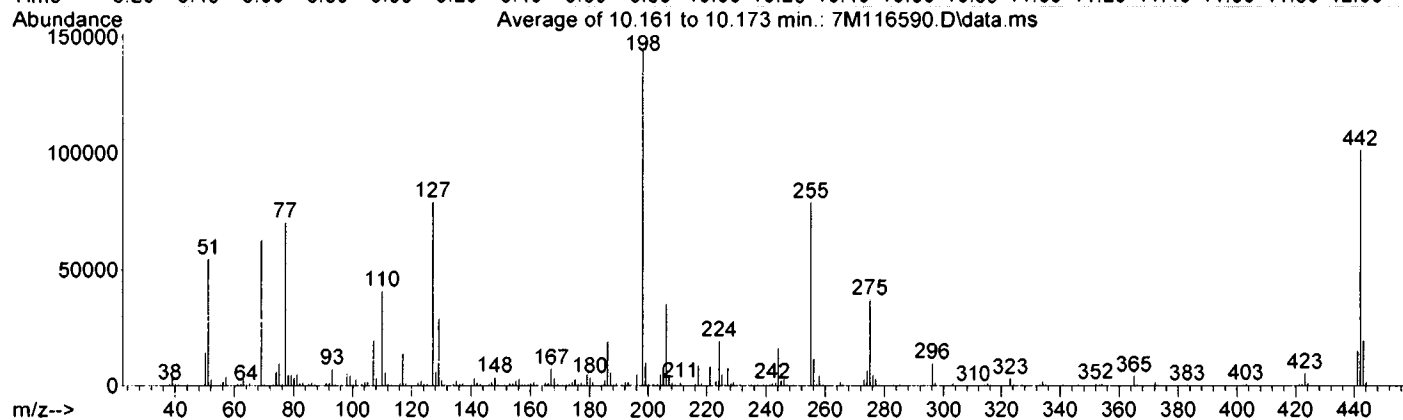
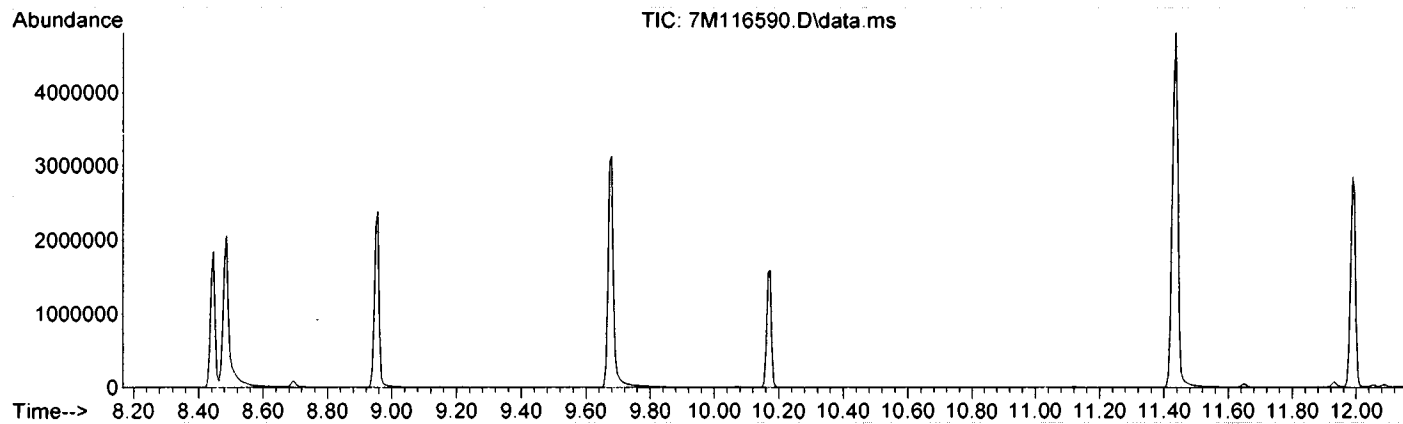
Tgt Mass	Rel Mass	Lo Lim	Hi Lim	Rel Abund	Raw Abund	Pass/ Fail
51	198	30	60	37.7	54664	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	43.3	62781	PASS
70	69	0.00	2	0.7	440	PASS
127	198	40	60	54.4	79021	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	145139	PASS
199	198	5	9	6.8	9914	PASS
275	198	10	30	25.7	37281	PASS
365	198	1	100	2.9	4192	PASS
441	443	0.01	100	78.2	15349	PASS
442	198	40	100	69.8	101355	PASS
443	442	17	23	19.4	19633	PASS

Data File	Sample Number	Analysis Date:
7M116591.D	CAL BNA@2PPM	09/20/21 09:33
7M116592.D	CAL BNA@10PPM	09/20/21 09:56
7M116593.D	CAL BNA@196PP	09/20/21 10:19
7M116594.D	CAL BNA@160PP	09/20/21 10:45
7M116595.D	CAL BNA@120PP	09/20/21 11:08
7M116596.D	CAL BNA@80PPM	09/20/21 11:32
7M116597.D	CAL BNA@20PPM	09/20/21 11:55
7M116598.D	CAL BNA@0.5PP	09/20/21 12:19
7M116599.D	CAL BNA@50PPM	09/20/21 12:43
7M116600.D	ICV BNA@50PPM	09/20/21 13:30

Data Path : G:\GcMsData\2021\GCMS_7\Data\09-20-21\
 Data File : 7M116590.D
 Acq On : 20 Sep 2021 9:09
 Operator : AH/JB
 Sample : CAL DFTPP
 Misc : A,BNA
 ALS Vial : 1 Sample Multiplier: 1

Integration File: LSCINT.P

Method : G:\GCMSDATA\2021\GCMS_7\METHODQT\7M_0823.M
 Title : @GCMS_7,mg,625,8270
 Last Update : Mon Aug 23 12:58:25 2021



Spectrum Information: Average of 10.161 to 10.173 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	37.7	54664	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	43.3	62781	PASS
70	69	0.00	2	0.7	440	PASS
127	198	40	60	54.4	79021	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	145139	PASS
199	198	5	9	6.8	9914	PASS
275	198	10	30	25.7	37281	PASS
365	198	1	100	2.9	4192	PASS
441	443	0.01	100	78.2	15349	PASS
442	198	40	100	69.8	101355	PASS
443	442	17	23	19.4	19633	PASS

Form 5

Tune Name: CAL DFTPP

Data File: 5M117919.D

Instrument: GCMS 5

Analysis Date: 09/20/21 08:21

Method: EPA 8270E

Tune Scan/Time Range: Average of 9.984 to 9.989 min

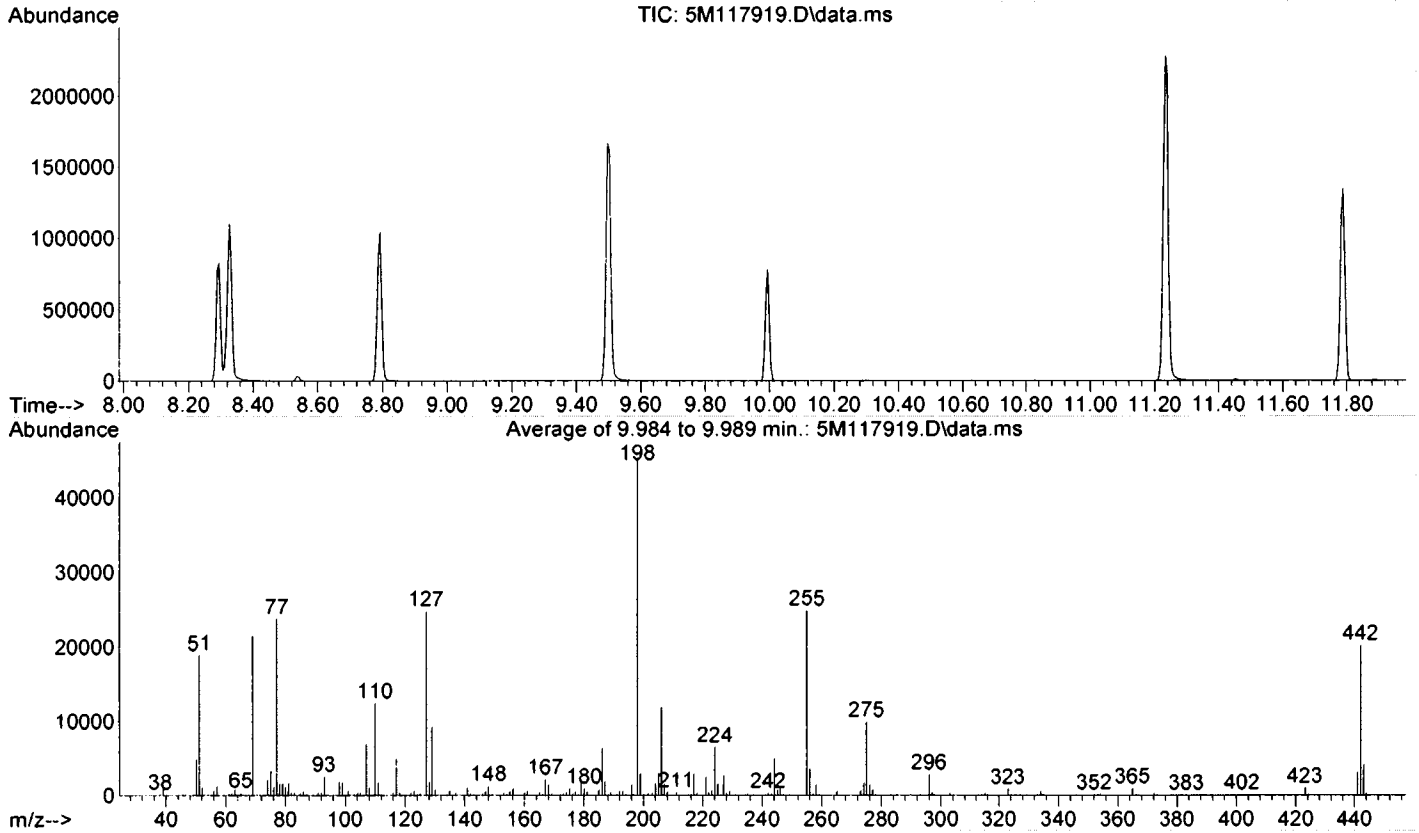
Tgt	Rel	Lo	Hi	Lim	Rel	Raw	Pass/
Mass	Mass	Lim			Abund	Abund	Fail
51	198	30	60		41.7	18920	PASS
68	69	0.00	2		0.0	0	PASS
69	198	0.00	100		47.5	21543	PASS
70	69	0.00	2		0.0	0	PASS
127	198	40	60		54.5	24738	PASS
197	198	0.00	1		0.3	157	PASS
198	198	100	100		100.0	45352	PASS
199	198	5	9		6.5	2931	PASS
275	198	10	30		21.9	9952	PASS
365	198	1	100		2.1	945	PASS
441	443	0.01	100		77.0	3180	PASS
442	198	40	100		44.5	20164	PASS
443	442	17	23		20.5	4132	PASS

Data File	Sample Number	Analysis Date:
5M117920.D	CAL BNA@10PPM	09/20/21 08:44
5M117921.D	CAL BNA@2PPM	09/20/21 09:08
5M117922.D	CAL BNA@196PP	09/20/21 09:31
5M117923.D	CAL BNA@160PP	09/20/21 09:54
5M117924.D	CAL BNA@120PP	09/20/21 10:17
5M117925.D	CAL BNA@80PPM	09/20/21 10:41
5M117926.D	CAL BNA@20PPM	09/20/21 11:05
5M117927.D	CAL BNA@0.5PP	09/20/21 11:28
5M117928.D	CAL BNA@50PPM	09/20/21 11:52
5M117929.D	CAL BNA@20PPM	09/20/21 12:46
5M117930.D	ICV BNA@50PPM	09/20/21 13:37
5M117931.D	WMB94967	09/20/21 14:32
5M117932.D	WMB94967(MS)	09/20/21 14:55
5M117933.D	AD26041-001	09/20/21 15:19

Data Path : G:\GcMsData\2021\GCMS_5\Data\09-20-21\
 Data File : 5M117919.D
 Acq On : 20 Sep 2021 8:21
 Operator : AH/JB
 Sample : CAL DFTPP
 Misc : A,BNA
 ALS Vial : 1 Sample Multiplier: 1

Integration File: LSCINT.P

Method : G:\GCMSDATA\2021\GCMS_5\METHODQT\5M_0823.M
 Title : @GCMS_5,mg,625,8270
 Last Update : Mon Aug 23 13:05:22 2021



Spectrum Information: Average of 9.984 to 9.989 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	41.7	18920	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	47.5	21543	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	54.5	24738	PASS
197	198	0.00	1	0.3	157	PASS
198	198	100	100	100.0	45352	PASS
199	198	5	9	6.5	2931	PASS
275	198	10	30	21.9	9952	PASS
365	198	1	100	2.1	945	PASS
441	443	0.01	100	77.0	3180	PASS
442	198	40	100	44.5	20164	PASS
443	442	17	23	20.5	4132	PASS

Form 5

Tune Name: CAL DFTPP
Instrument: GCMS 7

Data File: 7M116601.D
Analysis Date: 09/21/21 09:31
Method: EPA 8270E

Tune Scan/Time Range: Average of 10.184 to 10.190 min

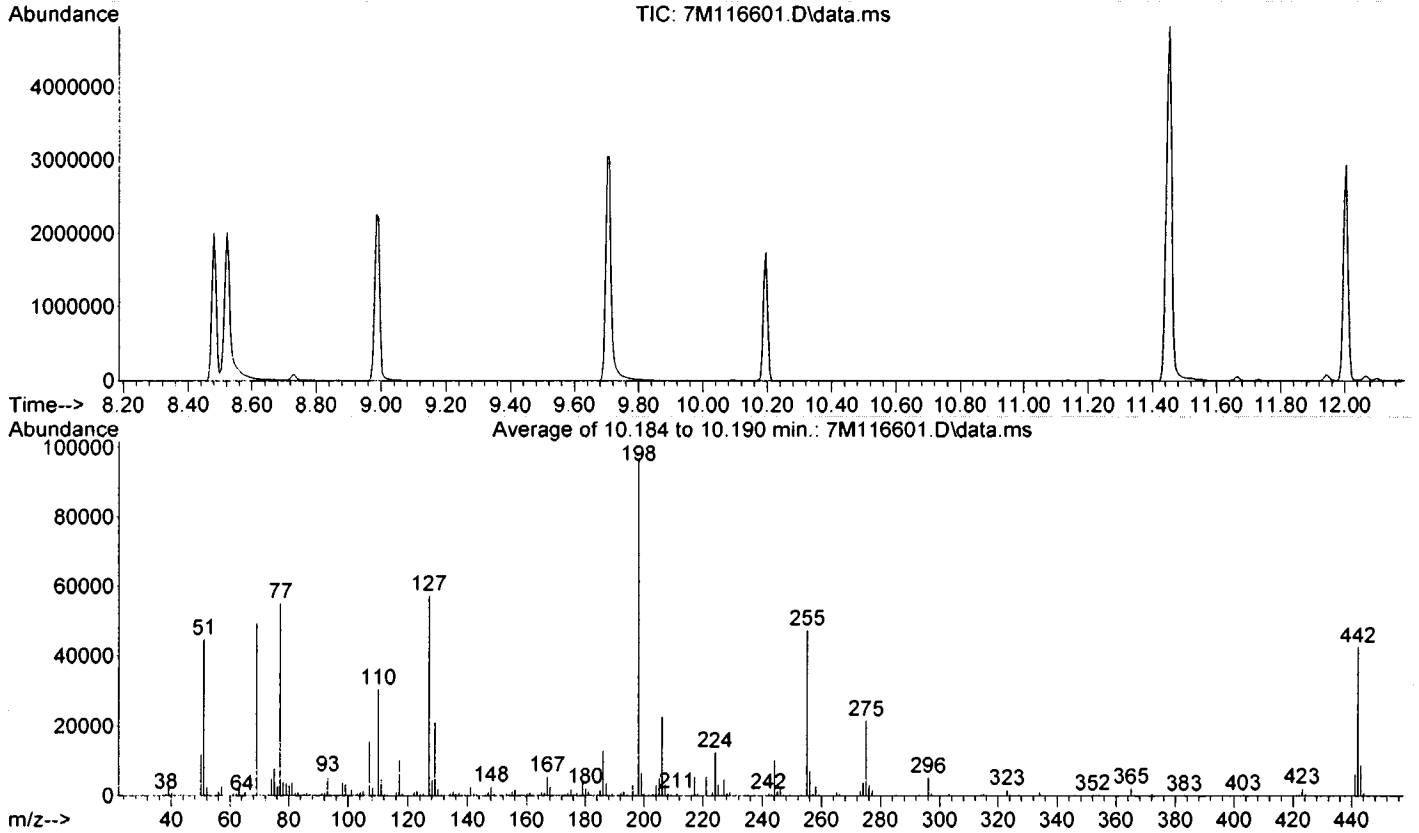
Tgt Mass	Rel Mass	Lo Lim	Hi Lim	Rel Abund	Raw Abund	Pass/ Fail
51	198	30	60	46.3	44796	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	50.9	49308	PASS
70	69	0.00	2	0.7	344	PASS
127	198	40	60	59.3	57396	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	96848	PASS
199	198	5	9	6.8	6587	PASS
275	198	10	30	22.3	21589	PASS
365	198	1	100	2.3	2202	PASS
441	443	0.01	100	71.0	6322	PASS
442	198	40	100	44.0	42651	PASS
443	442	17	23	20.9	8904	PASS

Data File	Sample Number	Analysis Date:
7M116602.D	CAL BNA@50PPM	09/21/21 09:58
7M116603.D	SMB94976	09/21/21 10:30
7M116604.D	SMB94976(MS)	09/21/21 10:54
7M116605.D	OMB94972	09/21/21 11:30
7M116606.D	94976	09/21/21 11:54
7M116607.D	AD26096-001(3X)	09/21/21 12:17
7M116608.D	AD25991-001	09/21/21 12:41
7M116609.D	AD25976-009	09/21/21 13:04
7M116610.D	AD25841-001	09/21/21 13:28
7M116611.D	AD25598-002	09/21/21 13:52
7M116612.D	AD25976-007	09/21/21 14:16
7M116613.D	AD25976-010	09/21/21 14:39
7M116614.D	AD25991-001(5X)	09/21/21 15:03
7M116615.D	OMB94972	09/21/21 15:33
7M116616.D	AD25995-004	09/21/21 15:57
7M116617.D	AD25995-004(MS)	09/21/21 16:21
7M116618.D	AD25995-004(MSD)	09/21/21 16:44
7M116619.D	AD25991-001(MS)	09/21/21 17:08
7M116620.D	AD25991-001(MSD)	09/21/21 17:32
7M116621.D	AD25990-001	09/21/21 17:56
7M116622.D	AD26019-001	09/21/21 18:20
7M116623.D	AD26021-001	09/21/21 18:43
7M116624.D	AD26022-001	09/21/21 19:07

Data Path : G:\GcMsData\2021\GCMS_7\Data\09-21-21\
 Data File : 7M116601.D
 Acq On : 21 Sep 2021 9:31
 Operator : AH/JB
 Sample : CAL DFTPP
 Misc : A,BNA
 ALS Vial : 1 Sample Multiplier: 1

Integration File: LSCINT.P

Method : G:\GCMSDATA\2021\GCMS_7\METHODQT\7M_0920.M
 Title : @GCMS_7,mg,625,8270
 Last Update : Mon Sep 20 13:06:38 2021



Spectrum Information: Average of 10.184 to 10.190 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	46.3	44796	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	50.9	49308	PASS
70	69	0.00	2	0.7	344	PASS
127	198	40	60	59.3	57396	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	96848	PASS
199	198	5	9	6.8	6587	PASS
275	198	10	30	22.3	21589	PASS
365	198	1	100	2.3	2202	PASS
441	443	0.01	100	71.0	6322	PASS
442	198	40	100	44.0	42651	PASS
443	442	17	23	20.9	8904	PASS

Form 5

Tune Name: CAL.DFTPP
Instrument: GCMS 9

Data File: 9M108407.D
Analysis Date: 09/21/21 09:37
Method: EPA 8270E

Tune Scan/Time Range: Scan 1301

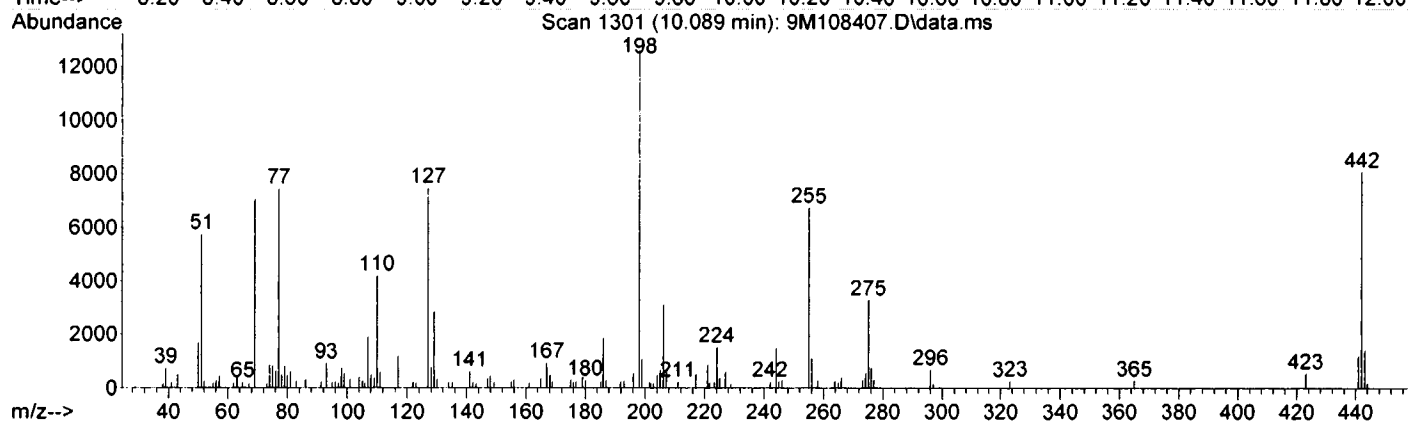
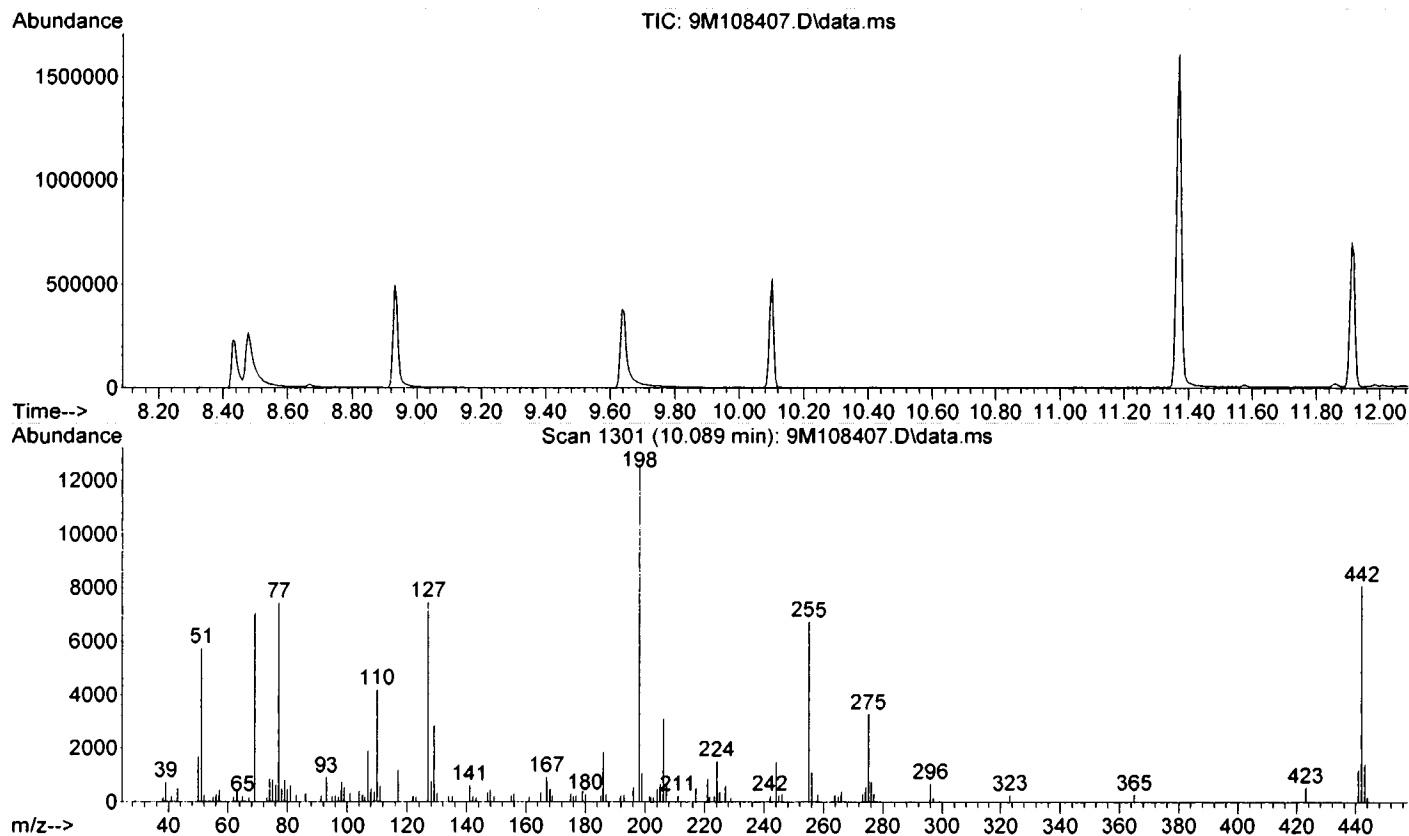
Tgt Mass	Rel Mass	Lo Lim	Hi Lim	Rel Abund	Raw Abund	Pass/ Fail
51	198	30	60	45.6	5740	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	56.1	7065	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	59.3	7470	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	12590	PASS
199	198	5	9	8.5	1074	PASS
275	198	10	30	26.2	3293	PASS
365	198	1	100	2.2	283	PASS
441	443	0.01	100	86.0	1224	PASS
442	198	40	100	64.1	8074	PASS
443	442	17	23	17.6	1424	PASS

Data File	Sample Number	Analysis Date:
9M108408.D	CAL BNA@50PPM	09/21/21 10:28
9M108409.D	SMB94976	09/21/21 10:52
9M108410.D	OMB94972	09/21/21 11:15
9M108411.D	OMB94977	09/21/21 11:37
9M108412.D	AD26049-001	09/21/21 12:00
9M108413.D	AD25976-002	09/21/21 12:23
9M108414.D	AD25954-001	09/21/21 12:46
9M108415.D	AD25841-007	09/21/21 13:09
9M108416.D	AD25841-008	09/21/21 13:32
9M108417.D	AD25976-008(3X)	09/21/21 13:55
9M108418.D	AD25976-006(3X)	09/21/21 14:18
9M108419.D	AD25976-004(3X)	09/21/21 14:41
9M108420.D	AD26096-001(3X)	09/21/21 15:04
9M108421.D	AD26049-001(MS)	09/21/21 15:27
9M108422.D	AD26049-001(MSD)	09/21/21 15:50
9M108423.D	AD25995-002	09/21/21 16:13
9M108424.D	AD25995-006	09/21/21 16:36
9M108425.D	AD25598-003	09/21/21 16:59
9M108426.D	AD26039-001(3X)	09/21/21 17:22

Data Path : G:\GcMsData\2021\GCMS_9\Data\09-21-21\
 Data File : 9M108407.D
 Acq On : 21 Sep 2021 9:37
 Operator : AH/JB
 Sample : CAL DFTPP
 Misc : A,BNA
 ALS Vial : 1 Sample Multiplier: 1

Integration File: LSCINT.P

Method : G:\GCMSDATA\2021\GCMS_9\METHODQT\9M_0722.M
 Title : @GCMS_9,mg,625,8270
 Last Update : Thu Jul 22 13:18:07 2021



Spectrum Information: Scan 1301

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	45.6	5740	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	56.1	7065	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	59.3	7470	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	12590	PASS
199	198	5	9	8.5	1074	PASS
275	198	10	30	26.2	3293	PASS
365	198	1	100	2.2	283	PASS
441	443	0.01	100	86.0	1224	PASS
442	198	40	100	64.1	8074	PASS
443	442	17	23	17.6	1424	PASS

Form 5

Tune Name: CAL.DFTPP
Instrument: GCMS 5

Data File: 5M117934.D
Analysis Date: 09/21/21 09:37
Method: EPA 8270E

Tune Scan/Time Range: Scan 1452

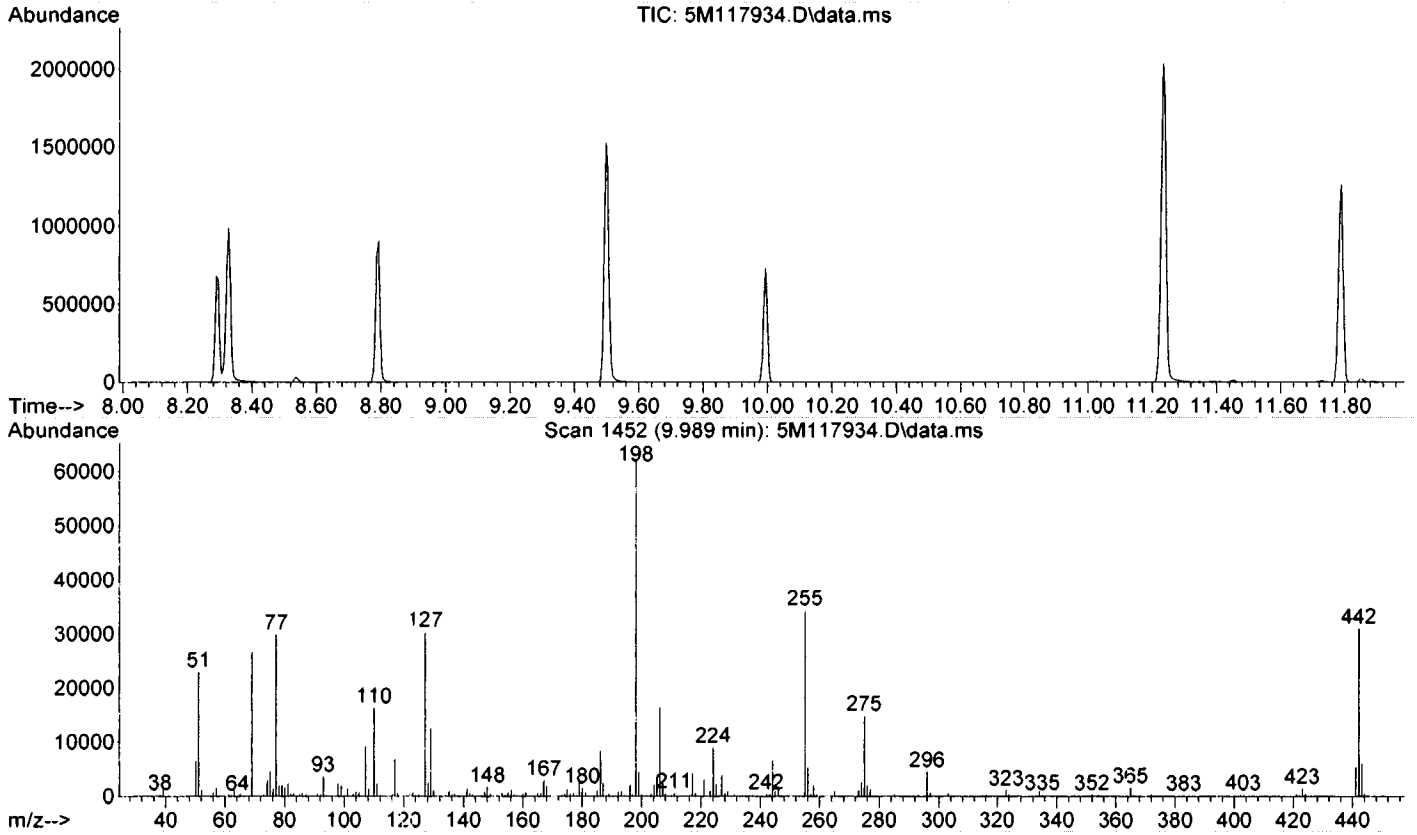
Tgt Mass	Rel Mass	Lo Lim	Hi Lim	Rel Abund	Raw Abund	Pass/ Fail
51	198	30	60	37.0	23016	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	43.1	26872	PASS
70	69	0.00	2	0.7	191	PASS
127	198	40	60	48.8	30400	PASS
197	198	0.00	1	0.6	356	PASS
198	198	100	100	100.0	62280	PASS
199	198	5	9	7.1	4448	PASS
275	198	10	30	23.9	14908	PASS
365	198	1	100	2.6	1623	PASS
441	443	0.01	100	88.6	5478	PASS
442	198	40	100	49.8	31024	PASS
443	442	17	23	19.9	6186	PASS

Data File	Sample Number	Analysis Date:
5M117935.D	CAL BNA@50PPM	09/21/21 10:26
5M117936.D	WMB94984	09/21/21 14:27
5M117937.D	AD25976-011	09/21/21 14:50
5M117938.D	WMB94984(MS)	09/21/21 15:14
5M117939.D	AD25969-001(MS)	09/21/21 16:45
5M117940.D	AD25969-001(MSD)	09/21/21 17:09
5M117941.D	AD25969-001	09/21/21 17:32
5M117942.D	AD25969-002	09/21/21 17:56
5M117943.D	AD25969-003	09/21/21 18:20
5M117944.D	AD25969-004	09/21/21 18:44
5M117945.D	AD25969-005	09/21/21 19:08
5M117946.D	AD25969-006	09/21/21 19:31
5M117947.D	AD25969-007	09/21/21 19:55
5M117948.D	AD26083-019	09/21/21 20:18
5M117949.D	AD25961-001	09/21/21 20:42
5M117950.D	AD25961-002	09/21/21 21:05
5M117951.D	AD25961-003	09/21/21 21:29

Data Path : G:\GcMsData\2021\GCMS_5\Data\09-21-21\
 Data File : 5M117934.D
 Acq On : 21 Sep 2021 9:37
 Operator : AH/JB
 Sample : CAL DFTPP
 Misc : A,BNA
 ALS Vial : 1 Sample Multiplier: 1

Integration File: LSCINT.P

Method : G:\GCMSDATA\2021\GCMS_5\METHODQT\5M_0920.M
 Title : @GCMS_5,mg,625,8270
 Last Update : Mon Sep 20 13:02:59 2021



Spectrum Information: Scan 1452

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	37.0	23016	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	43.1	26872	PASS
70	69	0.00	2	0.7	191	PASS
127	198	40	60	48.8	30400	PASS
197	198	0.00	1	0.6	356	PASS
198	198	100	100	100.0	62280	PASS
199	198	5	9	7.1	4448	PASS
275	198	10	30	23.9	14908	PASS
365	198	1	100	2.6	1623	PASS
441	443	0.01	100	88.6	5478	PASS
442	198	40	100	49.8	31024	PASS
443	442	17	23	19.9	6186	PASS

Compound	Level #	Data File	Cal Identifier	Analysis Date/Time	Level #	Data File	Cal Identifier	Analysis Date/Time	Calibration Level Concentrations																		
									AvgRt	RT	Corr1	Corr2	%Rsd	Lvl1	Lvl2	Lvl3	Lvl4	Lvl5	Lvl6	Lvl7	Lvl8	Lvl9					
4,4-DDE	1	9M106806.D	CAL BNA@50PPM	07/22/21 12:34	2	9M106799.D	CAL BNA@2PPM	07/22/21 09:51	0.266	11.61	0.997	0.999	10	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0						
4,4-DDD	1	9M106798.D	CAL BNA@10PPM	07/22/21 09:28	4	9M106804.D	CAL BNA@20PPM	07/22/21 11:47	0.437	12.01	0.998	0.999	13	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0						
Butylbenzophthalate	1	9M106803.D	CAL BNA@80PPM	07/22/21 11:24	6	9M106802.D	CAL BNA@120PPM	07/22/21 11:01	0.507	12.26	0.999	0.999	12	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0						
4,4-DDT	1	9M106801.D	CAL BNA@160PPM	07/22/21 10:38	8	9M106800.D	CAL BNA@196PPM	07/22/21 10:15	0.383	12.37	0.998	0.999	16	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0						
3,3-Dichlorobenzidine	1	9M106805.D	CAL BNA@0.5PPM	07/22/21 12:11					0.466	12.90	0.999	0.999	9.7	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0						
Benzofluranthracene	1	0 Avg	1.2429	1.2136	0.9802	1.2045	1.2494	1.2292	1.2104	1.2689				1.20	12.92	0.999	0.999	7.6	0.80	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
Chrysene	1	0 Avg	1.2211	1.2642	1.0167	1.1956	1.1916	1.1831	1.1714	1.2140				1.18	12.97	0.999	0.999	6.2	0.70	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
bis(2-Ethylhexyl)phthal	1	0 Avg	0.7686	0.5946	0.5745	0.7253	0.7738	0.7770	0.7657	0.8100				0.724	12.95	0.999	0.999	12	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
Di-n-octylphthalate	1	0 Qua	1.1172	0.7610	0.8038	0.9986	1.1716	1.2023	1.2221	1.2931				1.07	13.72	0.998	1.00	18	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
Benzofluoranthene	1	0 Avg	1.1193	1.0515	0.8497	1.0554	1.1768	1.1183	1.2091	1.2409				1.10	14.18	0.997	0.999	11	0.70	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
Benzofluoranthene	1	0 Avg	1.1258	1.0273	0.9073	1.1023	1.0864	1.1458	1.0867	1.1975				1.08	14.21	0.996	0.997	8.0	0.70	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
Benzofluoranthene	1	0 Avg	1.0904	0.9443	0.8034	1.0432	1.0744	1.0803	1.0956	1.1605				1.04	14.55	0.998	0.999	11	0.70	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
Indeno[1,2,3-cd]pyren	1	0 Avg	1.2672	1.1199	0.9492	1.1871	1.2814	1.3006	1.3326	1.4096				1.23	16.01	0.998	1.00	12	0.50	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
Dibenzofluoranthracen	1	0 Avg	1.0603	0.9452	0.8249	1.0167	1.0735	1.0903	1.1163	1.1828				1.04	16.04	0.998	1.00	11	0.40	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
Benzofluoranthene	1	0 Avg	1.0493	0.9849	0.8136	0.9984	1.0551	1.0664	1.0782	1.1418				1.02	16.41	0.998	0.999	9.5	0.50	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0

Flags
a - failed the min of criteria
c - failed the minimum correlation coeff criteria if applicable

Note:
Corr 1 = Correlation Coefficient for linear Eq.
Corr 2 = Correlation Coefficient for quad Eq.
Fit = Indicates whether Avg RF, Linear, or Quadratic Curve was used for compound.

Avg Rsd: 8.875

Level #:	Data File:	Cal Identifier:	Analysis Date/Time	Level #:	Data File:	Cal Identifier:	Analysis Date/Time
1	7M116599.D	CAL BNA@50PPM	09/20/21 12:43	2	7M116599.D	CAL BNA@2PPM	09/20/21 09:33
3	7M116592.D	CAL BNA@10PPM	09/20/21 09:56	4	7M116597.D	CAL BNA@20PPM	09/20/21 11:55
5	7M116596.D	CAL BNA@80PPM	09/20/21 11:32	6	7M116595.D	CAL BNA@120PPM	09/20/21 11:08
7	7M116594.D	CAL BNA@160PPM	09/20/21 10:45	8	7M116593.D	CAL BNA@196PPM	09/20/21 10:19
9	7M116598.D	CAL BNA@0.5PPM	09/20/21 12:19				

Compound	Col	Mr	Fit:	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	RF9	AvgRt	RT	Corr1	Corr2	%Rsd	Lvl1	Lvl2	Lvl3	Lvl4	Lvl5	Lvl6	Lvl7	Lvl8	Lvl9	
1,4-Dioxane	1	0	Avg	0.8933	0.9717	0.8868	0.9329	0.8611	0.8703	0.8849	0.9371	1.0761	0.924	2.76	0.998	0.999	7.3	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50	
Pyridine	1	0	Avg	1.8138	1.9045	1.7076	2.0134	1.8776	1.8718	1.9100	1.9411	---	1.88	3.24	0.999	1.00	4.8	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50	
N-Nitrosodimethylamine	1	0	Avg	1.4234	1.4599	1.3012	1.4682	1.4332	1.4027	1.4210	1.4867	---	1.42	3.19	0.999	0.999	4.0	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50	
2-Fluorophenol	1	0	Avg	2.0710	2.1949	1.9602	2.2690	2.1210	2.0909	2.1040	2.1195	---	2.12	4.74	0.998	0.998	4.3	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50	
Benzaldehyde	1	0	Avg	1.8082	2.0741	1.7975	2.0551	1.8203	1.7456	1.7334	1.7103	---	1.84	5.55	0.999	0.999	7.7	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
Aniline	1	0	Qua	2.9357	3.4486	2.9959	3.4420	2.9964	2.8630	2.8143	2.7949	4.1913	3.16	5.64	0.999	1.00	14	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50	
Pentachloroethane	1	0	Avg	0.7095	0.8098	0.7171	0.7975	0.7027	0.6817	0.6722	0.6670	---	0.720	5.68	0.999	1.00	7.6	0.05	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
bis(2-Chloroethyl)ether	1	0	Qua	1.9851	2.4107	2.0313	2.3498	1.9618	1.8976	1.8236	1.7815	2.8216	2.12	5.70	0.998	1.00	16	0.70	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
Phenol-d5	1	0	Avg	2.3515	2.6534	2.3384	2.6846	2.3864	2.3056	2.2778	2.2511	---	2.41	5.61	0.999	1.00	7.0	0.80	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
Phenol	1	0	Avg	2.7430	3.2305	2.7878	3.1786	2.7672	2.6340	2.5387	2.4603	---	2.79	5.62	0.997	1.00	10	0.80	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
2-Chlorophenol	1	0	Avg	2.1230	2.4578	2.1101	2.4597	2.1679	2.1050	2.0851	2.0723	---	2.20	5.74	0.999	0.999	7.4	0.80	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
N-Decane	1	0	Qua	1.7826	2.3126	1.9483	2.1237	1.6893	1.6091	1.5304	1.4751	---	1.81	5.78	0.996	1.00	16	0.05	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
1,3-Dichlorobenzene	1	0	Avg	2.2346	2.6296	2.2645	2.6254	2.2683	2.1632	2.1385	2.1014	---	2.30	5.87	0.999	1.00	9.1	0.80	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
1,4-Dichlorobenzene	1	0	Avg	1.3678	1.4788	1.3053	1.4415	1.3112	1.2577	1.2303	1.2637	---	1.33	5.94	0.999	0.999	6.7	0.70	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
1,2-Dichlorobenzene	1	0	Avg	1.3089	1.3867	1.2853	1.4182	1.2470	1.2116	1.1657	1.1916	---	1.28	6.06	0.999	0.999	7.1	0.70	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
Benzyl alcohol	1	0	Avg	0.7917	0.8888	0.6663	0.8099	0.7834	0.7502	0.7412	0.7754	---	0.738	6.04	0.999	0.999	10	0.80	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
bis(2-chloroisopropyl)ether	1	0	Avg	1.3148	1.5158	1.3549	1.4567	1.2089	1.1365	1.0892	1.0948	---	1.27	6.14	0.997	0.999	13	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
2-Methylphenol	1	0	Avg	1.1667	1.2783	1.1413	1.2512	1.1183	1.0708	1.0427	1.0802	1.5094	1.18	6.12	0.999	0.999	12	0.70	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
Acetophenone	1	0	Avg	1.5671	1.9025	1.6723	1.8052	1.4028	1.2839	1.1999	1.2008	---	1.50	6.25	0.993	0.998	18	0.80	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
Hexachloroethane	1	0	Avg	0.5322	0.5475	0.5041	0.5596	0.5037	0.4877	0.4834	0.4985	---	0.51	6.34	0.999	0.999	5.5	0.30	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
N-Nitroso-di-n-propylamine	1	0	Avg	0.7569	0.9165	0.8167	0.8720	0.6785	0.6321	0.6080	0.6339	1.0228	0.77	6.25	0.992	0.997	19	0.50	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
3,8,4-Methylphenol	1	0	Avg	1.0994	1.3011	1.1098	1.2173	0.9818	0.8994	0.8373	0.8349	1.3857	1.07	6.25	0.988	0.998	19	0.50	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
Nitrobenzene-d5	1	0	Avg	0.1540	0.1477	0.1358	0.1594	0.1505	0.1470	0.1483	0.1531	---	0.150	6.38	0.999	0.999	4.6	0.20	25.00	1.00	5.00	10.00	40.00	60.00	80.00	98.00	0.50
Nitrobenzene	1	0	Avg	0.3073	0.3438	0.3024	0.3301	0.2904	0.2736	0.2693	0.2758	---	0.299	6.39	0.999	0.999	9.1	0.20	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
Isophorone	1	0	Avg	0.5727	0.6105	0.5652	0.6236	0.5418	0.5183	0.5177	0.5459	---	0.562	6.58	0.998	0.998	7.0	0.40	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
2-Nitrophenol	1	0	Avg	0.1851	0.1656	0.1661	0.1929	0.1809	0.1739	0.1711	0.1754	---	0.176	6.64	0.999	0.999	5.4	0.10	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
2,4-Dimethylphenol	1	0	Avg	0.2878	0.2964	0.2800	0.3169	0.2749	0.2597	0.2552	0.2604	0.3208	0.284	6.66	0.999	0.999	8.5	0.20	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
Benzoic Acid	1	0	Qua	0.1972	---	0.0358	0.1670	0.2219	0.2291	0.2206	0.2173	---	0.186	6.74	0.998	0.999	38	0.80	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
bis(2-Chloroethoxy)methane	1	0	Avg	0.3552	0.3986	0.3504	0.3887	0.3265	0.3107	0.3035	0.3081	---	0.343	6.74	0.998	0.999	11	0.30	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
2,4-Dichlorophenol	1	0	Avg	0.2540	0.2318	0.2288	0.2651	0.2444	0.2361	0.2311	0.2365	0.2334	0.240	6.83	0.999	0.999	5.1	0.20	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
1,2,4-Trichlorobenzene	1	0	Avg	0.2695	0.2870	0.2536	0.2919	0.2581	0.2503	0.2415	0.2426	---	0.262	6.89	0.999	1.00	7.4	0.70	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
Naphthalene	1	0	Avg	0.8957	0.9871	0.8840	0.9831	0.8342	0.7603	0.7312	0.7450	1.1934	0.890	6.96	0.996	0.998	17	0.70	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
4-Chloroaniline	1	0	Qua	0.3710	0.3637	0.3504	0.3976	0.3582	0.3333	0.3212	0.3185	0.6226	0.382	6.99	0.996	0.999	25	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
Hexachlorobutadiene	1	0	Avg	0.1425	0.1443	0.1338	0.1525	0.1398	0.1355	0.1330	0.1352	---	0.140	7.04	0.999	1.00	4.8	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
Caprolactam	1	0	Avg	0.1098	0.0990	0.0954	0.1139	0.1096	0.1074	0.1146	0.1193	---	0.109	7.29	0.997	0.999	7.4	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
4-Chloro-3-methylphenol	1	0	Avg	0.2722	0.2707	0.2545	0.2889	0.2641	0.2533	0.2484	0.2546	---	0.263	7.36	0.999	0.999	5.1	0.20	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
2-Methylnaphthalene	1	0	Avg	0.6302	0.6885	0.6131	0.6774	0.5886	0.5479	0.5252	0.5182	---	0.599	7.51	0.996	0.999	11	0.40	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	0.50
1-Methylnaphthalene	1	0	Avg	0.5842	0.6596	0.5840	0.6378	0.5499	0.5377	0.4898	0.4849	---	0.584	7.59	0.996	0.999	12										

Level #:	Data File:	Cal Identifier:	Analysis Date/Time	Level #:	Data File:	Cal Identifier:	Analysis Date/Time	Calibration Level Concentrations																			
1	7M116599.D	CAL BNA@10PPM	09/20/21 12:43	2	7M116599.D	CAL BNA@2PPM	09/20/21 09:33	Lv1 Lv2 Lv3 Lv4 Lv5 Lv6 Lv7 Lv8 Lv9																			
3	7M116592.D	CAL BNA@50PPM	09/20/21 09:56	4	7M116597.D	CAL BNA@20PPM	09/20/21 11:55																				
5	7M116596.D	CAL BNA@80PPM	09/20/21 11:32	6	7M116595.D	CAL BNA@120PPM	09/20/21 11:08																				
7	7M116594.D	CAL BNA@160PPM	09/20/21 10:45	8	7M116593.D	CAL BNA@196PPM	09/20/21 10:19																				
9	7M116598.D	CAL BNA@0.5PPM	09/20/21 12:19																								
Compound	Col	Mr	Fit	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	RF9	AvgRt	RT	Corr1	Corr2	%Rsd	Lv1	Lv2	Lv3	Lv4	Lv5	Lv6	Lv7	Lv8	Lv9	
Hexachlorocyclopenta	1	0	Qua	0.1948	0.0466	0.1015	0.1610	0.2142	0.2192	0.2282	0.2406	0.2406	0.1767	62	0.994	0.999	39	0.05	a	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
2,4,6-Trichlorophenol	1	0	Avg	0.3607	0.3152	0.3252	0.3730	0.3565	0.3427	0.3438	0.3460	0.3460	0.3457	73	1.00	1.00	5.4	0.20		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
2,4,5-Trichlorophenol	1	0	Avg	0.3833	0.3709	0.3412	0.4081	0.3821	0.3764	0.3736	0.3932	0.3932	0.3797	77	0.999	0.999	5.1	0.20		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
2-Fluorobiphenyl	1	0	Avg	1.3044	1.3536	1.2296	1.3993	1.2452	1.2089	1.1949	1.2340	1.2340	1.277	80	0.999	0.999	5.8	0.80		25.00	1.00	5.00	10.00	40.00	60.00	80.00	98.00
2-Chloronaphthalene	1	0	Avg	1.1111	1.2086	1.1125	1.2343	1.0401	0.9964	0.9541	0.9569	0.9569	1.087	91	0.998	0.999	10	0.80		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
1,4-Dimethylnaphthalene	1	0	Avg	0.8477	0.9889	0.8909	0.9749	0.7547	0.6878	0.6282	0.6167	0.6167	0.799	82	0.989	0.998	19	0.80		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
Dimethylnaphthalenes	1	0	Avg	0.8477	0.9889	0.8909	0.9749	0.7547	0.6878	0.6282	0.6167	0.6167	0.799	82	0.989	0.998	19	0.80		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
Diphenyl Ether	1	0	Avg	0.7865	0.8287	0.7730	0.8502	0.7527	0.7137	0.6905	0.7009	0.7009	0.762	79	0.999	0.999	7.7	0.80		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
2-Nitroaniline	1	0	Avg	0.3678	0.3905	0.3706	0.4070	0.3488	0.3319	0.3278	0.3371	0.3371	0.360	79	0.999	0.999	8.0	0.01		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
Coumarin	1	0	Avg	0.4425	0.4799	0.4448	0.4985	0.3616	0.3220	0.3118	0.3118	0.407	81	0.985	0.998	17	0.80		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
Acenaphthylene	1	0	Avg	1.6814	1.7891	1.6991	1.8670	1.5617	1.4745	1.4025	1.3993	1.3993	1.61	82	0.994	0.999	11	0.90		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
Dimethylphthalate	1	0	Avg	1.2713	1.3429	1.2596	1.3997	1.2071	1.1596	1.1314	1.1643	1.1643	1.24	84	0.999	0.999	7.6	0.01		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
2,6-Dinitrotoluene	1	0	Avg	0.2828	0.2944	0.2893	0.3240	0.2599	0.2434	0.2291	0.2358	0.2358	0.27	84	0.996	0.998	12	0.20		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
Acenaphthene	1	0	Avg	1.1039	1.1952	1.1016	1.2037	1.0288	0.9677	0.9261	0.9353	0.9353	1.06	84	0.997	0.999	10	0.90		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
3-Nitroaniline	1	0	Avg	0.3616	0.3520	0.3555	0.3947	0.3470	0.3347	0.3272	0.3367	0.3367	0.351	83	0.999	0.999	6.0	0.01		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
2,4-Dinitrophenol	1	0	Qua	0.1509	0.1509	0.1509	0.1509	0.1509	0.1509	0.1509	0.1509	0.1509	0.148	84	0.998	0.999	3.3	0.20	a	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
Dibenzofuran	1	0	Avg	1.5652	1.7288	1.5758	1.7284	1.4659	1.3856	1.3160	1.3084	1.3084	1.57	85	0.997	0.999	15	0.80		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
2,4-Dinitrotoluene	1	0	Avg	0.4276	0.3567	0.3740	0.4475	0.4137	0.4054	0.3949	0.4031	0.4031	0.403	85	0.999	0.999	7.1	0.20		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
4-Nitrophenol	1	0	Avg	0.2087	0.1557	0.2012	0.1964	0.2138	0.2090	0.2126	0.2228	0.2228	0.203	85	0.999	1.00	10	0.01		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
2,3,4,6-Tetrachlorophe	1	0	Avg	0.3332	0.2608	0.2963	0.3428	0.3403	0.3262	0.3305	0.3373	0.3373	0.321	85	0.999	0.999	8.8	0.01		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
Fluorene	1	0	Avg	1.2737	1.3586	1.2835	1.4067	1.1821	1.1066	1.0496	1.0389	1.0389	1.21	85	0.996	0.999	12	0.90		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
4-Chlorophenyl-phenyl	1	0	Avg	0.6091	0.5979	0.5667	0.6572	0.5838	0.5528	0.5334	0.5351	0.5351	0.580	85	0.998	0.999	7.2	0.40		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
Diethylphthalate	1	0	Avg	1.2834	1.3171	1.2489	1.4064	1.2258	1.1604	1.1161	1.1290	1.1290	1.24	85	0.998	0.999	8.1	0.01		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
4-Nitroaniline	1	0	Avg	0.3771	0.3661	0.3703	0.4182	0.3680	0.3568	0.3682	0.3682	0.3682	0.373	85	0.999	0.999	5.3	0.01		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
Altazine	1	0	Avg	0.3773	0.3303	0.3440	0.3992	0.3680	0.3566	0.3529	0.3529	0.3529	0.362	85	0.999	0.999	5.8	0.01		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
4,6-Dinitro-2-methylph	1	0	Qua	0.1178	0.0319	0.0717	0.1145	0.1251	0.1212	0.1235	0.1275	0.1275	0.104	85	0.996	0.999	3.3	0.01		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
n-Nitrosodibenzylamin	1	0	Avg	0.5814	0.6278	0.5893	0.6539	0.5546	0.5222	0.5046	0.5085	0.5085	0.568	85	0.993	0.999	9.7	0.01		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
2,4,6-Tribromophenol	1	0	Qua	0.1035	0.0742	0.0842	0.1037	0.1081	0.1068	0.1092	0.1135	0.1135	0.100	85	0.999	1.00	14	0.01		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
1,2-Diphenylhydrazine	1	0	Avg	0.6781	0.7844	0.7387	0.7108	0.6294	0.5911	0.5662	0.5715	0.5715	0.659	85	0.997	0.999	12	0.80		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
4-Bromophenyl-phenyl	1	0	Avg	0.2015	0.1938	0.1813	0.2133	0.2019	0.1943	0.1925	0.1977	0.1977	0.197	85	0.999	0.999	4.7	0.10		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
Hexachlorobenzene	1	0	Avg	0.2197	0.2129	0.2038	0.2319	0.2229	0.2149	0.2143	0.2160	0.2160	0.217	85	0.998	0.999	3.8	0.10		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
N-Octadecane	1	0	Avg	0.3558	0.4046	0.3914	0.4204	0.3221	0.2931	0.2737	0.2728	0.2728	0.342	85	0.993	0.998	17	0.05		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
Pentachlorophenol	1	0	Qua	0.1274	0.0506	0.0804	0.1152	0.1394	0.1359	0.1397	0.1446	0.1446	0.117	85	0.997	0.999	2.9	0.05		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
Phenanthrene	1	0	Avg	0.9393	1.0378	0.9630	1.0624	0.8964	0.8442	0.8150	0.8109	0.8109	0.921	85	0.993	0.999	11	0.70		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
Anthracene	1	0	Avg	0.9765	1.0475	1.0014	1.1087	0.9229	0.8648	0.8368	0.8317	0.8317	0.949	85	0.998	0.999	11	0.70		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
Cabazole	1	0	Avg	0.9251	0.9834	0.9432	1.0445	0.8885	0.8408	0.8079	0.8093	0.8093	0.905	85	0.998	0.999	9.4	0.01		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
Di-n-butylphthalate	1	0	Avg	1.1456	1.1419	1.1467	1.2795	1.0751	1.0068	0.9579	0.9529	1.3160	1.11	85	0.994	0.999	12	0.01		50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
Fluoranthene	1	0	Avg	1.0484	1.0480	1.0372	1.1648	1.0076	0.9400	0.9050	0.9050	0.9050	1.01	85	0.998	0.999	8.8										

Level #:	Data File:	Cal Identifier:	Analysis Date/Time	Level #:	Data File:	Cal Identifier:	Analysis Date/Time	Calibration Level Concentrations																		
1	7M116599.D	CAL BNA@50PPM	09/20/21 12:43	2	7M116591.D	CAL BNA@2PPM	09/20/21 09:33	LV1	LV2	LV3	LV4	LV5	LV6	LV7	LV8	LV9										
1	7M116599.D	CAL BNA@50PPM	09/20/21 12:43	4	7M116597.D	CAL BNA@20PPM	09/20/21 11:55	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0										
3	7M116592.D	CAL BNA@10PPM	09/20/21 09:56	6	7M116595.D	CAL BNA@120PPM	09/20/21 11:08	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0										
5	7M116596.D	CAL BNA@80PPM	09/20/21 11:32	8	7M116593.D	CAL BNA@196PPM	09/20/21 10:19	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0										
7	7M116594.D	CAL BNA@160PPM	09/20/21 10:45																							
9	7M116598.D	CAL BNA@0.5PPM	09/20/21 12:19																							
Compound	Col	Mr	Fit:	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	RF9	AvgRt	RT	Corr1	Corr2	%Rsd	LV1	LV2	LV3	LV4	LV5	LV6	LV7	LV8	LV9
4,4-DDE	1	0	Avg	0.2817	0.2614	0.2514	0.2959	0.2790	0.2790	0.2811	0.2963	---	0.278	11.65	0.998	0.999	5.5	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
4,4-DDD	1	0	Avg	0.5015	0.4457	0.4347	0.5266	0.4875	0.4734	0.4713	0.4926	---	0.479	12.06	0.999	0.999	6.2	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
Butylbenzylphthalate	1	0	Avg	0.5863	0.5091	0.5284	0.6204	0.5727	0.5527	0.5501	0.5811	---	0.563	12.31	0.998	0.999	6.2	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
4,4-DDT	1	0	Avg	0.4131	0.3507	0.3757	0.4319	0.4014	0.3854	0.3820	0.3957	---	0.392	12.42	0.999	0.999	6.3	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
3,3-Dichlorobenzidine	1	0	Avg	0.4912	0.4035	0.4183	0.5115	0.4928	0.4733	0.4641	0.4793	---	0.467	12.95	0.999	0.999	8.0	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
Benzoflathracene	1	0	Avg	1.1273	1.1366	1.0585	1.2215	1.1039	1.0691	1.0643	1.1124	---	1.11	12.98	0.999	0.999	4.8	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
Chrysene	1	0	Avg	1.0534	1.1060	1.0800	1.1930	1.0456	1.0093	0.9980	1.0406	---	1.07	13.02	0.999	0.999	5.8	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
bis(2-Ethylhexyl)phthal	1	0	Avg	0.7624	0.7402	0.7373	0.8434	0.7215	0.7017	0.6824	0.7110	---	0.738	13.00	0.999	0.999	6.7	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
Di-n-octylphthalate	1	0	Avg	1.1844	1.0330	1.0943	1.2638	1.0999	1.0500	1.0037	1.0211	---	1.09	13.77	0.996	0.999	8.2	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
Benzoblfuoranthene	1	0	Avg	0.9850	0.8720	0.9289	1.0780	0.9467	0.9653	0.9290	0.9985	---	0.963	14.22	0.999	0.999	6.3	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
Benzofluoranthene	1	0	Avg	1.0059	0.9535	0.9747	1.0674	0.9496	0.8718	0.8774	0.8880	---	0.949	14.25	0.998	0.998	7.2	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
Benzofalpvrene	1	0	Avg	0.9577	0.8554	0.9190	1.0401	0.9216	0.9020	0.8922	0.9271	---	0.927	14.60	0.999	0.999	5.9	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
Indeno[1,2,3-cd]pyren	1	0	Avg	1.0513	0.9260	0.9423	1.0867	1.0435	1.0191	1.0113	1.0869	---	1.02	16.12	0.999	0.999	5.9	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
Dibenzofa hlanthracen	1	0	Avg	0.8876	0.7680	0.8025	0.9207	0.8736	0.8535	0.8336	0.8841	---	0.853	16.15	0.998	0.999	5.8	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
Benzofa h ilberylene	1	0	Avg	0.8821	0.7879	0.7814	0.8860	0.8671	0.8644	0.8449	0.9117	---	0.853	16.54	0.998	0.998	5.5	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0

Flags
a - failed the min rf criteria
c - failed the minimum correlation coeff criteria(if applicable)

Note:
Avg Rsd: 9.892
Corr 1 = Correlation Coefficient for linear Eq.
Corr 2 = Correlation Coefficient for quad Eq.
Fit = Indicates whether Avg Rf, Linear, or Quadratic Curve was used for compound

Level #:	Data File:	Cal Identifier:	Analysis Date/Time	Level #:	Data File:	Cal Identifier:	Analysis Date/Time	Calibration Level Concentrations																
1	SM117928.D	CAL BNA@50PPM	09/20/21 11:52	2	SM117921.D	CAL BNA@2PPM	09/20/21 09:08	Lvl1	Lvl2	Lvl3	Lvl4	Lvl5	Lvl6	Lvl7	Lvl8	Lvl9								
1	0 Avg	0.3246	0.2447	0.2644	0.3407	0.3429	0.3359	0.3463	0.3661	0.3217	0.49	0.98	0.99	13	0.05	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	
3	0 Avg	0.3721	0.3038	0.3171	0.4068	0.3841	0.3825	0.3841	0.4297	0.3737	0.59	0.993	0.997	11	0.20	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
5	0 Avg	0.4018	0.3158	0.3477	0.4148	0.4041	0.4164	0.4242	0.4181	0.3937	0.62	0.999	1.00	10	0.20	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
7	0 Avg	1.2920	1.2769	1.2160	1.4009	1.2955	1.2955	1.2921	1.3434	1.3076	0.66	0.999	0.999	4.1	0.80	25.00	1.00	5.00	10.00	40.00	60.00	80.00	98.00	98.00
9	0 Avg	1.1231	1.0676	1.0397	1.2453	1.1088	1.0986	1.0914	1.1420	1.1177	0.77	0.999	0.999	5.5	0.80	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
1	0 Avg	0.8337	0.8445	0.8206	0.9157	0.8143	0.8143	0.7937	0.8294	0.8338	0.05	0.999	0.999	4.4	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
1	0 Avg	0.7916	0.7896	0.7480	0.8583	0.7828	0.7684	0.7782	0.7964	0.7897	0.83	0.999	1.00	4.0	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
1	0 Avg	0.3819	0.2761	0.3044	0.3921	0.3775	0.3780	0.3872	0.3964	0.3627	0.85	0.999	1.00	12	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
1	0 Avg	0.4137	0.3994	0.3904	0.4582	0.4096	0.4086	0.3994	0.4134	0.4128	0.04	0.999	0.999	5.0	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
1	0 Avg	1.6340	1.5078	1.5068	1.7766	1.6217	1.5893	1.5671	1.6106	1.6081	0.13	0.999	0.999	5.3	0.90	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
1	0 Avg	1.2761	1.2050	1.1862	1.3862	1.2432	1.2404	1.2573	1.2884	1.2680	0.00	0.999	1.00	4.8	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
1	0 Avg	0.2784	0.2208	0.2551	0.3006	0.2760	0.2729	0.2717	0.2797	0.2698	0.06	0.999	1.00	8.6	0.20	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
1	0 Avg	1.0525	1.0877	1.0025	1.1877	1.0474	1.0432	1.0355	1.0791	1.0788	0.28	0.999	0.999	5.2	0.90	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
1	0 Avg	0.3076	0.2246	0.2600	0.3319	0.3102	0.3051	0.3056	0.3183	0.2958	0.20	0.999	0.999	12	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
1	0 Qua	0.1432	0.0791	0.1286	0.1662	0.1725	0.1827	0.1887	0.1887	0.1528	0.29	0.997	1.00	25	0.20	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
1	0 Avg	1.5749	1.5921	1.4855	1.7121	1.5390	1.5245	1.5101	1.5402	1.6084	0.43	1.00	1.00	8.4	0.80	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
1	0 Qua	0.3843	0.2556	0.3107	0.4034	0.3969	0.3912	0.4001	0.4065	0.3698	0.41	1.00	1.00	15	0.20	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
1	0 Qua	0.2288	0.1226	0.1702	0.2380	0.2432	0.2366	0.2532	0.2615	0.2208	0.32	0.998	1.00	22	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
1	0 Avg	1.2450	1.2288	1.1524	1.3672	1.2103	1.2218	1.2059	1.2379	1.2338	0.76	0.999	1.00	4.9	0.90	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
1	0 Avg	0.6261	0.6184	0.5837	0.6861	0.6238	0.6240	0.6324	0.6600	0.6328	0.74	0.999	1.00	4.8	0.40	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
1	0 Avg	1.2369	1.0911	1.0627	1.3203	1.2208	1.2305	1.2321	1.2759	1.2186	0.63	0.999	1.00	7.3	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
1	0 Avg	0.3329	0.2146	0.2715	0.3501	0.3315	0.3319	0.3380	0.3426	0.3148	0.77	1.00	1.00	15	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
1	0 Qua	0.3852	0.2856	0.3083	0.3943	0.3848	0.3859	0.3947	0.4034	0.3689	0.39	0.999	0.999	12	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
1	0 Qua	0.1167	0.0457	0.0741	0.1062	0.1212	0.1258	0.1280	0.1298	0.1068	0.79	0.998	0.999	29	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
1	0 Avg	0.5546	0.4943	0.5059	0.6144	0.5292	0.5578	0.5405	0.5606	0.5458	0.86	0.999	0.999	6.8	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
1	0 Avg	0.1022	0.0694	0.0828	0.1063	0.0989	0.1020	0.0988	0.1022	0.0954	0.89	0.999	0.999	13	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
1	0 Avg	0.6900	0.5583	0.5718	0.6781	0.5980	0.6858	0.6589	0.6865	0.6418	0.90	0.998	0.998	8.7	0.10	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
1	0 Avg	0.2030	0.1755	0.1782	0.2155	0.2016	0.2079	0.2040	0.2124	0.2009	0.24	0.999	0.999	7.5	0.10	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
1	0 Avg	0.2176	0.2210	0.2059	0.2366	0.2084	0.2162	0.2113	0.2275	0.2179	0.30	0.999	0.999	4.4	0.10	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
1	0 Avg	0.3254	0.2605	0.2878	0.3543	0.3117	0.3272	0.2992	0.2974	0.2089	0.56	0.997	0.999	9.2	0.05	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
1	0 Qua	0.1392	0.0660	0.0955	0.1365	0.1396	0.1492	0.1509	0.1551	0.1299	0.50	0.999	1.00	2.4	0.05	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
1	0 Avg	0.9301	0.9651	0.8852	1.0443	0.9116	0.9412	0.9032	0.9468	0.9419	0.74	0.999	0.999	5.2	0.70	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
1	0 Avg	0.9755	0.8840	0.8771	1.0748	0.9357	0.9675	0.9364	0.9541	0.9519	0.80	0.999	0.999	6.5	0.70	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
1	0 Avg	0.8767	0.7631	0.7897	0.9537	0.8695	0.8871	0.8532	0.8767	0.8599	0.96	0.999	0.999	6.9	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
1	0 Qua	1.0464	0.6986	0.8020	1.1085	1.0186	1.0776	1.0550	1.0757	0.9521	1.07	0.999	1.00	18	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
1	0 Avg	1.0964	0.8941	0.9333	1.1665	1.0408	1.0953	1.0564	1.0729	1.0411	0.37	0.999	0.999	8.6	0.60	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
1	0 Avg	1.1013	1.0044	1.0290	1.1884	1.1180	1.1237	1.1114	1.1783	1.1111	1.34	0.998	0.999	5.8	0.60	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
1	0 Qua	0.6561	0.3375	0.4756	0.6737	0.6831	0.6853	0.6637	0.7010	0.6101	1.23	0.999	0.999	22	0.01	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0	196.0
1	0 Avg	0.6072	0.5089	0.5306	0.6331	0.6216	0.6174	0.6288	0.6839	0.6041	1.52	0.996	0.998	9.4	0.01	25.00	1.00	5.00	10.00	40.00	60.00	80.00	96.00	96.00

Flags
a - failed the min of criteria
c - failed the minimum correlation coeff criteria (if applicable)
Note:
Corr 1 = Correlation Coefficient for linear Eq.
Corr 2 = Correlation Coefficient for quad Eq.
Fit = Indicates whether Avg Rf, Linear, or Quadratic Curve was used for compound.
Avg Rsd: 9.101
Page 2 of 3

Level #	Data File	Cal Identifier	Analysis Date/Time	Level #	Data File	Cal Identifier	Analysis Date/Time	Calibration Level Concentrations																	
1	5M117928.D	CAL BNA@50PPM	09/20/21 11:52	2	5M117921.D	CAL BNA@2PPM	09/20/21 09:08	Lv1 Lv2 Lv3 Lv4 Lv5 Lv6 Lv7 Lv8																	
3	5M117920.D	CAL BNA@10PPM	09/20/21 08:44	4	5M117929.D	CAL BNA@20PPM	09/20/21 12:46																		
5	5M117925.D	CAL BNA@80PPM	09/20/21 10:41	6	5M117924.D	CAL BNA@120PPM	09/20/21 10:17																		
7	5M117923.D	CAL BNA@160PPM	09/20/21 09:54	8	5M117922.D	CAL BNA@196PPM	09/20/21 09:31																		
9	5M117927.D	CAL BNA@0.5PPM	09/20/21 11:28																						
Compound	Col	Mr	Fit	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	RF9	AvgRt	RT	Corr1	Corr2	%Rsd	Lv1	Lv2	Lv3	Lv4	Lv5	Lv6	Lv7	Lv8
4,4-DDE	1	0	Avg	0.2645	0.2318	0.2471	0.2861	0.2814	0.2900	0.2937	0.3200	---	0.277	11.45	0.995	0.999	10	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
4,4-DDD	1	0	Avg	0.4531	0.3232	0.3759	0.4746	0.4616	0.4707	0.4711	0.4968	---	0.441	11.85	0.999	0.999	13	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
Butylbenzylphthalate	1	0	Qua	0.4611	0.2600	0.3427	0.4786	0.4878	0.4955	0.4877	0.5276	---	0.443	12.11	0.997	0.999	21	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
4,4-DDT	1	0	Avg	0.3946	0.2625	0.3271	0.4151	0.3952	0.4086	0.4032	0.4311	---	0.380	12.21	0.998	0.999	15	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
3,3-Dichlorobenzidine	1	0	Qua	0.4179	0.2352	0.3208	0.4336	0.4300	0.4396	0.4235	0.4434	---	0.393	12.73	0.999	0.999	19	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
Benzofluranthracene	1	0	Avg	1.0864	0.9627	0.9764	1.1486	1.0945	1.0967	1.0913	1.1792	---	1.08	12.76	0.997	0.999	7.0	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
Chrysene	1	0	Avg	1.0368	1.0501	1.0271	1.1542	1.0414	1.0505	1.0280	1.1015	---	1.06	12.80	0.998	0.999	4.2	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
bis(2-Ethylhexyl)phthalate	1	0	Qua	0.6449	0.3692	0.5102	0.6620	0.6713	0.6911	0.6878	0.7333	---	0.621	12.80	0.998	0.999	19	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
Di-n-octylphthalate	1	0	Qua	0.9931	0.4295	0.6310	0.9922	1.0259	1.0385	1.0389	1.1029	---	0.907	13.55	0.998	0.999	27	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
Benzofluranthene	1	0	Avg	1.0112	0.7167	0.8575	1.0458	0.9643	0.9384	0.9921	1.0157	---	0.943	13.97	0.999	0.999	11	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
Benzofluoranthene	1	0	Avg	0.9400	0.8946	0.9027	1.0392	0.9635	0.9558	0.8874	1.0167	---	0.950	14.00	0.993	0.994	5.9	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
Benzofluoranthene	1	0	Avg	0.9256	0.7005	0.7672	0.9707	0.9247	0.9133	0.9075	0.9802	---	0.886	14.32	0.998	0.999	11	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
Indenol 1,2,3-cdipyren	1	0	Avg	1.0787	0.8701	0.9178	1.1274	1.0781	1.0823	1.0774	1.1711	---	1.05	15.70	0.998	0.999	9.8	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
Dibenzofluoranthracene	1	0	Avg	0.9248	0.7185	0.7786	0.9706	0.9321	0.9256	0.8999	0.9703	---	0.890	15.72	0.998	0.998	10	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0
Benzofluoranthene	1	0	Avg	0.9093	0.7624	0.7918	0.9480	0.9014	0.8945	0.8987	0.9800	---	0.886	16.08	0.996	0.998	8.3	50.00	2.00	10.00	20.00	80.00	120.0	160.0	196.0

Flags
a - failed the min of criteria
c - failed the minimum correlation coeff criteria if applicable

Note:
Corr 1 = Correlation Coefficient for linear Eq.
Corr 2 = Correlation Coefficient for quad Eq.
Fit = Indicates whether Avg Rf, Linear, or Quadratic Curve was used for compound.

Avg Rsd: 9.101

Form7
Continuing Calibration

Calibration Name: CAL BNA@50PPM
Cont Calibration Date/Time 9/21/2021 9:58:00 A

Data File: 7M116602.D
Method: EPA 8270E

Instrument: GCMS 7

TxtCompd:	Col#	Multi Num	Type	RT	Conc	Conc Exp	Lo Lim	MIN RF	Initial RF	RF	%Diff	Flag
1,4-Dioxane-d8(INT)	1	0	I	2.73	40.00	40	**			0.000	0.00	
1,4-Dioxane	1	0		2.76	48.77	50	**	0.924	0.901	0.901	2.46	
Pyridine	1	0		3.24	50.13	50	**	1.880	1.885	1.885	0.26	
N-Nitrosodimethylamine	1	0		3.19	50.60	50	**	1.425	1.442	1.442	1.21	
2-Fluorophenol	1	0	S	4.74	49.79	50	**	2.116	2.108	2.108	0.41	
Benzaldehyde	1	0		5.55	49.58	50	20	0.01	1.843	1.828	0.83	
Aniline	1	0		5.65	49.44	50	**	3.165	2.956	2.956	1.12	
Pentachloroethane	1	0		5.69	49.36	50	**	0.05	0.720	0.711	1.27	
bis(2-Chloroethyl)ether	1	0		5.71	49.72	50	20	0.7	2.118	2.000	0.57	
Phenol-d5	1	0	S	5.61	49.77	50	**	2.406	2.395	2.395	0.46	
Phenol	1	0		5.62	50.34	50	20	0.8	2.793	2.811	0.68	
2-Chlorophenol	1	0		5.75	49.00	50	20	0.8	2.198	2.154	1.99	
N-Decane	1	0		5.78	51.11	50	**	0.05	1.809	1.799	2.22	
1,3-Dichlorobenzene	1	0		5.88	48.78	50	**	2.303	2.247	2.247	2.44	
1,4-Dichlorobenzene-d4	1	0	I	5.92	40.00	40	**			0.000	0.00	
1,4-Dichlorobenzene	1	0		5.94	51.07	50	20		1.332	1.361	2.15	
1,2-Dichlorobenzene	1	0		6.07	50.80	50	**	1.277	1.297	1.297	1.60	
Benzyl alcohol	1	0		6.04	53.87	50	**	0.738	0.796	0.796	7.74	
bis(2-chloroisopropyl)ether	1	0		6.15	51.99	50	20	0.01	1.271	1.322	3.97	
2-Methylphenol	1	0		6.12	48.95	50	20	0.7	1.184	1.160	2.09	
Acetophenone	1	0		6.25	52.45	50	20	0.01	1.504	1.578	4.90	
Hexachloroethane	1	0		6.34	50.64	50	20	0.3	0.515	0.521	1.28	
N-Nitroso-di-n-propylamine	1	0		6.25	49.89	50	20	0.5	0.771	0.769	0.21	
3&4-Methylphenol	1	0		6.25	51.39	50	20		1.074	1.104	2.78	
Naphthalene-d8	1	0	I	6.95	40.00	40	**			0.000	0.00	
Nitrobenzene-d5	1	0	S	6.38	25.79	25	**	0.150	0.154	0.154	3.15	
Nitrobenzene	1	0		6.39	51.81	50	20	0.2	0.299	0.310	3.61	
Isophorone	1	0		6.58	51.84	50	20	0.4	0.562	0.583	3.69	
2-Nitrophenol	1	0		6.64	52.59	50	20	0.1	0.176	0.186	5.18	
2,4-Dimethylphenol	1	0		6.66	50.83	50	20	0.2	0.284	0.288	1.67	
Benzoic Acid	1	0		6.74	49.28	50	**	0.186	0.194	0.194	1.43	
bis(2-Chloroethoxy)methane	1	0		6.74	51.98	50	20	0.3	0.343	0.356	3.96	
2,4-Dichlorophenol	1	0		6.83	52.99	50	20	0.2	0.240	0.255	5.98	
1,2,4-Trichlorobenzene	1	0		6.89	51.42	50	**	0.262	0.269	0.269	2.83	
Naphthalene	1	0		6.96	49.91	50	20	0.7	0.890	0.889	0.18	
4-Chloroaniline	1	0		6.99	50.65	50	20	0.01	0.382	0.371	1.30	
Hexachlorobutadiene	1	0		7.05	50.95	50	20	0.01	0.140	0.142	1.90	
Caprolactam	1	0		7.29	51.68	50	20	0.01	0.109	0.112	3.36	
4-Chloro-3-methylphenol	1	0		7.37	52.04	50	20	0.2	0.263	0.274	4.08	
2-Methylnaphthalene	1	0		7.51	53.15	50	**	0.4	0.599	0.636	6.31	
1-Methylnaphthalene	1	0		7.59	52.38	50	**	0.4	0.564	0.590	4.76	
Methylnaphthalenes	1	0		7.51	105.72	50	**			1.226	111.43	
1,1'-Biphenyl	1	0		7.89	52.46	50	20	0.01	0.688	0.722	4.91	
Acenaphthene-d10	1	0	I	8.41	40.00	40	**			0.000	0.00	
1,2,4,5-Tetrachlorobenzene	1	0		7.64	50.95	50	20	0.01	0.507	0.517	1.91	
Hexachlorocyclopentadiene	1	0		7.63	49.07	50	20	0.05	0.176	0.193	1.86	
2,4,6-Trichlorophenol	1	0		7.73	51.19	50	20	0.2	0.345	0.354	2.38	
2,4,5-Trichlorophenol	1	0		7.77	50.76	50	20	0.2	0.379	0.384	1.52	
2-Fluorobiphenyl	1	0	S	7.80	25.60	25	**	1.271	1.302	1.302	2.40	
2-Chloronaphthalene	1	0		7.92	51.56	50	20	0.8	1.077	1.111	3.11	
1,4-Dimethylnaphthalene	1	0		8.20	52.83	50	**	0.799	0.844	0.844	5.67	
Dimethylnaphthalenes	1	0		8.20	52.83	50	20			0.844	5.67	

S-Surrogate Compound
N/O or N/Q - Not applicable for this run

I-Internal Standard Compound
CI-Compound %Diff exceeds limits

** - No limit specified in method

Form7
Continuing Calibration

Calibration Name: CAL BNA@50PPM Data File: 7M116602.D Instrument: GCMS 7
Cont Calibration Date/Time 9/21/2021 9:58:00 A Method: EPA 8270E

TxtCompd:	Col#	Multi Num	Type	RT	Conc	Conc Exp	Lo Lim	MIN RF	Initial RF	RF	%Diff	Flag
Diphenyl Ether	1	0		7.98	51.48	50	**	0.762	0.785		2.96	
2-Nitroaniline	1	0		8.00	51.81	50	20	0.01	0.360	0.373	3.62	
Coumarin	1	0		8.19	54.49		**	0.407				
Acenaphthylene	1	0		8.29	52.06	50	20	0.9	1.609	1.676	4.12	
Dimethylphthalate	1	0		8.15	51.17	50	20	0.01	1.242	1.271	2.34	
2,6-Dinitrotoluene	1	0		8.20	52.92	50	20	0.2	0.270	0.286	5.84	
Acenaphthene	1	0		8.44	52.00	50	20	0.9	1.058	1.100	4.00	
3-Nitroaniline	1	0		8.36	51.60	50	20	0.01	0.351	0.362	3.21	
2,4-Dinitrophenol	1	0		8.46	50.60	50	20	0.2	0.148	0.159	1.20	
Dibenzofuran	1	0		8.60	50.32	50	20	0.8	1.570	1.580	0.63	
2,4-Dinitrotoluene	1	0		8.57	53.29	50	20	0.2	0.403	0.429	6.58	
4-Nitrophenol	1	0		8.49	52.86	50	20	0.01	0.203	0.214	5.72	
2,3,4,6-Tetrachlorophenol	1	0		8.70	53.42	50	20	0.01	0.321	0.343	6.84	
Fluorene	1	0		8.93	52.70	50	20	0.9	1.213	1.278	5.40	
4-Chlorophenyl-phenylether	1	0		8.92	52.54	50	20	0.4	0.580	0.609	5.08	
Diethylphthalate	1	0		8.79	52.60	50	20	0.01	1.236	1.300	5.20	
4-Nitroaniline	1	0		8.94	50.93	50	20	0.01	0.373	0.380	1.85	
Atrazine	1	0		9.57	52.38	50	20	0.01	0.362	0.379	4.75	
Phenanthrene-d10	1	0	I	9.90	40.00	40	**			0.000	0.00	
4,6-Dinitro-2-methylphenol	1	0		8.97	51.41	50	20	0.01	0.104	0.122	2.82	
n-Nitrosodiphenylamine	1	0		9.03	51.21	50	20	0.01	0.568	0.582	2.43	
2,4,6-Tribromophenol	1	0	S	9.17	50.24	50	**	0.100	0.104	0.104	0.47	
1,2-Diphenylhydrazine	1	0		9.07	52.29	50	**	0.659	0.689	0.689	4.57	
4-Bromophenyl-phenylether	1	0		9.41	50.75	50	20	0.1	0.197	0.200	1.50	
Hexachlorobenzene	1	0		9.48	50.86	50	20	0.1	0.217	0.221	1.72	
N-Octadecane	1	0		9.74	52.96	50	**	0.05	0.342	0.362	5.93	
Pentachlorophenol	1	0		9.68	52.88	50	20	0.05	0.117	0.132	5.76	
Phenanthrene	1	0		9.93	51.62	50	20	0.7	0.921	0.951	3.24	
Anthracene	1	0		9.98	51.99	50	20	0.7	0.949	0.987	3.98	
Carbazole	1	0		10.16	51.79	50	20	0.01	0.905	0.938	3.57	
Di-n-butylphthalate	1	0		10.53	51.91	50	20	0.01	1.114	1.156	3.82	
Fluoranthene	1	0		11.28	52.37	50	20	0.6	1.007	1.055	4.74	
Chrysene-d12	1	0	I	12.99	40.00	40	**			0.000	0.00	
Pyrene	1	0		11.54	51.12	50	20	0.6	1.169	1.195	2.24	
Benzidine	1	0		11.44	52.77	50	**	0.746	0.787	0.787	5.53	
Terphenyl-d14	1	0	S	11.72	25.32	25	**	0.663	0.672	0.672	1.26	
4,4'-DDE	1	0		11.65	50.76		**	0.278				
4,4'-DDD	1	0		12.06	52.02		**	0.479				
Butylbenzylphthalate	1	0		12.32	52.47	50	20	0.01	0.563	0.590	4.95	
4,4'-DDT	1	0		12.42	51.92		**	0.392				
3,3'-Dichlorobenzidine	1	0		12.95	52.51	50	20	0.01	0.467	0.490	5.02	
Benzo[a]anthracene	1	0		12.98	50.54	50	20	0.8	1.112	1.124	1.08	
Chrysene	1	0		13.03	50.21	50	20	0.7	1.066	1.070	0.42	
bis(2-Ethylhexyl)phthalate	1	0		13.01	52.31	50	20	0.01	0.738	0.772	4.61	
Perylene-d12	1	0	I	14.69	40.00	40	**			0.000	0.00	
Di-n-octylphthalate	1	0		13.77	54.19	50	20	0.01	1.094	1.185	8.38	
Benzo[b]fluoranthene	1	0		14.23	51.14	50	20	0.7	0.963	0.985	2.28	
Benzo[k]fluoranthene	1	0		14.26	52.38	50	20	0.7	0.949	0.994	4.77	
Benzo[a]pyrene	1	0		14.62	51.42	50	20	0.7	0.927	0.953	2.84	
Indeno[1,2,3-cd]pyrene	1	0		16.14	51.63	50	20	0.5	1.021	1.054	3.26	
Dibenzo[a,h]anthracene	1	0		16.16	52.13	50	20	0.4	0.853	0.889	4.25	
Benzo[g,h,i]perylene	1	0		16.56	50.91	50	20	0.5	0.853	0.869	1.82	

S-Surrogate Compound
N/O or N/Q - Not applicable for this run

I-Internal Standard Compound
CI-Compound %Diff exceeds limits

** - No limit specified in method
Page 2 of 3

Form7
Continuing Calibration

Calibration Name: CAL BNA@50PPM
Cont Calibration Date/Time 9/21/2021 9:58:00 A

Data File: 7M116602.D
Method: EPA 8270E

Instrument: GCMS 7

TxtCompd:	Col#	Multi Num	Type	RT	Conc	Conc Exp	Lo Lim	MIN RF	Initial RF	RF	%Diff	Flag
Diaminotoluene Dihydrochloride	1	100		0.00	0.00	50	**			0.000	100.00	
4-Methylphenol	1	100		0.00	0.00	50	**	0.6		0.000	100.00	
1,4-Dioxane-d8	1	100		0.00	0.00	40	**			0.000	100.00	
Endrin	1	100		0.00	0.00	50	**			0.000	100.00	
gamma-BHC	1	100		0.00	0.00	10	**			0.000	100.00	
Heptachlor	1	100		0.00	0.00	10	**			0.000	100.00	
Heptachlor epoxide	1	100		0.00	0.00	10	**			0.000	100.00	
1,4-Dioxane-d8-Surro	1	100		0.00	0.00	40	**			0.000	100.00	
Methoxychlor	1	100		0.00	0.00	10	**			0.000	100.00	
Methylnaphthalenes (Total)	1	100		0.00	0.00	100	**		0.580	0.000	100.00	
2,4 Diaminotoluene	1	100		0.00	0.00	50	**			0.000	100.00	
Toluene Diisocyanate	1	100		0.00	0.00	50	**			0.000	100.00	
2,2'-oxybis-(1-Chloropropane)	1	100		0.00	0.00	50	**			0.000	100.00	
Dimethylnaphthalenes (Total)	1	100		0.00	0.00	50	**		0.799	0.000	100.00	

S-Surrogate Compound
N/O or N/Q - Not applicable for this run

I-Internal Standard Compound
CI-Compound %Diff exceeds limits

** - No limit specified in method

Form7
Continuing Calibration

Calibration Name: CAL BNA@50PPM
Cont Calibration Date/Time 9/21/2021 10:28:00

Data File: 9M108408.D
Method: EPA 8270E

Instrument: GCMS 9

TxtCompd:	Col#	Multi Num	Type	RT	Conc	Conc Exp	Lo Lim	MIN RF	Initial RF	RF	%Diff	Flag
1,4-Dioxane-d8(INT)	1	0	I	2.71	40.00	40	**			0.000	0.00	
1,4-Dioxane	1	0		2.75	42.06	50	**	0.927		0.780	15.89	
Pyridine	1	0		3.23	45.09	50	**	2.088		1.883	9.82	
N-Nitrosodimethylamine	1	0		3.18	43.35	50	**	1.480		1.283	13.29	
2-Fluorophenol	1	0	S	4.74	47.37	50	**	2.391		2.266	5.25	
Benzaldehyde	1	0		5.55	47.46	50	20	0.01	1.993	1.892	5.07	
Aniline	1	0		5.64	51.62	50	**	3.589		3.706	3.24	
Pentachloroethane	1	0		5.67	50.30	50	**	0.05	0.857	0.862	0.60	
bis(2-Chloroethyl)ether	1	0		5.69	48.35	50	20	0.7	2.425	2.345	3.31	
Phenol-d5	1	0	S	5.61	48.90	50	**		2.897	2.833	2.21	
Phenol	1	0		5.63	53.03	50	20	0.8	3.391	3.596	6.06	
2-Chlorophenol	1	0		5.74	52.45	50	20	0.8	2.619	2.747	4.90	
N-Decane	1	0		5.75	37.23	50	**	0.05	2.398	1.785	25.54	
1,3-Dichlorobenzene	1	0		5.86	53.86	50	**		2.864	3.085	7.72	
1,4-Dichlorobenzene-d4	1	0	I	5.91	40.00	40	**			0.000	0.00	
1,4-Dichlorobenzene	1	0		5.92	47.13	50	20		1.504	1.418	5.73	
1,2-Dichlorobenzene	1	0		6.05	46.88	50	**		1.428	1.339	6.25	
Benzyl alcohol	1	0		6.03	41.15	50	**		0.824	0.678	17.69	
bis(2-chloroisopropyl)ether	1	0		6.13	32.17	50	20	0.01	1.484	0.955	35.66	C1
2-Methylphenol	1	0		6.12	49.77	50	20	0.7	1.193	1.187	0.46	
Acetophenone	1	0		6.24	42.82	50	20	0.01	1.707	1.462	14.36	
Hexachloroethane	1	0		6.32	44.92	50	20	0.3	0.542	0.487	10.15	
N-Nitroso-di-n-propylamine	1	0		6.24	42.50	50	20	0.5	0.824	0.700	15.01	
3&4-Methylphenol	1	0		6.25	48.19	50	20		1.224	1.180	3.63	
Naphthalene-d8	1	0	I	6.92	40.00	40	**			0.000	0.00	
Nitrobenzene-d5	1	0	S	6.37	23.50	25	**		0.152	0.143	6.01	
Nitrobenzene	1	0		6.38	43.71	50	20	0.2	0.314	0.274	12.57	
Isophorone	1	0		6.56	45.46	50	20	0.4	0.589	0.535	9.09	
2-Nitrophenol	1	0		6.63	51.26	50	20	0.1	0.175	0.179	2.51	
2,4-Dimethylphenol	1	0		6.65	52.79	50	20	0.2	0.297	0.313	5.59	
Benzoic Acid	1	0		6.73	44.57	50	**		0.161	0.146	10.85	
bis(2-Chloroethoxy)methane	1	0		6.72	44.29	50	20	0.3	0.358	0.317	11.42	
2,4-Dichlorophenol	1	0		6.82	54.12	50	20	0.2	0.260	0.281	8.23	
1,2,4-Trichlorobenzene	1	0		6.88	51.41	50	**		0.298	0.307	2.82	
Naphthalene	1	0		6.94	46.41	50	20	0.7	1.012	0.939	7.18	
4-Chloroaniline	1	0		6.98	49.14	50	20	0.01	0.385	0.378	1.71	
Hexachlorobutadiene	1	0		7.01	55.56	50	20	0.01	0.163	0.182	11.12	
Caprolactam	1	0		7.26	44.66	50	20	0.01	0.104	0.093	10.68	
4-Chloro-3-methylphenol	1	0		7.35	50.80	50	20	0.2	0.261	0.265	1.61	
2-Methylnaphthalene	1	0		7.48	49.65	50	**	0.4	0.679	0.674	0.71	
1-Methylnaphthalene	1	0		7.56	48.28	50	**	0.4	0.646	0.623	3.44	
Methylnaphthalenes	1	0		7.48	98.52	50	**			1.295	97.04	
1,1'-Biphenyl	1	0		7.85	44.86	50	20	0.01	0.873	0.783	10.28	
Acenaphthene-d10	1	0	I	8.37	40.00	40	**			0.000	0.00	
1,2,4,5-Tetrachlorobenzene	1	0		7.61	44.70	50	20	0.01	0.629	0.562	10.60	
Hexachlorocyclopentadiene	1	0		7.59	0.81	50	20	0.05	0.285	0.004	98.38	C1
2,4,6-Trichlorophenol	1	0		7.71	46.07	50	20	0.2	0.405	0.373	7.87	
2,4,5-Trichlorophenol	1	0		7.75	48.69	50	20	0.2	0.408	0.397	2.63	
2-Fluorobiphenyl	1	0	S	7.77	23.19	25	**		1.452	1.347	7.26	
2-Chloronaphthalene	1	0		7.88	46.59	50	20	0.8	1.239	1.155	6.81	
1,4-Dimethylnaphthalene	1	0		8.16	41.81	50	**		1.072	0.896	16.39	
Dimethylnaphthalenes	1	0		8.16	41.81	50	20			0.896	16.39	

S-Surrogate Compound
N/O or N/Q - Not applicable for this run

I-Internal Standard Compound
C1-Compound %Diff exceeds limits

** - No limit specified in method

Page 1 of 3

Form7
Continuing Calibration

Calibration Name: CAL BNA@50PPM
Cont Calibration Date/Time 9/21/2021 10:28:00

Data File: 9M108408.D
Method: EPA 8270E

Instrument: GCMS 9

TxtCompd:	Col#	Multi Num	Type	RT	Conc	Conc Exp	Lo Lim	MIN RF	Initial RF	RF	%Diff	Flag
Diphenyl Ether	1	0		7.94	42.55	50	**	0.880	0.749	14.90		
2-Nitroaniline	1	0		7.97	38.92	50	20	0.01	0.382	0.298	22.16	C1
Coumarin	1	0		8.16	39.41		**	0.543				
Acenaphthylene	1	0		8.24	48.41	50	20	0.9	1.894	1.834	3.19	
Dimethylphthalate	1	0		8.10	48.80	50	20	0.01	1.345	1.313	2.39	
2,6-Dinitrotoluene	1	0		8.17	50.36	50	20	0.2	0.306	0.308	0.71	
Acenaphthene	1	0		8.40	46.90	50	20	0.9	1.255	1.177	6.20	
3-Nitroaniline	1	0		8.33	46.28	50	20	0.01	0.356	0.329	7.43	
2,4-Dinitrophenol	1	0		8.45	25.48	50	20	0.2	0.173	0.085	49.05	C1
Dibenzofuran	1	0		8.55	48.49	50	20	0.8	1.754	1.701	3.02	
2,4-Dinitrotoluene	1	0		8.54	53.37	50	20	0.2	0.391	0.418	6.74	
4-Nitrophenol	1	0		8.50	19.51	50	20	0.01	0.226	0.090	60.99	C1
2,3,4,6-Tetrachlorophenol	1	0		8.67	46.74	50	20	0.01	0.356	0.333	6.52	
Fluorene	1	0		8.88	48.12	50	20	0.9	1.421	1.367	3.77	
4-Chlorophenyl-phenylether	1	0		8.86	49.47	50	20	0.4	0.685	0.678	1.06	
Diethylphthalate	1	0		8.73	47.33	50	20	0.01	1.310	1.240	5.33	
4-Nitroaniline	1	0		8.91	46.37	50	20	0.01	0.382	0.354	7.26	
Atrazine	1	0		9.51	50.48	50	20	0.01	0.374	0.377	0.96	
Phenanthrene-d10	1	0	I	9.85	40.00	40	**			0.000	0.00	
4,6-Dinitro-2-methylphenol	1	0		8.94	38.06	50	20	0.01	0.123	0.093	23.89	C1
n-Nitrosodiphenylamine	1	0		8.98	46.55	50	20	0.01	0.645	0.601	6.91	
2,4,6-Tribromophenol	1	0	S	9.12	51.47	50	**	0.112	0.115	2.94		
1,2-Diphenylhydrazine	1	0		9.02	41.02	50	**	0.712	0.584	17.96		
4-Bromophenyl-phenylether	1	0		9.35	51.22	50	20	0.1	0.221	0.227	2.45	
Hexachlorobenzene	1	0		9.43	54.64	50	20	0.1	0.240	0.262	9.28	
N-Octadecane	1	0		9.67	31.92	50	**	0.05	0.393	0.251	36.16	
Pentachlorophenol	1	0		9.65	19.09	50	20	0.05	0.138	0.048	61.82	C1
Phenanthrene	1	0		9.87	45.39	50	20	0.7	1.106	1.004	9.23	
Anthracene	1	0		9.93	47.38	50	20	0.7	1.119	1.060	5.24	
Carbazole	1	0		10.11	46.71	50	20	0.01	1.016	0.949	6.58	
Di-n-butylphthalate	1	0		10.46	46.83	50	20	0.01	1.128	1.057	6.34	
Fluoranthene	1	0		11.22	49.58	50	20	0.6	1.180	1.170	0.84	
Chrysene-d12	1	0	I	12.92	40.00	40	**			0.000	0.00	
Pyrene	1	0		11.48	46.47	50	20	0.6	1.242	1.155	7.06	
Benzidine	1	0		11.37	43.93	50	**	0.756	0.664	12.13		
Terphenyl-d14	1	0	S	11.65	23.53	25	**	0.675	0.635	5.89		
4,4'-DDE	1	0		11.58	47.73		**	0.266				
4,4'-DDD	1	0		11.99	50.83		**	0.437				
Butylbenzylphthalate	1	0		12.23	44.81	50	20	0.01	0.507	0.454	10.39	
4,4'-DDT	1	0		12.34	47.76		**	0.383				
3,3'-Dichlorobenzidine	1	0		12.88	51.03	50	20	0.01	0.466	0.476	2.06	
Benzo[a]anthracene	1	0		12.91	46.57	50	20	0.8	1.200	1.118	6.86	
Chrysene	1	0		12.95	45.69	50	20	0.7	1.182	1.080	8.61	
bis(2-Ethylhexyl)phthalate	1	0		12.91	44.91	50	20	0.01	0.724	0.650	10.18	
Perylene-d12	1	0	I	14.59	40.00	40	**			0.000	0.00	
Di-n-octylphthalate	1	0		13.67	43.43	50	20	0.01	1.071	0.958	13.15	
Benzo[b]fluoranthene	1	0		14.15	46.97	50	20	0.7	1.103	1.036	6.07	
Benzo[k]fluoranthene	1	0		14.18	45.70	50	20	0.7	1.085	0.992	8.59	
Benzo[a]pyrene	1	0		14.53	47.74	50	20	0.7	1.037	0.990	4.52	
Indeno[1,2,3-cd]pyrene	1	0		16.01	46.98	50	20	0.5	1.231	1.157	6.04	
Dibenzof[a,h]anthracene	1	0		16.01	49.19	50	20	0.4	1.039	1.022	1.62	
Benzo[g,h,i]perylene	1	0		16.41	47.25	50	20	0.5	1.024	0.967	5.50	

S-Surrogate Compound
N/O or N/Q - Not applicable for this run

I-Internal Standard Compound
C1-Compound %Diff exceeds limits

** - No limit specified in method

Form7
Continuing Calibration

Calibration Name: CAL BNA@50PPM
Cont Calibration Date/Time 9/21/2021 10:28:00

Data File: 9M108408.D
Method: EPA 8270E

Instrument: GCMS 9

TxtCompd:	Col#	Multi Num	Type	RT	Conc	Conc Exp	Lo Lim	MIN RF	Initial RF	RF	%Diff	Flag
Toluene Diisocyanate	1	100		0.00	0.00	50	**			0.000	100.00	
1,4-Dioxane-d8	1	100		0.00	0.00	40	**			0.000	100.00	
Endrin	1	100		0.00	0.00	50	**			0.000	100.00	
2,2'-oxybis-(1-Chloropropane)	1	100		0.00	0.00	50	**			0.000	100.00	
Methoxychlor	1	100		0.00	0.00	10	**			0.000	100.00	
Heptachlor epoxide	1	100		0.00	0.00	10	**			0.000	100.00	
1,4-Dioxane-d8-Surro	1	100		0.00	0.00	40	**			0.000	100.00	
Heptachlor gamma-BHC	1	100		0.00	0.00	10	**			0.000	100.00	
Dimethylnaphthalenes (Total)	1	100		0.00	0.00	50	**	1.072		0.000	100.00	
Diaminotoluene Dihydrochloride	1	100		0.00	0.00	50	**			0.000	100.00	
Methylnaphthalenes (Total)	1	100		0.00	0.00	100	**	0.657		0.000	100.00	
4-Methylphenol	1	100		0.00	0.00	50	**	0.6		0.000	100.00	
2,4 Diaminotoluene	1	100		0.00	0.00	50	**			0.000	100.00	

S-Surrogate Compound
N/O or N/Q - Not applicable for this run

I-Internal Standard Compound
CI-Compound %Diff exceeds limits

** - No limit specified in method

Note: 8260/8270 limits are compared against the %DIFF/R.F.
DDC Project No. 11142048 compared against the concentration found in HAZ. - 286

625 limits are compared against the %DIFF.
524.2 limits are compared against the concentration found in HAZ. - 286
Version Date: May 16, 2022

Form 7
Continuing Calibration

Calibration Name: CAL BNA@50PPM
Cont Calibration Date/Time 9/21/2021 10:26:00

Data File: 5M117935.D
Method: EPA 8270E

Instrument: GCMS 5

TxtCompd:	Col#	Multi Num	Type	RT	Conc	Conc Exp	Lo Lim	MIN RF	Initial RF	RF	%Diff	Flag
1,4-Dioxane-d8(INT)	1	0	I	2.59	40.00	40	**			0.000	0.00	
1,4-Dioxane	1	0		2.63	49.60	50	**	0.883	0.898	0.898	0.80	
Pyridine	1	0		3.08	48.82	50	**	1.893	1.848	1.848	2.37	
N-Nitrosodimethylamine	1	0		3.03	49.70	50	**	1.404	1.396	1.396	0.61	
2-Fluorophenol	1	0	S	4.61	49.17	50	**	1.435	1.411	1.411	1.67	
Benzaldehyde	1	0		5.44	48.32	50	20	0.01	1.358	1.312	3.36	
Aniline	1	0		5.53	46.31	50	**	2.246	2.081	2.081	7.37	
Pentachloroethane	1	0		5.58	47.62	50	**	0.05	0.518	0.493	4.75	
bis(2-Chloroethyl)ether	1	0		5.59	47.32	50	20	0.7	1.555	1.471	5.37	
Phenol-d5	1	0	S	5.49	48.69	50	**	1.718	1.674	1.674	2.61	
Phenol	1	0		5.51	48.20	50	20	0.8	2.081	2.006	3.60	
2-Chlorophenol	1	0		5.64	48.02	50	20	0.8	1.548	1.487	3.95	
N-Decane	1	0		5.67	47.74	50	**	0.05	1.367	1.306	4.51	
1,3-Dichlorobenzene	1	0		5.76	48.14	50	**	1.768	1.702	1.702	3.73	
1,4-Dichlorobenzene-d4	1	0	I	5.82	40.00	40	**			0.000	0.00	
1,4-Dichlorobenzene	1	0		5.83	49.96	50	20		1.413	1.412	0.09	
1,2-Dichlorobenzene	1	0		5.96	50.21	50	**	1.324	1.329	1.329	0.43	
Benzyl alcohol	1	0		5.93	51.56	50	**	0.759	0.783	0.783	3.11	
bis(2-chloroisopropyl)ether	1	0		6.04	49.37	50	20	0.01	1.292	1.276	1.26	
2-Methylphenol	1	0		6.01	51.35	50	20	0.7	1.076	1.105	2.70	
Acetophenone	1	0		6.14	50.78	50	20	0.01	1.634	1.659	1.56	
Hexachloroethane	1	0		6.23	48.30	50	20	0.3	0.518	0.500	3.41	
N-Nitroso-di-n-propylamine	1	0		6.14	50.67	50	20	0.5	0.787	0.797	1.33	
3&4-Methylphenol	1	0		6.14	51.74	50	20		1.067	1.105	3.48	
Naphthalene-d8	1	0	I	6.82	40.00	40	**			0.000	0.00	
Nitrobenzene-d5	1	0	S	6.27	25.85	25	**	0.136	0.141	0.141	3.41	
Nitrobenzene	1	0		6.28	50.42	50	20	0.2	0.322	0.325	0.84	
Isophorone	1	0		6.47	51.16	50	20	0.4	0.575	0.588	2.32	
2-Nitrophenol	1	0		6.53	53.27	50	20	0.1	0.157	0.168	6.55	
2,4-Dimethylphenol	1	0		6.55	52.63	50	20	0.2	0.295	0.310	5.26	
Benzoic Acid	1	0		6.61	43.90	50	**	0.198	0.161	0.161	12.20	
bis(2-Chloroethoxy)methane	1	0		6.63	49.68	50	20	0.3	0.346	0.344	0.64	
2,4-Dichlorophenol	1	0		6.71	53.19	50	20	0.2	0.250	0.266	6.37	
1,2,4-Trichlorobenzene	1	0		6.78	50.78	50	**	0.300	0.305	0.305	1.55	
Naphthalene	1	0		6.84	50.76	50	20	0.7	0.932	0.946	1.51	
4-Chloroaniline	1	0		6.87	51.49	50	20	0.01	0.347	0.357	2.98	
Hexachlorobutadiene	1	0		6.92	51.67	50	20	0.01	0.183	0.189	3.34	
Caprolactam	1	0		7.15	52.63	50	20	0.01	0.092	0.094	5.26	
4-Chloro-3-methylphenol	1	0		7.23	52.51	50	20	0.2	0.256	0.269	5.01	
2-Methylnaphthalene	1	0		7.37	51.34	50	**	0.4	0.602	0.618	2.68	
1-Methylnaphthalene	1	0		7.45	50.97	50	**	0.4	0.571	0.583	1.95	
Methylnaphthalenes	1	0		7.37	102.46	50	**			1.197	104.91	
1,1'-Biphenyl	1	0		7.75	51.60	50	20	0.01	0.716	0.739	3.20	
Acenaphthene-d10	1	0	I	8.25	40.00	40	**			0.000	0.00	
1,2,4,5-Tetrachlorobenzene	1	0		7.50	51.86	50	20	0.01	0.598	0.621	3.72	
Hexachlorocyclopentadiene	1	0		7.49	51.61	50	20	0.05	0.321	0.331	3.23	
2,4,6-Trichlorophenol	1	0		7.59	51.25	50	20	0.2	0.373	0.382	2.50	
2,4,5-Trichlorophenol	1	0		7.62	51.53	50	20	0.2	0.393	0.405	3.06	
2-Fluorobiphenyl	1	0	S	7.66	25.63	25	**	1.302	1.334	1.334	2.51	
2-Chloronaphthalene	1	0		7.77	50.17	50	20	0.8	1.115	1.118	0.34	
1,4-Dimethylnaphthalene	1	0		8.05	50.80	50	**	0.833	0.847	0.847	1.61	
Dimethylnaphthalenes	1	0		8.05	50.80	50	20			0.847	1.61	

S-Surrogate Compound
N/O or N/Q - Not applicable for this run

I-Internal Standard Compound
CI-Compound %Diff exceeds limits

** - No limit specified in method

Page 1 of 3

Note: 8260/8270 limits are compared against the %DIFF/R.F.
DDC Project No. HWK2048 limits are compared against the concentration found in HAZ. - 287

625 limits are compared against the %DIFF.
524.2 limits are compared against the concentration found in HAZ. - 287
Version: 1.0
Date: May 16, 2022

Form7
Continuing Calibration

Calibration Name: CAL BNA@50PPM
Cont Calibration Date/Time 9/21/2021 10:26:00

Data File: SM117935.D
Method: EPA 8270E

Instrument: GCMS 5

TxtCompd:	Co#	Multi Num	Type	RT	Conc	Conc Exp	Lo Lim	MIN RF	Initial RF	RF	%Diff	Flag
Diphenyl Ether	1	0		7.83	50.73	50	**	0.789	0.801	1.45		
2-Nitroaniline	1	0		7.85	51.88	50	20	0.01	0.362	0.375	3.76	
Coumarin	1	0		8.04	52.33		**	0.412				
Acenaphthylene	1	0		8.13	51.43	50	20	0.9	1.602	1.647	2.85	
Dimethylphthalate	1	0		8.00	51.31	50	20	0.01	1.260	1.293	2.62	
2,6-Dinitrotoluene	1	0		8.06	53.73	50	20	0.2	0.269	0.290	7.46	
Acenaphthene	1	0		8.28	51.35	50	20	0.9	1.067	1.096	2.70	
3-Nitroaniline	1	0		8.20	53.44	50	20	0.01	0.295	0.316	6.88	
2,4-Dinitrophenol	1	0		8.30	49.55	50	20	0.2	0.152	0.144	0.91	
Dibenzofuran	1	0		8.44	50.26	50	20	0.8	1.599	1.607	0.53	
2,4-Dinitrotoluene	1	0		8.41	50.30	50	20	0.2	0.369	0.388	0.61	
4-Nitrophenol	1	0		8.33	51.52	50	20	0.01	0.220	0.237	3.05	
2,3,4,6-Tetrachlorophenol	1	0		8.54	54.08	50	20	0.01	0.333	0.361	8.15	
Fluorene	1	0		8.76	51.58	50	20	0.9	1.234	1.274	3.17	
4-Chlorophenyl-phenylether	1	0		8.75	50.58	50	20	0.4	0.632	0.639	1.15	
Diethylphthalate	1	0		8.63	51.45	50	20	0.01	1.209	1.244	2.89	
4-Nitroaniline	1	0		8.77	52.68	50	20	0.01	0.314	0.331	5.35	
Atrazine	1	0		9.39	53.62	50	20	0.01	0.368	0.394	7.25	
Phenanthrene-d10	1	0	I	9.72	40.00	40	**			0.000	0.00	
4,6-Dinitro-2-methylphenol	1	0		8.79	49.75	50	20	0.01	0.106	0.113	0.50	
n-Nitrosodiphenylamine	1	0		8.86	50.78	50	20	0.01	0.545	0.553	1.57	
2,4,6-Tribromophenol	1	0	S	8.99	53.10	50	**	0.095	0.101	0.101	6.20	
1,2-Diphenylhydrazine	1	0		8.90	48.35	50	**	0.641	0.620	0.620	3.30	
4-Bromophenyl-phenylether	1	0		9.24	52.10	50	20	0.1	0.200	0.208	4.19	
Hexachlorobenzene	1	0		9.30	50.43	50	20	0.1	0.217	0.219	0.87	
N-Octadecane	1	0		9.57	52.59	50	**	0.05	0.308	0.324	5.17	
Pentachlorophenol	1	0		9.50	50.55	50	20	0.05	0.129	0.140	1.10	
Phenanthrene	1	0		9.74	50.96	50	20	0.7	0.941	0.959	1.93	
Anthracene	1	0		9.80	51.55	50	20	0.7	0.951	0.980	3.09	
Carbazole	1	0		9.97	52.18	50	20	0.01	0.859	0.896	4.36	
Di-n-butylphthalate	1	0		10.34	50.73	50	20	0.01	0.952	1.053	1.45	
Fluoranthene	1	0		11.07	52.60	50	20	0.6	1.045	1.099	5.21	
Chrysene-d12	1	0	I	12.77	40.00	40	**			0.000	0.00	
Pyrene	1	0		11.34	51.16	50	20	0.6	1.107	1.133	2.32	
Benzidine	1	0		11.23	50.53	50	**	0.610	0.656	0.656	1.07	
Terphenyl-d14	1	0	S	11.52	25.55	25	**	0.604	0.617	0.617	2.20	
4,4'-DDE	1	0		11.45	50.75		**	0.277				
4,4'-DDD	1	0		11.85	53.33		**	0.441				
Butylbenzylphthalate	1	0		12.11	51.53	50	20	0.01	0.443	0.477	3.06	
4,4'-DDT	1	0		12.21	52.54		**	0.380				
3,3'-Dichlorobenzidine	1	0		12.73	49.20	50	20	0.01	0.393	0.415	1.60	
Benzo[a]anthracene	1	0		12.76	51.24	50	20	0.8	1.080	1.106	2.48	
Chrysene	1	0		12.80	50.31	50	20	0.7	1.061	1.068	0.62	
bis(2-Ethylhexyl)phthalate	1	0		12.80	51.55	50	20	0.01	0.621	0.665	3.11	
Perylene-d12	1	0	I	14.39	40.00	40	**			0.000	0.00	
Di-n-octylphthalate	1	0		13.55	50.29	50	20	0.01	0.907	0.986	0.58	
Benzo[b]fluoranthene	1	0		13.97	52.87	50	20	0.7	0.943	0.997	5.75	
Benzo[k]fluoranthene	1	0		14.00	50.04	50	20	0.7	0.950	0.951	0.07	
Benzo[a]pyrene	1	0		14.33	52.46	50	20	0.7	0.886	0.930	4.92	
Indeno[1,2,3-cd]pyrene	1	0		15.71	51.57	50	20	0.5	1.050	1.083	3.13	
Dibenzo[a,h]anthracene	1	0		15.73	51.49	50	20	0.4	0.890	0.917	2.99	
Benzo[g,h,i]perylene	1	0		16.08	50.34	50	20	0.5	0.886	0.892	0.67	

S-Surrogate Compound
N/O or N/Q - Not applicable for this run

I-Internal Standard Compound
CI-Compound %Diff exceeds limits

** - No limit specified in method

Form7
Continuing Calibration

Calibration Name: CAL BNA@50PPM
Cont Calibration Date/Time 9/21/2021 10:26:00

Data File: 5M117935.D
Method: EPA 8270E

Instrument: GCMS 5

TxtCompd:	Co#	Multi Num	Type	RT	Conc	Conc Exp	Lo Lim	MIN RF	Initial RF	RF	%Diff	Flag
1,4-Dioxane-d8	1	100		0.00	0.00	40	**			0.000	100.00	
Diaminotoluene Dihydrochloride	1	100		0.00	0.00	50	**			0.000	100.00	
Toluene Diisocyanate	1	100		0.00	0.00	50	**			0.000	100.00	
Methylnaphthalenes (Total)	1	100		0.00	0.00	100	**	0.584		0.000	100.00	
Methoxychlor	1	100		0.00	0.00	10	**			0.000	100.00	
Heptachlor epoxide	1	100		0.00	0.00	10	**			0.000	100.00	
gamma-BHC	1	100		0.00	0.00	10	**			0.000	100.00	
2,4 Diaminotoluene	1	100		0.00	0.00	50	**			0.000	100.00	
Endrin	1	100		0.00	0.00	50	**			0.000	100.00	
1,4-Dioxane-d8-Surro	1	100		0.00	0.00	40	**			0.000	100.00	
2,2'-oxybis-(1-Chloropropane)	1	100		0.00	0.00	50	**			0.000	100.00	
Dimethylnaphthalenes (Total)	1	100		0.00	0.00	50	**	0.833		0.000	100.00	
4-Methylphenol	1	100		0.00	0.00	50	**	0.6		0.000	100.00	
Heptachlor	1	100		0.00	0.00	10	**			0.000	100.00	

S-Surrogate Compound
N/O or N/Q - Not applicable for this run

I-Internal Standard Compound
CI-Compound %Diff exceeds limits

** - No limit specified in method

Note: 8260/8270 limits are compared against the %DIFF/R.F.
DDC Project No. 111142048 compared against the concentration found in HAZ. - 289

625 limits are compared against the %DIFF.
524.2 limits are compared against the %DIFF.
Version Date: May 16, 2022

FORM8

Internal Standard Areas
Evaluation Std Data File: 9M106806.D
Method: EPA 8270E

Analysis Date/Time: 07/22/21 12:34
Lab File ID: CAL BNA@50PPM

	11		12		13		14		15		16		17	
Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	
Eval File Area/RT:	51389	2.75	98311	5.93	392413	6.94	190422	8.39	360349	9.87	353366	12.94	381938	14.62
Eval File Area Limit:	25694-102778		49156-196622		196206-784826		95211-380844		180174-720698		176683-706732		190969-763876	
Eval File RT Limit:	2.25-3.25		5.43-6.43		6.44-7.44		7.89-8.89		9.37-10.37		12.44-13.44		14.12-15.12	

Data File	Sample#	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT		
9M106798.D	CAL BNA@10PPM	51059	2.75	99547	5.93	398526	6.94	199498	8.38	379026	9.86	368887	12.92	402654	14.57
9M106799.D	CAL BNA@2PPM	51340	2.75	99039	5.93	402549	6.94	199079	8.38	384548	9.86	364748	12.92	396589	14.57
9M106800.D	CAL BNA@196PPM	50269	2.75	94744	5.94	373329	6.94	181517	8.39	343596	9.87	344149	12.94	358965	14.58
9M106801.D	CAL BNA@160PPM	51800	2.75	99395	5.94	393989	6.94	191362	8.39	363226	9.87	363941	12.94	380042	14.57
9M106802.D	CAL BNA@120PPM	52107	2.75	101515	5.94	401115	6.94	193522	8.39	366875	9.87	359287	12.94	383050	14.58
9M106803.D	CAL BNA@80PPM	51984	2.75	99464	5.93	399477	6.94	194269	8.39	365747	9.87	362107	12.93	388753	14.59
9M106804.D	CAL BNA@20PPM	50496	2.75	98546	5.93	393787	6.94	192348	8.39	364982	9.86	354628	12.93	385243	14.60
9M106805.D	CAL BNA@0.5PPM	56168	2.75	111215	5.93	453020	6.94	221161	8.39	425129	9.87	402382	12.92	439261	14.58
9M106806.D	CAL BNA@50PPM	51389	2.75	98311	5.93	392413	6.94	190422	8.39	360349	9.87	353366	12.94	381938	14.62
9M106807.D	ICV BNA@50PPM	52035	2.75	104976	5.93	421915	6.94	206700	8.39	397878	9.87	399054	12.93	423857	14.59

11 =	1,4-Dioxane-d8(NT)	14 =	Acenaphthene-d10	17 =	Pervlene-d12	625/8270	Internal Standard concentration = 40 mg/L (in final extract)
12 =	1,4-Dichlorobenzene-d4	15 =	Phenanthrene-d10			624/8260	Internal Standard concentration = 30ug/L
13 =	Naphthalene-d8	16 =	Chrysene-d12			524	Internal Standard concentration = 5ug/L

Internal Standard Areas

Upper Limit = + 100% of internal standard area from daily cal or mid pt.
Lower Limit = - 50% of internal standard area from daily cal or mid pt.
Retention Times: Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.

Flags:

A - Indicates the compound failed the internal standard area criteria
R - Indicates the compound failed the internal standard retention time criteria.

FORM 8

Internal Standard Areas

Evaluation Std Data File: 7M116599.D Method: EPA 8270E

Analysis Date/Time: 09/20/21 12:43

Lab File ID: CAL BNA@50PPM

Eval File	11		12		13		14		15		16		17	
	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT
Eval File Area/RT:	167652	2.73	270896	5.92	1086050	6.94	557846	8.40	1091800	9.90	947569	12.99	1129101	14.67
Eval File Area Limit:	83826-335304		135448-541792		543025-2172100		278923-1115692		545900-2183600		473784-1895138		564550-2258202	
Eval File Rt Limit:	2.23-3.23		5.42-6.42		6.44-7.44		7.9-8.9		9.4-10.4		12.49-13.49		14.17-15.17	

Data File	Sample#	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT
7M116591.D	CAL BNA@2PPM	152234	2.72	270105	5.92	1087196	6.94	547810	8.39	1031030	9.89	942048	12.98
7M116592.D	CAL BNA@10PPM	132089	2.72	228383	5.92	914683	6.93	453083	8.39	846722	9.89	785231	12.98
7M116593.D	CAL BNA@196PPM	134590	2.72	220145	5.92	930028	6.94	481326	8.40	936996	9.90	740317	13.00
7M116594.D	CAL BNA@160PPM	138512	2.72	238172	5.92	983210	6.94	511279	8.40	987758	9.90	811371	13.00
7M116595.D	CAL BNA@120PPM	141565	2.72	242052	5.92	993369	6.94	516888	8.40	1003240	9.90	847787	12.99
7M116596.D	CAL BNA@80PPM	165066	2.72	282385	5.92	1154092	6.94	600681	8.40	1159076	9.90	1009683	12.99
7M116597.D	CAL BNA@20PPM	141618	2.72	252651	5.92	1003165	6.93	505530	8.40	956946	9.89	866183	12.99
7M116598.D	CAL BNA@0.5PPM	154546	2.72	279936	5.92	1119636	6.94	563416	8.40	1057865	9.90	953446	12.99
7M116599.D	CAL BNA@50PPM	167652	2.73	270896	5.92	1086050	6.94	557846	8.40	1091800	9.90	947569	12.99
7M116600.D	ICV BNA@50PPM	147927	2.72	255054	5.92	1016666	6.94	521666	8.40	1009561	9.90	881570	12.99

11 =	1,4-Dioxane-d8(INT)	14 =	Acenaphthene-d10	17 =	Perylene-d12	624/8270	Internal Standard concentration = 40 mg/L (in final extract)
12 =	1,4-Dichlorobenzene-d4	15 =	Phenanthrene-d10			624/8260	Internal Standard concentration = 30ug/L
13 =	Naphthalene-d8	16 =	Chrysene-d12			524	Internal Standard concentration = 5ug/L

Internal Standard Areas

Upper Limit = + 100% of internal standard area from daily cal or mid pt.

Lower Limit = - 50% of internal standard area from daily cal or mid pt.

Flags:

A - Indicates the compound failed the internal standard area criteria

R - Indicates the compound failed the internal standard retention time criteria.

Retention Times:

Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.

FORM8

Internal Standard Areas

Evaluation Std Data File: 5M117928.D

Analysis Date/Time: 09/20/21 11:52

Lab File ID: CAL BNA@50PPM

Method: EPA 8270E

Eval File Area/RT:	11		12		13		14		15		16		17	
	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT
46603-186412	93206	2.60	57762-231050	5.82	222425-889700	6.82	235369	8.25	459673	9.71	461393	12.77	502985	14.39
Eval File Area Limit:														
Eval File Rt Limit:	2.1-3.1		5.32-6.32		6.32-7.32		7.75-8.75		9.21-10.21		12.27-13.27		13.89-14.89	

Data File	Sample#	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT
5M117920.D	CAL BNA@10PPM	84617	2.59	106177	5.82	403646	6.82	213499	8.25	416904	9.71	400257	12.77	439744	14.39
5M117921.D	CAL BNA@2PPM	103990	2.60	135074	5.82	531816	6.82	277631	8.25	544388	9.71	542888	12.77	597404	14.39
5M117922.D	CAL BNA@196PPM	87802	2.60	103083	5.82	408405	6.83	218491	8.26	427616	9.72	396971	12.78	446038	14.40
5M117923.D	CAL BNA@160PPM	87463	2.59	112004	5.82	433954	6.83	225273	8.26	443392	9.72	426074	12.78	483205	14.39
5M117924.D	CAL BNA@120PPM	65672	2.58	85746	5.82	337247	6.83	176687	8.25	333907	9.72	327550	12.77	372469	14.39
5M117925.D	CAL BNA@80PPM	89227	2.59	114156	5.82	429312	6.83	225918	8.25	445979	9.72	424859	12.77	467974	14.39
5M117927.D	CAL BNA@0.5PPM	70621	2.60	94622	5.82	367122	6.82	194700	8.25	371753	9.71	369264	12.77	402152	14.39
5M117928.D	CAL BNA@50PPM	93206	2.60	115525	5.82	444850	6.82	235369	8.25	459673	9.71	461393	12.77	502985	14.39
5M117929.D	CAL BNA@20PPM	87051	2.59	116400	5.82	453165	6.82	232668	8.25	448988	9.71	452399	12.77	485726	14.39
5M117930.D	ICV BNA@50PPM	60034	2.59	82840	5.82	324799	6.82	168321	8.25	331734	9.72	332793	12.77	358307	14.39
5M117931.D	WMBE94967	92808	2.59	121927	5.81	462764	6.82	237868	8.25	463783	9.71	437492	12.77	477514	14.39
5M117932.D	WMBE94967(MS)	77636	2.60	99153	5.82	381943	6.83	193227	8.25	378686	9.72	365032	12.77	397964	14.39
5M117933.D	AD26041-001	59300	2.59	81900	5.82	321803	6.82	160747	8.25	320100	9.71	303025	12.76	333691	14.38

11 =	1,4-Dioxane-d8(INT)	14 =	Acenaphthene-d10
12 =	1,4-Dichlorobenzene-d4	15 =	Phenanthrene-d10
13 =	Naphthalene-d8	16 =	Chrysene-d12
		17 =	Perylene-d12

624/8270 Internal Standard concentration = 40 mg/L (in final extract)
 624/8260 Internal Standard concentration = 30ug/L
 524 Internal Standard concentration = 5ug/L

Internal Standard Areas

Upper Limit = + 100% of internal standard area from daily cal or mid pt.

Lower Limit = - 50% of internal standard area from daily cal or mid pt.

Flags:

A - Indicates the compound failed the internal standard area criteria

R - Indicates the compound failed the internal standard retention time criteria.

Retention Times:

Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.

FORM8

Internal Standard Areas
Evaluation Std Data File: 7M116602.D
Analysis Date/Time: 09/21/21 09:58
Method: EPA 8270E

Lab File ID: CAL BNA@50PPM

Eval File Area/RT	11		12		13		14		15		16		17	
	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT
161197	2.73	262823	5.92	1049250	6.95	542701	8.41	1060153	9.90	933832	12.99	1112628	14.69	
80598-322394			131412-525646		524625-2098500		271350-1085402		530076-2120306		466916-1867664		556314-2225256	
Eval File RT Limit:	2.23-3.23		5.42-6.42		6.45-7.45		7.91-8.91		9.4-10.4		12.49-13.49		14.19-15.19	

Data File	Sample#	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT
7M116603.D	SMB94976	134430	2.72	207634	5.92	836707	6.95	407873	8.42	757336	9.90	650828	12.99	714128	14.70
7M116604.D	SMB94976(MS)	128916	2.71	190827	5.92	753078	6.95	380618	8.41	723924	9.90	618910	12.99	708649	14.67
7M116605.D	OMB94972	133391	2.73	227860	5.92	921499	6.95	452591	8.42	851839	9.91	742079	13.00	812240	14.70
7M116606.D	94976	125597	2.71	211961	5.92	830306	6.94	404944	8.40	754180	9.89	642062	12.98	699568	14.68
7M116607.D	AD26096-001(3X)	137299	2.72	234182	5.92	843845	6.94	367796	8.40	610720	9.91	709254	12.99	855310	14.68
7M116608.D	AD25991-001	126669	2.72	117706A	5.95	471682A	6.96	413156	8.40	872292	9.89	808288	12.99	882482	14.67
7M116609.D	AD25976-009	110247	2.71	203556	5.92	802090	6.94	394587	8.40	731976	9.90	620979	12.99	679549	14.68
7M116610.D	AD25841-001	116598	2.72	214066	5.92	863426	6.94	420809	8.40	770641	9.89	664809	12.98	725716	14.67
7M116611.D	AD25598-002	104406	2.72	195886	5.92	776974	6.94	383379	8.40	712517	9.90	621980	12.98	683587	14.68
7M116612.D	AD25976-007	113837	2.72	209280	5.92	850339	6.94	411672	8.40	766800	9.89	638413	12.98	707909	14.67
7M116613.D	AD25916-010	125411	2.72	231712	5.92	914641	6.94	447046	8.40	821332	9.90	678010	12.99	762729	14.69
7M116614.D	AD25991-001(5X)	146414	2.73	169824	5.94	840884	6.94	467113	8.40	932035	9.89	784946	12.98	852525	14.66
7M116615.D	OMB94972	164658	2.73	287190	5.92	1129820	6.94	545007	8.40	1019891	9.90	871867	12.99	944446	14.67
7M116616.D	AD25995-004	110786	2.72	205159	5.92	810223	6.94	392875	8.40	715044	9.89	614348	12.99	712520	14.67
7M116617.D	AD25995-004(MS)	126350	2.71	226117	5.92	893485	6.94	445608	8.40	835573	9.89	689349	12.99	789180	14.67
7M116618.D	AD25995-004(MSD)	102193	2.72	192261	5.92	761017	6.94	381713	8.39	713630	9.89	583104	12.99	654670	14.67
7M116619.D	AD25991-001(MS)	126756	2.73	115027A	5.95	500592A	6.95	404660	8.40	833183	9.89	692666	12.99	777674	14.66
7M116620.D	AD25991-001(MSD)	124441	2.73	110884A	5.95	470844A	6.95	401741	8.40	846110	9.89	712849	12.99	800277	14.66
7M116621.D	AD25990-001	126594	2.72	241415	5.92	927016	6.93	282690	8.40	425310A	9.92	689193	13.00	844363	14.67
7M116622.D	AD26019-001	122734	2.73	234196	5.92	886364	6.94	308585	8.40	408005A	9.93	665905	13.01	821021	14.67
7M116623.D	AD26021-001	122070	2.72	237621	5.92	904644	6.93	244192A	8.40	389390A	9.93	664698	13.02	849345	14.67
7M116624.D	AD26022-001	128158	2.73	247075	5.92	894772	6.93	374324	8.40	431418A	9.92	714394	13.01	881915	14.67

11 = 1,4-Dioxane-d8(INT)
 12 = 1,4-Dichlorobenzene-d4
 13 = Naphthalene-d8

14 = Acenaphthene-d10
 15 = Phenanthrene-d10
 16 = Chrysene-d12

17 = Perylene-d12

628/8270 Internal Standard concentration = 40 mg/L (in final extract)
 624/8260 Internal Standard concentration = 30ug/L
 524 Internal Standard concentration = 5ug/L

Internal Standard Areas

Upper Limit = + 100% of internal standard area from daily cal or mid pt.
 Lower Limit = - 50% of internal standard area from daily cal or mid pt.

Flags:

A - Indicates the compound failed the internal standard area criteria
 R - Indicates the compound failed the internal standard retention time criteria.

Retention Times:

Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.

FORM

Internal Standard Areas
 Evaluation Std Data File: 9M108408.D
 Analysis Date/Time: 09/21/21 10:28
 Lab File ID: CAL BNA@50PPM
 Method: EPA 8270E

Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT
30747	2.71	68800	5.91	268425	6.92	144178	8.37	286898	9.85	295172	12.92
15374-61494		34400-137600		134212-536850		72089-288356		143449-573796		147586-590344	
Eval File Area Limit:											
Eval File RI Limit:	2.21-3.21	5.41-6.41	6.42-7.42	7.87-8.87	9.35-10.35	12.42-13.42	14.09-15.09				

Data File	Sample#	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT
9M108409.D	SMB94976	24971	2.69	51173	5.91	199616	6.92	111072	8.36	224256	9.84
9M108410.D	OMB94972	27050	2.71	59081	5.91	233259	6.92	127861	8.36	253638	9.84
9M108411.D	OMB94977	19049	2.71	40011	5.91	155256	6.92	86520	8.36	170890	9.84
9M108412.D	AD26049-001	25329	2.71	56574	5.91	219124	6.92	119607	8.36	223626	9.84
9M108413.D	AD25976-002	25188	2.70	56896	5.91	221693	6.92	117416	8.36	235996	9.84
9M108414.D	AD25954-001	22538	2.69	52939	5.91	205512	6.92	111363	8.36	218012	9.84
9M108415.D	AD25841-007	24275	2.70	54978	5.91	218043	6.92	117564	8.36	226808	9.84
9M108416.D	AD25841-008	24019	2.70	55500	5.91	216513	6.92	118471	8.36	226028	9.84
9M108417.D	AD25976-008(3X)	27705	2.71	63565	5.91	246612	6.92	135583	8.36	262276	9.84
9M108418.D	AD25976-006(3X)	27271	2.71	61465	5.91	235685	6.92	128734	8.36	249853	9.84
9M108419.D	AD25976-004(3X)	28330	2.71	63709	5.91	248122	6.92	131767	8.36	259741	9.84
9M108420.D	AD26096-001(3X)	33453	2.71	74631	5.91	284276	6.92	148951	8.36	275389	9.84
9M108421.D	AD26049-001(MS)	28772	2.71	63963	5.91	244152	6.92	129798	8.36	242931	9.84
9M108422.D	AD26049-001(MSD)	31609	2.71	72006	5.91	268632	6.92	133152	8.36	248054	9.84
9M108423.D	AD25995-002	28275	2.69	64897	5.91	252092	6.92	137990	8.36	251819	9.84
9M108424.D	AD25995-006	23179	2.70	53814	5.91	210911	6.92	112665	8.36	210175	9.84
9M108425.D	AD25598-003	26391	2.70	62720	5.91	238188	6.92	126586	8.36	232287	9.84
9M108426.D	AD26039-001(3X)	23746	2.72	57462	5.91	221040	6.92	123264	8.36	213418	9.85

11 =	1,4-Dioxane-d8(DNT)	14 =	Acenaphthene-d10
12 =	1,4-Dichlorobenzene-d4	15 =	Phenanthrene-d10
13 =	Naphthalene-d8	16 =	Chrysene-d12
		17 =	Perylene-d12
			625/8270 Internal Standard concentration = 40 mg/L (in final extract)
			624/8260 Internal Standard concentration = 30 ug/L
			524 Internal Standard concentration = 5ug/L

Internal Standard Areas

Upper Limit = + 100% of internal standard area from daily cal or mid pt.
 Lower Limit = - 50% of internal standard area from daily cal or mid pt.

Flags:

A - Indicates the compound failed the internal standard area criteria
 R - Indicates the compound failed the internal standard retention time criteria.

Retention Times:

Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.

FORMB

Internal Standard Areas

Evaluation Std Data File: 5M117935.D Method: EPA 8270E

Analysis Date/Time: 09/21/21 10:26

Lab File ID: CAL BNA@50PPM

Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT
11		12		13		14		15		16		17	
75639	2.59	92564	5.82	348451	6.82	183984	8.25	360738	9.72	353050	12.77	390971	14.39
Eval File Area/RT: 37820-151278		46282-185128		174226-696902		91992-367968		180369-721476		176525-706100		195486-781942	
Eval File Rt Limit: 2.09-3.09		5.32-6.32		6.32-7.32		7.75-8.75		9.22-10.22		12.27-13.27		13.89-14.89	

Data File	Sample#	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT
5M117936.D	WMB94984	63822	2.58	81864	5.81	313750	6.82	157682	8.25	304910	9.71	298082	12.77
5M117937.D	AD25976-011	47324	2.59	62698	5.82	242703	6.82	124511	8.25	244710	9.71	237987	12.76
5M117938.D	WMB94984(MS)	65658	2.60	89161	5.82	340379	6.83	172556	8.25	334300	9.72	330224	12.77
5M117939.D	AD25969-001(MS)	59177	2.60	74392	5.82	275913	6.83	135542	8.25	258769	9.72	250459	12.77
5M117940.D	AD25969-001(MSD)	63123	2.60	89138	5.82	333384	6.83	161409	8.25	312676	9.72	304645	12.77
5M117941.D	AD25969-001	44306	2.60	61798	5.82	231744	6.82	115934	8.25	217902	9.72	210467	12.77
5M117942.D	AD25969-002	42767	2.60	62875	5.82	245299	6.82	125870	8.25	240488	9.71	228026	12.77
5M117943.D	AD25969-003	63969	2.60	84186	5.82	332331	6.82	168650	8.25	314755	9.71	299446	12.77
5M117944.D	AD25969-004	69552	2.60	98898	5.82	371822	6.82	189864	8.25	346200	9.71	327886	12.77
5M117945.D	AD25969-005	45048	2.60	64239	5.82	250240	6.82	131066	8.25	256344	9.71	243412	12.76
5M117946.D	AD25969-006	44772	2.59	63080	5.82	244077	6.82	123727	8.25	236538	9.71	240878	12.76
5M117947.D	AD25969-007	43772	2.59	61694	5.82	235884	6.82	119200	8.25	232413	9.71	226755	12.77
5M117948.D	AD26083-019	45930	2.60	63271	5.82	246638	6.82	129479	8.25	246031	9.71	237277	12.76

11 =	1,4-Dioxane-d8(INT)	14 =	Acenaphthene-d10	17 =	Perylene-d12	625/8270 Internal Standard concentration = 40 mg/L (in final extract)
12 =	1,4-Dichlorobenzene-d4	15 =	Phenanthrene-d10			624/8260 Internal Standard concentration = 30ug/L
13 =	Naphthalene-d8	16 =	Chrysene-d12			524 Internal Standard concentration = 5ug/L

Internal Standard Areas

Upper Limit = + 100% of internal standard area from daily cal or mid pt.

Lower Limit = - 50% of internal standard area from daily cal or mid pt.

Flags:

A - Indicates the compound failed the internal standard area criteria

R - Indicates the compound failed the internal standard retention time criteria.

Retention Times:

Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.

PCB Data

Form1
ORGANICS PCB REPORT

Sample Number: AD25976-002
 Client Id: SB01 COMP
 Data File: 2G158218.D
 Analysis Date: 09/19/21 23:01
 Date Rec/Extracted: 09/14/21-09/17/21
 Column: DB-17/1701P 30M 0.32mm ID 0.25um film

Method: EPA 8082A
 Matrix: Soil
 Initial Vol: 20g
 Final Vol: 10ml
 Dilution: 1
 Solids: 88

		Units: mg/Kg					
Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
12674-11-2	Aroclor-1016	0.028	U	11097-69-1	Aroclor-1254	0.028	U
11104-28-2	Aroclor-1221	0.028	U	11096-82-5	Aroclor-1260	0.028	U
11141-16-5	Aroclor-1232	0.028	U	37324-23-5	Aroclor-1262	0.028	U
53469-21-9	Aroclor-1242	0.028	U	11100-14-4	Aroclor-1268	0.028	U
12672-29-6	Aroclor-1248	0.028	U	1336-36-3	Aroclor (Total)	0.028	U

Worksheet #: 609199

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out
J - Indicates an estimated value when a compound is detected at less than the specified detection limit.
d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

Data Path : G:\Gcdata\2021\GC_2\Data\09-19-21\
 Data File : 2G158218.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 19 Sep 2021 23:01
 Operator : MS/MLC/MC
 Sample : AD25976-002
 Misc : S,PCB
 ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
 Integration File signal 2: AUTOINT2.E
 Quant Time: Sep 20 11:38:47 2021
 Quant Method : G:\Gcdata\2021\GC_2\MethodQt\2G_C0919.M
 Quant Title : @GC_2,ug,608,8082
 QLast Update : Mon Sep 20 10:26:18 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul
 Signal #1 Phase : db-1701P Signal #2 Phase: db-17
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	pg#1	pg#2

Target Compounds						
1)TCMX-Surrogate	3.788	3.807	1586866	807030	123.863	124.024
45)DCB-Surrogate	9.892	10.631	1069089	728490	114.657m	115.683m

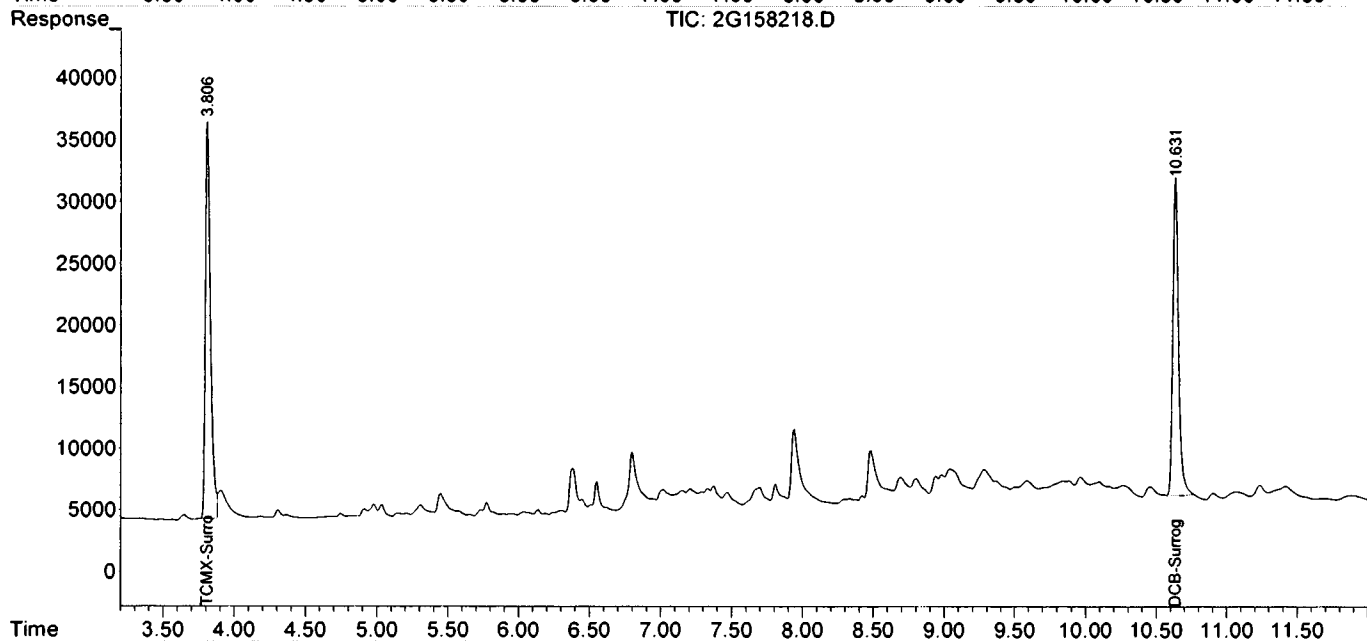
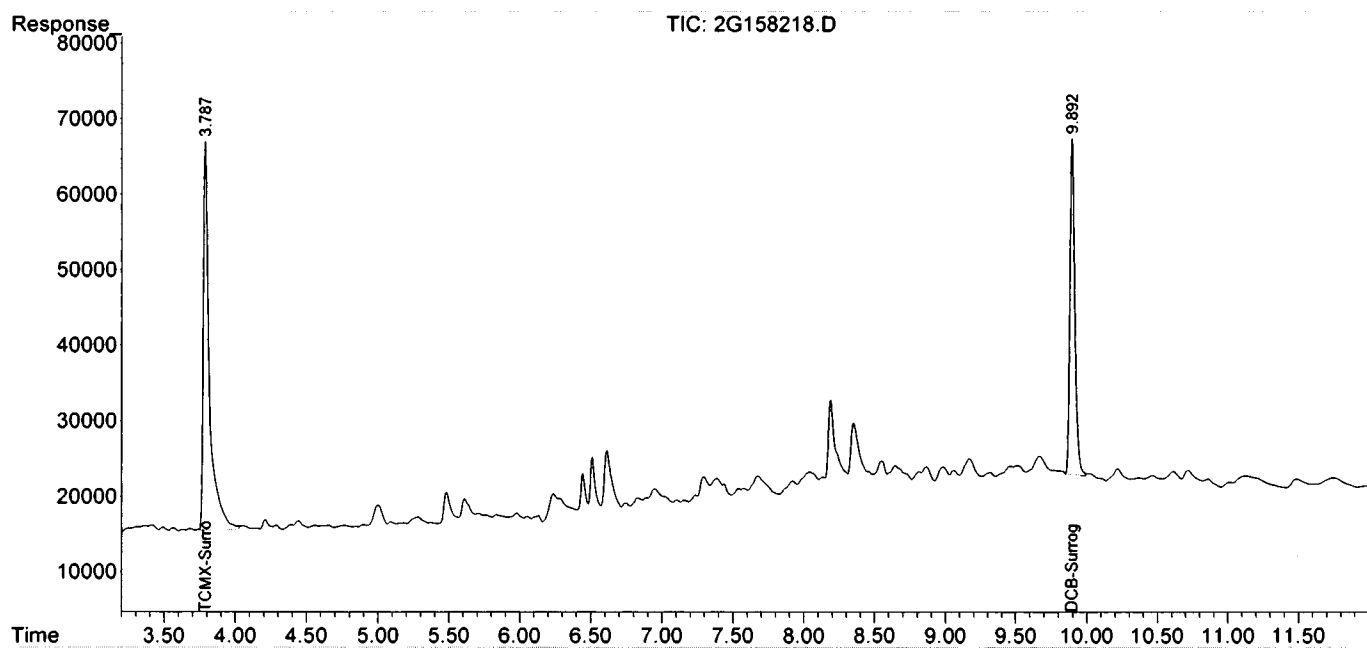
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.



Data Path : G:\Gcdata\2021\GC_2\Data\09-19-21\
Data File : 2G158218.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Sep 2021 23:01
Operator : MS/MLC/MC
Sample : AD25976-002
Misc : S,PCB
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
Integration File signal 2: AUTOINT2.E
Quant Time: Sep 20 11:38:47 2021
Quant Method : G:\Gcdata\2021\GC_2\MethodQt\2G_C0919.M
Quant Title : @GC_2,ug,608,8082
QLast Update : Mon Sep 20 10:26:18 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul
Signal #1 Phase : db-1701P Signal #2 Phase: db-17
Signal #1 Info : .32 Signal #2 Info : .32



Form1
ORGANICS PCB REPORT

Sample Number: AD25976-004
 Client Id: SB02 COMP
 Data File: 2G158219.D
 Analysis Date: 09/19/21 23:17
 Date Rec/Extracted: 09/14/21-09/17/21
 Column: DB-17/1701P 30M 0.32mm ID 0.25um film

Method: EPA 8082A
 Matrix: Soil
 Initial Vol: 20g
 Final Vol: 10ml
 Dilution: 1
 Solids: 83

Units: mg/Kg							
Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
12674-11-2	Aroclor-1016	0.030	U	11097-69-1	Aroclor-1254	0.030	U
11104-28-2	Aroclor-1221	0.030	U	11096-82-5	Aroclor-1260	0.030	U
11141-16-5	Aroclor-1232	0.030	U	37324-23-5	Aroclor-1262	0.030	U
53469-21-9	Aroclor-1242	0.030	U	11100-14-4	Aroclor-1268	0.030	U
12672-29-6	Aroclor-1248	0.030	U	1336-36-3	Aroclor (Total)	0.030	U

Worksheet #: 609199

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

*U - Indicates the compound was analyzed but not detected.**B - Indicates the analyte was found in the blank as well as in the sample.**E - Indicates the analyte concentration exceeds the calibration range of the instrument.**R - Retention Time Out**J - Indicates an estimated value when a compound is detected at less than the specified detection limit.**d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a**Chlordane (Total) is sum of a-Chlordane and y-Chlordane.*

Data Path : G:\Gcdata\2021\GC_2\Data\09-19-21\
 Data File : 2G158219.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 19 Sep 2021 23:17
 Operator : MS/MLC/MC
 Sample : AD25976-004
 Misc : S,PCB
 ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
 Integration File signal 2: AUTOINT2.E
 Quant Time: Sep 20 11:39:16 2021
 Quant Method : G:\Gcdata\2021\GC_2\MethodQt\2G_C0919.M
 Quant Title : @GC_2,ug,608,8082
 QLast Update : Mon Sep 20 10:26:18 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul
 Signal #1 Phase : db-1701P Signal #2 Phase: db-17
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	pg#1	pg#2

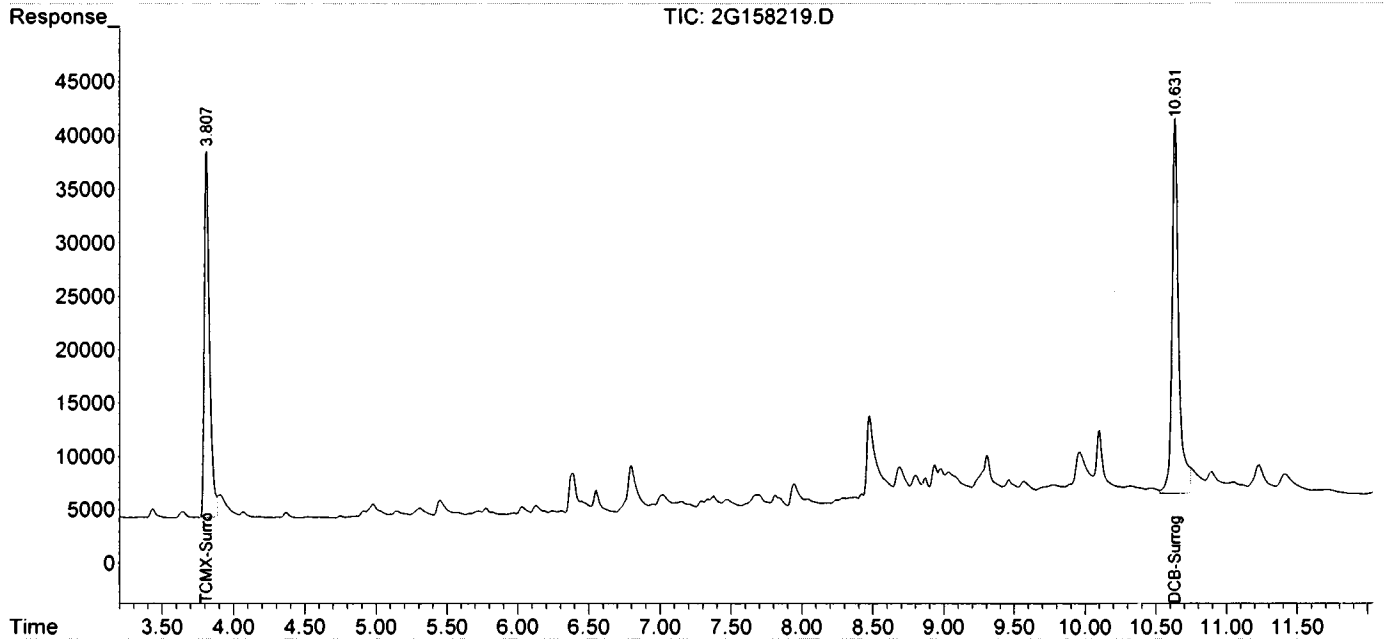
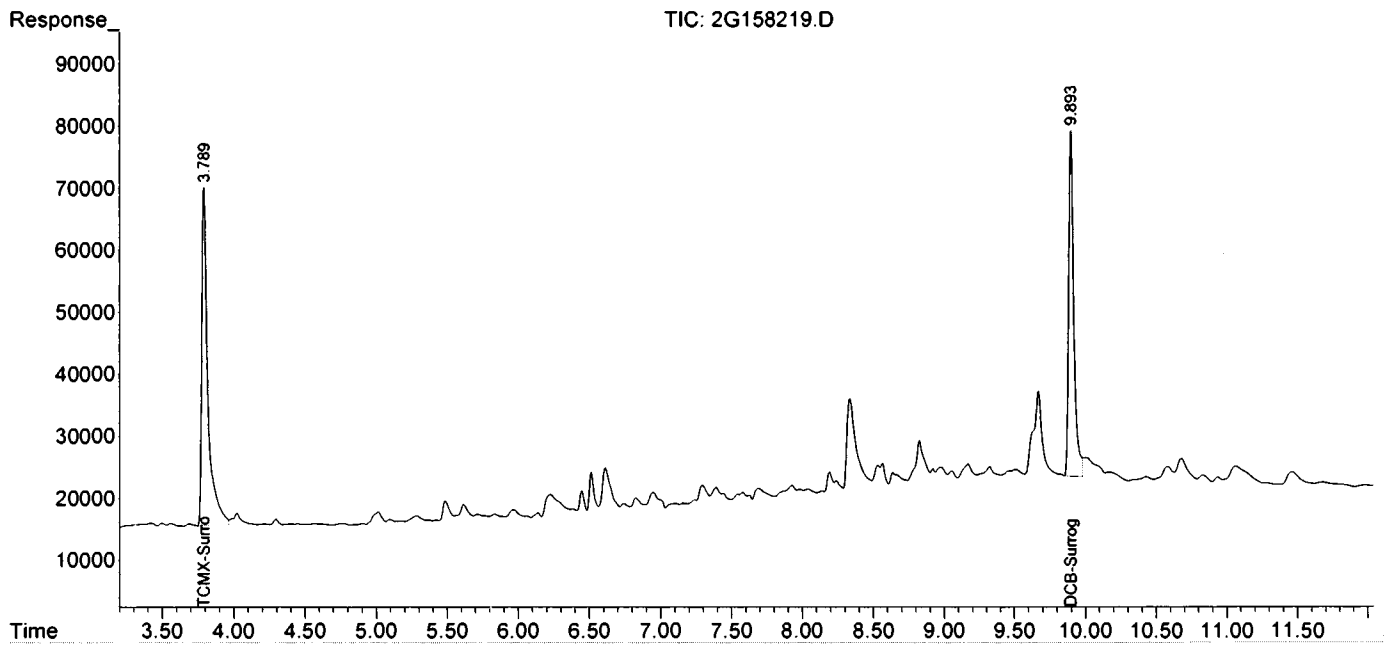
Target Compounds						
1)TCMX-Surrogate	3.790	3.808	1639096	860225	127.939	132.200
45)DCB-Surrogate	9.893	10.631	1407990	1142742	151.004m	181.466m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : G:\Gcdata\2021\GC_2\Data\09-19-21\
Data File : 2G158219.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Sep 2021 23:17
Operator : MS/MLC/MC
Sample : AD25976-004
Misc : S,PCB
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
Integration File signal 2: AUTOINT2.E
Quant Time: Sep 20 11:39:16 2021
Quant Method : G:\Gcdata\2021\GC_2\MethodQt\2G_C0919.M
Quant Title : @GC_2,ug,608,8082
QLast Update : Mon Sep 20 10:26:18 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul
Signal #1 Phase : db-1701P Signal #2 Phase: db-17
Signal #1 Info : .32 Signal #2 Info : .32



Form1
ORGANICS PCB REPORT

Sample Number: AD25976-006
 Client Id: SB03 COMP
 Data File: 3G130530.D
 Analysis Date: 09/20/21 00:05
 Date Rec/Extracted: 09/14/21-09/17/21
 Column: DB-17/1701P 30M 0.32mm ID 0.25um film

Method: EPA 8082A
 Matrix: Soil
 Initial Vol: 20g
 Final Vol: 10ml
 Dilution: 1
 Solids: 80

Units: mg/Kg							
Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
12674-11-2	Aroclor-1016	0.031	U	11097-69-1	Aroclor-1254	0.031	U
11104-28-2	Aroclor-1221	0.031	U	11096-82-5	Aroclor-1260	0.031	U
11141-16-5	Aroclor-1232	0.031	U	37324-23-5	Aroclor-1262	0.031	U
53469-21-9	Aroclor-1242	0.031	U	11100-14-4	Aroclor-1268	0.031	U
12672-29-6	Aroclor-1248	0.031	U	1336-36-3	Aroclor (Total)	0.031	U

Worksheet #: 609199

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out
J - Indicates an estimated value when a compound is detected at less than the specified detection limit.
d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a
Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

Data Path : G:\Gcdata\2021\GC_3\Data\09-19-21\
 Data File : 3G130530.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 20 Sep 2021 00:05
 Operator : MS/MLC/MC
 Sample : AD25976-006
 Misc : S,PCB
 ALS Vial : 31 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Sep 20 12:03:21 2021
 Quant Method : G:\GC\DATA\2021\GC_3\METHODQT\3G_C0719.M
 Quant Title : @GC_3,ug,608,8082
 QLast Update : Tue Jul 20 10:03:24 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul
 Signal #1 Phase : db-1701P Signal #2 Phase: db-17
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	pg#1	pg#2

Target Compounds						
1)TCMX-Surrogate	3.905	3.940	1533885	1775758	95.517	111.405
45)DCB-Surrogate	10.249	10.897	1311875	1748628	88.230	114.362 #

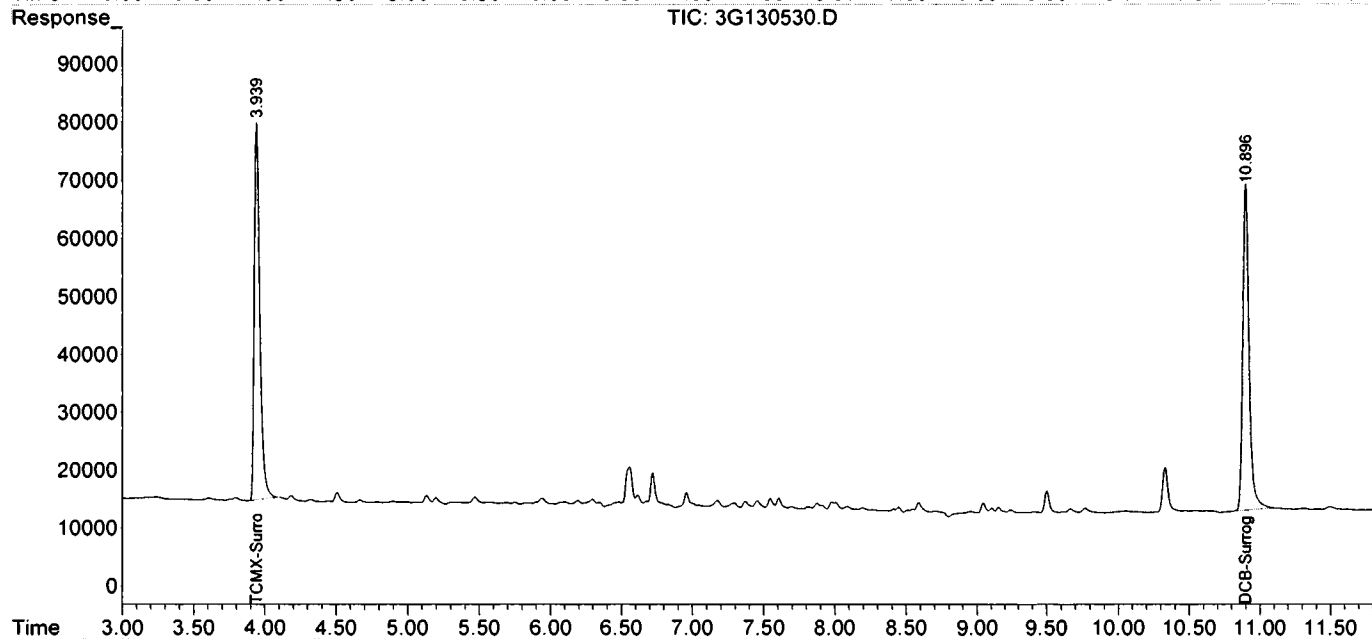
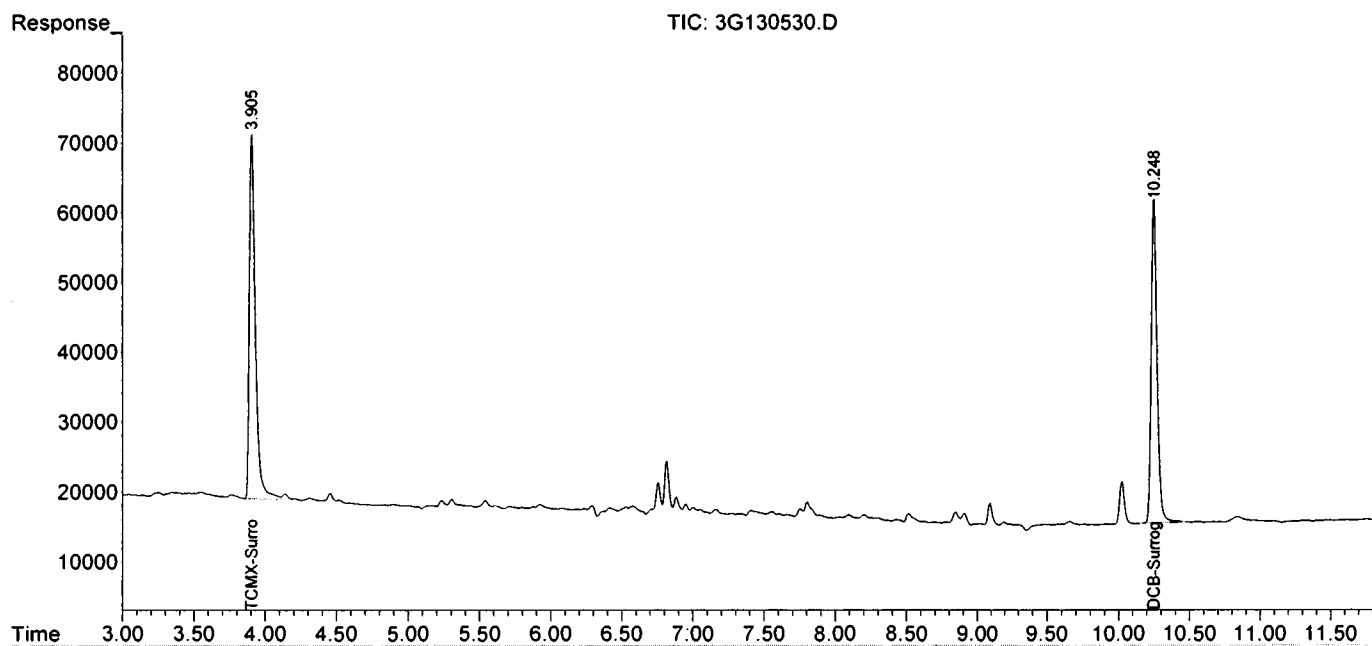
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.



Data Path : G:\Gcdata\2021\GC_3\Data\09-19-21\
 Data File : 3G130530.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 20 Sep 2021 00:05
 Operator : MS/MLC/MC
 Sample : AD25976-006
 Misc : S,PCB
 ALS Vial : 31 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Sep 20 12:03:21 2021
 Quant Method : G:\GC DATA\2021\GC_3\METHODQT\3G_C0719.M
 Quant Title : @GC_3,ug,608,8082
 QLast Update : Tue Jul 20 10:03:24 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul
 Signal #1 Phase : db-1701P Signal #2 Phase: db-17
 Signal #1 Info : .32 Signal #2 Info : .32



Form1
ORGANICS PCB REPORT

Sample Number: AD25976-007
 Client Id: SB04 GRAB
 Data File: 3G130529.D
 Analysis Date: 09/19/21 23:50
 Date Rec/Extracted: 09/14/21-09/17/21
 Column: DB-17/1701P 30M 0.32mm ID 0.25um film

Method: EPA 8082A
 Matrix: Soil
 Initial Vol: 20g
 Final Vol: 10ml
 Dilution: 1
 Solids: 80

		Units: mg/Kg					
Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
12674-11-2	Aroclor-1016	0.031	U	11097-69-1	Aroclor-1254	0.031	U
11104-28-2	Aroclor-1221	0.031	U	11096-82-5	Aroclor-1260	0.031	U
11141-16-5	Aroclor-1232	0.031	U	37324-23-5	Aroclor-1262	0.031	U
53469-21-9	Aroclor-1242	0.031	U	11100-14-4	Aroclor-1268	0.031	U
12672-29-6	Aroclor-1248	0.031	U	1336-36-3	Aroclor (Total)	0.031	U

Worksheet #: 609199

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

*U - Indicates the compound was analyzed but not detected.**B - Indicates the analyte was found in the blank as well as in the sample.**E - Indicates the analyte concentration exceeds the calibration range of the instrument.**R - Retention Time Out**J - Indicates an estimated value when a compound is detected at less than the specified detection limit.**d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a**Chlordane (Total) is sum of a-Chlordane and y-Chlordane.*

Data Path : G:\Gcdata\2021\GC_3\Data\09-19-21\
 Data File : 3G130529.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 19 Sep 2021 23:50
 Operator : MS/MLC/MC
 Sample : AD25976-007
 Misc : S,PCB
 ALS Vial : 30 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Sep 20 12:03:06 2021
 Quant Method : G:\GCDATA\2021\GC_3\METHODQT\3G_C0719.M
 Quant Title : @GC_3,ug,608,8082
 QLast Update : Tue Jul 20 10:03:24 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul
 Signal #1 Phase : db-1701P Signal #2 Phase: db-17
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	pg#1	pg#2

Target Compounds						
1)TCMX-Surrogate	3.904	3.940	1827429	2217525	113.796	139.120
45)DCB-Surrogate	10.250	10.898	1502939	1990812	101.080	130.201 #

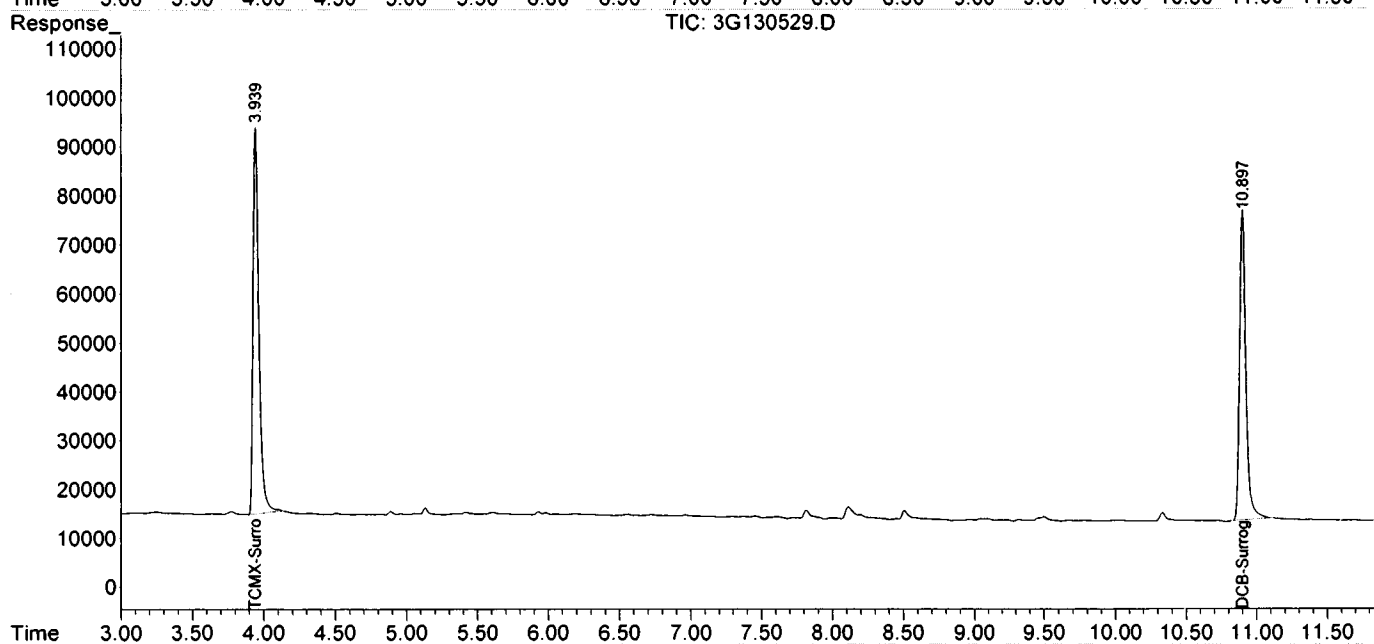
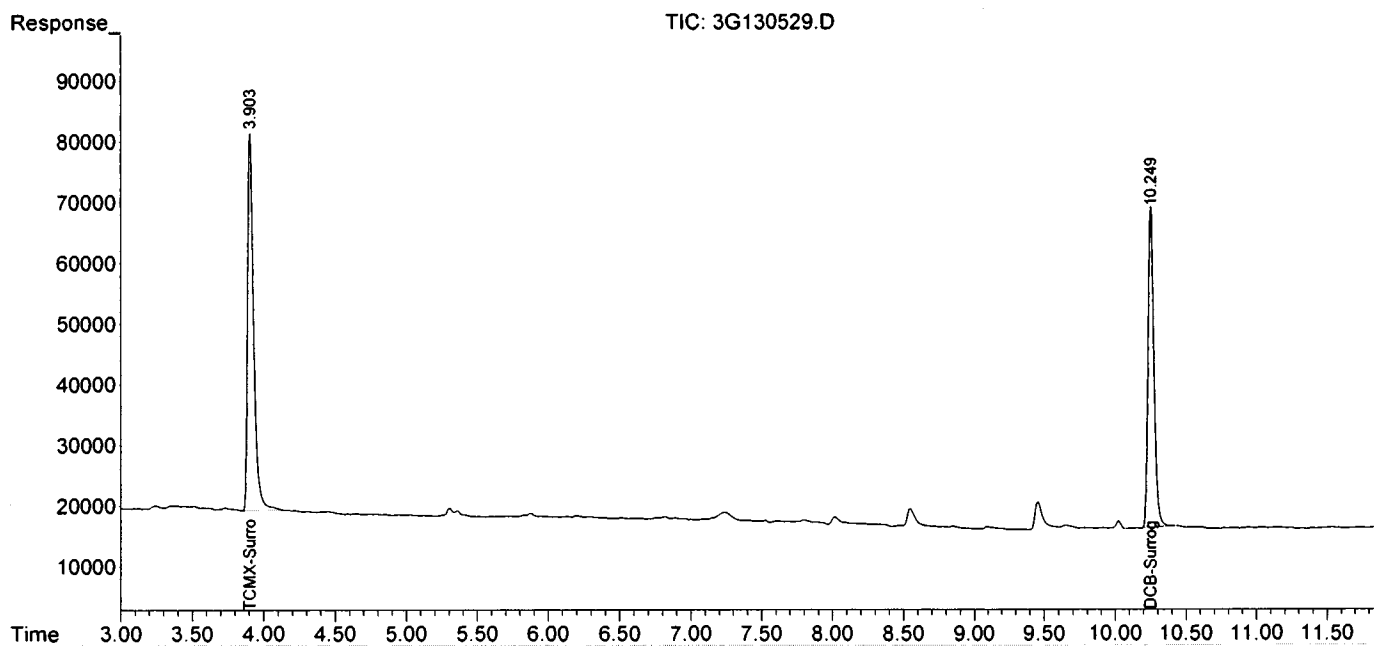
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.



Data Path : G:\Gcdata\2021\GC_3\Data\09-19-21\
Data File : 3G130529.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Sep 2021 23:50
Operator : MS/MLC/MC
Sample : AD25976-007
Misc : S,PCB
ALS Vial : 30 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 20 12:03:06 2021
Quant Method : G:\GC DATA\2021\GC_3\METHODQT\3G_C0719.M
Quant Title : @GC_3,ug,608,8082
QLast Update : Tue Jul 20 10:03:24 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul
Signal #1 Phase : db-1701P Signal #2 Phase: db-17
Signal #1 Info : .32 Signal #2 Info : .32



Form1
ORGANICS PCB REPORT

Sample Number: AD25976-008
 Client Id: SB04 COMP
 Data File: 3G130538.D
 Analysis Date: 09/20/21 02:03
 Date Rec/Extracted: 09/14/21-09/17/21
 Column: DB-17/1701P 30M 0.32mm ID 0.25um film

Method: EPA 8082A
 Matrix: Soil
 Initial Vol: 20g
 Final Vol: 10ml
 Dilution: 1
 Solids: 84

Units: mg/Kg							
Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
12674-11-2	Aroclor-1016	0.030	U	11097-69-1	Aroclor-1254	0.030	U
11104-28-2	Aroclor-1221	0.030	U	11096-82-5	Aroclor-1260	0.030	U
11141-16-5	Aroclor-1232	0.030	U	37324-23-5	Aroclor-1262	0.030	U
53469-21-9	Aroclor-1242	0.030	U	11100-14-4	Aroclor-1268	0.030	U
12672-29-6	Aroclor-1248	0.030	U	1336-36-3	Aroclor (Total)	0.030	U

Worksheet #: 609199

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

*U - Indicates the compound was analyzed but not detected.**B - Indicates the analyte was found in the blank as well as in the sample.**E - Indicates the analyte concentration exceeds the calibration range of the instrument.**R - Retention Time Out**J - Indicates an estimated value when a compound is detected at less than the specified detection limit.**d - Pesticide %Diff>40% between columns due to coelution. Lower concentration used**Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.*

Data Path : G:\Gcdata\2021\GC_3\Data\09-19-21\
 Data File : 3G130538.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 20 Sep 2021 2:03
 Operator : MS/MLC/MC
 Sample : AD25976-008
 Misc : S,PCB
 ALS Vial : 39 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Sep 20 12:06:03 2021
 Quant Method : G:\GCDATA\2021\GC_3\METHODQT\3G_C0719.M
 Quant Title : @GC_3,ug,608,8082
 QLast Update : Tue Jul 20 10:03:24 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul
 Signal #1 Phase : db-1701P Signal #2 Phase: db-17
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	pg#1	pg#2

Target Compounds						
1)TCMX-Surrogate	3.907	3.942	1535453	1770109	95.615	111.050
45)DCB-Surrogate	10.251	10.898	1295260	1694307	87.113	110.810 #

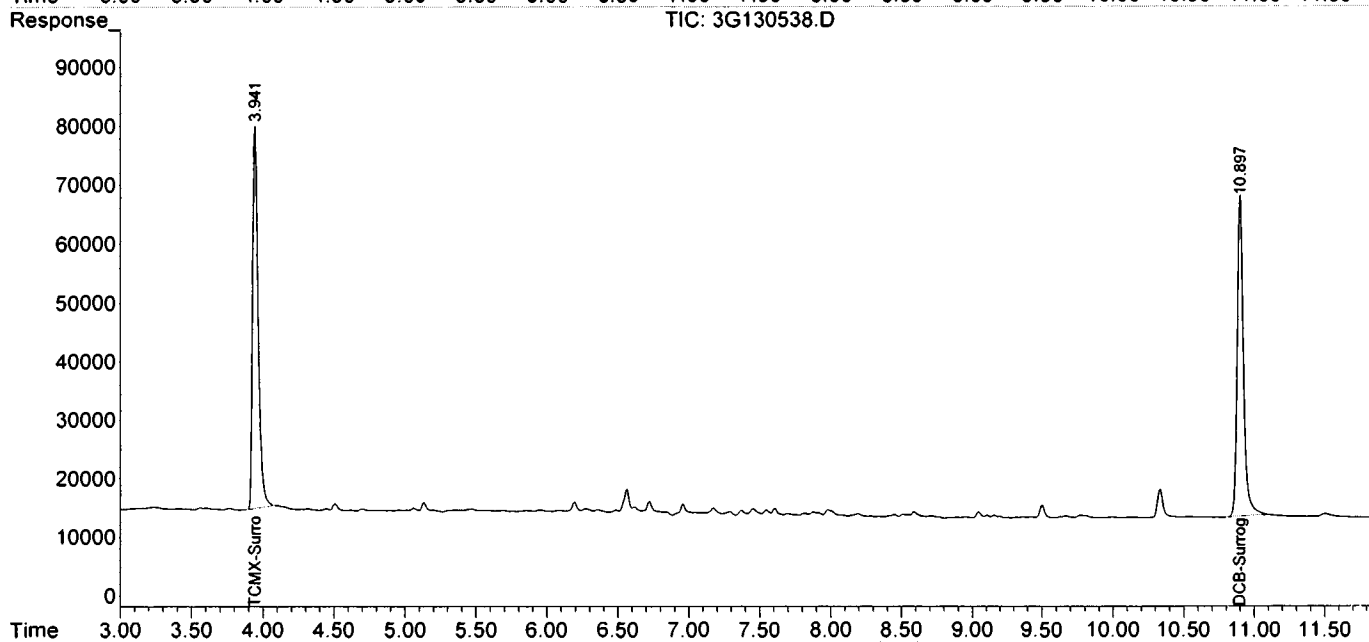
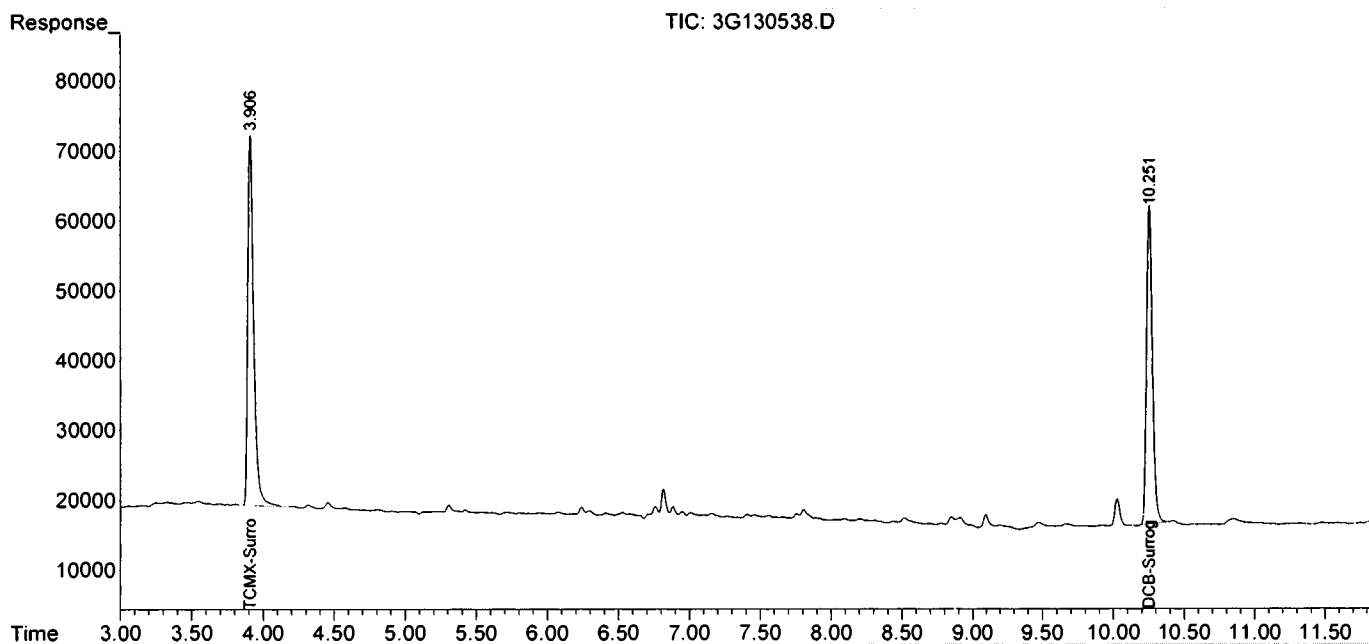
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.



Data Path : G:\Gcdata\2021\GC_3\Data\09-19-21\
Data File : 3G130538.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 20 Sep 2021 2:03
Operator : MS/MLC/MC
Sample : AD25976-008
Misc : S,PCB
ALS Vial : 39 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 20 12:06:03 2021
Quant Method : G:\GC DATA\2021\GC_3\METHODQT\3G_C0719.M
Quant Title : @GC_3,ug,608,8082
QLast Update : Tue Jul 20 10:03:24 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul
Signal #1 Phase : db-1701P Signal #2 Phase: db-17
Signal #1 Info : .32 Signal #2 Info : .32



Form1
ORGANICS PCB REPORT

Sample Number: AD25976-009
 Client Id: SB05 GRAB
 Data File: 3G130537.D
 Analysis Date: 09/20/21 01:49
 Date Rec/Extracted: 09/14/21-09/17/21
 Column: DB-17/1701P 30M 0.32mm ID 0.25um film

Method: EPA 8082A
 Matrix: Soil
 Initial Vol: 20g
 Final Vol: 10ml
 Dilution: 1
 Solids: 84

		Units: mg/Kg					
Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
12674-11-2	Aroclor-1016	0.030	U	11097-69-1	Aroclor-1254	0.030	U
11104-28-2	Aroclor-1221	0.030	U	11096-82-5	Aroclor-1260	0.030	U
11141-16-5	Aroclor-1232	0.030	U	37324-23-5	Aroclor-1262	0.030	U
53469-21-9	Aroclor-1242	0.030	U	11100-14-4	Aroclor-1268	0.030	U
12672-29-6	Aroclor-1248	0.030	U	1336-36-3	Aroclor (Total)	0.030	U

Worksheet #: 609199

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out
J - Indicates an estimated value when a compound is detected at less than the specified detection limit.
d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

Data Path : G:\Gcdata\2021\GC_3\Data\09-19-21\
 Data File : 3G130537.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 20 Sep 2021 1:49
 Operator : MS/MLC/MC
 Sample : AD25976-009
 Misc : S,PCB
 ALS Vial : 38 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Sep 20 12:05:53 2021
 Quant Method : G:\GC\DATA\2021\GC_3\METHODQT\3G_C0719.M
 Quant Title : @GC_3,ug,608,8082
 QLast Update : Tue Jul 20 10:03:24 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul
 Signal #1 Phase : db-1701P Signal #2 Phase: db-17
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	pg#1	pg#2

Target Compounds						
1)TCMX-Surrogate	3.906	3.941	1335879	1525686	83.187	95.716
45)DCB-Surrogate	10.251	10.897	1136851	1386247	76.459	90.662

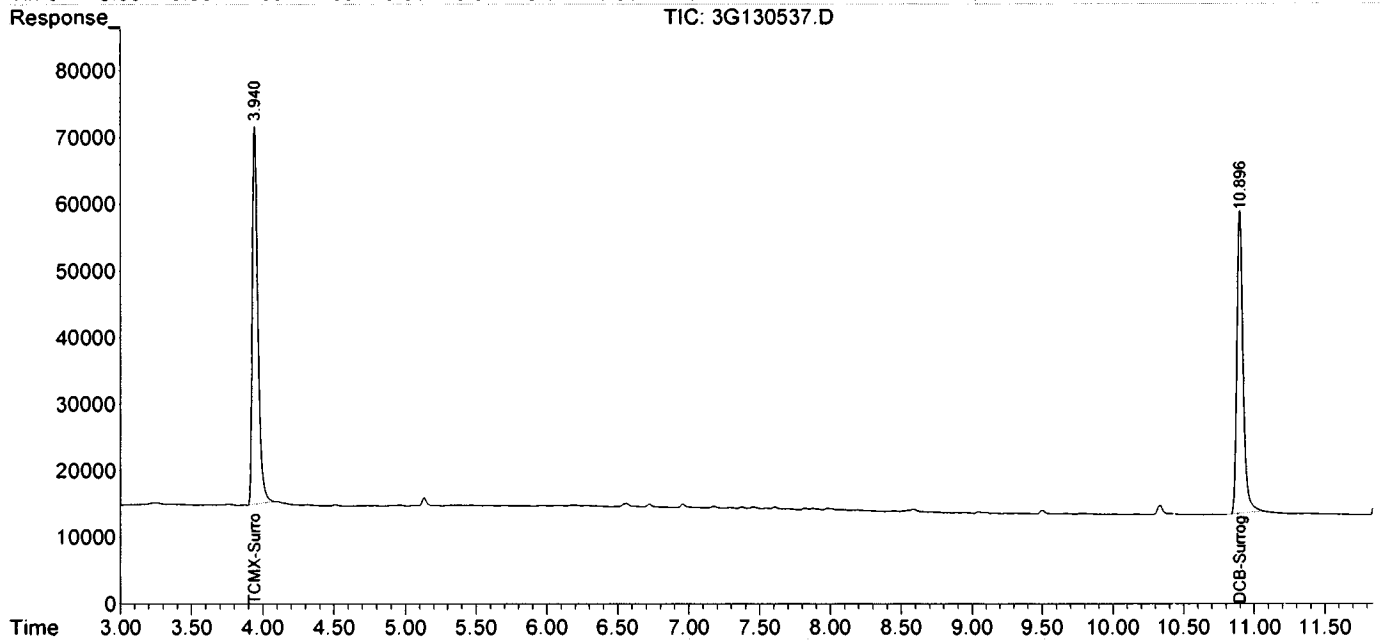
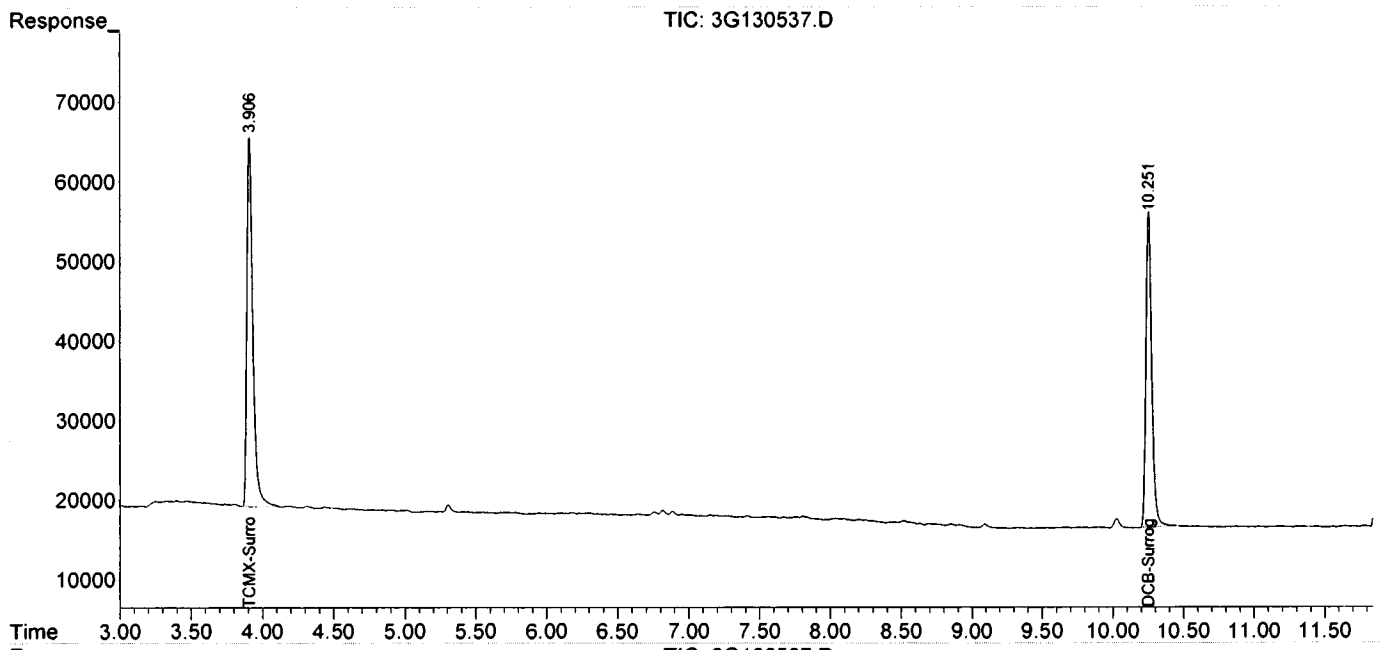
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.



Data Path : G:\Gcdata\2021\GC_3\Data\09-19-21\
Data File : 3G130537.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 20 Sep 2021 1:49
Operator : MS/MLC/MC
Sample : AD25976-009
Misc : S,PCB
ALS Vial : 38 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 20 12:05:53 2021
Quant Method : G:\GC DATA\2021\GC_3\METHODQT\3G_C0719.M
Quant Title : @GC_3,ug,608,8082
QLast Update : Tue Jul 20 10:03:24 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul
Signal #1 Phase : db-1701P Signal #2 Phase: db-17
Signal #1 Info : .32 Signal #2 Info : .32



Form1
ORGANICS PCB REPORT

Sample Number: AD25976-010
 Client Id: SB05 COMP
 Data File: 3G130536.D
 Analysis Date: 09/20/21 01:34
 Date Rec/Extracted: 09/14/21-09/17/21
 Column: DB-17/1701P 30M 0.32mm ID 0.25um film

Method: EPA 8082A
 Matrix: Soil
 Initial Vol: 20g
 Final Vol: 10ml
 Dilution: 1
 Solids: 80

Units: mg/Kg							
Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
12674-11-2	Aroclor-1016	0.031	U	11097-69-1	Aroclor-1254	0.031	U
11104-28-2	Aroclor-1221	0.031	U	11096-82-5	Aroclor-1260	0.031	U
11141-16-5	Aroclor-1232	0.031	U	37324-23-5	Aroclor-1262	0.031	U
53469-21-9	Aroclor-1242	0.031	U	11100-14-4	Aroclor-1268	0.031	U
12672-29-6	Aroclor-1248	0.031	U	1336-36-3	Aroclor (Total)	0.031	U

Worksheet #: 609199

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out
J - Indicates an estimated value when a compound is detected at less than the specified detection limit.
d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

Data Path : G:\Gcdata\2021\GC_3\Data\09-19-21\
 Data File : 3G130536.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 20 Sep 2021 1:34
 Operator : MS/MLC/MC
 Sample : AD25976-010
 Misc : S,PCB
 ALS Vial : 37 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Sep 20 12:05:44 2021
 Quant Method : G:\GCDATA\2021\GC_3\METHODQT\3G_C0719.M
 Quant Title : @GC_3,ug,608,8082
 QLast Update : Tue Jul 20 10:03:24 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul
 Signal #1 Phase : db-1701P Signal #2 Phase: db-17
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	pg#1	pg#2

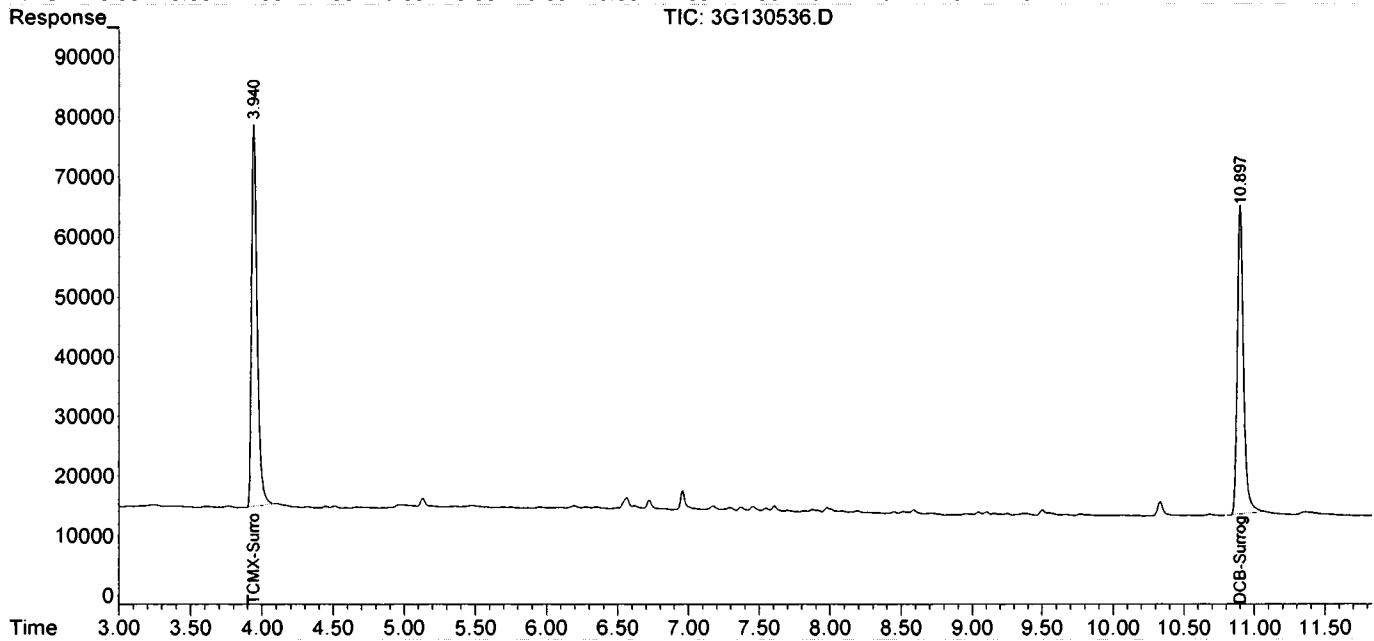
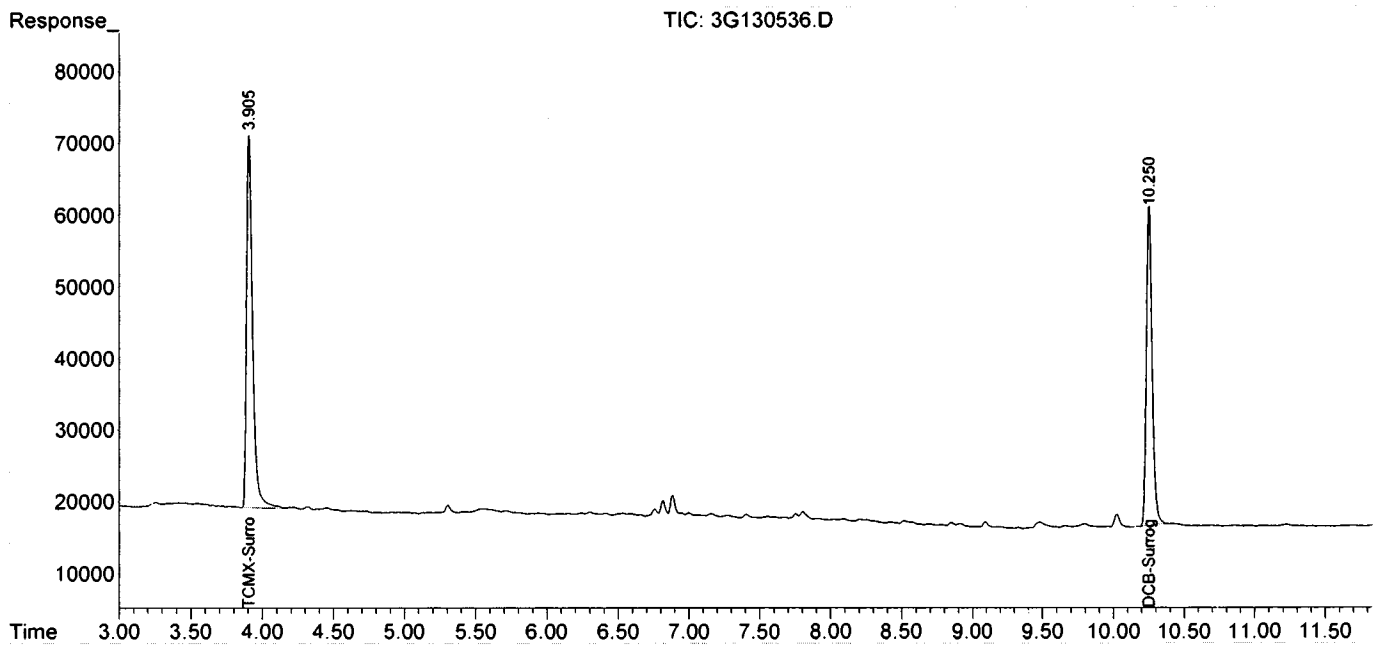
Target Compounds						
1)TCMX-Surrogate	3.906	3.941	1529407	1740066	95.238	109.166
45)DCB-Surrogate	10.251	10.898	1263079	1578535	84.949	103.238

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : G:\Gcdata\2021\GC_3\Data\09-19-21\
 Data File : 3G130536.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 20 Sep 2021 1:34
 Operator : MS/MLC/MC
 Sample : AD25976-010
 Misc : S,PCB
 ALS Vial : 37 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Sep 20 12:05:44 2021
 Quant Method : G:\GCDATA\2021\GC_3\METHODQT\3G_C0719.M
 Quant Title : @GC_3,ug,608,8082
 QLast Update : Tue Jul 20 10:03:24 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul
 Signal #1 Phase : db-1701P Signal #2 Phase: db-17
 Signal #1 Info : .32 Signal #2 Info : .32



Form1
ORGANICS PCB REPORT

Sample Number: AD25976-011
 Client Id: SB04 GW
 Data File: 3G130572.D
 Analysis Date: 09/21/21 09:41
 Date Rec/Extracted: 09/14/21-09/20/21
 Column: DB-17/1701P 30M 0.32mm ID 0.25um film

Method: EPA 8082A
 Matrix: Aqueous
 Initial Vol: 1000ml
 Final Vol: 5ml
 Dilution: 1
 Solids: 0

Units: ug/L							
Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
12674-11-2	Aroclor-1016	0.25	U	11097-69-1	Aroclor-1254	0.25	U
11104-28-2	Aroclor-1221	0.25	U	11096-82-5	Aroclor-1260	0.25	U
11141-16-5	Aroclor-1232	0.25	U	37324-23-5	Aroclor-1262	0.25	U
53469-21-9	Aroclor-1242	0.25	U	11100-14-4	Aroclor-1268	0.25	U
12672-29-6	Aroclor-1248	0.25	U	1336-36-3	Aroclor (Total)	0.25	U

Worksheet #: 609199

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out
J - Indicates an estimated value when a compound is detected at less than the specified detection limit.
d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

Data Path : G:\Gcdata\2021\GC_3\Data\09-21-21\
 Data File : 3G130572.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 21 Sep 2021 9:41
 Operator : MS/MLC/MC
 Sample : AD25976-011
 Misc : A,PCB
 ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Sep 21 09:57:55 2021
 Quant Method : G:\GC DATA\2021\GC_3\METHODQT\3G_C0719.M
 Quant Title : @GC_3,ug,608,8082
 QLast Update : Tue Jul 20 10:03:24 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul
 Signal #1 Phase : db-1701P Signal #2 Phase: db-17
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	pg#1	pg#2

Target Compounds						
1)TCMX-Surrogate	3.905	3.940	1209104	1422618	75.292m	89.250
45)DCB-Surrogate	10.249	10.895	1219490	1503177	82.017	98.309

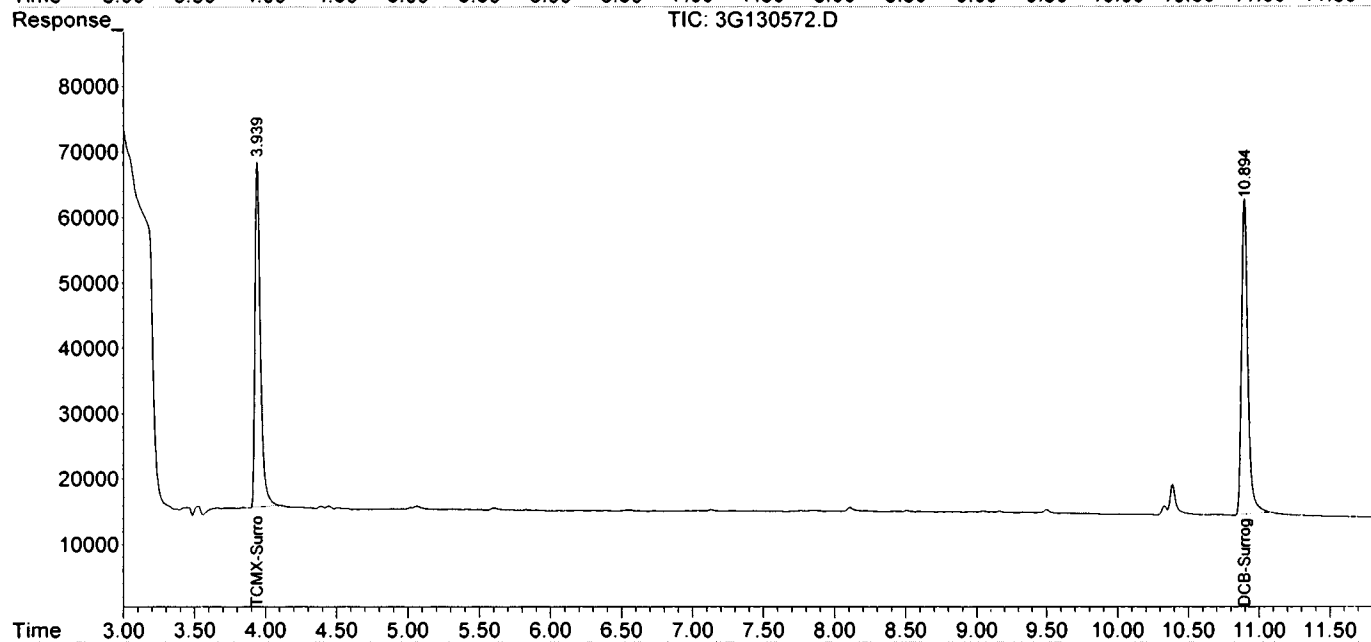
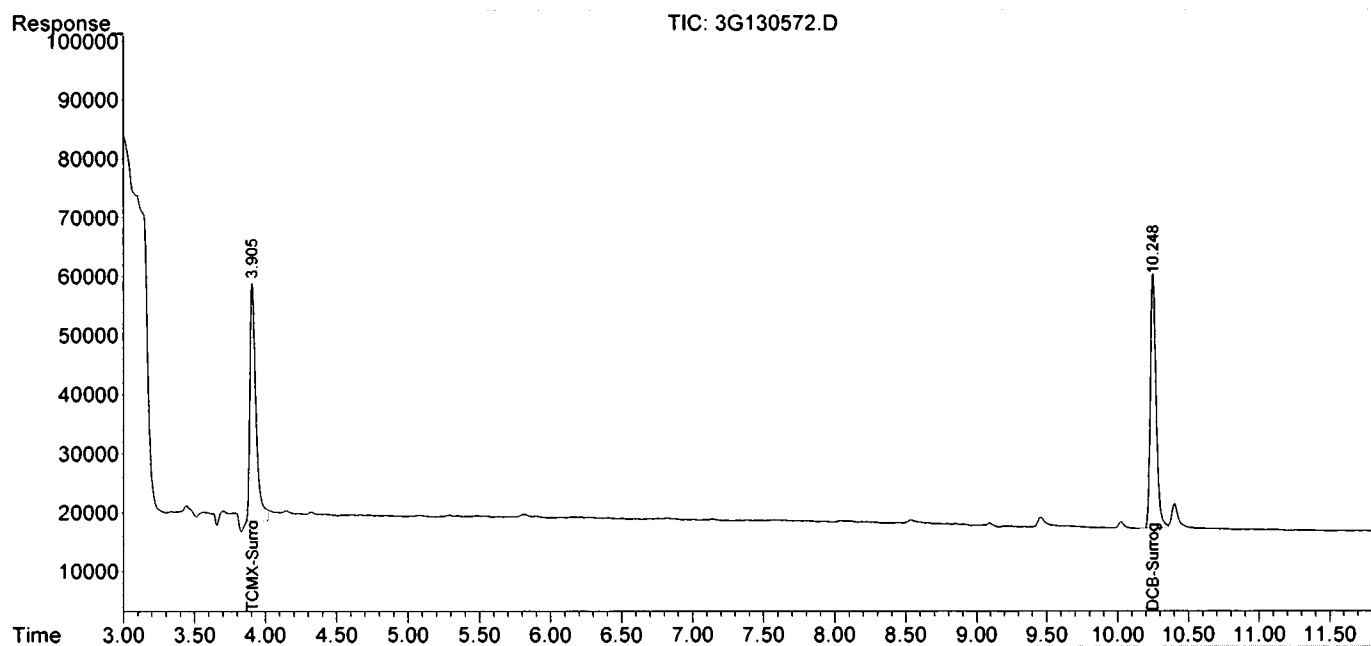
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.



Data Path : G:\Gcdata\2021\GC_3\Data\09-21-21\
 Data File : 3G130572.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 21 Sep 2021 9:41
 Operator : MS/MLC/MC
 Sample : AD25976-011
 Misc : A,PCB
 ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Sep 21 09:57:55 2021
 Quant Method : G:\GC DATA\2021\GC_3\METHODQT\3G_C0719.M
 Quant Title : @GC_3,ug,608,8082
 QLast Update : Tue Jul 20 10:03:24 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul
 Signal #1 Phase : db-1701P Signal #2 Phase: db-17
 Signal #1 Info : .32 Signal #2 Info : .32



Form1
ORGANICS PCB REPORT

Sample Number: SMB94956
 Client Id:
 Data File: 3G130525.D
 Analysis Date: 09/19/21 22:51
 Date Rec/Extracted: NA-09/17/21
 Column: DB-17/1701P 30M 0.32mm ID 0.25um film

Method: EPA 8082A
 Matrix: Soil
 Initial Vol: 20g
 Final Vol: 10ml
 Dilution: 1
 Solids: 100

Units: mg/Kg							
Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
12674-11-2	Aroclor-1016	0.025	U	11097-69-1	Aroclor-1254	0.025	U
11104-28-2	Aroclor-1221	0.025	U	11096-82-5	Aroclor-1260	0.025	U
11141-16-5	Aroclor-1232	0.025	U	37324-23-5	Aroclor-1262	0.025	U
53469-21-9	Aroclor-1242	0.025	U	11100-14-4	Aroclor-1268	0.025	U
12672-29-6	Aroclor-1248	0.025	U				

Worksheet #: 609199

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out
J - Indicates an estimated value when a compound is detected at less than the specified detection limit.
d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

Data Path : G:\Gcdata\2021\GC_3\Data\09-19-21\
 Data File : 3G130525.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 19 Sep 2021 22:51
 Operator : MS/MLC/MC
 Sample : SMB94956
 Misc : S,PCB
 ALS Vial : 26 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Sep 20 12:02:05 2021
 Quant Method : G:\GCDATA\2021\GC_3\METHODQT\3G_C0719.M
 Quant Title : @GC_3,ug,608,8082
 QLast Update : Tue Jul 20 10:03:24 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul
 Signal #1 Phase : db-1701P Signal #2 Phase: db-17
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	pg#1	pg#2

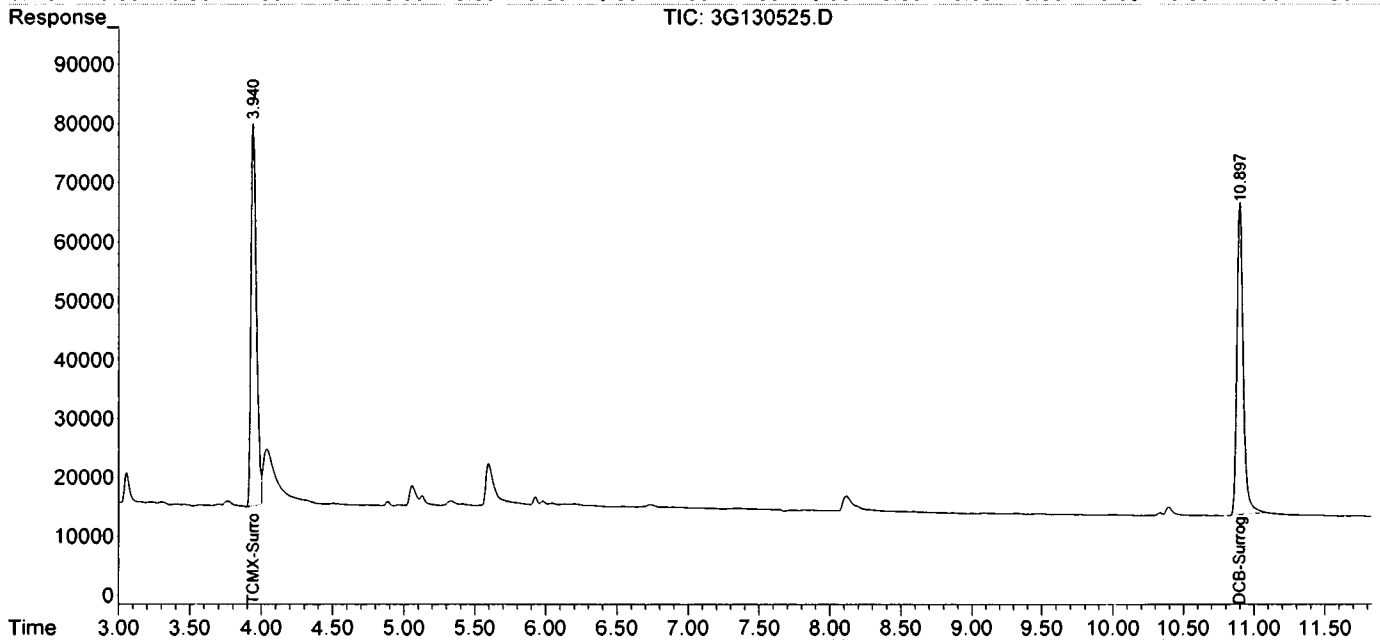
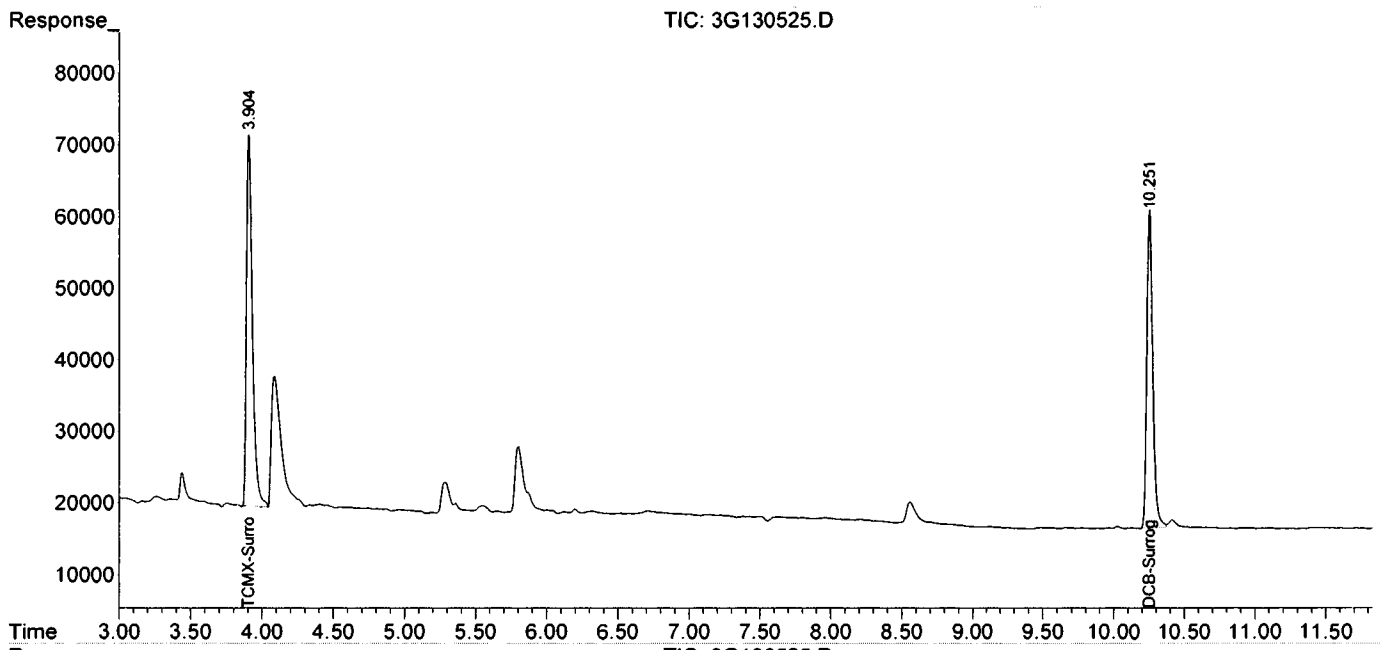
Target Compounds						
1)TCMX-Surrogate	3.905	3.940	1504110	1740792	93.663	109.211
45)DCB-Surrogate	10.252	10.898	1286904	1628105	86.551	106.480

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : G:\Gcdata\2021\GC_3\Data\09-19-21\
 Data File : 3G130525.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 19 Sep 2021 22:51
 Operator : MS/MLC/MC
 Sample : SMB94956
 Misc : S,PCB
 ALS Vial : 26 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Sep 20 12:02:05 2021
 Quant Method : G:\GC DATA\2021\GC_3\METHODQT\3G_C0719.M
 Quant Title : @GC_3,ug,608,8082
 QLast Update : Tue Jul 20 10:03:24 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul
 Signal #1 Phase : db-1701P Signal #2 Phase: db-17
 Signal #1 Info : .32 Signal #2 Info : .32



Form1
ORGANICS PCB REPORT

Sample Number: WMB94975
 Client Id:
 Data File: 3G130568.D
 Analysis Date: 09/21/21 08:42
 Date Rec/Extracted: NA-09/20/21
 Column: DB-17/1701P 30M 0.32mm ID 0.25um film

Method: EPA 8082A
 Matrix: Aqueous
 Initial Vol: 1000ml
 Final Vol: 5ml
 Dilution: 1
 Solids: 0

Units: ug/L							
Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
12674-11-2	Aroclor-1016	0.25	U	11097-69-1	Aroclor-1254	0.25	U
11104-28-2	Aroclor-1221	0.25	U	11096-82-5	Aroclor-1260	0.25	U
11141-16-5	Aroclor-1232	0.25	U	37324-23-5	Aroclor-1262	0.25	U
53469-21-9	Aroclor-1242	0.25	U	11100-14-4	Aroclor-1268	0.25	U
12672-29-6	Aroclor-1248	0.25	U				

Worksheet #: 609199

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out
J - Indicates an estimated value when a compound is detected at less than the specified detection limit.
d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

Data Path : G:\Gcdata\2021\GC_3\Data\09-21-21\
 Data File : 3G130568.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 21 Sep 2021 8:42
 Operator : MS/MLC/MC
 Sample : WMB94975
 Misc : A,PCB
 ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Sep 21 09:31:22 2021
 Quant Method : G:\GC\DATA\2021\GC_3\METHODQT\3G_C0719.M
 Quant Title : @GC_3,ug,608,8082
 QLast Update : Tue Jul 20 10:03:24 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul
 Signal #1 Phase : db-1701P Signal #2 Phase: db-17
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	pg#1	pg#2

Target Compounds						
1)TCMX-Surrogate	3.911	3.941	1426774	1387550	88.847	87.050
45)DCB-Surrogate	10.263	10.903	1372748	1514243	92.324	99.033

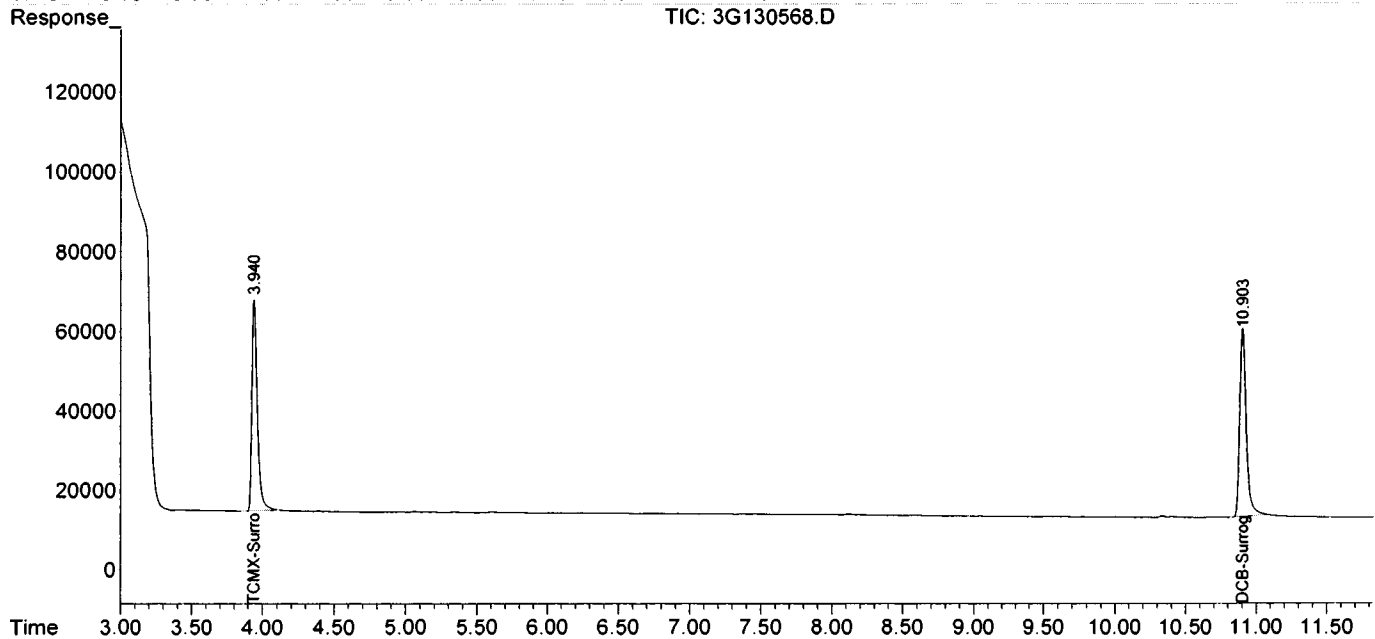
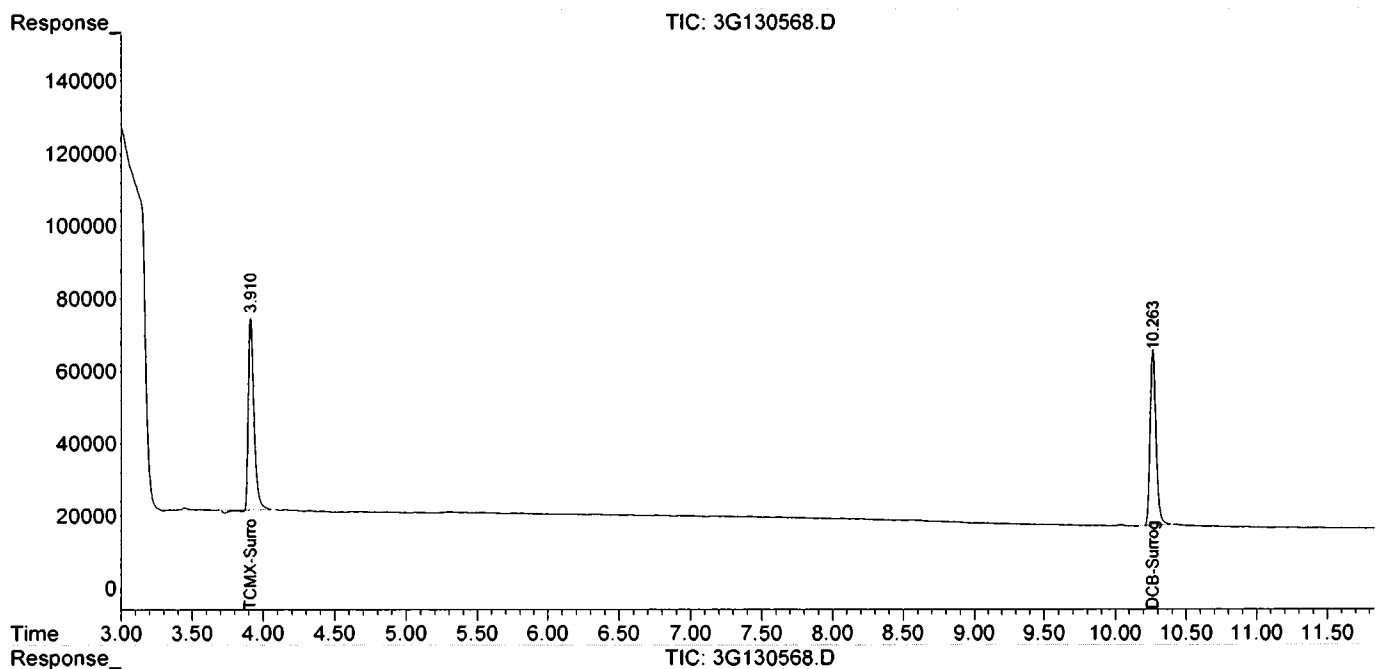
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.



Data Path : G:\Gcdata\2021\GC_3\Data\09-21-21\
 Data File : 3G130568.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 21 Sep 2021 8:42
 Operator : MS/MLC/MC
 Sample : WMB94975
 Misc : A,PCB
 ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Sep 21 09:31:22 2021
 Quant Method : G:\GC DATA\2021\GC_3\METHODQT\3G_C0719.M
 Quant Title : @GC_3,ug,608,8082
 QLast Update : Tue Jul 20 10:03:24 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1ul
 Signal #1 Phase : db-1701P Signal #2 Phase: db-17
 Signal #1 Info : .32 Signal #2 Info : .32



FORM2

Surrogate Recovery

Method: EPA 8082A

Dfile	Sample#	Matrix	Date/Time	Surr Dil	Dilute Out Flag	Column1 S1 Recov	Column2 S2 Recov	Column1 S3 Recov	Column2 S4 Recov	Column0 S5 Recov	Column0 S6 Recov
3G130525	D.SMB94956	S	09/19/21 22:51	1		94	109	87	106		
3G130568	D.WMB94975	A	09/21/21 08:42	1		89	87	92	99		
2G158218	D.AD25976-002	S	09/19/21 23:01	1		124	124	115	116		
2G158219	D.AD25976-004	S	09/19/21 23:17	1		128	132	151*	181*		
3G130530	D.AD25976-006	S	09/20/21 00:05	1		96	111	88	114		
3G130529	D.AD25976-007	S	09/19/21 23:50	1		114	139	101	130		
3G130538	D.AD25976-008	S	09/20/21 02:03	1		96	111	87	111		
3G130537	D.AD25976-009	S	09/20/21 01:49	1		83	96	76	91		
3G130536	D.AD25976-010	S	09/20/21 01:34	1		95	109	85	103		
3G130572	D.AD25976-011	A	09/21/21 09:41	1		75	89	82	98		
2G158246	D.AD25962-002(MS)	S	09/20/21 15:54	1		74	98	89	87		
2G158247	D.AD25962-002(MSD)	S	09/20/21 16:09	1		106	116	107	107		
3G130526	D.SMB94956(MS)	S	09/19/21 23:05	1		92	104	82	103		
3G130532	D.AD25962-002	S	09/20/21 00:35	1		95	112	84	106		
3G130569	D.WMB94975(MS)	A	09/21/21 08:57	1		85	92	90	103		
3G130589	D.AD26083-049(MS:AD26	A	09/21/21 16:53	1		81	87	84	96		
3G130590	D.AD26083-050(MSD:AD2	A	09/21/21 17:08	1		75	89	86	103		
3G130720	D.AD26083-048	A	09/27/21 23:16	1		66	71	74	78		

Flags: SD=Surrogate diluted out

*=Surrogate out

Method: EPA 8082A

Soil Laboratory Limits

Compound	Spike Amt	Limits
S1=TCMX-Surrogate	100	37-141
S2=TCMX-Surrogate	100	37-141
S3=DCB-Surrogate	100	34-146
S4=DCB-Surrogate	100	34-146

Aqueous Laboratory Limits

Compound	Spike Amt	Limits
S1=TCMX-Surrogate	100	39-132
S2=TCMX-Surrogate	100	39-132
S3=DCB-Surrogate	100	39-142
S4=DCB-Surrogate	100	39-142

Form3
Recovery Data Laboratory Limits
 QC Batch: SMB94956

Data File	Sample ID:	Analysis Date
Spike or Dup: 3G130526.D	SMB94956(MS)	9/19/2021 11:05:00 PM
Non Spike(If applicable):		
Inst Blank(If applicable):		

Method: 8082	Matrix: Soil	Units: mg/Kg	QC Type: MBS
--------------	--------------	--------------	--------------

Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Aroclor-1016 -Total	2	1239.016	0	1000	124	30	163
Aroclor-1260 -Total	2	1231.986	0	1000	123	25	166

Form3
Recovery Data Laboratory Limits
 QC Batch: SMB94956

Data File		Sample ID:		Analysis Date			
Spike or Dup: 2G158246.D		AD25962-002(MS)		9/20/2021 3:54:00 PM			
Non Spike(If applicable): 3G130532.D		AD25962-002		9/20/2021 12:35:00 AM			
Inst Blank(If applicable):							
Method: 8082		Matrix: Soil		Units: mg/Kg		QC Type: MS	
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Aroclor-1016 -Total	2	938.83	0	1000	94	30	163
Aroclor-1260 -Total	2	921.214	0	1000	92	25	166

Data File		Sample ID:		Analysis Date			
Spike or Dup: 2G158247.D		AD25962-002(MSD)		9/20/2021 4:09:00 PM			
Non Spike(If applicable): 3G130532.D		AD25962-002		9/20/2021 12:35:00 AM			
Inst Blank(If applicable):							
Method: 8082		Matrix: Soil		Units: mg/Kg		QC Type: MSD	
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Aroclor-1016 -Total	2	1185.146	0	1000	119	30	163
Aroclor-1260 -Total	2	1134.202	0	1000	113	25	166

**Form3
RPD Data Laboratory Limits**

QC Batch: SMB94956

Data File	Sample ID:	Analysis Date
Spike or Dup: 2G158247.D	AD25962-002(MSD)	9/20/2021 4:09:00 PM
Duplicate(If applicable): 2G158246.D	AD25962-002(MS)	9/20/2021 3:54:00 PM
Inst Blank(If applicable):		

Method: 8082 Matrix: Soil Units: mg/Kg QC Type: MSD

Analyte:	Column	Dup/MSD/MBSD	Sample/MS/MBS	RPD	Limit
		Conc	Conc		
Aroclor-1016 -Total	2	1185.146	938.83	23	40
Aroclor-1260 -Total	2	1134.202	921.214	21	37

* - Indicates outside of limits

NA - Both concentrations=0... no result can be calculated

Form3
Recovery Data Laboratory Limits
 QC Batch: WMB94975

Data File: Spike or Dup: 3G130569.D Sample ID: WMB94975(MS) Analysis Date: 9/21/2021 8:57:00 AM
 Non Spike(If applicable):
 Inst Blank(If applicable):

Analyte:	Matrix: Aqueous		Units: ug/L		QC Type: MBS		
	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Aroclor-1016 -Total	2	976.228	0	1000	98	60	130
Aroclor-1260 -Total	2	1112.914	0	1000	111	60	130

Form3
Recovery Data Laboratory Limits
 QC Batch: WMB94975

Data File	Sample ID:	Analysis Date
Spike or Dup: 3G130589.D	AD26083-049(MS:AD26083-048)	9/21/2021 4:53:00 PM
Non Spike(If applicable): 3G130720.D	AD26083-048	9/27/2021 11:16:00 PM
Inst Blank(If applicable):		

Method: 8082	Matrix: Aqueous	Units: ug/L	QC Type: MS
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Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Aroclor-1016 -Total	2	932.114	0	1000	93	60	130
Aroclor-1260 -Total	2	1034.96	0	1000	103	60	130

Data File	Sample ID:	Analysis Date
Spike or Dup: 3G130590.D	AD26083-050(MSD:AD26083-0)	9/21/2021 5:08:00 PM
Non Spike(If applicable): 3G130720.D	AD26083-048	9/27/2021 11:16:00 PM
Inst Blank(If applicable):		

Method: 8082	Matrix: Aqueous	Units: ug/L	QC Type: MSD
--------------	-----------------	-------------	--------------

Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Aroclor-1016 -Total	2	961.936	0	1000	96	60	130
Aroclor-1260 -Total	2	1089.212	0	1000	109	60	130

Form3
 RPD Data Laboratory Limits

QC Batch: WMB94975

Data File	Sample ID:	Analysis Date
Spike or Dup: 3G130590.D	AD26083-050(MSD:AD26083-0	9/21/2021 5:08:00 PM
Duplicate(If applicable): 3G130589.D	AD26083-049(MS:AD26083-048	9/21/2021 4:53:00 PM
Inst Blank(If applicable):		

Method: 8082 Matrix: Aqueous Units: ug/L QC Type: MSD

Analyte:	Column	Dup/MSD/MBSD	Sample/MS/MBS	RPD	Limit
		Conc	Conc		
Aroclor-1016 -Total	2	961.936	932.114	3.1	40
Aroclor-1260 -Total	2	1089.212	1034.96	5.1	40

* - Indicates outside of limits

NA - Both concentrations=0... no result can be calculated

FORM 4
Blank SummaryBlank Number: SMB94956
Blank Data File: 3G130525.D
Matrix: SoilBlank Analysis Date: 09/19/21 22:51
Blank Extraction Date: 09/17/21
(If Applicable)
Method: EPA 8082A

Sample Number	Data File	Analysis Date
AD25976-002	2G158218.D	09/19/21 23:01
AD25976-004	2G158219.D	09/19/21 23:17
AD25976-006	3G130530.D	09/20/21 00:05
AD25976-007	3G130529.D	09/19/21 23:50
AD25976-008	3G130538.D	09/20/21 02:03
AD25976-009	3G130537.D	09/20/21 01:49
AD25976-010	3G130536.D	09/20/21 01:34
AD25962-002	3G130532.D	09/20/21 00:35
AD25962-002(MS)	2G158246.D	09/20/21 15:54
SMB94956(MS)	3G130526.D	09/19/21 23:05
AD25962-002(MSD)	2G158247.D	09/20/21 16:09

FORM 4
Blank SummaryBlank Number: WMB94975
Blank Data File: 3G130568.D
Matrix: AqueousBlank Analysis Date: 09/21/21 08:42
Blank Extraction Date: 09/20/21
(If Applicable)
Method: EPA 8082A

Sample Number	Data File	Analysis Date
AD25976-011	3G130572.D	09/21/21 09:41
WMB94975(MS)	3G130569.D	09/21/21 08:57
AD26083-049(MS)	3G130589.D	09/21/21 16:53
AD26083-050(MSD)	3G130590.D	09/21/21 17:08
AD26083-048	3G130720.D	09/27/21 23:16

Form 5

Method: EPA 8082A

Instrument: GC_3

Column: DB-17/1701P 30M 0.32mm ID 0.25um film

Data File	Sample#	Analysis Date/Time	Matrix	Reference File	Column 1 RT	Column 1 % Drift	Column 2 RT	Column 2 % Drift
3G128880	D 1000PPB	07/19/21 07:47	Soil					
3G128881	D 500PPB	07/19/21 08:57	Soil					
3G128882	D 500PPB	07/19/21 09:22	Soil					
3G128887	D CAL 2154@500PPB	07/19/21 10:37	Soil	3G12889	10.2792	0	10.9198	0.0092
3G128888	D CAL 3268@500PPB	07/19/21 10:52	Soil	3G12889	10.2783	0.0087	10.9183	0.0046
3G128889	D CAL 1242@500PPB	07/19/21 11:07	Soil	3G12889	10.2783	0.0087	10.9183	0.0046
3G128890	D CAL 1248@500PPB	07/19/21 11:21	Soil	3G12889	10.2792	0	10.9198	0.0092
3G128891	D CAL 1262@500PPB	07/19/21 11:36	Soil	3G12889	10.2784	0.0078	10.9186	0.0018
3G128892	D CAL 1660@50PPB	07/19/21 11:51	Soil	3G12889	10.2792	0	10.9188	0
3G128893	D CAL 1660@200PPB	07/19/21 12:06	Soil	3G12889	10.2797	0.0049	10.9188	0
3G128894	D CAL 1660@500PPB	07/19/21 12:21	Soil	3G12889	10.2803	0.0107	10.9192	0.0037
3G128895	D CAL 1660@1000PPB	07/19/21 12:36	Soil	3G12889	10.2797	0.0049	10.9186	0.0018
3G128896	D CAL 1660@2000PPB	07/19/21 12:51	Soil	3G12889	10.2792	0	10.9199	0.0101
3G128897	D CAL 1660@4000PPB	07/19/21 13:06	Soil	3G12889	10.2787	0.0049	10.9201	0.0119
3G128898	D ICV	07/19/21 13:31	Soil	3G12889	10.2898	0.1031	10.9243	0.0504
3G128899	D PEST WS	07/19/21 13:46	Soil	3G12889	0.0000	200*	0.0000	200*

Form 5

Method: EPA 8082A

Instrument: GC_2

Column: DB-17/1701P 30M 0.32mm ID 0.25um film

Data File	Sample#	Analysis Date/Time	Matrix	Reference File	Column 1 RT	Column 1 % Drift	Column 2 RT	Column 2 % Drift
2G158193.D	1000PPB	09/19/21 15:42	Aqueous					
2G158194.D	2000PPB	09/19/21 15:57	Aqueous					
2G158202.D	CAL 2154@500PPB	09/19/21 18:54	Soil	2G15820	9.8990	0.0303	10.6342	0.0075
2G158203.D	CAL 3268@500PPB	09/19/21 19:09	Soil	2G15820	9.8955	0.0657	10.6330	0.0038
2G158204.D	CAL 1242@500PPB	09/19/21 19:24	Soil	2G15820	9.8994	0.0263	10.6331	0.0028
2G158205.D	CAL 1248@500PPB	09/19/21 19:40	Soil	2G15820	9.8987	0.0333	10.6323	0.0103
2G158206.D	CAL 1262@500PPB	09/19/21 19:55	Soil	2G15820	9.8993	0.0273	10.6332	0.0019
2G158207.D	CAL 1660@50PPB	09/19/21 20:10	Soil	2G15820	9.9020	0	10.6334	0
2G158208.D	CAL 1660@200PPB	09/19/21 20:25	Soil	2G15820	9.9008	0.0121	10.6329	0.0047
2G158209.D	CAL 1660@500PPB	09/19/21 20:41	Soil	2G15820	9.8988	0.0323	10.6325	0.0085
2G158210.D	CAL 1660@1000PPB	09/19/21 20:57	Soil	2G15820	9.8996	0.0242	10.6343	0.0085
2G158211.D	CAL 1660@2000PPB	09/19/21 21:12	Soil	2G15820	9.8968	0.0525	10.6324	0.0094
2G158212.D	CAL 1660@4000PPB	09/19/21 21:27	Soil	2G15820	9.8963	0.0576	10.6327	0.0066
2G158213.D	ICV	09/19/21 21:43	Soil	2G15820	9.8986	0.0344	10.6315	0.0179
2G158214.D	TEST	09/19/21 21:59	Soil	2G15820	9.9010	0.0101	10.6342	0.0075
2G158215.D	PEST WS	09/19/21 22:14	Soil	2G15820	0.0000	200*	0.0000	200*
2G158216.D	AD25835-001	09/19/21 22:29	Soil	2G15820	9.8904	0.1172	10.6325	0.0085
2G158217.D	AD25933-001	09/19/21 22:45	Soil	2G15820	9.8939	0.0818	10.6313	0.0198
2G158218.D	AD25976-002	09/19/21 23:01	Soil	2G15820	9.8918	0.1031	10.6312	0.0207
2G158219.D	AD25976-004	09/19/21 23:17	Soil	2G15820	9.8931	0.0899	10.6310	0.0226
2G158220.D	AD25934-001	09/19/21 23:32	Soil	2G15820	9.8943	0.0778	10.6321	0.0122
2G158221.D	AD25934-003	09/19/21 23:47	Soil	2G15820	9.8938	0.0829	10.6317	0.016
2G158222.D	AD25934-006	09/20/21 00:03	Soil	2G15820	9.8958	0.0626	10.6343	0.0085
2G158223.D	AD25934-008	09/20/21 00:18	Soil	2G15820	9.8950	0.0707	10.6330	0.0038
2G158224.D	AD25934-005	09/20/21 00:33	Soil	2G15820	9.8952	0.0687	10.6316	0.0169
2G158225.D	AD25934-004	09/20/21 00:48	Soil	2G15820	9.8941	0.0798	10.6321	0.0122
2G158226.D	AD25934-002	09/20/21 01:03	Soil	2G15820	9.8952	0.0687	10.6336	0.0019
2G158227.D	AD25934-007	09/20/21 01:18	Soil	2G15820	9.8986	0.0344	10.6339	0.0047
2G158228.D	AD25934-001(MS)	09/20/21 01:33	Soil	2G15820	9.8976	0.0444	10.6335	0.0009
2G158229.D	AD25934-001(MSD)	09/20/21 01:49	Soil	2G15820	9.8935	0.0859	10.6312	0.0207
2G158230.D	AD25893-003(MS)	09/20/21 02:04	Soil	2G15820	9.8994	0.0263	10.6341	0.0066
2G158231.D	AD25893-003(MSD)	09/20/21 02:20	Soil	2G15820	9.8979	0.0414	10.6351	0.016
2G158232.D	AD25929-002(MS)	09/20/21 02:35	Soil	2G15820	9.8968	0.0525	10.6329	0.0047
2G158233.D	AD25929-002(MSD)	09/20/21 02:50	Soil	2G15820	9.8955	0.0657	10.6334	0
2G158234.D	25962-002(MS)	09/20/21 03:05	Soil	2G15820	9.8985	0.0354	10.6350	0.015
2G158235.D	25962-002(MSD)	09/20/21 03:20	Soil	2G15820	9.8985	0.0354	10.6334	0
2G158236.D	1000PPB	09/20/21 03:35	Soil	2G15820	9.8989	0.0313	10.6332	0.0019
2G158237.D	CAL 1660@2000PPB	09/20/21 03:50	Soil	2G15820	9.8983	0.0374	10.6324	0.0094

Form 5

Method: EPA 8082A

Instrument: GC_3

Column: DB-17/1701P 30M 0.32mm ID 0.25um film

Data File	Sample#	Analysis Date/Time	Matrix	Reference File	Column 1 RT	Column 1 % Drift	Column 2 RT	Column 2 % Drift
3G130611.D	CAL 2154@500PPB	09/22/21 10:45	Soil	3G13061	10.2441	0.0019	10.8845	0.0018
3G130612.D	CAL 3268@500PPB	09/22/21 11:32	Soil	3G13061	10.2562	0.12	10.8913	0.0643
3G130613.D	CAL 1242@500PPB	09/22/21 11:47	Soil	3G13061	10.2463	0.0234	10.8855	0.011
3G130614.D	CAL 1248@500PPB	09/22/21 12:01	Soil	3G13061	10.2451	0.0117	10.8849	0.0055
3G130615.D	CAL 1262@500PPB	09/22/21 12:16	Soil	3G13061	10.2442	0.0029	10.8851	0.0074
3G130616.D	CAL 1660@50PPB	09/22/21 12:31	Soil	3G13061	10.2439	0	10.8843	0
3G130617.D	CAL 1660@200PPB	09/22/21 12:46	Soil	3G13061	10.2452	0.0127	10.8850	0.0064
3G130618.D	CAL 1660@500PPB	09/22/21 13:01	Soil	3G13061	10.2450	0.0107	10.8848	0.0046
3G130619.D	CAL 1660@1000PPB	09/22/21 13:16	Soil	3G13061	10.2440	0.001	10.8858	0.0138
3G130620.D	CAL 1660@2000PPB	09/22/21 13:31	Soil	3G13061	10.2445	0.0059	10.8851	0.0074
3G130621.D	CAL 1660@4000PPB	09/22/21 13:45	Soil	3G13061	10.2436	0.0029	10.8852	0.0083
3G130622.D	ICV	09/22/21 14:00	Soil	3G13061	10.2443	0.0039	10.8862	0.0175
3G130623.D	PEST WS	09/22/21 14:15	Soil	3G13061	0.0000	200*	0.0000	200*

Form 5

Method: EPA 8082A

Instrument: GC_3

Column: DB-17/1701P 30M 0.32mm ID 0.25um film

Data File	Sample#	Analysis Date/Time	Matrix	Reference File	Column 1 RT	Column 1 % Drift	Column 2 RT	Column 2 % Drift
3G130498	D 500PPB	09/19/21 15:40	Soil					
3G130499	D CAL 1660@1000PPB	09/19/21 15:55	Soil	3G13049	10.2513	0	10.8965	0
3G130500	D WMB94942(MS)	09/19/21 16:40	Aqueous	3G13049	10.2632	0.116	10.9029	0.0587
3G130501	D AD25967-001(MS)	09/19/21 16:54	Aqueous	3G13049	10.2528	0.0146	10.8991	0.0239
3G130502	D AD25967-001(MSD)	09/19/21 17:09	Aqueous	3G13049	10.2512	0.001	10.8973	0.0073
3G130503	D AD25967-001	09/19/21 17:24	Aqueous	3G13049	10.2499	0.0137	10.8974	0.0083
3G130504	D AD25950-001	09/19/21 17:39	Aqueous	3G13049	10.2503	0.0097	10.8955	0.0092
3G130505	D AD25950-005	09/19/21 17:53	Aqueous	3G13049	10.2510	0.0029	10.8961	0.0037
3G130506	D AD25806-001(R)	09/19/21 18:08	Aqueous	3G13049	10.2467	0.0449	10.8954	0.0101
3G130507	D SMB94919(MS)	09/19/21 18:23	Soil	3G13049	10.2517	0.0039	10.8979	0.0128
3G130508	D AD25970-001	09/19/21 18:38	Soil	3G13049	10.2473	0.039	10.8970	0.0046
3G130509	D AD25970-002	09/19/21 18:53	Soil	3G13049	10.2499	0.0137	10.8959	0.0055
3G130510	D AD25970-003	09/19/21 19:07	Soil	3G13049	10.2478	0.0341	10.8947	0.0165
3G130511	D AD25970-004	09/19/21 19:22	Soil	3G13049	10.2497	0.0156	10.8976	0.0101
3G130512	D AD25970-005	09/19/21 19:37	Soil	3G13049	10.2506	0.0068	10.8970	0.0046
3G130513	D AD25970-006	09/19/21 19:52	Soil	3G13049	10.2496	0.0166	10.8968	0.0028
3G130514	D AD25941-001	09/19/21 20:07	Soil	3G13049	10.2487	0.0254	10.8962	0.0027
3G130515	D AD25941-002	09/19/21 20:21	Soil	3G13049	10.2504	0.0088	10.8975	0.0092
3G130516	D AD25941-003	09/19/21 20:36	Soil	3G13049	10.2512	0.001	10.8979	0.0128
3G130517	D AD25962-001	09/19/21 20:51	Soil	3G13049	10.2517	0.0039	10.8983	0.0165
3G130518	D SMB94898(MS)	09/19/21 21:06	Soil	3G13049	10.2520	0.0068	10.8982	0.0156
3G130519	D SMB94893(MS)	09/19/21 21:21	Soil	3G13049	10.2507	0.0059	10.8966	0.0009
3G130520	D 1000PPB	09/19/21 21:36	Soil	3G13049	10.2507	0.0059	10.8972	0.0064
3G130521	D CAL 1660@2000PPB	09/19/21 21:51	Soil	3G13049	10.2527	0.0137	10.8976	0.0101
3G130522	D OMB94949(MS)	09/19/21 22:06	OIL/OTHER	3G13052	10.2533	0.0059	10.8988	0.011
3G130523	D SMB94945(MS)	09/19/21 22:21	Soil	3G13052	10.2516	0.0107	10.8977	0.0009
3G130524	D SMB94947(MS)	09/19/21 22:36	Soil	3G13052	10.2525	0.002	10.8978	0.0018
3G130525	D SMB94956	09/19/21 22:51	Soil	3G13052	10.2517	0.0097	10.8976	0
3G130526	D SMB94956(MS)	09/19/21 23:05	Soil	3G13052	10.2511	0.0156	10.8979	0.0027
3G130527	D SMB94955	09/19/21 23:21	Soil	3G13052	10.2524	0.0029	10.8981	0.0046
3G130528	D SMB94955(MS)	09/19/21 23:35	Soil	3G13052	10.2486	0.04	10.8954	0.0202
3G130529	D AD25976-007	09/19/21 23:50	Soil	3G13052	10.2502	0.0244	10.8976	0
3G130530	D AD25976-006	09/20/21 00:05	Soil	3G13052	10.2491	0.0351	10.8970	0.0055
3G130531	D AD25934-009	09/20/21 00:20	Soil	3G13052	10.2520	0.0068	10.8978	0.0018
3G130532	D AD25962-002	09/20/21 00:35	Soil	3G13052	10.2516	0.0107	10.8985	0.0083
3G130533	D AD25962-003	09/20/21 00:49	Soil	3G13052	10.2516	0.0107	10.8981	0.0046
3G130534	D AD25962-004	09/20/21 01:04	Soil	3G13052	10.2517	0.0097	10.8986	0.0092
3G130535	D AD25962-005	09/20/21 01:19	Soil	3G13052	10.2518	0.0088	10.8973	0.0028
3G130536	D AD25976-010	09/20/21 01:34	Soil	3G13052	10.2508	0.0185	10.8978	0.0018
3G130537	D AD25976-009	09/20/21 01:49	Soil	3G13052	10.2514	0.0127	10.8968	0.0073
3G130538	D AD25976-008	09/20/21 02:03	Soil	3G13052	10.2514	0.0127	10.8977	0.0009
3G130539	D AD26083-001	09/20/21 02:18	Aqueous	3G13052	10.2526	0.001	10.8979	0.0027
3G130540	D AD26083-002	09/20/21 02:33	Aqueous	3G13052	10.2494	0.0322	10.8962	0.0128
3G130541	D AD26083-003	09/20/21 02:48	Aqueous	3G13052	10.2517	0.0097	10.8979	0.0027
3G130542	D 1000PPB	09/20/21 03:02	Aqueous	3G13052	10.2523	0.0039	10.8982	0.0055
3G130543	D CAL 1660@2000PPB	09/20/21 03:17	Aqueous	3G13052	10.2536	0.0088	10.8994	0.0165
3G130544	D WMB94963	09/20/21 03:32	Aqueous	3G13054	10.2531	0.0049	10.8973	0.0193
3G130545	D WMB94963(MS)	09/20/21 03:47	Aqueous	3G13054	10.2528	0.0078	10.8991	0.0027
3G130546	D AD26083-042(MS AD26)	09/20/21 04:01	Aqueous	3G13054	10.2501	0.0341	10.8969	0.0229
3G130547	D AD26083-044(MSD AD2)	09/20/21 04:16	Aqueous	3G13054	10.2498	0.0371	10.8966	0.0257
3G130548	D AD26083-040	09/20/21 04:31	Aqueous	3G13054	10.2499	0.0361	10.8970	0.022
3G130549	D AD26083-005	09/20/21 04:46	Aqueous	3G13054	10.2532	0.0039	10.8989	0.0046
3G130550	D AD26083-006	09/20/21 05:01	Aqueous	3G13054	10.2518	0.0176	10.8986	0.0073
3G130551	D AD26083-008	09/20/21 05:15	Aqueous	3G13054	10.2509	0.0263	10.8967	0.0248
3G130552	D AD26083-009	09/20/21 05:30	Aqueous	3G13054	10.2522	0.0137	10.8981	0.0119
3G130553	D AD26083-011	09/20/21 05:45	Aqueous	3G13054	10.2525	0.0107	10.8978	0.0147
3G130554	D AD26083-012	09/20/21 06:00	Aqueous	3G13054	10.2525	0.0107	10.8971	0.0211
3G130555	D AD26083-014	09/20/21 06:15	Aqueous	3G13054	10.2531	0.0049	10.8987	0.0064
3G130556	D AD26083-016	09/20/21 06:29	Aqueous	3G13054	10.2536	0	10.8992	0.0018
3G130557	D AD26083-018	09/20/21 06:44	Aqueous	3G13054	10.2523	0.0127	10.8977	0.0156
3G130558	D AD26083-021	09/20/21 06:59	Aqueous	3G13054	10.2525	0.0107	10.8981	0.0119
3G130559	D AD26083-023	09/20/21 07:14	Aqueous	3G13054	10.2526	0.0098	10.8992	0.0018
3G130560	D AD26083-026	09/20/21 07:29	Aqueous	3G13054	10.2512	0.0234	10.8964	0.0275
3G130561	D AD26083-027	09/20/21 07:44	Aqueous	3G13054	10.2534	0.002	10.8995	0.0009
3G130562	D AD26083-028	09/20/21 07:58	Aqueous	3G13054	10.2510	0.0254	10.8971	0.0211

Form 5

Method: EPA 8082A
Instrument: GC_3

Column: DB-17/1701P 30M 0.32mm ID 0.25um film

Data File	Sample#	Analysis Date/Time	Matrix	Reference File	Column 1 RT	Column 1 % Drift	Column 2 RT	Column 2 % Drift
3G130563 D	1000PPB	09/20/21 08:13	Aqueous	3G13054	10.2525	0.0107	10.8991	0.0027
3G130564 D	CAL 1660@2000PPB	09/20/21 12:45	Aqueous	3G13054	10.2632	0.0936	10.9022	0.0257

Form 5

Method: EPA 8082A

Instrument: GC_2

Column: DB-17/1701P 30M 0.32mm ID 0.25um film

Data File	Sample#	Analysis Date/Time	Matrix	Reference File	Column 1 RT	Column 1 % Drift	Column 2 RT	Column 2 % Drift
2G158238	D 1000PPB	09/20/21 12:47	Soil					
2G158239	D CAL 1660@1000PPB	09/20/21 13:09	Soil	2G15823	9.9010	0	10.6348	0
2G158240	D AD25835-001(10X)	09/20/21 14:23	Soil	2G15823	9.9041	0.0313	10.6380	0.0301
2G158241	D AD26055-001	09/20/21 14:38	OIL/OTHER	2G15823	9.9102	0.0929	10.6504	0.1466
2G158242	D AD26039-001	09/20/21 14:53	OIL/OTHER	2G15823	9.9103	0.0939	10.6531	0.1719
2G158243	D AD25991-001	09/20/21 15:08	OIL/OTHER	2G15823	9.8971	0.0394	10.6327	0.0197
2G158244	D AD25990-001(MS)	09/20/21 15:24	OIL/OTHER	2G15823	9.9185	0.1766	10.6576	0.2142
2G158245	D AD25990-001(MSD)	09/20/21 15:39	OIL/OTHER	2G15823	9.9311	0.3035	10.6674	0.3061
2G158246	D AD25962-002(MS)	09/20/21 15:54	Soil	2G15823	9.8969	0.0414	10.6326	0.0207
2G158247	D AD25962-002(MSD)	09/20/21 16:09	Soil	2G15823	9.8950	0.0606	10.6303	0.0423
2G158248	D CAL 1660@1000PPB	09/20/21 17:07	Soil	2G15823	9.8957	0.0535	10.6300	0.0451

Form 5

Method: EPA 8082A

Instrument: GC_3

Column: DB-17/1701P 30M 0.32mm ID 0.25um film

Data File	Sample#	Analysis Date/Time	Matrix	Reference File	Column 1 RT	Column 1 % Drift	Column 2 RT	Column 2 % Drift
3G130566	D 1000PPB	09/21/21 07:38	Aqueous					
3G130567	D CAL 1660@2000PPB	09/21/21 07:55	Aqueous	3G13056	10.2573	0	10.9009	0
3G130568	D WMB94975	09/21/21 08:42	Aqueous	3G13056	10.2634	0.0594	10.9034	0.0229
3G130569	D WMB94975(MS)	09/21/21 08:57	Aqueous	3G13056	10.2532	0.04	10.8980	0.0266
3G130570	D AD25966-001	09/21/21 09:12	Aqueous	3G13056	10.2510	0.0614	10.8968	0.0376
3G130571	D AD25966-002	09/21/21 09:27	Aqueous	3G13056	10.2506	0.0653	10.8959	0.0459
3G130572	D AD25976-011	09/21/21 09:41	Aqueous	3G13056	10.2492	0.079	10.8953	0.0514
3G130573	D OMB94982	09/21/21 09:56	OIL/OTHER	3G13056	10.2507	0.0644	10.8965	0.0404
3G130574	D OMB94982(MS)	09/21/21 10:11	OIL/OTHER	3G13056	10.2521	0.0507	10.8972	0.034
3G130575	D SMB94980	09/21/21 10:26	Soil	3G13056	10.2501	0.0702	10.8958	0.0468
3G130576	D SMB94980(MS)	09/21/21 10:42	Soil	3G13056	10.2508	0.0634	10.8956	0.0486
3G130577	D SMB94979	09/21/21 10:57	Soil	3G13056	10.2506	0.0653	10.8972	0.034
3G130578	D SMB94979(MS)	09/21/21 11:12	Soil	3G13056	10.2499	0.0722	10.8963	0.0422
3G130579	D AD26043-001	09/21/21 11:26	Soil	3G13056	10.2493	0.078	10.8958	0.0468
3G130580	D AD26017-001	09/21/21 11:41	Soil	3G13056	10.2498	0.0732	10.8965	0.0404
3G130581	D AD26017-002	09/21/21 11:56	Soil	3G13056	10.2496	0.0751	10.8947	0.0569
3G130582	D AD26017-003	09/21/21 12:11	Soil	3G13056	10.2512	0.0595	10.8977	0.0294
3G130583	D AD26017-004	09/21/21 12:26	Soil	3G13056	10.2516	0.0556	10.8967	0.0385
3G130584	D AD26017-005	09/21/21 12:41	Soil	3G13056	10.2499	0.0722	10.8956	0.0486
3G130585	D AD25989-004	09/21/21 12:56	Soil	3G13056	10.2496	0.0751	10.8951	0.0532
3G130586	D AD25989-005	09/21/21 13:11	Soil	3G13056	10.2503	0.0683	10.8970	0.0358
3G130587	D AD25989-006	09/21/21 13:26	Soil	3G13056	10.2499	0.0722	10.8955	0.0495
3G130588	D CAL 1660@2000PPB	09/21/21 16:11	Soil	3G13056	10.2646	0.0711	10.9036	0.0248
3G130589	D AD26083-049(MS:AD26	09/21/21 16:53	Aqueous	3G13058	10.2641	0.0049	10.9046	0.0092
3G130590	D AD26083-050(MSD:AD2	09/21/21 17:08	Aqueous	3G13058	10.2541	0.1023	10.8983	0.0486
3G130591	D AD25982-001	09/21/21 17:23	Aqueous	3G13058	10.2473	0.1687	10.8963	0.067
3G130592	D AD25983-001	09/21/21 17:38	Aqueous	3G13058	10.2495	0.1472	10.8987	0.0449
3G130593	D AD25989-001	09/21/21 17:53	Soil	3G13058	10.2507	0.1355	10.8971	0.0596
3G130594	D AD25989-002	09/21/21 18:08	Soil	3G13058	10.2509	0.1336	10.8971	0.0596
3G130595	D AD25981-001	09/21/21 18:22	Soil	3G13058	10.2500	0.1423	10.8963	0.067
3G130596	D AD25981-002	09/21/21 18:37	Soil	3G13058	10.2508	0.1345	10.8968	0.0624
3G130597	D AD25981-003	09/21/21 18:52	Soil	3G13058	10.2468	0.1736	10.8969	0.0615
3G130598	D AD25981-004	09/21/21 19:07	Soil	3G13058	10.2472	0.1697	10.8955	0.0743
3G130599	D AD25981-005	09/21/21 19:22	Soil	3G13058	10.2498	0.1443	10.8953	0.0761
3G130600	D AD25981-006	09/21/21 19:36	Soil	3G13058	10.2482	0.1599	10.8961	0.0688
3G130601	D AD25981-007	09/21/21 19:51	Soil	3G13058	10.2497	0.1453	10.8965	0.0651
3G130602	D AD25981-008	09/21/21 20:06	Soil	3G13058	10.2497	0.1453	10.8966	0.0642
3G130603	D AD25981-009	09/21/21 20:21	Soil	3G13058	10.2500	0.1423	10.8970	0.0605
3G130604	D 1000PPB	09/21/21 20:36	Soil	3G13058	10.2519	0.1238	10.8983	0.0486
3G130605	D CAL 1660@2000PPB	09/21/21 20:51	Soil	3G13058	10.2515	0.1277	10.8975	0.056

Form 5

Method: EPA 8082A

Instrument: GC_3

Column: DB-17/1701P 30M 0.32mm ID 0.25um film

Data File	Sample#	Analysis Date/Time	Matrix	Reference File	Column 1 RT	Column 1 % Drift	Column 2 RT	Column 2 % Drift
3G130696	D 1000PPB	09/27/21 08:49	Soil					
3G130697	D CAL 1660@1000PPB	09/27/21 16:43	Soil	3G13069	10.2567	0	10.8930	0
3G130698	D AD25988-001	09/27/21 16:59	Aqueous	3G13069	10.2487	0.078	10.8888	0.0386
3G130699	D AD26139-001	09/27/21 18:05	Soil	3G13069	10.2575	0.0078	10.9009	0.0725
3G130700	D AD26139-002	09/27/21 18:20	Soil	3G13069	10.2469	0.0956	10.8963	0.0303
3G130701	D AD26139-003	09/27/21 18:35	Soil	3G13069	10.2459	0.1053	10.8954	0.022
3G130702	D AD26139-004	09/27/21 18:49	Soil	3G13069	10.2447	0.1171	10.8940	0.0092
3G130703	D AD26139-005	09/27/21 19:04	Soil	3G13069	10.2451	0.1132	10.8950	0.0184
3G130704	D AD26130-002	09/27/21 19:19	Soil	3G13069	10.2427	0.1366	10.8891	0.0358
3G130705	D AD26144-003	09/27/21 19:34	Soil	3G13069	10.2444	0.12	10.8894	0.0331
3G130706	D AD26144-006	09/27/21 19:49	Soil	3G13069	10.2445	0.119	10.8888	0.0386
3G130707	D AD26204-003	09/27/21 20:04	Soil	3G13069	10.2448	0.1161	10.8891	0.0358
3G130708	D AD26211-001	09/27/21 20:18	Soil	3G13069	10.2408	0.1551	10.8885	0.0413
3G130709	D AD26211-003	09/27/21 20:33	Soil	3G13069	10.2414	0.1493	10.8874	0.0514
3G130710	D AD26016-002	09/27/21 20:48	Soil	3G13069	10.2445	0.119	10.8883	0.0432
3G130711	D AD26018-001	09/27/21 21:03	Soil	3G13069	10.2429	0.1346	10.8881	0.045
3G130712	D AD26160-004(MS)	09/27/21 21:18	Soil	3G13069	10.2427	0.1366	10.8885	0.0413
3G130713	D AD26160-004(MSD)	09/27/21 21:33	Soil	3G13069	10.2445	0.119	10.8891	0.0358
3G130714	D AD26160-004	09/27/21 21:47	Soil	3G13069	10.2440	0.1239	10.8883	0.0432
3G130715	D CAL 1660@1000PPB	09/27/21 22:02	Soil	3G13069	10.2459	0.1053	10.8887	0.0395
3G130716	D 2000PPB	09/27/21 22:17	Soil	3G13071	10.2451	0.0078	10.8881	0.0055
3G130717	D AD26160-001	09/27/21 22:32	Soil	3G13071	10.2429	0.0293	10.8882	0.0046
3G130718	D AD26083-002(R)	09/27/21 22:47	Aqueous	3G13071	10.2435	0.0234	10.8888	0.0009
3G130719	D AD26083-046	09/27/21 23:01	Aqueous	3G13071	10.2447	0.0117	10.8886	0.0009
3G130720	D AD26083-048	09/27/21 23:16	Aqueous	3G13071	10.2444	0.0146	10.8892	0.0046
3G130721	D AD25960-001	09/27/21 23:31	Aqueous	3G13071	10.2436	0.0225	10.8885	0.0018
3G130722	D AD26120-001(MS)	09/27/21 23:46	Aqueous	3G13071	10.2463	0.0039	10.8893	0.0055
3G130723	D AD26120-001(MSD)	09/28/21 00:01	Aqueous	3G13071	10.2456	0.0029	10.8897	0.0092
3G130724	D AD26160-002	09/28/21 00:15	Soil	3G13071	10.2416	0.042	10.8878	0.0083
3G130725	D AD26160-003	09/28/21 00:30	Soil	3G13071	10.2417	0.041	10.8876	0.0101
3G130726	D AD26160-005	09/28/21 00:45	Soil	3G13071	10.2443	0.0156	10.8885	0.0018
3G130727	D AD26160-006	09/28/21 01:00	Soil	3G13071	10.2445	0.0137	10.8880	0.0064
3G130728	D AD26112-006	09/28/21 01:15	Soil	3G13071	10.2437	0.0215	10.8878	0.0083
3G130729	D AD26123-001	09/28/21 01:30	Soil	3G13071	10.2437	0.0215	10.8882	0.0046
3G130730	D AD26123-002	09/28/21 01:44	Soil	3G13071	10.2446	0.0127	10.8893	0.0055
3G130731	D AD26123-005	09/28/21 01:59	Soil	3G13071	10.2440	0.0185	10.8889	0.0018
3G130732	D AD26123-006	09/28/21 02:14	Soil	3G13071	10.2420	0.0381	10.8882	0.0046
3G130733	D AD26139-006	09/28/21 02:29	Soil	3G13071	10.2415	0.043	10.8918	0.0285
3G130734	D 1000PPB	09/28/21 02:44	Soil	3G13071	10.2447	0.0117	10.8887	0
3G130735	D CAL 1660@2000PPB	09/28/21 02:58	Soil	3G13071	10.2451	0.0078	10.8895	0.0073

Method: EPA 8082A											Initial Calibration																		
Compound	Level #	Data File:	Col Identifier:	Analysis Date/Time	Initial Level #	Data File:	Col Identifier:	Analysis Date/Time	Calibration Level Concentrations	Initial Level #	Data File:	Col Identifier:	Analysis Date/Time	Calibration Level Concentrations	Initial Level #	Data File:	Col Identifier:	Analysis Date/Time	Calibration Level Concentrations										
TCMX-Surrogate	1	Col Mr. Fit:	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	AvgRt	RT	Corr1	Corr2	%Rsd	Lvl1	Lvl2	Lvl3	Lvl4	Lvl5	Lvl6	Lvl7	Lvl8						
TCMX-Surrogate	1	0 Avg	1.8230	1.7096	1.6205	1.5950	1.4857	1.4012	---	---	1.613.91	0.999	1.00	---	9.4	5.00	20.00	50.00	100.0	200.0	400.0	---	---						
Aroclor-1016	1	1 Avg	0.0470	0.0406	0.0363	0.0347	0.0314	0.0295	---	---	0.0366	4.44	0.998	1.00	18	50.00	200.0	500.0	1000.	2000.	4000.	---	---						
Aroclor-1016	2	2 Avg	0.0893	0.0827	0.0747	0.0662	0.0596	0.0521	---	---	0.0708	4.81	0.994	1.00	20	50.00	200.0	500.0	1000.	2000.	4000.	---	---						
Aroclor-1016	3	3 Avg	0.1760	0.1606	0.1464	0.1305	0.1187	0.1063	---	---	0.1405	5.28	0.996	1.00	19	50.00	200.0	500.0	1000.	2000.	4000.	---	---						
Aroclor-1016	4	4 Avg	0.0549	0.0509	0.0486	0.0449	0.0420	0.0379	---	---	0.0466	5.53	0.997	1.00	13	50.00	200.0	500.0	1000.	2000.	4000.	---	---						
Aroclor-1016	5	5 Avg	0.1197	0.1084	0.1021	0.0932	0.0864	0.0768	---	---	0.0978	5.65	0.996	1.00	16	50.00	200.0	500.0	1000.	2000.	4000.	---	---						
Aroclor-1260	1	1 Avg	0.1080	0.1048	0.0911	0.0833	0.0748	0.0667	---	---	0.0882	7.17	0.995	1.00	19	50.00	200.0	500.0	1000.	2000.	4000.	---	---						
Aroclor-1260	2	2 Avg	0.1346	0.1312	0.1148	0.1060	0.0967	0.0876	---	---	0.1127	7.42	0.997	1.00	17	50.00	200.0	500.0	1000.	2000.	4000.	---	---						
Aroclor-1260	3	3 Avg	0.0659	0.0675	0.0611	0.0602	0.0564	0.0527	---	---	0.0607	6.22	0.998	1.00	9.2	50.00	200.0	500.0	1000.	2000.	4000.	---	---						
Aroclor-1260	4	4 Avg	0.0803	0.0780	0.0666	0.0678	0.0628	0.0581	---	---	0.0690	8.22	0.998	1.00	13	50.00	200.0	500.0	1000.	2000.	4000.	---	---						
Aroclor-1260	5	5 Avg	0.1227	0.1206	0.1161	0.1116	0.1100	0.1067	---	---	0.1158	9.95	1.00	1.00	5.5	50.00	200.0	500.0	1000.	2000.	4000.	---	---						
Aroclor-1221	1	1 Avg	---	---	---	---	---	---	---	---	0.0276	4.23	-1	-1	Lvl=10	500.0	---	---	---	---	---	---	---						
Aroclor-1221	2	2 Avg	---	---	---	---	---	---	---	---	0.0157	4.39	-1	-1	Lvl=10	500.0	---	---	---	---	---	---	---						
Aroclor-1221	3	3 Avg	---	---	---	---	---	---	---	---	0.0640	4.45	-1	-1	Lvl=10	500.0	---	---	---	---	---	---	---						
Aroclor-1232	1	1 Avg	---	---	---	---	---	---	---	---	0.0440	4.44	-1	-1	Lvl=7	500.0	---	---	---	---	---	---	---						
Aroclor-1232	2	2 Avg	---	---	---	---	---	---	---	---	0.0386	4.81	-1	-1	Lvl=7	500.0	---	---	---	---	---	---	---						
Aroclor-1232	3	3 Avg	---	---	---	---	---	---	---	---	0.0729	5.28	-1	-1	Lvl=7	500.0	---	---	---	---	---	---	---						
Aroclor-1232	4	4 Avg	---	---	---	---	---	---	---	---	0.0314	5.42	-1	-1	Lvl=7	500.0	---	---	---	---	---	---	---						
Aroclor-1232	5	5 Avg	---	---	---	---	---	---	---	---	0.0347	5.89	-1	-1	Lvl=7	500.0	---	---	---	---	---	---	---						
Aroclor-1242	1	1 Avg	---	---	---	---	---	---	---	---	0.0362	4.44	-1	-1	Lvl=8	500.0	---	---	---	---	---	---	---						
Aroclor-1242	2	2 Avg	---	---	---	---	---	---	---	---	0.0677	4.81	-1	-1	Lvl=8	500.0	---	---	---	---	---	---	---						
Aroclor-1242	3	3 Avg	---	---	---	---	---	---	---	---	0.1355	5.28	-1	-1	Lvl=8	500.0	---	---	---	---	---	---	---						
Aroclor-1242	4	4 Avg	---	---	---	---	---	---	---	---	0.0977	5.65	-1	-1	Lvl=8	500.0	---	---	---	---	---	---	---						
Aroclor-1242	5	5 Avg	---	---	---	---	---	---	---	---	0.0628	5.89	-1	-1	Lvl=8	500.0	---	---	---	---	---	---	---						
Aroclor-1248	1	1 Avg	---	---	---	---	---	---	---	---	0.0310	4.81	-1	-1	Lvl=9	500.0	---	---	---	---	---	---	---						
Aroclor-1248	2	2 Avg	---	---	---	---	---	---	---	---	0.0845	5.28	-1	-1	Lvl=9	500.0	---	---	---	---	---	---	---						
Aroclor-1248	3	3 Avg	---	---	---	---	---	---	---	---	0.1435	5.63	-1	-1	Lvl=9	500.0	---	---	---	---	---	---	---						
Aroclor-1248	4	4 Avg	---	---	---	---	---	---	---	---	0.0919	5.89	-1	-1	Lvl=9	500.0	---	---	---	---	---	---	---						
Aroclor-1248	5	5 Avg	---	---	---	---	---	---	---	---	0.0945	6.60	-1	-1	Lvl=9	500.0	---	---	---	---	---	---	---						
Aroclor-1254	1	1 Avg	---	---	---	---	---	---	---	---	0.0450	6.82	-1	-1	Lvl=10	500.0	---	---	---	---	---	---	---						
Aroclor-1254	2	2 Avg	---	---	---	---	---	---	---	---	0.1347	7.03	-1	-1	Lvl=10	500.0	---	---	---	---	---	---	---						
Aroclor-1254	3	3 Avg	---	---	---	---	---	---	---	---	0.0812	7.19	-1	-1	Lvl=10	500.0	---	---	---	---	---	---	---						
Aroclor-1254	4	4 Avg	---	---	---	---	---	---	---	---	0.1227	7.31	-1	-1	Lvl=10	500.0	---	---	---	---	---	---	---						
Aroclor-1254	5	5 Avg	---	---	---	---	---	---	---	---	0.0551	7.70	-1	-1	Lvl=10	500.0	---	---	---	---	---	---	---						
Aroclor-1262	1	1 Avg	---	---	---	---	---	---	---	---	0.1517	7.85	-1	-1	Lvl=11	500.0	---	---	---	---	---	---	---						
Aroclor-1262	2	2 Avg	---	---	---	---	---	---	---	---	0.0913	8.87	-1	-1	Lvl=11	500.0	---	---	---	---	---	---	---						
		Avg Rsd Col 1:	14.19													Avg Rsd Col 2:	15.17												

Flags
c - failed the initial calibration criteria(if applicable)

Note:
Col = Column Number
Mtr = MultiPeak Analyte 0=simple peak analyte >0=multi peak analyte (i.e. naphchlorthane etc.)
Fit = Indicates whether Avg RF, Linear or Quadratic Curve was used for compound
Corr 1 = Correlation Coefficient for linear Fit
Corr 2 = Correlation Coefficient for quad Fit
All Response Factors = Response Factors / 10000
Initial Calibration Criteria: either %RSD <=20 or Corr >= .995
Columns: Signal #1 db-1701 ; Signal #2 db-608
*Lvl: These compounds use a single pl calibration as specified by the method. The file used to update this calibration point is listed in the header under level #

Compound	Level #	Data File	Cal Identifier	Analysis Date/Time	Initial Calibration Level #	Data File	Cal Identifier	Analysis Date/Time	Calibration Level Concentrations										
									AvgRt	RT	Corr1	Corr2	%Rsd	Lvl1	Lvl2	Lvl3	Lvl4	Lvl5	Lvl6
Atroclor-1262	1	3G128892.D	CAL 1660@50PPB	07/19/21 11:51	2	3G128893.D	CAL 1660@200PPB	07/19/21 12:06	1.59	3.95	1.00	1.00	5.8	5.00	20.00	50.00	100.00	200.00	400.00
Atroclor-1262	3	3G128894.D	CAL 1660@500PPB	07/19/21 12:21	4	3G128895.D	CAL 1660@1000PPB	07/19/21 12:36	0.0796	9.69	-1	-1	Lvl=11	500.0	500.0	500.0	500.0	500.0	500.0
Atroclor-1262	5	3G128896.D	CAL 1660@2000PPB	07/19/21 12:51	6	3G128897.D	CAL 1660@4000PPB	07/19/21 13:06	0.0297	10.05	-1	-1	Lvl=11	500.0	500.0	500.0	500.0	500.0	500.0
Atroclor-1268	9	3G128888.D	CAL 3268@500PPB	07/19/21 10:52	8	3G128889.D	CAL 1242@500PPB	07/19/21 11:07	0.0224	8.21	-1	-1	Lvl=7	500.0	500.0	500.0	500.0	500.0	500.0
Atroclor-1268	7	3G128890.D	CAL 1248@500PPB	07/19/21 11:21	10	3G128887.D	CAL 2154@500PPB	07/19/21 10:37	0.2119	11.11	-1	-1	Lvl=7	500.0	500.0	500.0	500.0	500.0	500.0
Atroclor-1268	11	3G128891.D	CAL 1262@500PPB	07/19/21 11:36					0.0649	9.22	-1	-1	Lvl=7	500.0	500.0	500.0	500.0	500.0	500.0
DCB-Surrogate	1	5 Avg							0.590	10.05	-1	-1	Lvl=7	500.0	500.0	500.0	500.0	500.0	500.0
TCMX-Surrogate	2	0 Avg							1.49	10.28	0.999	1.00	13	5.00	20.00	50.00	100.00	200.00	400.00
Atroclor-1016	2	1 Avg	1.7503	1.6397	1.6016	1.5497	1.5339	1.4883	5.00	20.00	50.00	100.00	200.00	400.00	500.0	500.0	500.0	500.0	500.0
Atroclor-1016	2	2 Avg	0.0427	0.0410	0.0367	0.0328	0.0304	0.0280	5.00	20.00	50.00	100.00	200.00	400.00	500.0	500.0	500.0	500.0	500.0
Atroclor-1016	2	3 Avg	0.0921	0.0881	0.0783	0.0693	0.0618	0.0555	5.00	20.00	50.00	100.00	200.00	400.00	500.0	500.0	500.0	500.0	500.0
Atroclor-1016	2	4 Avg	0.1758	0.1606	0.1452	0.1314	0.1205	0.1115	5.00	20.00	50.00	100.00	200.00	400.00	500.0	500.0	500.0	500.0	500.0
Atroclor-1016	2	5 Avg	0.0793	0.0723	0.0646	0.0579	0.0523	0.0479	5.00	20.00	50.00	100.00	200.00	400.00	500.0	500.0	500.0	500.0	500.0
Atroclor-1260	2	5 Avg	0.0584	0.0523	0.0471	0.0423	0.0383	0.0353	5.00	20.00	50.00	100.00	200.00	400.00	500.0	500.0	500.0	500.0	500.0
Atroclor-1260	2	2 Avg	0.1298	0.1131	0.0993	0.0896	0.0817	0.0751	5.00	20.00	50.00	100.00	200.00	400.00	500.0	500.0	500.0	500.0	500.0
Atroclor-1260	2	3 Avg	0.1324	0.1229	0.1072	0.0985	0.0913	0.0847	5.00	20.00	50.00	100.00	200.00	400.00	500.0	500.0	500.0	500.0	500.0
Atroclor-1260	2	4 Avg	0.0622	0.0577	0.0523	0.0494	0.0485	0.0464	5.00	20.00	50.00	100.00	200.00	400.00	500.0	500.0	500.0	500.0	500.0
Atroclor-1260	2	5 Avg	0.1031	0.0939	0.0866	0.0796	0.0779	0.0749	5.00	20.00	50.00	100.00	200.00	400.00	500.0	500.0	500.0	500.0	500.0
Atroclor-1221	2	5 Avg	0.0952	0.0970	0.0888	0.0823	0.0822	0.0802	5.00	20.00	50.00	100.00	200.00	400.00	500.0	500.0	500.0	500.0	500.0
Atroclor-1221	2	1 Avg	---	---	---	---	---	---	0.0247	4.33	-1	-1	Lvl=10	500.0	500.0	500.0	500.0	500.0	500.0
Atroclor-1221	2	2 Avg	---	---	---	---	---	---	0.0143	4.48	-1	-1	Lvl=10	500.0	500.0	500.0	500.0	500.0	500.0
Atroclor-1221	2	3 Avg	---	---	---	---	---	---	0.0462	4.55	-1	-1	Lvl=10	500.0	500.0	500.0	500.0	500.0	500.0
Atroclor-1232	2	1 Avg	---	---	---	---	---	---	0.0397	4.55	-1	-1	Lvl=7	500.0	500.0	500.0	500.0	500.0	500.0
Atroclor-1232	2	2 Avg	---	---	---	---	---	---	0.0408	4.98	-1	-1	Lvl=7	500.0	500.0	500.0	500.0	500.0	500.0
Atroclor-1232	2	3 Avg	---	---	---	---	---	---	0.0718	5.36	-1	-1	Lvl=7	500.0	500.0	500.0	500.0	500.0	500.0
Atroclor-1232	2	4 Avg	---	---	---	---	---	---	0.0242	6.21	-1	-1	Lvl=7	500.0	500.0	500.0	500.0	500.0	500.0
Atroclor-1232	2	5 Avg	---	---	---	---	---	---	0.0167	6.29	-1	-1	Lvl=7	500.0	500.0	500.0	500.0	500.0	500.0
Atroclor-1242	2	1 Avg	---	---	---	---	---	---	0.0351	4.55	-1	-1	Lvl=8	500.0	500.0	500.0	500.0	500.0	500.0
Atroclor-1242	2	2 Avg	---	---	---	---	---	---	0.0685	4.98	-1	-1	Lvl=8	500.0	500.0	500.0	500.0	500.0	500.0
Atroclor-1242	2	3 Avg	---	---	---	---	---	---	0.129	5.36	-1	-1	Lvl=8	500.0	500.0	500.0	500.0	500.0	500.0
Atroclor-1242	2	4 Avg	---	---	---	---	---	---	0.0571	5.69	-1	-1	Lvl=8	500.0	500.0	500.0	500.0	500.0	500.0
Atroclor-1242	2	5 Avg	---	---	---	---	---	---	0.0479	6.06	-1	-1	Lvl=8	500.0	500.0	500.0	500.0	500.0	500.0
Atroclor-1248	2	1 Avg	---	---	---	---	---	---	0.0341	4.98	-1	-1	Lvl=9	500.0	500.0	500.0	500.0	500.0	500.0
Atroclor-1248	2	2 Avg	---	---	---	---	---	---	0.0803	5.36	-1	-1	Lvl=9	500.0	500.0	500.0	500.0	500.0	500.0
Atroclor-1248	2	3 Avg	---	---	---	---	---	---	0.0642	5.69	-1	-1	Lvl=9	500.0	500.0	500.0	500.0	500.0	500.0

Avg Rsd Col 1: 14.19 Avg Rsd Col 2: 15.17

Flags

c - failed the initial calibration criteria(if applicable)

Note:

Col = Column Number

Mtr = MultiPeak Analyte 0=simple peak analyte >0=multi peak analyte (i.e. ncb/chlordane etc.)

Fit = Indicates whether Avg RF Linear or Quadratic Curve was used for compound

Corr 1 = Correlation Coefficient for linear Fit

Corr 2 = Correlation Coefficient for quad Fit

▲x: These compounds use a single pt calibration as specified by the method. The file used to update this calibration point is listed in the header under level #

All Response Factors = Response Factors / 10000

Initial Calibration Criteria: either %RSD <=20 or Corr >= 995

Columns: Signal #1 db-1701 · Signal #2 db-608

Form 6

Initial Calibration

Instrument: GC_3

Method EPA 8082A

Level #	Data File	Cal Identifier	Analysis Date/Time	Initial Calibration																		
				Level #	Data File	Cal Identifier	Analysis Date/Time	AvgRt	RT	Corr1	Corr2	%Rsd										
1	3G128892.D	CAL 1660@500PPB	07/19/21 11:51	2	3G128893.D	CAL 1660@200PPB	07/19/21 12:06	0.0632	6.21	-1	-1	500.0	Lvl1	Lvl2	Lvl3	Lvl4	Lvl5	Lvl6	Lvl7	Lvl8		
3	3G128894.D	CAL 1660@500PPB	07/19/21 12:21	4	3G128895.D	CAL 1660@1000PPB	07/19/21 12:36	0.0710	6.34	-1	-1	500.0	Lvl=9									
5	3G128896.D	CAL 1660@2000PPB	07/19/21 12:51	6	3G128897.D	CAL 1660@4000PPB	07/19/21 13:06	0.1046	6.57	-1	-1	500.0	Lvl=10									
7	3G128888.D	CAL 3268@500PPB	07/19/21 10:52	8	3G128889.D	CAL 1242@500PPB	07/19/21 11:07	0.0336	6.91	-1	-1	500.0	Lvl=10									
9	3G128890.D	CAL 1248@500PPB	07/19/21 11:21	10	3G128887.D	CAL 2154@500PPB	07/19/21 10:37	0.0794	7.31	-1	-1	500.0	Lvl=10									
11	3G128891.D	CAL 1262@500PPB	07/19/21 11:36					0.0367	7.83	-1	-1	500.0	Lvl=10									
Compound	Col	Mf	Ft	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8											
Atroclor-1248	2	4	Avg	----	----	----	----	----	----	----	----	0.0632	6.21	-1	-1	Lvl=9	500.0					
Atroclor-1248	2	5	Avg	----	----	----	----	----	----	----	----	0.0710	6.34	-1	-1	Lvl=9	500.0					
Atroclor-1254	2	1	Avg	----	----	----	----	----	----	----	----	0.1046	6.57	-1	-1	Lvl=10	500.0					
Atroclor-1254	2	2	Avg	----	----	----	----	----	----	----	----	0.0336	6.91	-1	-1	Lvl=10	500.0					
Atroclor-1254	2	3	Avg	----	----	----	----	----	----	----	----	0.0794	7.31	-1	-1	Lvl=10	500.0					
Atroclor-1254	2	4	Avg	----	----	----	----	----	----	----	----	0.0367	7.83	-1	-1	Lvl=10	500.0					
Atroclor-1254	2	5	Avg	----	----	----	----	----	----	----	----	0.0383	8.52	-1	-1	Lvl=10	500.0					
Atroclor-1262	2	1	Avg	----	----	----	----	----	----	----	----	0.1017	7.89	-1	-1	Lvl=11	500.0					
Atroclor-1262	2	2	Avg	----	----	----	----	----	----	----	----	0.0769	9.05	-1	-1	Lvl=11	500.0					
Atroclor-1262	2	3	Avg	----	----	----	----	----	----	----	----	0.1079	9.17	-1	-1	Lvl=11	500.0					
Atroclor-1262	2	4	Avg	----	----	----	----	----	----	----	----	0.1019	9.78	-1	-1	Lvl=11	500.0					
Atroclor-1262	2	5	Avg	----	----	----	----	----	----	----	----	0.0301	10.35	-1	-1	Lvl=11	500.0					
Atroclor-1268	2	1	Avg	----	----	----	----	----	----	----	----	0.0177	8.56	-1	-1	Lvl=7	500.0					
Atroclor-1268	2	2	Avg	----	----	----	----	----	----	----	----	0.0337	8.60	-1	-1	Lvl=7	500.0					
Atroclor-1268	2	3	Avg	----	----	----	----	----	----	----	----	0.1879	9.52	-1	-1	Lvl=7	500.0					
Atroclor-1268	2	4	Avg	----	----	----	----	----	----	----	----	0.0536	9.68	-1	-1	Lvl=7	500.0					
Atroclor-1268	2	5	Avg	----	----	----	----	----	----	----	----	0.5691	10.35	-1	-1	Lvl=7	500.0					
DCB-Surrogate	2	0	Avg	1.8556	1.6917	1.5306	1.4151	1.3609	1.3200	----	----	1.5310	9.92	1.00	1.00	14	5.00	20.00	50.00	100.00	200.00	400.00

Avg Rsd Col 1: 14.19 Avg Rsd Col 2: 15.17

Flags
 c - failed the initial calibration criteria (if applicable)

Note:
 Col = Column Number
 Mf = MultiPeak Analyte 0=single peak analyte >0=multi peak analyte (i.e. ncb/chlordane etc.)
 Ft = Indicates whether Avg RF 1 linear or Quadratic Curve was used for compound
 Corr 1 = Correlation Coefficient for linear Ft
 Corr 2 = Correlation Coefficient for quad Ft
 All Response Factors = Response Factors / 10000
 Initial Calibration Criteria: either %RSD <=20 or Corr >= .995
 Columns: Signal #1 db-1701 ; Signal #2 db-608
 Lvl: These compounds use a single pt calibration as specified by the method. The file used to update this calibration point is listed in the header under level #

Form 6

Instrument: GC_2

Method: EPA 8082A

Analysis Date/Time: 09/19/21 20:10

Initial Calibration Level #

Level #	Data File	Cal Identifier	Analysis Date/Time	Initial Calibration Level #	Data File	Cal Identifier	Analysis Date/Time	Initial Calibration Level #	Avg Rt	RT	Corr1	Corr2	%Rsd	Lvl1	Lvl2	Lvl3	Lvl4	Lvl5	Lvl6	Lvl7	Lvl8
1	TCMX-Surrogate	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8												
1	2G158207.D	CAL 1660@500PPB	09/19/21 20:10	2	2G158208.D	CAL 1660@200PPB	09/19/21 20:25		1.283	80	0.995	1.00	11	5.00	20.00	50.00	100.0	200.0	400.0		
1	2G158209.D	CAL 1660@500PPB	09/19/21 20:41	4	2G158210.D	CAL 1660@1000PPB	09/19/21 20:57		0.022	4.27	0.996	1.00	9.3	50.00	200.0	500.0	1000.	2000.	4000.		
3	2G158211.D	CAL 1660@2000PPB	09/19/21 21:12	6	2G158212.D	CAL 1660@4000PPB	09/19/21 21:27		0.045	1.60	0.993	1.00	11	50.00	200.0	500.0	1000.	2000.	4000.		
5	2G158203.D	CAL 3266@500PPB	09/19/21 19:09	8	2G158204.D	CAL 1242@500PPB	09/19/21 19:24		0.080	5.13	0.997	1.00	7.7	50.00	200.0	500.0	1000.	2000.	4000.		
7	2G158205.D	CAL 1248@500PPB	09/19/21 19:40	10	2G158202.D	CAL 2154@500PPB	09/19/21 18:54		0.051	0.523	0.996	0.999	18	50.00	200.0	500.0	1000.	2000.	4000.		
9	2G158206.D	CAL 1262@500PPB	09/19/21 19:55						0.098	5.42	0.945	1.00	16	50.00	200.0	500.0	1000.	2000.	4000.		
11	2G158206.D	CAL 1262@500PPB	09/19/21 19:55						0.059	6.90	0.993	1.00	6.8	50.00	200.0	500.0	1000.	2000.	4000.		
									0.079	5.17	0.996	1.00	5.8	50.00	200.0	500.0	1000.	2000.	4000.		
									0.041	3.736	0.996	1.00	9.6	50.00	200.0	500.0	1000.	2000.	4000.		
									0.046	7.93	0.996	1.00	4.9	50.00	200.0	500.0	1000.	2000.	4000.		
									0.080	1.866	0.996	1.00	5.3	50.00	200.0	500.0	1000.	2000.	4000.		
									0.015	4.06	-1	-1	10	500.0							
									0.007	8.419	-1	-1	10	500.0							
									0.040	2.426	-1	-1	10	500.0							
									0.024	3.426	-1	-1	7	500.0							
									0.019	2.460	-1	-1	7	500.0							
									0.035	5.12	-1	-1	7	500.0							
									0.022	2.523	-1	-1	7	500.0							
									0.017	0.565	-1	-1	7	500.0							
									0.020	7.426	-1	-1	8	500.0							
									0.070	3.12	-1	-1	8	500.0							
									0.082	1.542	-1	-1	8	500.0							
									0.032	2.565	-1	-1	8	500.0							
									0.018	7.460	-1	-1	9	500.0							
									0.047	5.13	-1	-1	9	500.0							
									0.104	5.42	-1	-1	9	500.0							
									0.051	8.577	-1	-1	9	500.0							
									0.049	3.640	-1	-1	9	500.0							
									0.022	6.55	-1	-1	10	500.0							
									0.092	3.676	-1	-1	10	500.0							
									0.042	6.90	-1	-1	10	500.0							
									0.062	3.709	-1	-1	10	500.0							
									0.022	3.748	-1	-1	10	500.0							
									0.133	7.58	-1	-1	11	500.0							
									0.061	9.858	-1	-1	11	500.0							

Avg Rsd Col 1: 9.39 Avg Rsd Col 2: 10.35

Flags

c - failed the initial calibration criteria (if applicable)

Note:

Col = Column Number
 M = MultiPeak Analyte 0=single peak analyte >0=multi peak analyte (i.e. nch/chlordane etc.)
 Fit = Indicates whether Avg RF Linear or Quadratic Curve was used for compound
 Corr 1 = Correlation Coefficient for linear Fa
 Corr 2 = Correlation Coefficient for quad Fa

All Response Factors = Response Factors / 10000

Initial Calibration Criteria: either %RSD <=20 or Corr >= .995

Columns: Signal #1 db-1701 ; Signal #2 db-608

Lvl: These compounds use a single pt calibration as specified by the method. The file used to update this calibration point is listed in the header under level #

Form 6

Instrument: GC_2

Method EPA 8082A

Level #:	Data File	Cal Identifier:	Analysis Date/Time							Initial Calibration					Data File	Cal Identifier:	Analysis Date/Time	Calibration Level Concentrations														
			RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	AvgRt	RT	Corr1	Corr2				%Rsd	Lvl1	Lvl2	Lvl3	Lvl4	Lvl5	Lvl6	Lvl7	Lvl8						
1	2G158207.D	CAL 1660@500PPB	09/19/21	20:10	---	---	---	---	---	---	---	---	---	2	2G158208.D	CAL 1660@200PPB	09/19/21	20:25	---	---	---	---	---	---	---	---	---	---	---	---		
3	2G158209.D	CAL 1660@500PPB	09/19/21	20:41	---	---	---	---	---	---	---	---	---	4	2G158210.D	CAL 1660@1000PPB	09/19/21	20:57	---	---	---	---	---	---	---	---	---	---	---	---	---	
5	2G158211.D	CAL 1660@2000PPB	09/19/21	21:12	---	---	---	---	---	---	---	---	---	6	2G158212.D	CAL 1660@4000PPB	09/19/21	21:27	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7	2G158203.D	CAL 3268@500PPB	09/19/21	19:09	---	---	---	---	---	---	---	---	---	8	2G158204.D	CAL 1242@500PPB	09/19/21	19:24	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9	2G158205.D	CAL 1248@500PPB	09/19/21	19:40	---	---	---	---	---	---	---	---	---	10	2G158202.D	CAL 2154@500PPB	09/19/21	18:54	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11	2G158206.D	CAL 1262@500PPB	09/19/21	19:55	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	

Flags
c - failed the initial calibration
criteria(if applicable)

Note:
Col = Column Number
Mtr = MultiPeak Analyte 0=single peak analyte >0=multi peak analyte (i.e. ncb/hchlordane etc.)
Fit = Indicates whether Avg R² Linear or Quadratic Curve was used for compound
Corr 1 = Correlation Coefficient for linear Fit
Corr 2 = Correlation Coefficient for quad Fit
N/A: These compounds use a single pt calibration as specified by the method. The file used to update this calibration point is listed in the header under level #

Avg Rsd Col 1: 9.39 Avg Rsd Col 2: 10.35

Form 6

Instrument: GC_2

Method: EPA 8082A
 Analysis Date/Time: 09/19/21 20:10
 Level #: 1
 Data File: 2G158207.D
 Cal Identifier: CAL 1660@50PPB
 Compound: Aroclor-1248

Initial Calibration
 Level #: 2
 Data File: 2G158208.D
 Compound: Aroclor-1248

Level #	Col	Mr	Fil	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	AvgRt	RT	Corr1	Corr2	%Rsd	Lvl1	Lvl2	Lvl3	Lvl4	Lvl5	Lvl6	Lvl7	Lvl8	
1	2	4	Avg	---	---	---	---	---	---	---	---	0.0255	6.05	-1	-1	Lvl=9	500.0								
3	2	5	Avg	---	---	---	---	---	---	---	---	0.0297	6.20	-1	-1	Lvl=9	500.0								
5	2	1	Avg	---	---	---	---	---	---	---	---	0.0434	6.40	-1	-1	Lvl=10	500.0								
7	2	2	Avg	---	---	---	---	---	---	---	---	0.0130	6.74	-1	-1	Lvl=10	500.0								
9	2	3	Avg	---	---	---	---	---	---	---	---	0.0224	7.16	-1	-1	Lvl=10	500.0								
11	2	4	Avg	---	---	---	---	---	---	---	---	0.0072	7.69	-1	-1	Lvl=10	500.0								
	2	5	Avg	---	---	---	---	---	---	---	---	0.0134	8.35	-1	-1	Lvl=10	500.0								
	2	1	Avg	---	---	---	---	---	---	---	---	0.0372	7.71	-1	-1	Lvl=11	500.0								
	2	2	Avg	---	---	---	---	---	---	---	---	0.0292	8.87	-1	-1	Lvl=11	500.0								
	2	3	Avg	---	---	---	---	---	---	---	---	0.0362	8.98	-1	-1	Lvl=11	500.0								
	2	4	Avg	---	---	---	---	---	---	---	---	0.0368	9.57	-1	-1	Lvl=11	500.0								
	2	5	Avg	---	---	---	---	---	---	---	---	0.0101	10.10	-1	-1	Lvl=11	500.0								
	2	1	Avg	---	---	---	---	---	---	---	---	0.0066	7.37	-1	-1	Lvl=7	500.0								
	2	2	Avg	---	---	---	---	---	---	---	---	0.0107	8.42	-1	-1	Lvl=7	500.0								
	2	3	Avg	---	---	---	---	---	---	---	---	0.0746	9.30	-1	-1	Lvl=7	500.0								
	2	4	Avg	---	---	---	---	---	---	---	---	0.0195	9.46	-1	-1	Lvl=7	500.0								
	2	5	Avg	---	---	---	---	---	---	---	---	0.240	10.10	-1	-1	Lvl=7	500.0								
DCB-Surrogate	2	0	Avg	0.7506	0.6307	0.6356	0.6305	0.5903	0.5405	---	---	0.630	10.63	0.997	1.00	Lvl=11	5.00	20.00	50.00	100.0	200.0	400.0			

Avg Rsd Col 1: 9.39

Avg Rsd Col 2: 10.35

Flags
 c - failed the initial calibration criteria (if applicable)

Note:
 Col = Column Number
 Mr = MultiPeak Analyte 0=single peak analyte >0=multi peak analyte (i.e. nch/chlordane etc.)
 Fil = Indicates whether Avg RF, Linear or Quadratic Curve was used for compound
 Corr 1 = Correlation Coefficient for linear Fo.
 Corr 2 = Correlation Coefficient for quad Fo.
 ^Lvl: These compounds use a single pt calibration as specified by the method. The file used to update this calibration point is listed in the header under level #

All Response Factors = Response Factors / 10000
 Initial Calibration Criteria: either %RSD <= 20 or Corr >= .995
 Columns: Signal #1 db-1701 · Signal #2 db-608

Form 6

Instrument GC_3

Compound	Level #	Data File	Initial Calibration								AvgRt	RT	Corr1	Corr2	%Rsd	Calibration Level Concentrations						
			Call Identifier	Analysis Date/Time	Level #	Data File	Call Identifier	Analysis Date/Time	Level #	Data File						Call Identifier	Analysis Date/Time	Level #	Data File	Call Identifier	Analysis Date/Time	Level #
TCMX-Surrogate	1	0 Avg	2.3016	1.8451	1.9023	1.7681	1.6647	1.5123	1.833	90	0.997	1.00	15	5.00	20.00	50.00	100.0	200.0	400.0	800.0		
Aroclor-1016	1	1 Avg	0.0478	0.0432	0.0415	0.0379	0.0354	0.0316	0.0396	4.42	0.996	1.00	15	50.00	200.0	500.0	1000.	2000.	4000.	8000.		
Aroclor-1016	2	Lin	0.1058	0.0853	0.0819	0.0742	0.0661	0.0569	0.0784	4.79	0.992	1.00	22	50.00	200.0	500.0	1000.	2000.	4000.	8000.		
Aroclor-1016	1	3 Avg	0.1976	0.1672	0.1582	0.1438	0.1305	0.1152	0.152	5.26	0.995	1.00	19	50.00	200.0	500.0	1000.	2000.	4000.	8000.		
Aroclor-1016	1	4 Avg	0.0654	0.0535	0.0546	0.0506	0.0460	0.0413	0.0519	5.51	0.996	1.00	16	50.00	200.0	500.0	1000.	2000.	4000.	8000.		
Aroclor-1016	1	5 Avg	0.1457	0.1170	0.1142	0.1034	0.0935	0.0836	0.110	5.63	0.995	1.00	20	50.00	200.0	500.0	1000.	2000.	4000.	8000.		
Aroclor-1260	1	1 Avg	0.1304	0.1095	0.1025	0.0934	0.0855	0.0739	0.0993	7.15	0.993	1.00	20	50.00	200.0	500.0	1000.	2000.	4000.	8000.		
Aroclor-1260	1	2 Avg	0.1602	0.1424	0.1351	0.1236	0.1154	0.0998	0.129	7.40	0.993	1.00	16	50.00	200.0	500.0	1000.	2000.	4000.	8000.		
Aroclor-1260	1	3 Avg	0.0782	0.0707	0.0702	0.0662	0.0655	0.0591	0.0684	7.60	0.997	1.00	9.3	50.00	200.0	500.0	1000.	2000.	4000.	8000.		
Aroclor-1260	1	4 Avg	0.1041	0.0860	0.0852	0.0791	0.0738	0.0652	0.0823	8.19	0.995	1.00	16	50.00	200.0	500.0	1000.	2000.	4000.	8000.		
Aroclor-1260	1	5 Avg	0.1562	0.1317	0.1348	0.1327	0.1291	0.1179	0.134	8.92	0.998	1.00	9.4	50.00	200.0	500.0	1000.	2000.	4000.	8000.		
Aroclor-1221	1	1 Avg	---	---	---	---	---	---	0.024	9.20	-1	-1	500.0	---	---	---	---	---	---	---		
Aroclor-1221	1	2 Avg	---	---	---	---	---	---	0.014	9.35	-1	-1	500.0	---	---	---	---	---	---	---		
Aroclor-1221	1	3 Avg	---	---	---	---	---	---	0.063	14.42	-1	-1	500.0	---	---	---	---	---	---	---		
Aroclor-1232	1	1 Avg	---	---	---	---	---	---	0.046	6.43	-1	-1	500.0	---	---	---	---	---	---	---		
Aroclor-1232	1	2 Avg	---	---	---	---	---	---	0.043	14.80	-1	-1	500.0	---	---	---	---	---	---	---		
Aroclor-1232	1	3 Avg	---	---	---	---	---	---	0.082	4.527	-1	-1	500.0	---	---	---	---	---	---	---		
Aroclor-1232	1	4 Avg	---	---	---	---	---	---	0.035	9.541	-1	-1	500.0	---	---	---	---	---	---	---		
Aroclor-1232	1	5 Avg	---	---	---	---	---	---	0.038	3.588	-1	-1	500.0	---	---	---	---	---	---	---		
Aroclor-1242	1	1 Avg	---	---	---	---	---	---	0.037	9.442	-1	-1	500.0	---	---	---	---	---	---	---		
Aroclor-1242	1	2 Avg	---	---	---	---	---	---	0.069	9.479	-1	-1	500.0	---	---	---	---	---	---	---		
Aroclor-1242	1	3 Avg	---	---	---	---	---	---	0.144	5.26	-1	-1	500.0	---	---	---	---	---	---	---		
Aroclor-1242	1	4 Avg	---	---	---	---	---	---	0.097	1.563	-1	-1	500.0	---	---	---	---	---	---	---		
Aroclor-1242	1	5 Avg	---	---	---	---	---	---	0.064	9.587	-1	-1	500.0	---	---	---	---	---	---	---		
Aroclor-1248	1	1 Avg	---	---	---	---	---	---	0.032	9.479	-1	-1	500.0	---	---	---	---	---	---	---		
Aroclor-1248	1	2 Avg	---	---	---	---	---	---	0.089	7.526	-1	-1	500.0	---	---	---	---	---	---	---		
Aroclor-1248	1	3 Avg	---	---	---	---	---	---	0.151	5.61	-1	-1	500.0	---	---	---	---	---	---	---		
Aroclor-1248	1	4 Avg	---	---	---	---	---	---	0.094	3.587	-1	-1	500.0	---	---	---	---	---	---	---		
Aroclor-1248	1	5 Avg	---	---	---	---	---	---	0.099	6.58	-1	-1	500.0	---	---	---	---	---	---	---		
Aroclor-1254	1	1 Avg	---	---	---	---	---	---	0.041	5.678	-1	-1	500.0	---	---	---	---	---	---	---		
Aroclor-1254	1	2 Avg	---	---	---	---	---	---	0.135	6.99	-1	-1	500.0	---	---	---	---	---	---	---		
Aroclor-1254	1	3 Avg	---	---	---	---	---	---	0.077	9.715	-1	-1	500.0	---	---	---	---	---	---	---		
Aroclor-1254	1	4 Avg	---	---	---	---	---	---	0.121	7.27	-1	-1	500.0	---	---	---	---	---	---	---		
Aroclor-1254	1	5 Avg	---	---	---	---	---	---	0.049	1.766	-1	-1	500.0	---	---	---	---	---	---	---		
Aroclor-1262	1	1 Avg	---	---	---	---	---	---	0.175	7.83	-1	-1	500.0	---	---	---	---	---	---	---		
Aroclor-1262	1	2 Avg	---	---	---	---	---	---	0.097	9.884	-1	-1	500.0	---	---	---	---	---	---	---		

Avg Rsd Col 1: 15.79 Avg Rsd Col 2: 14.19

Flags

c - failed the initial calibration criteria (if applicable)

Note:

Col = Column Number
 M = MultiPeak Analyte 0=simple peak analyte >0=multi peak analyte (i.e. nch/chlordane etc.)
 Fit = Indicates whether Avg RF Linear or Quadratic Curve was used for compound.
 Corr 1 = Correlation Coefficient for linear Fit.
 Corr 2 = Correlation Coefficient for quad Fit.
 Lvl: These compounds use a single pt calibration as specified by the method. The file used to update this calibration point is listed in the header under level #
 All Response Factors = Response Factors / 10000
 Initial Calibration Criteria either %RSD <=20 or Corr >= 995
 Columns: Signal #1 db-1701 : Signal #2 db-608

Form 6

Instrument: GC_3

Method	EPA 8082A	Initial Calibration										Calibration Level Concentrations						
		Level #	Data File	Cal Identifier	Analysis Date/Time	Level #	Data File	Cal Identifier	Analysis Date/Time	Lvl1	Lvl2	Lvl3	Lvl4	Lvl5	Lvl6	Lvl7	Lvl8	
109	Compound																	
101	Atroclor-1262	1 3 Avg	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	AvgRt	RT	Corr1	Corr2	%Rsd			
102	Atroclor-1262	1 4 Avg	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	AvgRt	RT	Corr1	Corr2	%Rsd			
103	Atroclor-1262	1 5 Avg	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	AvgRt	RT	Corr1	Corr2	%Rsd			
104	Atroclor-1268	1 1 Avg	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	AvgRt	RT	Corr1	Corr2	%Rsd			
105	Atroclor-1268	1 2 Avg	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	AvgRt	RT	Corr1	Corr2	%Rsd			
106	Atroclor-1268	1 3 Avg	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	AvgRt	RT	Corr1	Corr2	%Rsd			
107	Atroclor-1268	1 4 Avg	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	AvgRt	RT	Corr1	Corr2	%Rsd			
108	Atroclor-1268	1 5 Avg	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	AvgRt	RT	Corr1	Corr2	%Rsd			
109	DCB-Surrogate	1 0 Avg	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	AvgRt	RT	Corr1	Corr2	%Rsd			
110	TCMX-Surrogate	2 0 Avg	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	AvgRt	RT	Corr1	Corr2	%Rsd			
111	Atroclor-1016	2 1 Avg	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	AvgRt	RT	Corr1	Corr2	%Rsd			
112	Atroclor-1016	2 2 Avg	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	AvgRt	RT	Corr1	Corr2	%Rsd			
113	Atroclor-1016	2 3 Avg	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	AvgRt	RT	Corr1	Corr2	%Rsd			
114	Atroclor-1016	2 4 Avg	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	AvgRt	RT	Corr1	Corr2	%Rsd			
115	Atroclor-1016	2 5 Avg	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	AvgRt	RT	Corr1	Corr2	%Rsd			
116	Atroclor-1260	2 1 Ln	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	AvgRt	RT	Corr1	Corr2	%Rsd			
117	Atroclor-1260	2 2 Avg	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	AvgRt	RT	Corr1	Corr2	%Rsd			
118	Atroclor-1260	2 3 Avg	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	AvgRt	RT	Corr1	Corr2	%Rsd			
119	Atroclor-1260	2 4 Avg	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	AvgRt	RT	Corr1	Corr2	%Rsd			
120	Atroclor-1260	2 5 Avg	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	AvgRt	RT	Corr1	Corr2	%Rsd			
121	Atroclor-1221	2 1 Avg	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	AvgRt	RT	Corr1	Corr2	%Rsd			
122	Atroclor-1221	2 2 Avg	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	AvgRt	RT	Corr1	Corr2	%Rsd			
123	Atroclor-1221	2 3 Avg	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	AvgRt	RT	Corr1	Corr2	%Rsd			
124	Atroclor-1232	2 1 Avg	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	AvgRt	RT	Corr1	Corr2	%Rsd			
125	Atroclor-1232	2 2 Avg	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	AvgRt	RT	Corr1	Corr2	%Rsd			
126	Atroclor-1232	2 3 Avg	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	AvgRt	RT	Corr1	Corr2	%Rsd			
127	Atroclor-1232	2 4 Avg	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	AvgRt	RT	Corr1	Corr2	%Rsd			
128	Atroclor-1232	2 5 Avg	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	AvgRt	RT	Corr1	Corr2	%Rsd			
129	Atroclor-1242	2 1 Avg	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	AvgRt	RT	Corr1	Corr2	%Rsd			
130	Atroclor-1242	2 2 Avg	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	AvgRt	RT	Corr1	Corr2	%Rsd			
131	Atroclor-1242	2 3 Avg	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	AvgRt	RT	Corr1	Corr2	%Rsd			
132	Atroclor-1242	2 4 Avg	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	AvgRt	RT	Corr1	Corr2	%Rsd			
133	Atroclor-1242	2 5 Avg	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	AvgRt	RT	Corr1	Corr2	%Rsd			
134	Atroclor-1248	2 1 Avg	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	AvgRt	RT	Corr1	Corr2	%Rsd			
135	Atroclor-1248	2 2 Avg	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	AvgRt	RT	Corr1	Corr2	%Rsd			
136	Atroclor-1248	2 3 Avg	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	AvgRt	RT	Corr1	Corr2	%Rsd			

Flags
c - failed the initial calibration
criteria(if applicable)

Note:
Col = Column Number
Mtr = MultiPeak Analyte 0=single peak analyte >0=multi peak analyte (i.e. ncb/chlordane etc)
Fit = Indicates whether Avg RF Linear or Quadratic Curve was used for compound
Corr 1 = Correlation Coefficient for linear Fit
Corr 2 = Correlation Coefficient for quad Fit

All Response Factors = Response Factors / 10000
Initial Calibration Criteria: either %RSD <= 20 or Corr >= 995
Columns: Signal #1 db-1701 · Signal #2 db-608

Avg Rsd Col 1: 15.79 Avg Rsd Col 2: 14.19

Form 6

Instrument: GC_3

Method	EPA 8082A	Level #	Data File	Cal Identifier	Analysis Date/Time	Initial Calibration																		
						Level #	Data File	Cal Identifier	Analysis Date/Time	AvgRt	RT	Corr1	Corr2	%Rsd										
1	3G130616.D	1	CAL 1660@50PPB	09/22/21 12:31	2	3G130617.D	CAL 1660@200PPB	09/22/21 12:46	500.0	Lvl1	Lvl2	Lvl3	Lvl4	Lvl5	Lvl6	Lvl7	Lvl8							
3	3G130618.D	3	CAL 1660@500PPB	09/22/21 13:01	4	3G130619.D	CAL 1660@1000PPB	09/22/21 13:16	500.0	Lvl=9														
5	3G130620.D	5	CAL 1660@2000PPB	09/22/21 13:31	6	3G130621.D	CAL 1660@4000PPB	09/22/21 13:45	500.0	Lvl=10														
7	3G130612.D	7	CAL 3268@500PPB	09/22/21 11:32	8	3G130613.D	CAL 1242@500PPB	09/22/21 11:47	500.0	Lvl=10														
9	3G130614.D	9	CAL 1248@500PPB	09/22/21 12:01	10	3G130611.D	CAL 2154@500PPB	09/22/21 10:45	500.0	Lvl=10														
11	3G130615.D	11	CAL 1262@500PPB	09/22/21 12:16					500.0	Lvl=10														
1	Atroclor-1248	2	4 Avg	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	AvgRt	RT	Corr1	Corr2	%Rsd	Lvl1	Lvl2	Lvl3	Lvl4	Lvl5	Lvl6	Lvl7	Lvl8
	Atroclor-1248	2	5 Avg									0.0746	6.19	-1	-1	Lvl=9	500.0							
	Atroclor-1254	2	1 Avg									0.0864	6.32	-1	-1	Lvl=9	500.0							
	Atroclor-1254	2	2 Avg									0.1286	6.55	-1	-1	Lvl=10	500.0							
	Atroclor-1254	2	3 Avg									0.0407	6.89	-1	-1	Lvl=10	500.0							
	Atroclor-1254	2	4 Avg									0.1067	7.29	-1	-1	Lvl=10	500.0							
	Atroclor-1254	2	5 Avg									0.0521	7.80	-1	-1	Lvl=10	500.0							
	Atroclor-1262	2	1 Avg									0.0497	8.50	-1	-1	Lvl=10	500.0							
	Atroclor-1262	2	2 Avg									0.1177	7.87	-1	-1	Lvl=11	500.0							
	Atroclor-1262	2	3 Avg									0.0981	9.03	-1	-1	Lvl=11	500.0							
	Atroclor-1262	2	4 Avg									0.1169	9.14	-1	-1	Lvl=11	500.0							
	Atroclor-1262	2	5 Avg									0.1169	9.76	-1	-1	Lvl=11	500.0							
	Atroclor-1268	2	1 Avg									0.0335	10.32	-1	-1	Lvl=11	500.0							
	Atroclor-1268	2	2 Avg									0.0198	8.54	-1	-1	Lvl=7	500.0							
	Atroclor-1268	2	3 Avg									0.0335	8.58	-1	-1	Lvl=7	500.0							
	Atroclor-1268	2	4 Avg									0.2119	9.50	-1	-1	Lvl=7	500.0							
	Atroclor-1268	2	5 Avg									0.0577	9.66	-1	-1	Lvl=7	500.0							
	DCB-Surrogate	2	0 Avg	2.4250	1.9955	1.9170	1.9209	1.7987	1.6535			1.9510	10.88	0.998	1.00	Lvl=7	500.0	5.00	20.00	50.00	100.0	200.0	400.0	

Avg Rsd Col 1: 15.79 Avg Rsd Col 2: 14.19

Flags
c - failed the initial calibration
criteria(if applicable)

Note:
Col = Column Number
Mf = MultiPeak Analyte 0=simple peak analyte >0=multi peak analyte (i.e. nch/chlordane etc.)
Fit = Indicates whether Avg RF Linear or Quadratic Curve was used for compound
Corr 1 = Correlation Coefficient for linear Fc
Corr 2 = Correlation Coefficient for quad Fc
^Lvl: These compounds use a single pt calibration as specified by the method. The file used to update this calibration point is listed in the header under level #

All Response Factors = Response Factors / 100000
Initial Calibration Criteria: either %RSD <=20 or Corr >= .995
Columns: Signal #1 dh-1701 · Signal #2 dh-608

Form7

Continuing Calibration

Method: EPA 8082A

Data File:	2G158237.D	2G158239.D	2G158248.D	3G130521.D	3G130543.D
Method:	8082	8082	8082	8082	8082
Calibration Name:	CAL 1660@2000PP	CAL 1660@1000PP	CAL 1660@1000PP	CAL 1660@2000PP	CAL 1660@2000PP
Calibration Date/Time	09/20/21 03:50	09/20/21 13:09	09/20/21 17:07	09/19/21 21:51	09/20/21 03:17

Compound	Limit	Col	Mr	Conc			Conc			Conc			Conc			Conc		
				Conc	Exp	%Diff	Conc	Exp	%Diff	Conc	Exp	%Diff	Conc	Exp	%Diff	Conc	Exp	%Diff
TCMX-Surrogate	20	1	0	192.2	200	3.9	102.4	100	2.4	98.33	100	1.7	191.0	200	4.5	202.2	200	1.1
Aroclor-1016	20	1	1	2111	2000	5.6	1078	1000	7.8	810.3	1000	19.0	1922	2000	3.9	1974	2000	1.3
Aroclor-1016	20	1	2	1954	2000	2.3	1013	1000	1.3	1012	1000	1.2	1786	2000	10.7	1856	2000	7.2
Aroclor-1016	20	1	3	2144	2000	7.2	1109	1000	10.9	1096	1000	9.6	1796	2000	10.2	1877	2000	6.1
Aroclor-1016	20	1	4	2071	2000	3.6	997.4	1000	0.3	1077	1000	7.7	1941	2000	3.0	2023	2000	1.1
Aroclor-1016	20	1	5	2101	2000	5.1	864.6	1000	13.5	1081	1000	8.1	1940	2000	3.0	2011	2000	0.5
Aroclor-1260	20	1	1	2122	2000	6.1	1030	1000	3.0	1073	1000	7.3	1860	2000	7.0	1974	2000	1.3
Aroclor-1260	20	1	2	2183	2000	9.2	1073	1000	7.3	1108	1000	10.8	1955	2000	2.3	2072	2000	3.6
Aroclor-1260	20	1	3	2266	2000	13.3	1038	1000	3.8	1101	1000	10.1	2059	2000	3.0	2220	2000	11.0
Aroclor-1260	20	1	4	2135	2000	6.8	1058	1000	5.8	1093	1000	9.3	1987	2000	0.6	2165	2000	8.2
Aroclor-1260	20	1	5	2152	2000	7.6	972.4	1000	2.8	1030	1000	3.0	2004	2000	0.2	2224	2000	11.2
DCB-Surrogate	20	1	0	194.7	200	2.6	96.69	100	3.3	103.1	100	3.1	166.7	200	16.7	183.5	200	8.3
Average Difference	20	1	0			6.1			5.2			7.6			5.4			5.1
TCMX-Surrogate	20	2	0	209.5	200	4.8	99.78	100	0.2	106.4	100	6.3	242.9	200	21.4*	249.5	200	24.7*
Aroclor-1016	20	2	1	1851	2000	7.4	878	1000	12.2	1071	1000	7.1	2255	2000	12.7	2323	2000	16.2
Aroclor-1016	20	2	2	1860	2000	7.0	969.5	1000	3.1	1016	1000	1.6	2194	2000	9.7	2252	2000	12.6
Aroclor-1016	20	2	3	2013	2000	0.6	935.5	1000	6.5	1070	1000	7.0	2356	2000	17.8	2418	2000	20.9*
Aroclor-1016	20	2	4	2053	2000	2.7	1009	1000	0.9	1111	1000	11.1	2277	2000	13.8	2359	2000	17.9
Aroclor-1016	20	2	5	2078	2000	3.9	1012	1000	1.2	1131	1000	13.1	2244	2000	12.2	2326	2000	16.3
Aroclor-1260	20	2	1	1843	2000	7.8	843.4	1000	15.7	1004	1000	0.4	2778	2000	38.9*	2888	2000	44.4*
Aroclor-1260	20	2	2	1928	2000	3.6	801.2	1000	19.9	1041	1000	4.1	2297	2000	14.8	2396	2000	19.8
Aroclor-1260	20	2	3	1827	2000	8.7	861.6	1000	13.8	1018	1000	1.8	2305	2000	15.3	2395	2000	19.8
Aroclor-1260	20	2	4	1927	2000	3.6	905.7	1000	9.4	1034	1000	3.4	2325	2000	16.2	2412	2000	20.6*
Aroclor-1260	20	2	5	2026	2000	1.3	921.3	1000	7.9	1018	1000	1.8	2094	2000	4.7	2242	2000	12.1
DCB-Surrogate	20	2	0	191.5	200	4.2	88.43	100	11.6	99.77	100	0.2	211.2	200	5.6	218.6	200	9.3
Average Difference	20	2	0			4.6			8.5			4.8			15.3			19.6

Form7
Continuing Calibration

Method: EPA 8082A

Data File:	3G130567.D	3G130588.D	3G130605.D	3G130715.D	3G130735.D
Method:	8082	8082	8082	8082	8082
Calibration Name:	CAL 1660@2000PP	CAL 1660@2000PP	CAL 1660@2000PP	CAL 1660@1000PP	CAL 1660@2000PP
Calibration Date/Time	09/21/21 07:55	09/21/21 16:11	09/21/21 20:51	09/27/21 22:02	09/28/21 02:58

Compound	Limit	Col	Mr	Conc			Conc			Conc			Conc			Conc		
				Conc	Exp	%Diff	Conc	Exp	%Diff	Conc	Exp	%Diff	Conc	Exp	%Diff	Conc	Exp	%Diff
TCMX-Surrogate	20	1	0	200.8	200	0.4	217.4	200	8.7	184.0	200	8.0	93.71	100	6.3	166.0	200	17.0
Aroclor-1016	20	1	1	1974	2000	1.3	2139	2000	7.0	1787	2000	10.7	938.2	1000	6.2	1646	2000	17.7
Aroclor-1016	20	1	2	1916	2000	4.2	2052	2000	2.6	1742	2000	12.9	1075	1000	7.5	1943	2000	2.8
Aroclor-1016	20	1	3	1941	2000	3.0	2068	2000	3.4	1774	2000	11.3	921.3	1000	7.9	1607	2000	19.6
Aroclor-1016	20	1	4	2045	2000	2.3	2197	2000	9.9	1848	2000	7.6	935.4	1000	6.5	1641	2000	17.9
Aroclor-1016	20	1	5	1975	2000	1.2	2102	2000	5.1	1808	2000	9.6	913.6	1000	8.6	1560	2000	22.0*
Aroclor-1260	20	1	1	1943	2000	2.8	2090	2000	4.5	1828	2000	8.6	884.6	1000	11.5	1446	2000	27.7*
Aroclor-1260	20	1	2	2027	2000	1.4	2211	2000	10.5	1948	2000	2.6	917.3	1000	8.3	1500	2000	25.0*
Aroclor-1260	20	1	3	2070	2000	3.5	2322	2000	16.1	2022	2000	1.1	910.7	1000	8.9	1579	2000	21.1*
Aroclor-1260	20	1	4	2108	2000	5.4	2273	2000	13.6	1999	2000	0.0	896.2	1000	10.4	1451	2000	27.4*
Aroclor-1260	20	1	5	2103	2000	5.1	2229	2000	11.4	1999	2000	0.0	897.3	1000	10.3	1593	2000	20.3
DCB-Surrogate	20	1	0	175.5	200	12.3	179.4	200	10.3	166.1	200	17.0	89.6	100	10.4	158.8	200	20.6*
Average Difference	20	1	0			3.6			8.6			7.4			8.6			19.9
TCMX-Surrogate	20	2	0	226.5	200	13.3	229	200	14.5	238.5	200	19.3	102.6	100	2.6	203	200	1.5
Aroclor-1016	20	2	1	1962	2000	1.9	2024	2000	1.2	2251	2000	12.5	1084	1000	8.4	2071	2000	3.6
Aroclor-1016	20	2	2	2008	2000	0.4	2041	2000	2.0	2166	2000	8.3	1013	1000	1.3	1867	2000	6.7
Aroclor-1016	20	2	3	2038	2000	1.9	2103	2000	5.1	2350	2000	17.5	1005	1000	0.5	1921	2000	3.9
Aroclor-1016	20	2	4	2048	2000	2.4	2112	2000	5.6	2254	2000	12.7	992.4	1000	0.8	1872	2000	6.4
Aroclor-1016	20	2	5	2039	2000	2.0	2107	2000	5.4	2210	2000	10.5	1019	1000	1.9	1870	2000	6.5
Aroclor-1260	20	2	1	2600	2000	30.0*	2665	2000	33.2*	2745	2000	37.2*	1115	1000	11.5	2118	2000	5.9
Aroclor-1260	20	2	2	2114	2000	5.7	2175	2000	8.7	2291	2000	14.5	968.8	1000	3.1	1754	2000	12.3
Aroclor-1260	20	2	3	2216	2000	10.8	2265	2000	13.3	2321	2000	16.1	981.8	1000	1.8	1858	2000	7.1
Aroclor-1260	20	2	4	2066	2000	3.3	2203	2000	10.1	2326	2000	16.3	960.6	1000	3.9	1727	2000	13.7
Aroclor-1260	20	2	5	2199	2000	9.9	1830	2000	8.5	2124	2000	6.2	978.9	1000	2.1	1838	2000	8.1
DCB-Surrogate	20	2	0	203.8	200	1.9	202.6	200	1.3	204.8	200	2.4	97.2	100	2.8	178.6	200	10.7
Average Difference	20	2	0			7.0			9.1			14.5			3.4			7.2

Form 7

RtWindow Summary

Method: EPA 8082A

Data File:
Calibration Name:
Calibration Date/Time

2G158207.D
CAL 1660@50PPB
9/19/2021 8:10:00 PM

3G128892.D
CAL 1660@50PPB
7/19/2021 11:51:00 AM

3G130616.D
CAL 1660@50PPB
9/22/2021 12:31:00 PM

2G158207.D
CAL 1660@50PPB
9/19/2021 8:10:00 PM

2G158239.D
CAL 1660@1000PPB
9/20/2021 1:09:00 PM

Compound	Col	Mr	Cal RT	Limit	Cal RT	Limit	Cal RT	Limit	Cal RT	Limit	Cal RT	Limit
TCMX-Surrogate	1	0	3.79	(3.73 - 3.85)	3.91	(3.85 - 3.97)	3.90	(3.84 - 3.96)	3.80	(3.74 - 3.86)	3.80	(3.74 - 3.86)
Aroclor-1016	1	1	4.27	(4.23 - 4.31)	4.44	(4.40 - 4.48)	4.42	(4.38 - 4.46)	4.27	(4.23 - 4.31)	4.27	(4.23 - 4.31)
Aroclor-1016	1	2	4.60	(4.56 - 4.64)	4.81	(4.77 - 4.85)	4.79	(4.75 - 4.83)	4.60	(4.56 - 4.64)	4.60	(4.56 - 4.64)
Aroclor-1016	1	3	5.12	(5.08 - 5.16)	5.28	(5.24 - 5.32)	5.26	(5.22 - 5.30)	5.14	(5.10 - 5.18)	5.11	(5.07 - 5.15)
Aroclor-1016	1	4	5.23	(5.19 - 5.27)	5.53	(5.49 - 5.57)	5.51	(5.47 - 5.55)	5.28	(5.24 - 5.32)	5.22	(5.18 - 5.26)
Aroclor-1016	1	5	5.42	(5.38 - 5.46)	5.65	(5.61 - 5.69)	5.63	(5.59 - 5.67)	5.43	(5.39 - 5.47)	5.42	(5.38 - 5.46)
Aroclor-1260	1	1	6.90	(6.86 - 6.94)	7.17	(7.13 - 7.21)	7.15	(7.11 - 7.19)	6.91	(6.87 - 6.95)	6.90	(6.86 - 6.94)
Aroclor-1260	1	2	7.17	(7.13 - 7.21)	7.42	(7.38 - 7.46)	7.40	(7.36 - 7.44)	7.19	(7.14 - 7.22)	7.16	(7.12 - 7.20)
Aroclor-1260	1	3	7.36	(7.32 - 7.40)	7.62	(7.58 - 7.66)	7.60	(7.56 - 7.64)	7.37	(7.33 - 7.41)	7.36	(7.32 - 7.40)
Aroclor-1260	1	4	7.93	(7.89 - 7.97)	8.21	(8.17 - 8.25)	8.19	(8.15 - 8.23)	7.93	(7.89 - 7.97)	7.93	(7.89 - 7.97)
Aroclor-1260	1	5	8.66	(8.62 - 8.70)	8.95	(8.91 - 8.99)	8.92	(8.88 - 8.96)	8.67	(8.63 - 8.71)	8.65	(8.61 - 8.69)
Aroclor-1221	1	1	4.06	(4.02 - 4.10)	4.22	(4.18 - 4.26)	4.20	(4.16 - 4.24)				
Aroclor-1221	1	2	4.19	(4.15 - 4.23)	4.37	(4.33 - 4.41)	4.35	(4.31 - 4.39)				
Aroclor-1221	1	3	4.26	(4.22 - 4.30)	4.44	(4.40 - 4.48)	4.42	(4.38 - 4.46)				
Aroclor-1232	1	1	4.26	(4.22 - 4.30)	4.44	(4.40 - 4.48)	4.43	(4.39 - 4.47)				
Aroclor-1232	1	2	4.60	(4.56 - 4.64)	4.81	(4.77 - 4.85)	4.80	(4.76 - 4.84)				
Aroclor-1232	1	3	5.12	(5.08 - 5.16)	5.28	(5.24 - 5.32)	5.27	(5.23 - 5.31)				
Aroclor-1232	1	4	5.23	(5.19 - 5.27)	5.42	(5.38 - 5.46)	5.41	(5.37 - 5.45)				
Aroclor-1232	1	5	5.65	(5.61 - 5.69)	5.89	(5.85 - 5.93)	5.88	(5.84 - 5.92)				
Aroclor-1242	1	1	4.26	(4.22 - 4.30)	4.44	(4.40 - 4.48)	4.42	(4.38 - 4.46)				
Aroclor-1242	1	2	4.60	(4.56 - 4.64)	4.81	(4.77 - 4.85)	4.79	(4.75 - 4.83)				
Aroclor-1242	1	3	5.12	(5.08 - 5.16)	5.28	(5.24 - 5.32)	5.26	(5.22 - 5.30)				
Aroclor-1242	1	4	5.42	(5.38 - 5.46)	5.65	(5.61 - 5.69)	5.63	(5.59 - 5.67)				
Aroclor-1242	1	5	5.65	(5.61 - 5.69)	5.89	(5.85 - 5.93)	5.87	(5.83 - 5.91)				
Aroclor-1248	1	1	4.60	(4.56 - 4.64)	4.81	(4.77 - 4.85)	4.79	(4.75 - 4.83)				
Aroclor-1248	1	2	5.13	(5.09 - 5.17)	5.28	(5.24 - 5.32)	5.26	(5.22 - 5.30)				
Aroclor-1248	1	3	5.42	(5.38 - 5.46)	5.63	(5.59 - 5.67)	5.61	(5.57 - 5.65)				
Aroclor-1248	1	4	5.77	(5.73 - 5.81)	5.89	(5.85 - 5.93)	5.87	(5.83 - 5.91)				
Aroclor-1248	1	5	6.40	(6.36 - 6.44)	6.60	(6.56 - 6.64)	6.58	(6.54 - 6.62)				
Aroclor-1254	1	1	6.55	(6.51 - 6.59)	6.80	(6.76 - 6.84)	6.78	(6.74 - 6.82)				
Aroclor-1254	1	2	6.76	(6.72 - 6.80)	7.01	(6.97 - 7.05)	6.99	(6.95 - 7.03)				
Aroclor-1254	1	3	6.90	(6.86 - 6.94)	7.17	(7.13 - 7.21)	7.15	(7.11 - 7.19)				
Aroclor-1254	1	4	7.09	(7.05 - 7.13)	7.29	(7.25 - 7.33)	7.27	(7.23 - 7.31)				
Aroclor-1254	1	5	7.48	(7.44 - 7.52)	7.69	(7.65 - 7.73)	7.66	(7.62 - 7.70)				
Aroclor-1262	1	1	7.58	(7.54 - 7.62)	7.85	(7.81 - 7.89)	7.83	(7.79 - 7.87)				
Aroclor-1262	1	2	8.58	(8.54 - 8.62)	8.87	(8.83 - 8.91)	8.84	(8.80 - 8.88)				
Aroclor-1262	1	3	8.65	(8.61 - 8.69)	8.93	(8.89 - 8.97)	8.91	(8.87 - 8.95)				
Aroclor-1262	1	4	9.34	(9.30 - 9.38)	9.69	(9.65 - 9.73)	9.65	(9.61 - 9.69)				
Aroclor-1262	1	5	9.68	(9.64 - 9.72)	10.05	(10.01 - 10.09)	10.02	(9.98 - 10.06)				
Aroclor-1268	1	1	7.93	(7.89 - 7.97)	8.21	(8.17 - 8.25)	8.19	(8.15 - 8.23)				
Aroclor-1268	1	2	8.27	(8.23 - 8.31)	8.53	(8.49 - 8.57)	8.52	(8.48 - 8.56)				
Aroclor-1268	1	3	8.82	(8.78 - 8.86)	9.11	(9.07 - 9.15)	9.10	(9.06 - 9.14)				
Aroclor-1268	1	4	8.92	(8.88 - 8.96)	9.22	(9.18 - 9.26)	9.20	(9.16 - 9.24)				
Aroclor-1268	1	5	9.67	(9.63 - 9.71)	10.06	(10.02 - 10.10)	10.03	(9.99 - 10.07)				
DCB-Surrogate	1	0	9.90	(9.84 - 9.96)	10.28	(10.22 - 10.34)	10.25	(10.19 - 10.31)	9.90	(9.84 - 9.96)	9.90	(9.84 - 9.96)
TCMX-Surrogate	2	0	3.81	(3.75 - 3.87)	3.95	(3.89 - 4.01)	3.93	(3.87 - 3.99)	3.81	(3.75 - 3.87)	3.81	(3.75 - 3.87)
Aroclor-1016	2	1	4.42	(4.38 - 4.46)	4.55	(4.51 - 4.59)	4.53	(4.49 - 4.57)	4.42	(4.38 - 4.46)	4.41	(4.37 - 4.45)
Aroclor-1016	2	2	4.82	(4.78 - 4.86)	4.98	(4.94 - 5.02)	4.96	(4.92 - 5.00)	4.82	(4.78 - 4.86)	4.82	(4.78 - 4.86)
Aroclor-1016	2	3	5.22	(5.18 - 5.26)	5.36	(5.32 - 5.40)	5.34	(5.30 - 5.38)	5.23	(5.19 - 5.27)	5.22	(5.18 - 5.26)
Aroclor-1016	2	4	5.54	(5.50 - 5.58)	5.69	(5.65 - 5.73)	5.67	(5.63 - 5.71)	5.54	(5.50 - 5.58)	5.54	(5.50 - 5.58)
Aroclor-1016	2	5	5.90	(5.86 - 5.94)	6.06	(6.02 - 6.10)	6.05	(6.01 - 6.09)	5.90	(5.86 - 5.94)	5.90	(5.86 - 5.94)
Aroclor-1260	2	1	7.21	(7.17 - 7.25)	7.38	(7.34 - 7.42)	7.36	(7.32 - 7.40)	7.21	(7.17 - 7.25)	7.21	(7.17 - 7.25)
Aroclor-1260	2	2	7.30	(7.26 - 7.34)	7.46	(7.42 - 7.50)	7.44	(7.40 - 7.48)	7.30	(7.26 - 7.34)	7.29	(7.25 - 7.33)
Aroclor-1260	2	3	7.92	(7.88 - 7.96)	8.10	(8.06 - 8.14)	8.08	(8.04 - 8.12)	7.92	(7.88 - 7.96)	7.92	(7.88 - 7.96)
Aroclor-1260	2	4	8.28	(8.24 - 8.32)	8.46	(8.42 - 8.50)	8.44	(8.40 - 8.48)	8.28	(8.24 - 8.32)	8.28	(8.24 - 8.32)
Aroclor-1260	2	5	8.98	(8.94 - 9.02)	9.17	(9.13 - 9.21)	9.15	(9.11 - 9.19)	8.99	(8.95 - 9.03)	8.98	(8.94 - 9.02)
Aroclor-1221	2	1	4.19	(4.15 - 4.23)	4.33	(4.29 - 4.37)	4.31	(4.27 - 4.35)				
Aroclor-1221	2	2	4.34	(4.30 - 4.38)	4.48	(4.44 - 4.52)	4.46	(4.42 - 4.50)				
Aroclor-1221	2	3	4.41	(4.37 - 4.45)	4.55	(4.51 - 4.59)	4.53	(4.49 - 4.57)				
Aroclor-1232	2	1	4.41	(4.37 - 4.45)	4.55	(4.51 - 4.59)	4.53	(4.49 - 4.57)				
Aroclor-1232	2	2	4.82	(4.78 - 4.86)	4.98	(4.94 - 5.02)	4.96	(4.92 - 5.00)				
Aroclor-1232	2	3	5.22	(5.18 - 5.26)	5.36	(5.32 - 5.40)	5.34	(5.30 - 5.38)				
Aroclor-1232	2	4	5.54	(5.50 - 5.58)	5.69	(5.65 - 5.73)	5.67	(5.63 - 5.71)				
Aroclor-1232	2	5	6.05	(6.01 - 6.09)	6.29	(6.25 - 6.33)	6.27	(6.23 - 6.31)				
Aroclor-1242	2	1	4.41	(4.37 - 4.45)	4.55	(4.51 - 4.59)	4.53	(4.49 - 4.57)				
Aroclor-1242	2	2	4.82	(4.78 - 4.86)	4.98	(4.94 - 5.02)	4.96	(4.92 - 5.00)				
Aroclor-1242	2	3	5.22	(5.18 - 5.26)	5.36	(5.32 - 5.40)	5.34	(5.30 - 5.38)				
Aroclor-1242	2	4	5.54	(5.50 - 5.58)	5.69	(5.65 - 5.73)	5.67	(5.63 - 5.71)				
Aroclor-1242	2	5	6.05	(6.01 - 6.09)	6.29	(6.25 - 6.33)	6.27	(6.23 - 6.31)				
Aroclor-1248	2	1	4.82	(4.78 - 4.86)	4.98	(4.94 - 5.02)	4.96	(4.92 - 5.00)				
Aroclor-1248	2	2	5.22	(5.18 - 5.26)	5.36	(5.32 - 5.40)	5.34	(5.30 - 5.38)				
Aroclor-1248	2	3	5.53	(5.49 - 5.57)	5.69	(5.65 - 5.73)	5.67	(5.63 - 5.71)				
Aroclor-1248	2	4	6.05	(6.01 - 6.09)	6.21	(6.17 - 6.25)	6.19	(6.15 - 6.23)				
Aroclor-1248	2	5	6.20	(6.16 - 6.24)	6.34	(6.30 - 6.38)	6.32	(6.28 - 6.36)				
Aroclor-1254	2	1	6.40	(6.36 - 6.44)	6.57	(6.53 - 6.61)	6.55	(6.51 - 6.59)				
Aroclor-1254	2	2	6.74	(6.70 - 6.78)	6.91	(6.87 - 6.95)	6.89	(6.85 - 6.93)				
Aroclor-1254	2	3	7.16	(7.12 - 7.20)	7.31	(7.27 - 7.35)	7.29	(7.25 - 7.33)				
Aroclor-1254	2	4	7.68	(7.64 - 7.72)	7.82	(7.78 - 7.86)	7.80	(7.76 - 7.84)				
Aroclor-1254	2	5	8.35	(8.31 - 8.39)	8.52	(8.48 - 8.56)	8.50	(8.46 - 8.54)				
Aroclor-1262	2	1	7.71	(7.67 - 7.75)	7.89	(7.85 - 7.93)	7.87	(7.83 - 7.91)				
Aroclor-1262	2	2	8.87	(8.83 - 8.91)	9.05	(9.01 - 9.09)	9.03	(8.99 - 9.07)				
Aroclor-1262	2	3	8.98	(8.94 - 9.02)	9.17	(9.13 - 9.21)	9.14	(9.10 - 9.18)				
Aroclor-1262	2	4	9.57	(9.53 - 9.61)	9.78	(9.74 - 9.82)	9.76	(9.72 - 9.80)				
Aroclor-1262	2	5	10.10	(10.06 - 10.14)	10.35	(10.31 - 10.39)	10.32	(10.28 - 10.36)				
Aroclor-1268	2	1	8.37	(8.33 - 8.41)	8.56	(8.52 - 8.60)	8.54	(8.50 - 8.58)				
Aroclor-1268	2	2	8.42	(8.38 - 8.46)	8.60	(8.56 - 8.64)	8.58	(8.54 - 8.62)				
Aroclor-1268	2	3	9.31	(9.27 - 9.35)	9.52	(9.48 - 9.56)	9.50	(9.46 - 9.54)				
Aroclor-1268	2	4	9.46	(9.42 - 9.50)	9.68	(9.64 - 9.72)	9.66	(9.62 - 9.70)				
Aroclor-1268	2	5	10.10	(10.06 - 10.14)	10.35	(10.31 - 10.39)	10.33	(10.29 - 10.37)				
DCB-Surrogate	2	0	10.63	(10.57 - 10.69)	10.92	(10.86 - 10.98)	10.89	(10.83 - 10.95)	10.63	(10.57 - 10.69)	10.63	(10.57 - 10.69)

Form 7

RtWindow Summary

Method: EPA 8082A

Data File:	3G130521.D	3G130567.D	3G130588.D	3G130715.D
Calibration Name:	CAL 1660@2000PPB	CAL 1660@2000PPB	CAL 1660@2000PPB	CAL 1660@1000PPB
Calibration Date/Time:	9/19/2021 9:51:00 PM	9/21/2021 7:55:00 AM	9/21/2021 4:11:00 PM	9/27/2021 10:02:00 PM

Compound	Col	Mr	Cal RT	Limit	Cal RT	Limit	Cal RT	Limit	Cal RT	Limit	Cal RT	Limit
TCMX-Surrogate	1	0	3.91	(3.85 - 3.97)	3.91	(3.85 - 3.97)	3.91	(3.85 - 3.97)	3.90	(3.84 - 3.96)		
Aroclor-1016	1	1	4.42	(4.38 - 4.46)	4.43	(4.39 - 4.47)	4.43	(4.39 - 4.47)	4.42	(4.38 - 4.46)		
Aroclor-1016	1	2	4.80	(4.76 - 4.84)	4.80	(4.76 - 4.84)	4.81	(4.76 - 4.84)	4.79	(4.75 - 4.83)		
Aroclor-1016	1	3	5.27	(5.23 - 5.31)	5.27	(5.23 - 5.31)	5.28	(5.24 - 5.32)	5.26	(5.22 - 5.30)		
Aroclor-1016	1	4	5.52	(5.48 - 5.56)	5.52	(5.48 - 5.56)	5.53	(5.49 - 5.57)	5.51	(5.47 - 5.55)		
Aroclor-1016	1	5	5.63	(5.59 - 5.67)	5.64	(5.60 - 5.68)	5.64	(5.60 - 5.68)	5.63	(5.59 - 5.67)		
Aroclor-1260	1	1	7.15	(7.11 - 7.19)	7.16	(7.12 - 7.20)	7.16	(7.12 - 7.20)	7.15	(7.11 - 7.19)		
Aroclor-1260	1	2	7.41	(7.37 - 7.45)	7.41	(7.37 - 7.45)	7.42	(7.38 - 7.46)	7.40	(7.36 - 7.44)		
Aroclor-1260	1	3	7.61	(7.57 - 7.65)	7.61	(7.57 - 7.65)	7.62	(7.58 - 7.66)	7.60	(7.56 - 7.64)		
Aroclor-1260	1	4	8.20	(8.16 - 8.24)	8.20	(8.16 - 8.24)	8.21	(8.17 - 8.25)	8.19	(8.15 - 8.23)		
Aroclor-1260	1	5	8.92	(8.88 - 8.96)	8.93	(8.89 - 8.97)	8.93	(8.89 - 8.97)	8.92	(8.88 - 8.96)		
Aroclor-1221	1	1										
Aroclor-1221	1	2										
Aroclor-1221	1	3										
Aroclor-1232	1	1										
Aroclor-1232	1	2										
Aroclor-1232	1	3										
Aroclor-1232	1	4										
Aroclor-1232	1	5										
Aroclor-1242	1	1										
Aroclor-1242	1	2										
Aroclor-1242	1	3										
Aroclor-1242	1	4										
Aroclor-1242	1	5										
Aroclor-1248	1	1										
Aroclor-1248	1	2										
Aroclor-1248	1	3										
Aroclor-1248	1	4										
Aroclor-1248	1	5										
Aroclor-1254	1	1										
Aroclor-1254	1	2										
Aroclor-1254	1	3										
Aroclor-1254	1	4										
Aroclor-1254	1	5										
Aroclor-1262	1	1										
Aroclor-1262	1	2										
Aroclor-1262	1	3										
Aroclor-1262	1	4										
Aroclor-1262	1	5										
Aroclor-1268	1	1										
Aroclor-1268	1	2										
Aroclor-1268	1	3										
Aroclor-1268	1	4										
Aroclor-1268	1	5										
DCB-Surrogate	1	0	10.25	(10.19 - 10.31)	10.26	(10.20 - 10.32)	10.26	(10.20 - 10.32)	10.25	(10.19 - 10.31)		
TCMX-Surrogate	2	0	3.94	(3.88 - 4.00)	3.94	(3.88 - 4.00)	3.94	(3.88 - 4.00)	3.93	(3.87 - 3.99)		
Aroclor-1016	2	1	4.54	(4.50 - 4.58)	4.54	(4.50 - 4.58)	4.54	(4.50 - 4.58)	4.53	(4.49 - 4.57)		
Aroclor-1016	2	2	4.97	(4.93 - 5.01)	4.97	(4.93 - 5.01)	4.97	(4.93 - 5.01)	4.96	(4.92 - 5.00)		
Aroclor-1016	2	3	5.35	(5.31 - 5.39)	5.35	(5.31 - 5.39)	5.35	(5.31 - 5.39)	5.35	(5.30 - 5.38)		
Aroclor-1016	2	4	5.68	(5.64 - 5.72)	5.68	(5.64 - 5.72)	5.68	(5.64 - 5.72)	5.67	(5.63 - 5.71)		
Aroclor-1016	2	5	6.05	(6.01 - 6.09)	6.06	(6.02 - 6.10)	6.06	(6.02 - 6.10)	6.05	(6.01 - 6.09)		
Aroclor-1260	2	1	7.37	(7.33 - 7.41)	7.37	(7.33 - 7.41)	7.37	(7.33 - 7.41)	7.36	(7.32 - 7.40)		
Aroclor-1260	2	2	7.45	(7.41 - 7.49)	7.45	(7.41 - 7.49)	7.46	(7.42 - 7.50)	7.45	(7.41 - 7.49)		
Aroclor-1260	2	3	8.09	(8.05 - 8.13)	8.09	(8.05 - 8.13)	8.09	(8.05 - 8.13)	8.08	(8.04 - 8.12)		
Aroclor-1260	2	4	8.45	(8.41 - 8.49)	8.45	(8.41 - 8.49)	8.45	(8.41 - 8.49)	8.44	(8.40 - 8.48)		
Aroclor-1260	2	5	9.16	(9.12 - 9.20)	9.16	(9.12 - 9.20)	9.16	(9.12 - 9.20)	9.15	(9.11 - 9.19)		
Aroclor-1221	2	1										
Aroclor-1221	2	2										
Aroclor-1221	2	3										
Aroclor-1232	2	1										
Aroclor-1232	2	2										
Aroclor-1232	2	3										
Aroclor-1232	2	4										
Aroclor-1232	2	5										
Aroclor-1242	2	1										
Aroclor-1242	2	2										
Aroclor-1242	2	3										
Aroclor-1242	2	4										
Aroclor-1242	2	5										
Aroclor-1248	2	1										
Aroclor-1248	2	2										
Aroclor-1248	2	3										
Aroclor-1248	2	4										
Aroclor-1248	2	5										
Aroclor-1254	2	1										
Aroclor-1254	2	2										
Aroclor-1254	2	3										
Aroclor-1254	2	4										
Aroclor-1254	2	5										
Aroclor-1262	2	1										
Aroclor-1262	2	2										
Aroclor-1262	2	3										
Aroclor-1262	2	4										
Aroclor-1262	2	5										
Aroclor-1268	2	1										
Aroclor-1268	2	2										
Aroclor-1268	2	3										
Aroclor-1268	2	4										
Aroclor-1268	2	5										
DCB-Surrogate	2	0	10.84	(10.84 - 10.96)	10.90	(10.84 - 10.96)	10.90	(10.84 - 10.96)	10.89	(10.83 - 10.95)		

TPH Data

Form1

ORGANICS PETROLEUM HYDROCARBON REPORT

Sample Number: AD25976-002	Method: EPA 8015D
Client Id: SB01 COMP	Matrix: Soil
Data File: 7G55764.D	Initial Vol: 5g
Analysis Date: 09/20/21 13:57	Final Vol: 1ml
Date Rec/Extracted: 09/14/21-09/18/21	Dilution: 1
Column: DB-5MS 30M 0.250mm ID 0.25um film	Solids: 88

Units: mg/Kg

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
	Total Petroleum Hydrocarbo	68	U				

Worksheet #: 609180

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

*U - Indicates the compound was analyzed but not detected.
 B - Indicates the analyte was found in the blank as well as in the sample.
 E - Indicates the analyte concentration exceeds the calibration range of the instrument.*

*R - Retention Time Out
 J - Indicates an estimated value when a compound is detected at less than the specified detection limit.
 d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a Chlordane (Total) is sum of a-Chlordane and y-Chlordane.*

Data Path : G:\Gcdata\2021\GC_7\Data\09-20-21\
 Data File : 7G55764.D
 Signal(s) : FID2B.CH
 Acq On : 20 Sep 2021 13:57
 Operator : RR/ABM/AH
 Sample : AD25976-002
 Misc : S,TPH
 ALS Vial : 10 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Sep 20 14:15:36 2021
 Quant Method : G:\GC DATA\2021\GC_7\METHODQT\7G_T0716.M
 Quant Title : @GC_7,mg,8015
 QLast Update : Fri Jul 16 09:37:45 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc	Units

Target Compounds				
1)mt C8	0.000	0	N.D.	d
2)mt C9	0.000	0	N.D.	d
3)mdte C10	0.000	0	N.D.	d
4)mdte C12	0.000	0	N.D.	d
5)mdte C14	0.000	0	N.D.	d
6)dte C16	0.000	0	N.D.	d
7)dte C17	0.000	0	N.D.	d
8)dte Pristane	0.000	0	N.D.	d
9)dte C18	0.000	0	N.D.	d
10)dte Phytane	0.000	0	N.D.	d
11)dte C20	0.000	0	N.D.	d
12)dte C22	0.000	0	N.D.	d
13)dte C24	0.000	0	N.D.	d
14)dte C26	0.000	0	N.D.	d
15)dte C28	0.000	0	N.D.	d
16)te C30	0.000	0	N.D.	d
17)te C32	0.000	0	N.D.	d
18)te C34	0.000	0	N.D.	d
19)te C36	0.000	0	N.D.	d
20)t C40	0.000	0	N.D.	d
21) Chlorobenzene	2.392	35544	12.643	
22) O-Terphenyl	8.148	91275	15.522	
23)d Diesel Range Organics(T	0.000	0	N.D.	d
24)t Total Petroleum Hydroca	8.148f	1679474	308.788	m
25)e Ext. Petroleum Hydrocar	0.000	0	N.D.	d
26)m Mineral Spirits(TOTAL)	0.000	0	N.D.	d
27)m Stoddard Solvent(TOTAL)	0.000	0	N.D.	d

(f)=RT Delta > 1/2 Window

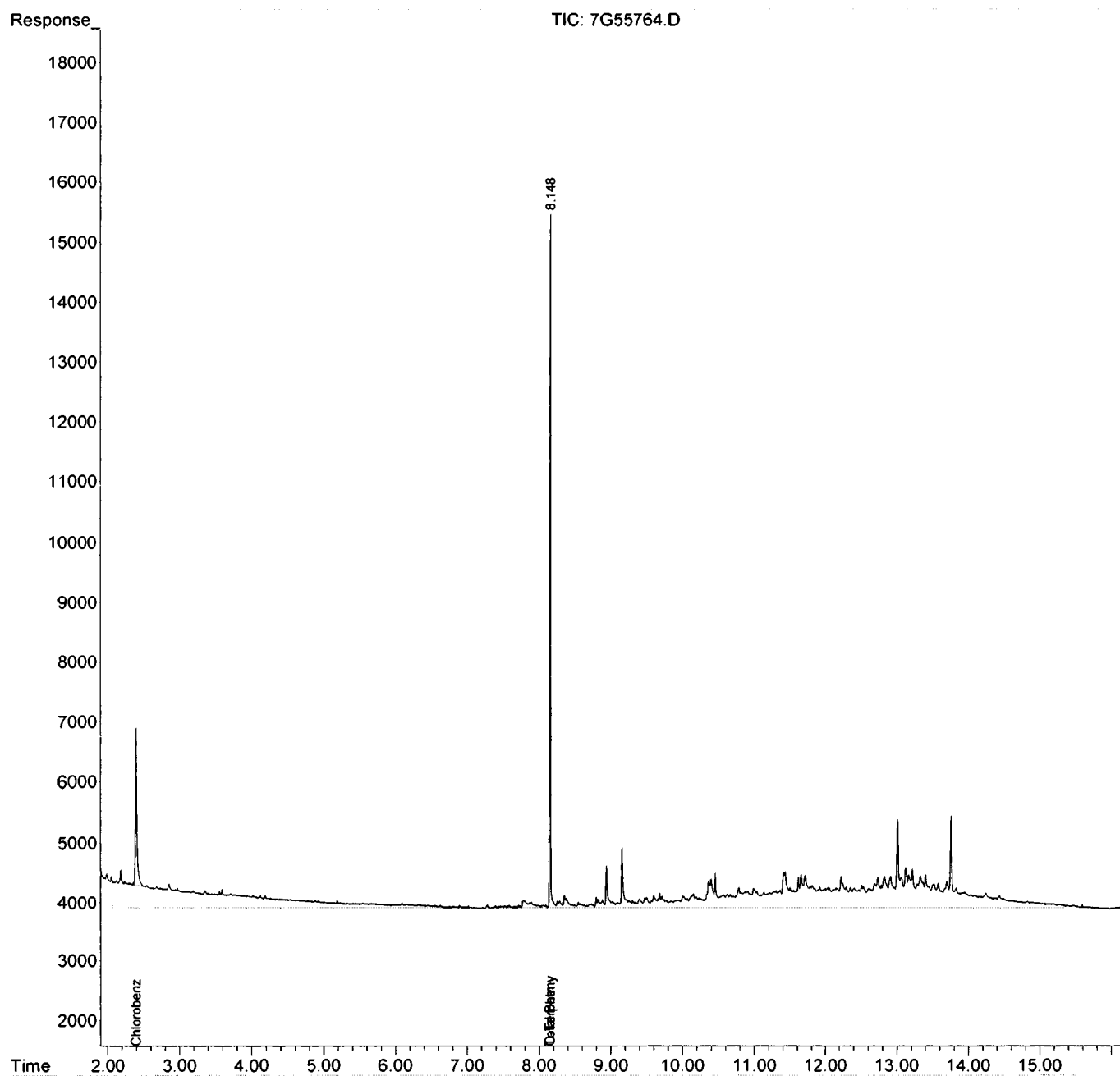
(m)=manual int.

RR

Data Path : G:\Gcdata\2021\GC_7\Data\09-20-21\
Data File : 7G55764.D
Signal(s) : FID2B.CH
Acq On : 20 Sep 2021 13:57
Operator : RR/ABM/AH
Sample : AD25976-002
Misc : S,TPH
ALS Vial : 10 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Sep 20 14:15:36 2021
Quant Method : G:\GC DATA\2021\GC_7\METHODQT\7G_T0716.M
Quant Title : @GC_7,mg,8015
QLast Update : Fri Jul 16 09:37:45 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Form1

ORGANICS PETROLEUM HYDROCARBON REPORT

Sample Number: AD25976-004	Method: EPA 8015D
Client Id: SB02 COMP	Matrix: Soil
Data File: 7G55766.D	Initial Vol: 5g
Analysis Date: 09/20/21 14:49	Final Vol: 1ml
Date Rec/Extracted: 09/14/21-09/18/21	Dilution: 1
Column: DB-5MS 30M 0.250mm ID 0.25um film	Solids: 83

Units: mg/Kg

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
	Total Petroleum Hydrocar	72	120				

Worksheet #: 609180

Total Target Concentration 120

ColumnID: (^) Indicates results from 2nd column

*U - Indicates the compound was analyzed but not detected.
 B - Indicates the analyte was found in the blank as well as in the sample.
 E - Indicates the analyte concentration exceeds the calibration range of the instrument.*

*R - Retention Time Out
 J - Indicates an estimated value when a compound is detected at less than the specified detection limit.
 d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a Chlordane (Total) is sum of a-Chlordane and y-Chlordane.*

Data Path : G:\Gcdata\2021\GC_7\Data\09-20-21\
 Data File : 7G55766.D
 Signal(s) : FID2B.CH
 Acq On : 20 Sep 2021 14:49
 Operator : RR/ABM/AH
 Sample : AD25976-004
 Misc : S,TPH
 ALS Vial : 12 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Sep 20 15:15:29 2021
 Quant Method : G:\GC\DATA\2021\GC_7\METHODQT\7G_T0716.M
 Quant Title : @GC_7,mg,8015
 QLast Update : Fri Jul 16 09:37:45 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc	Units

Target Compounds				
1)mt C8	0.000	0	N.D.	d
2)mte C9	0.000	0	N.D.	d
3)mdte C10	0.000	0	N.D.	d
4)mdte C12	0.000	0	N.D.	d
5)mdte C14	0.000	0	N.D.	d
6)dte C16	0.000	0	N.D.	d
7)dte C17	0.000	0	N.D.	d
8)dte Pristane	0.000	0	N.D.	d
9)dte C18	0.000	0	N.D.	d
10)dte Phytane	0.000	0	N.D.	d
11)dte C20	0.000	0	N.D.	d
12)dte C22	0.000	0	N.D.	d
13)dte C24	0.000	0	N.D.	d
14)dte C26	0.000	0	N.D.	d
15)dte C28	0.000	0	N.D.	d
16)te C30	0.000	0	N.D.	d
17)te C32	0.000	0	N.D.	d
18)te C34	0.000	0	N.D.	d
19)te C36	0.000	0	N.D.	d
20)t C40	0.000	0	N.D.	d
21) Chlorobenzene	2.391	29709	10.567	
22) O-Terphenyl	8.149	100293	17.056	
23)d Diesel Range Organics(T	0.000	0	N.D.	d
24)t Total Petroleum Hydroca	8.149f	4036802	742.205	m
25)e Ext. Petroleum Hydrocar	0.000	0	N.D.	d
26)m Mineral Spirits(TOTAL)	0.000	0	N.D.	d
27)m Stoddard Solvent(TOTAL)	0.000	0	N.D.	d

(f)=RT Delta > 1/2 Window

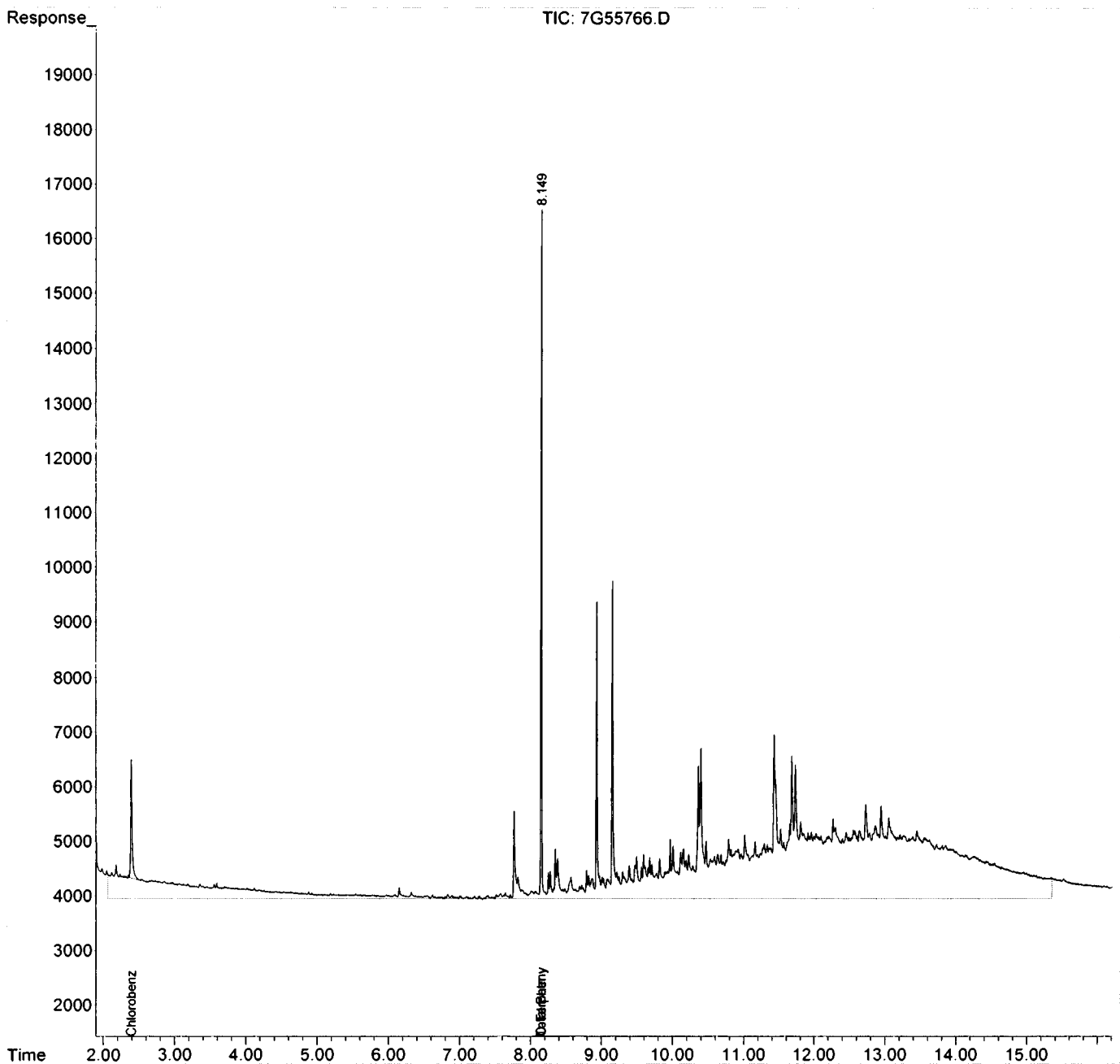
(m)=manual int.

RR

Data Path : G:\Gcdata\2021\GC_7\Data\09-20-21\
 Data File : 7G55766.D
 Signal(s) : FID2B.CH
 Acq On : 20 Sep 2021 14:49
 Operator : RR/ABM/AH
 Sample : AD25976-004
 Misc : S,TPH
 ALS Vial : 12 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Sep 20 15:15:29 2021
 Quant Method : G:\GC DATA\2021\GC_7\METHODQT\7G_T0716.M
 Quant Title : @GC_7,mg,8015
 QLast Update : Fri Jul 16 09:37:45 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :



Form1

ORGANICS PETROLEUM HYDROCARBON REPORT

Sample Number: AD25976-006	Method: EPA 8015D
Client Id: SB03 COMP	Matrix: Soil
Data File: 7G55765.D	Initial Vol: 5g
Analysis Date: 09/20/21 14:23	Final Vol: 1ml
Date Rec/Extracted: 09/14/21-09/18/21	Dilution: 1
Column: DB-5MS 30M 0.250mm ID 0.25um film	Solids: 80

Units: mg/Kg

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
	Total Petroleum Hydrocarbo	75	U				

Worksheet #: 609180

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

*U - Indicates the compound was analyzed but not detected.
 B - Indicates the analyte was found in the blank as well as in the sample.
 E - Indicates the analyte concentration exceeds the calibration range of the instrument.*

*R - Retention Time Out
 J - Indicates an estimated value when a compound is detected at less than the specified detection limit.
 d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a Chlordane (Total) is sum of a-Chlordane and y-Chlordane.*

Data Path : G:\Gcdata\2021\GC_7\Data\09-20-21\
 Data File : 7G55765.D
 Signal(s) : FID2B.CH
 Acq On : 20 Sep 2021 14:23
 Operator : RR/ABM/AH
 Sample : AD25976-006
 Misc : S,TPH
 ALS Vial : 11 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Sep 20 14:45:08 2021
 Quant Method : G:\GCDATA\2021\GC_7\METHODQT\7G_T0716.M
 Quant Title : @GC_7,mg,8015
 QLast Update : Fri Jul 16 09:37:45 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc	Units

Target Compounds				
1)mt C8	0.000	0	N.D.	d
2)mt C9	0.000	0	N.D.	d
3)mdte C10	0.000	0	N.D.	d
4)mdte C12	0.000	0	N.D.	d
5)mdte C14	0.000	0	N.D.	d
6)dte C16	0.000	0	N.D.	d
7)dte C17	0.000	0	N.D.	d
8)dte Pristane	0.000	0	N.D.	d
9)dte C18	0.000	0	N.D.	d
10)dte Phytane	0.000	0	N.D.	d
11)dte C20	0.000	0	N.D.	d
12)dte C22	0.000	0	N.D.	d
13)dte C24	0.000	0	N.D.	d
14)dte C26	0.000	0	N.D.	d
15)dte C28	0.000	0	N.D.	d
16)te C30	0.000	0	N.D.	d
17)te C32	0.000	0	N.D.	d
18)te C34	0.000	0	N.D.	d
19)te C36	0.000	0	N.D.	d
20)t C40	0.000	0	N.D.	d
21) Chlorobenzene	2.392	27490	9.778	
22) O-Terphenyl	8.148	76497	13.009	
23)d Diesel Range Organics(T	0.000	0	N.D.	d
24)t Total Petroleum Hydroca	8.148f	2570045	472.527	m
25)e Ext. Petroleum Hydrocar	0.000	0	N.D.	d
26)m Mineral Spirits(TOTAL)	0.000	0	N.D.	d
27)m Stoddard Solvent(TOTAL)	0.000	0	N.D.	d

(f)=RT Delta > 1/2 Window

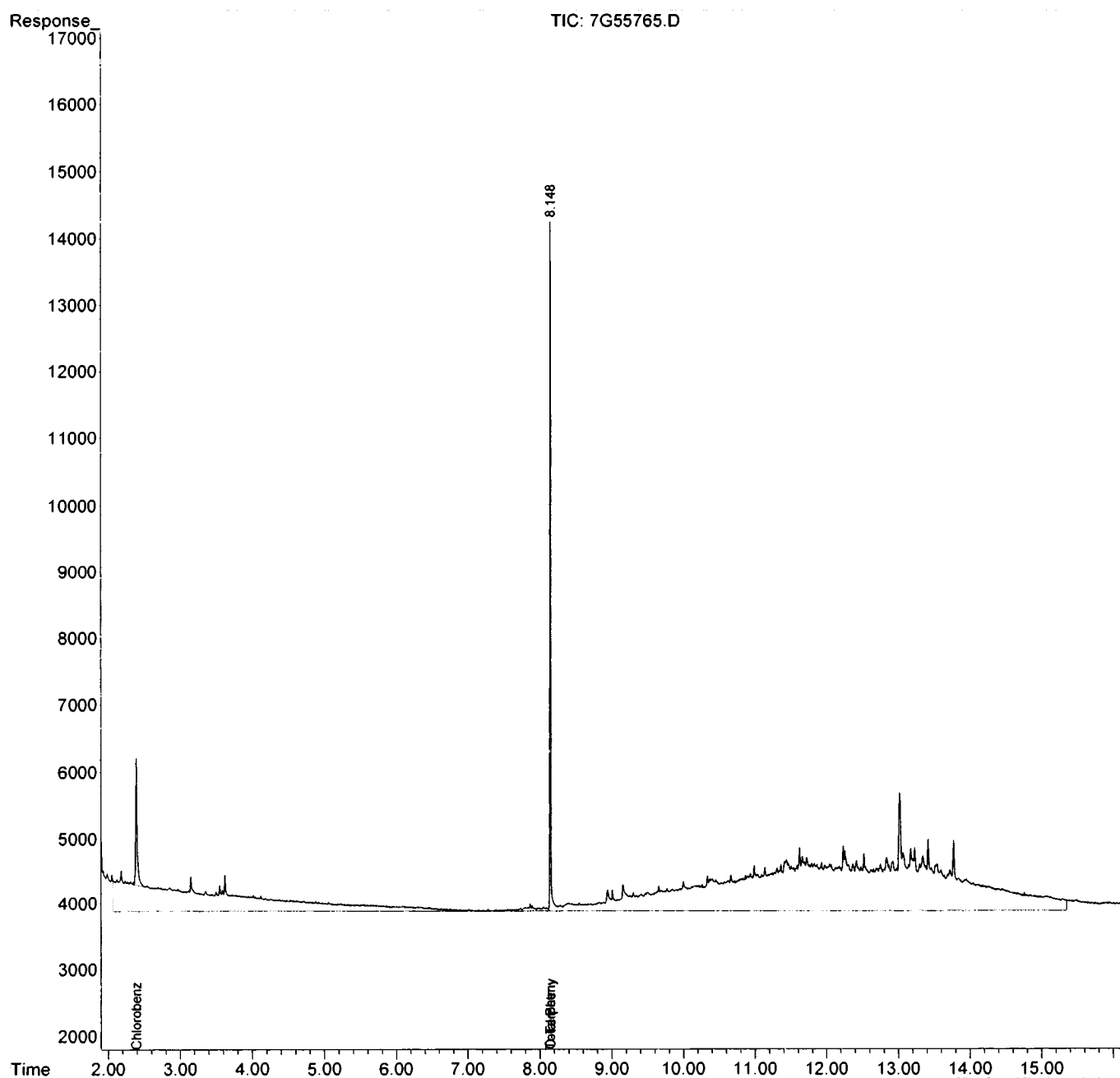
(m)=manual int.

RR

Data Path : G:\Gcdata\2021\GC_7\Data\09-20-21\
 Data File : 7G55765.D
 Signal(s) : FID2B.CH
 Acq On : 20 Sep 2021 14:23
 Operator : RR/ABM/AH
 Sample : AD25976-006
 Misc : S,TPH
 ALS Vial : 11 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Sep 20 14:45:08 2021
 Quant Method : G:\GC\DATA\2021\GC_7\METHODQT\7G_T0716.M
 Quant Title : @GC_7,mg,8015
 QLast Update : Fri Jul 16 09:37:45 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :



Form1

ORGANICS PETROLEUM HYDROCARBON REPORT

Sample Number: AD25976-008	Method: EPA 8015D
Client Id: SB04 COMP	Matrix: Soil
Data File: 7G55763.D	Initial Vol: 5g
Analysis Date: 09/20/21 13:31	Final Vol: 1ml
Date Rec/Extracted: 09/14/21-09/18/21	Dilution: 1
Column: DB-5MS 30M 0.250mm ID 0.25um film	Solids: 84

Units: mg/Kg

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
	Total Petroleum Hydrocarbo	71	U				

Worksheet #: 609180

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

*U - Indicates the compound was analyzed but not detected.
 B - Indicates the analyte was found in the blank as well as in the sample.
 E - Indicates the analyte concentration exceeds the calibration range of the instrument.*

*R - Retention Time Out
 J - Indicates an estimated value when a compound is detected at less than the specified detection limit.
 d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a Chlordane (Total) is sum of a-Chlordane and y-Chlordane.*

Data Path : G:\Gcdata\2021\GC_7\Data\09-20-21\
 Data File : 7G55763.D
 Signal(s) : FID2B.CH
 Acq On : 20 Sep 2021 13:31
 Operator : RR/ABM/AH
 Sample : AD25976-008
 Misc : S,TPH
 ALS Vial : 9 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Sep 20 13:53:26 2021
 Quant Method : G:\GC\DATA\2021\GC_7\METHODQT\7G_T0716.M
 Quant Title : @GC_7,mg,8015
 QLast Update : Fri Jul 16 09:37:45 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc	Units

Target Compounds				
1)mt C8	0.000	0	N.D.	d
2)mte C9	0.000	0	N.D.	d
3)mdte C10	0.000	0	N.D.	d
4)mdte C12	0.000	0	N.D.	d
5)mdte C14	0.000	0	N.D.	d
6)dte C16	0.000	0	N.D.	d
7)dte C17	0.000	0	N.D.	d
8)dte Pristane	0.000	0	N.D.	d
9)dte C18	0.000	0	N.D.	d
10)dte Phytane	0.000	0	N.D.	d
11)dte C20	0.000	0	N.D.	d
12)dte C22	0.000	0	N.D.	d
13)dte C24	0.000	0	N.D.	d
14)dte C26	0.000	0	N.D.	d
15)dte C28	0.000	0	N.D.	d
16)te C30	0.000	0	N.D.	d
17)te C32	0.000	0	N.D.	d
18)te C34	0.000	0	N.D.	d
19)te C36	0.000	0	N.D.	d
20)t C40	0.000	0	N.D.	d
21) Chlorobenzene	2.392	37902	13.481	
22) O-Terphenyl	8.149	102137	17.369	
23)d Diesel Range Organics(T	0.000	0	N.D.	d
24)t Total Petroleum Hydroca	8.149f	1896254	348.644	m
25)e Ext. Petroleum Hydrocar	0.000	0	N.D.	d
26)m Mineral Spirits(TOTAL)	0.000	0	N.D.	d
27)m Stoddard Solvent(TOTAL)	0.000	0	N.D.	d

(f)=RT Delta > 1/2 Window

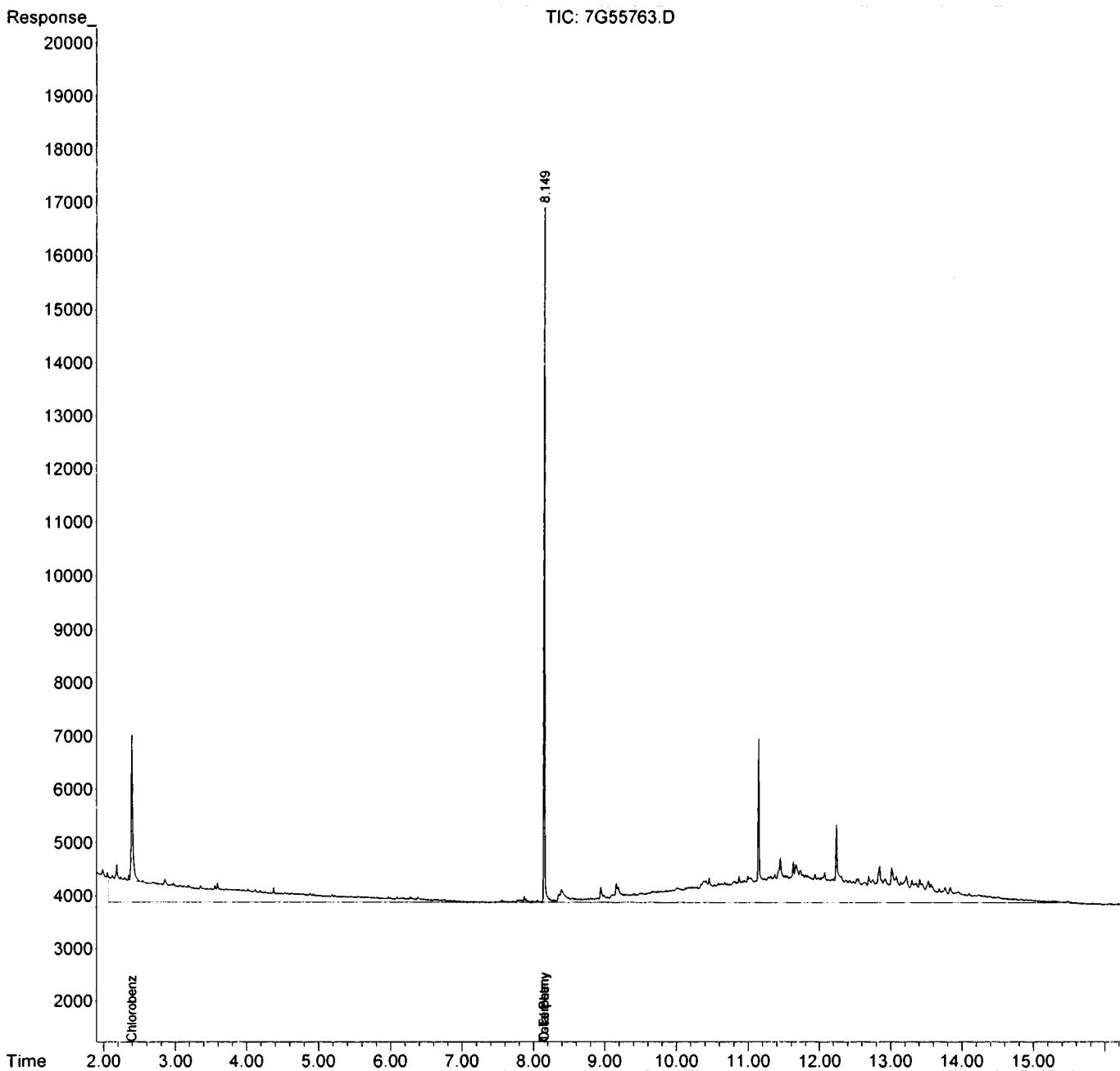
(m)=manual int.

RR

Data Path : G:\Gcdata\2021\GC_7\Data\09-20-21\
Data File : 7G55763.D
Signal(s) : FID2B.CH
Acq On : 20 Sep 2021 13:31
Operator : RR/ABM/AH
Sample : AD25976-008
Misc : S,TPH
ALS Vial : 9 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Sep 20 13:53:26 2021
Quant Method : G:\GC DATA\2021\GC_7\METHODQT\7G_T0716.M
Quant Title : @GC_7,mg,8015
QLast Update : Fri Jul 16 09:37:45 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Form1

ORGANICS PETROLEUM HYDROCARBON REPORT

Sample Number: AD25976-010	Method: EPA 8015D
Client Id: SB05 COMP	Matrix: Soil
Data File: 7G55762.D	Initial Vol: 5g
Analysis Date: 09/20/21 13:05	Final Vol: 1ml
Date Rec/Extracted: 09/14/21-09/18/21	Dilution: 1
Column: DB-5MS 30M 0.250mm ID 0.25um film	Solids: 80

Units: mg/Kg

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
	Total Petroleum Hydrocarbo	75	U				

Worksheet #: 609180

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

*U - Indicates the compound was analyzed but not detected.
 B - Indicates the analyte was found in the blank as well as in the sample.
 E - Indicates the analyte concentration exceeds the calibration range of the instrument.*

*R - Retention Time Out
 J - Indicates an estimated value when a compound is detected at less than the specified detection limit.
 d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a Chlordane (Total) is sum of a-Chlordane and y-Chlordane.*

Data Path : G:\Gcdata\2021\GC_7\Data\09-20-21\
 Data File : 7G55762.D
 Signal(s) : FID2B.CH
 Acq On : 20 Sep 2021 13:05
 Operator : RR/ABM/AH
 Sample : AD25976-010
 Misc : S,TPH
 ALS Vial : 8 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Sep 20 13:33:29 2021
 Quant Method : G:\GC\DATA\2021\GC_7\METHODQT\7G_T0716.M
 Quant Title : @GC_7,mg,8015
 QLast Update : Fri Jul 16 09:37:45 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc	Units

Target Compounds				
1)mt C8	0.000	0	N.D.	d
2)mte C9	0.000	0	N.D.	d
3)mdte C10	0.000	0	N.D.	d
4)mdte C12	0.000	0	N.D.	d
5)mdte C14	0.000	0	N.D.	d
6)dte C16	0.000	0	N.D.	d
7)dte C17	0.000	0	N.D.	d
8)dte Pristane	0.000	0	N.D.	d
9)dte C18	0.000	0	N.D.	d
10)dte Phytane	0.000	0	N.D.	d
11)dte C20	0.000	0	N.D.	d
12)dte C22	0.000	0	N.D.	d
13)dte C24	0.000	0	N.D.	d
14)dte C26	0.000	0	N.D.	d
15)dte C28	0.000	0	N.D.	d
16)te C30	0.000	0	N.D.	d
17)te C32	0.000	0	N.D.	d
18)te C34	0.000	0	N.D.	d
19)te C36	0.000	0	N.D.	d
20)t C40	0.000	0	N.D.	d
21) Chlorobenzene	2.394	28814	10.249	
22) O-Terphenyl	8.149	85238	14.495	
23)d Diesel Range Organics(T	0.000	0	N.D.	d
24)t Total Petroleum Hydroca	8.149f	1516232	278.774	m
25)e Ext. Petroleum Hydrocar	0.000	0	N.D.	d
26)m Mineral Spirits(TOTAL)	0.000	0	N.D.	d
27)m Stoddard Solvent(TOTAL)	0.000	0	N.D.	d

(f)=RT Delta > 1/2 Window

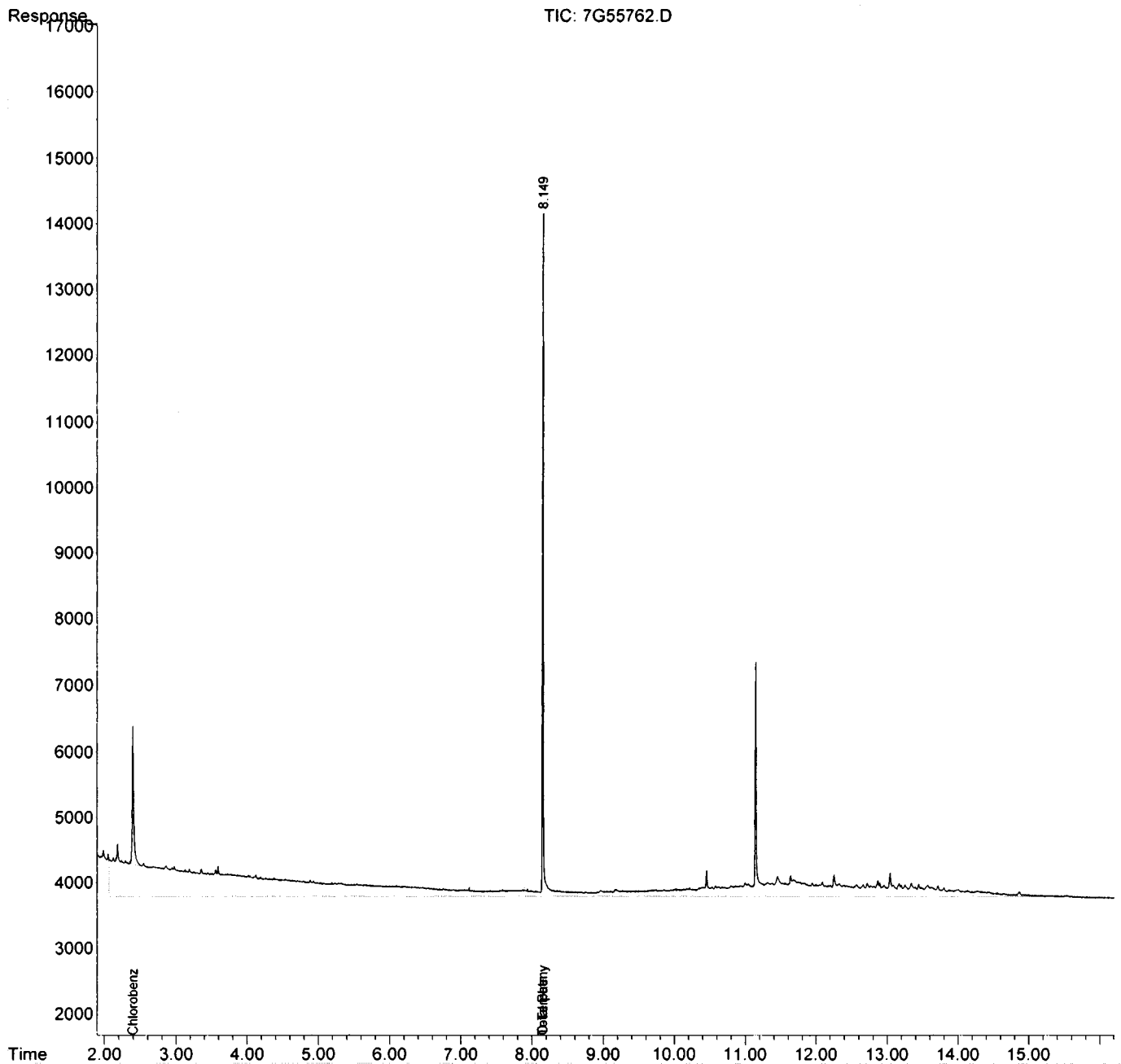
(m)=manual int.

RR

Data Path : G:\Gcdata\2021\GC_7\Data\09-20-21\
 Data File : 7G55762.D
 Signal(s) : FID2B.CH
 Acq On : 20 Sep 2021 13:05
 Operator : RR/ABM/AH
 Sample : AD25976-010
 Misc : S,TPH
 ALS Vial : 8 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Sep 20 13:33:29 2021
 Quant Method : G:\GC DATA\2021\GC_7\METHODQT\7G_T0716.M
 Quant Title : @GC_7,mg,8015
 QLast Update : Fri Jul 16 09:37:45 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :



Form1

ORGANICS PETROLEUM HYDROCARBON REPORT

Sample Number: SMB94957	Method: EPA 8015D
Client Id:	Matrix: Soil
Data File: 7G55755.D	Initial Vol: 5g
Analysis Date: 09/20/21 10:06	Final Vol: 1ml
Date Rec/Extracted: NA-09/18/21	Dilution: 1
Column: DB-5MS 30M 0.250mm ID 0.25um film	Solids: 100

		Units: mg/Kg					
Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
	Total Petroleum Hydrocarbo	60	U				

Worksheet #: 609180

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

*U - Indicates the compound was analyzed but not detected.
 B - Indicates the analyte was found in the blank as well as in the sample.
 E - Indicates the analyte concentration exceeds the calibration range of the instrument.*

*R - Retention Time Out
 J - Indicates an estimated value when a compound is detected at less than the specified detection limit.
 d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a Chlordane (Total) is sum of a-Chlordane and y-Chlordane.*

Data Path : G:\Gcdata\2021\GC_7\Data\09-20-21\
 Data File : 7G55755.D
 Signal(s) : FID2B.CH
 Acq On : 20 Sep 2021 10:06
 Operator : RR/ABM/AH
 Sample : SMB94957
 Misc : S,TPH
 ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Sep 20 10:47:11 2021
 Quant Method : G:\GC DATA\2021\GC_7\METHODQT\7G_T0716.M
 Quant Title : @GC_7,mg,8015
 QLast Update : Fri Jul 16 09:37:45 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc	Units

Target Compounds				
1)mt C8	0.000	0	N.D.	
2)mte C9	0.000	0	N.D.	
3)mdte C10	0.000	0	N.D.	
4)mdte C12	0.000	0	N.D.	
5)mdte C14	0.000	0	N.D.	
6)dte C16	0.000	0	N.D.	
7)dte C17	0.000	0	N.D.	
8)dte Pristane	0.000	0	N.D.	
9)dte C18	0.000	0	N.D.	
10)dte Phytane	0.000	0	N.D.	
11)dte C20	0.000	0	N.D.	
12)dte C22	0.000	0	N.D.	
13)dte C24	0.000	0	N.D.	
14)dte C26	0.000	0	N.D.	
15)dte C28	0.000	0	N.D.	
16)te C30	0.000	0	N.D.	
17)te C32	0.000	0	N.D.	
18)te C34	0.000	0	N.D.	
19)te C36	0.000	0	N.D.	
20)t C40	0.000	0	N.D.	
21) Chlorobenzene	2.396	23144	8.232	
22) O-Terphenyl	8.151	57490	9.777	
23)d Diesel Range Organics(T	8.151f	858957	157.637	m
24)t Total Petroleum Hydroca	8.151f	1301945	239.375	m
25)e Ext. Petroleum Hydrocar	0.000	0	N.D.	
26)m Mineral Spirits(TOTAL)	0.000	0	N.D.	d
27)m Stoddard Solvent(TOTAL)	0.000	0	N.D.	

(f)=RT Delta > 1/2 Window

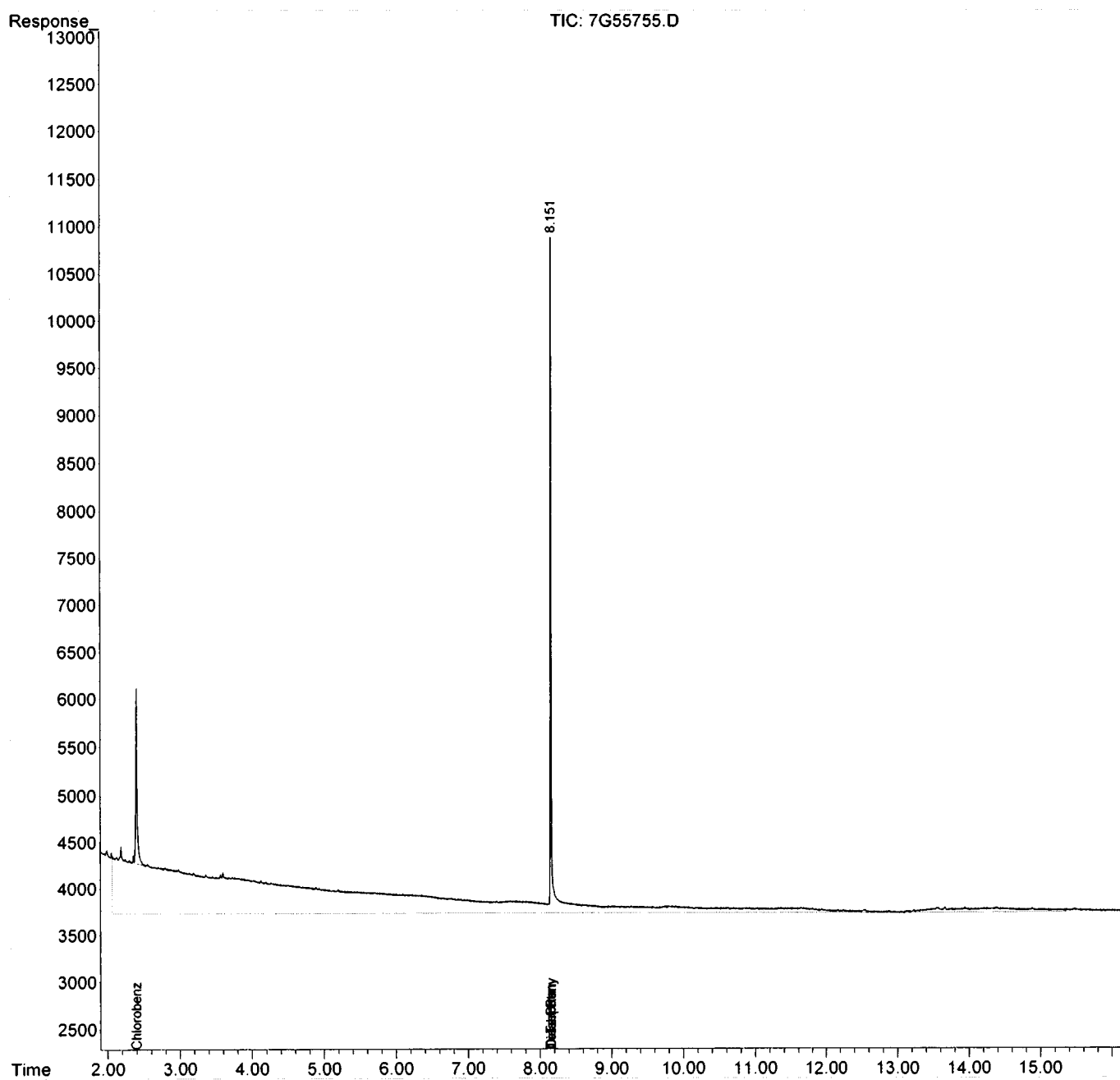
(m)=manual int.

RR

Data Path : G:\Gcdata\2021\GC_7\Data\09-20-21\
Data File : 7G55755.D
Signal(s) : FID2B.CH
Acq On : 20 Sep 2021 10:06
Operator : RR/ABM/AH
Sample : SMB94957
Misc : S,TPH
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Sep 20 10:47:11 2021
Quant Method : G:\GCDATA\2021\GC_7\METHODQT\7G_T0716.M
Quant Title : @GC_7,mg,8015
QLast Update : Fri Jul 16 09:37:45 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Data Path : G:\Gcdata\2021\GC_7\Data\09-20-21\
 Data File : 7G55754.D
 Signal(s) : FID2B.CH
 Acq On : 20 Sep 2021 9:40
 Operator : RR/ABM/AH
 Sample : INST BLK
 Misc : S,TPH
 ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Sep 20 10:21:28 2021
 Quant Method : G:\GC DATA\2021\GC_7\METHODQT\7G_T0716.M
 Quant Title : @GC_7,mg,8015
 QLast Update : Fri Jul 16 09:37:45 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc	Units

Target Compounds				
1)mt C8	0.000	0	N.D.	
2)mte C9	0.000	0	N.D.	
3)mdte C10	0.000	0	N.D.	
4)mdte C12	0.000	0	N.D.	
5)mdte C14	0.000	0	N.D.	
6)dte C16	0.000	0	N.D.	
7)dte C17	0.000	0	N.D.	
8)dte Pristane	0.000	0	N.D.	
9)dte C18	0.000	0	N.D.	
10)dte Phytane	0.000	0	N.D.	
11)dte C20	0.000	0	N.D.	
12)dte C22	0.000	0	N.D.	
13)dte C24	0.000	0	N.D.	
14)dte C26	0.000	0	N.D.	
15)dte C28	0.000	0	N.D.	
16)te C30	0.000	0	N.D.	
17)te C32	0.000	0	N.D.	
18)te C34	0.000	0	N.D.	
19)te C36	0.000	0	N.D.	
20)t C40	0.000	0	N.D.	
21) Chlorobenzene	0.000	0	N.D.	
22) O-Terphenyl	0.000	0	N.D.	
23)d Diesel Range Organics(T	3.218	787932	144.602	m
24)t Total Petroleum Hydroca	2.082	1213165	223.052	m
25)e Ext. Petroleum Hydrocar	0.000	0	N.D.	
26)m Mineral Spirits(TOTAL)	0.000	0	N.D.	
27)m Stoddard Solvent(TOTAL)	0.000	0	N.D.	

(f)=RT Delta > 1/2 Window

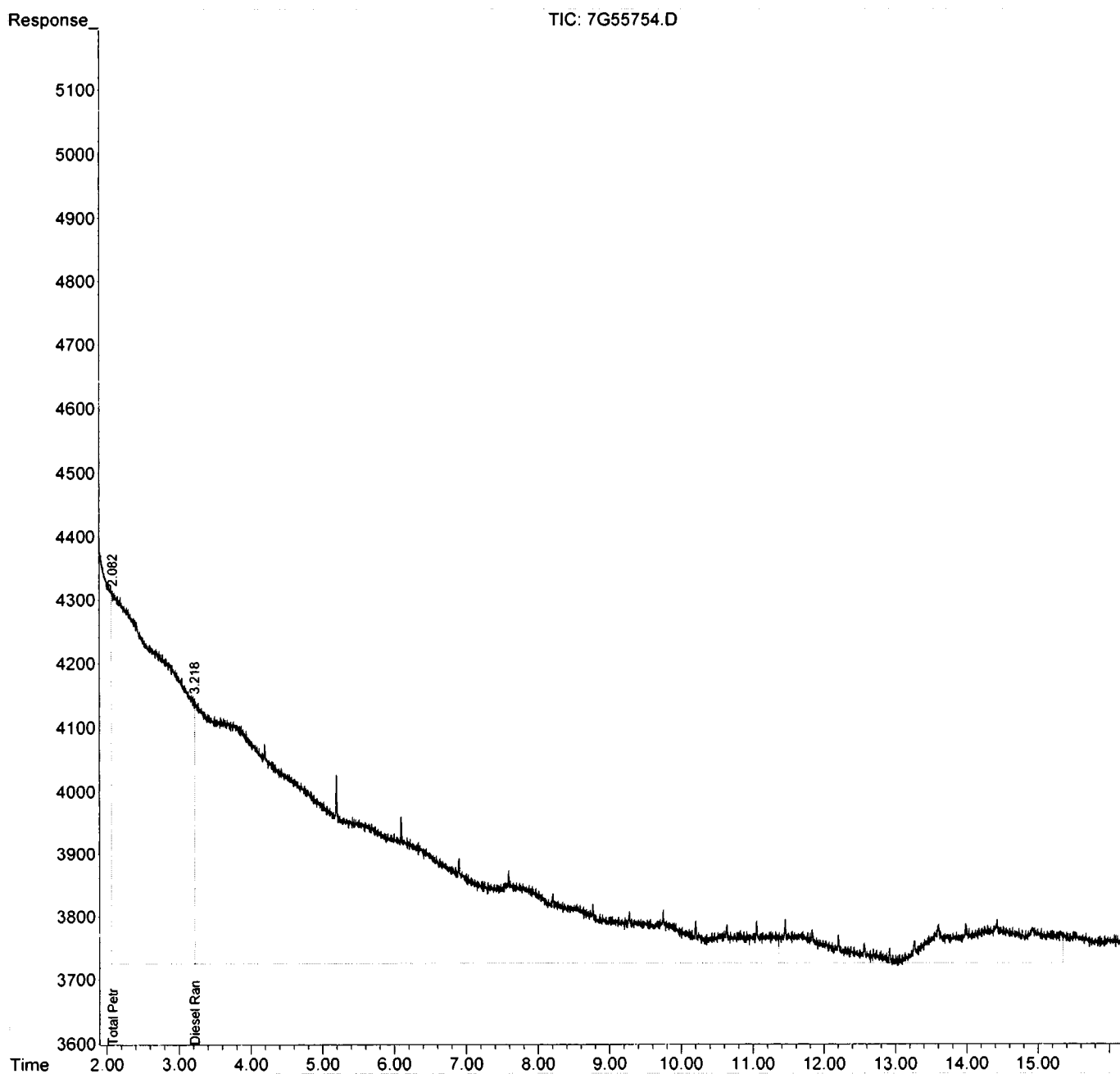
(m)=manual int.

RR

Data Path : G:\Gcdata\2021\GC_7\Data\09-20-21\
Data File : 7G55754.D
Signal(s) : FID2B.CH
Acq On : 20 Sep 2021 9:40
Operator : RR/ABM/AH
Sample : INST BLK
Misc : S,TPH
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Sep 20 10:21:28 2021
Quant Method : G:\GCDATA\2021\GC_7\METHODQT\7G_T0716.M
Quant Title : @GC_7,mg,8015
QLast Update : Fri Jul 16 09:37:45 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



FORM2

Surrogate Recovery

Method: EPA 8015D

Dfile	Sample#	Matrix	Date/Time	Surr Dil	Dilute Out Flag	Column1 S1 Recov	Column1 S2 Recov	Column0 S3 Recov	Column0 S4 Recov	Column0 S5 Recov	Column0 S6 Recov
7G55755.D	SMB94957	S	09/20/21 10:06	1		41	49				
7G55764.D	DAD25976-002	S	09/20/21 13:57	1		63	78				
7G55766.D	DAD25976-004	S	09/20/21 14:49	1		53	85				
7G55765.D	DAD25976-006	S	09/20/21 14:23	1		49	65				
7G55763.D	DAD25976-008	S	09/20/21 13:31	1		67	87				
7G55762.D	DAD25976-010	S	09/20/21 13:05	1		51	72				
7G55756.D	SMB94957(MS)	S	09/20/21 10:31	1		70	69				
7G55759.D	DAD25945-002(10X)	S	09/20/21 11:48	10	SD	0*	0*				
7G55760.D	DAD25945-002(10X)(MS)	S	09/20/21 12:14	10	SD	0*	0*				
7G55761.D	DAD25945-002(10X)(MS)	S	09/20/21 12:40	10	SD	0*	0*				

Flags: SD=Surrogate diluted out

*=Surrogate out

Method: EPA 8015D

Soil Laboratory Limits

Compound	Spike Amt	Limits
S1=Chlorobenzene	20	20-117
S2=O-Terphenyl	20	30-146

Form3
Recovery Data Laboratory Limits
 QC Batch: SMB94957

Data File		Sample ID:		Analysis Date			
Spike or Dup: 7G55756.D		SMB94957(MS)		9/20/2021 10:31:00 AM			
Non Spike(If applicable):							
Inst Blank(If applicable): 7G55754.D		INST BLK		9/20/2021 9:40:00 AM			
Method: 8015		Matrix: Soil		Units: mg/Kg		QC Type: MBS	
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Diesel Range Organics	1	2097.22	0	3000	70	40	130

Form3
Recovery Data Laboratory Limits
 QC Batch: SMB94957

Data File	Sample ID:	Analysis Date					
Spike or Dup: 7G55760.D	AD25945-002(10X)(MSD)	9/20/2021 12:14:00 PM					
Non Spike(If applicable): 7G55759.D	AD25945-002(10X)	9/20/2021 11:48:00 AM					
Inst Blank(If applicable): 7G55754.D	INST BLK	9/20/2021 9:40:00 AM					
Method: 8015	Matrix: Soil	Units: mg/Kg					
		QC Type: MSD					
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Diesel Range Organics	1	28473.7	24877.8	3000	120	40	130

Data File	Sample ID:	Analysis Date					
Spike or Dup: 7G55761.D	AD25945-002(10X)(MS)	9/20/2021 12:40:00 PM					
Non Spike(If applicable): 7G55759.D	AD25945-002(10X)	9/20/2021 11:48:00 AM					
Inst Blank(If applicable): 7G55754.D	INST BLK	9/20/2021 9:40:00 AM					
Method: 8015	Matrix: Soil	Units: mg/Kg					
		QC Type: MS					
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Diesel Range Organics	1	28755.5	24877.8	3000	129	40	130

Form3
RPD Data Laboratory Limits
QC Batch: SMB94957

Data File	Sample ID:	Analysis Date
Spike or Dup: 7G55760.D	AD25945-002(10X)(MSD)	9/20/2021 12:14:00 PM
Duplicate(If applicable): 7G55761.D	AD25945-002(10X)(MS)	9/20/2021 12:40:00 PM
Inst Blank(If applicable): 7G55754.D	INST BLK	9/20/2021 9:40:00 AM

Method: 8015	Matrix: Soil	Units: mg/Kg	QC Type: MSD
--------------	--------------	--------------	--------------

Analyte:	Column	Dup/MSD/MBSD	Sample/MS/MBS	RPD	Limit
		Conc	Conc		
Diesel Range Organics	1	28473.7	28755.5	0.98	40

* - Indicates outside of limits
 NA - Both concentrations=0... no result can be calculated
 Bold and underline - Indicates the compounds reported on form 1

FORM 4
Blank SummaryBlank Number: SMB94957
Blank Data File: 7G55755.D
Matrix: SoilBlank Analysis Date: 09/20/21 10:06
Blank Extraction Date: 09/18/21
(If Applicable)
Method: EPA 8015D

Sample Number	Data File	Analysis Date
AD25976-002	7G55764.D	09/20/21 13:57
AD25976-004	7G55766.D	09/20/21 14:49
AD25976-006	7G55765.D	09/20/21 14:23
AD25976-008	7G55763.D	09/20/21 13:31
AD25976-010	7G55762.D	09/20/21 13:05
AD25945-002(10X)	7G55761.D	09/20/21 12:40
AD25945-002(10X)	7G55760.D	09/20/21 12:14
AD25945-002(10X)	7G55759.D	09/20/21 11:48
SMB94957(MS)	7G55756.D	09/20/21 10:31

Form 5

Method: EPA 8015D
Instrument: GC_7

Column: DB-5MS 30M 0.250mm ID 0.25um film

Data File	Sample#	Analysis Date/Time	Matrix	Reference File	Column 1 RT	Column 1 % Drift	Column 2 RT	Column 2 % Drift
7G55382.D	INST BLK	07/15/21 21:11	Soil					
7G55383.D	CAL TPH@500PPM	07/15/21 22:01	Soil	7G55388	8.2158	0.684		
7G55384.D	CAL TPH@100PPM	07/15/21 22:26	Soil	7G55388	8.1760	0.1983		
7G55385.D	CAL TPH@40PPM	07/15/21 22:51	Soil	7G55388	8.1691	0.1139		
7G55386.D	CAL TPH@20PPM	07/15/21 23:15	Soil	7G55388	8.1634	0.0441		
7G55387.D	CAL TPH@10PPM	07/15/21 23:40	Soil	7G55388	8.1614	0.0196		
7G55388.D	CAL TPH@5PPM	07/16/21 00:05	Soil	7G55388	8.1598	0		
7G55389.D	ICV TPH@20PPM	07/16/21 00:30	Soil	7G55388	8.1655	0.0698		
7G55390.D	ICV TPH@20PPM	07/16/21 00:54	Soil	7G55388	8.1636	0.0466		
7G55391.D	INST BLK	07/16/21 01:19	Soil	7G55388	0.0000	200		

Form 5

Method: EPA 8015D

Instrument: GC_7

Column: DB-5MS 30M 0.250mm ID 0.25um film

Data File	Sample#	Analysis Date/Time	Matrix	Reference File	Column 1 RT	Column 1 % Drift	Column 2 RT	Column 2 % Drift
7G55752.D	INST BLK	09/20/21 08:20	Soil					
7G55753.D	CAL TPH@20PPM	09/20/21 09:13	Soil	7G55753.	8.1579	0		
7G55754.D	INST BLK	09/20/21 09:40	Soil	7G55753.	0.0000	200		
7G55755.D	SMB94957	09/20/21 10:06	Soil	7G55753.	8.1511	0.0834		
7G55756.D	SMB94957(MS)	09/20/21 10:31	Soil	7G55753.	8.1553	0.0319		
7G55757.D	AD25945-002	09/20/21 10:57	Soil	7G55753.	8.1347	0.2848		
7G55758.D	AD25945-002(MS)	09/20/21 11:22	Soil	7G55753.	8.1432	0.1804		
7G55759.D	AD25945-002(10X)	09/20/21 11:48	Soil	7G55753.	0.0000	200		
7G55760.D	AD25945-002(10X)(MSD)	09/20/21 12:14	Soil	7G55753.	0.0000	200		
7G55761.D	AD25945-002(10X)(MS)	09/20/21 12:40	Soil	7G55753.	0.0000	200		
7G55762.D	AD25976-010	09/20/21 13:05	Soil	7G55753.	8.1492	0.1067		
7G55763.D	AD25976-008	09/20/21 13:31	Soil	7G55753.	8.1489	0.1104		
7G55764.D	AD25976-002	09/20/21 13:57	Soil	7G55753.	8.1482	0.119		
7G55765.D	AD25976-006	09/20/21 14:23	Soil	7G55753.	8.1479	0.1227		
7G55766.D	AD25976-004	09/20/21 14:49	Soil	7G55753.	8.1491	0.1079		
7G55767.D	CAL TPH@20PPM	09/20/21 15:32	Soil	7G55753.	8.1484	0.1165		

Level #	Data File	Cal Identifier	Analysis Date/Time	Initial Calibration Level #	Data File	Cal Identifier	Analysis Date/Time
1	7G55388.D	CAL TPH@5PPM	07/16/21 00:05	2	7G55387.D	CAL TPH@10PPM	07/15/21 23:40
3	7G55386.D	CAL TPH@20PPM	07/15/21 23:15	4	7G55385.D	CAL TPH@40PPM	07/15/21 22:51
5	7G55384.D	CAL TPH@100PPM	07/15/21 22:26	6	7G55383.D	CAL TPH@500PPM	07/15/21 22:01

Compound	Col	Mr	Fit	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	AvgRt	RT	Corr1	Corr2	%Rsd	Lvl1	Lvl2	Lvl3	Lvl4	Lvl5	Lvl6	Lvl7	Lvl8
C8	1	0	Avg	0.3764	0.3778	0.3802	0.4338	0.3977	0.4514	---	---	0.4032	2.08	0.999	1.00	8.0	5.00	10.00	20.00	40.00	100.0	500.0	---	
C9	1	0	Avg	0.4150	0.4061	0.4437	0.4845	0.4377	0.4855	---	---	0.4442	2.70	1.00	1.00	7.6	5.00	10.00	20.00	40.00	100.0	500.0	---	
C10	1	0	Avg	0.4314	0.4361	0.4485	0.5119	0.4652	0.5151	---	---	0.4683	3.37	0.999	0.999	7.9	5.00	10.00	20.00	40.00	100.0	500.0	---	
C12	1	0	Avg	0.4664	0.4606	0.4765	0.5472	0.4945	0.5419	---	---	0.4984	4.66	1.00	1.00	7.6	5.00	10.00	20.00	40.00	100.0	500.0	---	
C14	1	0	Avg	0.4978	0.4978	0.5114	0.5866	0.5266	0.5738	---	---	0.5325	5.80	0.999	0.999	7.3	5.00	10.00	20.00	40.00	100.0	500.0	---	
C16	1	0	Avg	0.5061	0.5067	0.5210	0.5941	0.5309	0.5762	---	---	0.5396	6.82	1.00	1.00	6.9	5.00	10.00	20.00	40.00	100.0	500.0	---	
C17	1	0	Qua	0.5262	0.5318	0.5500	0.6949	0.6040	0.8751	---	---	0.6307	7.29	0.997	1.00	21	5.00	10.00	20.00	40.00	100.0	500.0	---	
Pristane	1	0	Avg	0.4652	0.4771	0.4834	0.5341	0.4484	0.2926	---	---	0.4507	7.30	0.989	1.00	18	5.00	10.00	20.00	40.00	100.0	500.0	---	
C18	1	0	Avg	0.5235	0.5256	0.5423	0.6187	0.5518	0.7039	---	---	0.5787	7.73	0.998	1.00	12	5.00	10.00	20.00	40.00	100.0	500.0	---	
Phytane	1	0	Avg	0.4844	0.4843	0.4983	0.5652	0.5015	0.4582	---	---	0.4997	7.76	0.999	1.00	7.2	5.00	10.00	20.00	40.00	100.0	500.0	---	
C20	1	0	Avg	0.5249	0.5268	0.5447	0.6197	0.5518	0.5982	---	---	0.5618	8.56	1.00	1.00	7.0	5.00	10.00	20.00	40.00	100.0	500.0	---	
C22	1	0	Avg	0.5394	0.5427	0.5558	0.6312	0.5630	0.6099	---	---	0.5749	9.32	1.00	1.00	6.6	5.00	10.00	20.00	40.00	100.0	500.0	---	
C24	1	0	Avg	0.5522	0.5528	0.5702	0.6485	0.5756	0.6231	---	---	0.5871	10.02	1.00	1.00	6.8	5.00	10.00	20.00	40.00	100.0	500.0	---	
C26	1	0	Avg	0.5439	0.5456	0.5583	0.6348	0.5683	0.6118	---	---	0.5771	10.66	1.00	1.00	6.5	5.00	10.00	20.00	40.00	100.0	500.0	---	
C28	1	0	Avg	0.5579	0.5577	0.5740	0.6468	0.5799	0.6239	---	---	0.5901	11.27	1.00	1.00	6.3	5.00	10.00	20.00	40.00	100.0	500.0	---	
C30	1	0	Avg	0.5692	0.5710	0.5851	0.6635	0.5952	0.6411	---	---	0.6041	11.86	1.00	1.00	6.5	5.00	10.00	20.00	40.00	100.0	500.0	---	
C32	1	0	Avg	0.5735	0.5732	0.5887	0.6652	0.5988	0.6416	---	---	0.6071	12.42	1.00	1.00	6.3	5.00	10.00	20.00	40.00	100.0	500.0	---	
C34	1	0	Avg	0.5551	0.5556	0.5733	0.6486	0.5871	0.6258	---	---	0.5911	12.97	1.00	1.00	6.5	5.00	10.00	20.00	40.00	100.0	500.0	---	
C36	1	0	Avg	0.5560	0.5549	0.5740	0.6498	0.5855	0.6137	---	---	0.5891	13.56	1.00	1.00	6.3	5.00	10.00	20.00	40.00	100.0	500.0	---	
C40	1	0	Avg	0.5293	0.5339	0.5479	0.6188	0.5596	0.5453	---	---	0.5561	15.27	0.999	0.999	5.9	5.00	10.00	20.00	40.00	100.0	500.0	---	
Chlorobenzene	1	0	Avg	0.2615	0.2654	0.2700	0.3070	0.2774	0.3053	---	---	0.2812	2.38	1.00	1.00	7.2	5.00	10.00	20.00	40.00	100.0	500.0	---	
O-Terphenyl	1	0	Avg	0.5552	0.5557	0.5701	0.6479	0.5751	0.6239	---	---	0.5888	8.16	1.00	1.00	6.6	5.00	10.00	20.00	40.00	100.0	500.0	---	
Diesel Range Organics(TO	1	0	Avg	0.5092	0.5112	0.5257	0.6026	0.5355	0.5849	---	---	0.5453	3.37	1.00	1.00	7.2	5.00	10.00	20.00	40.00	100.0	1300.	6500.	
Total Petroleum Hydrocarb	1	0	Avg	0.5097	0.5109	0.5260	0.5999	0.5382	0.5804	---	---	0.5442	2.08	1.00	1.00	6.9	5.00	10.00	20.00	40.00	800.0	2000.	10000.	
Ext. Petroleum Hydrocarb	1	0	Avg	0.5160	0.5170	0.5329	0.6081	0.5426	0.5895	---	---	0.5512	2.70	1.00	1.00	7.0	5.00	10.00	180.0	360.0	720.0	1800.	9000.	
Mineral Spirits(TOTAL)	1	0	Avg	0.4374	0.4357	0.4507	0.5128	0.4644	0.5136	---	---	0.4692	2.38	1.00	1.00	7.6	5.00	50.00	100.0	200.0	500.0	2500.	---	
Standard Solvent(TOTAL)	1	0	Avg	0.4374	0.4357	0.4507	0.5128	0.4644	0.5136	---	---	0.4692	2.08	1.00	1.00	7.6	5.00	50.00	100.0	200.0	500.0	2500.	---	

Avg Rsd Col 1: 8.31 Avg Rsd Col 2: -1.00

Flags
 e - failed the initial calibration
 criteria(if applicable)

Note:
 Col = Column Number
 Mr = MultiPeak Analyte (single peak analyte >0=multi peak analyte (i.e. nch/chlordane etc.)
 Fit = Indicates whether Avg RF, Linear, or Quadratic Curve was used for compound.
 Corr 1 = Correlation Coefficient for linear Fit
 Corr 2 = Correlation Coefficient for quad Fit
 All Response Factors = Response Factors / 10000
 Initial Calibration Criteria: either %RSD <=20 or Corr >= 995
 Columns: Signal #1 db-1701 ; Signal #2 db-608
 *Lvl: These compounds use a single pt calibration as specified by the method. The file used to update this calibration point is listed in the header under level #

Form7
Continuing Calibration

Method: EPA 8015D

Data File:	7G55753.D	7G55767.D
Method:	8015	8015
Calibration Name:	CAL TPH@20PPM	CAL TPH@20PPM
Calibration Date/Time	09/20/21 09:13	09/20/21 15:32

Compound	Limit	Col	Mr	Conc			Conc			Conc			Conc			Conc		
				Conc	Exp	%Diff	Conc	Exp	%Diff	Conc	Exp	%Diff	Conc	Exp	%Diff	Conc	Exp	%Diff
C8	20	1	0	19.17	20	4.2	21.06	20	5.3									
C9	20	1	0	18	20	10.0	21.17	20	5.9									
C10	20	1	0	17.21	20	14.0	19.8	20	1.0									
C12	20	1	0	14.23	20	28.9*	17.54	20	12.3									
C14	20	1	0	15.72	20	21.4*	20.08	20	0.4									
C16	20	1	0	16.12	20	19.4	20.75	20	3.8									
C17	20	1	0	16.87	20	15.6	20.19	20	1.0									
Pristane	20	1	0	20.09	20	0.5	22.42	20	12.1									
C18	20	1	0	13.88	20	30.6*	18.18	20	9.1									
Phytane	20	1	0	19.15	20	4.3	23.91	20	19.6									
C20	20	1	0	16.3	20	18.5	20.74	20	3.7									
C22	20	1	0	16.22	20	18.9	20.58	20	2.9									
C24	20	1	0	16.18	20	19.1	20.51	20	2.6									
C26	20	1	0	16.2	20	19.0	20.42	20	2.1									
C28	20	1	0	16.19	20	19.1	20.16	20	0.8									
C30	20	1	0	15.87	20	20.7*	20.07	20	0.3									
C32	20	1	0	15.71	20	21.5*	19.92	20	0.4									
C34	20	1	0	15.36	20	23.2*	19.47	20	2.7									
C36	20	1	0	15.09	20	24.6*	19.48	20	2.6									
C40	20	1	0	12.7	20	36.5*	19.25	20	3.8									
Chlorobenzene	20	1	0	18.13	20	9.4	21.22	20	6.1									
O-Terphenyl	20	1	0	16.35	20	18.3	20.77	20	3.9									
Average Difference	20	1	0			18.1			4.6									

Form7

RtWindow Summary

Method: EPA 8015D

Data File:

Calibration Name:

Calibration Date/Time

Compound	Col	Mr	Cal RT	Limit	Cal RT	Limit	Cal RT	Limit	Cal RT	Limit	Cal RT	Limit
C8	1	0										
C9	1	0										
C10	1	0										
C12	1	0										
C14	1	0										
C16	1	0										
C17	1	0										
Pristane	1	0										
C18	1	0										
Phvtane	1	0										
C20	1	0										
C22	1	0										
C24	1	0										
C26	1	0										
C28	1	0										
C30	1	0										
C32	1	0										
C34	1	0										
C36	1	0										
C40	1	0										
Chlorobenzene	1	0										
O-Terophenyl	1	0	8.17	(8.13 - 8.21)	8.16	(8.12 - 8.20)						
Diesel Range Organic	1	0										
Total Petroleum Hvd	1	0										
Ext Petroleum Hvd	1	0										
Mineral Spirits	1	0										
Stoddard Solvent	1	0										

GRO Data

Form1
ORGANICS REPORT

Sample Number: AD25976-002
 Client Id: SB01 COMP
 Data File: 13M22522.D
 Analysis Date: 09/20/21 16:22
 Date Rec/Extracted: 09/14/21-NA
 Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8015D
 Matrix: Methanol
 Initial Vol: 5.01g:10ml
 Final Vol: NA
 Dilution: 99.8
 Solids: 88

Units: mg/Kg

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
phcg	Gasoline Range Organics	28	U				

Worksheet #: 609166

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out
J - Indicates an estimated value when a compound is detected at less than the specified detection limit.
d - Pesticide %Diff>40% between columns due to coelution. Lower concentration usea

Data Path : G:\GcMsData\2021\GC_13\Data\09-20-21\
 Data File : 13M22522.D
 Signal(s) : FID1A.CH
 Acq On : 20 Sep 2021 16:22
 Operator : JM
 Sample : AD25976-002
 Misc : M,MEXT!3
 ALS Vial : 59 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Sep 21 11:58:48 2021
 Quant Method : G:\GcMsData\2020\GC_13\MethodQt\13M_G0823.M
 Quant Title : @GC_13,ug,8015
 QLast Update : Mon Aug 30 16:25:21 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc	Units

System Monitoring Compounds				
1)S 1,4-Dichlorobenzene-d4	9.480f	18927	23.190	m
Target Compounds				
2) 2-Methylpentane	0.000	0	N.D.	d
3) 1,2,4-Trimethylbenzene	0.000	0	N.D.	d
4)g Gasoline Range Organics	0.000	0	N.D.	ug/L d

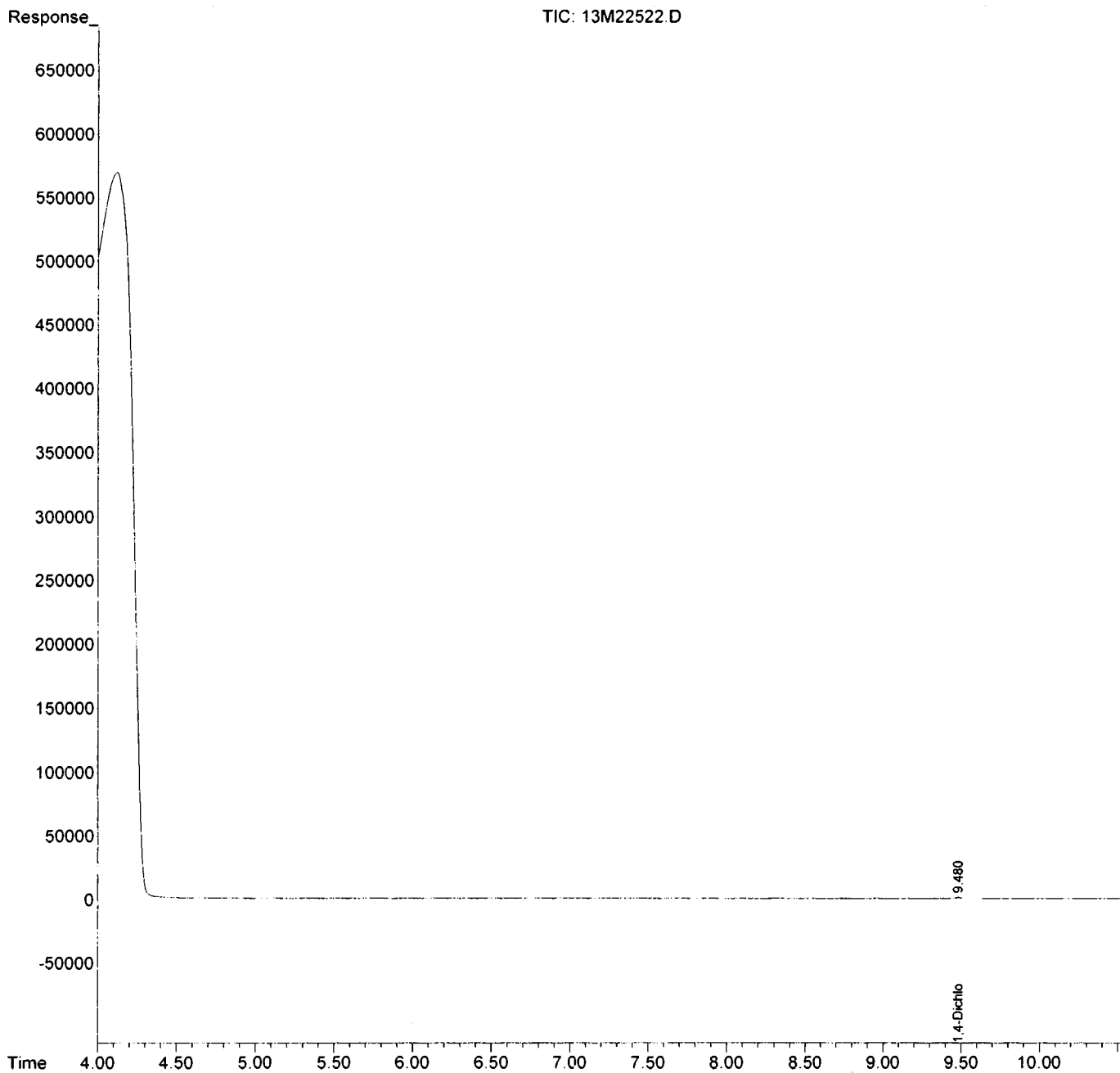
(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : G:\GcMsData\2021\GC_13\Data\09-20-21\
Data File : 13M22522.D
Signal(s) : FID1A.CH
Acq On : 20 Sep 2021 16:22
Operator : JM
Sample : AD25976-002
Misc : M,MEXT!3
ALS Vial : 59 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Sep 21 11:58:48 2021
Quant Method : G:\GcMsData\2020\GC_13\MethodQt\13M_G0823.M
Quant Title : @GC_13,ug,8015
QLast Update : Mon Aug 30 16:25:21 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Form1
ORGANICS REPORT

Sample Number: AD25976-004
 Client Id: SB02 COMP
 Data File: 13M22523.D
 Analysis Date: 09/20/21 16:38
 Date Rec/Extracted: 09/14/21-NA
 Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8015D
 Matrix: Methanol
 Initial Vol: 5.05g:10ml
 Final Vol: NA
 Dilution: 99.0
 Solids: 83

		Units: mg/Kg					
Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
phcg	Gasoline Range Organics	30	U				

Worksheet #: 609166

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out
J - Indicates an estimated value when a compound is detected at less than the specified detection limit.
d - Pesticide %Diff>40% between columns due to coelution. Lower concentration usea

Data Path : G:\GcMsData\2021\GC_13\Data\09-20-21\
 Data File : 13M22523.D
 Signal(s) : FID1A.CH
 Acq On : 20 Sep 2021 16:38
 Operator : JM
 Sample : AD25976-004
 Misc : M,MEXT!3
 ALS Vial : 60 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Sep 21 11:59:06 2021
 Quant Method : G:\GcMsData\2020\GC_13\MethodQt\13M_G0823.M
 Quant Title : @GC_13,ug,8015
 QLast Update : Mon Aug 30 16:25:21 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc	Units

System Monitoring Compounds				
1)S 1,4-Dichlorobenzene-d4	9.473f	18811	23.048	m
Target Compounds				
2) 2-Methylpentane	0.000	0	N.D.	d
3) 1,2,4-Trimethylbenzene	0.000	0	N.D.	d
4)g Gasoline Range Organics	0.000	0	N.D.	ug/L d

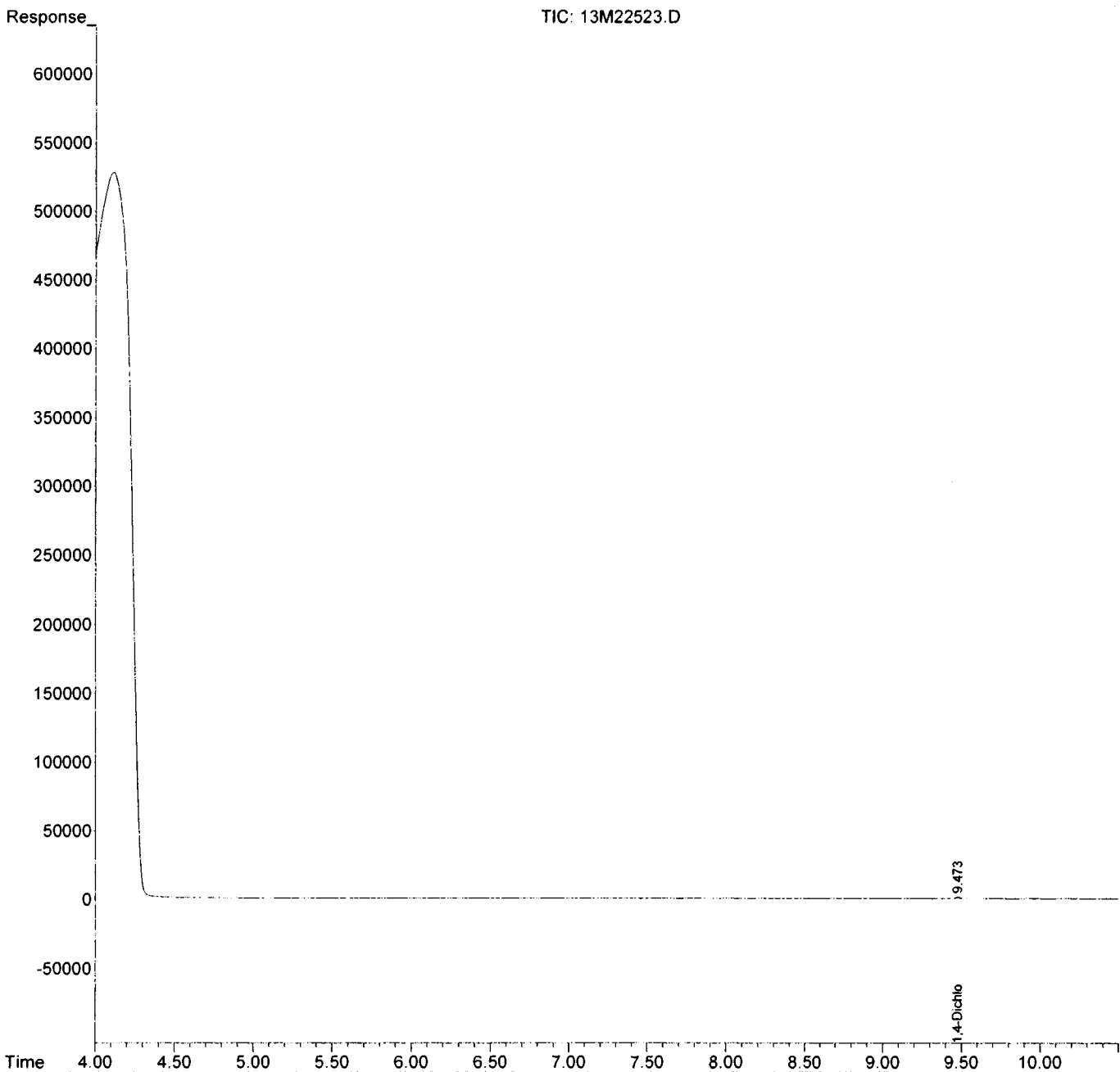
(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : G:\GcMsData\2021\GC_13\Data\09-20-21\
 Data File : 13M22523.D
 Signal(s) : FID1A.CH
 Acq On : 20 Sep 2021 16:38
 Operator : JM
 Sample : AD25976-004
 Misc : M,MEXT!3
 ALS Vial : 60 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Sep 21 11:59:06 2021
 Quant Method : G:\GcMsData\2020\GC_13\MethodQt\13M_G0823.M
 Quant Title : @GC_13,ug,8015
 QLast Update : Mon Aug 30 16:25:21 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :



Form1
ORGANICS REPORT

Sample Number: AD25976-006
 Client Id: SB03 COMP
 Data File: 13M22524.D
 Analysis Date: 09/20/21 16:55
 Date Rec/Extracted: 09/14/21-NA
 Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8015D
 Matrix: Methanol
 Initial Vol: 5.04g:10ml
 Final Vol: NA
 Dilution: 99.2
 Solids: 80

		Units: mg/Kg					
Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
phcg	Gasoline Range Organics	31	U				

Worksheet #: 609166

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out
J - Indicates an estimated value when a compound is detected at less than the specified detection limit.
d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Data Path : G:\GcMsData\2021\GC_13\Data\09-20-21\
 Data File : 13M22524.D
 Signal(s) : FID1A.CH
 Acq On : 20 Sep 2021 16:55
 Operator : JM
 Sample : AD25976-006
 Misc : M,MEXT!3
 ALS Vial : 61 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Sep 21 11:59:21 2021
 Quant Method : G:\GcMsData\2020\GC_13\MethodQt\13M_G0823.M
 Quant Title : @GC_13,ug,8015
 QLast Update : Mon Aug 30 16:25:21 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1)S 1,4-Dichlorobenzene-d4	9.470f	20104	24.632	m
Target Compounds				
2) 2-Methylpentane	0.000	0	N.D.	d
3) 1,2,4-Trimethylbenzene	0.000	0	N.D.	d
4)g Gasoline Range Organics	0.000	0	N.D.	ug/L d

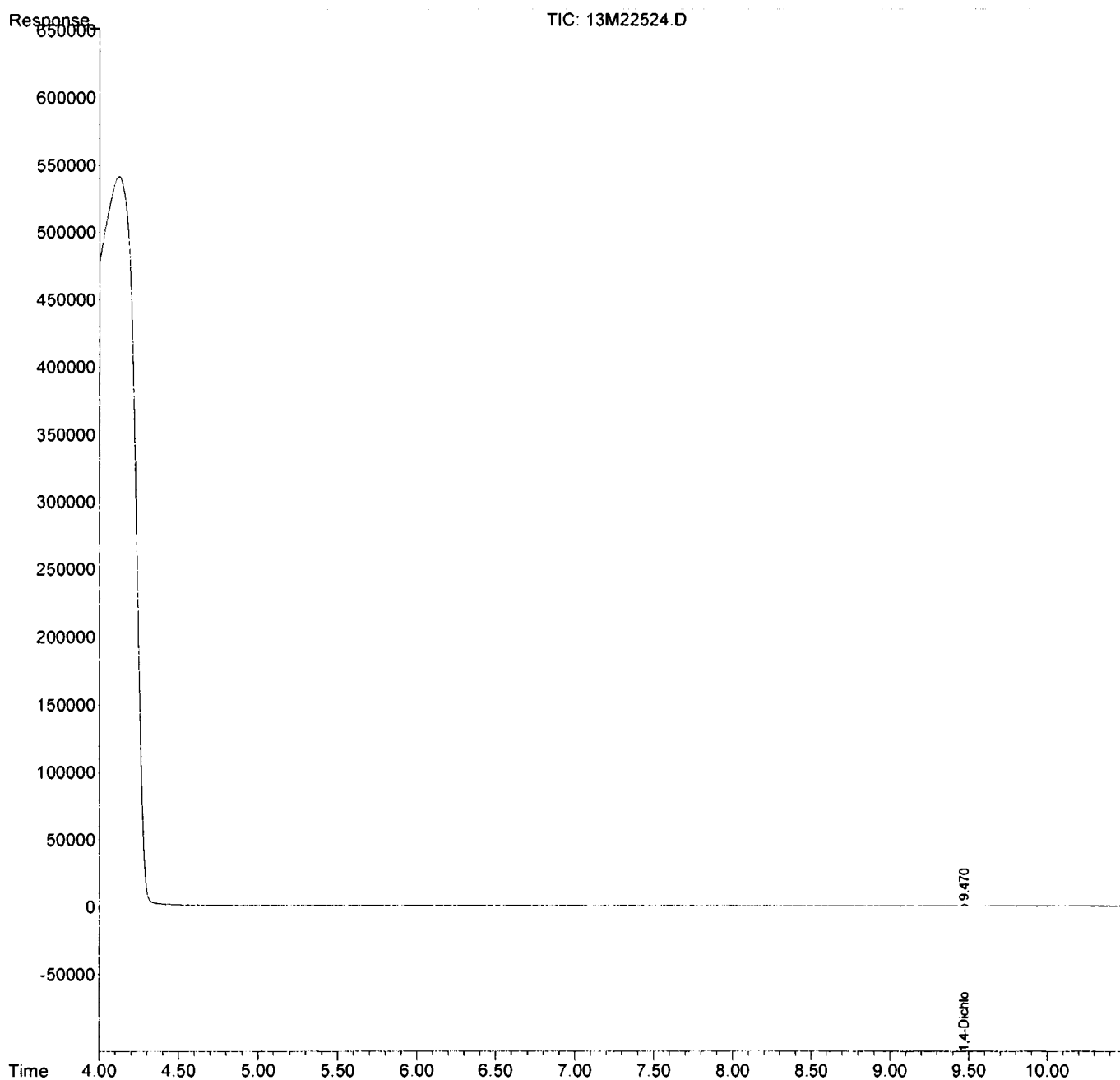
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(m)=manual int.

Data Path : G:\GcMsData\2021\GC_13\Data\09-20-21\
Data File : 13M22524.D
Signal(s) : FID1A.CH
Acq On : 20 Sep 2021 16:55
Operator : JM
Sample : AD25976-006
Misc : M,MEXT!3
ALS Vial : 61 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Sep 21 11:59:21 2021
Quant Method : G:\GcMsData\2020\GC_13\MethodQt\13M_G0823.M
Quant Title : @GC_13,ug,8015
QLast Update : Mon Aug 30 16:25:21 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Form1
ORGANICS REPORT

Sample Number: AD25976-008
 Client Id: SB04 COMP
 Data File: 13M22525.D
 Analysis Date: 09/20/21 17:12
 Date Rec/Extracted: 09/14/21-NA
 Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8015D
 Matrix: Methanol
 Initial Vol: 5.09g:10ml
 Final Vol: NA
 Dilution: 98.2
 Solids: 84

Units: mg/Kg

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
phcg	Gasoline Range Organics	29	U				

Worksheet #: 609166

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

*U - Indicates the compound was analyzed but not detected.**R - Retention Time Out**B - Indicates the analyte was found in the blank as well as in the sample.**J - Indicates an estimated value when a compound is detected at less than the specified detection limit.**E - Indicates the analyte concentration exceeds the calibration range of the instrument.**d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a*

Data Path : G:\GcMsData\2021\GC_13\Data\09-20-21\
 Data File : 13M22525.D
 Signal(s) : FID1A.CH
 Acq On : 20 Sep 2021 17:12
 Operator : JM
 Sample : AD25976-008
 Misc : M,MEXT!3
 ALS Vial : 62 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Sep 21 11:59:39 2021
 Quant Method : G:\GcMsData\2020\GC_13\MethodQt\13M_G0823.M
 Quant Title : @GC_13,ug,8015
 QLast Update : Mon Aug 30 16:25:21 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc	Units

System Monitoring Compounds				
1)S 1,4-Dichlorobenzene-d4	9.466f	22521	27.594	m
Target Compounds				
2) 2-Methylpentane	0.000	0	N.D.	d
3) 1,2,4-Trimethylbenzene	0.000	0	N.D.	d
4)g Gasoline Range Organics	0.000	0	N.D.	ug/L d

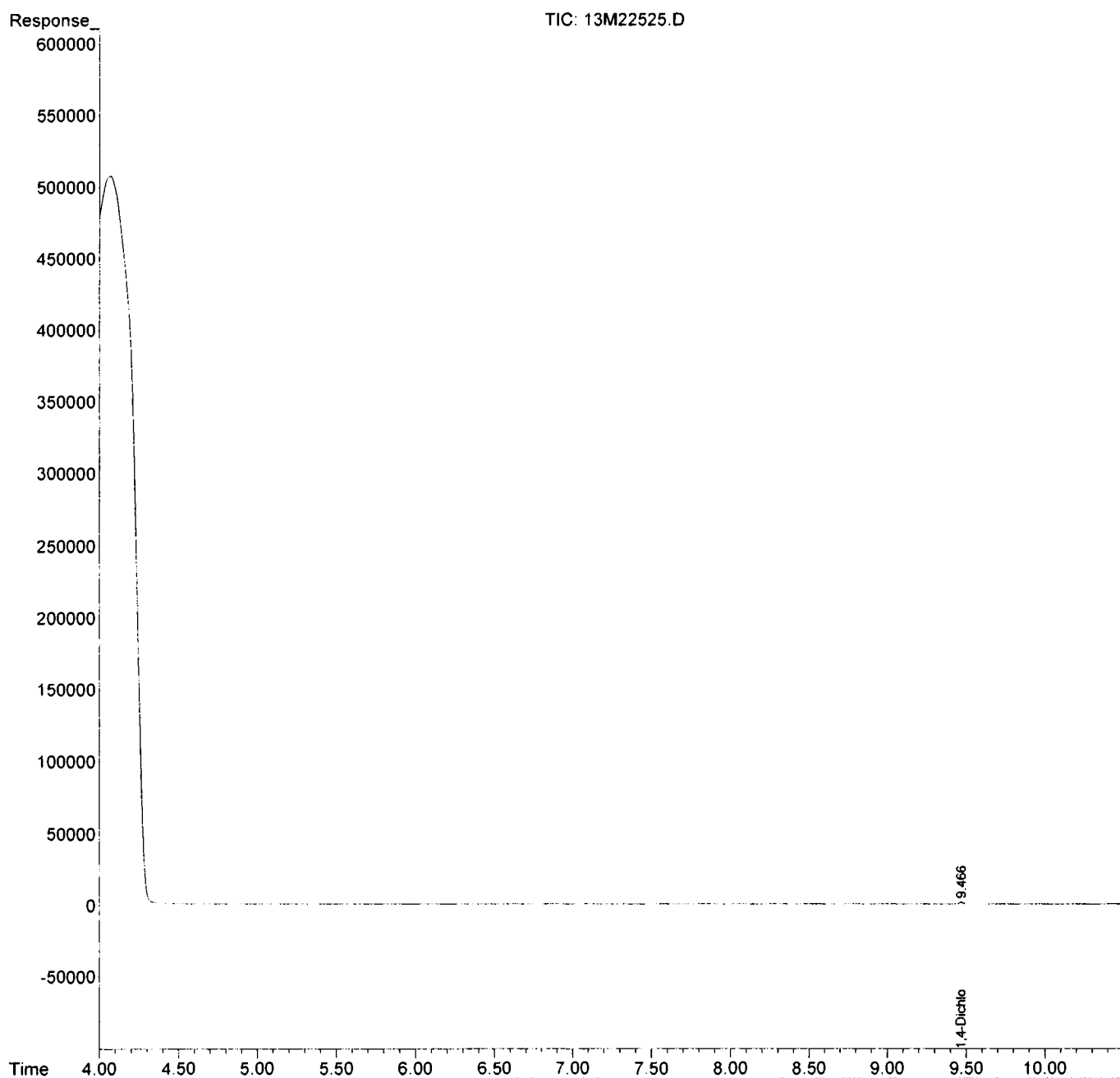
(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : G:\GcMsData\2021\GC_13\Data\09-20-21\
Data File : 13M22525.D
Signal(s) : FID1A.CH
Acq On : 20 Sep 2021 17:12
Operator : JM
Sample : AD25976-008
Misc : M,MEXT!3
ALS Vial : 62 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Sep 21 11:59:39 2021
Quant Method : G:\GcMsData\2020\GC_13\MethodQt\13M_G0823.M
Quant Title : @GC_13,ug,8015
QLast Update : Mon Aug 30 16:25:21 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Form1
ORGANICS REPORT

Sample Number: AD25976-010
 Client Id: SB05 COMP
 Data File: 13M22531.D
 Analysis Date: 09/20/21 18:53
 Date Rec/Extracted: 09/14/21-NA
 Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8015D
 Matrix: Methanol
 Initial Vol: 5.08g:10ml
 Final Vol: NA
 Dilution: 98.4
 Solids: 80

Units: mg/Kg

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
phcg	Gasoline Range Organics	31	U				

Worksheet #: 609166

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out
J - Indicates an estimated value when a compound is detected at less than the specified detection limit.
d - Pesticide %Diff>40% between columns due to coelution. Lower concentration usea

Data Path : G:\GcMsData\2021\GC_13\Data\09-20-21\
Data File : 13M22531.D
Signal(s) : FID1A.CH
Acq On : 20 Sep 2021 18:53
Operator : JM
Sample : AD25976-010
Misc : M,MEXT!3
ALS Vial : 68 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Sep 21 11:59:57 2021
Quant Method : G:\GcMsData\2020\GC_13\MethodQt\13M_G0823.M
Quant Title : @GC_13,ug,8015
QLast Update : Mon Aug 30 16:25:21 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units

System Monitoring Compounds				
1)S 1,4-Dichlorobenzene-d4	9.460f	19292	23.637	m
Target Compounds				
2) 2-Methylpentane	0.000	0	N.D.	
3) 1,2,4-Trimethylbenzene	0.000	0	N.D.	
4)g Gasoline Range Organics	0.000	0	N.D.	ug/L

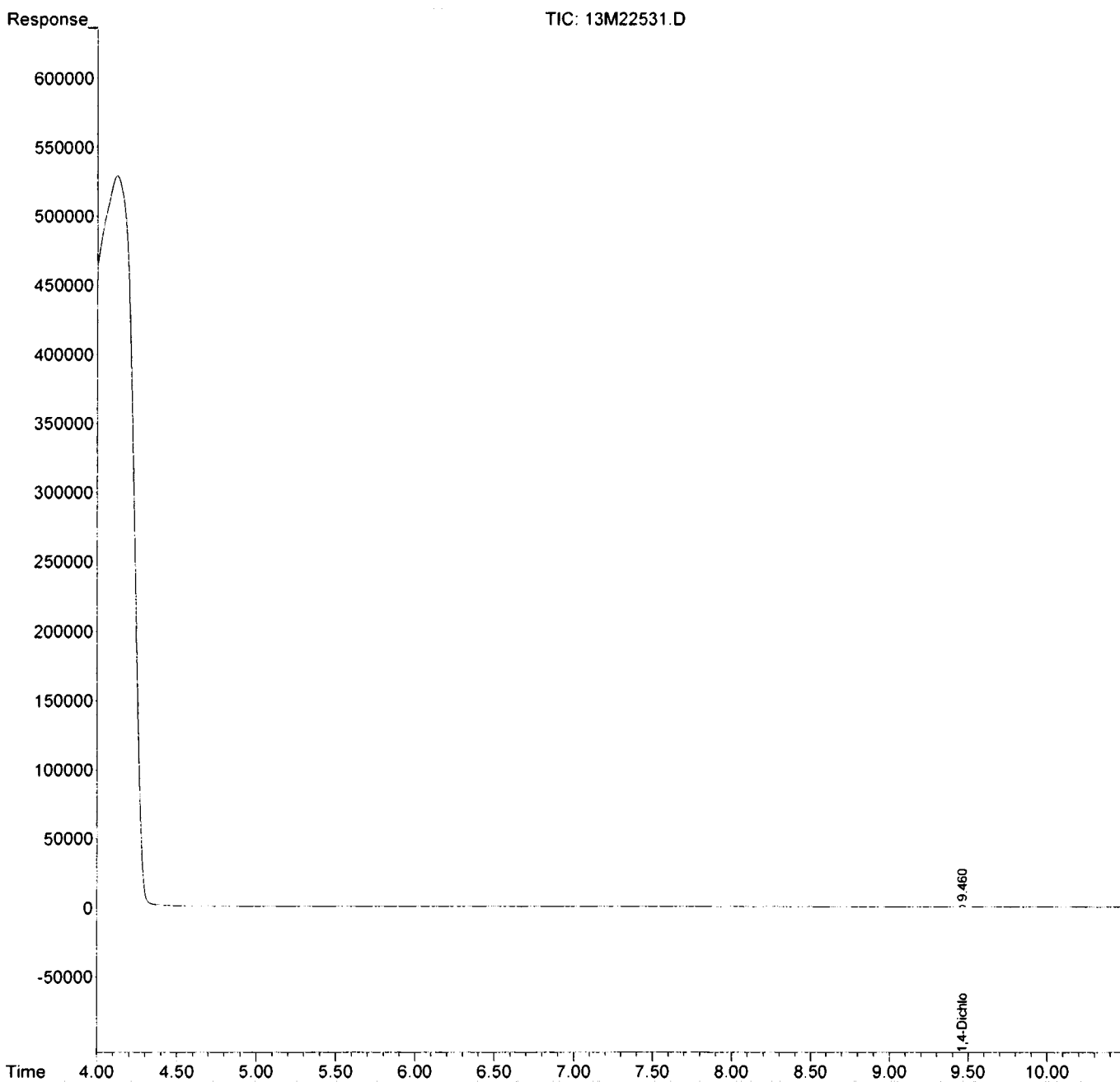
(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : G:\GcMsData\2021\GC_13\Data\09-20-21\
Data File : 13M22531.D
Signal(s) : FID1A.CH
Acq On : 20 Sep 2021 18:53
Operator : JM
Sample : AD25976-010
Misc : M,MEXT!3
ALS Vial : 68 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Sep 21 11:59:57 2021
Quant Method : G:\GcMsData\2020\GC_13\MethodQt\13M_G0823.M
Quant Title : @GC_13,ug,8015
QLast Update : Mon Aug 30 16:25:21 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Form1
ORGANICS REPORT

Sample Number: DAILY BLANK
 Client Id:
 Data File: 13M22520.D
 Analysis Date: 09/20/21 15:48
 Date Rec/Extracted:
 Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8015D
 Matrix: Methanol
 Initial Vol: 5g:10ml
 Final Vol: NA
 Dilution: 100
 Solids: 100

Units: mg/Kg

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
phcg	Gasoline Range Organics	25	U				

Worksheet #: 609166

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

*U - Indicates the compound was analyzed but not detected.
 B - Indicates the analyte was found in the blank as well as in the sample.
 E - Indicates the analyte concentration exceeds the calibration range of the instrument.*

*R - Retention Time Out
 J - Indicates an estimated value when a compound is detected at less than the specified detection limit.
 d - Pesticide %Diff>40% between columns due to coelution. Lower concentration usea*

Data Path : G:\GcMsData\2021\GC_13\Data\09-20-21\
 Data File : 13M22520.D
 Signal(s) : FID1A.CH
 Acq On : 20 Sep 2021 15:48
 Operator : JM
 Sample : DAILY BLANK
 Misc : M,MEOH
 ALS Vial : 57 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Sep 20 20:08:42 2021
 Quant Method : G:\GcMsData\2020\GC_13\MethodQt\13M_G0823.M
 Quant Title : @GC_13,ug,8015
 QLast Update : Mon Aug 30 16:25:21 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc	Units

System Monitoring Compounds				
1)S 1,4-Dichlorobenzene-d4	9.496	18553	22.731	m
Target Compounds				
2) 2-Methylpentane	0.000	0	N.D.	
3) 1,2,4-Trimethylbenzene	0.000	0	N.D.	
4)g Gasoline Range Organics	0.000	0	N.D.	ug/L

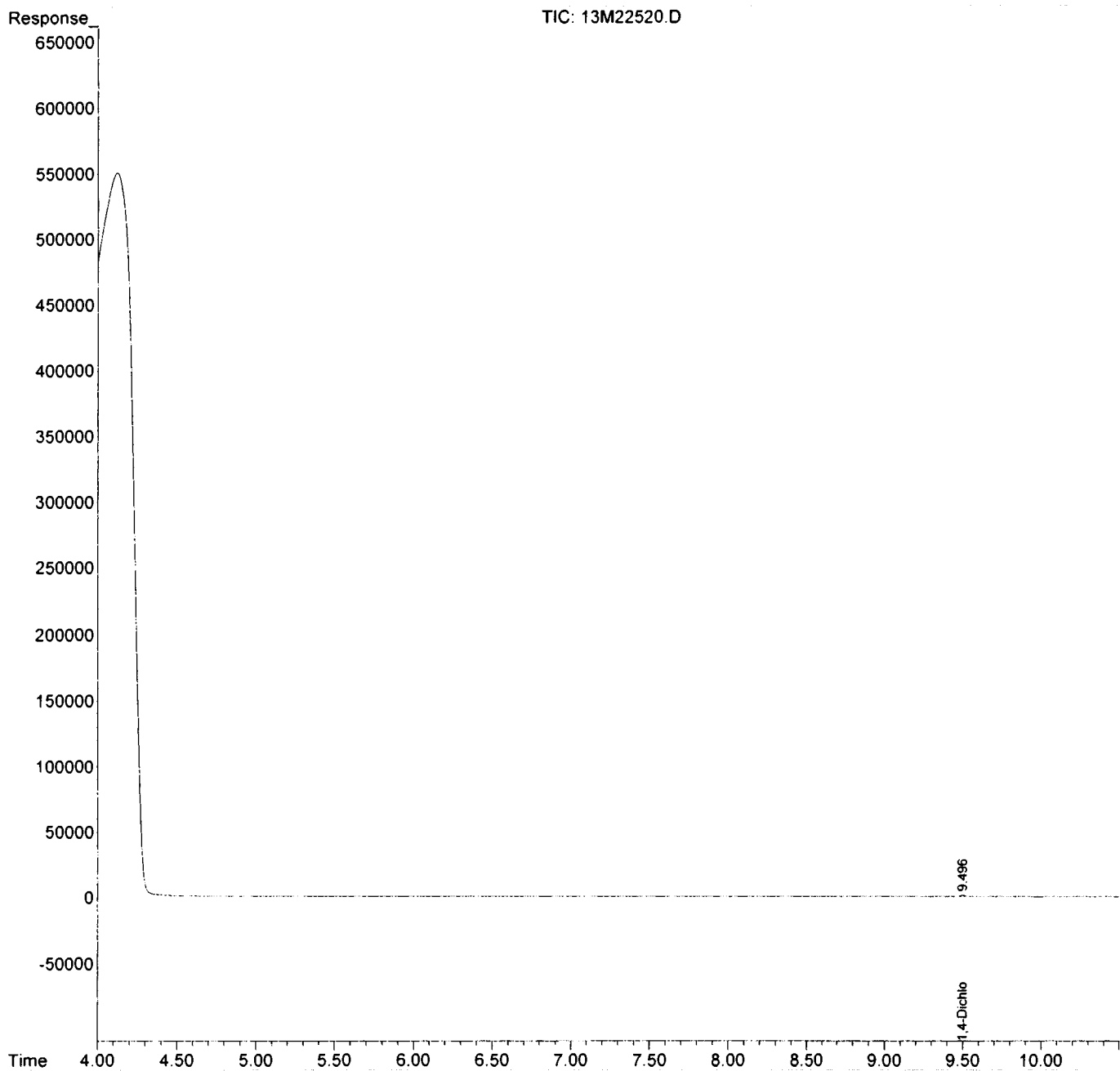
(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : G:\GcMsData\2021\GC_13\Data\09-20-21\
Data File : 13M22520.D
Signal(s) : FID1A.CH
Acq On : 20 Sep 2021 15:48
Operator : JM
Sample : DAILY BLANK
Misc : M,MEOH
ALS Vial : 57 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Sep 20 20:08:42 2021
Quant Method : G:\GcMsData\2020\GC_13\MethodQt\13M_G0823.M
Quant Title : @GC_13,ug,8015
QLast Update : Mon Aug 30 16:25:21 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



FORM2

Surrogate Recovery

Method: EPA 8015D

Dfile	Sample#	Matrix	Date/Time	Surr Dil	Dilute Out Flag	Column1 S1 Recov	Column0 S2 Recov	Column0 S3 Recov	Column0 S4 Recov	Column0 S5 Recov	Column0 S6 Recov
13M22520.D	DAILY BLANK	M	09/20/21 15:48	1		76					
13M22522.D	AD25976-002	M	09/20/21 16:22	1		77					
13M22523.D	AD25976-004	M	09/20/21 16:38	1		77					
13M22524.D	AD25976-006	M	09/20/21 16:55	1		82					
13M22525.D	AD25976-008	M	09/20/21 17:12	1		92					
13M22531.D	AD25976-010	M	09/20/21 18:53	1		79					
13M22526.D	AD25976-004(MS)	M	09/20/21 17:29	1		109					
13M22527.D	AD25976-004(MSD)	M	09/20/21 17:46	1		110					
13M22528.D	MBS96767	M	09/20/21 18:02	1		99					

Flags: SD=Surrogate diluted out

*=Surrogate out

Method: EPA 8015D

Soil Limits

Compound	Spike Amt	Limits
S1=1,4-Dichlorobenzene-d4	30	50-150

Form3
Recovery Data
 QC Batch: MBS96767

Data File		Sample ID:		Analysis Date			
Spike or Dup: 13M22528.D		MBS96767		9/20/2021 6:02:00 PM			
Non Spike(If applicable):							
Inst Blank(If applicable):							
Method: 8015		Matrix: Methanol		QC Type: MBS			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Gasoline Range Organics	1	2040.72	0	2000	102	11	181

Form3
Recovery Data
QC Batch: MBS96767

Data File	Sample ID:	Analysis Date
Spike or Dup: 13M22526.D	AD25976-004(MS)	9/20/2021 5:29:00 PM
Non Spike (If applicable): 13M22523.D	AD25976-004	9/20/2021 4:38:00 PM
Inst Blank (If applicable):		
Method: 8015	Matrix: Methanol	QC Type: MS

Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Gasoline Range Organics	1	2754.09	0	2000	138	11	181

Data File	Sample ID:	Analysis Date
Spike or Dup: 13M22527.D	AD25976-004(MSD)	9/20/2021 5:46:00 PM
Non Spike (If applicable): 13M22523.D	AD25976-004	9/20/2021 4:38:00 PM
Inst Blank (If applicable):		
Method: 8015	Matrix: Methanol	QC Type: MSD

Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Gasoline Range Organics	1	2832.83	0	2000	142	11	181

**Form3
RPD DATA
QC Batch: MBS96767**

Data File	Sample ID:	Analysis Date
Spike or Dup: 13M22527.D	AD25976-004(MSD)	9/20/2021 5:46:00 PM
Duplicate(If applicable): 13M22526.D	AD25976-004(MS)	9/20/2021 5:29:00 PM
Inst Blank(If applicable):		
Method: 8015	Matrix: Methanol	QC Type: MSD

Analyte:	Column	Dup/MSD/MBSD Conc	Sample/MS/MBS Conc	RPD	Limit
Gasoline Range Organics	1	2832.83	2754.09	2.8	40

* - Indicates outside of limits

NA - Both concentrations=0... no result can be calculated

FORM 4
Blank SummaryBlank Number: DAILY BLANK
Blank Data File: 13M22520.D
Matrix: MethanolBlank Analysis Date: 09/20/21 15:48
Blank Extraction Date: NA
(If Applicable)
Method: EPA 8015D

Sample Number	Data File	Analysis Date
AD25976-002	13M22522.D	09/20/21 16:22
AD25976-004	13M22523.D	09/20/21 16:38
AD25976-006	13M22524.D	09/20/21 16:55
AD25976-008	13M22525.D	09/20/21 17:12
AD25976-010	13M22531.D	09/20/21 18:53
MBS96767	13M22528.D	09/20/21 18:02
AD25976-004(MSD)	13M22527.D	09/20/21 17:46
AD25976-004(MS)	13M22526.D	09/20/21 17:29

Form 5

Method: EPA 8015D

Instrument: GC_13

Column: DB-624 25M 0.200mm ID 1.12um film

Data File	Sample#	Analysis Date/Time	Matrix	Reference File	Column 1 RT	Column 1 % Drift	Column 2 RT	Column 2 % Drift
13M22394	D CAL @ 250 PPB	08/23/21 21:30	Aqueous	13M2240	9.4713	0.0824		
13M22395	D CAL @ 500 PPB	08/23/21 21:47	Aqueous	13M2240	9.4650	0.0159		
13M22396	D CAL @ 750 PPB	08/23/21 22:04	Aqueous	13M2240	9.4705	0.0739		
13M22397	D CAL @ 1000 PPB	08/23/21 22:20	Aqueous	13M2240	9.4663	0.0296		
13M22398	D CAL @ 1500 PPB	08/23/21 22:37	Aqueous	13M2240	9.4612	0.0243		
13M22399	D CAL @ 2000 PPB	08/23/21 22:54	Aqueous	13M2240	9.4603	0.0338		
13M22400	D CAL @ 4000 PPB	08/23/21 23:10	Aqueous	13M2240	9.4635	0		
13M22403	D STD	08/24/21 00:02	Aqueous	13M2240	9.4658	0.0243		
13M22404	D STD	08/24/21 00:19	Aqueous	13M2240	9.4617	0.019		
13M22405	D ICV@ 2000 PPB	08/24/21 00:37	Aqueous	13M2240	9.4638	0.0032		
13M22406	D BLK	08/24/21 00:54	Aqueous	13M2240	9.4505	0.1375		
13M22407	D BLK	08/24/21 14:11	Aqueous	13M2240	0.0000	200		

Form 5

Method: EPA 8015D

Instrument: GC_13

Column: DB-624 25M 0.200mm ID 1.12um film

Data File	Sample#	Analysis Date/Time	Matrix	Reference File	Column 1 RT	Column 1 % Drift	Column 2 RT	Column 2 % Drift
13M22517	D CAL @ 2000PPB	09/20/21 14:58	Aqueous	13M2251	9.4954	0		
13M22520	D DAILY BLANK	09/20/21 15:48	Methanol	13M2251	9.4964	0.0105		
13M22521	D DAILY BLANK	09/20/21 16:05	Aqueous	13M2251	9.4904	0.0527		
13M22522	D AD25976-002	09/20/21 16:22	Methanol	13M2251	9.4801	0.1613		
13M22523	D AD25976-004	09/20/21 16:38	Methanol	13M2251	9.4731	0.2351		
13M22524	D AD25976-006	09/20/21 16:55	Methanol	13M2251	9.4696	0.2721		
13M22525	D AD25976-008	09/20/21 17:12	Methanol	13M2251	9.4660	0.3101		
13M22526	D AD25976-004(MS)	09/20/21 17:29	Methanol	13M2251	9.4654	0.3164		
13M22527	D AD25976-004(MSD)	09/20/21 17:46	Methanol	13M2251	9.4585	0.3894		
13M22528	D MBS96767	09/20/21 18:02	Methanol	13M2251	9.4664	0.3059		
13M22529	D BLK	09/20/21 18:19	Aqueous	13M2251	0.0000	200		
13M22530	D BLK	09/20/21 18:35	Aqueous	13M2251	0.0000	200		
13M22531	D AD25976-010	09/20/21 18:53	Methanol	13M2251	9.4598	0.3756		
13M22532	D AD25995-002	09/20/21 19:10	Methanol	13M2251	9.4583	0.3915		
13M22533	D AD25995-004	09/20/21 19:27	Methanol	13M2251	9.4568	0.4073		
13M22534	D AD25995-006	09/20/21 19:44	Methanol	13M2251	9.4511	0.4676		
13M22535	D AD26064-010	09/20/21 20:01	Methanol	13M2251	9.4518	0.4602		
13M22536	D AD26073-002	09/20/21 20:18	Methanol	13M2251	9.4443	0.5396		
13M22537	D AD26030-002	09/20/21 20:35	Methanol	13M2251	9.5067	0.1189		
13M22538	D BLK	09/20/21 20:52	Methanol	13M2251	0.0000	200		
13M22539	D MBS96766	09/20/21 21:09	Methanol	13M2251	9.4479	0.5015		
13M22540	D CAL @ 2000PPB	09/20/21 21:26	Aqueous	13M2251	9.4460	0.5216		
13M22541	D CAL @ 2000PPB	09/20/21 21:43	Aqueous	13M2251	9.4601	0.3725		

Form 6

Initial Calibration

10915070352

Level #	Data File	Cal Identifier	Analysis Date/Time	Level #	Data File	Cal Identifier	Analysis Date/Time	Calibration Level Concentrations							
1	13M22400	CAL @ 4000 PPB	08/23/21 23:10	2	13M22399	CAL @ 2000 PPB	08/23/21 22:54	Lvl1	Lvl2	Lvl3	Lvl4	Lvl5	Lvl6	Lvl7	Lvl8
3	13M22398	CAL @ 1500 PPB	08/23/21 22:37	4	13M22397	CAL @ 1000 PPB	08/23/21 22:20	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
5	13M22396	CAL @ 750 PPB	08/23/21 22:04	6	13M22395	CAL @ 500 PPB	08/23/21 21:47	4000	2000	1500	1000	750.0	500.0	250.0	250.0
7	13M22394	CAL @ 250 PPB	08/23/21 21:30					4000	2000	1500	1000	750.0	500.0	250.0	250.0

Compound	Col	Mr	Fit	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	AvgRt	RT	Corr1	Corr2	%Rsd	Lvl1	Lvl2	Lvl3	Lvl4	Lvl5	Lvl6	Lvl7	Lvl8
1,4-Dichlorobenzene-d4	1	0	Avg	0.1139	0.0882	0.0805	0.0759	0.0740	0.0701	0.0684	----	0.0816	9.47	-1	-1	19	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
2-Methylpentane	1	0	Avg	0.0008	0.0008	0.0012	0.0011	0.0009	0.0008	0.0007	----	0.0009	40.46	0.963	0.972	19	4000	2000	1500	1000	750.0	500.0	250.0	250.0
1,2,4-Trimethylbenzene	1	0	Avg	0.0013	0.0012	0.0012	0.0012	0.0011	0.0011	0.0011	----	0.0012	9.27	1.00	1.00	4.2	4000	2000	1500	1000	750.0	500.0	250.0	250.0
Gasoline Range Organics	1	0	Avg	0.0626	0.0580	0.0606	0.0608	0.0615	0.0679	0.0799	----	0.0645	8.07	0.997	1.00	12	4000	2000	1500	1000	750.0	500.0	250.0	250.0

Avg Rsd Col 1: 26.88 Avg Rsd Col 2: -1

Flags
c - failed the initial calibration criteria(if applicable)

Note:
Col = Column Number
Mr = Molar Mass
Fit = Indicates whether Avg RF, Linear or Quadratic Curve was used for compound
Corr 1 = Correlation Coefficient for linear Fit
Corr 2 = Correlation Coefficient for quad Fit
Lvl: These compounds use a single pt calibration as specified by the method. The file used to update this calibration point is listed in the header under level #

All Response Factors = Response Factors / 10000
Initial Calibration Criteria: either %RSD <= 20 or Corr >= 995
Columns: Signal #1 dh-1701 : Signal #2 dh-608

Form 7
Continuing Calibration

Method: EPA 8015D

Data File:	13M22517.D	13M22540.D
Method:	8015	8015
Calibration Name:	CAL @ 2000PPB	CAL @ 2000PPB
Calibration Date/Time	09/20/21 14:58	09/20/21 21:26

Compound	Limit	Col	Mr	Conc			Conc			Conc			Conc			Conc		
				Conc	Exp	%Diff	Conc	Exp	%Diff	Conc	Exp	%Diff	Conc	Exp	%Diff	Conc	Exp	%Diff
Gasoline Range Orga	20	1	0	1905	2000	4.8	2105	2000	5.3									

TCLP Metal Data

Form1
Inorganic Analysis Data Sheet

Sample ID: AD25976-002
Client Id: SB01 COMP
Matrix: TCLP
Level: LOW

% Solid: 0
Units: MG/L
Date Rec: 9/15/2021

Lab Name: Hampton-Clarke
Lab Code:
Contract:

Nras No:
Sdg No:
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File	Seq Num	M	Instr
7440-38-2	Arsenic	0.10	ND	1	50	50	09/20/21	94403	T27644A5	17	P	PEICP5A
7440-39-3	Barium	0.25	ND	1	50	50	09/20/21	94403	T27644A5	17	P	PEICP5A
7440-43-9	Cadmium	0.050	ND	1	50	50	09/20/21	94403	T27644A5	17	P	PEICP5A
7440-47-3	Chromium	0.10	ND	1	50	50	09/20/21	94403	T27644A5	17	P	PEICP5A
7439-92-1	Lead	0.050	ND	1	50	50	09/20/21	94403	T27644A5	17	P	PEICP5A
7439-97-6	Mercury	0.00050	ND	1	25	25	09/21/21	94403	H27644T	14	CV	HGCV3A
7440-02-0	Nickel	0.10	ND	1	50	50	09/20/21	94403	T27644A5	17	P	PEICP5A
7782-49-2	Selenium	0.10	ND	1	50	50	09/20/21	94403	T27644A5	17	P	PEICP5A
7440-22-4	Silver	0.050	ND	1	50	50	09/21/21	94403	T27644B5	17	P	PEICP5A

Comments: _____

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit
P - ICP-AES
CV - ColdVapor
MS - ICP-MS

Form1
Inorganic Analysis Data Sheet

Sample ID: AD25976-004
Client Id: SB02 COMP
Matrix: TCLP
Level: LOW

% Solid: 0
Units: MG/L
Date Rec: 9/16/2021

Lab Name: Hampton-Clarke
Lab Code:
Contract:

Nras No:
Sdg No:
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	0.10	ND	1	50	50	09/20/21	94403	T27644A5	24	P	PEICP5A
7440-39-3	Barium	0.25	2.4	1	50	50	09/20/21	94403	T27644A5	24	P	PEICP5A
7440-43-9	Cadmium	0.050	ND	1	50	50	09/20/21	94403	T27644A5	24	P	PEICP5A
7440-47-3	Chromium	0.10	ND	1	50	50	09/20/21	94403	T27644A5	24	P	PEICP5A
7439-92-1	Lead	0.050	1.6	1	50	50	09/20/21	94403	T27644A5	24	P	PEICP5A
7439-97-6	Mercury	0.00050	ND	1	25	25	09/21/21	94403	H27644T	17	CV	HGCV3A
7440-02-0	Nickel	0.10	ND	1	50	50	09/20/21	94403	T27644A5	24	P	PEICP5A
7782-49-2	Selenium	0.10	ND	1	50	50	09/20/21	94403	T27644A5	24	P	PEICP5A
7440-22-4	Silver	0.050	ND	1	50	50	09/21/21	94403	T27644B5	18	P	PEICP5A

Comments: _____

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit
P - ICP-AES
CV - Cold Vapor
MS - ICP-MS

Form1
Inorganic Analysis Data Sheet

Sample ID: AD25976-006
Client Id: SB03 COMP
Matrix: TCLP
Level: LOW

% Solid: 0
Units: MG/L
Date Rec: 9/16/2021

Lab Name: Hampton-Clarke
Lab Code:
Contract:

Nras No:
Sdg No:
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	0.10	ND	1	50	50	09/20/21	94403	T27644A5	25	P	PEICP5A
7440-39-3	Barium	0.25	2.0	1	50	50	09/20/21	94403	T27644A5	25	P	PEICP5A
7440-43-9	Cadmium	0.050	ND	1	50	50	09/20/21	94403	T27644A5	25	P	PEICP5A
7440-47-3	Chromium	0.10	ND	1	50	50	09/20/21	94403	T27644A5	25	P	PEICP5A
7439-92-1	Lead	0.10	16	2	50	50	09/21/21	94403	T27644B5	14	P	PEICP5A
7439-97-6	Mercury	0.00050	ND	1	25	25	09/21/21	94403	H27644T	18	CV	HGCV3A
7440-02-0	Nickel	0.10	ND	1	50	50	09/20/21	94403	T27644A5	25	P	PEICP5A
7782-49-2	Selenium	0.10	ND	1	50	50	09/20/21	94403	T27644A5	25	P	PEICP5A
7440-22-4	Silver	0.050	ND	1	50	50	09/21/21	94403	T27644B5	19	P	PEICP5A

Comments: _____

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit
P - ICP-AES
CV - Cold Vapor
MS - ICP-MS

Form1
Inorganic Analysis Data Sheet

Sample ID: AD25976-008
Client Id: SB04 COMP
Matrix: TCLP
Level: LOW

% Solid: 0
Units: MG/L
Date Rec: 9/16/2021

Lab Name: Hampton-Clarke
Lab Code:
Contract:

Nras No:
Sdg No:
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	0.10	ND	1	50	50	09/20/21	94403	T27644A5	26	P	PEICP5A
7440-39-3	Barium	0.25	1.3	1	50	50	09/20/21	94403	T27644A5	26	P	PEICP5A
7440-43-9	Cadmium	0.050	ND	1	50	50	09/20/21	94403	T27644A5	26	P	PEICP5A
7440-47-3	Chromium	0.10	ND	1	50	50	09/20/21	94403	T27644A5	26	P	PEICP5A
7439-92-1	Lead	0.050	0.40	1	50	50	09/20/21	94403	T27644A5	26	P	PEICP5A
7439-97-6	Mercury	0.00050	ND	1	25	25	09/21/21	94403	H27644T	19	CV	HGCV3A
7440-02-0	Nickel	0.10	ND	1	50	50	09/20/21	94403	T27644A5	26	P	PEICP5A
7782-49-2	Selenium	0.10	ND	1	50	50	09/20/21	94403	T27644A5	26	P	PEICP5A
7440-22-4	Silver	0.050	ND	1	50	50	09/21/21	94403	T27644B5	20	P	PEICP5A

Comments: _____

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit
P - ICP-AES
CV - ColdVapor
MS - ICP-MS

Form1
Inorganic Analysis Data Sheet

Sample ID: AD25976-010
Client Id: SB05 COMP
Matrix: TCLP
Level: LOW

% Solid: 0
Units: MG/L
Date Rec: 9/16/2021

Lab Name: Hampton-Clarke
Lab Code:
Contract:

Nras No:
Sdg No:
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	0.10	ND	1	50	50	09/20/21	94403	T27644A5	27	P	PEICP5A
7440-39-3	Barium	0.25	0.29	1	50	50	09/20/21	94403	T27644A5	27	P	PEICP5A
7440-43-9	Cadmium	0.050	ND	1	50	50	09/20/21	94403	T27644A5	27	P	PEICP5A
7440-47-3	Chromium	0.10	ND	1	50	50	09/20/21	94403	T27644A5	27	P	PEICP5A
7439-92-1	Lead	0.050	0.11	1	50	50	09/20/21	94403	T27644A5	27	P	PEICP5A
7439-97-6	Mercury	0.00050	ND	1	25	25	09/21/21	94403	H27644T	20	CV	HGCV3A
7440-02-0	Nickel	0.10	ND	1	50	50	09/20/21	94403	T27644A5	27	P	PEICP5A
7782-49-2	Selenium	0.10	ND	1	50	50	09/20/21	94403	T27644A5	27	P	PEICP5A
7440-22-4	Silver	0.050	ND	1	50	50	09/21/21	94403	T27644B5	21	P	PEICP5A

Comments: _____

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit
P - ICP-AES
CV - ColdVapor
MS - ICP-MS

Form1
Inorganic Analysis Data Sheet

Sample ID: MB 94403 (1)
Client Id: MB 94403 (1)
Matrix: TCLP
Level: LOW

% Solid: 0
Units: MG/L

Lab Name: Hampton-Clarke
Lab Code:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File	Seq Num	M	Instr
7440-38-2	Arsenic	0.050	ND	1	50	50	09/20/21	94403	T27644A5	14	P	PEICP5A
7440-39-3	Barium	0.12	ND	1	50	50	09/20/21	94403	T27644A5	14	P	PEICP5A
7440-41-7	Beryllium	0.0060	ND	1	50	50	09/20/21	94403	T27644A5	14	P	PEICP5A
7440-43-9	Cadmium	0.025	ND	1	50	50	09/20/21	94403	T27644A5	14	P	PEICP5A
7440-47-3	Chromium	0.050	ND	1	50	50	09/20/21	94403	T27644A5	14	P	PEICP5A
7440-50-8	Copper	0.050	ND	1	50	50	09/20/21	94403	T27644A5	14	P	PEICP5A
7439-92-1	Lead	0.025	ND	1	50	50	09/20/21	94403	T27644A5	14	P	PEICP5A
7439-97-6	Mercury	0.00050	ND	1	25	25	09/21/21	94403	H27644T	11	CV	HGCV3A
7440-02-0	Nickel	0.050	ND	1	50	50	09/20/21	94403	T27644A5	14	P	PEICP5A
7782-49-2	Selenium	0.050	ND	1	50	50	09/20/21	94403	T27644A5	14	P	PEICP5A
7440-22-4	Silver	0.025	ND	1	50	50	09/21/21	94403	T27644B5	24	P	PEICP5A
7440-28-0	Thallium	0.050	ND	1	50	50	09/20/21	94403	T27644A5	14	P	PEICP5A
7440-66-6	Zinc	0.050	ND	1	50	50	09/20/21	94403	T27644A5	14	P	PEICP5A

Comments: _____

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit
P - ICP-AES
CV - Cold Vapor
MS - ICP-MS

FORM 2 (ICV/CCV Summary)

Date Analyzed: 09/20/21
 Data File: T27644A5
 Prep Batch: 94403
 Analytical Method: 6010D, 6020B, 7470A, 7471B
 Instrument: PEICP5A
 Units: All units in ppm except Hg and icp-ms in ppb
 Project Number: 1091507

Lab Name: Hampton-Clarke
 Lab Code:
 Contract:
 Nras No:
 Sdg No:
 Case No:

ICV/CCV SOURCE: SCP Science

Analyte	ICV/CCV Amt	ICV V-352960-5		CCV V-352960-12		CCV V-352960-22		CCV V-352960-33		CCV V-352960-39		Rec	Rec	Rec
		Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec					
Arsenic	.5/.5	0.50501	101	0.49237	98	0.48518	97	0.49203	98	0.48395	97			
Barium	.5/.5	0.50550	101	0.50159	100	0.49393	99	0.50078	100	0.49511	99			
Cadmium	.5/.5	0.49923	100	0.50244	100	0.49747	99	0.50095	100	0.49332	99			
Chromium	.5/.5	0.50759	102	0.50494	101	0.49972	100	0.50484	101	0.50185	100			
Copper	.5/.5	0.52335	105	0.52444	105	0.51944	104	0.52430	105	0.51683	103			
Lead	.5/.5	0.51356	103	0.51668	103	0.51356	103	0.51625	103	0.50994	102			
Nickel	.5/.5	0.51008	102	0.51170	102	0.50813	102	0.50854	102	0.50313	101			
Selenium	.5/.5	0.51577	103	0.51181	102	0.50659	101	0.50688	101	0.50358	101			
Zinc	.5/.5	0.51709	103	0.51843	104	0.51275	103	0.51577	103	0.50908	102			

Notes: a-indicates analyte failed the ICV limits for 6010D, 6020B
 b-indicates analyte failed the ICV limits for 200.7 or 200.8
 c-indicates analyte failed the CCV limits for 200.7/200.8/245.1/6010C,6020B, Hg 7470A,7471B
 d-indicates analyte failed the CCV limits Hg 7470A/7471B

Qc Limits: ICV - 200.7 (95-105) 6010D/6020B/200.8 (90-110)
 CCV- 200.7/200.8/6010D/245.1, Hg 7470A/ 7471B (90-110)

FORM 2 LLQCS/LRS Summary)

Date Analyzed: 09/20/21
 Data File: T27644A5
 Prep Batch: 94403
 Analytical Method: 6010D, 6020B, 7470A, 7471B
 Instrument: PEICP5A
 Units: All units in ppm except Hg and icp-ms in ppb
 Project Number: 1091507

Lab Name: Hampton-Clarke
 Lab Code:
 Contract:
 Nras No:
 Sdg No:
 Case No:
 LLQCS/LRS SOURCE: SPEX

Analyte	LLQCS Spike Amount	LLICV V-352963	Recovery	Low Limit	High Limit	LRS Spike Amount	LRS V-352964	Recovery	Low Limit	High Limit
Magnesium	5.0	5.06840	101	80	120	500	496.666	99	90	110
Aluminum	1.0	1.00247	100	80	120	500	500.314	100	90	110
Arsenic	0.1	0.100754	101	80	120	10	9.91059	99	90	110
Boron	0.2	0.188295	94	80	120	5	1.29602	26 a	90	110
Barium	0.25	0.253618	101	80	120	10	9.77980	98	90	110
Beryllium	0.012	0.0117472	98	80	120	5	4.79649	96	90	110
Calcium	5.0	5.17675	104	80	120	500	484.479	97	90	110
Cadmium	0.05	0.0503354	101	80	120	5	5.32955	107	90	110
Cerium	2	0.205145	103	80	120	25	2.54036	10 a	90	110
Cobalt	0.1	0.100400	100	80	120	5	4.74940	95	90	110
Chromium	0.1	0.0985005	99	80	120	10	9.50154	95	90	110
Copper	0.1	0.104119	104	80	120	10	10.7474	107	90	110
Silver	0.05	0.0548769	110	80	120	1	1.22623	123 a	90	110
Potassium	NA	9.44333		80	120	200	2035.99	a	90	110
Zinc	0.1	0.0991391	99	80	120	10	9.38723	102 a 94	90	110
Manganese	0.1	0.0989044	99	80	120	10	9.34404	93	90	110
Molybdenum	0.1	0.0988897	99	80	120	10	9.33001	93	90	110
Sodium	NA	17.2336		80	120	1000	1315.49	132 a	90	110
Nickel	0.1	0.100416	100	80	120	10	9.26644	93	90	110
Lead	0.05	0.0536616	107	80	120	10	9.43897	94	90	110
Antimony	0.07	0.0679480	97	80	120	5	5.34130	107	90	110
Selenium	0.1	0.103018	103	80	120	5	5.21352	104	90	110
Silicon	2	0.195139	98	80	120	25	3.31439	13 a	90	110
Tin	0.1	0.106466	106	80	120	10	10.2147	102	90	110
Titanium	0.1	0.0989001	99	80	120	10	9.84783	98	90	110
Thallium	0.1	0.106955	107	80	120	5	4.78262	96	90	110
Vanadium	0.1	0.0983350	98	80	120	10	9.26505	93	90	110
Iron	1.0	0.999562	100	80	120	200	184.061	92	90	110

Notes: a-indicates analyte is outside the limits.

If linear range sample (LRS) exceeds criteria, high standard becomes upper limit criteria

FORM 2 (ICV/CCV Summary)

Date Analyzed: 09/21/21
 Data File: T27644B5
 Prep Batch: 94403
 Analytical Method: 6010D, 6020B, 7470A, 7471B
 Instrument: PEICP5A
 Units: All units in ppm except Hg and icp-ms in ppb
 Project Number: 1091507

Lab Name: Hampton-Clarke
 Lab Code:
 Contract:
 Nras No:
 Sdg No:
 Case No:

ICV/CCV SOURCE: SCP Science

Analyte	ICV/CCV Amt	ICV V- 352960-5		CCV V- 352960-12		CCV V- 352960-22		CCV V- 352960-31		CCV V- 352960-43		Rec	Rec	Rec
		Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec					
Arsenic	.5/5	0.49607	99	0.48773	98	0.47111	94	0.46186	92	0.46902	94			
Chromium	.5/5	0.49823	100	0.49371	99	0.48208	96	0.47217	94	0.48436	97			
Copper	.5/5	0.51462	103	0.50769	102	0.49419	99	0.48143	96	0.49432	99			
Lead	.5/5	0.51881	104	0.51230	102	0.50589	101	0.50061	100	0.51280	103			
Selenium	.5/5	0.51067	102	0.49947	100	0.48867	98	0.48661	97	0.49422	99			
Silver	0.1/0.1	0.09686	97	0.09622	96	0.09281	93	0.08957	90	0.09297	93			

Notes: a-indicates analyte failed the ICV limits for 6010D, 6020B
 b-indicates analyte failed the ICV limits for 200.7 or 200.8
 c-indicates analyte failed the CCV limits for 200.7/200.8/245.1/6010C,6020B, Hg 7470A,7471B
 d-indicates analyte failed the CCV limits Hg 7470A/7471B

Qc Limits: ICV - 200.7 (95-105) 6010D/6020B/200.8 (90-110)
 CCV- 200.7/200.8/6010D/245.1, Hg 7470A/ 7471B (90-110)

FORM 2 LLQCS/LRS Summary)

Date Analyzed: 09/21/21
 Data File: T27644B5
 Prep Batch: 94403
 Analytical Method: 6010D, 6020B, 7470A, 7471B
 Instrument: PEICP5A
 Units: All units in ppm except Hg and icp-ms in ppb
 Project Number: 1091507

Lab Name: Hampton-Clarke
 Lab Code:
 Contract:
 Nras No:
 Sdg No:
 Case No:
 LLQCS/LRS SOURCE: SPEX

Analyte	LLQCS Spike Amount	LLICV V-352963	Recovery	Low Limit	High Limit	LRS Spike Amount	LRS V-352964	Recovery	Low Limit	High Limit
Magnesium	5.0	4.95513	99	80	120	500	503.655	101	90	110
Aluminum	1.0	0.959754	96	80	120	500	506.832	101	90	110
Arsenic	0.1	0.0936676	94	80	120	10	10.2012	102	90	110
Boron	0.2	0.182246	91	80	120	5	1.31654	26 a	90	110
Barium	0.25	0.244703	98	80	120	10	9.91102	99	90	110
Beryllium	0.012	0.0110655	92	80	120	5	4.87323	97	90	110
Calcium	5.0	5.06367	101	80	120	500	493.512	99	90	110
Cadmium	0.05	0.0471046	94	80	120	5	5.53266	111 a	90	110
Cerium	2	0.201932	101	80	120	25	2.55591	10 a	90	110
Cobalt	0.1	0.0976224	98	80	120	5	4.84873	97	90	110
Chromium	0.1	0.0963666	96	80	120	10	9.59585	96	90	110
Copper	0.1	0.100393	100	80	120	10	10.8576	109	90	110
Silver	0.05	0.0526491	105	80	120	1	1.23533	124 a	90	110
Potassium	NA	4.95995		80	120	200	2121.73	a	90	110
Zinc	0.1	0.0906122	91	80	120	10	9.54447	106 a 95	90	110
Manganese	0.1	0.0956643	96	80	120	10	9.50793	95	90	110
Molybdenum	0.1	0.0955951	96	80	120	10	9.50817	95	90	110
Sodium	NA	16.1020		80	120	1000	1339.41	134 a	90	110
Nickel	0.1	0.0984723	98	80	120	10	9.43565	94	90	110
Lead	0.05	0.0506718	101	80	120	10	9.68970	97	90	110
Antimony	0.07	0.0662466	95	80	120	5	5.41570	108	90	110
Selenium	0.1	0.0998049	100	80	120	5	5.37546	108	90	110
Silicon	2	0.201066	101	80	120	25	3.35989	13 a	90	110
Tin	0.1	0.0997122	100	80	120	10	10.3473	103	90	110
Titanium	0.1	0.0952174	95	80	120	10	9.96233	100	90	110
Thallium	0.1	0.104836	105	80	120	5	4.87967	98	90	110
Vanadium	0.1	0.0942913	94	80	120	10	9.35709	94	90	110
Iron	1.0	0.961384	96	80	120	200	186.241	93	90	110

Notes: a-indicates analyte is outside the limits.

If linear range sample (LRS) exceeds criteria, high standard becomes upper limit criteria

FORM 2 (ICV/CCV Summary)

Date Analyzed: 09/21/21
 Data File: H27644T
 Prep Batch: 94403
 Analytical Method: 6010D, 6020B, 7470A, 7471B
 Instrument: HGCV3A
 Units: All units in ppm except Hg and icp-ms in ppb
 Project Number: 1091507

Lab Name: Hampton-Clarke
 Lab Code:
 Contract:
 Nras No:
 Sdg No:
 Case No:
 ICV/CCV SOURCE: SCP Science

Analyte	ICV (2)-9		CCV-21		CCV-31									
	Amt	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec
Mercury	20/10	19.08000	95	9.46500	95	9.20000	92							

Notes: a-indicates analyte failed the ICV limits for 6010D, 6020B
 b-indicates analyte failed the ICV limits for 200.7 or 200.8
 c-indicates analyte failed the CCV limits for 200.7/200.8/245.1/6010C,6020B, Hg 7470A,7471B
 d-indicates analyte failed the CCV limits Hg 7470A/7471B

Qc Limits: ICV - 200.7 (95-105) 6010D/6020B/200.8 (90-110)
 CCV- 200.7/200.8/6010D/245.1, Hg 7470A/ 7471B (90-110)

FORM 3
(ICB/CCB/MB Summary)

Date Analyzed: 09/20/21
 Data File: T27644A5
 Prep Batch: 94403
 Reporting Limits Used: 6010D, 6020B, 7470A, 7471B
 Instrument: PEICP5A
 Units: All units in ppm except Hg and icp-ms in ppb
 Project Number: 1091507

Lab Name: Hampton-Clarke
 Lab Code:
 Contract:
 Nras No:
 Sdg No:
 Case No:

Analyte	ICB V-352951-6	CCB V-352951-13	CCB V-352951-23	CCB V-352951-34	CCB V-352951-40	MB 94403 (1)-14	EF V-357518 9/17-38
Arsenic	.05U	.1U	.1U	.1U	.1U	.05U	.1U
Barium	.125U	.25U	.25U	.25U	.25U	.13U	.25U
Cadmium	.025U	.05U	.05U	.05U	.05U	.025U	.05U
Chromium	.05U	.1U	.1U	.1U	.1U	.05U	.1U
Copper	.05U	.1U	.1U	.1U	.1U	.05U	.1U
Lead	.025U	.05U	.05U	.05U	.05U	.025U	.05U
Nickel	.05U	.1U	.1U	.1U	.1U	.05U	.1U
Selenium	.05U	.1U	.1U	.1U	.1U	.05U	.1U
Zinc	.05U	.1U	.1U	.1U	.1U	.05U	.1U

Notes: a -for methods 7470A, 7471B indicates absolute value of result found above the reporting limits in ICB/CCB/MB.
 for methods 6010D, 6020B indicates absolute value of result found above the reporting limit in CCB or above 1/2 the reporting limit in ICB/MB.
 u-indicates result below reporting criteria.

FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 09/21/21
 Data File: T27644B5
 Prep Batch: 94403
 Reporting Limits Used: 6010D, 6020B, 7470A, 7471B
 Instrument: PEICP5A
 Units: All units in ppm except Hg and icp-ms in ppb
 Project Number: 1091507

Lab Name: Hampton-Clarke
 Lab Code:
 Contract:
 Nras No:
 Sdg No:
 Case No:

Analyte	ICB V-352951-6	CCB V-352951-13	CCB V-352951-23	CCB V-352951-32	CCB V-352951-44	MB 94403 (1)-24	EF V-357518 9/17-41
Arsenic	.05U	.1U	.1U	.1U	.1U	.05U	.1U
Chromium	.05U	.1U	.1U	.1U	.1U	.05U	.1U
Copper	.05U	.1U	.1U	.1U	.1U	.05U	.1U
Lead	.025U	.05U	.05U	.05U	.05U	.025U	.05U
Selenium	.05U	.1U	.1U	.1U	.1U	.05U	.1U
Silver	.025U	.05U	.05U	.05U	.05U	.025U	.05U

Notes: a -for methods 7470A, 7471B indicates absolute value of result found above the reporting limits in ICB/CCB/MB.
 for methods 6010D, 6020B indicates absolute value of result found above the reporting limit in CCB or above 1/2 the reporting limit in ICB/MB.
 u-indicates result below reporting criteria.

FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 09/21/21
 Data File: H27644T
 Prep Batch: 94403
 Reporting Limits Used: 6010D, 6020B, 7470A, 7471B
 Instrument: HGCV3A
 Units: All units in ppm except Hg and icp-ms in ppb
 Project Number: 1091507

Lab Name: Hampton-Clarke
 Lab Code:
 Contract:
 Nras No:
 Sdg No:
 Case No:

Analyte	ICB-10	CCB-22	CCB-32	MB 94403 (1)-11	EF V-357518 9/17-30
Mercury	.5U	.5U	.5U	.5U	.5U

Notes: a -for methods 7470A, 7471B indicates absolute value of result found above the reporting limits in ICB/CCB/MB.
 for methods 6010D, 6020B indicates absolute value of result found above the reporting limit in CCB or above 1/2 the reporting limit in ICB/MB.
 u-indicates result below reporting criteria.

FORM 4 (ICSA/ICSAB Summary)

Date Analyzed: 09/20/21
 Data File: T27644A5
 Prep Batch: 94403
 Reporting Limits Used: 6010D, 6020B, 7470A, 7471B
 Instrument: PEICP5A
 Units: All units in ppm except Hg and icp-ms in ppb
 Project Number: 1091507

Lab Name: Hampton-Clarke
 Lab Code:
 Contract:
 Nras No:
 Sdg No:
 Case No:
 ICSA/ICSAB: SOURCE: SCP Science

Analyte	Spk Amt	ICSA V-352957-11	Rec	Rec	Rec	Rec	Rec	Rec	Rec
Aluminum	500	513.588	103						
Arsenic	0	U							
Barium	0	U							
Cadmium	0	U							
Calcium	500	495.648	99						
Chromium	0	U							
Copper	0	U							
Iron	200	182.081	91						
Lead	0	U							
Magnesium	500	502.053	100						
Nickel	0	U							
Selenium	0	U							
Zinc	0	U							

Notes: a-indicates absolute value of the concentration > 2 * Reporting Limits In the ICSA
 b-indicates absolute value of the concentration above Reporting Limits but < 2 * Reporting Limits in the ICSA
 c-indicates the recovery failed the Qc Criteria in the ICSAB
 u-indicates the absolute value of the concentration was below the reporting limit

Qc Limits: 200.7, 6020B < 2 * Reporting Limit
 6010D < Reporting Limit

FORM 4 (ICSA/ICSAB Summary)

Date Analyzed: 09/21/21
 Data File: T27644B5
 Prep Batch: 94403
 Reporting Limits Used: 6010D, 6020B, 7470A, 7471B
 Instrument: PEICP5A
 Units: All units in ppm except Hg and icp-ms in ppb
 Project Number: 1091507

Lab Name: Hampton-Clarke
 Lab Code:
 Contract:
 Nras No:
 Sdg No:
 Case No:
 ICSA/ICSAB: SOURCE: SCP Science

Analyte	Spk Amt	ICSA V-352957-11	Rec	Rec	Rec	Rec	Rec	Rec	Rec
Aluminum	500	519.514	104						
Arsenic	0	U							
Calcium	500	502.69	101						
Chromium	0	U							
Copper	0	U							
Iron	200	184.334	92						
Lead	0	U							
Magnesium	500	509.805	102						
Selenium	0	U							
Silver	0	U							

Notes: a-indicates absolute value of the concentration > 2 * Reporting Limits In the ICSA
 b-indicates absolute value of the concentration above Reporting Limits but < 2 * Reporting Limits in the ICSA
 c-indicates the recovery failed the Qc Criteria in the ICSAB
 u-indicates the absolute value of the concentration was below the reporting limit

Qc Limits: 200.7, 6020B < 2 * Reporting Limit
 6010D < Reporting Limit

**FORM5/FORM7
SPIKE RECOVERY DATA**

1091507 0371

PREP BATCH: 94403

Instrument Type: ICP/HG

Analytical Method(s): 6010D/200.7/7470A/7471B/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: LCSMR		Matrix: TCLP		SampleID: LCS MR 94403								
Analyte	BatchId	DF	Data File	Seq#:	Spk Conc:	Spk Added	Recov	Qual	Lo Lim	Hi Lim		
Arsenic	94403	1	T27644A5	16	0.4764	0.50	95	80	120			
Barium	94403	1	T27644A5	16	0.4832	0.50	97	80	120			
Cadmium	94403	1	T27644A5	16	0.4809	0.50	96	80	120			
Chromium	94403	1	T27644A5	16	0.4874	0.50	97	80	120			
Lead	94403	1	T27644A5	16	0.4946	0.50	99	80	120			
Mercury	94403	1	H27644T	13	10.8700	10	109	80	120			
Nickel	94403	1	T27644A5	16	0.4945	0.50	99	80	120			
Selenium	94403	1	T27644A5	16	0.4784	0.50	96	80	120			
Silver	94403	1	T27644B5	26	0.0988	0.100	99	80	120			

TxtQcType: LCS		Matrix: TCLP		SampleID: LCS 94403								
Analyte	BatchId	DF	Data File	Seq#:	Spk Conc:	Spk Added	Recov	Qual	Lo Lim	Hi Lim		
Arsenic	94403	1	T27644A5	15	0.4777	0.50	96	80	120			
Barium	94403	1	T27644A5	15	0.4913	0.50	98	80	120			
Cadmium	94403	1	T27644A5	15	0.4894	0.50	98	80	120			
Chromium	94403	1	T27644A5	15	0.4983	0.50	100	80	120			
Lead	94403	1	T27644A5	15	0.5013	0.50	100	80	120			
Mercury	94403	1	H27644T	12	10.8700	10	109	80	120			
Nickel	94403	1	T27644A5	15	0.5030	0.50	101	80	120			
Selenium	94403	1	T27644A5	15	0.4919	0.50	98	80	120			
Silver	94403	1	T27644B5	25	0.0988	0.100	99	80	120			

TxtQcType: MS		Matrix: TCLP		SampleID: AD25976-002									
Analyte	BatchId	DF	Data File	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Added	Recov	Qual	Lo Lim	Hi Lim
Arsenic	94403	1	T27644A5	19	T27644A5	17	0.5158	0.1U	0.50	103	50		
Barium	94403	1	T27644A5	19	T27644A5	17	0.6930	0.25U	0.50	139	50		
Cadmium	94403	1	T27644A5	19	T27644A5	17	0.5121	0.05U	0.50	102	50		
Chromium	94403	1	T27644A5	19	T27644A5	17	0.4952	0.1U	0.50	99	50		
Lead	94403	1	T27644A5	19	T27644A5	17	0.5163	0.05U	0.50	103	50		
Mercury	94403	1	H27644T	16	H27644T	14	11.7200	0.50U	10	117	50		
Nickel	94403	1	T27644A5	19	T27644A5	17	0.4962	0.1U	0.50	99	50		
Selenium	94403	1	T27644A5	19	T27644A5	17	0.5764	0.1U	0.50	115	50		
Silver	94403	1	T27644B5	28	T27644B5	17	0.1061	0.05U	0.100	106	50		

**FORM5/FORM7
SPIKE RECOVERY DATA**

1091507 0372

PREP BATCH: 94403

Instrument Type: ICP/HG

Analytical Method(s): 6010D/200.7/7470A/7471B/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: PS		Matrix: TCLP		SampleID: AD25976-002								
Analyte	DF	Data File	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Added	Recov	Qual	Lo Lim	Hi Lim
Arsenic	1	T27644A5	20	T27644A5	17	0.5476	0.1U	0.5	110		75	125
Barium	1	T27644A5	20	T27644A5	17	0.7186	0.25U	0.5	144	a	75	125
Cadmium	1	T27644A5	20	T27644A5	17	0.5454	0.05U	0.5	109		75	125
Chromium	1	T27644A5	20	T27644A5	17	0.5278	0.1U	0.5	106		75	125
Lead	1	T27644A5	20	T27644A5	17	0.5475	0.05U	0.5	109		75	125
Nickel	1	T27644A5	20	T27644A5	17	0.5316	0.1U	0.5	106		75	125
Selenium	1	T27644A5	20	T27644A5	17	0.6140	0.1U	0.5	123		75	125
Silver	1	T27644B5	29	T27644B5	17	0.0681	0.05U	0.1	68	a	75	125

FORM6/FORM9
 RPD/%Difference Data
 PREP BATCH: 94403

1091507 0373

Instrument Type: ICP/HG

Analytical Method(s): 6010D/200.7/7470A/7471B/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: LCSMR		Matrix: TCLP		SampleID: LCS MR 94403					
Analyte	BatchId	Data File	Seq#:	NS File	Seq#	Result 1	Result 2	RPD	Limit
Arsenic	94403	T27644A5	16	T27644A5	15	0.4764	0.4777	.26	20
Barium	94403	T27644A5	16	T27644A5	15	0.4832	0.4913	1.7	20
Cadmium	94403	T27644A5	16	T27644A5	15	0.4809	0.4894	1.8	20
Chromium	94403	T27644A5	16	T27644A5	15	0.4874	0.4983	2.2	20
Lead	94403	T27644A5	16	T27644A5	15	0.4946	0.5013	1.3	20
Mercury	94403	H27644T	13	H27644T	12	10.8700	10.8700	0	20
Nickel	94403	T27644A5	16	T27644A5	15	0.4945	0.5030	1.7	20
Selenium	94403	T27644A5	16	T27644A5	15	0.4784	0.4919	2.8	20
Silver	94403	T27644B5	26	T27644B5	25	0.0988	0.0988	.011	20

TxtQcType: MR		Matrix: TCLP		SampleID: AD25976-002					
Analyte	BatchId	Data File	Seq#:	NS File	Seq#	Result 1	Result 2	RPD	Limit
Arsenic	94403	T27644A5	18	T27644A5	17	0.1U	0.1U	---	20
Barium	94403	T27644A5	18	T27644A5	17	0.25U	0.25U	---	20
Cadmium	94403	T27644A5	18	T27644A5	17	0.05U	0.05U	---	20
Chromium	94403	T27644A5	18	T27644A5	17	0.1U	0.1U	---	20
Lead	94403	T27644A5	18	T27644A5	17	0.05U	0.05U	---	20
Mercury	94403	H27644T	15	H27644T	14	0.50U	0.50U	---	20
Nickel	94403	T27644A5	18	T27644A5	17	0.1U	0.1U	---	20
Selenium	94403	T27644A5	18	T27644A5	17	0.1U	0.1U	---	20
Silver	94403	T27644B5	27	T27644B5	17	0.05U	0.05U	---	20

TxtQcType: SD		Matrix: TCLP		SampleID: AD25976-002					
Analyte	BatchId	Data File	Seq#:	NS File	Seq# DF	Result 1	Result 2	%Diff	Limit
Arsenic	94403	T27644A5	21	T27644A5	17 5	0.0053	0.0074	---	10
Barium	94403	T27644A5	21	T27644A5	17 5	0.0398	0.2090	4.8	10
Cadmium	94403	T27644A5	21	T27644A5	17 5	0.0000	0.0014	---	10
Chromium	94403	T27644A5	21	T27644A5	17 5	-0.0007	0.0031	---	10
Lead	94403	T27644A5	21	T27644A5	17 5	0.0041	0.0200	---	10
Nickel	94403	T27644A5	21	T27644A5	17 5	-0.0050	-0.0035	---	10
Selenium	94403	T27644A5	21	T27644A5	17 5	-0.0001	0.0191	---	10
Silver	94403	T27644B5	30	T27644B5	17 5	-0.0026	-0.0015	---	10

a-Indicates Rpd Failed the criteria

b-Method Rep Out but concentrations < 5*RL

c-Serial dilution Out but conc < 10 * IDL

ICP SAMPLE PREPARATION LOG

ANALYTICAL METHOD: 3010A 3005A 3050B 200.7/200.8 OTHER

Batch No.: 27649
 QC Number: 99403
 Matrix: TCLP

Analyst: ANS
 Prep Date: 9/20/21
 Reviewed By: [Signature]

LAB ID#	ICP		ICP-MS (Secondary dil)		TCLP		COMMENTS
	Initial	Final	Aliquot	Final	Eff	TCLP	
Method blank	Sone	Sone				--	
LCS						--	
LCS D					V-357518	--	
1. 1A0 25976-002							Samples are combined prior to analysis to provide extra sample volume for analysis
1. Analytical Duplicate 002	Sone						
MR -002							
MS -002							
MSD	-	-			-	-	Balance used: M/A Pipettes used: 1.5, 1.49
2. 25976-004	Sone	Sone			V-357518		Hot Block used: G
3. -006							
4. -008							
5. -010							
6. 25995-002							
7. -004							
8. -006							
9. 26030-002							
10. 26009-001							
11. 26010-001							
12. 26023-001							
13. 26016-002							
14. V-357518 9/17							
15.							
16.							
17.							
18.							
19.							
20.							

Hot Plate Temperature: 93.9 C (90-95°C) Start Time: 12:00pm End Time: 3:30pm

	Volume mL	Lot #
CS, LCS D	0.25L	V-13729, 13730
LLCS, LLLCS D		V- 355837
MS, MSD	0.25L	V-13729, 13730
LLMS, LLMS D		V- 355837

Acid	Vol mL	Lot#
HNO ₃	3.0	V-14103
HCl		V-
H ₂ O ₂		V-

Acid	Vol mL	Lot#
1:1 HNO ₃		V-
1:1 HCl	5.0	V-353977

Relinquished By: ANS Date: 9/20/21
 Received By: [Signature] Date: 9/24/21

HG SAMPLE PREPARATION LOG

Hampton-Clarke/Vertech

ANALYTICAL METHOD: 245.1 7470A 7471B OTHER _____

Batch No.: 27644
 QC Number: 94403
 Matrix: FCLP

Analyst: AMS
 Prep Date: 9/20/21
 Review By: DL

LAB ID#	MERCURY		COMMENTS	STANDARDS
	INITIAL	FINAL		
Method blank	25ml	25ml		CAL CURVE BLK 0ppb V- 357626
LCS				
LCS D				STD 0.2 ppb V- 357627
1 AD 25976-002				STD 0.5 ppb V- 28
MR 1-002				STD 1.0 ppb V- 29
MS 1-002				STD 2.0 ppb V- 30
MSD				STD 5.0 ppb V- 31
2 25976-004	25ml	25ml		STD 10.0 ppb V- 32
3 1-006				STD 25.0 ppb V- 33
4 1-008				ICV 10.0 ppb V- 357624
5 1-010				CCV 20.0 ppb V- 357625
6 25995-002				
7 1-004				
8 1-006				Balance used: N/A
9 26030-002				Pipettes used: 159, 143
10 26009-001				
11 26010-001				Hot Block used: 7
12 26016-002				
13 V-357518 9/17				
14				
15				
16				
17				
18				
19				
20				

Lot Numbers	Volume (mL)	Acid	Volume (mL)	Lot #
K ₂ Cr ₂ O ₇ : V- 355568	3.75	HNO ₃	0.625	V- 14102
K ₂ S ₂ O ₈ : V- 352789	2.0	HCl		V-
NH ₂ OH: V- 355737	1.5	H ₂ SO ₄	1.25	V- 14003
		Aqua Regia		V-

**Block Temp.: °C
93.1
 Time In Block: 1:00pm
 Time Out of Block: 3:00pm

Spike Volume & Lot #
 LCS V- 357600 0.15x (6.25 ml)
 MS V- 357600 0.250 ml
 Standards/Control Batch B- 31592

Start Time: 12:00pm
 End Time: 3:30pm

**Temperature
 245.1 / 7470A: 90-95C
 7471B: 92-98C

Relinquished By: AMS

*25 mLs of each standard was digested with this batch using the same reagents and at the same time as the above samples. The preparation of each standard may be referenced in Veriprogram using the standard batch number and the corresponding V #s.

Run Log

Data File: W:\METALS.FRM\ICPDATA\New\PEICP5A\T27644A5.txt

Analysis Date: 09/20/21

Instrument: PEICP5A

Sample Id	DF	Qc Type	Time	Run #	Test Group	Rept Limit Matrix	Qc Matrix	Anal Method	Prep Batch	Comments:	Stds:
CALBLK V-352951	1	CAL	16:27	1							V-352951(ICB/CCB)
CALST2 V-352963	1	CAL	16:31	2							V-352963(LLICV/CCV leachate)
CALST3 V-352955	1	CAL	16:34	3							V-352955(ICS3 - Middle Std)
CALST4 V-352956	1	CAL	16:39	4							V-352956(ICS4 High std)
ICV V-352960	1	ICV	16:43	5							V-352960(CCV)
ICB V-352951	1	ICB	16:48	6							V-352951(ICB/CCB)
LRS V-352964	1	LRS	16:52	7	METALS-TCLP	TCLP	TCLP	SW846	94403		V-352964(LRS)
ICS3 V-352955	1	ICS	16:57	8							V-352955(ICS3 - Middle Std)
RINSE	1	SMP	17:01	9		TCLP	TCLP	SW846	94403		()
LLICV V-352963	1	LLICV	17:05	10	METALS-TCLP	TCLP	TCLP	SW846	94403		V-352963(LLICV/CCV leachate)
ICSA V-352957	1	ICSA	17:09	11							V-352957(ICSA)
CCV V-352960	1	CCV	17:13	12							V-352960(CCV)
CCB V-352951	1	CCB	17:18	13							V-352951(ICB/CCB)
MB 94403 (1)	1	MB	17:22	14	METALS-TCLP	TCLP	TCLP	SW846	94403		()
LCS 94403	1	LCS	17:26	15	METALS-TCLP	TCLP	TCLP	SW846	94403		()
LCS MR 94403	1	LCS	17:30	16	METALS-TCLP	TCLP	TCLP	SW846	94403		()
AD25976-002	1	SMP	17:34	17	METALS-TCLP	TCLP	TCLP	SW846	94403		()
AD25976-002	1	MR	17:38	18	METALS-TCLP	TCLP	TCLP	SW846	94403		()
AD25976-002	1	MS	17:42	19	METALS-TCLP	TCLP	TCLP	SW846	94403		()
AD25976-002	1	PS	17:47	20	METALS-TCLP	TCLP	TCLP	SW846	94403		()
AD25976-002	5	SD	17:52	21	METALS-TCLP	TCLP	TCLP	SW846	94403		()
CCV V-352960	1	CCV	17:56	22							V-352960(CCV)
CCB V-352951	1	CCB	18:00	23							V-352951(ICB/CCB)
AD25976-004	1	SMP	18:04	24	METALS-TCLP	TCLP	TCLP	SW846	94403		()
AD25976-006	1	SMP	18:08	25	METALS-TCLP	TCLP	TCLP	SW846	94403	Pb not reported >LR	()
AD25976-008	1	SMP	18:12	26	METALS-TCLP	TCLP	TCLP	SW846	94403		()
AD25976-010	1	SMP	18:15	27	METALS-TCLP	TCLP	TCLP	SW846	94403		()
AD25995-002	1	SMP	18:19	28	METALS-TCLP	TCLP	TCLP	SW846	94403		()
AD25995-004	1	SMP	18:23	29	METALS-TCLP	TCLP	TCLP	SW846	94403		()
AD25995-006	1	SMP	18:27	30	METALS-TCLP	TCLP	TCLP	SW846	94403		()
AD26030-002	1	SMP	18:31	31	METALS-TCLP	TCLP	TCLP	SW846	94403		()
AD26009-001	1	SMP	18:35	32	MET-TCLP-XL	TCLP	TCLP	SW846	94403	Cr,Cu,As,Ag,Pb,Se,TI NOT REPORTED (Ca>LR)	()
CCV V-352960	1	CCV	18:39	33							V-352960(CCV)
CCB V-352951	1	CCB	18:43	34							V-352951(ICB/CCB)
AD26010-001	1	SMP	18:47	35	MET-TCLP-XL	TCLP	TCLP	SW846	94403		()
AD26023-001	1	SMP	18:51	36	METALS-TCLP	TCLP	TCLP	SW846	94403		()
AD26016-002	1	SMP	18:55	37	METALS-TCLP	TCLP	TCLP	SW846	94403	Cr,Cu,As,Ag,Pb,Se,TI NOT REPORTED (Ca>LR)	()
EF V-357518 9/17	1	EF	18:59	38	METALS-TCLP	TCLP	TCLP	SW846	94403		V-357518 9/17()
CCV V-352960	1	CCV	19:02	39							V-352960(CCV)
CCB V-352951	1	CCB	19:07	40							V-352951(ICB/CCB)

Comments/Reviewedby:

carmela
192.168.1.86 9/21/2021 9:35:14 AM

OK
ALL ELEMENTS REPORTED
Ag NOT REPORTED

DDC Project No HWK2048

9/27/21

Note: ICP-MS dilution factor column does not reflect dilution which is performed prior to analysis. Secondary analytical dilution is documented on prep log. Dilution Factor: _____

Standard/Batch/SnCl2 Lot #:

HAZ. - 438

Version Date: May 16, 2022

Run Log

Data File: W:\METALS.FRM\ICPDATA\New\PEICP5A\T27644B5.txt

Analysis Date: 09/21/21

Instrument: PEICP5A

Sample Id	DF	Qc Type	Time	Run #	Test Group	Rept Limit Matrix	Qc Matrix	Anal Method	Prep Batch	Comments:	Stds:
CALBLK V-352951	1	CAL	10:47	1							V-352951(ICB/CCB)
CALST2 V-352963	1	CAL	10:51	2							V-352963(LLICV/CCV leachate)
CALST3 V-352955	1	CAL	10:55	3							V-352955(ICS3 - Middle Std)
CALST4 V-352956	1	CAL	10:59	4							V-352956(ICS4 High std)
ICV V-352960	1	ICV	11:04	5							V-352960(CCV)
ICB V-352951	1	ICB	11:08	6							V-352951(ICB/CCB)
LRS V-352964	1	LRS	11:12	7	METALS-TCLP	TCLP	TCLP	SW846	94403		V-352964(LRS)
ICS3 V-352955	1	ICS	11:17	8							V-352955(ICS3 - Middle Std)
RINSE	1	SMP	11:21	9		TCLP	TCLP	SW846	94403		()
LLICV V-352963	1	LLICV	11:25	10	METALS-TCLP	TCLP	TCLP	SW846	94403		V-352963(LLICV/CCV leachate)
ICSA V-352957	1	ICSA	11:29	11							V-352957(ICSA)
CCV V-352960	1	CCV	11:34	12							V-352960(CCV)
CCB V-352951	1	CCB	11:38	13							V-352951(ICB/CCB)
AD25976-006	2	SMP	11:42	14	METALS-TCLP	TCLP	TCLP	SW846	94403	Pb REPORTED	()
AD26009-001	5	SMP	11:46	15	MET-TCLP-XL	TCLP	TCLP	SW846	94403	Cr,Cu,Ag,As,Se,Pb REPORTED	()
AD26016-002	5	SMP	11:50	16	METALS-TCLP	TCLP	TCLP	SW846	94403	Cr,Cu,Ag,As,Se,Pb REPORTED	()
AD25976-002	1	SMP	11:54	17	METALS-TCLP	TCLP	TCLP	SW846	94403		()
AD25976-004	1	SMP	11:58	18	METALS-TCLP	TCLP	TCLP	SW846	94403		()
AD25976-006	1	SMP	12:02	19	METALS-TCLP	TCLP	TCLP	SW846	94403		()
AD25976-008	1	SMP	12:06	20	METALS-TCLP	TCLP	TCLP	SW846	94403		()
AD25976-010	1	SMP	12:09	21	METALS-TCLP	TCLP	TCLP	SW846	94403		()
CCV V-352960	1	CCV	12:13	22							V-352960(CCV)
CCB V-352951	1	CCB	12:17	23							V-352951(ICB/CCB)
MB 94403 (1)	1	MB	12:21	24	METALS-TCLP	TCLP	TCLP	SW846	94403		()
LCS 94403	1	LCS	12:25	25	METALS-TCLP	TCLP	TCLP	SW846	94403		()
LCS MR 94403	1	LCS	12:30	26	METALS-TCLP	TCLP	TCLP	SW846	94403		()
AD25976-002	1	MR	12:34	27	METALS-TCLP	TCLP	TCLP	SW846	94403		()
AD25976-002	1	MS	12:38	28	METALS-TCLP	TCLP	TCLP	SW846	94403		()
AD25976-002	1	PS	12:43	29	METALS-TCLP	TCLP	TCLP	SW846	94403		()
AD25976-002	5	SD	12:47	30	METALS-TCLP	TCLP	TCLP	SW846	94403		()
CCV V-352960	1	CCV	12:51	31							V-352960(CCV)
CCB V-352951	1	CCB	12:56	32							V-352951(ICB/CCB)
AD25995-002	1	SMP	13:00	33	METALS-TCLP	TCLP	TCLP	SW846	94403		()
AD25995-004	1	SMP	13:04	34	METALS-TCLP	TCLP	TCLP	SW846	94403		()
AD25995-006	1	SMP	13:08	35	METALS-TCLP	TCLP	TCLP	SW846	94403		()
AD26030-002	1	SMP	13:12	36	METALS-TCLP	TCLP	TCLP	SW846	94403		()
AD26009-001	1	NA	13:16	37	MET-TCLP-XL	TCLP	TCLP	SW846	94403		()
AD26010-001	1	SMP	13:20	38	MET-TCLP-XL	TCLP	TCLP	SW846	94403		()
AD26023-001	1	SMP	13:24	39	METALS-TCLP	TCLP	TCLP	SW846	94403		()
AD26016-002	1	NA	13:27	40	METALS-TCLP	TCLP	TCLP	SW846	94403		()
EF V-357518 9/17	1	EF	13:31	41	METALS-TCLP	TCLP	TCLP	SW846	94403		V-357518 9/17()
EF V-356268 9/2	1	EF	13:35	42		TCLP	TCLP	SW846	94357		V-356268 9/2()
CCV V-352960	1	CCV	13:38	43							V-352960(CCV)
CCB V-352951	1	CCB	13:43	44							V-352951(ICB/CCB)

Comments/Reviewedby:

carmela
192.168.1.86 9/21/2021 2:37:52 PM

ok
Ag REPORTED

Note: ICP-MS dilution factor column does not reflect dilution which is performed prior to analysis. Secondary analytical dilution is documented on prep log. Dilution Factor: _____

Standard/Batch/SnCl2 Lot #:

DDC Project No HWK2048
9/21/21

HAZ. - 439

Version Date: May 16, 2022

Run Log

Data File: W:\METALS.FRM\ICPDATA\New\HGCV3A\H27644T.txt

Analysis Date: 09/21/21

Instrument: HGCV3A

Sample Id	DF	Qc Type	Time	Run #	Test Group	Rept Limit Matrix	Qc Matrix	Anal Method	Prep Batch	Comments:	Stds:
Calibration Blank	1	CAL	10:12	1							0
.2 PPB	1	CAL	10:14	2							0
.5 PPB	1	CAL	10:15	3							0
1 PPB	1	CAL	10:17	4							0
2 PPB	1	CAL	10:18	5							0
5 PPB	1	CAL	10:19	6							0
10 PPB	1	CAL	10:21	7							0
25 PPB	1	CAL	10:22	8							0
ICV (2)	1	ICV	10:24	9							0
ICB	1	ICB	10:26	10							0
MB 94403 (1)	1	MB	10:28	11	HG-TCLP	TCLP	TCLP	SW846	94403		0
LCS 94403	1	LCS	10:29	12	HG-TCLP	TCLP	TCLP	SW846	94403		0
LCS 94403 MR	1	LCS	10:31	13	HG-TCLP	TCLP	TCLP	SW846	94403		0
AD25976-002	1	SMP	10:33	14	HG-TCLP	TCLP	TCLP	SW846	94403		0
AD25976-002	1	MR	10:34	15	HG-TCLP	TCLP	TCLP	SW846	94403		0
AD25976-002	1	MS	10:35	16	HG-TCLP	TCLP	TCLP	SW846	94403		0
AD25976-004	1	SMP	10:37	17	HG-TCLP	TCLP	TCLP	SW846	94403		0
AD25976-006	1	SMP	10:39	18	HG-TCLP	TCLP	TCLP	SW846	94403		0
AD25976-008	1	SMP	10:40	19	HG-TCLP	TCLP	TCLP	SW846	94403		0
AD25976-010	1	SMP	10:41	20	HG-TCLP	TCLP	TCLP	SW846	94403		0
CCV	1	CCV	10:43	21							0
CCB	1	CCB	10:45	22							0
AD25995-002	1	SMP	10:46	23	HG-TCLP	TCLP	TCLP	SW846	94403		0
AD25995-004	1	SMP	10:47	24	HG-TCLP	TCLP	TCLP	SW846	94403		0
AD25995-006	1	SMP	10:49	25	HG-TCLP	TCLP	TCLP	SW846	94403		0
AD26030-002	1	SMP	10:50	26	HG-TCLP	TCLP	TCLP	SW846	94403		0
AD26009-001	1	SMP	10:52	27	HG-TCLP	TCLP	TCLP	SW846	94403		0
AD26010-001	1	SMP	10:53	28	HG-TCLP	TCLP	TCLP	SW846	94403		0
AD26016-002	1	SMP	10:54	29	HG-TCLP	TCLP	TCLP	SW846	94403		0
EF V-357518 9/17	1	EF	10:56	30	HG-TCLP	TCLP	TCLP	SW846	94403		V-357518(EF-1 WARNING)
CCV	1	CCV	10:57	31							0
CCB	1	CCB	10:59	32							0

Comments/Reviewed by:

asilva
192.168.1.115 9/21/2021 1:25:07 PM

Run is OK.

Note: ICP-MS dilution factor column does not reflect dilution which is performed prior to analysis. Secondary analytical dilution is documented on prep log. Dilution Factor: _____

Standard/Batch/SnCl2 Lot #:

V-357660

HAZ. - 440

Version Date: May 16, 2022

BDC Project No. 2048

Wet Chemistry Data

VERITECH Wet Chem Form1 Analysis Summary

Lab#: AD25976-002
 Matrix Soil
 Client SampleID: SB01 COMP

Project Number: 1091507
 Received Date: 9/14/2021
 Collect Date: 9/14/2021

Analysis	TestGroup	Dilution:	Result	Units:	RL	Prep Date:	Analysis Date:
Cyanide (Reactive)	CN-REACTIVE	1	ND	mg/Kg	0.50	09/17/21	09/17/21
Flame Propagation (POS/NEG)	IGNIT-1030	1	NEG			09/16/21	09/16/21
Burning Rate (mm/sec)	IGNIT-1030	1	NA			09/16/21	09/16/21
Ignitability (POS/NEG)	IGNIT-1030	1	NEG			09/16/21	09/16/21
Paint Filter Test	PAINT FILTER	1	NEG				09/20/21
pH	PH-SOIL	1	8.1	pH			09/16/21
Temperature	PH-SOIL	1	22.9	C			09/16/21
Sulfide (Reactive)	S-REACTIVE	1	ND	mg/kg	100	09/17/21	09/17/21

Lab#: AD25976-004
 Matrix Soil
 Client SampleID: SB02 COMP

Project Number: 1091507
 Received Date: 9/14/2021
 Collect Date: 9/14/2021

Analysis	TestGroup	Dilution:	Result	Units:	RL	Prep Date:	Analysis Date:
Cyanide (Reactive)	CN-REACTIVE	1	ND	mg/Kg	0.50	09/17/21	09/17/21
Flame Propagation (POS/NEG)	IGNIT-1030	1	NEG			09/16/21	09/16/21
Burning Rate (mm/sec)	IGNIT-1030	1	NA			09/16/21	09/16/21
Ignitability (POS/NEG)	IGNIT-1030	1	NEG			09/16/21	09/16/21
Paint Filter Test	PAINT FILTER	1	NEG				09/20/21
pH	PH-SOIL	1	7.6	pH			09/16/21
Temperature	PH-SOIL	1	22.9	C			09/16/21
Sulfide (Reactive)	S-REACTIVE	1	ND	mg/kg	100	09/17/21	09/17/21

Lab#: AD25976-006
 Matrix Soil
 Client SampleID: SB03 COMP

Project Number: 1091507
 Received Date: 9/14/2021
 Collect Date: 9/14/2021

Analysis	TestGroup	Dilution:	Result	Units:	RL	Prep Date:	Analysis Date:
Cyanide (Reactive)	CN-REACTIVE	1	ND	mg/Kg	0.50	09/17/21	09/17/21
Burning Rate (mm/sec)	IGNIT-1030	1	NA			09/16/21	09/16/21
Flame Propagation (POS/NEG)	IGNIT-1030	1	NEG			09/16/21	09/16/21
Ignitability (POS/NEG)	IGNIT-1030	1	NEG			09/16/21	09/16/21
Paint Filter Test	PAINT FILTER	1	NEG				09/20/21
pH	PH-SOIL	1	7.8	pH			09/16/21
Temperature	PH-SOIL	1	22.9	C			09/16/21
Sulfide (Reactive)	S-REACTIVE	1	ND	mg/kg	100	09/17/21	09/17/21

Lab#: AD25976-008
 Matrix Soil
 Client SampleID: SB04 COMP

Project Number: 1091507
 Received Date: 9/14/2021
 Collect Date: 9/14/2021

Analysis	TestGroup	Dilution:	Result	Units:	RL	Prep Date:	Analysis Date:
Cyanide (Reactive)	CN-REACTIVE	1	ND	mg/Kg	0.50	09/17/21	09/17/21
Flame Propagation (POS/NEG)	IGNIT-1030	1	NEG			09/16/21	09/16/21
Burning Rate (mm/sec)	IGNIT-1030	1	NA			09/16/21	09/16/21
Ignitability (POS/NEG)	IGNIT-1030	1	NEG			09/16/21	09/16/21
Paint Filter Test	PAINT FILTER	1	NEG				09/20/21
pH	PH-SOIL	1	6.8	pH			09/16/21
Temperature	PH-SOIL	1	22.9	C			09/16/21
Sulfide (Reactive)	S-REACTIVE	1	ND	mg/kg	100	09/17/21	09/17/21

VERITECH Wet Chem Form1 Analysis Summary

Lab#: AD25976-010

Matrix Soil

Client SampleID: SB05 COMP

Project Number: 1091507

Received Date: 9/14/2021

Collect Date: 9/14/2021

Analysis	TestGroup	Dilution:	Result	Units:	RL	Prep Date:	Analysis Date:
Cyanide (Reactive)	CN-REACTIVE	1	ND	mg/Kg	0.50	09/17/21	09/17/21
Flame Propagation (POS/NEG)	IGNIT-1030	1	NEG			09/16/21	09/16/21
Burning Rate (mm/sec)	IGNIT-1030	1	NA			09/16/21	09/16/21
Ignitability (POS/NEG)	IGNIT-1030	1	NEG			09/16/21	09/16/21
Paint Filter Test	PAINT FILTER	1	NEG				09/20/21
pH	PH-SOIL	1	7.4	pH			09/16/21
Temperature	PH-SOIL	1	22.7	C			09/16/21
Sulfide (Reactive)	S-REACTIVE	1	ND	mg/kg	100	09/17/21	09/17/21

VERITECH Wet Chem Form1 Analysis Summary
% Solids

TestGroupName: % Solids SM2540G

Project #: 1091507

TestGroup: %SOLIDS

Lab#	Client SampleID	Matrix	Dilution:	Result	Units:	RL	Prep Date	Analysis Date	Received Date	Collect Date
AD25976-001	SB01 GRAB	Soil	1	92	Percent			09/16/21	09/14/21	09/14/21
AD25976-002	SB01 COMP	Soil	1	88	Percent			09/16/21	09/14/21	09/14/21
AD25976-003	SB02 GRAB	Soil	1	90	Percent			09/16/21	09/14/21	09/14/21
AD25976-004	SB02 COMP	Soil	1	83	Percent			09/16/21	09/14/21	09/14/21
AD25976-005	SB03 GRAB	Soil	1	81	Percent			09/16/21	09/14/21	09/14/21
AD25976-006	SB03 COMP	Soil	1	80	Percent			09/16/21	09/14/21	09/14/21
AD25976-007	SB04 GRAB	Soil	1	80	Percent			09/16/21	09/14/21	09/14/21
AD25976-008	SB04 COMP	Soil	1	84	Percent			09/16/21	09/14/21	09/14/21
AD25976-009	SB05 GRAB	Soil	1	84	Percent			09/16/21	09/14/21	09/14/21
AD25976-010	SB05 COMP	Soil	1	80	Percent			09/16/21	09/14/21	09/14/21

% Solids Report

Analysis Type: SOLIDS-SS
BatchID: SOLIDS-SS-12267

QcType	SampleID:	Rounded Result	Raw Result	Units	Tare Weight	Wet Weight	Dry Weight	Analysis Date	Analyzed By	QC RPD	Rpd Limit
DUP	AD25970-005	93	92.52935	Percent	1.27	10.64	9.94	09/16/21	BEENA	0.22	5
Sample	AD25970-001	90	89.78829	Percent	1.27	9.30	8.49	09/16/21	BEENA		
Sample	AD25970-002	88	88.19876	Percent	1.28	12.55	11.23	09/16/21	BEENA		
Sample	AD25970-003	88	87.95761	Percent	1.28	11.66	10.41	09/16/21	BEENA		
Sample	AD25970-004	89	88.83878	Percent	1.28	10.15	9.16	09/16/21	BEENA		
Sample	AD25970-005	92	92.32737	Percent	1.28	13.01	12.11	09/16/21	BEENA		
Sample	AD25970-006	88	87.75693	Percent	1.28	12.47	11.10	09/16/21	BEENA		
Sample	AD25970-007	86	86.31347	Percent	1.27	10.33	9.10	09/16/21	BEENA		
Sample	AD25970-008	86	85.76349	Percent	1.27	9.98	8.74	09/16/21	BEENA		
Sample	AD25976-001	92	91.65629	Percent	1.28	9.31	8.63	09/16/21	BEENA		
Sample	AD25976-002	88	88.14815	Percent	1.28	10.73	9.62	09/16/21	BEENA		
Sample	AD25976-003	90	90.38760	Percent	1.28	7.73	7.11	09/16/21	BEENA		
Sample	AD25976-004	83	82.59109	Percent	1.28	8.69	7.40	09/16/21	BEENA		
Sample	AD25976-005	81	80.50975	Percent	1.28	7.95	6.65	09/16/21	BEENA		
Sample	AD25976-006	80	79.65116	Percent	1.28	8.16	6.76	09/16/21	BEENA		
Sample	AD25976-007	80	80.35382	Percent	1.28	12.02	9.91	09/16/21	BEENA		
Sample	AD25976-008	84	83.74233	Percent	1.29	11.07	9.49	09/16/21	BEENA		
Sample	AD25976-009	84	83.99694	Percent	1.28	14.34	12.25	09/16/21	BEENA		
Sample	AD25976-010	80	79.65497	Percent	1.28	18.09	14.67	09/16/21	BEENA		
Sample	AD25981-001	91	91.47870	Percent	1.28	13.25	12.23	09/16/21	BEENA		
Sample	AD25981-002	85	85.21537	Percent	1.29	9.88	8.61	09/16/21	BEENA		

* - Indicates Failed Rpd Criteria

Batch Number: PAINT FILT-1421

Units:

Calibration Curve Information

Qc Summary Results

Qc Type	Qc Name	SpkAmt	Rec Lim	Rpd Lim	Raw Result	Recov	Rpd	Flags
DUP	AD25933-001	0	NA	NA	#Error	NA	NA	

Analytical Method(s)

EPA 9095B

Sam #	Type	MB	Result	RL	Per Sol	Full Pos/Neg Results	Prep Date	Prep By	Anal Date	Anal By
025933-001	DUP		NEG		100	0 NEG			09/20/21	SDL
025933-001	Sample		NEG		100	0 NEG			09/20/21	SDL
025945-002	Sample		NEG		100	0 NEG			09/20/21	SDL
025964-007	Sample		NEG		100	0 NEG			09/20/21	SDL
025964-008	Sample		NEG		100	0 NEG			09/20/21	SDL
025976-002	Sample		NEG		100	0 NEG			09/20/21	SDL
025976-004	Sample		NEG		100	0 NEG			09/20/21	SDL
025976-006	Sample		NEG		100	0 NEG			09/20/21	SDL
025976-008	Sample		NEG		100	0 NEG			09/20/21	SDL
025976-010	Sample		NEG		100	0 NEG			09/20/21	SDL
026064-001	Sample		NEG		100	0 NEG			09/20/21	SDL

*0000
9/20/21*

*FB
9/20/21*

Batch Number: PH-S-2054

Units: pH

Calibration Curve Information

Qc Summary Results

Qc Type	Qc Name	SpkAmt	Rec Lim	Rpd Lim	Raw Result	Recov	Rpd	Flags
DUP	AD25976-002	0	NA	20	8.07	NA	0.74	
LCS	LCS	4.4	75-125	NA	4.6	105	NA	

Analytical Method(s)

9040C/9045D

Sam #	Type	MB	Result	RL	Per Sol	Full PH Result	TEMP	Prep Date	Prep By	Anal Date	Anal By
LCS	LCS		4.6		100	4.6 4.60	23.7			09/16/21	KS
AD25976-002	DUP		8.1		100	8.07 8.07	22.9		LL	09/16/21	KS
AD25976-002	Sample		8.1		100	8.13 8.13	22.9		LL	09/16/21	KS
AD25976-004	Sample		7.6		100	7.57 7.57	22.9		LL	09/16/21	KS
AD25976-006	Sample		7.8		100	7.81 7.81	22.9		LL	09/16/21	KS
AD25976-008	Sample		6.8		100	6.83 6.83	22.9		LL	09/16/21	KS
AD25976-010	Sample		7.4		100	7.39 7.39	22.7		LL	09/16/21	KS

KS 9/16/21

DW 9/20/21

Batch Number:RS-1543

Units:mg/kg

Qc Summary Results

Qc Type	Qc Name	SpkAmt	Rec Lim	Rpd Lim	Raw Result	Recov	Rpd	Flags
CAL-01	CAL-01-09/17/21	16	90-110	NA	16.03	100	NA	
LCS	LCS	400	75-125	NA	370.69375	93	NA	
MS	AD25976-002	400	75-125	NA	380.7125	95	NA	
MSD	AD25976-002	400	75-125	20	360.675	90	5.4	

Calibration Curve Information

Analytical Method(s)

SW846 7.3

Sam #	Type	MB	Result	RL	Per Sol	Full Titr Vol	lod Vol	DF	Sam Wt (g)	Scrb Vol (ml)	Prep Date	Prep By	Anal Date	Anal By	
CAL-01-09-17-21	CAL-01		16		100	16.03	6.0	10	1	250	250			09/17/21	KS
MB-1-09-17-21	MB	MB-1-09-17-21	ND	100	100	40.075	9.6	10	1	10	250	09/17/21	KS	09/17/21	KS
LCS	LCS	MB-1-09-17-21	370	100	100	370.69	6.3	10	1	10	250	09/17/21	KS	09/17/21	KS
AD25976-002	MS	MB-1-09-17-21	380	100	88	380.71	6.2	10	1	10	250	09/17/21	KS	09/17/21	KS
AD25976-002	MSD	MB-1-09-17-21	360	100	88	360.68	6.4	10	1	10	250	09/17/21	KS	09/17/21	KS
AD25976-002	Sample	MB-1-09-17-21	ND	100	88	90.169	9.1	10	1	10	250	09/17/21	KS	09/17/21	KS
AD25976-004	Sample	MB-1-09-17-21	ND	100	83	90.169	9.1	10	1	10	250	09/17/21	KS	09/17/21	KS
AD25976-006	Sample	MB-1-09-17-21	ND	100	80	90.169	9.1	10	1	10	250	09/17/21	KS	09/17/21	KS
AD25976-008	Sample	MB-1-09-17-21	ND	100	84	70.131	9.3	10	1	10	250	09/17/21	KS	09/17/21	KS
AD25976-010	Sample	MB-1-09-17-21	ND	100	80	50.094	9.5	10	1	10	250	09/17/21	KS	09/17/21	KS
AD25991-001	Sample	MB-1-09-17-21	ND	100	100	90.169	9.1	10	1	10	250	09/17/21	KS	09/17/21	KS
AD25995-002	Sample	MB-1-09-17-21	ND	100	92	60.112	9.4	10	1	10	250	09/17/21	KS	09/17/21	KS
AD25995-004	Sample	MB-1-09-17-21	ND	100	93	70.131	9.3	10	1	10	250	09/17/21	KS	09/17/21	KS
AD25995-006	Sample	MB-1-09-17-21	ND	100	90	70.131	9.3	10	1	10	250	09/17/21	KS	09/17/21	KS
AD26009-001	Sample	MB-1-09-17-21	ND	100	100	90.169	9.1	10	1	10	250	09/17/21	KS	09/17/21	KS
AD26010-001	Sample	MB-1-09-17-21	ND	100	100	90.169	9.1	10	1	10	250	09/17/21	KS	09/17/21	KS
AD26016-002	Sample	MB-1-09-17-21	ND	100	100	30.056	9.7	10	1	10	250	09/17/21	KS	09/17/21	KS
AD26030-002	Sample	MB-1-09-17-21	ND	100	100	90.169	9.1	10	1	10	250	09/17/21	KS	09/17/21	KS

KS 9/20/21

JW 9/22/21

MS/MSD/DUP Recovery

1091507 0387

Prep Batch: S-1543
Method: SW846 7.3

Sample ID: AD25976-002
Matrix: Soil

Qc Type: MS				MS/MSD/DUP						Non Spike			
Analyte	Amt	Recov	Dil	MS Conc	Sample Conc	% Rec	Flag	Batch	RunID	Analysis Date	Batch	RunID	Analysis Date
Cyanide (Reactive)	0.4	75-125	1	0.4098	0	102		20210917172	13	09/17/21 17:55	20210917172	15	09/17/21 18:00

Qc Type: MSD				MS/MSD/DUP						Non Spike				
Analyte	Amt	Recov	Rpd	MSD Conc	Sample Conc	% Rec	Rpd	Flag	Batch	RunID	Analysis Date	Batch	RunID	Analysis Date
Cyanide (Reactive)	0.4	75-125	20	1	0.4158	0	104 1.5		20210917172	14	09/17/21 17:57	20210917172	15	09/17/21 18:00

LCS Recoveries

BatchRunID/RunID:	202109171727-12				
QcBatchID:	LCSS-1543				
Date/Time:	09/17/21 17:53				
Analytical Method:	SW846 7.3				
Matrix:	Soil	Soil	Soil	Soil	Soil

SW846 7.3

Analyte	Amt	Limits	Amt	Limits	% Rec	Flags	% Rec	Flags	% Rec	Flags	% Rec	Flags	% Rec	Flags
Cyanide (Rea	0.4	75-125			102									

Calibration Summary:

1091507 0389

Instrument: DA1

Analysis Meth: SW846 7.3

Analyte	Batch ID	Run#	Qc Type	Recov	Spk Amt	Limit
Cyanide (Reactive)	20210917172	9	ICV	104	0.4	90-110
Cyanide (Reactive)	20210917172	21	CCV	100	0.4	90-110
Cyanide (Reactive)	20210917172	30	CCV	103	0.4	90-110

Blank Summary

Instrument: DA1

Qc Type: Method Blank Summary Prep Date: 9/17/21

Run Batch ID	Analysis Date/Time	Sample ID	Run#	Analyte	Conc	RL
20210917172	9/17/21 17:50	MBS-1543	11	Cyanide (ND	0.50

Qc Type: ICB Summary Prep Date: NA

Run Batch ID	Analysis Date/Time	Sample ID	Run#	Analyte	Conc	RL
20210917172	9/17/21 17:48	CCB	10	Cyanide (ND	0.020

Qc Type: CCB Summary Prep Date: NA

Run Batch ID	Analysis Date/Time	Sample ID	Run#	Analyte	Conc	RL
20210917172	9/17/21 18:16	CCB	22	Cyanide (ND	0.020
20210917172	9/17/21 18:33	CCB	31	Cyanide (ND	0.020

Miscellaneous Data

LEACHATE PREPARATION LOG
(TCLP, SPLP)

Start Date: 9/16/21 TIME: 11:40 Finish Date: 9/17/21

TCLP Ext. Fluid #1 pH: 4.90 (criteria: 4.83 ± 0.05)
 TCLP Ext. Fluid #2 pH: 4.33 (criteria: 2.88 ± 0.05)
 SPLP Ext. Fluid #3 pH: 4.33 (criteria: 4.20 ± 0.05)

Sample #	pH (units)	pH In HCL (units)	Final pH (units)	Ext. Fluid (number)	Wt/Vol of Sample (g or mL)	Start Time	Finish Time	Filter Time	Analyst (S)	Ext. Type*	Comments
25976-002	9.32	1.59	4.99	EF1357518	100g/4L	20:00	12:00	12:35	K5	T	Balance ID: 037 pH Meter ID: R38168
004	8.46	1.58	5.05					12:51			
006	8.78	1.57	5.13					13:13			
008	7.73	1.53	4.91					13:29			
010	7.73	1.54	4.89					17:08			
EF1357518	4.90		4.91	SPLP357468	3L			16:03		P	
25839-017	-	-	9.77	SPLP357468	100g/12L			16:29			
-018	-	-	9.74					16:41			
-019	-	-	9.89					16:41			
SPLP 357468	4.23		9.90	SECON	3L			16:41			
26009-001	11.85	2.31	11.04	EF1357518	150g/3L			14:28		T	MET + OR6
25780-004	-	-	9.60	SPLP357468	100g/2L			14:40		P	limited volume
26010-001	9.31	1.55	4.95	EF1357518	150g/3L			14:28		T	
25780-002	-	-	9.55	SPLP357468				16:40		P	MET + OR6
25995-002	10.21	1.63	5.19	EF1357518				13:13		T	MET + OR6
-004	10.04	1.56	5.00					13:57			
-006	9.75	1.57	5.21					16:03			
26030-002	9.47	1.59	5.08					15:47		T	MET + OR6
26023-001	6.84	1.53	4.89		100g/1L					T	MET
26016-002	9.04	1.72	6.37								

Ext. Type: TCLP = T (Method 1311) SPLP = P (Method 1312) ZHE = Z (Method 1311/1312) LAMP = L (Method 1311 / ANSINEMA C76LL 1256-2003) MEP = M (Method 1320)

** The pH of the extraction fluid must be checked prior to use and must be within limits specified above

0100

Leachates prep log 2017

9/17/21
 9/16/21
 AZ - 454

Last Page of Report

Project: Jamaica Bay

Client PO: 31402661.080

Report To: WSP USA, Inc.
96 Morton St.
8th Floor
New York, NY 10014

Received Date: 9/14/2021

Report Date: 10/12/2021

Deliverables: NYDOH-CatA

Lab ID: AD25967

Lab Project No: 1091418

This report is a true report of results obtained from our tests of this material. The report relates only to those samples received and analyzed by the laboratory. All results meet the requirements of the NELAC Institute standards. Laboratory reports may not be reproduced, except in full, without the written approval of the laboratory.

In lieu of a formal contract document, the total aggregate liability of Hampton-Clarke to all parties shall not exceed Hampton-Clarke's total fee for analytical services rendered.


Sean Berls - Quality Assurance Officer

OR

Jean Revolus - Laboratory Director

NJ (07071)
PA (68-00463)

NY (ELAP11408)
KY (90124)

CT (PH-0671)





**THIS CATEGORY "A" REPORT
IS NUMBERED FROM
1 to 48**

(Subcontracted data is numbered as attached)

HC Case Narrative

Client: WSP USA, Inc.
Project: Jamaica Bay

HC Project: 1091418

Hampton-Clarke (HC) received the following samples on 9/14/2021:

<u>Client ID</u>	<u>HC Sample ID</u>	<u>Matrix</u>	<u>Analysis</u>
SB O4	AD25967-001	Aqueous	Semivolatile Organics 625.1, Carbonaceous BOD-5 Day (SM5210 B-11), Chloride (Water) 300.0, Cr (Hexavalent) 3500-Cr B11, Flash Point 1010A, SGT-HEM (Non-Polar Material) 1664B, Mercury (Water) 245.1, Metals-Two 200.8, Metals-Three 200.7, Nitrite-N (Aqueous) 300.0, Nitrate-N (Water) 300.0, NYCDEP Effluent Group, PCB 608.3, pH (SM4500-H+ B-11), Total Kjeldahl Nitrogen EPA 351*, Total Solids (SM2540B-11), Total Suspended Solids (SM2540D-11), Volatile Organics 624.1

* - Indicates analysis was performed by a subcontracted laboratory.

This case narrative is in the form of an exception report. Method specific and/or QA/QC anomalies related to this report only are detailed below.

Volatile Organic Analysis:

The MS/MSD RPD, Matrix Spike and/or Matrix Spike Duplicate for batch 96774 had recoveries outside QC limits. Please refer to the applicable Form 3 for the recoveries.

2-Chloroethylvinylether did not recover in the Matrix Spike and Matrix Spike Duplicate in batch 96774 due to acid preservation of sample. 2-Chloroethylvinylether readily decomposes under acidic conditions. The recovery of 2-Chloroethylvinylether is within QC limits in the Laboratory Control Sample. Please refer to the applicable Form 3 for the recoveries.

Base Neutral/Acid Extractable Analysis:

The MS/MSD RPD, Matrix Spike and/or Matrix Spike Duplicate for batch 94954 had recoveries outside QC limits. Please refer to the applicable Form 3 for the recoveries.

Sample AD25746-003, -003(MS/MSD) were tumbled past the holding time as per client's request.

PCB Analysis:

Data conforms to method requirements.

Metals Analysis:

Data conforms to method requirements.

Wet Chemistry Analysis:

Sample AD25967-001 was received and analyzed outside the 15 minute hold time for pH.

Subcontracted Analysis:

Please refer to attached subcontracted laboratory report. Sample AD25967-001 was submitted to SGS North America Inc. for Total Kjeldahl Nitrogen analysis.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data has been authorized by the Laboratory Manager or his designee, as verified by the following signature.


Sean Beris
Quality Assurance Officer

Or

Jean Revolus
Laboratory Director

10/12/21

Date

1091418 0003

Hampton-Clarke, Inc. (WBE/DBE/SBE)
 175 Route 46 West and 2 Madison Road, Fairfield, New Jersey 07004
 Ph: 800-426-9992 | 973-244-9770 Fax: 973-244-9787 | 973-439-1458
 Service Center: 137-D Gaither Drive, Mount Laurel, New Jersey 08054
 Ph (Service Center): 856-780-6057 Fax: 856-780-6056
 NELAC/NJ #07071 | PA #68-00483 | NY #11408 | CT #PH-0671 | KY #90124 | DE HSCA Approved

HC
Hampton-Clarke
 WBE/DBE/SBE 800-426-9992
CHAIN OF CUSTODY RECORD
 A Women-Owned, Disadvantaged, Small Business Enterprise

Project# (Lab Use Only) 1091418 Page 1 of 1
3) Reporting Requirements (Please Circle)

Turnaround	Report Type	Electronic Data Deliv.
When Available:	Summary	NJ Hazsite
1 Business Day (100%) *	Results + QC (Waste)	Excel Reg. NJ / NY / PA
2 Business Days (75%) *	Reduced:	EnviroData
3 Business Days (50%) *	[] NJ [] NY	EQuIS:
4 Business Days (35%) *	[] PA [] Other	[] 4-File [] EZ
5 Business Days (25%)	NJ Full / NY ASP CatB	[] NYDEC
8 Business Days (Stand.)	NY ASP CatA	[] Region 2 or 5
Other: <u>5 day TAT</u>		Other: _____

* Expedited TAT Not Always Available. Please Check with Lab.

Customer Information

1a) Customer: Louis Berger
 Address: 96 Monton St, 2nd Floor
New York, NY, 10014

1b) Email/Cell/Fax/Ph: Jon.Ganz@WSP.com

1c) Send Invoice to: Jonathan Ganz

1d) Send Report to: Jonathan Ganz

Project Information

2a) Project: Jamaica Bay

2b) Project Mgr: Jonathan Ganz

2c) Project Location (City/State): Brooklyn, NY, NY

2d) Quote/PO # (If Applicable): 31402661.080

FOR LAB USE ONLY	====> Check If Contingent <====										<==== Check If Contingent <====																	
	Matrix Codes					Sample Type	7) Analysis (specify methods & parameter lists)										8) # of Bottles							9) Comments				
Batch #	4) Customer Sample ID		5) Matrix	6) Sample			Composite (C)	Grab (G)	NJCDEP Effluent Parameters										None	MeOH	En Core	NaOH	HCl		H2SO4	HNO3	Other:	
Lab Sample #				Date	Time																							
<u>A2867</u>	<u>SB 04</u>		<u>GW</u>	<u>9/14/21</u>	<u>14:30</u>			<u>X X</u>										<u>10</u>						<u>1</u>	<u>1</u>			

10) Relinquished by: Harry August Accepted by: [Signature] Date: 9/14/21 Time: 17:56

11) Sampler (print name): Harry August Date: 9/14/21

Comments, Notes, Special Requirements, HAZARDS

Indicate if low-level methods required to meet current groundwater standards (SPLP for soil):

BN or BNA (8270E SIM)
 VOC (8260D SIM or 8011)
 SPLP (BN, BNA, Metals)
 1,4 Dioxane

Check if applicable:

Project-Specific Reporting Limits
 High Contaminant Concentrations
 NJ LSRP Project (also check boxes above/right)

For NJ LSRP projects, indicate which standards need to be met:

NJDEP GWQS
 NJDEP SRS
 NJDEP SPLP
 Other (specify): _____

Cooler Temperature: 5.0

Additional Notes
 DDC Project No HWK2048 HAZ. - 460

Please note NUMBERED items. If not completed your analytical work may be delayed.
 A fee of \$5/sample will be assessed for storage should sample not be activated for any analysis.

Version Date: May 16, 2022
 Internal use: sampling plan (check box) HC [] or client [] FSP#

CONDITION UPON RECEIPT

Batch Number AD25967

Entered By: Ricardo

Date Entered 9/14/2021 6:28:00 PM

-
- 1 Yes Is there a corresponding COC included with the samples?
 - 2 Yes Are the samples in a container such as a cooler or Ice chest?
 - 3 No Are the COC seals intact?
 - 4 T0054 <--- Thermometer ID. Please specify the Temperature inside the container (in degC).
3.0
 - 5 Yes Are the samples refrigerated (where required)/have they arrived on ice?
 - 6 Yes Are the samples within the holding times for the parameters listed on the COC? IF no, list parameters and samples:
 - 7 Yes Are all of the sample bottles intact? If no, specify sample numbers broken/leaking
 - 8 Yes Are all of the sample labels or numbers legible? If no specify:
 - 9 Yes Do the contents match the COC? If no, specify
 - 10 Yes Is there enough sample sent for the analyses listed on the COC? If no, specify:
 - 11 Yes Are samples preserved correctly?
 - 12 Yes Was temperature blank present (Place comment below if not)? If not was temperature of samples verified?
 - 13 NA Other comments ...Specify (TB date, sample matrix, any missing info, etc.)
 - 14 NA Corrective actions (Specify item number and corrective action taken).
 - 15 NA Were any samples for ortho-phosphate or dissolved ferrous iron field filtered?

PRESERVATION DOCUMENT

Batch Number AD25967

Entered By: Ricardo

Date Entered 9/14/2021 6:29:00 PM

Lab#	Container Size	Container/Vial Check	Parameter	Preservative	Preservative Lot#	PH	pH Lot#
AD25967-001	1L	G	O&G	HCL	267411	1	HC025486
AD25967-001	500ML	P	TKN	H2SO4	3120011	1	HC025486
AD25967-001	1L	P	METALS	HNO3	267725	1	HC025486
AD25967-001	1L	G	PEST	NONE	NA	7	HC025486
AD25967-001	40ML	G	VO	HCL	253057	1	HC025486

Internal Chain of Custody

1091418 0006

Lab#:	DateTime:	Loc or User	Bot Nu	A/ M	Analysis
AD25967-001	09/14/21 17:56	RICAR	0	M	Received
AD25967-001	09/14/21 18:28	RICAR	0	M	Login
AD25967-001	09/14/21 18:57	R12	1	A	NONE
AD25967-001	09/15/21 09:26	BCT	1	A	TDS/PH
AD25967-001	09/15/21 11:02	R12	1	A	NONE
AD25967-001	09/14/21 18:57	R12	2	A	NONE
AD25967-001	09/14/21 18:57	R12	3	A	NONE
AD25967-001	09/15/21 09:22	BCT	3	A	TSS
AD25967-001	09/15/21 12:02	R12	3	A	NONE
AD25967-001	09/14/21 18:57	R12	4	A	NONE
AD25967-001	09/15/21 06:50	JW	4	A	cr6 f/p_ic
AD25967-001	09/15/21 15:05	R12	4	A	NONE
AD25967-001	09/14/21 18:57	R12	6	A	NONE
AD25967-001	09/14/21 18:57	R12	7	A	NONE
AD25967-001	09/14/21 18:57	R12	8	A	NONE
AD25967-001	09/15/21 06:26	JW	8	A	bod/cbod
AD25967-001	09/16/21 09:23	BCT	8	A	CBOD
AD25967-001	09/16/21 15:52	R12	8	A	NONE
AD25967-001	09/14/21 18:57	R12	9	A	NONE
AD25967-001	09/16/21 15:58	JN	9	A	P/P
AD25967-001	09/16/21 17:54	R12	9	A	NONE
AD25967-001	09/14/21 18:57	R12	10	A	NONE
AD25967-001	09/15/21 06:27	JW	10	A	cr6 f/p_ic
AD25967-001	09/15/21 06:48	R12	10	A	NONE
AD25967-001	09/16/21 12:47	PC	10	A	R12
AD25967-001	09/14/21 18:57	R12	11	A	NONE
AD25967-001	09/16/21 09:26	SDL	11	A	FLASH/IGNITMOD
AD25967-001	09/16/21 12:45	R12	11	A	NONE
AD25967-001	09/14/21 18:57	R12	12	A	NONE
AD25967-001	09/16/21 15:58	JN	12	A	P/P
AD25967-001	09/14/21 18:57	R12	13	A	NONE
AD25967-001	09/16/21 09:36	LL	13	A	HEM-NPM
AD25967-001	09/14/21 18:57	R12	14	A	NONE
AD25967-001	09/17/21 16:05	JN	14	A	BN/BNA
AD25967-001	09/14/21 19:20	R31PH	15	A	NONE
AD25967-001	09/14/21 19:24	R31	16	A	NONE
AD25967-001	09/14/21 21:29	WP	16	A	VOA
AD25967-001	09/14/21 19:24	R31	17	A	NONE
AD25967-001	09/21/21 14:46	JM	17	A	vca

Lab#:	DateTime:	Loc or User	Bot Nu	A/ M	Analysis
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Samples marked as received are stored in coolers or refrigerator R12, or R24 at 4 deg C until Login

Laboratory Chronicle

1091418 0007

Client: WSP USA, Inc.

HC Project #: 1091418

Project: Jamaica Bay

Lab#: AD25967-001

Sample ID: SB 04

Test Code	Prep Method	Prep Date	By	Analytical Method	Analysis Date	By
Carbonaceous BOD-5 Day (SM5210 B-11)		09/16/21 12:00	BCT	SM5210 B-11	9/21/21 16:20	JW
Chloride (Water) 300.0		09/15/21	Janee	300.0 rev2.1	9/15/21 14:43	Janee
Cr (Hexavalent) 3500-Cr B11		09/21/21	JW	SM3500-CrB11	9/21/21 15:58	JW
Flash Point 1010A				EPA 1010A	9/16/21 00:00	SDL
Mercury (Water) 245.1	245.1 rev3.0	09/16/21 10:30	dlucca	245.1 rev3.0	9/17/21 10:35	ANS
Metals-Three 200.7	EPA 200.2	09/16/21 07:00	dlucca	200.7	9/16/21 14:10	CJAG9/24
Metals-Three 200.7	EPA 200.2	09/16/21 07:00	dlucca	200.7	9/16/21 14:10	CJAG9/17
Metals-Two 200.8	EPA 200.2	09/16/21 07:00	Dlucca	EPA 200.8	9/16/21 13:46	PC
Nitrate-N (Water) 300.0		09/15/21	Janee	300.0 rev2.1	9/15/21 10:07	Janee
Nitrite-N (Aqueous) 300.0		09/15/21	Janee	300.0 rev2.1	9/15/21 10:07	Janee
PCB 608.3	EPA 608.3	09/16/21 15:58	Jnadler	EPA 608.3	9/19/21 17:24	MS/MLC/MC
pH (SM4500-H+ B-11)				SM4500-H+B11	9/15/21 10:58	KS
Semivolatile Organics (no search) 625.1	EPA 625.1	09/17/21 16:05	Jnadler	EPA 625.1	9/19/21 18:20	AH/JB
SGT-HEM (Non-Polar Material) 1664B	EPA 1664B	09/16/21	llombardi	EPA 1664B	9/16/21 14:55	llombardi
Total Kjeldahl Nitrogen EPA 351				EPA 351	9/20/21 11:32	SGS
Total Solids (SM2540B-11)		09/15/21	BCT	SM2540B-11	9/16/21 13:00	BCT
Total Suspended Solids (SM2540D-11)		09/15/21	BCT	SM2540D-11	9/15/21 16:30	BCT
Volatile Organics (no search) 624.1	EPA 624.1			EPA 624.1	9/21/21 15:28	WP

HC Reporting Limit Definitions/Data Qualifiers

REPORTING DEFINITIONS

DF = Dilution Factor	MR = Matrix Replicate	PS = Post Digestion Spike
DUP = Duplicate	MS = Matrix Spike	RL* = Reporting Limit
LCS = Laboratory Control Spike	MSD = Matrix Spike Duplicate	RT = Retention Time
MBS = Method Blank Spike	NA = Not Applicable	SD = Serial Dilution
MDL = Method Detection Limit	ND = Not Detected	

**Samples with elevated Reporting Limits (RLs) as a result of a dilution may not achieve client reporting limits in some cases. The elevated RLs are unavoidable consequences of sample dilution required to quantitate target analytes that exceed the calibration range of the instrument.*

DATA QUALIFIERS

- A-** Indicates that the Tentatively Identified Compound (TIC) is suspected to be an aldol-condensation product. These compounds are by-products of acetone and methylene chloride used in the extraction process.
- B-** Indicates analyte was present in the Method Blank and sample.
- d-** For Pesticide and PCB analysis, the concentration between primary and secondary columns is greater than 40%. The lower concentration is generally reported.
- E-** Indicates the concentration exceeded the upper calibration range of the instrument.
- J-** Indicates the value is estimated because it is either a Tentatively Identified Compound (TIC) or the reported concentration is greater than the MDL but less than the RL. For samples results between the MDL and RL there is a possibility of false positives or misidentification at the quantitation levels. Additionally, the acceptance criteria for QC samples may not be met.
- R-** Retention Time is out.
- Y-** Indicates a contaminant found in the blank at less than 10% of the concentration of a contaminant found in the sample.

HC Report of Analysis

Client: WSP USA, Inc.
Project: Jamaica Bay

HC Project #: 1091418

Sample ID: SB O4
Lab#: AD25967-001
Matrix: Aqueous

Collection Date: 9/14/2021
Receipt Date: 9/14/2021

Carbonaceous BOD-5 Day (SM5210 B-11)

Analyte	DF	Units	RL	Result
Carbonaceous Bod, 5 Day	1	mg/l	2.0	ND

Chloride (Water) 300.0

Analyte	DF	Units	RL	Result
Chloride	20	mg/l	40	590

Cr (Hexavalent) 3500-Cr B11

Analyte	DF	Units	RL	Result
Cr (Hexavalent)	1	mg/l	0.020	ND

Flash Point 1010A

Analyte	DF	Units	RL	Result
Flash Point	1	deg. f		>141

Mercury (Water) 245.1

Analyte	DF	Units	RL	Result
Mercury	1	ug/l	0.20	ND

Metals-Three 200.7

Analyte	DF	Units	RL	Result
Copper	1	ug/l	25	ND
Nickel	1	ug/l	10	ND
Zinc	1	ug/l	25	190

Metals-Two 200.8

Analyte	DF	Units	RL	Result
Cadmium	1	ug/l	1.0	ND
Lead	1	ug/l	0.75	7.6

Nitrate-N (Water) 300.0

Analyte	DF	Units	RL	Result
Nitrate	1	mg/l	1.0	ND

Nitrite-N (Aqueous) 300.0

Analyte	DF	Units	RL	Result
Nitrite	1	mg/l	1.0	ND

PCB 608.3

Analyte	DF	Units	RL	Result
Aroclor (Total)	1	ug/l	0.250	ND
Aroclor-1016	1	ug/l	0.250	ND
Aroclor-1221	1	ug/l	0.250	ND
Aroclor-1232	1	ug/l	0.250	ND
Aroclor-1242	1	ug/l	0.250	ND
Aroclor-1248	1	ug/l	0.250	ND
Aroclor-1254	1	ug/l	0.250	ND
Aroclor-1260	1	ug/l	0.250	ND
Aroclor-1262	1	ug/l	0.250	ND
Aroclor-1268	1	ug/l	0.250	ND

Sample ID: SB O4
 Lab#: AD25967-001
 Matrix: Aqueous

Collection Date: 9/14/2021
 Receipt Date: 9/14/2021

pH (SM4500-H+ B-11)

Analyte	DF	Units	RL	Result
pH	1	ph		8.1
Temperature	1	c		24.4

Semivolatile Organics (no search) 625.1

Analyte	DF	Units	RL	Result
1,2,4-Trichlorobenzene	1	ug/l	2.00	ND
Naphthalene	1	ug/l	0.500	ND
Phenol	1	ug/l	2.00	ND

SGT-HEM (Non-Polar Material) 1664B

Analyte	DF	Units	RL	Result
SGT-HEM (Non-Polar Material)	1	mg/l	6.1	ND

Total Kjeldahl Nitrogen EPA 351

Analyte	DF	Units	RL	Result
Total Kjeldahl Nitrogen	1	mg/l	0.20	0.45

Total Solids (SM2540B-11)

Analyte	DF	Units	RL	Result
Total Solids @ 103-105 C	1	mg/l	40	1300

Total Suspended Solids (SM2540D-11)

Analyte	DF	Units	RL	Result
Total Suspended Solids @ 103-105 C	1	mg/l	4.0	81

Volatile Organics (no search) 624.1

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.00	ND
1,4-Dichlorobenzene	1	ug/l	1.00	ND
Benzene	1	ug/l	0.500	ND
Carbon tetrachloride	1	ug/l	1.00	ND
Chloroform	1	ug/l	1.96	ND
Ethylbenzene	1	ug/l	1.00	ND
m&p-Xylenes	1	ug/l	1.00	ND
Methyl-t-butyl ether	1	ug/l	0.500	ND
o-Xylene	1	ug/l	1.00	ND
Tetrachloroethene	1	ug/l	1.00	ND
Toluene	1	ug/l	1.00	ND
Xylenes (Total)	1	ug/l	1.00	ND

Form1

ORGANICS VOLATILE REPORT

Sample Number: DAILY BLANK

Client Id:

Data File: 1M152744.D

Analysis Date: 09/21/21 09:31

Date Rec/Extracted:

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 624.1

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.00	U	79601-23-1	m&p-Xylenes	1.00	U
106-46-7	1,4-Dichlorobenzene	1.00	U	1634-04-4	Methyl-t-butyl ether	0.500	U
71-43-2	Benzene	0.500	U	95-47-6	o-Xylene	1.00	U
56-23-5	Carbon Tetrachloride	1.00	U	127-18-4	Tetrachloroethene	1.00	U
67-66-3	Chloroform	1.96	U	108-88-3	Toluene	1.00	U
100-41-4	Ethylbenzene	1.00	U				

Worksheet #: 609367

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.*R* - Retention Time Out*B* - Indicates the analyte was found in the blank as well as in the sample.*J* - Indicates an estimated value when a compound is detected at less than the specified detection limit.*E* - Indicates the analyte concentration exceeds the calibration range of the instrument.*d* - Pesticide %Diff>40% between columns due to coelution. Lower concentration used
Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

Form1

ORGANICS VOLATILE REPORT

Sample Number: AD25967-001

Client Id: SB O4

Data File: 1M152763.D

Analysis Date: 09/21/21 15:28

Date Rec/Extracted: 09/14/21-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 624.1

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.00	U	79601-23-1	m&p-Xylenes	1.00	U
106-46-7	1,4-Dichlorobenzene	1.00	U	1634-04-4	Methyl-t-butyl ether	0.500	U
71-43-2	Benzene	0.500	U	95-47-6	o-Xylene	1.00	U
56-23-5	Carbon Tetrachloride	1.00	U	127-18-4	Tetrachloroethene	1.00	U
67-66-3	Chloroform	1.96	U	108-88-3	Toluene	1.00	U
100-41-4	Ethylbenzene	1.00	U	1330-20-7	Xylenes (Total)	1.00	U

Worksheet #: 609270

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

*U - Indicates the compound was analyzed but not detected.**B - Indicates the analyte was found in the blank as well as in the sample.**E - Indicates the analyte concentration exceeds the calibration range of the instrument.**R - Retention Time Out**J - Indicates an estimated value when a compound is detected at less than the specified detection limit.**d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a**Chlordane (Total) is sum of a-Chlordane and y-Chlordane.*

Form3
Recovery Data Laboratory Limits
 QC Batch: MBS96774

Data File	Sample ID:	Analysis Date
Spike or Dup: 1M152752.D	AD26083-003(MS)	9/21/2021 12:01:00 PM
Non Spike(if applicable): 1M152702.D	AD26083-003	9/20/2021 8:25:00 PM
Inst Blank(if applicable):		

Method: 624.1	Matrix: Aqueous	Units: ug/L	QC Type: MS				
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	0	0	20	0*	10	180
Dichlorodifluoromethane	1	9.0725	0	20	45	1	300
Chloromethane	1	7.1082	0	20	36	1	273
Bromomethane	1	5.1862	0	20	26	1	242
Vinyl Chloride	1	16.2076	0	20	81	1	251
Chloroethane	1	19.4518	0	20	97	14	230
Trichlorofluoromethane	1	18.7545	0	20	94	17	181
Ethyl ether	1	21.1585	0	20	106	30	150
Furan	1	22.835	0	20	114	30	160
1,1,2-Trichloro-1,2,2-trifluoroethane	1	0	0	20	0*	40	170
Methylene Chloride	1	18.6848	0	20	93	1	221
Acrolein	1	53.5875	0	100	54	40	160
Acrylonitrile	1	12.417	0	20	62	40	160
Iodomethane	1	9.1175	0	20	46	1	200
Acetone	1	137.6737	0	100	138	20	160
Carbon Disulfide	1	19.0654	0	20	95	30	160
t-Butyl Alcohol	1	113.5535	0	100	114	1	200
n-Hexane	1	19.5421	0	20	98	5	210
Di-isopropyl-ether	1	26.3179	0	20	132	30	150
1,1-Dichloroethene	1	20.956	0	20	105	1	234
Methyl Acetate	1	21.7584	0	20	109	20	150
Methyl-t-butyl ether	1	9.9524	0	20	50	30	150
1,1-Dichloroethane	1	22.4523	0	20	112	59	155
trans-1,2-Dichloroethene	1	19.0927	0	20	95	54	155
Ethyl-t-butyl ether	1	22.2239	0	20	111	30	150
cis-1,2-Dichloroethene	1	20.8226	0	20	104	40	160
Bromochloromethane	1	25.315	0	20	127	30	150
2,2-Dichloropropane	1	16.0984	0	20	80	10	200
Ethyl acetate	1	31.0388	0	20	155	20	170
1,4-Dioxane	1	985.8044	0	1000	99	1	200
1,1-Dichloropropene	1	18.8991	0	20	94	50	150
Chloroform	1	19.6136	0	20	98	51	138
Cyclohexane	1	21.3171	0	20	107	40	160
1,2-Dichloroethane	1	21.4134	0	20	107	49	155
2-Butanone	1	55.4064	0	20	277*	1	220
1,1,1-Trichloroethane	1	19.6299	0	20	98	52	162
Carbon Tetrachloride	1	19.236	0	20	96	70	140
Vinyl Acetate	1	24.1738	0	20	121	20	170
Bromodichloromethane	1	19.6082	0	20	98	35	155
Methylcyclohexane	1	17.7263	0	20	89	30	170
Dibromomethane	1	18.2507	0	20	91	30	160
1,2-Dichloropropane	1	21.0331	0	20	105	1	210
Trichloroethene	1	17.2878	0	20	86	70	157
Benzene	1	18.5593	0	20	93	37	151
tert-Amyl methyl ether	1	18.8261	0	20	94	30	150
Iso-propylacetate	1	22.3836	0	20	112	20	150
Methyl methacrylate	1	24.999	0	20	125	10	170
Dibromochloromethane	1	16.8379	0	20	84	53	149
2-Chloroethylvinylether	1	0	0	20	0*	1	305
cis-1,3-Dichloropropene	1	17.4893	0	20	87	1	227
trans-1,3-Dichloropropene	1	16.9486	0	20	85	17	183
Ethyl methacrylate	1	23.3165	0	20	117	20	150
1,1,2-Trichloroethane	1	17.9602	0	20	90	52	150
1,2-Dibromoethane	1	17.6089	0	20	88	20	150
1,3-Dichloropropane	1	18.7363	0	20	94	50	130
4-Methyl-2-Pentanone	1	22.8664	0	20	114	30	150
2-Hexanone	1	23.2647	0	20	116	20	150
Tetrachloroethene	1	15.7524	0	20	79	64	148
Toluene	1	17.3319	0	20	87	47	150
1,1,1,2-Tetrachloroethane	1	17.1286	0	20	86	50	150
Chlorobenzene	1	17.1099	0	20	86	37	160

* - Indicates outside of limits # - Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits
 QC Batch: MBS96774

Method: 624.1	Matrix: Aqueous	Units: ug/L	QC Type: MS				
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
n-Butyl acrylate	1	19.9489	0	20	100	10	140
n-Amyl acetate	1	20.4606	0	20	102	20	150
Bromoform	1	16.1651	0	20	81	45	169
Ethylbenzene	1	17.103	0	20	86	37	162
1,1,2,2-Tetrachloroethane	1	17.6919	0	20	88	46	157
Styrene	1	16.9975	0	20	85	40	150
m&p-Xylenes	1	33.3251	0	40	83	40	150
o-Xylene	1	16.8673	0	20	84	40	150
trans-1,4-Dichloro-2-butene	1	11.7297	0	20	59	10	150
1,3-Dichlorobenzene	1	16.0088	0	20	80	59	156
1,4-Dichlorobenzene	1	16.58	0	20	83	18	190
1,2-Dichlorobenzene	1	16.0637	0	20	80	18	190
Isopropylbenzene	1	16.93	0	20	85	40	150
Cyclohexanone	1	88.1988	0	100	88	1	300
Camphene	1	2.6089	0	20	13*	20	150
1,2,3-Trichloropropane	1	16.8334	0	20	84	40	130
2-Chlorotoluene	1	17.1412	0	20	86	40	150
p-Ethyltoluene	1	16.4489	0	20	82	10	200
4-Chlorotoluene	1	17.1746	0	20	86	40	150
n-Propylbenzene	1	17.1247	0	20	86	40	150
Bromobenzene	1	17.2336	0	20	86	40	130
1,3,5-Trimethylbenzene	1	16.4589	0	20	82	40	150
Butyl methacrylate	1	21.5368	0	20	108	20	150
t-Butylbenzene	1	16.5642	0	20	83	40	150
1,2,4-Trimethylbenzene	1	17.0475	0	20	85	40	150
sec-Butylbenzene	1	16.4378	0	20	82	40	150
4-Isopropyltoluene	1	15.9758	0	20	80	40	150
n-Butylbenzene	1	17.0154	0	20	85	30	160
p-Diethylbenzene	1	16.1219	0	20	81	10	200
1,2,4,5-Tetramethylbenzene	1	15.4418	0	20	77	10	170
1,2-Dibromo-3-Chloropropane	1	16.454	0	20	82	10	150
Camphor	1	158.7579	0	200	79	1	160
Hexachlorobutadiene	1	15.9997	0	20	80	20	170
1,2,4-Trichlorobenzene	1	16.5293	0	20	83	20	160
1,2,3-Trichlorobenzene	1	17.5069	0	20	88	5	180
Naphthalene	1	16.3231	0	20	82	1	200

Form3
Recovery Data Laboratory Limits
 QC Batch: MBS96774

Data File		Sample ID:		Analysis Date			
Spike or Dup: 1M152753.D		AD26083-003(MSD)		9/21/2021 12:20:00 PM			
Non Spike (If applicable): 1M152702.D		AD26083-003		9/20/2021 8:25:00 PM			
Inst Blank (If applicable):							
Method: 624.1		Matrix: Aqueous		Units: ug/L		QC Type: MSD	
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	0	0	20	0*	10	180
Dichlorodifluoromethane	1	7.6258	0	20	38	1	300
Chloromethane	1	13.5732	0	20	68	1	273
Bromomethane	1	5.5031	0	20	28	1	242
Vinyl Chloride	1	14.6539	0	20	73	1	251
Chloroethane	1	17.5399	0	20	88	14	230
Trichlorofluoromethane	1	16.486	0	20	82	17	181
Ethyl ether	1	0	0	20	0*	30	150
Furan	1	0	0	20	0*	30	160
1,1,2-Trichloro-1,2,2-trifluoroethane	1	0	0	20	0*	40	170
Methylene Chloride	1	17.5637	0	20	88	1	221
Acrolein	1	94.9339	0	100	95	40	160
Acrylonitrile	1	24.6194	0	20	123	40	160
Iodomethane	1	9.2243	0	20	46	1	200
Acetone	1	128.4642	0	100	128	20	160
Carbon Disulfide	1	17.0991	0	20	85	30	160
t-Butyl Alcohol	1	108.9034	0	100	109	1	200
n-Hexane	1	18.3279	0	20	92	5	210
Di-isopropyl-ether	1	23.8984	0	20	119	30	150
1,1-Dichloroethene	1	18.616	0	20	93	1	234
Methyl Acetate	1	20.6867	0	20	103	20	150
<u>Methyl-t-butyl ether</u>	1	<u>18.7692</u>	0	20	94	30	150
1,1-Dichloroethane	1	19.9408	0	20	100	59	155
trans-1,2-Dichloroethene	1	16.7946	0	20	84	54	156
Ethyl-t-butyl ether	1	20.5671	0	20	103	30	150
cis-1,2-Dichloroethene	1	19.2398	0	20	96	40	160
Bromochloromethane	1	26.0166	0	20	130	30	150
2,2-Dichloropropane	1	15.1674	0	20	76	10	200
Ethyl acetate	1	29.3588	0	20	147	20	170
1,4-Dioxane	1	934.1484	0	1000	93	1	200
1,1-Dichloropropene	1	17.4162	0	20	87	50	150
Chloroform	1	18.1096	0	20	91	51	138
Cyclohexane	1	18.6884	0	20	93	40	160
1,2-Dichloroethane	1	19.0932	0	20	95	49	155
2-Butanone	1	52.4031	0	20	262*	1	220
1,1,1-Trichloroethane	1	18.2847	0	20	91	52	162
Carbon Tetrachloride	1	16.9061	0	20	85	70	140
Vinyl Acetate	1	21.9103	0	20	110	20	170
Bromodichloromethane	1	18.2598	0	20	91	35	155
Methylcyclohexane	1	15.8274	0	20	79	30	170
Dibromomethane	1	16.9105	0	20	85	30	160
1,2-Dichloropropane	1	19.4648	0	20	97	1	210
Trichloroethene	1	16.0969	0	20	80	70	157
Benzene	1	16.8188	0	20	84	37	151
tert-Amyl methyl ether	1	17.2798	0	20	86	30	150
Iso-propylacetate	1	20.7101	0	20	104	20	150
Methyl methacrylate	1	22.1741	0	20	111	10	170
Dibromochloromethane	1	15.319	0	20	77	53	149
2-Chloroethylvinylether	1	0	0	20	0*	1	305
cis-1,3-Dichloropropene	1	15.6552	0	20	78	1	227
trans-1,3-Dichloropropene	1	15.233	0	20	76	17	183
Ethyl methacrylate	1	22.3493	0	20	112	20	150
1,1,2-Trichloroethane	1	16.3718	0	20	82	52	150
1,2-Dibromoethane	1	16.0714	0	20	80	20	150
1,3-Dichloropropane	1	16.8197	0	20	84	50	130
4-Methyl-2-Pentanone	1	22.1633	0	20	111	30	150
2-Hexanone	1	21.7917	0	20	109	20	150
Tetrachloroethene	1	14.5727	0	20	73	64	148
Toluene	1	15.5472	0	20	78	47	150
1,1,1,2-Tetrachloroethane	1	15.6934	0	20	78	50	150
Chlorobenzene	1	15.9686	0	20	80	37	160

Form3
Recovery Data Laboratory Limits
 QC Batch: MBS96774

Method: 624.1	Matrix: Aqueous	Units: ug/L	QC Type: MSD				
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
n-Butyl acrylate	1	18.9321	0	20	95	10	140
n-Amyl acetate	1	18.9606	0	20	95	20	150
Bromoform	1	15.195	0	20	76	45	169
Ethylbenzene	1	16.2276	0	20	81	37	162
1,1,2,2-Tetrachloroethane	1	16.8676	0	20	84	46	157
Styrene	1	16.0899	0	20	80	40	150
m&p-Xylenes	1	31.1451	0	40	78	40	150
o-Xylene	1	16.0294	0	20	80	40	150
trans-1,4-Dichloro-2-butene	1	10.3941	0	20	52	10	150
1,3-Dichlorobenzene	1	15.1423	0	20	76	59	156
1,4-Dichlorobenzene	1	15.3184	0	20	77	18	190
1,2-Dichlorobenzene	1	15.1886	0	20	76	18	190
Isopropylbenzene	1	15.8077	0	20	79	40	150
Cyclohexanone	1	80.4548	0	100	80	1	300
Camphene	1	2.4031	0	20	12*	20	150
1,2,3-Trichloropropane	1	15.7154	0	20	79	40	130
2-Chlorotoluene	1	15.91	0	20	80	40	150
p-Ethyltoluene	1	15.2838	0	20	76	10	200
4-Chlorotoluene	1	15.7348	0	20	79	40	150
n-Propylbenzene	1	16.1021	0	20	81	40	150
Bromobenzene	1	16.1838	0	20	81	40	130
1,3,5-Trimethylbenzene	1	16.202	0	20	81	40	150
Butyl methacrylate	1	21.0475	0	20	105	20	150
t-Butylbenzene	1	15.3929	0	20	77	40	150
1,2,4-Trimethylbenzene	1	15.7143	0	20	79	40	150
sec-Butylbenzene	1	15.2017	0	20	76	40	150
4-Isopropyltoluene	1	15.0625	0	20	75	40	150
n-Butylbenzene	1	15.8492	0	20	79	30	160
p-Diethylbenzene	1	14.7436	0	20	74	10	200
1,2,4,5-Tetramethylbenzene	1	14.4339	0	20	72	10	170
1,2-Dibromo-3-Chloropropane	1	16.9534	0	20	85	10	150
Camphor	1	154.5394	0	200	77	1	160
Hexachlorobutadiene	1	14.8259	0	20	74	20	170
1,2,4-Trichlorobenzene	1	15.5042	0	20	78	20	160
1,2,3-Trichlorobenzene	1	16.8089	0	20	84	5	180
Naphthalene	1	16.1613	0	20	81	1	200

Form3
RPD Data Laboratory Limits
QC Batch: MBS96774

Data File	Sample ID:	Analysis Date
Spike or Dup: 1M152753.D	AD26083-003(MSD)	9/21/2021 12:20:00 PM
Duplicate(If applicable): 1M152752.D	AD26083-003(MS)	9/21/2021 12:01:00 PM
Inst Blank(If applicable):		

Method: 624.1 Matrix: Aqueous Units: ug/L QC Type: MSD

Analyte:	Column	Dup/MSD/MBSD Conc	Sample/MS/MBS Conc	RPD	Limit
Chlorodifluoromethane	1	0	0	NA	40
Dichlorodifluoromethane	1	7.6258	9.0725	17	40
Chloromethane	1	13.5732	7.1082	63*	60
Bromomethane	1	5.5031	5.1862	5.9	61
Vinyl Chloride	1	14.6539	16.2076	10	66
Chloroethane	1	17.5399	19.4518	10	78
Trichlorofluoromethane	1	16.486	18.7545	13	84
Ethyl ether	1	0	21.1585	200*	40
Furan	1	0	22.835	200*	40
1,1,2-Trichloro-1,2,2-trifluoroethane	1	0	0	NA	40
Methylene Chloride	1	17.5637	18.6848	6.2	28
Acrolein	1	94.9339	53.5875	56	60
Acrylonitrile	1	24.6194	12.417	66*	60
Iodomethane	1	9.2243	9.1175	1.2	40
Acetone	1	128.4642	137.6737	6.9	40
Carbon Disulfide	1	17.0991	19.0654	11	40
t-Butyl Alcohol	1	108.9034	113.5535	4.2	40
n-Hexane	1	18.3279	19.5421	6.4	40
Di-isopropyl-ether	1	23.8984	26.3179	9.6	40
1,1-Dichloroethene	1	18.616	20.956	12	32
Methyl Acetate	1	20.6867	21.7584	5	40
<u>Methyl-t-butyl ether</u>	1	<u>18.7692</u>	<u>9.9524</u>	<u>61*</u>	<u>40</u>
1,1-Dichloroethane	1	19.9408	22.4523	12	40
trans-1,2-Dichloroethene	1	16.7946	19.0927	13	45
Ethyl-t-butyl ether	1	20.5671	22.2239	7.7	40
cis-1,2-Dichloroethene	1	19.2398	20.8226	7.9	40
Bromochloromethane	1	26.0166	25.315	2.7	40
2,2-Dichloropropane	1	15.1674	16.0984	6	40
Ethyl acetate	1	29.3588	31.0388	5.6	40
1,4-Dioxane	1	934.1484	985.8044	5.4	40
1,1-Dichloropropene	1	17.4162	18.8991	8.2	40
<u>Chloroform</u>	1	<u>18.1096</u>	<u>19.6136</u>	<u>8</u>	<u>54</u>
Cyclohexane	1	18.6884	21.3171	13	40
1,2-Dichloroethane	1	19.0932	21.4134	11	49
2-Butanone	1	52.4031	55.4064	5.6	40
<u>1,1,1-Trichloroethane</u>	1	<u>18.2847</u>	<u>19.6299</u>	<u>7.1</u>	<u>36</u>
<u>Carbon Tetrachloride</u>	1	<u>16.9061</u>	<u>19.236</u>	<u>13</u>	<u>41</u>
Vinyl Acetate	1	21.9103	24.1738	9.8	40
Bromodichloromethane	1	18.2598	19.6082	7.1	56
Methylcyclohexane	1	15.8274	17.7263	11	40
Dibromomethane	1	16.9105	18.2507	7.6	40
1,2-Dichloropropane	1	19.4648	21.0331	7.7	55
Trichloroethene	1	16.0969	17.2878	7.1	48
<u>Benzene</u>	1	<u>16.8188</u>	<u>18.5593</u>	<u>9.8</u>	<u>61</u>
tert-Amyl methyl ether	1	17.2798	18.8261	8.6	40
Iso-propylacetate	1	20.7101	22.3836	7.8	40
Methyl methacrylate	1	22.1741	24.999	12	40
Dibromochloromethane	1	15.319	16.8379	9.4	50
2-Chloroethylvinylether	1	0	0	NA	71
cis-1,3-Dichloropropene	1	15.6552	17.4893	11	58
trans-1,3-Dichloropropene	1	15.233	16.9486	11	56
Ethyl methacrylate	1	22.3493	23.3165	4.2	40
1,1,2-Trichloroethane	1	16.3718	17.9602	9.3	45
1,2-Dibromoethane	1	16.0714	17.6089	9.1	40
1,3-Dichloropropane	1	16.8197	18.7363	11	40
4-Methyl-2-Pentanone	1	22.1633	22.8664	3.1	40
2-Hexanone	1	21.7917	23.2647	6.5	40
<u>Tetrachloroethene</u>	1	<u>14.5727</u>	<u>15.7524</u>	<u>7.8</u>	<u>39</u>
<u>Toluene</u>	1	<u>15.5472</u>	<u>17.3319</u>	<u>11</u>	<u>41</u>
1,1,1,2-Tetrachloroethane	1	15.6934	17.1286	8.7	40
Chlorobenzene	1	15.9686	17.1099	6.9	53

Form3
RPD Data Laboratory Limits

QC Batch: MBS96774

Method: 624.1

Matrix: Aqueous

Units: ug/L

QC Type: MSD

Analyte:	Column	Dup/MSD/MBSD		RPD	Limit
		Conc	Sample/MS/MBS Conc		
n-Butyl acrylate	1	18.9321	19.9489	5.2	40
n-Amyl acetate	1	18.9606	20.4606	7.6	40
Bromoform	1	15.195	16.1651	6.2	42
Ethylbenzene	1	16.2276	17.103	5.3	63
1,1,2,2-Tetrachloroethane	1	16.8676	17.6919	4.8	61
Styrene	1	16.0899	16.9975	5.5	40
m&p-Xylenes	1	31.1451	33.3251	6.8	40
o-Xylene	1	16.0294	16.8673	5.1	40
trans-1,4-Dichloro-2-butene	1	10.3941	11.7297	12	40
1,3-Dichlorobenzene	1	15.1423	16.0088	5.6	43
1,4-Dichlorobenzene	1	15.3184	16.58	7.9	57
1,2-Dichlorobenzene	1	15.1886	16.0637	5.6	57
Isopropylbenzene	1	15.8077	16.93	6.9	40
Cyclohexanone	1	80.4548	88.1988	9.2	40
Camphene	1	2.4031	2.6089	8.2	40
1,2,3-Trichloropropane	1	15.7154	16.8334	6.9	40
2-Chlorotoluene	1	15.91	17.1412	7.5	40
p-Ethyltoluene	1	15.2838	16.4489	7.3	40
4-Chlorotoluene	1	15.7348	17.1746	8.8	40
n-Propylbenzene	1	16.1021	17.1247	6.2	40
Bromobenzene	1	16.1838	17.2336	6.3	40
1,3,5-Trimethylbenzene	1	16.202	16.4589	1.6	40
Butyl methacrylate	1	21.0475	21.5368	2.3	40
t-Butylbenzene	1	15.3929	16.5642	7.3	40
1,2,4-Trimethylbenzene	1	15.7143	17.0475	8.1	40
sec-Butylbenzene	1	15.2017	16.4378	7.8	40
4-Isopropyltoluene	1	15.0625	15.9758	5.9	40
n-Butylbenzene	1	15.8492	17.0154	7.1	40
p-Diethylbenzene	1	14.7436	16.1219	8.9	40
1,2,4,5-Tetramethylbenzene	1	14.4339	15.4418	6.7	40
1,2-Dibromo-3-Chloropropane	1	16.9534	16.454	3	40
Camphor	1	154.5394	158.7579	2.7	40
Hexachlorobutadiene	1	14.8259	15.9997	7.6	40
1,2,4-Trichlorobenzene	1	15.5042	16.5293	6.4	40
1,2,3-Trichlorobenzene	1	16.8089	17.5069	4.1	40
Naphthalene	1	16.1613	16.3231	1	40

Form1

ORGANICS SEMIVOLATILE REPORT

Sample Number: WMB94954	Method: EPA 625.1
Client Id:	Matrix: Aqueous
Data File: 10M87335.D	Initial Vol: 1000ml
Analysis Date: 09/19/21 12:48	Final Vol: 1ml
Date Rec/Extracted: NA-09/17/21	Dilution: 1
Column: DB-5MS 30M 0.250mm ID 0.25um film	Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
120-82-1	1,2,4-Trichlorobenzene	2.00	U	108-95-2	Phenol	2.00	U
91-20-3	Naphthalene	0.500	U				

Worksheet #: 609187

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

*U - Indicates the compound was analyzed but not detected.**B - Indicates the analyte was found in the blank as well as in the sample.**E - Indicates the analyte concentration exceeds the calibration range of the instrument.**R - Retention Time Out**J - Indicates an estimated value when a compound is detected at less than the specified detection limit.**d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a**Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.*

Form1
ORGANICS SEMIVOLATILE REPORT

Sample Number: AD25967-001	Method: EPA 625.1
Client Id: SB O4	Matrix: Aqueous
Data File: 10M87350.D	Initial Vol: 1000ml
Analysis Date: 09/19/21 18:20	Final Vol: 1ml
Date Rec/Extracted: 09/14/21-09/17/21	Dilution: 1
Column: DB-5MS 30M 0.250mm ID 0.25um film	Solids: 0

Units: ug/L			
Cas #	Compound	RL	Conc
120-82-1	1,2,4-Trichlorobenzene	2.00	U
91-20-3	Naphthalene	0.500	U

Cas #	Compound	RL	Conc
108-95-2	Phenol	2.00	U

Worksheet #: 609187

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

Form3
Recovery Data Laboratory Limits
QC Batch: WMB94954

Data File	Sample ID:	Analysis Date
Spike or Dup: 10M87337.D	AD25746-003(T)(MS)	9/19/2021 1:32:00 PM
Non Spike(If applicable): 10M87339.D	AD25746-003(T)	9/19/2021 2:16:00 PM
Inst Blank(If applicable):		

Method: 625.1	Matrix: Aqueous	Units: ug/L	QC Type: MS				
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
1,4-Dioxane	1	58.2766	0	100	58	20	160
Pyridine	1	0	0	100	0*	1	150
N-Nitrosodimethylamine	1	70.4771	0	100	70	20	150
Benzaldehyde	1	41.0634	0	100	41	20	234
Aniline	1	5.6609	0	100	5.7*	20	150
Pentachloroethane	1	66.0212	0	100	66	5	140
bis(2-Chloroethyl)ether	1	70.4662	0	100	70	12	158
N-Decane	1	65.1408	0	100	65	40	130
1,3-Dichlorobenzene	1	59.9727	0	100	60	20	130
1,4-Dichlorobenzene	1	63.874	0	100	64	25	130
1,2-Dichlorobenzene	1	63.5366	0	100	64	25	130
Benzyl alcohol	1	86.2736	0	100	86	35	130
bis(2-chloroisopropyl)ether	1	70.0848	0	100	70	36	166
Acetophenone	1	80.1064	0	100	80	50	130
Hexachloroethane	1	65.083	0	100	65	40	120
N-Nitroso-di-n-propylamine	1	80.4935	0	100	80	1	230
Nitrobenzene	1	77.1353	0	100	77	35	180
Isophorone	1	77.6595	0	100	78	21	196
Benzoic Acid	1	118.415	0	100	118	1	130
bis(2-Chloroethoxy)methane	1	84.1234	0	100	84	33	184
1,2,4-Trichlorobenzene	1	71.4119	0	100	71	44	142
Naphthalene	1	71.5633	0	100	72	21	133
4-Chloroaniline	1	63.0311	0	100	63	30	170
Hexachlorobutadiene	1	58.6544	0	100	59	24	120
Caprolactam	1	91.8909	0	100	92	5	130
2-Methylnaphthalene	1	81.7527	0	100	82	40	130
1-Methylnaphthalene	1	94.9197	0	100	95	50	130
1,1'-Biphenyl	1	80.7441	0	100	81	50	130
1,2,4,5-Tetrachlorobenzene	1	79.6384	0	100	80	60	140
Hexachlorocyclopentadiene	1	67.6415	0	100	68	20	130
2-Chloronaphthalene	1	84.9617	0	100	85	60	120
1,4-Dimethylnaphthalene	1	86.7084	0	100	87	50	130
Diphenyl Ether	1	89.4082	0	100	89	50	140
2-Nitroaniline	1	99.5836	0	100	100	40	150
Coumarin	1	93.1831	0	100	93	1	180
Acenaphthylene	1	86.8856	0	100	87	33	145
Dimethylphthalate	1	87.8616	0	100	88	1	120
2,6-Dinitrotoluene	1	90.5098	0	100	91	50	158
Acenaphthene	1	89.8447	0	100	90	47	145
3-Nitroaniline	1	97.2989	0	100	97	40	150
Dibenzofuran	1	91.6183	0	100	92	50	130
2,4-Dinitrotoluene	1	90.287	0	100	90	39	139
Fluorene	1	87.0314	0	100	87	59	121
4-Chlorophenyl-phenylether	1	83.9149	0	100	84	1	132
Diethylphthalate	1	93.0726	0	100	93	1	120
4-Nitroaniline	1	105.5919	0	100	106	40	150
Atrazine	1	66.7963	0	100	67	40	150
n-Nitrosodiphenylamine	1	76.794	0	100	77	30	130
1,2-Diphenylhydrazine	1	104.945	0	100	105	40	130
4-Bromophenyl-phenylether	1	84.3106	0	100	84	53	127
Hexachlorobenzene	1	78.8193	0	100	79	1	152
N-Octadecane	1	112.4151	0	100	112	50	130
Phenanthrene	1	91.7346	0	100	92	54	120
Anthracene	1	91.2985	0	100	91	27	133
Carbazole	1	102.1576	0	100	102	40	130
Di-n-butylphthalate	1	101.1356	0	100	101	1	120
Fluoranthene	1	88.6676	0	100	89	26	137
Pyrene	1	95.7752	0	100	96	52	120
Benzidine	1	0	0	100	0	0	134
Butylbenzylphthalate	1	114.8964	0	100	115	1	152
3,3'-Dichlorobenzidine	1	79.8044	0	100	80	1	262

* - Indicates outside of limits # - Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits
 QC Batch: WMB94954

Method: 625.1	Matrix: Aqueous		Units: ug/L		QC Type: MS		
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Benzo[a]anthracene	1	86.2998	0	100	86	33	143
Chrysene	1	95.945	0	100	96	17	168
bis(2-Ethylhexyl)phthalate	1	112.6037	0	100	113	8	158
Di-n-octylphthalate	1	122.1337	0	100	122	4	146
Benzo[b]fluoranthene	1	95.1537	0	100	95	42	159
Benzo[k]fluoranthene	1	92.8365	0	100	93	11	162
Benzo[a]pyrene	1	89.5083	0	100	90	17	163
Indeno[1,2,3-cd]pyrene	1	97.317	0	100	97	1	171
Dibenzo[a,h]anthracene	1	95.4113	0	100	95	1	227
Benzo[g,h,i]perylene	1	93.7006	0	100	94	1	219

* - Indicates outside of limits # - Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits
 QC Batch: WMB94954

Data File	Sample ID:	Analysis Date
Spike or Dup: 10M87338.D	AD25746-003(T)(MSD)	9/19/2021 1:54:00 PM
Non Spike (If applicable): 10M87339.D	AD25746-003(T)	9/19/2021 2:16:00 PM
Inst Blank (If applicable):		

Method: 625.1	Matrix: Aqueous	Units: ug/L	QC Type: MSD				
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
1,4-Dioxane	1	59.9857	0	100	60	20	160
Pyridine	1	0	0	100	0*	1	150
N-Nitrosodimethylamine	1	72.8123	0	100	73	20	150
Benzaldehyde	1	44.9891	0	100	45	20	234
Aniline	1	3.86	0	100	3.9*	20	150
Pentachloroethane	1	67.2133	0	100	67	5	140
bis(2-Chloroethyl)ether	1	69.3388	0	100	69	43	126
N-Decane	1	65.4179	0	100	65	40	130
1,3-Dichlorobenzene	1	59.8825	0	100	60	20	130
1,4-Dichlorobenzene	1	64.6405	0	100	65	25	130
1,2-Dichlorobenzene	1	64.2026	0	100	64	25	130
Benzyl alcohol	1	87.8694	0	100	88	35	130
bis(2-chloroisopropyl)ether	1	70.3597	0	100	70	63	139
Acetophenone	1	81.0755	0	100	81	50	130
Hexachloroethane	1	64.2798	0	100	64	55	120
N-Nitroso-di-n-propylamine	1	78.5172	0	100	79	14	198
Nitrobenzene	1	76.5456	0	100	77	54	158
Isophorone	1	75.0086	0	100	75	47	180
Benzoic Acid	1	119.4504	0	100	119	1	130
bis(2-Chloroethoxy)methane	1	80.7336	0	100	81	49	165
1,2,4-Trichlorobenzene	1	69.5906	0	100	70	57	130
Naphthalene	1	70.0915	0	100	70	36	120
4-Chloroaniline	1	68.4876	0	100	68	30	170
Hexachlorobutadiene	1	58.2714	0	100	58	38	120
Caprolactam	1	91.4276	0	100	91	5	130
2-Methylnaphthalene	1	82.7331	0	100	83	40	130
1-Methylnaphthalene	1	94.247	0	100	94	50	130
1,1'-Biphenyl	1	78.879	0	100	79	50	130
1,2,4,5-Tetrachlorobenzene	1	80.3508	0	100	80	60	140
Hexachlorocyclopentadiene	1	66.643	0	100	67	20	130
2-Chloronaphthalene	1	83.0898	0	100	83	65	120
1,4-Dimethylnaphthalene	1	86.1596	0	100	86	50	130
Diphenyl Ether	1	89.9012	0	100	90	50	140
2-Nitroaniline	1	100.9832	0	100	101	40	150
Coumarin	1	93.4776	0	100	93	1	180
Acenaphthylene	1	83.9055	0	100	84	54	126
Dimethylphthalate	1	85.4101	0	100	85	1	120
2,6-Dinitrotoluene	1	88.3646	0	100	88	68	137
Acenaphthene	1	87.225	0	100	87	60	132
3-Nitroaniline	1	101.4691	0	100	101	40	150
Dibenzofuran	1	91.3115	0	100	91	50	130
2,4-Dinitrotoluene	1	88.0144	0	100	88	48	127
Fluorene	1	84.456	0	100	84	70	120
4-Chlorophenyl-phenylether	1	81.3694	0	100	81	38	145
Diethylphthalate	1	89.8319	0	100	90	1	120
4-Nitroaniline	1	108.9534	0	100	109	40	150
Atrazine	1	66.9847	0	100	67	40	150
n-Nitrosodiphenylamine	1	72.7452	0	100	73	30	130
1,2-Diphenylhydrazine	1	101.4895	0	100	101	40	130
4-Bromophenyl-phenylether	1	80.7657	0	100	81	65	120
Hexachlorobenzene	1	73.9165	0	100	74	8	142
N-Octadecane	1	109.2857	0	100	109	50	130
Phenanthrene	1	88.1708	0	100	88	65	120
Anthracene	1	88.4255	0	100	88	43	120
Carbazole	1	101.1999	0	100	101	40	130
Di-n-butylphthalate	1	98.0897	0	100	98	8	120
Fluoranthene	1	85.1462	0	100	85	43	121
Pyrene	1	93.4037	0	100	93	70	120
Benidine	1	0	0	100	0	0	134
Butylbenzylphthalate	1	110.6314	0	100	111	1	140
3,3'-Dichlorobenzidine	1	81.55	0	100	82	8	213

* - Indicates outside of limits # - Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits
 QC Batch: WMB94954

Method: 625.1		Matrix: Aqueous		Units: ug/L		QC Type: MSD	
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Benzo[a]anthracene	1	84.4083	0	100	84	42	133
Chrysene	1	91.9664	0	100	92	44	140
bis(2-Ethylhexyl)phthalate	1	108.6099	0	100	109	29	137
Di-n-octylphthalate	1	118.5906	0	100	119	19	132
Benzo[b]fluoranthene	1	97.068	0	100	97	42	140
Benzo[k]fluoranthene	1	91.4653	0	100	91	25	146
Benzo[a]pyrene	1	88.5822	0	100	89	32	148
Indeno[1,2,3-cd]pyrene	1	94.0101	0	100	94	1	151
Dibenzo[a,h]anthracene	1	92.6079	0	100	93	1	200
Benzo[g,h,i]perylene	1	91.3991	0	100	91	1	195

* - Indicates outside of limits # - Indicates outside of standard limits but within method exceedance limits

Form3
RPD Data Laboratory Limits
QC Batch: WMB94954

Data File	Sample ID:	Analysis Date			
Spike or Dup: 10M87338.D	AD25746-003(T)(MSD)	9/19/2021 1:54:00 PM			
Duplicate(If applicable): 10M87337.D	AD25746-003(T)(MS)	9/19/2021 1:32:00 PM			
Inst Blank(If applicable):					
Method: 625.1	Matrix: Aqueous	Units: ug/L			
		QC Type: MSD			
Analyte:	Column	Dup/MSD/MBSD Conc	Sample/MS/MBS Conc	RPD	Limit
1,4-Dioxane	1	59.9857	58.2766	2.9	20
Pyridine	1	0	0	NA	40
N-Nitrosodimethylamine	1	72.8123	70.4771	3.3	20
Benzaldehyde	1	44.9891	41.0634	9.1	20
Aniline	1	3.86	5.6609	38*	20
Pentachloroethane	1	67.2133	66.0212	1.8	20
bis(2-Chloroethyl)ether	1	69.3388	70.4662	1.6	108
N-Decane	1	65.4179	65.1408	0.42	20
1,3-Dichlorobenzene	1	59.8825	59.9727	0.15	20
1,4-Dichlorobenzene	1	64.6405	63.874	1.2	40
1,2-Dichlorobenzene	1	64.2026	63.5366	1	20
Benzyl alcohol	1	87.8694	86.2736	1.8	20
bis(2-chloroisopropyl)ether	1	70.3597	70.0848	0.39	76
Acetophenone	1	81.0755	80.1064	1.2	20
Hexachloroethane	1	64.2798	65.083	1.2	52
N-Nitroso-di-n-propylamine	1	78.5172	80.4935	2.5	87
Nitrobenzene	1	76.5456	77.1353	0.77	62
Isophorone	1	75.0086	77.6595	3.5	93
Benzoic Acid	1	119.4504	118.415	0.87	20
bis(2-Chloroethoxy)methane	1	80.7336	84.1234	4.1	54
1,2,4-Trichlorobenzene	1	69.5906	71.4119	2.6	50
Naphthalene	1	70.0915	71.5633	2.1	65
4-Chloroaniline	1	68.4876	63.0311	8.3	20
Hexachlorobutadiene	1	58.2714	58.6544	0.66	62
Caprolactam	1	91.4276	91.8909	0.51	20
2-Methylnaphthalene	1	82.7331	81.7527	1.2	20
1-Methylnaphthalene	1	94.247	94.9197	0.71	20
1,1'-Biphenyl	1	78.879	80.7441	2.3	20
1,2,4,5-Tetrachlorobenzene	1	80.3508	79.6384	0.89	20
Hexachlorocyclopentadiene	1	66.643	67.6415	1.5	20
2-Chloronaphthalene	1	83.0898	84.9617	2.2	24
1,4-Dimethylnaphthalene	1	86.1596	86.7084	0.63	20
Diphenyl Ether	1	89.9012	89.4082	0.55	20
2-Nitroaniline	1	100.9832	99.5836	1.4	20
Coumarin	1	93.4776	93.1831	0.32	20
Acenaphthylene	1	83.9055	86.8856	3.5	74
Dimethylphthalate	1	85.4101	87.8616	2.8	183
2,6-Dinitrotoluene	1	88.3646	90.5098	2.4	48
Acenaphthene	1	87.225	89.8447	3	48
3-Nitroaniline	1	101.4691	97.2989	4.2	20
Dibenzofuran	1	91.3115	91.6183	0.34	20
2,4-Dinitrotoluene	1	88.0144	90.287	2.5	42
Fluorene	1	84.456	87.0314	3	38
4-Chlorophenyl-phenylether	1	81.3694	83.9149	3.1	61
Diethylphthalate	1	89.8319	93.0726	3.5	100
4-Nitroaniline	1	108.9534	105.5919	3.1	20
Atrazine	1	66.9847	66.7963	0.28	20
n-Nitrosodiphenylamine	1	72.7452	76.794	5.4	20
1,2-Diphenylhydrazine	1	101.4895	104.945	3.3	20
4-Bromophenyl-phenylether	1	80.7657	84.3106	4.3	43
Hexachlorobenzene	1	73.9165	78.8193	6.4	55
N-Octadecane	1	109.2857	112.4151	2.8	20
Phenanthrene	1	88.1708	91.7346	4	39
Anthracene	1	88.4255	91.2985	3.2	66
Carbazole	1	101.1999	102.1576	0.94	20
Di-n-butylphthalate	1	98.0897	101.1356	3.1	47
Fluoranthene	1	85.1462	88.6676	4.1	66
Pyrene	1	93.4037	95.7752	2.5	49
Benzidine	1	0	0	NA	20
Butylbenzylphthalate	1	110.6314	114.8964	3.8	60
3,3'-Dichlorobenzidine	1	81.55	79.8044	2.2	108

* - Indicates outside of limits

NA - Both concentrations=0... no result can be calculated

Form3
RPD Data Laboratory Limits

QC Batch: WMB94954

Method: 625.1

Matrix: Aqueous

Units: ug/L

QC Type: MSD

Analyte:	Column	Dup/MSD/MBSD	Sample/MS/MBS	RPD	Limit
		Conc	Conc		
Benzo[a]anthracene	1	84.4083	86.2998	2.2	53
Chrysene	1	91.9664	95.945	4.2	87
bis(2-Ethylhexyl)phthalate	1	108.6099	112.6037	3.6	82
Di-n-octylphthalate	1	118.5906	122.1337	2.9	69
Benzo[b]fluoranthene	1	97.068	95.1537	2	71
Benzo[k]fluoranthene	1	91.4653	92.8365	1.5	63
Benzo[a]pyrene	1	88.5822	89.5083	1	72
Indeno[1,2,3-cd]pyrene	1	94.0101	97.317	3.5	99
Dibenzo[a,h]anthracene	1	92.6079	95.4113	3	126
Benzo[g,h,i]perylene	1	91.3991	93.7006	2.5	97

* - Indicates outside of limits

NA - Both concentrations=0... no result can be calculated

Form1
ORGANICS PCB REPORT

Sample Number: WMB94942	Method: EPA 608.3
Client Id:	Matrix: Aqueous
Data File: 2G158169.D	Initial Vol: 1000ml
Analysis Date: 09/17/21 10:16	Final Vol: 5ml
Date Rec/Extracted: NA-09/16/21	Dilution: 1
Column: DB-17/1701P 30M 0.32mm ID 0.25um film	Solids: 0

Units: ug/L							
Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
12674-11-2	Aroclor-1016	0.250	U	11097-69-1	Aroclor-1254	0.250	U
11104-28-2	Aroclor-1221	0.250	U	11096-82-5	Aroclor-1260	0.250	U
11141-16-5	Aroclor-1232	0.250	U	37324-23-5	Aroclor-1262	0.250	U
53469-21-9	Aroclor-1242	0.250	U	11100-14-4	Aroclor-1268	0.250	U
12672-29-6	Aroclor-1248	0.250	U				

Worksheet #: 609194

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

*U - Indicates the compound was analyzed but not detected.**B - Indicates the analyte was found in the blank as well as in the sample.**E - Indicates the analyte concentration exceeds the calibration range of the instrument.**R - Retention Time Out**J - Indicates an estimated value when a compound is detected at less than the specified detection limit.**d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a**Chlordane (Total) is sum of a-Chlordane and y-Chlordane.*

Form1
ORGANICS PCB REPORT

Sample Number: AD25967-001

Client Id: SB O4

Data File: 3G130503.D

Analysis Date: 09/19/21 17:24

Date Rec/Extracted: 09/14/21-09/16/21

Column: DB-17/1701P 30M 0.32mm ID 0.25um film

Method: EPA 608.3

Matrix: Aqueous

Initial Vol: 500ml

Final Vol: 2.5ml

Dilution: 1

Solids: 0

		Units: ug/L					
Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
12674-11-2	Aroclor-1016	0.250	U	11097-69-1	Aroclor-1254	0.250	U
11104-28-2	Aroclor-1221	0.250	U	11096-82-5	Aroclor-1260	0.250	U
11141-16-5	Aroclor-1232	0.250	U	37324-23-5	Aroclor-1262	0.250	U
53469-21-9	Aroclor-1242	0.250	U	11100-14-4	Aroclor-1268	0.250	U
12672-29-6	Aroclor-1248	0.250	U	1336-36-3	Aroclor (Total)	0.250	U

Worksheet #: 609194

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

*U - Indicates the compound was analyzed but not detected.**B - Indicates the analyte was found in the blank as well as in the sample.**E - Indicates the analyte concentration exceeds the calibration range of the instrument.**R - Retention Time Out**J - Indicates an estimated value when a compound is detected at less than the specified detection limit.**d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a**Chlordane (Total) is sum of a-Chlordane and y-Chlordane.*

Form1
Inorganic Analysis Data Sheet

Sample ID: MB 94389
Client Id: MB 94389
Matrix: AQUEOUS
Level: LOW

% Solid: 0
Units: UG/L

Lab Name: Hampton-Clarke
Lab Code:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7429-90-5	Aluminum	30	ND	1	100	125	09/16/21	94389V09162021A	13	MSMS4_7800AQA		
7440-36-0	Antimony	2.5	ND	1	100	125	09/16/21	94389V09162021A	13	MSMS4_7800AQA		
7440-38-2	Arsenic	1.0	ND	1	100	125	09/16/21	94389V09162021A	13	MSMS4_7800AQA		
7440-39-3	Barium	1.0	ND	1	100	125	09/16/21	94389V09162021A	13	MSMS4_7800AQA		
7440-41-7	Beryllium	0.75	ND	1	100	125	09/16/21	94389V09162021A	13	MSMS4_7800AQA		
7440-43-9	Cadmium	1.0	ND	1	100	125	09/16/21	94389V09162021A	13	MSMS4_7800AQA		
7440-47-3	Chromium	1.0	ND	1	100	125	09/16/21	94389V09162021A	13	MSMS4_7800AQA		
7440-48-4	Cobalt	1.0	ND	1	100	125	09/16/21	94389V09162021A	13	MSMS4_7800AQA		
7440-50-8	Copper	10	ND	1	100	125	09/16/21	94389V09162021A	13	MSMS4_7800AQA		
7439-92-1	Lead	0.75	ND	1	100	125	09/16/21	94389V09162021A	13	MSMS4_7800AQA		
7439-96-5	Manganese	3.0	ND	1	100	125	09/16/21	94389V09162021A	13	MSMS4_7800AQA		
7439-98-7	Molybdenum	1.0	ND	1	100	125	09/16/21	94389V09162021A	13	MSMS4_7800AQA		
7440-02-0	Nickel	3.0	ND	1	100	125	09/16/21	94389V09162021A	13	MSMS4_7800AQA		
7782-49-2	Selenium	5.0	ND	1	100	125	09/16/21	94389V09162021A	13	MSMS4_7800AQA		
7440-22-4	Silver	0.75	ND	1	100	125	09/16/21	94389V09162021A	13	MSMS4_7800AQA		
7440-28-0	Thallium	1.5	ND	1	100	125	09/16/21	94389V09162021A	13	MSMS4_7800AQA		
7440-62-2	Vanadium	1.0	ND	1	100	125	09/16/21	94389V09162021A	13	MSMS4_7800AQA		
7440-66-6	Zinc	25	ND	1	100	125	09/16/21	94389V09162021A	13	MSMS4_7800AQA		

Comments: _____

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit
P - ICP-AES
CV - Cold Vapor
MS - ICP-MS

Form1
Inorganic Analysis Data Sheet

Sample ID: MB 94389 (0.5) % Solid: 0 Lab Name: Hampton-Clarke
 Client Id: MB 94389 (0.5) Units: UG/L Lab Code:
 Matrix: AQUEOUS
 Level: LOW

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File	Seq Num	M	Instr
7440-39-3	Barium	25	ND	1	100	50	09/16/21	94389	A27630A2	16	P	PEICP2A
7440-47-3	Chromium	25	ND	1	100	50	09/16/21	94389	A27630A2	16	P	PEICP2A
7440-50-8	Copper	25	ND	1	100	50	09/16/21	94389	A27630A2	16	P	PEICP2A
7439-89-6	Iron	150	ND	1	100	50	09/16/21	94389	A27630A2	16	P	PEICP2A
7440-02-0	Nickel	10	ND	1	100	50	09/16/21	94389	A27630A2	16	P	PEICP2A
7440-32-6	Titanium	25	ND	1	100	50	09/16/21	94389	A27630A2	16	P	PEICP2A
7440-62-2	Vanadium	25	ND	1	100	50	09/16/21	94389	A27630A2	16	P	PEICP2A
7440-66-6	Zinc	25	ND	1	100	50	09/16/21	94389	A27630A2	16	P	PEICP2A

Comments: _____

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit
 P - ICP-AES
 CV -ColdVapor
 MS - ICP-MS

Form1
Inorganic Analysis Data Sheet

Sample ID: MB 94389 (1) % Solid: 0 Lab Name: Hampton-Clarke
 Client Id: MB 94389 (1) Units: UG/L Lab Code:
 Matrix: AQUEOUS
 Level: LOW

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep. Batch	File:	Seq Num	M	Instr
7439-97-6	Mercury	0.20	ND	1	25	25	09/17/21	94389	H27630A	11	CV	HGCV3A

Comments: _____

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit
 P - ICP-AES
 CV -ColdVapor
 MS - ICP-MS

Form1
Inorganic Analysis Data Sheet

Sample ID: AD25967-001	% Solid: 0	Lab Name: Hampton-Clarke	Nras No:
Client Id: SB O4	Units: UG/L	Lab Code:	Sdg No:
Matrix: AQUEOUS	Date Rec: 9/14/2021	Contract:	Case No:
Level: LOW			

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M:	Instr
7440-43-9	Cadmium	1.0	ND	1	100	125	09/16/21	94389	09162021A	26	MS	MS4_7800AQA
7439-92-1	Lead	0.75	7.6	1	100	125	09/16/21	94389	09162021A	26	MS	MS4_7800AQA

Comments: _____

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit
P - ICP-AES
CV -ColdVapor
MS - ICP-MS

Form1
Inorganic Analysis Data Sheet

Sample ID: AD25967-001
Client Id: SB O4
Matrix: AQUEOUS
Level: LOW

% Solid: 0
Units: UG/L
Date Rec: 9/14/2021

Lab Name: Hampton-Clarke
Lab Code:
Contract:

Nras No:
Sdg No:
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File	Seq Num	M	Instr
7440-50-8	Copper	25	ND	1	100	50	09/16/21	94389	A27630A2	37	P	PEICP2A
7439-97-6	Mercury	0.20	ND	1	25	25	09/17/21	94389	H27630A	23	CV	HGCV3A
7440-02-0	Nickel	10	ND	1	100	50	09/16/21	94389	A27630A2	37	P	PEICP2A
7440-66-6	Zinc	25	190	1	100	50	09/16/21	94389	A27630A2	37	P	PEICP2A

Comments: _____

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit
P - ICP-AES
CV - ColdVapor
MS - ICP-MS

FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 09/16/21
 Data File: A27630A2
 Prep Batch: 94389
 Reporting Limits Used: 200.7/200.8/245.1
 Instrument: PEICP2A
 Units: All units in ppm except Hg and icp-ms in ppb
 Project Number: 1091418

Lab Name: Hampton-Clarke
 Lab Code:
 Contract:
 Nras No:
 Sdg No:
 Case No:

Analyte	ICB V-352951-8	CCB V-352951-15	CCB V-352951-26	CCB V-352951-35	CCB V-352951-41	MB 94389 (0.5)-16
Barium	.05U	.05U	.05U	.05U	.05U	.025U
Chromium	.05U	.05U	.05U	.05U	.05U	.025U
Copper	.05U	.05U	.05U	.05U	.05U	.025U
Iron	.3U	.3U	.3U	.3U	.3U	.15U
Nickel	.02U	.02U	.02U	.02U	.02U	.01U
Titanium	.05U	.05U	.05U	.05U	.05U	.025U
Vanadium	.05U	.05U	.05U	.05U	.05U	.025U
Zinc	.05U	.05U	.05U	.05U	.05U	.025U

Notes: a -for methods 7470A, 7471B indicates absolute value of result found above the reporting limits in ICB/CCB/MB.
 for methods 6010D, 6020B indicates absolute value of result found above the reporting limit in CCB or above 1/2 the reporting limit in ICB/MB.

u-indicates result below reporting criteria.

FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 09/16/21
 Data File: WW09162021A
 Prep Batch: 94389
 Reporting Limits Used: 200.7/200.8/245.1
 Instrument: MS4_7800AQA
 Units: All units in ppm except Hg and icp-ms in ppb
 Project Number: 1091418

Lab Name: Hampton-Clarke
 Lab Code:
 Contract:
 Nras No:
 Sdg No:
 Case No:

Analyte	ICB V-357467-12	CCB V-357467-24	CCB V-357467-29	MB 94389-13
Antimony	2U	2U	2U	2.5U
Arsenic	.8U	.8U	.8U	1U
Beryllium	.6U	.6U	.6U	.75U
Cadmium	.8U	.8U	.8U	1U
Lead	.6U	.6U	.6U	.75U
Selenium	4U	4U	4U	5U
Silver	.6U	.6U	.6U	.75U
Thallium	1.2U	1.2U	1.2U	1.5U

Notes: a -for methods 7470A, 7471B indicates absolute value of result found above the reporting limits in ICB/CCB/MB.
 for methods 6010D, 6020B indicates absolute value of result found above the reporting limit in CCB or above 1/2 the reporting limit in ICB/MB.

u-indicates result below reporting criteria.

FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 09/17/21
 Data File: H27630A
 Prep Batch: 94389
 Reporting Limits Used: 200.7/200.8/245.1
 Instrument: HGCV3A
 Units: All units in ppm except Hg and icp-ms in ppb
 Project Number: 1091418

Lab Name: Hampton-Clarke
 Lab Code:
 Contract:
 Nras No:
 Sdg No:
 Case No:

Analyte	ICB-10	CCB-22	CCB-25	MB 94389 (1)-11
Mercury	.2U	.2U	.2U	.2U

Notes: a -for methods 7470A, 7471B indicates absolute value of result found above the reporting limits in ICB/CCB/MB.
 for methods 6010D, 6020B indicates absolute value of result found above the reporting limit in CCB or above 1/2 the reporting limit in ICB/MB.

u-indicates result below reporting criteria.

VERITECH Wet Chem Form1 Analysis Summary

Lab#: AD25967-001

Matrix: Aqueous

Client SampleID: SB O4

Project Number: 1091418

Received Date: 9/14/2021

Collect Date: 9/14/2021

Analysis	TestGroup	Dilution:	Result	Units:	RL	Prep Date:	Analysis Date:
Carbonaceous Bod, 5 Day	CBOD-5-MUR	1	ND	mg/L	2.0	09/16/21	09/21/21
Chloride	CHLORIDE-ICW	20	590	mg/L	40	09/15/21	09/15/21
Cr (Hexavalent)	CR6-WATER	1	ND	mg/l	0.020	09/21/21	09/21/21
Flash Point	FLASH POINT	1	>141	Deg. F			09/16/21
SGT-HEM (Non-Polar Material)	HEM-NPM	1	ND	mg/L	6.1	09/16/21	09/16/21
Nitrite	NO2-ICW	1	ND	mg/L	1.0	09/15/21	09/15/21
Nitrate	NO3-ICW	1	ND	mg/L	1.0	09/15/21	09/15/21
Temperature	PH-WATER-MUR	1	24.4	C			09/15/21
pH	PH-WATER-MUR	1	8.1	pH			09/15/21
Total Solids @ 103-105 C	TS-MUR	1	1300	mg/l	40	09/15/21	09/16/21
Total Suspended Solids @ 103-105	TSS-MUR	1	81	mg/l	4.0	09/15/21	09/15/21

Analysis Type: TS

Batch Number: TS-597

Units: mg/l

Qc Summary Results

Calibration Curve Information

Qc Type	Qc Name	SpkAmt	Rec Lim	Rpd Lim	Raw Result	Recov	Rpd	Flags
DUP	AD25967-001	0	NA	5	1332	NA	06	
LCS	LCS	300	80-120	NA	304	101	NA	
LCSD	LCSD	300	80-120	5	304	101	0	

Analytical Method(s)

SM2540B-11

Sam #	Type	MB	Result	RL	Per Sol	Full Tare Wt Result(g)	Fin Wt (g)	Sam Vol(ml)	Prep Date	Prep By	Anal Date	Anal By	
MB-1-09/15/21	MB	MB-1-09/15/21	240000	40	100	240000	33.1750	39.1751	25	09/15/21	BCT	09/16/21	BCT
LCS	LCS	MB-1-09/15/21	300	40	100	304	40.0778	40.0854	25	09/15/21	BCT	09/16/21	BCT
LCSD	LCSD	MB-1-09/15/21	300	40	100	304	33.4530	33.4606	25	09/15/21	BCT	09/16/21	BCT
AD25967-001	DUP	MB-1-09/15/21	1300	40	100	1332	39.8796	39.9129	25	09/15/21	BCT	09/16/21	BCT
AD25967-001	Sample	MB-1-09/15/21	1300	40	100	1324	41.2496	41.2827	25	09/15/21	BCT	09/16/21	BCT

M
9/16/21

DW 9/20/21

Batch Number: TSS-1946

Units: mg/l

Qc Summary Results

Calibration Curve Information

Qc Type	Qc Name	SpkAmt	Rec Lim	Rpd Lim	Raw Result	Recov	Rpd	Flags
DUP	AD25930-001	0	NA	5	1.6	NA	NA	Nc
LCS	LCS	600	80-120	NA	597.2	100	NA	
LCSD	LCSD	600	80-120	5	600.8	100	0.6	

Analytical Method(s)

SM2540D-11

Sam #	Type	MB	Result	RL	Per Sol	Full Tare Result Wt (g)	Fin Wt (g)	Sam Vol (ml)	Prep Date	Prep By	Anal Date	Anal By	
MB-1-09-15/21	MB	MB-1-09/15/21	ND	4.0	100	0	1.3108	1.3108	250	09/15/21	BCT	09/15/21	BCT
CS	LCS	MB-1-09/15/21	600	4.0	100	597.2	1.3360	1.4853	250	09/15/21	BCT	09/15/21	BCT
CS	LCSD	MB-1-09/15/21	600	4.0	100	600.8	1.3290	1.4792	250	09/15/21	BCT	09/15/21	BCT
AD25930-001	DUP	MB-1-09/15/21	ND	4.0	100	1.6	1.3327	1.3331	250	09/15/21	BCT	09/15/21	BCT
AD25930-001	Sample	MB-1-09/15/21	ND	4.0	100	1.6	1.3165	1.3169	250	09/15/21	BCT	09/15/21	BCT
AD25892-001	Sample	MB-1-09/15/21	4.4	4.0	100	4.4	1.3363	1.3374	250	09/15/21	BCT	09/15/21	BCT
AD25899-001	Sample	MB-1-09/15/21	62	10	100	62	1.3110	1.3172	100	09/15/21	BCT	09/15/21	BCT
AD25907-001	Sample	MB-1-09/15/21	320	40	100	316	1.3147	1.3226	25	09/15/21	BCT	09/15/21	BCT
AD25950-001	Sample	MB-1-09/15/21	29000	200	100	28560	1.3194	1.4622	5.0	09/15/21	BCT	09/15/21	BCT
AD25950-003	Sample	MB-1-09/15/21	84	5.0	100	83.5	1.3276	1.3443	200	09/15/21	BCT	09/15/21	BCT
AD25950-005	Sample	MB-1-09/15/21	83	4.0	100	82.8	1.3070	1.3277	250	09/15/21	BCT	09/15/21	BCT
AD25953-001	Sample	MB-1-09/15/21	360	40	100	364	1.3205	1.3296	25	09/15/21	BCT	09/15/21	BCT
AD25953-002	Sample	MB-1-09/15/21	310	40	100	312	1.3432	1.3510	25	09/15/21	BCT	09/15/21	BCT
AD25959-001	Sample	MB-1-09/15/21	6.4	4.0	100	6.4	1.3159	1.3175	250	09/15/21	BCT	09/15/21	BCT
AD25966-001 D	Sample	MB-1-09/15/21	ND	4.0	100	0.4	1.3098	1.3099	250	09/15/21	BCT	09/15/21	BCT
AD25966-001	Sample	MB-1-09/15/21	ND	4.0	100	1.2	1.3310	1.3313	250	09/15/21	BCT	09/15/21	BCT
AD25966-002	Sample	MB-1-09/15/21	ND	4.0	100	0.4	1.3416	1.3417	250	09/15/21	BCT	09/15/21	BCT
AD25963-001	Sample	MB-1-09/15/21	56	4.0	100	56.4	1.3297	1.3438	250	09/15/21	BCT	09/15/21	BCT
AD25963-002	Sample	MB-1-09/15/21	30	4.0	100	30	1.3161	1.3236	250	09/15/21	BCT	09/15/21	BCT
AD25963-003	Sample	MB-1-09/15/21	29	4.0	100	29.2	1.3424	1.3497	250	09/15/21	BCT	09/15/21	BCT
AD25963-004	Sample	MB-1-09/15/21	96	10	100	96	1.3336	1.3432	100	09/15/21	BCT	09/15/21	BCT
AD25963-005	Sample	MB-1-09/15/21	23	4.0	100	23.2	1.3317	1.3375	250	09/15/21	BCT	09/15/21	BCT
AD25967-001	Sample	MB-1-09/15/21	81	4.0	100	81.2	1.3318	1.3521	250	09/15/21	BCT	09/15/21	BCT

BB
9/15/21

DW
9/20/21

Flag Codes: Ra - Recovery failed specified criteria (PVS/LCS/MS/MSD/ICV/CAL)

Rp - RPD failed specified criteria.

Na - Not Applicable

Nc - Not Checked ..either one or both values =ND

Batch Number: FLASH-PT-731

Units: Deg. F

Calibration Curve Information

Qc Summary Results

Qc Type	Qc Name	SpkAmt	Rec Lim	Rpd Lim	Raw Result	Recov	Rpd	Flags
CAL-01	CAL-01-09/16/21	81	90-110	NA	81.82	101	NA	
DUP	AD25967-001	0	NA	20	#Error	NA	NA	Nc

Analytical Method(s)

EPA 1010A

Sam #	Type	MB	Result	RL	Per Sol	Full Obs	FP	Press	p-Xylene	Prep Date	Prep By	Anal Date	Anal By
CAL-01-09-16-21	CAL-01		82		100	81.82	82.0	763	81.8			09/16/21	SDL
AD25967-001	DUP		>141		100	0	>141	763	81.8			09/16/21	SDL
AD25967-001	Sample		>141		100	0	>141	763	81.8			09/16/21	SDL
AD25983-001	Sample		>141		100	0	>141	763	81.8			09/16/21	SDL
AD25983-001	Sample		>141		100	0	>141	763	81.8			09/16/21	SDL

BSJ
9/16/21

GW
9/20/21

5-DAY CBOD MUR

Batch # 914
 Analyst: BCT/JW
 Date/ Time Initial: 9/16/2021 12:00
 Date/ Time Final: 9/21/2021 16:20

* final DO must be greater than or equal to 1.0 mg/L
 ** Depletion must be at least 2.0 mg/L
 Note: GGA must be between 167.5-228.5
 Note: Blank w/o seed must have a depletion of <0.2 mg/l
 Note: Blank w/seed must be between 0.6 and 1.0 mg/L
 Rp: RPD- failed specified QC
 † % Diff should be <= 30

QC Bottles

Bottle #	Sample #	Vol (ml)	Seed vol (ml)	N Inhib (g)	Initial DO mg/L	Final DO mg/l	Depletion mg/L	Depletion mg/L (ave)	Seed Corr
20	Blank w/o seed	300	0		8.50	8.31	0.190		
21	Blank w/o seed	300	0		8.46	8.27	0.190	0.190	
22	Blank w/ seed	300	2	0.16	8.57	7.60	0.970		
23	Blank w/ seed	300	2	0.16	8.58	7.58	1.000		0.985
24	Seed Control	300	6	0.16	8.62	5.66	2.960		
25	Seed Control	300	8	0.16	8.60	5.18	3.420		
26	Seed Control	300	10	0.16	8.56	3.69	4.870		0.939

	result(mg/L)	%RPD	Flag
sample	#DIV/0!		
sample dup	#DIV/0!	#DIV/0!	

Sample #	Vol (ml)	Seed Vol(ml)	N Inhib (g)	Initial DO mg/L	Final DO mg/l	Depletion mg/L	Corrected** Depl (mg/l)	Valid (Y/N)	Final BOD mg/L	Ave BOD mg/L	† % Diff
27	Hach GGA	6	2	0.16	8.64	3.41	5.23	4.291	Y	214.572	
28	Hach GGA	6	2	0.16	8.60	3.68	4.92	3.981	Y	199.072	
29	Hach GGA	6	2	0.16	8.62	3.92	4.7	3.761	Y	188.072	200.572
30	AD25967-001	5	2	0.16	8.56	6.73	1.83	0.891	N	NV	
31	AD25967-001	10	2	0.16	8.50	6.85	1.65	0.711	N	NV	
32	AD25967-001	50	2	0.16	8.34	6.79	1.55	0.611	N	NV	
33	AD25967-001	100	2	0.16	7.95	6.63	1.32	0.381	N	NV	
34	AD25967-001	300	2	0.16	6.64	5.24	1.40	0.461	Y	NV	#DIV/0!
35	AD25967-001 DUP	5	2	0.16	8.64	7.27	1.37	0.431	N	NV	
36	AD25967-001 DUP	10	2	0.16	8.58	7.26	1.32	0.381	N	NV	
37	AD25967-001 DUP	50	2	0.16	8.39	7.03	1.36	0.421	N	NV	
38	AD25967-001 DUP	100	2	0.16	8.00	6.03	1.97	1.031	N	NV	
39	AD25967-001 DUP	300	2	0.16	6.60	4.96	1.64	0.701	Y	NV	#DIV/0!

*OMP
9/27/21*

Oil And Grease (HEM)

Oil & Grease Water HEM 1664		Analyst		LL					
Batch	1089								
Date	9/16/2021								
			True value	Result	% REC	Limits	Flags		
		LCS	40.00	36.3	90.7	78-114			
		LCSD	40.00	33.9	84.8	78-114			
				LCS RPD	6.8	18			
			Theoretical						
		MS	45.5	40.7	89.5	78-114			
Blank Summary									
Units		RL	Result						
ppm		5.0	U						
Sample #	Sample vol. (ml)	Tare wt. (g)	Final wt. (g)	Net Weight (mg)	O&G ppm	RL ppm	Silica Gel Calc		
MB	1000	6.0051	6.0062	1.1	1.100	5.000	0.0330		
LCS	1000	6.0646	6.1009	36.3	36.300	5.000	1.0890		
AD25959-002 MS	880	6.0889	6.1247	35.8	40.682	5.682	1.2205		
LCSD	1000	6.0973	6.1312	33.9	33.900	5.000	1.0170		
AD25959-002	820	6.0562	6.0571	0.9	1.098	6.098	0.0329		
AD25966-001	860	6.0811	6.0821	1.0	1.163	5.814	0.0349		
AD25966-002	850	6.0459	6.0467	0.8	0.941	5.882	0.0282		
AD25967-001	820	6.0401	6.0407	0.6	0.732	6.098	0.0220		
AD25963-001	850	6.0544	6.0549	0.5	0.588	5.882	0.0176		
AD25963-002	850	6.0991	6.0996	0.5	0.588	5.882	0.0176		
AD25963-003	830	5.9861	5.9864	0.3	0.361	6.024	0.0108		
AD25963-004	830	6.0155	6.0159	0.4	0.482	6.024	0.0145		
AD25963-005	850	5.9854	5.9858	0.4	0.471	5.882	0.0141		

LL
09/16/2021

OW
9/16/21

Batch Number: PH-W-1221

Units: pH

Calibration Curve Information

Qc Summary Results

Qc Type	Qc Name	SpkAmt	Rec Lim	Rpd Lim	Raw Result	Recov	Rpd	Flags
DUP	AD25967-001	0	NA	20	7.99	NA	1.7	
LCS	LCS	4.4	75-125	NA	4.49	102	NA	

Analytical Method(s)

SM4500-H+B11

Sam #	Type	MB	Result	Per RL	Sol	Full PH Result	TEMP	Prep Date	Prep By	Anal Date	Anal By
LCS	LCS		4.5	100		4.49 4.49	24.2			09/15/21	KS
AD25967-001	DUP		8.0	100		7.99 7.99	24.2			09/15/21	KS
AD25967-001	Sample		8.1	100		8.13 8.13	24.4			09/15/21	KS
AD25950-001	Sample		8.2	100		8.21 8.21	24.2			09/15/21	KS
AD25950-003	Sample		8.4	100		8.37 8.37	24.4			09/15/21	KS
AD25950-005	Sample		8.3	100		8.26 8.26	25.2			09/15/21	KS

KS 9/15/21

DW 9/20/21

Batch Number: HEX-CR-W-922

Units: mg/l

Calibration Curve Information

Cal Curve Date: 09/21/21

Concentration:	Abs/Area	Slope: 1.114621
0	0	Intercept: 0.01320337
0.02	0.029	Rsquared: 0.9993355
0.05	0.065	Date Performed: 09/21/21
0.25	0.303	
0.5	0.6	
0.75	0.85	
1	1.11	

Qc Summary Results

Qc Type	Qc Name	SpkAmt	Rec Lim	Rpd Lim	Raw Result	Recov	Rpd	Flags
CAL-01	CAL-01-09/21/21	0.02	50-150	NA	0.0141722	71	NA	
CCV	CCV-2	0.5	90-110	NA	0.4753155	95	NA	
CCV	CCV-1	0.5	90-110	NA	0.4753155	95	NA	
DUP	AD25967-001	0	NA	20	-0.0118456	NA	NA	Nc
ICV	ICV-09/21/21	0.5	95-105	NA	0.4753155	95	NA	
LCS	LCS	0.5	75-125	NA	0.4771098	95	NA	
MS	AD25967-001	0.5	75-125	NA	0.4609608	92	NA	
MSD	AD25967-001	0.5	75-125	20	0.4609608	92	0	

Analytical Method(s)

SM3500-CrB11

Sam #	Type	MB	Result	RL	Per Sol	Full ABS Result	Turb Abs	DF	Sam Vol	Fin Vol	Prep Date	Prep By	Anal Date	Anal By
CAL-01-09/21/21	CAL-01		0.014		100	0.014172	0.029	0	1	1			09/21/21	JW
MB-1-09/21/21	MB	MB-1-09/21/21	ND	0.020	100	-0.011846	0	0	1	10	10		09/21/21	JW
LCS	LCS	MB-1-09/21/21	0.48	0.020	100	0.47711	0.545	0	1	10	10		09/21/21	JW
AD25967-001	Sample	MB-1-09/21/21	ND	0.020	100	-0.011846	0.001	0.001	1	10	10		09/21/21	JW
AD25967-001	DUP	MB-1-09/21/21	ND	0.020	100	-0.011846	0.001	0.001	1	10	10		09/21/21	JW
AD25967-001	MS	MB-1-09/21/21	0.46	0.020	100	0.46096	0.528	0.001	1	10	10		09/21/21	JW
AD25967-001	MSD	MB-1-09/21/21	0.46	0.020	100	0.46096	0.528	0.001	1	10	10		09/21/21	JW
CCV-1	CCV	MB-1-09/21/21	0.48		100	0.47532	0.543	0	1	1	1		09/21/21	JW
CCB-1	CCB	MB-1-09/21/21	ND	0.020	100	-0.011846	0	0	1	1	1		09/21/21	JW
AD26061-001	Sample	MB-1-09/21/21	ND	0.020	100	-0.011846	0.001	0.001	1	10	10		09/21/21	JW
CCV-2	CCV	MB-1-09/21/21	0.48		100	0.47532	0.543	0	1	1	1		09/21/21	JW
CCB-2	CCB	MB-1-09/21/21	ND	0.020	100	-0.011846	0	0	1	1	1		09/21/21	JW
ICV-09/21/21	ICV		0.48	0.020	100	0.47532	0.543	0	1	1	1		09/21/21	JW

Handwritten: 70mg
9/21/21

Handwritten: JW
9/22/21

Flag Codes: Ra - Recovery failed specified criteria (PVS/LCS/MS/MSD/ICV/CAL)

Rp - RPD failed specified criteria.

Na - Not Applicable

Nc - Not Checked either one or both values =ND

MS/MSD/DUP Recovery

1091418 0045

Prep Batch: W-2787
Method: 300.0 rev2.1

Sample ID: AD25948-002
Matrix: Aqueous

Qc Type: MS										MS/MSD/DUP			Non Spike		
Analyte	Amt	Limits		Dil	MS Conc	Sample Conc		% Rec	Flag	Batch	RunID	Analysis Date	Batch	RunID	Analysis Date
Chloride	5	80-120		1	19.1049	14.1228		100		20210914123	39	09/15/21 11:05	20210914123	38	09/15/21 10:38
Nitrate	5	80-120		1	5.0683	0		101		20210914123	39	09/15/21 11:05	20210914123	38	09/15/21 10:38
Nitrite	5	80-120		1	5.2415	0		105		20210914123	39	09/15/21 11:05	20210914123	38	09/15/21 10:38

Qc Type: MSD										MS/MSD/DUP			Non Spike			
Analyte	Amt	Limits		Dil	MSD Conc	Sample Conc		% Rec	Rpd	Flag	Batch	RunID	Analysis Date	Batch	RunID	Analysis Date
Chloride	5	80-120	20	1	19.0643	14.1228		99	0.2		20210914123	40	09/15/21 11:33	20210914123	38	09/15/21 10:38
Nitrate	5	80-120	20	1	5.1103	0		102	0.8		20210914123	40	09/15/21 11:33	20210914123	38	09/15/21 10:38
Nitrite	5	80-120	20	1	5.2592	0		105	0.3		20210914123	40	09/15/21 11:33	20210914123	38	09/15/21 10:38

LCS Recoveries

BatchRunID/RunID:====> 202109141234-36
QcBatchID:====> LCSW-2787
Date/Time:====> 09/15/21 09:24
Analytical Method:====> 300.0 rev2.1
Matrix:====> Aqueous

Analyte	EPA 9056A											
	Amt	Limits	Amt	Limits	% Rec	Flags	% Rec	Flags	% Rec	Flags	% Rec	Flags
Chloride	5	80-120			107							
Nitrate	5	80-120			98							
Nitrite	5	80-120			97							

Calibration Curve

Instrument: IC2

Analysis Date: 09/14/21

Analytical Methods: 300.0 rev2.1;EPA 9056;EPA 9056A

Batch ID	Analyte	Area Found						Concentration Amount						RSq
		Area1	Area2	Area3	Area4	Area5	Area6	Conc1	Conc2	Conc3	Conc4	Conc5	Conc6	
202109141234	Chloride	0	0.165	0.859	1.558	3.355	9.652	0	1	5	10	20	50	99.668
202109141234	Nitrate	0	0.403	2.123	3.982	8.802		0	1	5	10	20	50	99.717
202109141234	Nitrite	0	0.351	1.872	3.41	7.151		0	1	5	10	20	50	99.877

Subcontracted Data

**This is the last page of the data generated by Hampton-Clarke.
The following pages were submitted to HC by subcontracted laboratories.**

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Hampton Clarke-Veritech

Project # 1091418

Project#1091418 COCID#7409

SGS Job Number: JD31661

Sampling Date: 09/14/21

Report to:

**Hampton Clarke-Veritech
175 Route 46 West
Fairfield, NJ 07004**

ATTN: Anna Leszczynski

Total number of pages in report: 11



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Mike Earp
General Manager

Client Service contact: Shalini Williams 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

This report shall not be reproduced, except in its entirety, without the written approval of SGS.
Test results relate only to samples analyzed.

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Sample Summary

Hampton Clarke-Veritech

Job No: JD31661

Project # 1091418

Project No: Project#1091418 COCID#7409

Sample Number	Collected		Matrix		Client Sample ID
	Date	Time By	Received	Code Type	
JD31661-1	09/14/21	14:30	09/16/21	AQ Water	AD25967-001 SB O4



Summary of Hits

Job Number: JD31661
Account: Hampton Clarke-Veritech
Project: Project # 1091418
Collected: 09/14/21

2

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
---------------	------------------	-----------------	----	-----	-------	--------

JD31661-1 AD25967-001 SB O4

Nitrogen, Total Kjeldahl	0.45	0.20			mg/l	EPA 351.2/LACHAT
--------------------------	------	------	--	--	------	------------------



Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: AD25967-001 SB O4	Date Sampled: 09/14/21
Lab Sample ID: JD31661-1	Date Received: 09/16/21
Matrix: AQ - Water	Percent Solids: n/a
Project: Project # 1091418	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Nitrogen, Total Kjeldahl	0.45	0.20	mg/l	1	09/20/21 11:32	EB	EPA 351.2/LACHAT

RL = Reporting Limit

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

CHAIN OF CUSTODY RECORD

Hampton-Clarke, Inc.
175 US Hwy 46 West
Fairfield, New Jersey 07004
Ph:800-426-9992 Fax:973-439-1458

JD 31661

Report To: Hampton-Clarke, Inc.: Attn:Reporting 175 Route 46 West Fairfield, New Jersey 07004	Invoice To: Hampton-Clarke, Inc.: Attn:Accounting 175 Route 46 West Fairfield, New Jersey 07004	Project #: 1091418	CocID#: 7409
FINAL RESULTS TO: subresults@hcvlab.com			
PRELIM/VERBAL RESULTS TO: subresults@hcvlab.com			
EDD: NEW JERSEY HAZRESULT OR EQUIS EZEDD REQUIRED FOR ALL DATA SUBMITTALS!			

Turn Around Time: Standard	Preliminary Due Date: 9/30/2021
Report Type: NYDOH-CatA (STAND	Hard Copy Due Date: 10/7/2021

Sample Number:	Client ID	Matrix:	Date Collected:	Time Collected:	Analysis Requested
AD25967-001	SB O4	Aqueous	9/14/2021	2:30:00 PM	TKN EPA 351.2

Initial Assessment: *203PT*
Label Modification: _____

Relinquished By:	Accepted By:	Date:	Time:	Comments, Notes, Special Requirements, HAZARDS
<i>John Zuccilli</i>	<i>Keith March</i>	9/16/21	12:15	MK 09/15/21

Cooler Temp: *2.3 C/F*

HC Lab Use Only: Subcontracted Lab Id and Contact: Sample Receiving, (732) 329-0200, LabID: H, Fresh Ponds Corporate Village, Bldg. B, 2235 Route 130, Dayton, NJ, 08810

SGS Sample Receipt Summary

Job Number: JD31661

Client: HAMPTON CLARKE INC

Project: PROJECT #1091418

Date / Time Received: 9/16/2021 12:15:00 PM

Delivery Method: _____

Airbill #'s: _____

Cooler Temps (Raw Measured) °C: Cooler 1: (2.3);

Cooler Temps (Corrected) °C: Cooler 1: (1.4);

<u>Cooler Security</u>	<u>Y</u>	<u>or</u>	<u>N</u>		<u>Y</u>	<u>or</u>	<u>N</u>
1. Custody Seals Present:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	3. COC Present:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Custody Seals Intact:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	4. Smpl Dates/Time OK	<input checked="" type="checkbox"/>		<input type="checkbox"/>

<u>Cooler Temperature</u>	<u>Y</u>	<u>or</u>	<u>N</u>
1. Temp criteria achieved:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

<u>Quality Control Preservation</u>	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Trip Blank present / cooler:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Trip Blank listed on COC:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Samples preserved properly:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. VOCs headspace free:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

<u>Sample Integrity - Documentation</u>	<u>Y</u>	<u>or</u>	<u>N</u>
1. Sample labels present on bottles:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Container labeling complete:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
3. Sample container label / COC agree:	<input checked="" type="checkbox"/>		<input type="checkbox"/>

<u>Sample Integrity - Condition</u>	<u>Y</u>	<u>or</u>	<u>N</u>
1. Sample recvd within HT:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. All containers accounted for:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
3. Condition of sample:	Intact		

<u>Sample Integrity - Instructions</u>	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Analysis requested is clear:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
2. Bottles received for unspecified tests	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
3. Sufficient volume recvd for analysis:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. Compositing instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Filtering instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

Test Strip Lot #s:	pH 1-12: 231619	pH 12+: 203117A	Other: (Specify) _____
--------------------	-----------------	-----------------	------------------------

Comments

SM089-03
Rev. Date 12/7/17

JD31661: Chain of Custody

Page 2 of 2



4.1
4

Internal Sample Tracking Chronicle

Hampton Clarke-Veritech

Job No: JD31661

Project # 1091418

Project No: Project#1091418 COCID#7409

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JD31661-1	Collected: 14-SEP-21 14:30	By:		Received: 16-SEP-21	By: JP	
AD25967-001	SB O4					
JD31661-1	EPA 351.2/LACHAT	20-SEP-21 11:32	EB	17-SEP-21	MP	TKN

4.2
4



SGS Internal Chain of Custody

Job Number: JD31661
Account: HCVNJF Hampton Clarke-Veritech
Project: Project # 1091418
Received: 09/16/21

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD31661-1.1	Secured Storage	Dave Hunkele	09/17/21 08:20	Retrieve from Storage
JD31661-1.1	Dave Hunkele	Secured Staging Area	09/17/21 08:20	Return to Storage
JD31661-1.1	Secured Staging Area	Mahendra Patel	09/17/21 10:25	Retrieve from Storage
JD31661-1.1	Mahendra Patel	Secured Storage	09/17/21 16:50	Return to Storage

4.3
4



UI - PAGES**UTILITY INTERFERENCES SECTION**

NOTICE

THE PAGES CONTAINED IN THIS SECTION (UI - PAGES) REPRESENT ADDITIONAL CONTRACT REQUIREMENTS APPLYING TO WORK PERFORMED IN THE PRESENCE OF PRIVATELY OWNED UTILITY FACILITIES.

(NO TEXT ON THIS PAGE)

UTILITY INTERFERENCES (UI) SECTION

DATED: JULY 27, 2023

1. The Contractor shall be responsible for compliance with all the provisions of the following Sections and Schedules, which are hereby made a part of the original contract documents:
 - A. "UI SECTION: Additional Contract Requirements Applying to Work Performed in the Presence of Privately Owned Utility Facilities" (Pages UI-3 through UI-11).
 - B. Schedule U-1 (Page UI-13).
 - C. Schedule U-2 (Page UI-14)
Con Edison (Pages UI-15 through UI-33).
Verizon (Pages UI-34 through UI-35)
National Grid (Pages UI-36 through UI-38)
 - D. Schedule U-3 Page UI-39 (as per the Private Utilities reference document for UI SECTION called "CET SPECIFICATIONS AND SKETCHES", dated November 2010), in this Section UI-Pages; and, National Grid Sketch / Specification Pages UI-40 through UI-45 in this Section UI-Pages; and,
 - E. Utility drawings (12 Sheets) consisting of:
 - * Con Edison – Conduit and Duct Occupancy Plate (UI-D1–D4, 4 sheets)
 - * Con Edison – Low Tension Mains and Serived Plates (UI-D5–D8, 4 sheets)
 - * Verizon – Conduit Utility Plates (UI-D9–D12, 4 sheets)All Twelve (12) drawings are attached to the Plans.
2. Each facility operator shall provide inspectors at the work site to inspect methods of interference work, verify quantities and items of Utility Work, and coordinate all phases of the facility operator operations.
3. In addition, the following statements are made to provide clarification of various Paragraphs under UI Section:
 - A. UI Section, Paragraph 4, requires the Contractor to immediately commence negotiations with each Company for an Interference Agreement under which the Company will compensate the Contractor for any Interference Work which the Company does not elect to perform with its own forces or by specialty contractors retained by the Company. Thus the Contractor is on notice that its work under the Contract may be affected by Interference Work performed by (a) the Contractor pursuant to a separate Interference Agreement with the Company, (b) the Company, or (c) partly by each.

- B. UI Section, Paragraph 2, informs the Contractor that the duration of the Contract as shown in Schedule A includes the time which may be necessary for the Contractor to perform the necessary Interference Work.
- C. The Contractor is hereby informed that the duration of the Contract as shown in Schedule A includes the time which may be necessary for the Company to perform whatever portion of the Interference Work which the Company elects to perform with its own forces or by specialty contractors retained by the Company.
- D. UI Section informs the Contractor that the City has entered into an Interference Agreement with the Companies regarding interferences to the City work in this Contract created by the facilities owned and/or operated by such Companies. Pursuant to this Section, a sample of the Utility Agreement letter as executed by the Companies is annexed on page UI-12, as an Exhibit to the Contract. Signed copies of those Utility Agreement letters are on file with New York City Department of Design and Construction (DDC).
- E. The City has no contract with any of the Companies for work on or adjacent to the site of work under this Contract, and the Companies are not "Other Contractors" as defined for the purposes of this Contract. The Contractor is reminded, however, that pursuant to UI Section, Paragraph 4, the City will not compensate the Contractor for any direct and/or indirect costs related to Interference Work, regardless of whether such Interference Work is covered by an Interference Agreement between the Contractor and the Company or is performed by the Company using its own forces or by specialty contractors retained by the Company.
- F. UI Section, Paragraph 14, provides that the provisions of UI Section are material provisions of the Contract and that the Contractor's failure to comply with the procedures set forth in UI Section are sufficient for the Commissioner to declare the Contractor in default pursuant to Article 48 of the Contract.

Pursuant to this Section, the Contractor is informed that the Performance Bond required of the Contractor pursuant to the Contract is not deemed to guarantee performance of any of the Interference Work.



Utility Interferences Section - Additional Contract Requirements Applicable to Work Performed in the Presence of Privately Owned Utility Facilities

The Contractor is hereby notified that pursuant to the law and franchise agreements issued by the City, certain private utility and public service companies named in Schedule U-1 ("the Companies") own and/or operate surface and/or subsurface facilities within the limits of this contract. The existence of these facilities impacts the productivity of the City work called for in the contract. In order to improve coordination of the City construction with the private utility facilities owned and/or operated by the Companies named in Schedule U-1, Article 1.06.30 of the Standard Highway Specifications of the New York City Department of Transportation, Dated August 1, 2015; and/or Articles 10.15 through 10.18 of the Standard Sewer and Water Main Specifications of the New York City Department of Environmental Protection, Dated July 1, 2014; as applicable, are amended and will be implemented as follows:

1. *Pre-engineering:*

The anticipated scopes of private utility facilities interferences and anticipated work items and specifications are included in this contract. The locations of these interferences are indicated on the plans and/or listed in the specifications for this contract, and a schedule of estimated quantities by type of interference expected to be encountered within the limits of this project area have been listed on Schedule U-2. In addition, in Schedule U-3 the Companies have provided standard details and methods for supporting, protecting, relocating, and/or working around their facilities when they are in interference with City contract work.

2. *Means and methods for City work:*

a) The Contractor is hereby notified that the utility interferences identified on the plans and/or listed in the Specifications to be known conditions which may impact the performance of, and/or interferes with, City work. The Contractor will be required to perform such utility work as directed by the Resident Engineer in order to clear all utility interferences from the project site as required for satisfactory completion of City work within specified contract schedule.

b) In areas serviced by overhead lines on poles carrying electric, telecommunication and cable system, the Contractor understands and by bidding for this contract agrees that he/she has reviewed the schedule of estimated quantities by type of interference expected to be encountered within the limits of this project and that he/she will be required to perform the public work in the presence of these overhead lines and appurtenances located in areas adjacent and/or within the project area. As a consequence he/she will select means and method of construction appropriate to maintain the safety clearances required or as permitted by contract specifications (e.g. "CET 350 – Overhead Accommodation Protection of Overhead Facilities, Poles, and Appurtenances") in order to avoid damaging the insulation or shielding of these lines and also to prevent knocking them down. The

duration of the contract as shown in Schedule A thus includes the time which may be necessary for the Contractor to remove, repair, protect, support, shift, temporarily remove and replace, work around and/or work in the presence of the Companies' facilities ("Interference Work") as described on the plans and/or specifications of the contract during the progress of the City work.

3. *Field inspection prior to construction:*

Prior to the start of any contract work in areas serviced by overhead electric lines , and after the award to the apparent low bidder for this contract, the Contractor must request a field walk of the project area along with the operator of the overhead electrical facilities and the DDC Engineer-In-Charge. At that time the facility operator, pursuant to contract specification (e.g. "CET 350 – Overhead Accommodation Protection of Overhead Facilities, Poles, and Appurtenances") will confirm the type and condition of the overhead electrical lines and the sufficiency of their insulating properties with respect to the means and methods proposed by the Contractor. The Contractor must be prepared to describe in enough details his/her proposed means and methods of construction operations in order to anticipate the likelihood that electric lines insulation would be cut or otherwise compromised. Also such details will allow the facility operator to anticipate the need for added insulation and/or shielding of non-insulated lines.

4. *Compensation for interference work:*

Compensation for Interference Work is a matter of adjustment between the Contractor and each private utility company located within the limits of the project area and whose utility facilities are affected by City contract work. In particular, the City will not compensate the Contractor for any direct and/or indirect costs related to Interference Work, including, but not limited to, delay, lost profit, increased overhead, or any other impact costs which are deemed to be included in cost agreement between the Contractor and private utility company affected by such work. Upon receipt of a Notice of Award from the City, the Contractor shall immediately commence negotiations with each of the Companies concerning the manner in which and the price for which the Contractor, through its own forces or by others hired by it, will perform and be paid by the Company for all necessary Interference Work as defined above that the Company(ies) choose(s) not to perform with its(their) own forces or by specialty Contractors hired by it (them) (as per "Interference Agreement"). Specialty contractors' work is limited to (i) insulation installation and removal, (ii) live gas and steam work, (iii) cleanup and disposal of hazardous materials, (iv) splicing live electrical and telecommunications facilities, and (v) work not within the competence of general construction contractors.

5. Interference Agreement:

a) The Companies have provided estimate of the quantity of each type of interferences expected to be encountered in the contract in Schedule U-2. The parties may negotiate an Interference Agreement in any format or manner they deem fit based on quantities and types of Interferences expected to be encountered on this Contract as stated in Schedule U-2.

b) Furthermore, in Schedule U-3, standard unit work measurement and payment provisions are specified and shall apply only if the Contractor and affected Utility companies enters into a unit price based on an Interference Agreement, otherwise the unit of work measurement, and payment provisions set forth in Schedule U-3 shall not apply. The Contractor shall notify the City upon concluding an Interference Agreement with each of the Companies, which shall be binding and final once concluded.

6. City contract work to continue without Interference Agreement:

If, prior to the start of construction, as directed by the City's Order to work / Notice To Proceed (OTW/ NTP) date any of the Companies and the Contractor have not concluded an Interference Agreement as described above, then the City will issue to private utility company (ies) in a written "48 Hours' notice to Public Corporation" in accordance with the Administrative Code of the City of New York. Construction will then proceed as ordered and the Contractor will be directed by the Resident Engineer (RE) to perform the City work on Time, Material and Equipment basis (T&M) as specified in standard City contract agreement Article 26.2. T&M records will include identification of types of utility facilities interfering with City work, utility facility owners, specifying the nature and quantity of any materials, plant and equipment furnished or used in connection with the performance of such work and crew size, such as: name and number of each worker employed on such work. T&M records will also indicate the hours of active time, standby time and idle time. The Company (ies) and the Contractor will maintain separate records of the actual quantity and cost of labor, materials, and equipment expended, and will provide copies of this information to the other party on a daily basis for reconciliation. These T&M records along with cost evaluations will be submitted daily to the Resident Engineer for review and approval. The total cost of City work will be based on quantity of work performed multiplied by unit price contract bid items. The total interference cost will be calculated as the difference between the total T&M cost and total cost for City work. The Resident Engineer will conduct a monthly reconciliation session of the daily T&M records with the affected Company (ies) and the Contractor. If the Contractor and affected utility companies cannot reconcile their T&M records, by the last day of each month, then the Resident Engineer will submit the approved City's T&M records along with total cost evaluations to the DDC Director of Construction who will review these records and recommend approval and validity certification by the DDC Construction Assistant Commissioner.

- a) Copies of the DDC approved and certified T&M records will then be transmitted by the DDC to the Contractor and the utility companies. These certified records may be used by the Contractor for compensation claims against the responsible private facility owners, or may be used by any party as supporting documentation in dispute regarding compensation for performing Interference Work as identified in Schedule U-2. The Contractor will be required to perform City work while invoices are submitted by the Contractor to the utility companies for payment within 30 days, or while compensation disputes between the Contractor and affected company (ies) are submitted to Binding Arbitration process described in Paragraph 10.
- b) All issues related to utility work and/or delays due to compensation disputes or claims against utility companies are not allowable as justification for granting contract time extensions ~~or~~ delay claims against the City. The City may assess liquidated damages specified in the contract for net overall delays suffered by City contract work as a result of utility issues, disputes and claims.
- c) The standard City contract dispute resolution process specified in Article 27 "Presentation of disputes to Commissioner", of the standard City contract agreement is not applicable to any disputes related to utility work and/or compensation for such work or claim against utility companies. Utility work issues, disputes and claims may only be submitted to Binding Arbitration process described in Paragraph 10.
- d) The Contractor will notify the Resident Engineer when utility capital work not specified in Schedule U-2 and/or for utility work that require the intervention of company utility specialty crews causes excessive contractor's labor and equipment standby or idleness and, thereby jeopardizing the City project schedule. The Resident Engineer will submit the facts to the DDC Director of Construction who will recommend to the DDC Deputy Commissioner regarding the issuance of a "48 Hours' notice to Public Corporation" to the concerned utility company as authorized by the New York City Administrative Code Section 19-143 and/or Section 24-521 as applicable.
- e) Utility delays caused by utility capital work not listed in Schedule U-2 and/or by unavailability of utility specialty crews cannot be discounted for earning any contractual bonus when such bonus clause is included in a contract. However, if such specified bonus is not earned or is disallowed by the City or if the City assesses specified liquidated damages as a result of such excessive delays, the Contractor may seek damages from the responsible utility company (ies).

7. Extra utility work with Interference Agreement:

If during construction the Contractor encounters utility facilities interferences or utility scope of work that it believes is not covered by the Interference Agreement as described above, then the Contractor shall immediately notify the Company in writing, with a copy to the City, describing the nature and location of the extra work in question. The Company then has five (5) business days to investigate the conditions and then:

a) Advise the Contractor and the City in writing that no interference with its facilities exists at the location in question, and hence that the Contractor may proceed with City work without providing for any impact from Company facilities;

b) Advise the Contractor and the City in writing that the Interference Agreement negotiated pursuant to Paragraph 6, above, provides for the scope of work encountered, specifying the exact unit items and/or terms of the agreement that cover the work;

c) Advise the Contractor and the City in writing that it intends to perform the necessary utility work with company forces or with its own contractor including, but not limited to, relocating its facility out of the way of the proposed City work. In this case, the Company shall provide a written schedule for the performance of the utility work it proposes to perform, which shall be subject to approval by the City based on its impact to the Contractor's currently approved progress schedule. Upon approval of the Company's schedule by the City, the Contractor shall provide access to the worksite to the Company and/or any contractors hired by it to perform this utility work. If necessary, the City may grant a contract time extension for delays caused by the performance of such utility work by the company.

d) Reasonably specify in writing the scope of work to be performed by the Contractor on behalf of the Company that is not covered under the Interference Agreement negotiated pursuant to Paragraph 6, including, but not limited to, relocating, supporting, and/or protecting the Company's facilities, and/or shifting the City facility if approved by the Resident Engineer, and/or otherwise changing its operations to work in the presence of the Company's facilities. Should the Company elect this option, it must adequately define and provide an initial price offer for the work required to be performed.

8. Means and Methods for utility work:

Upon receipt of the Company's determination pursuant to Paragraphs 7.b, or 7.d, above, the Contractor shall determine reasonable means and methods of performing the work defined by the Company. These means and methods are subject to approval of the Company, which shall not be unreasonably withheld. If, however, the Company objects to the Contractor's proposed means and methods then it shall define an alternate method of construction. Upon receipt of the Company's approval or its proposed alternate method of construction, the Contractor shall commence

performance of the work defined by the Company as soon as possible, and shall perform the work in a good, workmanlike, and efficient manner, using the means and methods approved by the Company, in order to permit the City work to proceed in the most expeditious manner possible, but without imposing unreasonable and/or unnecessary costs on the Company. It is expressly understood by all parties that the City's rights pursuant to Article 4 of the Contract apply to Utility Work performed pursuant to this Section.

9. *Disputed utility work covered by an interference agreement:*

The City Work will continue as described in Paragraph 6 above. In the event of any dispute between the Company (ies) and the Contractor regarding any issue related to the performance of, or payment for, utility work, including, but not limited to, any indirect or impact costs incurred by the Contractor due to the Utility Work and/or to the existence of facilities owned or operated by the Company (ies) on the line of the work. The Company (ies) and the Contractor hereby agree to submit to each other a "Final Offer," in writing, by certified mail. Each party shall then have three business days to consider each other's Final Offer. In the event that neither party accepts the other's Final Offer within those three days, the Company (ies) and the Contractor agree to immediately submit the dispute to binding arbitration as described in Paragraph 10. During the pendency of any arbitration, the Company (ies) and the Contractor shall maintain separate records of the actual quantity and cost of labor, materials, and equipment expended, and to provide copies of this information to the other party on a daily basis for reconciliation. Any and all disagreement with the records maintained and provided by the other, must be documented in writing to all parties. However, these records are solely for the benefit of presentation to the arbitrator, whose decision may not necessarily be based on these records and in any event is final. Both parties should be aware that the City will not confirm or deny the accuracy of any records that is not certified by DDC. While the arbitration is pending, the Company shall pay the Contractor on a monthly basis, based on the price offered by the Company to the Contractor for the performance of the work.

10. *Arbitration of utility work:*

The arbitration of the issues described above shall be conducted pursuant to the Construction Industry Arbitration Rules of the American Arbitration Association (hereinafter "the Rules" and "AAA") in effect on the date the arbitration is initiated except as set forth herein. The arbitration award shall be final and binding upon the parties to the arbitration and judgment upon the award may be entered in a court having jurisdiction.

- a) Once an arbitrator(s) has been appointed by the AAA, the arbitration shall be scheduled as promptly as possible given the arbitrator(s) and the parties' schedules.
- b) No later than seven days prior to the first arbitration hearing, Company and the Contractor shall submit to the arbitrator(s), and to each other, a summary of each

party's respective position and such other information as is deemed appropriate, along with a copy of each party's Final Offer as specified in Paragraph 9.

- c) The arbitration shall be conducted and concluded in two days.
- d) On the morning of the first day of the arbitration, the Contractor and/or representatives shall have 3 ½ hrs to make a presentation of its claim to the arbitrator. During its presentation, the Contractor shall not be permitted to produce any documents or cost records which have not already been provided to the Company. The Contractor shall be permitted to produce any analysis or description of its claim which has been prepared for the purpose of its presentation.
- e) Company and/or its representatives shall have two hours to ask the Contractor questions about its claim and its presentation. Thereafter the arbitrator(s) shall have two hours to ask the Contractor questions about its claim and its presentation.
- f) On the morning of the second day of the arbitration, Company and/or its representatives shall have 3 ½ hours to make a presentation of its claim to the arbitrator. During its presentation, the Company shall not be permitted to produce any documents or cost records which have not already been provided to the Contractor. The Company shall be permitted to produce any analysis or description of its claim which has been prepared for the purpose of its presentation.
- g) The Contractor and/or its representatives shall have two hours to ask Company questions about its claim and its presentation. Thereafter the arbitrator(s) shall have two hours to ask Company questions about its claim and its presentation.
- h) Subject to the above time limitations, the arbitrator(s) may conduct the arbitration in such manner as the arbitrator(s) deems reasonable.
- i) The arbitrator(s) shall then have one week to select in writing, as the arbitrator ('s) award, that party's Final Offer which appears to be more reasonable, based on the presentations at the arbitration hearings.
- j) The arbitrator shall have no discretion to grant an award other than one of the two Final Offers submitted by the parties.
- k) Any award for work that has already been performed shall be paid on the 7th day after receipt of the arbitrator's decision, or on the 30th day after completion of the work, whichever is later. Payment for work not yet completed at the time of the arbitrator's decision shall be paid within 30 days of completion of work. Interest shall accrue from the date payment is due at the rate of 9% per annum. Either party may cause judgment to be entered in accordance with the arbitrator(s) decision in a court in the State of New York, County of New York.
- l) The arbitrator's fees and any other costs of the arbitration shall be initially shared equally by Company and the Contractor. The non-prevailing party shall then pay all

arbitrator's fees and costs of the arbitration and shall reimburse the prevailing party for its share of such fees and costs theretofore paid.

m) The parties may, at any time, settle any matter submitted to arbitration.

11. Order-out waiver:

The Contractor and all subcontractors hired by it, if an Interference Agreement is executed as specified between the concerned parties, agree to waive any rights they may have, if any, under law, contract or otherwise to compel the City to assert any right the City may have, including the issuance of any directives required under the New York City Administrative Code, Section 19-143 and Section 24-521, to require any or all of the Companies to maintain, repair, replace, protect, support, shift, alter, relocate, and/or remove utility facilities in connection with the work to be performed under this contract. However, nothing in this Section shall preclude the City from exercising its rights under the Law to issue such a directive to the Company.

12. Cost of insurance:

Each of the named Companies, at their option and if an Interference Agreement is executed as specified between the concerned parties, may be named as an additional insured on all insurance policies required to be maintained under this contract. In the event that a Company opts to be so named as an additional insured, the actual incremental cost, if any, to the Contractor of providing such insurance coverage shall be borne by that Company. The Contractor shall provide a written statement from its insurance provider documenting the actual cost of this added coverage to the Company. Under no circumstances shall the cost of insurance coverage on behalf of any Company be borne by the City. Nothing in this paragraph shall be interpreted to imply the City's acceptance of any additional responsibility or liability for any matter related to the performance of Utility Work. In particular, the Company and the Contractor bear joint and full responsibility to ensure that any Utility Work performed by the Contractor is in compliance with all applicable government and Company regulations.

13. Cost of utility interference work:

The Companies, by virtue of participating in design alignment meetings and submitting their scope of Utility Interferences Work to the City, have agreed to perform their obligations described in this Section. It is expressly understood that the cost of Utility Work or any delays caused by such Utility Work shall not be a charge against the City, but shall be a matter for adjustment between the Contractor and the Company or Companies concerned. The City and the Contractor agree that the Companies are third party beneficiaries of this Section of the contract, if an Interference Agreement is executed between the Contractor and utility company (ies). The provisions of this Section shall govern in all cases where Company property interferes with or is about to be disturbed by the City work, notwithstanding any other provision of the Contract,

except for Natural Gas transmission/distribution facilities covered subject to the Gas Facility Cost Allocation Act (GFCAA) and covered separately in this contract.

14. Default declaration:

The Contractor agrees that the provisions of this Section are material provisions of the contract, and that the Contractor's failure to comply with the procedures set forth above are sufficient for the Commissioner to declare the Contractor in default pursuant to Article 48 of the Contract.

15. NYS Labor Law:

The Contractor is hereby advised that New York State Labor Law and/or, Davis-Bacon Act if federally funded, applies to public work. The work described in this Utility Interferences Section of the contract performed by utility company (ies) with their own forces or vendors hired by such company (ies) is not public work.

16. Facility operators:

The insurance requirements in Paragraph 12 of this UI Section apply to: (i) additional Companies, if any, who were not named in Schedule "A" but which have executed an Interference Agreement with the Contractor for utility work; and (ii) additional coverage, if any, paid for by Utility Companies whose utility facilities are located within the project limits, that they may require for the utility work pursuant to an Interference Agreement between the Contractor and such utility company (ies).

(End of Section)

“STANDARD UTILITY LETTER OF AGREEMENT”

(Name)
Deputy Commissioner, Infrastructure Division
Department of Design and Construction
30-30 Thomson Avenue
Long Island City, NY 11101

RE: City Work Performed in the Presence of Private Utility Facilities
Project No: _____

Dear (Name):

This letter is to certify that _____, has requested the inclusion of the attached “Utility Interferences (UI) Section: Additional contract requirements applying to work performed in the presence of privately owned utility.” The company agrees to abide by the terms of this UI Section at the company’s own expenses due to their facilities interferences with the Public work.

Sincerely,

By: Authorized Company Representative

Title

NOTARY PUBLIC

CERTIFIED AS TO FORM
AND LEGAL AUTHORITY:

By: _____

SCHEDULE U-1

LISTING OF COMPANY (IES) NAMED FOR THIS CONTRACT

<u>COMPANY NAME</u>	<u>CONTACT NAME</u>	<u>CONTACT TELEPHONE, E-MAIL</u>
The Consolidated Edison Company of New York, Inc. ("Coned")	DENNIS BRADY	917-608-3435 BradyD@coned.com
Verizon New York Inc. ("verizon")	AUBREY MAKHANLALL	516-758-3705 aubrey.n.makhanlall@verizon.com
National Grid USA ("National Grid")	NEVILLE JACOBS JR	1-718-963-5612 Neville.Jacobs@nationalgrid.com

SCHEDULE U-2

Consolidated Edison Company of New York, Inc.

Guideline

For

**Safe Entry into Sub-Surface Structures
(Electrical Enclosed Space),**

Moving Energized Underground Cables

Removal of Conduit from Cables, and

**Sub-Surface Structure Break Out, Rebuild & Breaking Out a Point of Entry (POE's)
Into Sub-Surface Structures**

Performed by

Municipal Contractors

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1.0 Definitions

- 1.1 **Competent Person** – As a general rule, a Competent Person is an individual who, by way of training and/or experience, is knowledgeable of OSHA and other applicable standards, can identify workplace hazards relating to the specific operation and is designated by the employer with the authority to take all appropriate actions necessary to comply with all applicable standards and take prompt corrective measures to eliminate the hazards. Some OSHA standards add additional specific requirements that must be met by the Competent Person.
- 1.2 **Attendant** – An authorized individual who is stationed outside a sub-surface structure or an Electrical Enclosed Space to monitor the authorized entrants and to perform duties assigned including aiding individual(s) inside the sub-surface structure or Electrical Enclosed Space.
- 1.3 **Electrical Enclosed Space** – OSHA defines an Electrical Enclosed Space as a working space, such as a manhole, vault, tunnel, service box, or shaft, used for the operation and maintenance of electric power generation, transmission, and distribution lines and equipment. An Electrical Enclosed Space has a limited means of egress or entry and is designed for periodic entry under normal operating conditions. Under normal conditions, an Electrical Enclosed Space does not contain a hazardous atmosphere but may contain a hazardous atmosphere under abnormal conditions.
- 1.4 **CET Specification** – CET Specification defining private utility work within Municipal Construction Contracts.
- 1.5 **JB Specification** – Joint Bid specification defining private utility work within a NYC DDC Capital contract.
- 1.6 **Public Improvement Representative** – Con Edison employee, (Inspector, Construction Representative, Chief Construction Inspector, Project Specialist, or Manager) assigned to the Public Improvement section.
- 1.7 **Municipal Contractor** – Construction municipal contractor performing work for Municipal, State or other Public Agencies or Authorities.
- 1.8 **Electrically Competent Qualified Municipal Contractor** – is a Municipal Contractor employee designated and documented by the Municipal Contractor employer, in writing, as the electrically competent and qualified person who, by way of training and/or experience has the skills and techniques necessary to distinguish exposed live parts from other parts of electrical equipment, can identify non-insulated conductors from insulated conductors and/or cables and has the knowledge of the precautionary techniques, personal protective equipment, insulating and shielding materials, and insulated tools that are required for working on or near exposed energized electrical equipment. The Electrically Competent Qualified Municipal Contractor (ECQMC) employee can identify varying workplace electrical hazards relating to the specific operation and has the authority to take appropriate actions, as required. To meet the task specific qualifications of this guideline, the ECQMC employee must be familiar with this document, be able to demonstrate adherence, conduct job briefings and be present during critical tasks and/or operations to ensure that all crew members understand hazards associated with the job, work

procedures involved, special precautions, energy source controls and personal protective equipment requirements. The ECQMC should be onsite during the performance of all tasks in which ECQMC employees may be exposed to electrical hazards either noted in applicable sections of this guideline and/or listed in Appendix B – PI Check Point Tasks.

2.0 References

2.1 **OSHA Section 1910.269 – Electric Power Generation, Transmission & Distribution & 1926 Subpart V –Electric Power Transmission and Distribution**

2.2 Training

The OSHA Office of Training and Education (OTE) develops, directs, oversees, manages and ensures implementation of OSHA's national training and education policies and programs in support of OSHA's strategic goals with the objective of reducing occupational hazards through direct intervention, promoting a safety and health culture through compliance assistance, cooperative programs and strong leadership and maximizing OSHA effectiveness and efficiency by strengthening capabilities and infrastructure.

All Municipal Contractor employees shall be trained in and familiar with the safety-related work practices, safety procedures, and other safety requirements in section 1910.269(a)(2) and 1926 Subpart V that pertains to the Municipal Contractor employees' respective job assignments. Municipal Contractor employees shall also be trained in and familiar with any other safety practices, including emergency procedures, such as manhole rescue, that are not specifically addressed by this referenced section but that is related to their work and is necessary for their safety.

Con Edison manhole inspection and underground awareness training can be scheduled through the Con Edison TLC upon request of the municipal contractor. OSHA 10 certification cards and CPR / First Aid training are prerequisites.

2.2.1 Electrically Competent Qualified municipal contractors shall also be trained and competent in:

- a- The skills and techniques necessary to distinguish exposed live parts from other parts of electrical equipment
- b- The skills and techniques necessary to determine exposed live parts from other parts, (determination of non-insulated conductors from insulated conductors / cables).
- c- The knowledge of the precautionary techniques, personal protective equipment, insulating and shielding materials, and insulated tools that are required for working on or near exposed energized parts of electrical equipment. Generally, the Municipal Contractor will not be required to work on or near exposed/non-insulated energized parts of electrical equipment or cables. In the event special conditions exist requiring working near exposed/non insulated energized parts of electrical equipment or

cables, the Municipal Contractor shall cease working and immediately contact the authorized Con Edison Inspector so that a further assessment of the condition can be evaluated, and appropriate guidance provided.

- d- The Electrically Competent Qualified Municipal Contractor employee shall determine, through regular supervision and through inspections conducted on at least an annual basis that each Municipal Contractor employee is complying with the safety-related work practices outlined in this guidance document. Prior to entry into structures outlined in this procedure, the ECQMC employee shall ensure that any employee entering is trained and qualified.

2.2.2 A Municipal Contractor employee shall receive additional training (or retraining) by the Electrically Competent Municipal Contractor under any of the following conditions:

- a- If the Electrically Competent Qualified Municipal Contractor employee indicates that the Municipal Contractor employee is not complying with safety-related work practices
- b- If new technology, new types of equipment, or changes in procedures necessitate the use of safety-related work practices that are different from those which the Municipal Contractor employee would normally use
- c- If the Municipal Contractor employee must employ other safety-related work practices that are not normally used or that require modification from those stated in this guidance document

Note: OSHA requires retraining before commencing with a task that has not been performed within one year.

The required training shall be of the classroom and/or on-the-job type. The training shall establish Municipal Contractor proficiency in the work practices required and shall introduce the procedures necessary for compliance. The Electrically Competent Qualified Municipal Contractor shall certify that each Municipal Contractor employee has received the training required and retains records of this training to be supplied upon request by Con Edison.

3.0 Safe Entry into Sub-Surface Structures, (Electrical Enclosed Space)

All subsurface electric cable systems and related components shall be considered to be energized until they have been verified as being de-energized by qualified Con Edison electrical personnel. Prior to the state of conduit removal operations, the identity and content of the facility (conduit and cable contained therein) shall be

verified utilizing applicable Con Edison maps & plates. In case of any safety concern, the option of de-energizing shall be discussed with the PI Representative. Caution shall always be employed whenever conduits are opened to expose the interior, even if the Con Edison maps and plates indicate no live facilities.

3.1 Purpose

To establish a guideline that shall be employed for safe entry into Con Edison sub-surface structures by Municipal Contractors.

3.2 Application

Municipal Contractor personnel

3.3 Guideline

This guideline provides the requirements for practices that shall be employed for safe entry into Con Edison sub-surface structures. Municipal Contractor personnel requiring entry into Con Edison sub-surface structures shall adhere to this guideline.

3.4 Inspection/Testing

Prior to entry into a Con Edison sub-surface structure, properly trained and qualified Con Edison electrical personnel must conduct an inspection. The inspection will determine if the condition of the electrical facilities contained therein is sufficient to allow need based unrestricted access. The Con Edison electrical personnel will communicate to both PI Representative and to the ECQMC personnel any safety precautions to be taken and that the subsurface structure is safe for entry and document such findings. Any condition deemed to be un-safe through this formal inspection process would preclude granting access.

An inspection must take place daily prior to Municipal Contractor entry. Once the cover is placed on the electric subsurface structure another inspection must occur prior to Municipal Contractor entry unless the ECQMC has met the requirements outlined in Section 4.7.a. Inspections include but are not limited to:

- 1) Testing for stray voltage by a qualified Con Edison employee or an ECQMC employee who has completed applicable Con Edison training courses.
- 2) Completion of atmospheric testing.
- 3) Determination that it is safe to enter the space.
- 4) A visual inspection for any abnormalities previously defined.
- 5) Communication of inspection results and hazards to the Con Edison inspectors and the municipal contractor supervisor.
- 6) A copy of the underground inspection form can be reviewed in the field with the PI Representative in consultation with the qualified Con Edison electrical personnel upon request by the ECQMC.

3.5 Job Briefing

The Electrically Competent Qualified Municipal Contractor in charge shall conduct a job briefing with the municipal contractor's employees involved before they start the job. The briefing shall cover: the hazards associated with the job; work procedures involved; special precautions; and personal protective equipment requirements. The Electrically Competent Qualified Municipal Contractor shall instruct that all cables are to be treated as energized. Additional briefings shall be held if significant changes, which might affect the safety of the municipal contractor's employees, occur during performance of the work. The Electrically Competent Qualified Municipal Contractor shall document completion of the job briefing. A copy of the documented job briefing shall be available upon request by Con Edison.

3.6 Attendants

While work is performed in a Con Edison sub-surface structure, a Municipal Contractor Attendant shall be available in the immediate vicinity to render emergency assistance. Sub-surface structure Attendants shall comply with applicable OSHA requirements.

3.7 Hazardous Atmosphere

Municipal Contractor personnel shall perform a documented hazardous atmosphere test before entry into any Con Edison sub-surface structure and perform continuous air monitoring in compliance with applicable OSHA requirements. Any atmospheric reading deemed to be un-safe would prohibit access to the structure. The Municipal Contractor shall immediately notify the authorized Con Edison Inspector.

3.8 Personal Protective Equipment

Municipal Contractor personnel requiring entry into Con Edison sub-surface structures shall refer to and comply with applicable OSHA requirements regarding the use of Personal Protective Equipment when performing this work. Con Edison also requires that Municipal Contractor personnel assigned to work inside Con Edison sub-surface structures shall always wear Flame Resistant (FR) Clothing with a rating of 8 cal/cm² or HR2, wear a retrieval harness, and that a retrieval device be on location. In addition, an atmospheric tester must be in use continuously anytime a structure is occupied. See section 3.9 for Matrix on Con Edison's Personal Protective Equipment Guideline.

3.9 Con Edison Personal Protective Equipment Guideline

	Task	Class 0 Gloves	FR Clothing	FR Hood	Blast Goggles	Face Shield	Safety Glasses
1	Pavement breaking	N	N				Y
2	Breaking out concrete encased duct	Y	Y			Y	Y
3	Moving energized primary cables that are located outside a structure while in proximity to joints	Y	Y	Y	Y		

4	Moving primary cables outside a structure (no joints involved)	Y	Y				Y
5	Moving energized secondary cables	Y	Y				Y
6	Hand excavate to locate precast ducts	N	N				Y
7	Hand excavate to locate direct buried cables	Y	Y				Y
8	Removing cable from conduit	Y	Y				Y
9	Breaking structure for POE from outside/inside	Y	Y			Y	Y
10	Breaking sub-structure walls	Y	Y				Y
11	Pulling rope within structure with energized cable	Y	Y				Y
12	Pulling rope in enclosed spaces	Y	Y				Y
13	Building a bench or platform within a subsurface structure to support or protect cables.	Y	Y				Y
14	Breaking out unknown precast electric duct	Y	Y				Y
15	Using digging bar over electric facility	Y	N				Y
16	Using digging bar over direct buried cables	Y	Y				Y
17	Using Pneumatic clay digger in vicinity of electric facility	Y	Y				Y
18	Installing forms for field-constructed sub- surface structures from inside the designed footprint when connected cables are present	Y	Y				Y
19	Installing forms for field-constructed subsurface structures from outside the designed footprint when connected cables are present	N	N				Y
20	Installing forms for field-constructed subsurface structure prior to first energization of new cables	N	N				Y
21	Saw cutting operation	Y	N				Y
22	Hand excavate to locate cable fault	Y	Y				Y
23	Hand excavating to find service dead leg	Y	Y				Y
24	Removing underground silo	Y	Y				Y
25	Regrade	Y	N				Y
26	Build/remove shunt box w/ energized cable inside	Y	Y				Y

3.10 Access

Municipal Contractor personnel shall not climb into or out of Con Edison sub-surface structures by stepping on cables or hangers.

4.0 Removal of Conduit from Cables, Moving Energized Underground Cables & Working in Open Trenches / Excavations that Contain a D-Fault.

4.1 Purpose

Establish a guideline that shall be employed by Electrically Competent Qualified Municipal Contractor personnel, meeting OSHA & Con Edison training requirements, when removing conduit from cables and moving Con Edison energized underground cables located outside or inside structures and working in open trenches / excavations that contain a cable with a D-Fault condition.

4.2 Application

Municipal Contractor personnel

4.3 Guideline

This guideline details the requirements for practices that shall be employed when moving Con Edison energized underground cables located inside or outside of Con Edison structures. Only Electrically Competent Qualified Municipal Contractor personnel who have been trained and meet necessary OSHA & Con Edison requirements for moving energized underground cables in accordance with the following directions shall perform movement of energized cables on the Con Edison system.

4.4 Job Briefing

The Electrically Competent Qualified Municipal Contractor in charge shall conduct a documented job briefing with the Municipal Contractor's employees involved before the start of the job. The briefing shall cover: the hazards associated with the job; work procedures involved; special precautions; and personal protective equipment requirements. The Electrically Competent Qualified Municipal Contractor shall instruct that all cables are to be treated as energized. Additional briefings shall be held if significant changes, which might affect the safety of the Municipal Contractor's employees, occur during the course of the work. The Electrically Competent Qualified Municipal Contractor shall document completion of the job briefing. A copy of the documented job briefing shall be available upon request by Con Edison.

4.5 Removal of Conduit from Cables

All subsurface electric cable systems and related components shall be considered energized. Caution shall always be employed whenever conduits are opened to expose the interior cable. Refer to Appendix A for additional requirements and resources.

4.5.1. Pre-cast Concrete Conduit

- a- The conduit shall be fractured by striking the top end corner of the conduit with a 3 lb. hammer equipped with a non-conductive handle. When fracturing the conduit, all impact/chipping action shall be performed in such a manner to be directed across the top of the conduit away from any cable that may be inside of the conduit.

- b- A small piece of the concrete conduit shall be chipped away so that a visual examination of the interior of the conduit can be made to verify the presence of cable. All impact/chipping actions shall be performed in such a manner to be directed across the top of the duct, away from the cable.
- c- If cable is present, concrete-chipping operations shall continue until enough material has been removed to permit insertion of a non-conductive protective shield barrier between the conduit and cable or as directed by the authorized Con Edison Inspector based on existing field conditions. Material such as exterior grade plywood or lumber (min. thickness $\frac{3}{4}$ ") or suitably reinforced plastic sheet material (min. thickness 0.060" – e.g., Norplex Micarta NEMA Grade G-3 or G-10) shall be used for this purpose. This shield material shall provide protection for the cable during the remaining conduit removal operations. The remainder of the conduit shall be fractured using the 3 lb. hammer equipped with a non-conductive handle. Care shall be taken to avoid any impact upon the cable, either by direct or indirect hammer blows.
- d- During and after conduit removal operations, cable/conduit shall be properly supported as indicated in Section 4.7, below.

4.5.2 Concrete Encased Conduit

- a- The concrete encased conduit (including but not limited to pre-cast, fiber, tile, clay), shall be fractured by striking the top end corner of the conduit with a 3 lb. hammer equipped with a non-conductive handle. When fracturing the conduit, all impact/chipping action shall be performed in such a manner to be directed across the top of the conduit away from any cable that may be inside of the conduit.
- b- For concrete encased conduit, it may be necessary to employ a handheld cold chisel (in conjunction with the 3 lb. hammer) to remove concrete encasement. If a chisel is utilized, all impact/chipping actions shall be performed in such a manner to be directed across the top of the duct, away from the cable.
- c- If the concrete encasement is so dense as to render the use of a hammer and handheld chisel non-effective, an 8-pound sledgehammer may be employed. If neither of these devices proves effective, the use of a pneumatic chipping hammer will be permitted. The weight/size of the pneumatic chipping hammer shall not exceed 20 lbs. When utilizing a pneumatic chipping hammer, the device shall be securely positioned and be under close operator control at all times. The tool bit used for these operations shall be chisel shaped with a minimum width of two (2") inches. All impact/chipping actions shall be performed in such a manner to be directed across the top of the duct, away from the cable.
- e- A small piece of the concrete conduit shall be chipped away to permit verification of the presence of cable inside the conduit.

- f- If cable is present, concrete-chipping operations shall continue until enough material has been removed to permit insertion of a non-conductive protective shield barrier between the conduit and cable or as directed by the authorized Con Edison Inspector based on existing field conditions. Material such as exterior grade plywood or lumber (min. thickness $\frac{3}{4}$ ") or suitably reinforced plastic sheet material (min. thickness 0.060" – e.g., Norplex Micarta NEMA Grade G-3 or G-10) shall be used for this purpose. This shield material shall provide protection for the cable during the remaining conduit removal operation.
- g- After installation of the shield material has been completed, continue removal of remaining conduit and encasement, using handheld and power tools.
- h- During and after conduit removal operations, cable/conduit shall be properly supported as indicated in Section 4.7, below.

4.5.3 Wood Conduit

- a- Wooden conduit shall be split using a handheld cold chisel and a 3 lb. hammer equipped with a non-conductive handle. All impact/chipping action shall be performed in such a manner to be directed across the top of the conduit away from the cable.
- b- The chisel shall use to create a small window in the conduit that will permit a visual inspection of the conduit interior for the presence of cable.
- c- If cable is present, wood conduit material shall continue to be removed until enough material has been removed to permit insertion of a non-conductive protective shield barrier between the conduit and cable or as directed by the authorized Con Edison Inspector based on existing field conditions. Material such as exterior grade plywood or lumber (min. thickness $\frac{3}{4}$ ") or suitably reinforced plastic sheet material (min. thickness 0.060" – e.g., Norplex Micarta NEMA Grade G-3 or G-10) shall be used for this purpose. This shield material shall provide protection for the cable during the remaining conduit removal operation.
- d- After installation of the shield material has been completed, continue removal of remaining conduit
- e- During and after conduit removal operations, cable/conduit shall be properly supported as indicated in Section 4.7, below.

4.5.4 HDPE Conduit

- a- HDPE conduit shall be split using hand tools or a handheld pneumatic rotary cutting tool. All splitting/cutting actions shall be performed in such a manner to be directed across the top of the duct, away from the cable.

- b- Pneumatic Rotary Cutting Tool – A pneumatic rotary cutting tool, with a depth guide, shall be used to score an access area in the surface of the conduit. Prior to application of the cutting tool to the surface of the conduit, the depth collar on the pneumatic rotary cutting tool shall be set so that the cutting bit will penetrate approximately $\frac{3}{4}$ of the wall thickness of the conduit. After the conduit has been cut to the maximum depth allowable (such that the bit does not fully penetrate the thickness of the conduit), a 3 lb. hammer shall be used to knock out the access area (window) outlined by the cutting tool. This will permit visual inspection of the conduit interior for the presence of cable.
- c- If inspection of the interior of the conduit reveals that cable is present, a non-conductive protective shield barrier shall be inserted into the conduit between the conduit and cable. This shield material shall provide protection for the cable during the remaining conduit removal operations. Material such as exterior grade plywood or lumber (min. thickness $\frac{3}{4}$ ") or suitably reinforced plastic sheet material (min. thickness 0.060" – e.g., Norplex Micarta NEMA Grade G-3 or G-10) shall be used for this purpose. This shield material shall provide protection for the cable during the remaining conduit removal operations.
- d- If inspection of the conduit interior does not reveal the presence of cable, the remaining conduit may be removed using the tool choices mentioned in 4.5.4.a.

4.5.5 Metal Conduit

- a. When removing metal conduit, the Municipal Contractor shall first excavate and expose a collar connecting two sections of conduit. Once the collar is accessible, split and/or cut the collar off with a cutting tool that has a depth guide to inspect the conduit interior for the presence of cable. If a metal conduit collar is NOT easily accessible or found within 20 to 40 feet of open excavation, proceed to section 4.5.5.b. Note: If the work to be performed is in response to a suspected natural gas leak or in the presence of natural gas, only the use of non-powered hand tools is allowed. If work is required in the presence of a natural gas leak, further guidance will be provided by the PI Representative in consultation with Con Edison's Gas Engineering Department
- b. If a collar connecting two sections of conduit cannot be found, metal conduit will be split using hand tools and/or a handheld rotary cutting tool. All splitting actions will be directed across the top of the conduit, away from the cable. Note: If the work to be performed is in response to a suspected natural gas leak or in the presence of natural gas, only the use of non-powered hand tools is allowed. Further guidance will be provided by Gas Engineering.

- c. Score the outline of an access area onto the surface of the conduit. Do not fully penetrate the conduit with the tool while making this outline.
- d. Use this outline as a guide for further splitting and cutting operations that will eventually create a viewing window into the conduit.
- e. If inspection of the conduit interior reveals the presence of cable, insert a non-conductive protective barrier between the cable and conduit wall. The barrier will provide physical protection for the cable during remaining conduit removal operations. Materials including, but not limited to, exterior grade plywood, lumber, and Norplex Micarta are acceptable. After the installation of the non-conductive protective barrier, the removal of the remaining conduit may proceed using the tool choices mentioned in section 4.5.5.b.
- f. If inspection of the conduit interior does not reveal the presence of cable, the remaining conduit may be removed using the tool choices mentioned in section 4.5.5.b.

4.6 Visual Inspection

- a- A visual inspection of cables located outside Con Edison structures that will be moved, shall be performed by Electrically Competent Qualified Municipal Contractor personnel or the authorized Con Edison Inspector.
- b- After the conduits have been broken out (removed from the cables), the exposed cable(s) shall be inspected by the Electrically Competent Qualified Municipal Contractor personnel.
- c- The cables shall be visually inspected by the Electrically Competent Qualified Municipal Contractor personnel and determined to be free from any of the defects that would prevent relocation. Cable(s) shall be free of cracks, tears, and evidence of oil stains, swelling, or melting of the insulation. Cables shall not have any exposed conductor.

4.7 Cable Moving Operations

- a- Municipal Contractor personnel shall not move any cables or splices within an electrical manhole. Moving cables within an electrical manhole and splices regardless of location may only be performed by qualified Con Edison electrical personnel unless the Municipal Contractor personnel has completed applicable Con Edison training courses and has provided written proof of said training to the PI Representative. Whenever cables located in open excavations are moved, the Municipal Contractor shall protect the cables by ensuring the cable jacketing is not subjected to sharp edges or over bending as it exits the existing structure or the footprint of the existing structure if said structure has been demolished or is in the process of being demolished and/or rebuilt.

- b- Prior to moving any cables outside of a subsurface structure, the cables located within the associated connecting subsurface structures shall be inspected in accordance with Section 3.4 of this guideline.
- c- Municipal Contractor personnel meeting the training requirements and experienced in moving Con Edison cables only shall move cables.
- d- Cables shall not be moved until plastic "fair-leaders" are positioned at the duct edges to prevent chaffing damage.
- e- Synthetic web slings having a minimum width of two (2) inches shall support cables that have been removed from conduit. Slings shall be used in a basket hitch configuration.
- f- Conduit which house cables shall be supported using slings, cable, or rope. Conduits shall be supported in such manner as to maintain alignment with one another.
- g- Maximum distance between support points shall be four (4) feet.
- h- To prevent inadvertent over bending of the cables, the maximum vertical or horizontal offset between supports shall be one foot (1') for cable that is supported outside of conduit. For cable that is being moved while still installed in conduit, the conduit shall not be offset more than one foot per four-foot section of conduit.
- i- Each set of cables (cables from one duct/conduit) shall be moved individually. Cables from multiple ducts/conduits shall not be moved as a bundle.
- j- Relocation of cables shall always be performed in a careful manner with the movement of cable under complete control. There shall be no sudden movements of the cable or the conduit that contains cable.
- k- An observer shall be positioned to determine proper slack in structures and to ensure that joints remain properly supported on rack arms and specified offsets are maintained. This observation shall be performed from outside of the structure while the cable is being moved.
- l- Allowable horizontal and vertical offsets shall be determined based on applicable CET or JB item sketches and/or as directed by the authorized Con Edison Inspector.
- m- Cables shall not be permitted to fall freely from temporary supports.
- n- All cables supported by slings shall be visually inspected by the ECQMC personnel at the beginning and end of each work shift to ensure that no cracks, leaks, or other defects have developed.
- o- Cables shall be repositioned with care when being moved into their final position for the installation of split conduit.

4.8 Working in Open Trenches/Excavations that Contain an Energized a D-Fault

- 4.8.1** A D-Fault is defined as an abnormal condition found on an energized primary cable or splice that is presumed to be an indication of an impending fault. If the ECQMC personnel notices an abnormal condition on cable in a trench or excavation work must stop and the PI Representative shall be notified immediately to provide further guidance. If the PI Representative in consultation with qualified Con Edison electrical personnel deem the cable condition a D-Fault, the ECQMC personnel shall follow the directions noted below to continue work.
- 4.8.2** At distances greater than 20 feet from the energized D-Fault, no additional personal Protective Equipment (PPE) other than that referenced in Section 3.9 is required.
- 4.8.3** At distances greater than 10 feet but less than 20 feet from the D-Fault, a hard-hat mounted face shield is required in addition to PPE referenced in Section 3.9 above.
- 4.8.4** At distances greater than eight feet but less than 10 feet from the energized D-Fault, a hard-hat mounted full-face shield and a FR Hood in required in addition to PPE referenced in Section 3.9 above.
- 4.8.5** At distances less than eight feet from the D-Fault, no work shall be performed.
- 4.8.6** Movement of D-Faulted cable is strictly prohibited.

4.9 Personal Protective Equipment

Municipal Contractor personnel moving Con Edison energized cables shall refer to and comply with applicable OSHA requirements regarding the use of Personal Protective Equipment when performing this work. See Section 3.9 for Matrix on Con Edison's Personal Protective Equipment Guideline.

5.0 Sub-Surface Structure Break Out/Rebuild or Breaking Out a Point of Entry (POE's) in an Electrical Enclosed Space

The ECQMC must be present onsite with the municipal contractor crew to conduct the documented job briefing on each day any breakout operations are to be performed. This includes structure entry for POE, structure break out and/or rebuilds. The ECQMC shall address hazards, live cables, necessary PPE with other municipal contractor employees & request assistance from the PI Representative to arrange any required inspections with qualified Con Edison electrical personnel for any cable movement or adjustments. The ECQMC should refer to section 3.0 through 3.10 & section 4.7 of this procedure for all activities required prior to sub-surface structure entry and cable moving operations respectively. A copy of the documented job briefing shall be available upon request by Con Edison.

5.1 Activities Prior to Sub-Surface Structure Break Out, Rebuild or Creating POE's

- 5.1.1** Prior to the start of breakout operations, the location of all conduit and cable passing through the section of the wall and beneath the structure floor that is going to be broken out shall be visually identified inside and outside the structure.
- 5.1.2** When there is a potential for contact between the existing cables that have been visually identified and the tool being used to break the structure, the ECQMC shall discuss with the Public Improvement Representative if there is a possibility that Electric Operations can de-energize the cables that are in the potential zone of contact prior to breaking out the structure.
- 5.1.3** When the cables cannot be de-energized by Electric Operations then they must be protected by using acceptable non-conductive materials as noted in Section 5.2.
- 5.1.4** After cables have been protected, they shall be moved by qualified Con Edison electrical personnel or an ECQMC who has met the requirement of Section 4.7 above.
- 5.1.5** All primary cables shall be moved by or under the direct supervision of qualified Con Edison electrical personnel.

5.2 Structure or POE Break Out Operations

- 5.2.1** Using caution, expose the exterior sections for the structure that is required to be broken out (typically done in 2' – deep vertical sections) by carefully excavating on the outside of the structure. If conduit has been identified to be passing under the structure, take necessary precautions noted below.
- 5.2.2** Visually identify all conduits and cables passing through the structure and beneath the structure floor as well.
- 5.2.3** When there is a potential for contact between the existing cables that have been visually identified and the tool being used to break out the structure walls, roof floor and/or POE, protect the cables using fire rated (FR) wood, phenolic board, cable shields or other acceptable non-conductive materials., Cables on the walls in the POE area shall also be protected from falling debris using FR wood even if there is no potential for contact with said cables and the tool being utilized to break the structure.
- 5.2.4** Once all conduits and cables have been identified and protected on both the inside and the outside of the structure walls and beneath

the structure floor; and the structural integrity of the proposed break out area has been confirmed using hand tools, use the appropriate tool (up to and including a 90-pound jackhammer) to break out the section of structure wall, roof or floor that was previously prepared for break out

- 5.2.5** If a jackhammer is being used for the structure wall, roof, floor or POE breakout operation, where feasible, support the tool from underneath to prevent slippage.
- 5.2.6** Where possible, the use of a 90 lb. jackhammer shall be avoided within 8" of a live conduit. If the ECQMC's competent person determines that the breakout can only be made using a jackhammer within 8" of live conduit, a physical barrier must be placed between the jackhammer and all facilities that could possibly come in contact with the jackhammer. The Municipal Contractor may then begin utilizing the 90 lb. jackhammer using a 3" bit or wider.
- 5.2.7** After the top sections of roof or wall has been broken out, continue to excavate down to expose the next section of that wall to be broken out and repeat the process starting with section 5.2.1
- 5.2.8** For all additional walls in the structure that need to be broken out, resume operation starting with section 5.1 of this procedure.

APPENDIX – A – Breaking Out Conduit Checklist, On-the-Job Training (OJT) & Video

Breaking-Out Conduit Pre-Job Checklist

Contractor	
Location	
Date and Time	

A new Breaking-Out Conduit Pre-Job Checklist must be completed by the Foreperson each time individuals enter or change roles, and each time a Job Briefing is administered.

Roles Review	Name(s) of Individuals who will remain continuously on-site throughout this task's progress	Training in Compliance and Qualified for task?	Lead Person's Initials	
			Con Edison	Contractor
Foreperson		Yes / No		
Individual Completing On-site Peer Check		Yes / No		
Laborer(s) performing break-out		Yes / No		
Con Edison On-Site Representative		Yes / No		

Layout and Activity Review	
Layout #	
Duct(s) in Trench/Manhole	
Duct Type (CD, CED, HDPE, Metal)	
Are there Primary / Secondary electric lines? - What is energized? At what voltages?	
Are duct banks clear of all debris?	
Is there line of sight and all edges and corners?	
Will cable be moved? If so, to where and how will it be supported?	
How will bodies and tools be positioned?	

Personal Protective Equipment	
<input type="checkbox"/> Safety Boots	<input type="checkbox"/> 0 kV Gloves (Test Date on gloves: _____)
<input type="checkbox"/> Hard Hat	<input type="checkbox"/> Leather Gauntlets
<input type="checkbox"/> Safety Glasses	<input type="checkbox"/> Is a Harness Required? (EO-10130)
<input type="checkbox"/> Face Shield	<input type="checkbox"/> FR Hood and Goggles (if Primary in structure)
<input type="checkbox"/> Flame Retardant Coveralls	

Tools - All tools to be laid out in work area prior to start of activity	
<input type="checkbox"/> Claw Hammer	<input type="checkbox"/> Chipping Gun, must be less than 20 lbs. - Recommended 2"-4" piston stroke and < 1,500 BPM
<input type="checkbox"/> Chisel with at least 2" wide flat bit	<input type="checkbox"/> Micarta or similarly approved half-moon material
<input type="checkbox"/> 3 lbs. Hammer	<input type="checkbox"/> Pneumatic Rotary Cutting Tool and Blade (HDPE pipe)
<input type="checkbox"/> 8 lbs. Sledgehammer	

DOJT -OJT0070 PROCEDURE FOR REMOVING CONDUIT FROM UNDERGROUND DISTRIBUTION CABLE

1



PROCEDURE FOR REMOVING CONDUIT FROM UNDERGROUND DISTRIBUTION CABLE

- Underground electric cables are protected by conduit pipes which are buried under the roadway in the ground. The conduit protects the high voltage cables placed inside them from damage from shovels, digging bars and other work activities when excavating in the area to install new equipment. Even when using these manual devices to unearth existing ducts, extreme care must be taken not to pierce, cut, or break open the duct unless the safeguards listed in the following pages are used for your safety and the protection of the cables on the inside.
- A mechanical machine such as a backhoe should never be used to excavate around electric or gas facilities. The likelihood of the facility being damaged increases significantly when such practices are used.



GETTING PREPARED TO LOCATE DUCTS

- Before removing asphalt and concrete roadbase make sure a code 753 has been called in with the 811 center and spray marks are in place on the ground showing the path of the electric and gas lines.
- Check the spray painted mark outs against the Con Edison plates and prints. (Layout diagram, Conduit plate, Composite Feeder Plate, Low Tension mains & service and Gas Mains & Service Plate). Ask your Con Edison Representative to review these prints and the markouts with you.
- Remove concrete and asphalt within your new work zone with machine. Load out debris.
- Use a backhoe only to dig up areas where you have verified that there are no electric or gas facilities.

3



DIGGING IN AREAS WHERE YOU HAVE ELECTRIC, GAS FACILITIES, OR HAVE DISCREPANCIES BETWEEN THE MARKOUTS AND PRINTS

- Dig only using shovels and blunt edge digging bars to find electric and gas facilities. Never strike a blunt edged digging bar straight down into the soil. Precast, HDPE, Cast Iron & plastic gas mains/services can lie a few inches under the surface and the bar can still penetrate through them if you are not careful.
- When using a digging bar on hard, compacted soil, use a sideways striking motion toward the sides of the excavation, never straight down.
- Continuously remove soil from area, keep area clean of debris, locate ducts edge to edge to keep line of sight.
- Use air lance to blow out tight areas between facilities to visualize work zone.

4

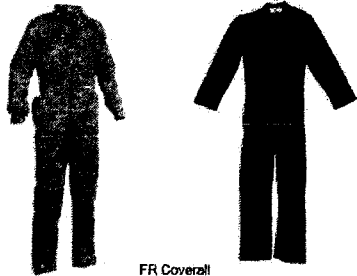


PPE REQUIREMENTS DURING DUCT BREAKOUT IN A TRENCH OR ENCLOSED SPACE

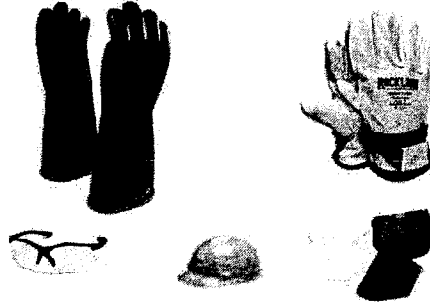
NOTE: ONLY COTTON WORK CLOTHS UNDERNEATH FR SUITS

You must wear an FR coverall during all duct break out procedures. Remove jewelry (chains, watches, rings, earrings)

You must wear Class 0 kV gloves, leather gauntlet leather protectors, helmet, safety glasses and face shield



FR Coverall



Class 0 kV Gloves, Gauntlets, Safety Glasses, Face Shield, Helmet.

7

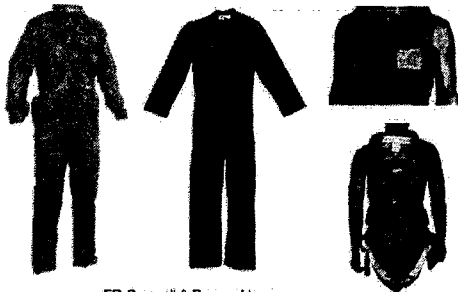


PPE REQUIREMENTS DURING DUCT BREAKOUT IN AN ELECTRICAL ENCLOSED SPACE

NOTE: ONLY COTTON WORK CLOTHS UNDERNEATH FR SUITS

You must wear an FR coverall and rescue harness during all duct break out procedures inside the EES. Remove jewelry (chains, watches, rings, earrings)

You must wear Class 0 kV gloves, leather gauntlet leather protectors, helmet, safety glasses and face shield



FR Coverall & Rescue Harness



Class 0 kV Gloves, Gauntlets, Safety Glasses, Face Shield, Helmet.

8



EQUIPMENT / TOOLS NEEDED FOR BREAKING OUT DUCTS

Precast Concrete Conduit



Only use small hammer to strike duct edges.

Insert Micarta to protect cable, keep striking away from center.

Slide Micarta along as you break off desired length of duct

Concrete Encased Duct

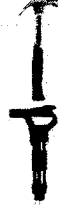


When breaking out concrete encased ducts the only tools to be used are: hammer, 3 lb. hammer. With wood/plastic handle, chisel with 1.5" head, 8 lb. Sledgehammer by striking duct edges.

If concrete is not breaking with these tools, a 20 lb. chipping gun with a 1.5" head can be used.

Make a window in the Duct, slide in a Micarta board and continue breaking out the remaining duct.

See sequence on next page.



9



CONCRETE ENCASED DUCT BREAKOUT SEQUENCE



Use a 3 lb. hammer striking edges. Advance to hammer & chisel with 1.5" head

If this is still not working, go to #2

1



Use 8 lb. sledgehammer striking Edges, not center.

If this is still not working, go to #3

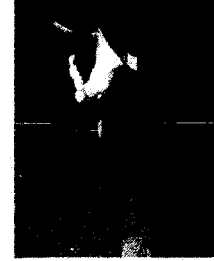
2



Use a ~~light weight~~ Chipping gun with a 2 to 4" piston stroke with a 1.5" head breaking toward edges, never straight down.

NEVER USE A JACKHAMMER, A RIVET BUSTER CHIPPING GUN, OR A BIT IN THE CHIPPING GUN LESS THAN A 1.5" HEAD. If this is still not working, go to #4

3



Visualize work zone when breaking away Material. Keep work zone clean. Remember That electrical ducts are usually stacked in Multiple rows and levels.

4

10



BREAKING OUT INTERIORS OF CONCRETE/CLAY DUCTS



Find edges & visualize all ducts. Remember that there could be several across and underneath. Keep area clean, so you can tell configuration.

5



Break out window on each top duct found. Strike Away From the center.

6



Insert Micarta "half moon" protective insert in windows on ducts. Continue breaking top rows of ducts in a horizontal direction aiding Protective Micara down the run while breaking the top & sides.

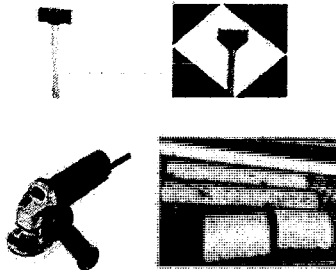
7

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HDPE (PLASTIC) CONDUIT & STEEL DUCTS

Tools Needed



3 pd. Hammer, 2" chisel, Rotary Cutting Tool & Blade, Micarta protective "half moon"

PPE Needed



FR Coverall, Class 0 kV Gloves, leather gauntlets, safety glasses, face shield and helmet

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MAKING A WINDOW IN HDPE



Visualize top of duct bank, remove excess concrete chips & dirt.
Have line of site for sections to be removed

1



Use a rotary cutting tool to score a window in the HDPE pipe top.

Do procedure slowly and carefully.
Only score 80% of the way through the conduit.

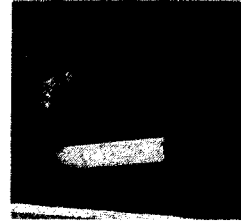
2



Use hammer & chisel to cut away remaining plastic.

Strike away from center toward sides. Never strike straight down

3



Insert Micarta "half moon" protection board.

Slide horizontally into conduit. Continue to cut open the top of conduit to desired length, moving the Micarta as you go.

Do each duct individually,
Do not lose your line of sight.

4

13



MAKING A WINDOW IN METAL CONDUIT



Visualize top of duct bank, remove excess concrete chips & dirt.
Have line of site for sections to be removed

1



If you find a coupling connecting two sections of metal duct, slide collar over, or cut off.

There may be a large enough section underneath to insert Micarta protection board for conduit removal.

2



Use a rotary cutting tool to score a window in the steel conduit pipe top.

Do procedure slowly and carefully. Only score through 90% of steel conduit.

Use chisel and hammer to break away the rest striking away from center toward the corners.

3



Insert Micarta "half moon" protection board. Slide horizontally into conduit. Continue to cut open top of conduit to desired length, moving Micarta as you go.

Do each duct individually,
Do not lose your line of sight.

4

14



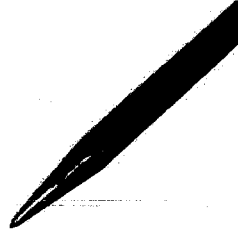
NEVER USE THESE TO FIND ELECTRICAL OR GAS FACILITIES



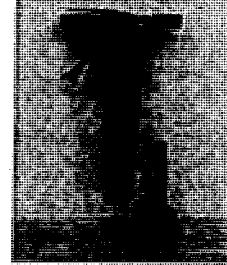
Never use a pickaxe



Never use a backhoe.
Bucket, or ramhoe attachment
by electric or gas facilities



Never use a sharp digging
Bar.
Use blunt edge bar in
a sideways motion – never
straight down



Never use a jackhammer to break
out ducts, or use in the vicinity of
a gas main or service.

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QR Code for Video



Breakout Conduit

players.brightcove.net



Breakout Conduit (Spanish subtitles)

players.brightcove.net

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Breaking Out Conduit Video -

https://players.brightcove.net/6012566853001/default_default/index.html?videoId=6283610511001

Appendix B – PI Check Point Tasks

Public Improvement (PI) - Check Point Tasks

A PI Check Point Task is defined as a construction activity involving Con Edison facilities that warrant a briefing or discussion with the PI Representative and the Municipal Contractor. This briefing should be documented by the Municipal Contractor in accordance with the applicable sections of the PI Guideline (CONST-029) and OSHA.

Work Category	Task
Demolish Manhole (MH)	Inspect MH
	Build False Roof
	Remove Forms
	Demolish Walls
	Demolish MH Floor
Build MH	Install Forms
	Remove Forms
Wingback	Inspect Site
	Break Out Conduits / Duct Systems
Excavation	Review Mark-Outs
	Excavate
Backfill	Backfill Facilities
Roadway Restoration	Mill, Pave and/or Reconstruct Roadway
Electric Pipe Install	Install Conduit or Duct Systems
Structure POE's	Inspect MH or Service Box (SB)
	Move Cable(s)
MH or Service Box (SB) Regrade	Inspect MH or SB

**UTILITY INTERFERENCE
FOR INFORMATION ONLY
ENGINEER'S ESTIMATE OF QUANTITY AND TYPES OF INTERFERENCE
FOR CONSOLIDATED EDISON
HWK2048
PAERDEGAT AVE**

CET ITEM	DESCRIPTION	UNITS	ESTIMATED QUANTITY
CET 100.2	UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECT. AND/OR TESTPIT (TYPE .2)	EA	1
CET 108.1	UTILITIES CROSSING TRENCH FOR WATERMAIN UP TO AND INCL. 12" DIAMETER (TYPE .1)	EA	1
CET 109.1	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 12" AND UP TO 24" (TYPE .1)	EA	1
CET 304 A	FURNISH, DELIVER AND INSTALL CONCRETE ROAD BASE	CY	4
CET 305	FURNISH AND INSTALL ASPHALT PAVING MIXTURE	TONS	9
CET 350	OVERHEAD ACCOMMODATION, PROTECTION OF OVERHEAD FACILITIES, POLES AND APPURTENANCES	LS	1
CET 351	INSTALL AND REMOVE "A" FRAME ON UTILITY POLES	EA	2
CET 400	TEST PITS FOR UTILITY FACILITIES	CY	10
CET 401	TRENCH EXCAVATION FOR ADJUSTMENT OF UTILITY FACILITIES	CY	18
CET 402.1	EXISTING OCCUPIED CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION W/O CONCRETE ENCASEMENT	LF	120
CET 450.1	CONSTRUCTION FIELD SUPPORT REQUIRING AVERAGE SIZE SURVEY CREW PERFORMING TYPICAL SURVEY FUNCTIONS (TYPE .1)	CRHRS	1
CET 450.2	CONSTRUCTION FIELD SUPPORT REQUIRING AVERAGE SMALL SIZE CREW CAPABLE OF PERFORMING VARIOUS TASKS (TYPE .2)	CRHRS	1
CET 450.3	CONSTRUCTION FIELD SUPPORT REQUIRING AVERAGE MEDIUM SIZE CREW CAPABLE OF PERFORMING VARIOUS TASKS (TYPE .3)	CRHRS	1
CET 802A	SPECIAL MODIFICATION OF WORK FOR INSTALLATION OF NEW SIDEWALKS	SF	50
CET 802B	SPECIAL MODIFICATION OF WORK FOR INSTALLATION OF NEW CURBS	LF	30

**CON EDISON SCOPE OF WORK
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CET 100.2	UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECT. AND/OR TESTPIT (TYPE .2) <i>At the following locations:</i> Paerdegat Avenue North and Seaview Avenue Total Quantity for CET 100.2 = 1	EA
CET 108.1	UTILITIES CROSSING TRENCH FOR WATERMAIN UP TO AND INCL. 12" DIAMETER (TYPE .1) <i>At the following locations:</i> East 76th Street Between Flatlands Avenue and Paerdegat 1st Street Total Quantity for CET 108.1 = 1	EA
CET 109.1	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 12" AND UP TO 24" (TYPE .1) <i>At the following locations:</i> Flatlands Avenue and East 76th Street Total Quantity for CET 109.1 = 1	EA
CET 304 A	FURNISH, DELIVER AND INSTALL CONCRETE ROAD BASE <i>At the following locations:</i> Paerdegat Avenue North and Seaview Avenue Total Quantity for CET 304 A = 4	CY
CET 305	FURNISH AND INSTALL ASPHALT PAVING MIXTURE <i>At the following locations:</i> Paerdegat Avenue North and Seaview Avenue Total Quantity for CET 305 = 9	TONS
CET 350	OVERHEAD ACCOMMODATION, PROTECTION OF OVERHEAD FACILITIES, POLES AND APPURTENANCES <i>At the following locations:</i> Various Locations AS SHOWN ON CONTRACT DOCUMENTS Total Quantity for CET 350 = 1	LS

**CON EDISON SCOPE OF WORK
SUPPORT AND PROTECTION
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PAERDEGAT AVE**

CET 351	INSTALL AND REMOVE "A" FRAME ON UTILITY POLES	EA
	<i>At the following locations:</i>	
	Various Locations	
	Total Quantity for CET 351 = 2	
CET 400	TEST PITS FOR UTILITY FACILITIES	CY
	<i>At the following locations:</i>	
	Various Locations	
	Total Quantity for CET 400 = 10	
CET 401	TRENCH EXCAVATION FOR ADJUSTMENT OF UTILITY FACILITIES	CY
	<i>At the following locations:</i>	
	Paerdegat Avenue North and Seaview Avenue	
	AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE	
	Total Quantity for CET 401 = 18	
CET 402.1	EXISTING OCCUPIED CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION W/O CONCRETE ENCASEMENT	LF
	<i>At the following locations:</i>	
	Paerdegat Avenue North and Seaview Avenue	
	AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE	
	Total Quantity for CET 402.1 = 120	
CET 450.1	CONSTRUCTION FIELD SUPPORT REQUIRING AVERAGE SIZE SURVEY CREW PERFORMING TYPICAL SURVEY FUNCTIONS (TYPE .1)	CRHRS
	<i>At the following locations:</i>	
	Various Locations	
	Total Quantity for CET 450.1 = 1	
CET 450.2	CONSTRUCTION FIELD SUPPORT REQUIRING AVERAGE SMALL SIZE CREW CAPABLE OF PERFORMING VARIOUS TASKS (TYPE .2)	CRHRS
	<i>At the following locations:</i>	
	Various Locations	
	Total Quantity for CET 450.2 = 1	

CON EDISON SCOPE OF WORK
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CET 450.3 **CONSTRUCTION FIELD SUPPORT REQUIRING AVERAGE MEDIUM SIZE CREW CAPABLE OF PERFORMING VARIOUS TASKS (TYPE .3)** **CRHRS**

At the following locations:

Various Locations

Total Quantity for CET 450.3 = 1

CET 802A **SPECIAL MODIFICATION OF WORK FOR INSTALLATION OF NEW SIDEWALKS** **SF**

At the following locations:

Various Locations

AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 802A = 50

CET 802B **SPECIAL MODIFICATION OF WORK FOR INSTALLATION OF NEW CURBS** **LF**

At the following locations:

Various Locations

AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 802B = 30

HWK2048
JAMAICA BAY GREENWAY- PAERDEGAT AVENUE CONNECTOR
Borough of Brooklyn
 Schedule UI: Scope of Work for CET Items

CET ITEM	DESCRIPTION	UNITS	ESTIMATED QUANTITY
CET 109.1	UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 12" AND UP TO 24" DIAMETER (TYPE .1)	EA	2
CET 350	OVERHEAD ACCOMMODATION PROTECTION OF OVERHEAD FACILITIES, POLES, AND APPURTENANCES	LS	1
CET 351T	UTILITY POLE SUPPORTS	EA	2
CET 400	TEST PITS FOR UTILITY FACILITIES	CY	15
CET 710.1	REMOVAL OF ABANDONED UTILITY STEEL/CAST IRON/PLASTIC PIPES, UP TO AND INCLUDING 12" DIAMETER PIPE	LF	10

HWK2048
JAMAICA BAY GREENWAY- PAERDEGAT AVENUE CONNECTOR
Borough of Brooklyn
Schedule UI: Scope of Work for CET Items

CET 109.1

UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 12" AND UP TO 24" DIAMETER (TYPE .1)

@ THE FOLLOWING LOCATIONS

SEC INT OF FLATLANDS AVENUE & EAST 76TH STREET

QTY(EA)
2

CET 109.1	TOTAL	2
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CET 350

OVERHEAD ACCOMMODATION PROTECTION OF OVERHEAD FACILITIES, POLES, AND APPURTENANCES

AS ENCOUNTERED & DIRECTED BY THE VERIZON FIELD REPRESENTATIVE

QTY(LS)
1

CET 350	TOTAL	1
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CET 351T

UTILITY POLE SUPPORTS

AS ENCOUNTERED & DIRECTED BY THE VERIZON FIELD REPRESENTATIVE

QTY(EA)
2

CET 351T	TOTAL	2
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CET 400

TEST PITS FOR UTILITY FACILITIES

AS ENCOUNTERED & DIRECTED BY THE VERIZON FIELD REPRESENTATIVE

QTY(CY)
15

CET 400	TOTAL	15
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CET 710.1

REMOVAL OF ABANDONED UTILITY STEEL/CAST IRON/PLASTIC PIPES, UP TO AND INCLUDING 12" DIAMETER PIPE

@ THE FOLLOWING LOCATIONS

AS ENCOUNTERED & DIRECTED BY THE VERIZON FIELD REPRESENTATIVE

QTY(LF)
10

CET 710.1	TOTAL	10
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Support and Protection

HWK2048 - Jamaica Bay Greenway - Paerdegat

Paerdegat Avenue North Avenue North

Bklyn

Item	Unit	Est. Quantity
CET 100.1-Utilities Crossing Trench For Cb Chute Connection &/Or Test Pits (Type .1) (EA)	EA	3
CET 101.1-Utilities Crossing Trench For Sewers Over 12" To 24" Diameter (type .1) (EA)	EA	4
CET 300-Special Care Excavation & Backfilling (CY)	CY	15
CET 300A-Special Care Excavation and Backfilling for Gas Transmission Mains. (Transmission Main is described as any gas main with a MAOP greater than 124 psig) (CY)	CY	75
CET 400-Test Pits For Utility Facilities (CY)	CY	20
CET 502-Removal of Abandoned Gas Facilities With Possible Coal Tar Wrap. All Sizes. (LF)	LF	30
CET 636EA-Adjustment Of Utility Hardware (Under 7") (EA)	EA	10
CET 636EB-Adjustment Of Utility Hardware (7" To 14") (EA)	EA	3
CET 636EC-Adjustment Of Utility Hardware (14" To 30") (EA)	EA	1
CET 700-Special Modification Of Work Methods To Accommodate /Protect Underground Facilities With Limited Cover (CY)	CY	10
CET 710.1-Removal Of Abandoned Utility Steel/Cast Iron/Plastic Pipes, Up To and Including 12" Diameter Pipe (LF)	LF	20
CET 802A-Special Care Excavation And Restoration For Sidewalk Work (SF)	SF	200
CET 802B-Special Care Excavation And Restoration For Curb Work (LF)	LF	150

CET Item	Est. Quantity
CET 100.1-Utilities Crossing Trench For Cb Chute Connection &/Or Test Pits (Type .1) (EA)	
AS ENCOUNTERED AND REQUESTED BY NATIONAL GRID	3
	3
CET 101.1-Utilities Crossing Trench For Sewers Over 12" To 24" Diameter (type .1)	
AS ENCOUNTERED AND REQUESTED BY NATIONAL GRID	4
	4
CET 300-Special Care Excavation & Backfilling (CY)	
AS ENCOUNTERED AND REQUESTED BY NATIONAL GRID (10 svcs crossing water main)	15
	15
CET 300A-Special Care Excavation and Backfilling for Gas Transmission Mains. (Transmission Main is described as any gas main with a MAOP greater than 124 psig) (CY)	
AS ENCOUNTERED AND REQUESTED BY NATIONAL GRID	75
	75
CET 400-Test Pits For Utility Facilities (CY)	
AS ENCOUNTERED AND REQUESTED BY NATIONAL GRID	20
	20
CET 502-Removal of Abandoned Gas Facilities With Possible Coal Tar Wrap. All Sizes. (LF)	
AS ENCOUNTERED AND REQUESTED BY NATIONAL GRID	30
	30
CET 636EA-Adjustment Of Utility Hardware (Under 7") (EA)	
AS ENCOUNTERED AND REQUESTED BY NATIONAL GRID	10
	10
CET 636EB-Adjustment Of Utility Hardware (T To 14") (EA)	
AS ENCOUNTERED AND REQUESTED BY NATIONAL GRID	3
	3
CET 636EC-Adjustment Of Utility Hardware (14" To 30") (EA)	
AS ENCOUNTERED AND REQUESTED BY NATIONAL GRID	1
	1
CET 700-Special Modification Of Work Methods To Accommodate /Protect Underground Facilities With Limited Cover (CY)	
AS ENCOUNTERED AND REQUESTED BY NATIONAL GRID	10
	10

CET Item

Est. Quantity

CET 710.1-Removal Of Abandoned Utility Steel/Cast Iron/Plastic Pipes, Up to Including 12" Diameter Pipe (LF)

AS ENCOUNTERED AND REQUESTED BY NATIONAL GRID

20

20

CET 802A-Special Care Excavation And Restoration For Sidewalk Work (SF)

AS ENCOUNTERED AND REQUESTED BY NATIONAL GRID

200

200

CET 802B-Special Care Excavation And Restoration For Curb Work (LF)

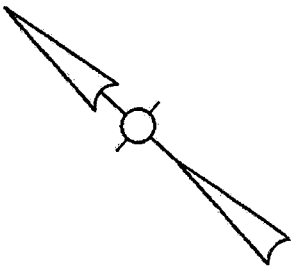
AS ENCOUNTERED AND REQUESTED BY NATIONAL GRID

150

150

SCHEDULE U-3

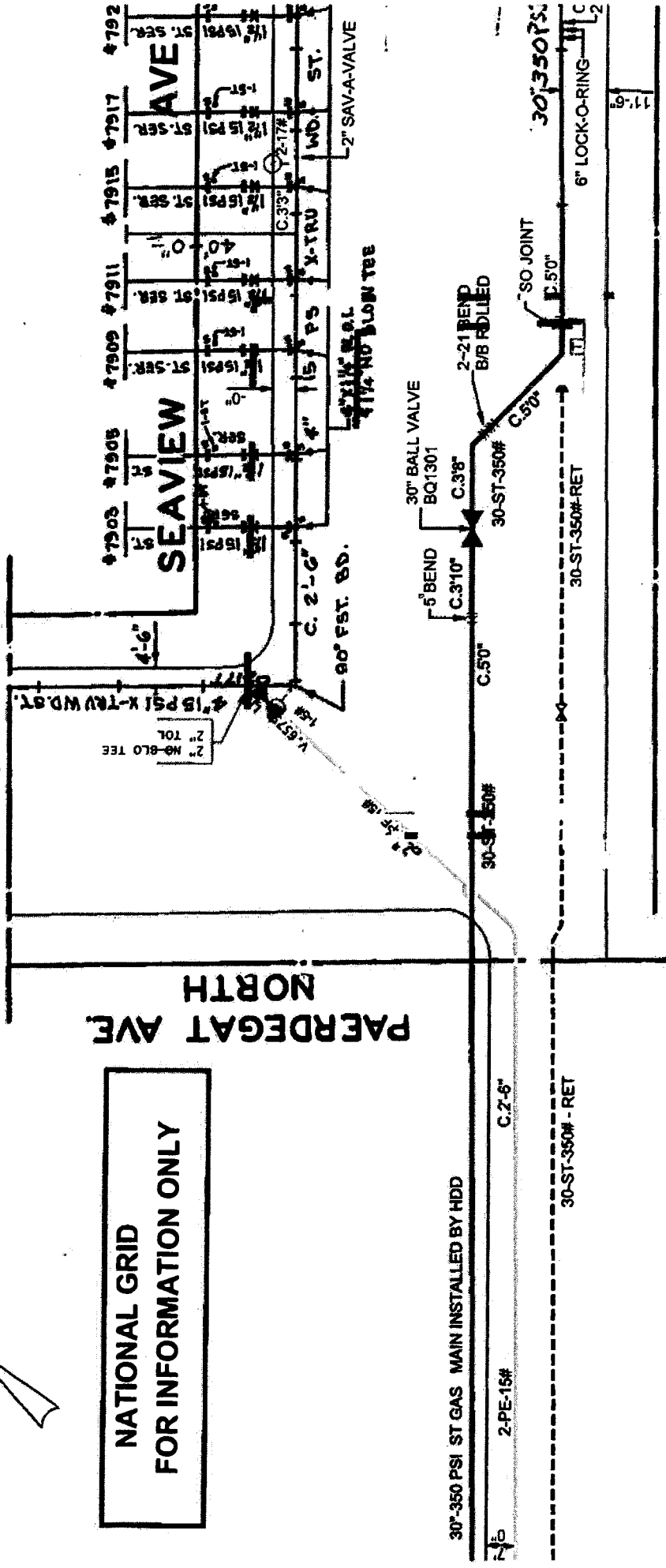
(NO TEXT IN THIS SECTION)



NATIONAL GRID
FOR INFORMATION ONLY

PAERDEGAT AVE
NORTH

70A-9



SHT 1 of 1

UI-40

CET300A

Special Care Excavation and Backfilling for Gas Transmission Mains. (Transmission Main is described as any gas main with a MAOP greater than 124 psig)

1. Description:

Under this section, the contractor shall provide all labor, materials (except for sand to be utilized for backfill of a one foot envelope around the facility to be furnished by the facility operator), equipment, and incidentals required to support and protect the integrity of Gas Transmission Main during excavations. This facility is owned by the gas company operating in the area, hereafter referred to as facility operator. The work shall be performed in accordance with the contract plans, specifications and at the directions of the Resident Engineer in consultation with authorized representatives of the facility operator.

2. Applicability of Section:

This section shall apply to Transmission Main of various sizes located within any excavation sheeted or unsheeted (excavation refers to any excavation performed for city work and includes excavations performed that are to be subsequently unsheeted/sheeted using approved shoring methods and paralleling, encroaching and crossing any excavation. Parallel facilities are not exposed at any time during excavation (within 2' of edge of excavation)). Encroaching facilities are partially/fully exposed inside the limit of excavation. This section shall also apply to gas facility crossing catch basins excavation and catch basins sewer connections (chutes), water mains, fire hydrant branch connections, sanitary sewer, storm sewer, combination sewer, house sewer and/or water service connections excavations. The excavation around fully exposed live gas facilities along and within limits of excavation shall be covered by this section also, however the support requirement, if any is required, of such facilities is beyond the scope of these specifications and therefore shall be the responsibility of facility operator to determine and prescribe, at no cost to the City contract, but shall be a matter of adjustment between the contractor and facility operator.

3. Payment Restriction:

The bid item specified under this section shall not be used in combination with items covered under other sections for work done due to a particular gas facility. This item shall not be paid for new gas facilities when trenching for such new facilities has been performed by the contractor of record in common with trench excavation for City Work (overlapping trench limits). The cost of excavating with care as defined in this section shall be deemed included in the cost of trench excavation for the new gas facilities. This restriction shall apply even if such gas common trench excavation is not part of the contract. If facilities are in direct interference with City work, meaning that "minimum clearances" described in the General Provisions for Gas Cost Sharing (Para. No.8) cannot be maintained, the excavation shall be abandoned and the contractor shall be compensated as per the provisions specified in Paragraphs Nos. 5 and 6 of this item (301B).

4. Method of Construction:

All excavations in the vicinity of gas facilities shall be as required by NYS Industrial Code 753. No saw cutting of pavement or masonry for gas mains having less than 2 feet of cover to break asphalt/concrete as determined by the facility operator. The contractor shall use power excavation for the removal of pavement or masonry but only to the depth of such pavement or masonry (**breaking of pavement or masonry shall be done by means of hand held pneumatic breaking equipment**). Upon removal of pavement or masonry the contractor shall use hand excavation methods only (**pick and shovel; no power tools**) to ascertain the clearances of these facilities with respect to the proposed excavation. Once the location of these facilities with respect to the proposed excavation is verified to the satisfaction of the Resident Engineer and the facility operator the contractor shall then proceed with hand only within the zone of protection described as 2 feet from the face of the facility in all directions of the facility as required to preserve the integrity of the facility. Once outside of the zone of protection as described above the contractor may use a combination of hand and machine to complete the excavation.

5. Method of Payment:

The unit price for this work item shall be based on cubic yard (CY) of average excavation with special care and, is to be considered as an incremental cost for performing City work with gas facilities interferences.

6. Method of Measurement:

A. For Paralleling Facilities:

Volume calculated as: Depth as measured from existing street surface to the bottom of facility, multiplied by, the width measured as two (2) feet from the face of excavation toward the center of excavation, multiplied by the length of parallel facility, divided by twenty-seven (27) cubic feet per cubic yard Only hand excavation shall be utilized within the zone of protection identified as 2 feet from face of facility, beyond 2 feet from the face of facility the contractor can use a combination of hand and machine.

B. For Encroaching Facilities:

Volume calculated as: Depth as measured from existing street surface to the bottom of facility, multiplied by, the width measured as two (2) feet plus the exposed facility toward the center of excavation, multiplied by the length of the encroached facility, divided by twenty-seven (27) cubic feet per cubic yard Only hand excavation shall be utilized within the zone of protection identified as 2 feet from face of facility, beyond 2 feet from the face of facility the contractor can use a combination of hand and machine.

C. Fully Exposed Gas Facilities:

Volume calculated as: Depth as measured from existing street surface to the bottom of facility, multiplied by, the width measured as two (2) feet from the face of the facility on either side plus the facility, multiplied by the length of the facility, divided by 27 cubic feet

per cubic yard. Only hand excavation shall be utilized within the zone of protection identified as 2 feet from face of facility in all directions, beyond 2 feet from the face of facility in all directions the contractor can use a combination of hand and machine.

D. For Additional Excavation And Restoration Due To So Called "Loss Trench", When The Integrity Of Pavement And Soil Above And Around Existing Live Gas Facilities Cannot Be maintained Due To Its Lack of Cohesiveness:

Volume shall be calculated as: Depth of unsheeted trench excavation multiplied by width measured as distance of facility from closest edge of unsheeted excavation plus, width of facility proper plus, one (1) foot or a maximum width of three (3) feet multiplied by length of facility fully exposed divided by, twenty-seven (27) cubic feet per cubic yard.

E. For Facilities Crossing Excavation For Catch Basins, Or Chutes Installations (When NYCDEP Funded) Or Fire Hydrant Branch Connections, Or Unsheeted Water Main Trench, Or House Sewer And/Or Water Services:

Volume calculated as: Depth as defined above multiplied by, the width taken as the outside diameter of pipe or the width of structure plus one (1) foot on either side (two (2) feet), multiplied by, the length of exposed facility crossing the trench, divided by twenty-seven (27) cubic feet per cubic yard.

7. Price to Cover:

The bid price shall also cover all additional supervision, labor, material, equipment and insurance necessary to excavate while protecting and maintaining (excluding supports for fully exposed live gas) gas facilities without disruption of service to the public and in accordance with contract specifications. The price shall also include, changes of sheeting method and excavation width configuration where necessary to accommodate gas facilities in their existing locations; difficulties during the installation of catch basins, chute connections, hydrant branch, and house sewer, sanitary sewer, storm sewer, combination sewer and water connections under or over gas facilities; loss of productivity due to slower rate of excavation (special care) during excavation, compaction, removal of sheeting from the facilities, extra roadway base restoration and temporary pavement, associated maintenance of traffic, barricades, and traffic plates that may be required to temporarily close and/or complete the work. Breaking shall be done by means of hand held pneumatic breaking equipment. Inspection of exposed mains shall be performed by facility operator in a timely fashion and shall not unduly impede contractor's progress or productivity.

CET502 - Removal Of Abandoned Gas Facilities With Possible Coal Tar Wrap. All Sizes.

1. Description:

Under this section the Contractor shall provide all labor, materials, equipment, insurance and, incidentals required for the removal of abandoned gas mains, services or appurtenances thereof, located within the street shown on the contract plans, owned by the gas company operating in the project area (facility operator), used or to be used for or in connection with or to facilitate the conveying, transportation, distribution or furnishing of gas (natural or manufactured or mixture of both) for light, heat, or power, but does not include property used solely for or in connection with business of selling, distributing or furnishing of gas in enclosed containers. Such removal shall include only abandoned gas facilities that interfere with (i.e. cause additional work) City work. These gas facilities may be coated with Coal Tar Wrap and so, may require special handling and disposal methods as specified in National Grid/KeySpan Energy Standard Operating Procedure 12-2, Coal Tar Wrap Handling and 12NYCRR56.

2. Determination Of Operating Status Of Gas Facilities:

The Contractor shall notify facility operator, as required by New York State Industrial Code 753. Gas facilities shall not be removed without the approval of the facility operator whose authorized representative shall certify in writing (specific facility or area wide facilities certification) and in a timely manner acceptable to the Resident Engineer that abandoned facilities are free of combustible gas and any other environmental contaminants prior to removal. The Resident Engineer shall rely on the facility operator's certification. The facility operator may request the excavation of test pits (See Section 400) for this determination ahead of City work and, the Contractor shall provide safe access, facilitate and permit facility operator to enter test pit excavations for the purpose of testing gas facilities to be removed by the Contractor. However, the facility operator may prefer to make this test during performance of City work, in order to issue the above certification. This shall be permitted provided that it is agreed that additional costs, if any, resulting from this choice shall be a matter of adjustment between the Contractor and the facility operator only, and at no cost to the City contract. Should such investigation result in the determination that the abandoned gas facilities do not contain Coal Tar Wrap then the removal of said facilities shall be covered under separate item (See Section 710).

3. Requirements:

The City Contractor shall excavate abandoned gas facility sufficiently, either in its entirety, or at locations determined by Contractor to allow the removal of Coal Tar Wrap (if present on the abandoned gas facility) and to facilitate the safe extraction of manageable lengths of abandoned pipe without damage to adjacent facilities, utilities or City structures either parallel to or crossing above or below abandoned gas facility. The Contractor is to allow access to the designated cutting points within the Contractor's trench by authorized National Grid/KeySpan personnel who will remove the Coal Tar Wrap as per National Grid/KeySpan procedures. This work by National Grid/KeySpan personnel shall be performed in a timely fashion and shall not unduly impede the Contractor's progress and/or productivity. Upon completion of the coating removal, the Contractor shall be allowed to cut, or grind the gas facility and remove the section of abandoned pipe. The Contractor at a site designated by the Contractor shall stockpile the removed pipe. The facility operator will be responsible to provide trucking and disposal services with its own personnel and shall remove the stockpiled pipes during off hours or during such time as agreed to by the Contractor. Since the pipe removed will remain the property of the facility operator and is to be disposed of by the facility operator, the facility operator shall be responsible for any required notifications, filings, dump charges and incidentals associated with the disposal of abandoned gas facilities found to contain Coal Tar Wrap.

4. Method Of Measurement:

Abandoned gas pipeline removal shall be measured for payment per linear foot of pipe and appurtenances removed.

5. Price To Cover:

CET502

The price shall cover all additional cost of supervision, labor, materials, equipment and insurance necessary to complete this work in accordance with the contract plans and specifications, including excavation by hand around and under other City and facility operator owned properties and, where necessary, the support and protection of such properties. The cost shall also include hand excavation in the area(s) of proposed abandoned pipe cut(s), and/or cutting of abandoned gas pipes and stockpile of removed sections of abandoned pipe and associated maintenance and protection of traffic, blocking and temporary fencing if required. The unit price shall also cover sealing open ends remaining in the excavation with concrete or end caps (end caps to be provided by the facility operator) and backfilling of the area where the abandoned pipeline has been removed with clean backfill material. This item does not include any type of extra excavation, backfilling, compaction, pavement removal and/or restoration (temporary and permanent) associated with abandoned pipe removal ("lost trench"), all of which are covered under separate Section 300. The price shall also include allowance for any loss of productivity by the Contractor due to required facility operator work to remove pipe coating and prepare pipe for cutting as well as any change in Contractor's excavation method, additional trucking and/or stockpiling costs.

END OF SECTION UI-PAGES

THE SECTION UI-PAGES CONSIST OF FIFTY-NINE (59) PAGES AND TWELVE (12) SHEETS OF PRIVATE UTILITY DRAWINGS ARE ATTACHED TO THE CONTRACT PLANS



**Department of
Design and
Construction**

**DIVISION OF INFRASTRUCTURE
BUREAU OF DESIGN**

VOLUME 3 OF 3

PROJECT ID: HWK2048

**RECONSTRUCTION OF JAMAICA BAY GREENWAY –
PAERDEGAT AVENUE NORTH CONNECTOR**

**FLATLANDS AVENUE
FROM RALPH AVENUE TO EAST 76TH STREET**

**EAST 76TH STREET / PAERDEGAT AVENUE NORTH
FROM FLATLANDS AVENUE TO PAERDEGAT 2ND STREET**

**PAERDEGAT AVENUE NORTH
FROM PAERDEGAT 15TH STREET TO SEAVIEW AVENUE**

**INCLUDING BIKE PATH, CURB AND SIDEWALK, SEWER, WATER MAIN, STREET
LIGHTING, AND TRAFFIC WORK**

TOGETHER WITH ALL WORK INCIDENTAL THERETO

**BOROUGH OF BROOKLYN
CITY OF NEW YORK**

Contractor

Dated _____, 20____
