
**SUPPLEMENTAL REMEDIAL INVESTIGATION
REPORT FOR THE FORMER FARRINGTON
STREET GAS WORKS SITE
QUEENS, NY**

Prepared For:



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“I, Daniel Martoccia, certify that I am currently a Qualified Environmental Professional as defined in 6 NYCRR Part 375 and that this Report was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10) and that all activities were performed in full accordance with the DER-approved work plan and any DER-approved modifications.”

A handwritten signature in black ink, appearing to read "Daniel Martoccia".

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TABLE OF CONTENTS

	Page
SECTION 1 INTRODUCTION AND SITE OVERVIEW	1-1
1.1 Supplemental Remedial Investigation Objectives	1-1
1.2 Report Organization.....	1-2
1.3 Site Overview	1-2
1.4 Site History	1-2
1.5 Summary of Previous Investigations	1-3
SECTION 2 SUPPLEMENTAL SITE INVESTIGATION ACTIVITIES	2-1
2.1 Site Inspection and Deviations from Work Plan	2-1
2.2 Groundwater Sampling.....	2-1
2.3 NAPL Sampling.....	2-2
2.4 Hydraulic Conductivity Tests	2-2
2.5 Tidal Study.....	2-2
2.6 Management of Investigation-Derived Waste	2-3
2.7 Data Validation and Reporting	2-3
2.8 Groundwater Modeling.....	2-3
SECTION 3 SUPPLEMENTAL SITE INVESTIGATION RESULTS.....	3-1
3.1 Site Hydrogeology	3-1
3.2 Groundwater Sampling Results	3-1
3.3 NAPL Sampling Results.....	3-3
3.4 Hydraulic Conductivity Testing	3-5
3.5 Tidal Study Results.....	3-5

3.6 Groundwater Modeling.....	3-5
SECTION 4 CONCLUSIONS AND RECOMMENDATIONS.....	4-1
4.1 Summary of Findings.....	4-1
4.2 Conclusions.....	4-2
SECTION 5 REFERENCES.....	5-1

LIST OF TABLES

Table 1	Groundwater Gauging Results
Table 2	Groundwater Analytical Data
Table 3	Summary of Hydraulic Conductivity Results

LIST OF FIGURES

Figure 1	Site Location Map
Figure 2	Former MGP Structures
Figure 3	Sample Location Map
Figure 4	Groundwater Contour Map
Figure 5	VOC and SVOC Exceedances in Groundwater
Figure 6	NAPL Sampling – Specific Gravity versus Temperature
Figure 7	NAPL Sampling – NAPL versus Water Viscosity
Figure 8	Type Curves of NAPL Transmissivity and CMW-38 Test Attempt
Figure 9	Summary of Tidal Influence
Figure 10	Groundwater Model Scenario 1 – Existing Conditions
Figure 11	Groundwater Model Scenario 2 – Barrier Wall
Figure 12	Groundwater Model Scenario 3 – ISS and Barrier Wall
Figure 13	Comparison of Groundwater Velocities for Each Scenario

TABLE OF CONTENTS (CONTINUED)

LIST OF APPENDICES

APPENDIX A	GROUNDWATER SAMPLING LOGS
APPENDIX B	DATA USABILITY SUMMARY REPORT
APPENDIX C	LABORATORY ANALYTICAL REPORT - GROUNDWATER
APPENDIX D	LABORATORY ANALYTICAL REPORT - NAPL
APPENDIX E	HYDRAULIC CONDUCTIVITY DATA
APPENDIX F	GROUNDWATER MODELING REPORT

SECTION 1

INTRODUCTION AND SITE OVERVIEW

1.1 SUPPLEMENTAL REMEDIAL INVESTIGATION OBJECTIVES

This Supplemental Remedial Investigation Report (SRIR) presents the results of supplemental remedial investigation (SRI) activities conducted by Parsons on behalf of Consolidated Edison Company of New York, Inc. (Con Edison) for the former Farrington Street Gas Works Site (the “Site”) located in Queens, New York (Figure 1). The SRI activities were conducted in accordance with the *Former Farrington Street Manufactured Gas Plant Site (Site No. V00560) Supplemental Remedial Investigation Work Plan (SRIWP)* (Parsons, 2018) approved by the New York State Department of Environmental Conservation (NYSDEC) on September 12, 2018.

The purpose of the SRI was to collect additional Site data to further characterize Site conditions in support of the evaluation of remedial alternatives for the Site. These additional Site data include the following:

- One (1) comprehensive groundwater sampling event, to include gauging, sampling, and analyses of all existing monitoring wells on Parcel 1, Parcel 2, in the vicinity of the Market Area of Parcel 1 (“Market Area”), and on adjacent properties to the south-west and east, to characterize current groundwater conditions at the Site with respect to dissolved phase MGP-related impacts;
- Performance of groundwater conductivity testing in existing groundwater monitoring wells, to characterize and model Site groundwater flow, both under current conditions and under potential post-remediation conditions;
- Performance of a tidal study in select monitoring wells;
- Collection and characterization of NAPL samples from select monitoring wells to assess NAPL migration behavior at the Site; and
- Performance of groundwater modeling to evaluate groundwater flow conditions under the following scenarios:
 - Existing site conditions;
 - Installation of subsurface barrier walls around Parcel 1, including the parking lot and Market Area, and around Parcel 2; and
 - Performance of in-situ stabilization/solidification (ISS) within the parking lot areas of Parcel 1 and Parcel 2 and installation of a subsurface barrier wall around the Market Area.

The potential remedial scenarios simulated during the groundwater modeling are further discussed in Sections 2.8 and 3.6.

1.2 REPORT ORGANIZATION

The SRI was conducted by Parsons in November 2018. The field investigation activities are documented in this SRIR in the following sections and appendices:

- Section 1: Introduction and Site Overview
- Section 2: Supplemental Site Investigation Activities
- Section 3: Supplemental Site Investigation Results
- Section 4: Conclusions and Recommendations
- Appendix A: Groundwater Sampling Records
- Appendix B: Data Usability Summary Report
- Appendix C: Laboratory Analytical Report - Groundwater
- Appendix D: Laboratory Analytical Report - NAPL
- Appendix E: Hydraulic Conductivity Data
- Appendix F: Groundwater Model Report

1.3 SITE OVERVIEW

The Site is located at 31-06 to 31-24 and 31-37 to 31-53 Farrington Street in Queens, New York. For the purposes of describing the Site, it has been divided into Parcels 1 and 2 ([Figure 2](#)). Field activities were conducted at each parcel as part of this SRI. The Site consists of approximately 6.17 acres spanning several city blocks, which contain several commercial properties, identified as Block 4406 Lots 9, 28, 30, 30R, 50 and 56, Block 4408 Lot 1R, and Block 4637 Lot 1. The Site is bordered to the north by the Whitestone Expressway Service Road, to the east by Farrington and Linden Streets, to the south by 32nd Avenue (formerly Myrtle Avenue), and to the west by Downing Street. The Site is located approximately 2,000 feet (ft) northeast of Flushing Creek, 1,200 feet southwest of Mill Creek, and 4,000 feet east of Flushing Bay. According to the New York City Department of City Planning, the Site and northwestern, western, southwestern, and southern abutting properties are zoned as M2-1 medium manufacturing districts (medium performance), and the abutting properties east of Farrington Street are zoned as M1-1 light manufacturing districts (high performance).

In Parcel 1, the Site presently contains a Stop and Shop grocery and pharmacy, various commercial stores, and a paved parking area. Parcel 2 consists of a mixed paved and gravel lot that is utilized as an equipment storage, trailer storage, and material lay down area.

1.4 SITE HISTORY

Historical research was previously conducted and documented in the Site History Research Report (ENSR, 2003). Based on this report, the Site was owned and/or operated as a MGP by several different power companies between 1887 and the 1940s. Prior to the initiation of manufactured gas operations in 1887, the original Site boundaries included a smaller tract of land (the southwestern portion of Parcel 2), which was originally subdivided into smaller private

properties. Flushing Gas Light Company acquired portions of the original Site property between 1859 and 1901 and operated the MGP until 1889. Between 1901 and 1905, Newton and Flushing Gas Company, a subsidiary of the New York and Queens Gas Co., operated the Site and MGP, in addition to expanding the property boundaries into the northwestern portion of Parcel 2 in 1901. In 1905, the New York and Queens Company acquired the portion of the property previously owned by Flushing Gas Light Company and Newton and Flushing Gas Light Company. Between 1909 and 1921, New York and Queens Gas Company acquired and expanded the MGP into the eastern portions of Parcels 1 and 2. Con Edison purchased Parcel 3, to the east of Parcel 2, from New York and Queens Gas Company of February 26, 1924. Between 1924 and 1976, a three million cubic foot waterless gasholder and related equipment and structures occupied Parcel 3. After the MGP was retired in 1944, the holder in Parcel 3 was used for storage of gas that was produced at other Con Edison plants or purchased from other utilities. New York and Queens Gas Company merged with Con Edison on June 1, 1936, at which time Con Edison assumed operation of the MGP, then located in present-day Parcels 1, 2, and 3 (ENSR, 2003). [Figure 2](#) depicts the approximate locations of the former historic structures at the Site.

1.5 SUMMARY OF PREVIOUS INVESTIGATIONS

A Site Characterization of Parcel 2 was performed by Parsons in 2009, the scope of which included the installation of test pits, monitoring wells, and soil borings. A two-phase Remedial Investigation on Parcels 1 and 2 was conducted by Parsons between 2011 and 2015, the scope of which included the installation of soil boring and monitoring wells, as well as sampling of soils, soil gas, groundwater, and NAPL for forensic analysis. [Figure 3](#) depicts the soil boring and monitoring well locations installed at the Site as part of both the Site Characterization and Remedial Investigation field efforts. The collected data pertaining to Parcels 1 and 2 is presented in the *Site Characterization Report for the Former Farrington Street Gas Works Site* (Parsons, 2017a), and the *Remedial Investigation Report for the Former Farrington Street Gas Works Site* (Parsons, 2017b).

SECTION 2

SUPPLEMENTAL SITE INVESTIGATION ACTIVITIES

The following sections describe the field investigation activities conducted as part of the SRI. Parsons personnel mobilized to the Site and conducted field investigation activities between November 13th and November 30th, 2018. Field investigation activities were conducted in accordance with the NYSDEC approved SRIWP. Deviations from the SRIWP are detailed below. Field activities included groundwater gauging and sampling, sampling for non-aqueous phase liquid (NAPL), a tidal study, and hydraulic conductivity tests. Sampling locations are presented on [Figure 3](#). Following the SRI field activities, data were utilized in a numerical groundwater flow model to assess Site groundwater conditions and potential remedial alternative scenarios detailed in Section 2.8 and Section 3.6.

2.1 SITE INSPECTION AND DEVIATIONS FROM WORK PLAN

On November 9th and 12th, 2018, Parsons conducted a field reconnaissance at the Site to visually identify the locations of existing monitoring wells. During the field reconnaissance, it was determined that monitoring wells MW-13, MW-14, MW-16, MW-17, MW-18, MW-22, CMW-37, and CMW-39 had been covered and/or destroyed during pavement cover replacements and/or general Site activities, and therefore were not included in SRI field activities. As a result, alternative locations (MW-15, MW-19, MW-30, MW-41, and CMW-36) were selected for the tidal study and slug testing. Adjustments to sampling locations were made in consultation with Con Edison and the NYSDEC.

2.2 GROUNDWATER SAMPLING

On November 6th, November 14th, November 15th, and November 21st, 2018, groundwater samples were collected from twelve (12) groundwater monitoring wells (MW-15, MW-19, MW-20, MW-21, MW-25, MW-27, MW-28, MW-30, CMW-36, CMW-38, CMW-40, and MW-CSB-60). It should be noted that CMW-36 was sampled on November 6, 2018 as part of the groundwater sampling event conducted at the adjacent Holder site (Parcel 3) and, therefore, was sampled for emerging contaminants in addition to the laboratory analyses indicated below. The rest of the Site's monitoring wells were sampled during the dates indicated above. Prior to collecting groundwater samples, the depth to groundwater and the thickness of NAPL (if present) was measured in the monitoring wells using an electronic oil/water interface probe attached to a measuring tape accurate to 0.01 feet. [Table 1](#) provides a summary of groundwater level measurements, NAPL thicknesses, and elevations.

Groundwater sampling was performed in accordance with United States Environmental Protection Agency (USEPA) guidance *Low Stress Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells* (USEPA, 2010). Prior to purging, the headspace within each well was screened with a photoionization detector (PID) for total volatile organic carbon (VOC) compounds. Each well was purged using a peristaltic pump and low-flow purging techniques. Water quality parameters including temperature, conductivity, pH, dissolved oxygen, oxidation reduction potential (ORP), and turbidity were measured approximately every five minutes until three (3) consistent consecutive readings were collected.

Once stabilization was achieved, groundwater samples were collected using a peristaltic pump and dedicated tubing. Water quality parameter measurements and observations recorded during sampling activities are documented on the groundwater sampling records provided in [Appendix A](#). Groundwater samples were submitted for laboratory analysis by Test America of Edison, New Jersey, a NYSDOH approved Environmental Laboratory Analysis Program (ELAP) laboratory certified for analyses using Analytical Services Protocol (ASP), for analysis of volatile organic compounds (VOCs) via Method 8260C, semi-volatile organic compounds (SVOCs) via Method 8270D, cyanide via Method 9012B, and TAL metals via Methods 6010D and 7470A. Non-dedicated sampling equipment (e.g., oil/water interface probe) were decontaminated between sampling locations. Decontamination water was placed in 55-gallon drums and handled as described in Section 2.6.

2.3 NAPL SAMPLING

Three (3) samples of NAPL were collected from monitoring wells MW-15, MW-19, and CMW-38. NAPL samples were submitted to PTS Laboratories of Houston, Texas for the laboratory analysis of density, viscosity, and interfacial tension.

Results pertaining to NAPL sampling and interpretation of Site NAPL mobility are summarized in Section 3.3.

2.4 HYDRAULIC CONDUCTIVITY TESTS

To estimate hydraulic conductivity at the Site, in-situ hydraulic conductivity tests (slug tests) were performed at twelve (12) wells (MW-15, MW-19, MW-20, MW-21, MW-25, MW-27, MW-28, MW-30, CMW-36, CMW-38, CMW-40, and MW-CSB-60).

The slug tests were conducted by placing a Mini TROLL-Pro™ pressure transducer/data logger into the well and allowing the water level to equilibrate. A slug of known volume was then lowered into the well to displace the water. The slug was constructed of steel, filled with sand, capped, and sealed. Upon lowering the slug approximately 2-feet past the top of the water table within the well, a falling head test commenced. The data logger then continuously recorded the water level at 1 second intervals as it decreased during the falling head test. After equilibrium was reached, the slug was withdrawn, and the water level was recorded again at 1 second intervals as it rebounded during the rising head test.

Upon completion of the hydraulic conductivity tests, the data was analyzed using the Bouwer-Rice and Hvorslev methods to derive a value for hydraulic conductivity. Hydraulic conductivity test results are presented in Section 3.4.

2.5 TIDAL STUDY

Based on the Site's proximity to Flushing Bay and the East River, a tidal study was conducted within on-site monitoring wells. The study provided data to evaluate the effects that tidal fluctuations have on groundwater elevations and flow directions beneath the Site, and whether these may have an effect on the migration of groundwater and potential impacts identified on-site.

Pressure transducers (MiniTROLL-Pro™) with automatic dataloggers were installed in each well to record groundwater levels every minute over a 10-day period. Monitoring well covers were secured, and a VOC free sealant was applied to the rim to ensure no surface waters would enter

the well during the course of study. Transducers were installed in ten (10) wells (MW-15, MW-19, MW-21, MW-25, MW-27, MW-30, CMW-36, MW-40, MW-41, and MW-CSB-60). Tidal data was downloaded from the transducers following retrieval and converted to elevation values. Tidal study results are presented in Section 3.4.

2.6 MANAGEMENT OF INVESTIGATION-DERIVED WASTE

Investigation-derived wastes (IDW) generated during Site investigation activities were containerized prior to disposal. Purge water and personal protective equipment (PPE) were placed in 55-gallon Department of Transportation (DOT) approved drums which were labeled appropriately. The drums were staged in a designated secure waste storage area on-site, per the guidance from on-site facility representatives, to permit proper characterization and off-site transportation and disposal. Following characterization, the drums were transported off-site by Parsons subcontractor, Clean Earth of North Jersey, Inc., and disposed of at Clean Earth of Kearny, New Jersey (a RCRA Part B permitted Transfer, Storage, and Disposal Facility (TSDF)).

2.7 DATA VALIDATION AND REPORTING

Laboratory analyses of groundwater samples were conducted in accordance with USEPA SW-846 methods and the standard deliverable format by a NYSDOH ELAP approved laboratory certified for analysis using the most recent Analytical Services Protocol (ASP).

QA/QC procedures required by the SW-846 methods were followed, including initial and continuing instrument calibrations, standard compound spikes, surrogate compound spikes, and analysis of other samples (blanks, laboratory control samples, matrix spikes/matrix spike duplicates, etc.). The laboratory provided sample bottles, which were pre-cleaned and preserved in accordance with the SW-846 methods. NYSDEC ASP holding times were adhered to. Note that the SW-846 methods are incorporated into the NYSDEC ASP. Where there are differences in the SW-846 and NYSDEC ASP requirements, the NYSDEC ASP took precedence.

Data validation was performed in accordance with USEPA Region II standard operating procedures (SOPs) for organic and inorganic data review. These validation guidelines are regional modifications to the National Functional Guidelines for organic and inorganic data review (USEPA, 1999). Validation included the following:

- Verification of 100% of all quality control (QC) sample results (both qualitative and quantitative);
- Verification of the identification of 100% of all sample results (both positive hits and non-detects);
- Re-calculation of 10% of all investigative sample results; and
- Preparation of a Data Usability Summary Report (DUSR).

The DUSR is presented in [Appendix B](#).

2.8 GROUNDWATER MODELING

Groundwater flow modeling was used to provide hydrogeologic support for remedial improvement scenarios related to evaluating potential Site remedial alternatives. The purpose of the groundwater modeling was to quantify groundwater flow conditions, improve estimates of

hydraulic conductivity at the Site, and to develop predictive scenarios to support remedial alternative evaluations.

Utilizing data collected during the SRI and previous investigations, a numerical finite difference groundwater model was developed, constructed, and calibrated (with sensitivity testing) to simulate groundwater flow conditions and identify groundwater particle paths, and associated velocities, for the Site. The purpose of the model is to qualitatively and quantitatively evaluate groundwater flow at the Site, with specific relevance to the remedial scenarios of subsurface barrier wall containment and ISS. The steady state model was calibrated to one set of synoptic water levels using existing and new groundwater hydraulic information (transmissivity, regional gradients, aquifer architecture, potential for tidal influences, etc. collected during SRI field activities).

The preliminary groundwater modeling addressed three potential remedial scenarios at the Site:

- Scenario 1 – simulated existing subsurface conditions at the Site;
- Scenario 2 – simulated subsurface conditions at the Site should the remedy include perimeter containment barriers at Parcels 1 and 2, and in the vicinity of the Market Area; and
- Scenario 3 – simulated subsurface conditions at the Site should the remedy include ISS at Parcels 1 and 2 and a perimeter containment barrier in the vicinity of the Market Area.

Groundwater modeling results are discussed in Section 3.6.

SECTION 3

SUPPLEMENTAL SITE INVESTIGATION RESULTS

This section presents the results of the SRI. The November 2018 groundwater elevations were used to produce a Site groundwater contour map (Figure 4). Analytical results for groundwater have been summarized in Table 2 and on Figure 5. Hydraulic conductivity results are summarized in Table 3. Results pertaining to NAPL characterization are presented on Figure 6 through Figure 8. Results pertaining to an evaluation of tidal influence at the Site are presented on Figure 9. Results pertaining to groundwater modeling are presented on Figure 10 through Figure 13.

3.1 SITE HYDROGEOLOGY

A site-wide gauging event was conducted on November 13th, 2018 in groundwater monitoring wells present at the Site. In addition, monitoring well gauging was conducted at the adjacent former gas holder station site (Parcel 3), and those groundwater levels were included in analyzing groundwater flow conditions at the Site. Depth to groundwater was gauged in nineteen (19) monitoring wells. Groundwater was encountered at depths ranging from 3.49 feet to 13.91 feet bgs, and at elevations ranging from 4.56 to -0.85 feet above mean sea level (AMSL). Groundwater levels, NAPL measurements (if present), and corresponding elevations pertaining to this gauging event are summarized on Table 1. Groundwater contours based on the November 2018 gauging event indicate a groundwater high in the northwestern portion of the Site (Parcel 1), and a groundwater low in the southeastern part of the Site, indicating a general flow direction to the southeast. A localized groundwater low is present on the southern edge of the Market Area (MW-19).

3.2 GROUNDWATER SAMPLING RESULTS

On November 6th, November 14th, November 15th, and November 21st, 2018, twelve (12) groundwater samples were collected during SRI activities and submitted to Test America for analysis of VOCs via Method 8260C, SVOCs via Method 8270D, cyanide via Method 9012B, and TAL metals via Methods 6010D and 7470A. For evaluation purposes, analytical results were compared with Ambient Water Quality Standards (AWQS) and guidance values contained in NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1 (NYSDEC, 2010). These standards and guidance values are protective of groundwater quality assuming that groundwater is used as a source of drinking water. That assumption is not applicable to the Site because groundwater is not used now, nor will it be used in the future, as a source of drinking water. Accordingly, the use of Class GA standards and guidance values for comparison to Site groundwater data is conservative. Field measurements and observations as well as analytical results pertaining to groundwater sampling are summarized below. Groundwater analytical results are summarized in Table 2 and presented on Figure 5, and the laboratory analytical report is presented in Appendix C.

Field Measurements

Twelve (12) groundwater monitoring wells (MW-15, MW-19, MW-20, MW-21, MW-25, MW-27, MW-28, MW-30, CMW-36, CMW-38, CMW-40, and MW-CSB-60) were sampled upon reaching stabilization of water quality parameter and turbidity levels below 50 NTU. Measurements collected during groundwater sampling activities are presented in [Appendix A](#).

NAPL Observations

During monitoring well gauging, NAPL was observed in monitoring wells MW-15, MW-19, and CMW-38. Observed NAPL thicknesses during the November 13th, 2018 gauging event were 0.14 feet in MW-15 and 0.43 feet in MW-19. The NAPL thickness in CMW-38 was observed to be 0.47 feet on November 14, 2018. On November 21st, 2018, a NAPL drawdown test was performed in CMW-38 and is further described in Section 3.3. Approximately 200 milliliters of NAPL were removed from the well and levels were subsequently monitored for a period of 3 hours, at which time only trace amounts were measurable within the well.

VOC Analytical Results

A total of twelve (12) VOCs were detected at least once in groundwater samples collected during SRI sampling activities. Of these, five (5) VOCs (benzene, ethylbenzene, isopropylbenzene, tetrachloroethylene, and total xylenes) were detected at concentrations in exceedance of their respective Class GA GWQSs and guidance values. Tetrachloroethylene (PCE) is not an MGP-related constituent of concern. Total VOC concentrations ranged from non-detect to 6,329 µg/L. Maximum VOC concentrations were detected in the sample collected from MW-30. Based on current and historical sampling data, total VOC concentrations are observed to have decreased over time in monitoring wells MW-15, MW-16, MW-19, MW-21, MW-25, CMW-36, and CMW-38, and concentrations are observed to have increased in monitoring wells MW-20, MW-30, and CMW-40. Laboratory analytical data is summarized in [Table 2](#) and presented on [Figure 5](#).

SVOC Analytical Results

A total of eighteen (18) SVOCs were detected in groundwater samples collected during SRI sampling activities. Of these, six (6) SVOCs (acenaphthene, benzo(a)anthracene, benzo(b)fluoranthene, chrysene, naphthalene, and phenol) were detected in excess of their respective Class GA GWQSs and guidance values. Total SVOC concentrations ranged from non-detect to 638.3 µg/L. Maximum SVOC concentrations were detected in the sample collected from MW-19. Generally, total SVOC concentrations are observed to be decreasing over time in all monitoring wells sampled during the 2018 SRI activities. Laboratory analytical data is summarized in [Table 2](#) and presented on [Figure 5](#).

Inorganic Analytical Results

A total of nineteen (19) inorganic constituents were detected at least once in groundwater samples collected during SRI sampling activities. Of these, six (6) inorganic constituents (antimony, barium, iron, magnesium, manganese, and sodium) were detected in excess of their respective Class GW GWQSs and guidance values. Results for cyanide indicated all detected

concentrations were below the GWQSS and guidance values. Laboratory analytical data is summarized in [Table 2](#).

3.3 NAPL SAMPLING RESULTS

Samples of light non-aqueous phase liquid (LNAPL) were collected at MW-15, MW-19 and CMW-38 and analyzed for physical properties (density, viscosity, and interfacial tension). Analytical results from each sample were fairly consistent and represented a typical MGP-type LNAPL. Physical properties were also indicative of LNAPL, which support field observations. The full laboratory analytical report pertaining to NAPL sampling is presented in [Appendix D](#).

The specific gravity of each NAPL sample ranged from approximately 0.89 to 0.92 (unitless) from 70 to 130 degrees F. The projected specific gravity in-situ (assuming 45 degrees Fahrenheit) ranged from approximately 0.905 to 0.902. Since these values are less than 1, this further confirms that the NAPL sampled is a LNAPL ([Figure 6](#)).

The measured viscosity varied from approximately 3.44 to 19.05 centistokes (3.02 to 17.50 centipoise) at 70 to 130 degrees Fahrenheit. The estimated in-situ viscosity is approximately 12 to 30 centistokes, when projecting this trend to 45 degrees Fahrenheit ([Figure 7](#)). As further discussed in the section below, NAPL mobility is inversely proportional to viscosity (as viscosity increases, fluid mobility decreases, proportionally). Therefore, the elevated viscosities observed in NAPL collected from the Site suggest that NAPL mobility is low.

LNAPL Transmissivity Testing

An attempt was made to conduct a LNAPL transmissivity test at CMW-38 by removing 200 milliliters of NAPL from the monitoring well and subsequently collecting NAPL thickness measurements for a period of three (3) hours. Volumes of NAPL observed re-emerging within CMW-38 were insufficient to effectively measure NAPL thickness. Although no NAPL was recovered in the 3 hours following removal, a qualitative comparison was made to type curves provided in American Petroleum Institute (API) Publication 4762 (API, 2016). Results indicate the NAPL transmissivity is very low and likely lower than 0.005 ft²/day.

Based on the transmissivity testing from November 2018 when no NAPL was observed recharging in CMW-38 for three (3) hours following removal, it can qualitatively be said that the NAPL transmissivity is low. When comparing the Type curves ([Figure 8](#)), it can be noted that the NAPL transmissivity is likely less than 0.005 ft²/day, indicating there is little to no NAPL migration potential.

Groundwater and NAPL migrate by means of Darcy's law and fluid conductivity. Fluid Conductivity, whether it is water or NAPL, is related to viscosity as shown below:

$$K = \frac{k\rho g}{\mu}$$

Where:

K= fluid conductivity (hydraulic or free phase)

k = intrinsic permeability (properties of the soil)

ρ = fluid density

g = gravitational acceleration (constant)

μ = dynamic viscosity of the fluid

Knowing that fluid conductivity is inversely related to dynamic viscosity (above), it can be demonstrated that as viscosity increases the fluid mobility decreases, proportionally. [Figure 7](#) provides the field data from the NAPL and water samples from the Site, with extrapolation to groundwater temperatures. This plot of measured data demonstrated that the NAPL viscosity is approximately 7 to 15 times more viscous than groundwater at 45 degrees Fahrenheit, which suggests the NAPL transmissivity is at least 7 to 15 times lower than the hydraulic conductivity. Groundwater modeling, further described in Section 3.6, suggests that transmissivity in the vicinity of the Market Area and toward the east is fairly low. When considering the reduction of flow related to viscosity (without considering saturation, low NAPL head, and no observed NAPL migration), it can be concluded that the NAPL mobility is negligible.

LNAPL Body Stability and Declining Percent Saturation

LNAPL stability at the Site has been maintained through geological integrity of the soils and long-term nature of the historic site. Site observations which indicate LNAPL stability include:

- Lack of observed LNAPL at downgradient locations;
- Insignificant amount of LNAPL accumulation in wells;
- Low transmissivity of the LNAPL;
- Low hydraulic gradient observed from the Market Area and towards the east;
- Low simulated groundwater velocity;
- Groundwater concentrations over time trending downward; and
- Historical nature of the release.

The release of free product ended after decommissioning of the former MGP facility, which occurred in 1944. As such, the NAPL is assumed to be weathered, aged, and has decreased in migration potential. Furthermore, it is likely that most of the NAPL transport occurred during the previous active release period when there was a much higher hydraulic head, creating a driving force for NAPL migration. In cases of historical industrial sites where production has been discontinued for decades, the majority of NAPL migration had occurred during the operation of the facility when an active NAPL head was present. The NAPL head, and therefore NAPL migration, is significantly reduced following a prolonged discontinuance of former facility operations. Furthermore, the NAPL collected and analyzed is of relatively high viscosity, indicating it has further aged and reduced in mobility potential.

3.4 HYDRAULIC CONDUCTIVITY TESTING

Falling and rising head slug tests were completed at twelve (12) locations to quantify the hydraulic conductivity in various areas of the Site. In all cases, the rising head test was analyzed since it is more appropriate for wells screened across the water table. In one case (MW-21) the test was duplicated due to poor results from the initial test. After the recovery data was reduced and organized, the curve matching analysis was completed within Aquifer Test Pro V2015.1. Both Hvorslev (1951) and Bower and Rice Techniques were used to analyze the results such that comparisons on mathematical methodology can be drawn and bracket the potential range resulting from test assumptions. This provides a more technically robust analysis.

Curve matching analyses for each test is provided in [Appendix E](#), and [Table 3](#) provides a summary of the tests in addition to screen intervals. The resulting hydraulic conductivities varied from 0.22 to 224 feet per day, however, as is typical when comparing slug tests for a group of locations the range of results is exaggerated by only a few samples. The geomean from the Hvorslev analyses was 15.6 feet per day, and the geomean from the Bower and Rice was 11.8 feet per day. Spatial distribution of the slug tests did not indicate a strong relationship between space and hydraulic conductivity, however there is some indication that along Farrington Street, southeast of the Market Area, the soils may have higher hydraulic conductivity. Furthermore, the stochastic nature of slug testing and relatively small area influenced by the slug limit the amount of defensible spatial interpretation which can be accomplished on these data.

Hydraulic conductivity tests are summarized on [Table 3](#), and presented in [Appendix E](#).

3.5 TIDAL STUDY RESULTS

Based on the Site's proximity to the Flushing Bay and the East River, a tidal study was conducted within ten (10) groundwater monitoring wells. The tidal study allowed for evaluating the effects that tidal fluctuations may have on groundwater elevations and flow directions beneath the Site. Furthermore, the tidal study (being transient in nature) allowed for determination of other diurnal changes and effect from precipitation. [Figure 9](#) displays the hydrographs from each well and the nearby College Point Flushing bay surface water elevation. The plot demonstrates there is no tidal effect from the nearby changing sea levels in the bay.

As a compliment to the transient data, the measurement period overlapped across several precipitation events. This allowed for observation and measurement of increases of water level change as the result of precipitation. There was an increase related to the precipitation events and the data provided important information related to relevant and absolute change in groundwater elevation as the result of precipitation.

3.6 GROUNDWATER MODELING

[Figures 10](#) through [Figure 12](#) demonstrate the results from each modeled scenario and are summarized here. [Figure 13](#) provides a comparison of groundwater velocities.

The model was calibrated using regional information (surface water bodies), field data (hydraulic head measurements), and inverse modeling processes (software algorithms). Once calibrated objectives were met and the model produced results consistent with groundwater flow results, predictive scenarios were developed. Regional recharge to the aquifer was estimated at a low value of 1.16 inches per year, but slightly above published value of 0.89 inches per year. Due

to the retail building in the Market Area, the recharge under the building was reduced to 0.22 inches per year to support calibration. It was observed that because of the steady state simulation, and the idealized nature of the model, elevated water mounding occurred in Parcel 1. Therefore, predictive model runs were established with calibrated recharge and zero recharge for the three parcels. While surface improvements and engineering design can further reduce recharge in parcels, it remains unknown if recharge could be reduced to zero. As such, for the varying recharge predictive scenarios, the calibrated recharge and zero recharge simulations provide a range of groundwater velocities and it is likely that the actual velocity would be within this range.

Existing Conditions:

- The groundwater flow under existing conditions travels to the southeast off of a slightly elevated groundwater mound, on top of the clay observed under the parking lot area and northwest of the Site; and
- Based on the calibrated model, the existing groundwater velocity through the Site is low to moderate, varying from approximately 10 to 54 feet per year.

Subsurface Barrier Wall:

- In the parking lot area of Parcel 1, the simulated particle velocities decreased to negligible rates of approximately 3 feet per year using calibrated recharge, and 0.06 feet per year assuming no recharge to the water table. This is due to the result of the low permeability underlying clay and the typical hydraulic conductivity of subsurface barrier walls (e.g., 10^{-7} centimeters per second);
- In the Market Area, the simulated particle velocities decreased due to groundwater being diverted around this area. On the western side of the Market Area, the simulated average particle velocity is reduced to 6 feet per year due to the decrease in head that would be caused by the subsurface barrier walls nearly surrounding the parcel. Near the east side of the Site, the average linear velocity would be approximately 28 feet per year; and
- In the southern area (Parcel 2) of the Site, simulated particle velocities decreased to approximately 3 feet per year due to the lower recharge and low vertical hydraulic conductivity of the sand in this unit (0.32 feet per day to 2 feet per day).

ISS:

- Under this remedial scenario, ISS would be performed in the parking lot area of Parcel 1, and within Parcel 2, as noted on [Figure 12](#). No particles were tracked from within the ISS areas, as it was assumed that the ISS would eliminate flux; and
- In the Market Area, the groundwater flow was reduced to similar rates as the subsurface barrier wall alternative. On the western side of the Market Area, the average linear velocity was reduced to 7 feet per year. Closer to the east side of the Site the average linear velocity was also approximately 28 feet per year.

Overall, the results of the groundwater modeling indicate that there is minimal difference between a subsurface barrier wall remedy compared to an ISS remedy for the Site in terms of

overall effectiveness in reducing the potential for contaminant migration off-site. In both scenarios, groundwater flow in the parking lot area of Parcel 1 is fully contained, and groundwater flow in the majority of the Market Area and Parcel 2 is reduced to less than 10 feet per year. Furthermore, groundwater flowing from each parcel follows a path onto the adjacent Holder site which is currently under natural attenuation monitoring and may continue to be monitored for impacts from the Site. Lastly, groundwater flow in the eastern portion of the Market Area can be further reduced should a subsurface barrier wall be extended or added in this area of the Site.

The full groundwater modeling report is presented in [Appendix F](#).

SECTION 4

CONCLUSIONS AND RECOMMENDATIONS

The SRI was conducted between November 13th, 2018 and November 30th, 2018 and entailed the collection and analysis of twelve (12) groundwater samples, three (3) NAPL samples, hydrogeologic testing via slug tests in twelve (12) wells, and a 10-day tidal study in ten (10) wells. Following SRI field activities, hydrogeologic data were combined with subsurface data generated during previous investigations to develop a groundwater model of the Site. The groundwater model was utilized to assess groundwater flow conditions under three (3) scenarios: existing Site conditions, a Site remedy consisting of a subsurface barrier wall, and a Site remedy consisting of ISS.

4.1 SUMMARY OF FINDINGS

The findings of the SRI and groundwater modeling are summarized below.

- The groundwater table at the Site is observed at depths ranging from 3 to 14 feet below grade, and at elevations ranging from -1.0 to 5.0 feet AMSL;
- Site groundwater levels do not appear to be greatly influenced by tidal cycles in the adjacent Flushing Bay and East River;
- No VOC exceedances of AWQs and guidance values were observed in monitoring wells MW-21, MW-27, and MW-CSB-60 during SRI sampling activities. Only one VOC, tetrachloroethylene (PCE), was detected in excess of its Class GW GWQS and guidance value in MW-28. PCE is not a MGP-related constituent of concern;
- Total VOC concentrations are decreasing over time in monitoring wells MW-15, MW-16, MW-19, MW-21, MW-25, CMW-36, and CMW-38. Based on the 2018 sampling data, VOC concentrations are observed to have increased in monitoring wells MW-20, MW-30, and CMW-40;
- No SVOC exceedances of AWQs and guidance values were observed in monitoring wells MW-21, MW-25, MW-27, MW-28, CMW-36, and MW-CSB-60;
- Total SVOC concentrations are decreasing over time in all monitoring wells sampled during the 2018 SRI activities;
- LNAPL collected from the Site during the SRI field activities is observed to be of high viscosity, indicating that it is aged and weathered, and has reduced mobility;
- Based on the results of hydraulic conductivity testing via slug tests, resulting hydraulic conductivities varied from 0.22 to 224 feet per day;
- Spatial distribution of the slug tests did not indicate a strong relationship between space and hydraulic conductivity, however there is some indication that along Farrington Street, southeast of the Market Area, the soils may have higher hydraulic conductivity;
- Based on the calibrated groundwater model, the existing groundwater velocity through the Site is low to moderate varying from approximately 10 to 54 feet per year;

- Under the modelled barrier wall scenario, particle velocities in the parking lot area of Parcel 1 decrease to negligible groundwater velocities of 3 feet per year using calibrated recharge, and 0.06 feet per year with no recharge to the water table. Within the Market Area the groundwater flow is reduced due to groundwater being diverted around this area. Groundwater velocities in Parcel 2 are reduced to approximately 3 feet per year due to the lower recharge and low vertical hydraulic conductivity;
- Under the modelled ISS scenario, the groundwater flow is reduced to similar rates as the barrier wall option within the Market Area. On the western side of the Market Area, the average linear velocity is reduced to 7 feet per year. Closer to the east side of the Site the average linear velocity was approximately 20 feet per year; and
- Under the modelled ISS scenario, it is assumed that the groundwater flow within the stabilized areas in the parking lot area of Parcel 1 and Parcel 2 would be reduced to negligible values following stabilization.

4.2 CONCLUSIONS

As stated in Section 1, the purpose of this SRI was to obtain additional hydrogeologic and NAPL data in the form of groundwater analytical data, groundwater conductivity data, NAPL transmissivity and physical property data, and tidal influence data to support the potential remedial alternative analysis for the Site.

Based upon data collected during the SRI activities, while SVOC concentrations appear to have increased since the 2015 sampling event along the eastern portion of the Site, SVOC concentrations have generally decreased across the entirety of the Site. Analytical results for the three (3) NAPL samples collected were fairly consistent and indicative of a typical MGP-type LNAPL.

Hydraulic conductivity results from the slug tests conducted did not indicate a strong relationship between space and hydraulic conductivity, however there is some indication that along Farrington Street, southeast of the Market Area, the soils may have higher hydraulic conductivity. The tidal study conducted as part of the SRI indicates that there is no tidal effect from the nearby surface water bodies on the groundwater flow beneath the Site.

Groundwater modelling was utilized to assess three potential Site scenarios:

- Under existing conditions, groundwater velocities are low to moderate, ranging from 10 to 54 feet per year;
- Under the subsurface barrier wall scenario, velocities in the parking lot area of Parcel 1 would be reduced to a negligible rate of approximately 3 feet per year using a calibrated recharge, and 0.06 feet per year when assuming no recharge. Flow velocities would also be reduced within the Market Area as flow is diverted around this area. Groundwater flow in Parcel 2 is reduced to approximately 3 feet per year due to low recharge and low vertical hydraulic conductivity; and
- Under the ISS scenario, groundwater flow velocities would also be reduced to rates similar to the subsurface barrier wall remedial alternative.

The following list of remedial alternatives will be evaluated as part of the Alternatives Analysis Report (AAR) for the Site:

- Excavation and off-site disposal and treatment of MGP impacted soils;
- Installation of a barrier wall and/or cap for containment of MGP impacts;
- NAPL recovery system;
- Site Management Plan;
- Institutional controls; and
- ISS of MGP impacted soils

These remedial alternatives were proposed for evaluation in the AAR for the Site in an October 19, 2017 email correspondence from Con Edison to the NYSDEC. The NYSDEC concurred with these proposed screening remedial alternatives for the Site in a November 15, 2017 email correspondence.

Based on the SRI data and the subsequent groundwater modeling results, it appears that ISS and a subsurface barrier wall system would be equally effective in containing MGP impacts at the Site. It should be noted though that both of these alternatives would be difficult, if not unfeasible to implement at Parcel 1, given its current use as an active shopping center.

The AAR will include a comparative analysis of the above remedial alternatives based on established evaluation criteria and remedial action objectives thus providing justification for the proposed alternative.

SECTION 5

REFERENCES

- API, 2016. *American Petroleum Institute LNAPL Transmissivity Workbook: A Tool for Baildown Test Analysis*, API Publication 4762, April, 2016.
- NYSDEC, 2010. *Division of Water Technical and Operational Guidance Series (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations*. June, 1998.
- Parsons, 2017a. *Site Characterization Report for the Former Farrington Street Gas Works, Queens, New York*, (Parsons, 2017a)
- Parsons, 2017b. *Remedial Investigation Report for the Former Farrington Street Gas Works Site, Queens, New York*, (Parsons, 2017b)
- Parsons, 2018. *Former Farrington Street Manufactured Gas Plant Site (Site No. V00560) Supplemental Remedial Investigation Work Plan*, (Parsons, 2018)
- USEPA, 1999. *United States Environmental Protection Agency CLP National Functional Guidelines for Organic Data Review*. October, 1999.
- USEPA, 2010. *Low Stress Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells*. January, 2010.

TABLES

Table 1
Groundwater Gauging Results
Farrington Street Former Manufactured Gas Plant
Supplemental Remedial Investigation
Consolidated Edison Company of New York

Site	Well	Top of Casing Elevation (ft AMSL)	Depth to Water (ft)	Groundwater Elevation (ft AMSL)	Depth to Product (ft)	Product Thickness (ft)	Comments
Former Manufactured Gas Plant Site	MW-15	12.14	10.86	1.28	10.72	0.14	LNAPL observed on interface probe.
	MW-19	12.67	13.52	-0.85	13.09	0.43	LNAPL observed on interface probe.
	MW-20	13.20	12.43	0.77	-	-	
	MW-21	11.86	11.38	0.48	-	-	
	MW-27	11.31	10.21	1.10	-	-	
	MW-28	12.05	11.53	0.52	-	-	
	MW-30	13.89	13.46	0.43	-	-	
	MW-41	7.6	3.49	4.11	-	-	
	MW-CSB-60	9.9	5.34	4.56	-	-	
	CMW-36	11.97	11.42	0.55	-	-	
	CMW-38	-	-	-	-	0.47	Measurement collected on 11/14/18.
	CMW-40	14.09	13.74	0.35	-	-	
Former Gasholder Site	MW-3	12.95	12.50	0.45	-	-	
	MW-6	14.22	13.90	0.32	-	-	
	MW-9	13.30	13.10	0.20	-	-	
	MW-13	13.34	13.08	0.26	-	-	Faint odor, no sheen.
	MW-14	13.65	13.45	0.20	-	-	
	MW-15	13.56	13.19	0.37	-	-	
	MW-16	12.87	12.71	0.16	-	-	
	MW-17	13.63	13.91	-0.28	-	-	

Notes:

- 1) Groundwater gauging performed on November 13, 2018.
- 2) Monitoring Wells MW-13, MW-14, MW-16, MW-17, MW-18, CMW-22, CMW-37, and CMW-39 (located at the Former MGP Site) were found to be missing or destroyed due to Site use at the time of gauging.
- 3) Monitoring Well MW-25 was inaccessible at the time of gauging due to ponding storm water.
- 4) Monitoring Well CMW-38 was inaccessible at the time of gauging due to new concrete preventing the well cover from being opened.
- 5) Following removal of concrete obstructing CMW-38 well cover, only NAPL thickness measurements obtained.

Table 2
Groundwater Analytical Results
Farrington Street Former Manufactured Gas Plant
Supplemental Remedial Investigation
Consolidated Edison Company of New York

Consolidated Edison Farrington Street MGP Site Validated 2018 Groundwater Analytical Data SDGs: 460-169523 & 460-169869 Detected Compound Summary		NY Class GA Standards	NY Class GA Exceedances	Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	CMW-36 MW-36-20181106 460-168968-1 TALED 4601689681 WATER 11/6/2018 10:25 1/16/2019	Dup of CMW-36-20181106 CMW-36 MW-136-20181106 460-168968-2 TALED 4601689681 WATER 11/6/2018 10:25 1/16/2019	CMW-36 CMW-36-20181114 460-169523-1 TALED 4601695231 WATER 11/14/2018 9:30 1/21/2019	CMW-40 CMW-40-20181114 460-169523-2 TALED 4601695231 WATER 11/14/2018 12:55 1/21/2019	Dup of CMW-40-20181114 CMW-40 CMW-140-20181114 460-169523-3 TALED 4601695231 WATER 11/14/2018 12:00 1/21/2019
CAS NO.	COMPOUND								
	VOLATILES			UNITS:					
71-43-2	BENZENE	1	7	ug/l				4100	4500
156-59-2	CIS-1,2-DICHLOROETHYLENE	5	0	ug/l	0.4 J	0.38 J		ND	ND
110-82-7	CYCLOHEXANE	NS	0	ug/l				4.6 J	5.6 J
100-41-4	ETHYLBENZENE	5	6	ug/l				5.3 J	5.2 J
98-82-8	ISOPROPYLBENZENE (CUMENE)	5	6	ug/l				23	25
108-87-2	METHYLCYCLOHEXANE	NS	0	ug/l				ND	4.8 J
75-09-2	METHYLENE CHLORIDE	5 (G)	0	ug/l				ND	ND
1634-04-4	TERT-BUTYL METHYL ETHER	10 (G)	0	ug/l	1.9	1.8		ND	ND
127-18-4	TETRACHLOROETHYLENE(PCE)	5	1	ug/l	45 J	44		2.7 J	ND
108-88-3	TOLUENE	5	0	ug/l				ND	ND
79-01-6	TRICHLOROETHYLENE (TCE)	5	0	ug/l	1.4	1.4		ND	ND
XYLENES	XYLENES, TOTAL	5	6	ug/l				19 J	20
	Total VOCs				48.7	47.58		4154.6	4560.6
	SEMIVOLATILES								
91-57-6	2-METHYLNAPHTHALENE	NS	0	ug/l	ND	ND		ND	ND
83-32-9	ACENAPHTHENE	20 (G)	7	ug/l	ND	ND		22	32
208-96-8	ACENAPHTHYLENE	NS	0	ug/l	ND	ND		ND	0.86 J
98-86-2	ACETOPHENONE	NS	0	ug/l	ND	ND		ND	ND
120-12-7	ANTHRACENE	50 (G)	0	ug/l	ND	ND		0.92 J	1.6 J
56-55-3	BENZO(A)ANTHRACENE	0.002 (G)	1	ug/l	ND	ND		ND	ND
50-32-8	BENZO(A)PYRENE	ND	0	ug/l	ND	ND		ND	ND
205-99-2	BENZO(B)FLUORANTHENE	0.002 (G)	1	ug/l	ND	ND		ND	ND
92-52-4	BIPHENYL (DIPHENYL)	5	0	ug/l	ND	ND		ND	ND
86-74-8	CARBAZOLE	NS	0	ug/l	ND	ND		ND	ND
218-01-9	CHRYSENE	0.002 (G)	1	ug/l	ND	ND		ND	ND
132-64-9	DIBENZOFURAN	NS	0	ug/l	ND	ND		ND	1.4 J
206-44-0	FLUORANTHENE	50 (G)	0	ug/l	ND	ND		ND	ND
86-73-7	FLUORENE	50 (G)	0	ug/l	ND	ND		5.5 J	8.1 J
91-20-3	NAPHTHALENE	10 (G)	3	ug/l	ND	ND		3.6 J	4.8 J
85-01-8	PHENANTHRENE	50 (G)	0	ug/l	ND	ND		3.9 J	6.1 J
108-95-2	PHENOL	1	4	ug/l	ND	ND		43 J+	44 J+
129-00-0	PYRENE	50 (G)	0	ug/l	ND	ND		ND	ND
	Total SVOCs				ND	ND		78.92	98.86
Exceeds NY Class GA Standards									

Table 2
Groundwater Analytical Results
Farrington Street Former Manufactured Gas Plant
Supplemental Remedial Investigation
Consolidated Edison Company of New York

					Dup of CMW-36-20181106			Dup of CMW-40-20181114	
Consolidated Edison Farrington Street MGP Site Validated 2018 Groundwater Analytical Data SDGs: 460-169523 & 460-169869 Detected Compound Summary				Location ID: Sample ID:	CMW-36 MW-36-20181106	CMW-36 MW-136-20181106	CMW-36 CMW-36-20181114	CMW-40 CMW-40-20181114	CMW-40 CMW-140-20181114
				Lab Sample Id:	460-168968-1	460-168968-2	460-169523-1	460-169523-2	460-169523-3
				Source:	TALED	TALED	TALED	TALED	TALED
				SDG:	4601689681	4601689681	4601695231	4601695231	4601695231
				Matrix:	WATER	WATER	WATER	WATER	WATER
	NY Class GA Standards	NY Class GA Exceedances	Sampled:	11/6/2018 10:25	11/6/2018 10:25	11/14/2018 9:30	11/14/2018 12:55	11/14/2018 12:00	
	Validated:		1/16/2019		1/16/2019	1/21/2019	1/21/2019	1/21/2019	
CAS NO.	COMPOUND			UNITS:					
	INORGANICS								
7429-90-5	ALUMINUM	NS	0	ug/l			165 J	97.4 J	43.4 J
7440-36-0	ANTIMONY	3	1	ug/l			ND	ND	ND
7440-38-2	ARSENIC	25	0	ug/l			ND	ND	ND
7440-39-3	BARIUM	1000	1	ug/l			90 J	397	378
7440-43-9	CADMIUM	5	0	ug/l			0.42 J	ND	ND
7440-70-2	CALCIUM	NS	0	ug/l			131000	145000	146000
7440-47-3	CHROMIUM, TOTAL	50	0	ug/l			ND	ND	ND
7440-48-4	COBALT	NS	0	ug/l			5.6 J	ND	ND
7440-50-8	COPPER	200	0	ug/l			ND	ND	ND
7439-89-6	IRON	300	11	ug/l			271 J+	42400 J+	36100 J+
7439-92-1	LEAD	25	0	ug/l			ND	ND	ND
7439-95-4	MAGNESIUM	35000 (G)	4	ug/l			53800	32200	32600
7439-96-5	MANGANESE	300	11	ug/l			2510	648	624
7440-02-0	NICKEL	100	0	ug/l			15.2 J	5.4 J	6.1 J
7440-09-7	POTASSIUM	NS	0	ug/l			24500	13300	13300
7440-23-5	SODIUM	20000	13	ug/l			810000	343000	352000
7440-62-2	VANADIUM	NS	0	ug/l			ND	ND	ND
7440-66-6	ZINC	2000 (G)	0	ug/l			ND	ND	ND
57-12-5	CYANIDE	200	0	ug/l			ND	21	21
Exceeds NY Class GA Standards									

Table 2
Groundwater Analytical Results
Farrington Street Former Manufactured Gas Plant
Supplemental Remedial Investigation
Consolidated Edison Company of New York

Consolidated Edison Farrington Street MGP Site Validated 2018 Groundwater Analytical Data SDGs: 460-169523 & 460-169869 Detected Compound Summary				Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	MW-15 MW-15-20181114 460-169523-12 TALED 4601695231 WATER 11/14/2018 13:50 1/21/2019	MW-19 MW-19-20181114 460-169523-13 TALED 4601695231 WATER 11/14/2018 11:35 1/21/2019	MW-20 MW-20-20181114 460-169523-4 TALED 4601695231 WATER 11/14/2018 13:45 1/21/2019	MW-21 MW-21-20181114 460-169523-7 TALED 4601695231 WATER 11/14/2018 13:05 1/21/2019	MW-25 MW-25-20181114 460-169523-11 TALED 4601695231 WATER 11/14/2018 13:55 1/21/2019
		NY Class GA Standards	NY Class GA Exceedances						
CAS NO.	COMPOUND			UNITS:					
	VOLATILES								
71-43-2	BENZENE	1	7	ug/l	0.52 J	4.6	520	ND	2.5
156-59-2	CIS-1,2-DICHLOROETHYLENE	5	0	ug/l	0.27 J	ND	ND	ND	ND
110-82-7	CYCLOHEXANE	NS	0	ug/l	ND	12	2.6	ND	ND
100-41-4	ETHYLBENZENE	5	6	ug/l	8.4	74	3.7	ND	ND
98-82-8	ISOPROPYLBENZENE (CUMENE)	5	6	ug/l	2.4	35	13	ND	ND
108-87-2	METHYLCYCLOHEXANE	NS	0	ug/l	0.28 J	13	2.2	ND	ND
75-09-2	METHYLENE CHLORIDE	5 (G)	0	ug/l	ND	ND	ND	ND	ND
1634-04-4	TERT-BUTYL METHYL ETHER	10 (G)	0	ug/l	ND	0.64 J	9.9	1	ND
127-18-4	TETRACHLOROETHYLENE(PCE)	5	1	ug/l	ND	ND	ND	ND	ND
108-88-3	TOLUENE	5	0	ug/l	ND	2.6	1.4 J	ND	ND
79-01-6	TRICHLOROETHYLENE (TCE)	5	0	ug/l	ND	ND	ND	ND	ND
XYLENES	XYLENES, TOTAL	5	6	ug/l	3.9	50	12	ND	ND
	Total VOCs				15.77	191.84	564.8	1	2.5
	SEMIVOLATILES								
91-57-6	2-METHYLNAPHTHALENE	NS	0	ug/l	ND	59	1.6 J	ND	ND
83-32-9	ACENAPHTHENE	20 (G)	7	ug/l	76	88	36	2.3 J	ND
208-96-8	ACENAPHTHYLENE	NS	0	ug/l	2.8 J	ND	0.89 J	ND	ND
98-86-2	ACETOPHENONE	NS	0	ug/l	1.8 J	ND	ND	ND	ND
120-12-7	ANTHRACENE	50 (G)	0	ug/l	4.5 J	5.1 J	0.84 J	ND	ND
56-55-3	BENZO(A)ANTHRACENE	0.002 (G)	1	ug/l	2.1	ND	ND	ND	ND
50-32-8	BENZO(A)PYRENE	ND	0	ug/l	1.4	ND	ND	ND	ND
205-99-2	BENZO(B)FLUORANTHENE	0.002 (G)	1	ug/l	1.2 J	ND	ND	ND	ND
92-52-4	BIPHENYL (DIPHENYL)	5	0	ug/l	ND	ND	ND	ND	ND
86-74-8	CARBAZOLE	NS	0	ug/l	ND	5.2 J	ND	ND	ND
218-01-9	CHRYSENE	0.002 (G)	1	ug/l	2.1	ND	ND	ND	ND
132-64-9	DIBENZOFURAN	NS	0	ug/l	1.9 J	ND	ND	ND	ND
206-44-0	FLUORANTHENE	50 (G)	0	ug/l	5.4 J	ND	ND	ND	ND
86-73-7	FLUORENE	50 (G)	0	ug/l	8 J	23 J	2.2 J	ND	ND
91-20-3	NAPHTHALENE	10 (G)	3	ug/l	2.4 J	430	6.8 J	ND	ND
85-01-8	PHENANTHRENE	50 (G)	0	ug/l	10	28 J	1.8 J	ND	ND
108-95-2	PHENOL	1	4	ug/l	ND	ND	3.3 J	ND	ND
129-00-0	PYRENE	50 (G)	0	ug/l	8 J	ND	ND	ND	ND
	Total SVOCs				127.6	638.3	53.43	2.3	ND
		Exceeds NY Class GA Standards							

Table 2
Groundwater Analytical Results
Farrington Street Former Manufactured Gas Plant
Supplemental Remedial Investigation
Consolidated Edison Company of New York

Consolidated Edison Farrington Street MGP Site Validated 2018 Groundwater Analytical Data SDGs: 460-169523 & 460-169869 Detected Compound Summary				Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	MW-15 MW-15-20181114 460-169523-12 TALED 4601695231 WATER 11/14/2018 13:50 1/21/2019	MW-19 MW-19-20181114 460-169523-13 TALED 4601695231 WATER 11/14/2018 11:35 1/21/2019	MW-20 MW-20-20181114 460-169523-4 TALED 4601695231 WATER 11/14/2018 13:45 1/21/2019	MW-21 MW-21-20181114 460-169523-7 TALED 4601695231 WATER 11/14/2018 13:05 1/21/2019	MW-25 MW-25-20181114 460-169523-11 TALED 4601695231 WATER 11/14/2018 13:55 1/21/2019
		NY Class GA Standards	NY Class GA Exceedances	UNITS:					
CAS NO.	COMPOUND								
	INORGANICS								
7429-90-5	ALUMINUM	NS	0	ug/l	64.3 J	35.5 J	ND	41.5 J	113 J
7440-36-0	ANTIMONY	3	1	ug/l	ND	ND	3.3 J	ND	ND
7440-38-2	ARSENIC	25	0	ug/l	ND	6 J	ND	3.5 J	17
7440-39-3	BARIUM	1000	1	ug/l	231	326	264	1040	69.6 J
7440-43-9	CADMIUM	5	0	ug/l	ND	ND	ND	ND	ND
7440-70-2	CALCIUM	NS	0	ug/l	179000	174000	82500	202000	43200
7440-47-3	CHROMIUM, TOTAL	50	0	ug/l	ND	ND	ND	ND	5.2 J
7440-48-4	COBALT	NS	0	ug/l	ND	ND	2.3 J	ND	8.1 J
7440-50-8	COPPER	200	0	ug/l	5.2 J	ND	ND	ND	ND
7439-89-6	IRON	300	11	ug/l	14000 J+	73200 J+	6370 J+	70500 J+	16700 J+
7439-92-1	LEAD	25	0	ug/l	ND	ND	ND	ND	2.9 J
7439-95-4	MAGNESIUM	35000 (G)	4	ug/l	80700	24700	16700	31200	5000
7439-96-5	MANGANESE	300	11	ug/l	1740	1160	430	1290	917
7440-02-0	NICKEL	100	0	ug/l	5.4 J	4.4 J	9.1 J	ND	5.9 J
7440-09-7	POTASSIUM	NS	0	ug/l	33100	12900	6920	42100	4870 J
7440-23-5	SODIUM	20000	13	ug/l	1100000	143000	204000	902000	97900
7440-62-2	VANADIUM	NS	0	ug/l	3.6 J	ND	ND	ND	ND
7440-66-6	ZINC	2000 (G)	0	ug/l	ND	ND	ND	ND	16.6 J
57-12-5	CYANIDE	200	0	ug/l	2.4 J	35	61	39	13
Exceeds NY Class GA Standards									

Table 2
Groundwater Analytical Results
Farrington Street Former Manufactured Gas Plant
Supplemental Remedial Investigation
Consolidated Edison Company of New York

Consolidated Edison Farrington Street MGP Site Validated 2018 Groundwater Analytical Data SDGs: 460-169523 & 460-169869 Detected Compound Summary				Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	MW-27 MW-27-20181114 460-169523-8 TALED 4601695231 WATER 11/14/2018 13:15 1/21/2019	MW-28 MW-28-20181114 460-169523-9 TALED 4601695231 WATER 11/14/2018 9:45 1/21/2019	MW-30 MW-30-20181114 460-169523-10 TALED 4601695231 WATER 11/14/2018 12:05 1/21/2019	CMW-38 MW-38-20181121 460-169869-1 TALED 4601698691 WATER 11/21/2018 12:35 1/21/2019	MW-CSB-60 MW-CSB-60-20181114 460-169523-6 TALED 4601695231 WATER 11/14/2018 9:55 1/21/2019
		NY Class GA Standards	NY Class GA Exceedances						
CAS NO.	COMPOUND			UNITS:					
	VOLATILES								
71-43-2	BENZENE	1	7	ug/l	ND	ND	6100	190	ND
156-59-2	CIS-1,2-DICHLOROETHYLENE	5	0	ug/l	ND	1.9	ND	ND	ND
110-82-7	CYCLOHEXANE	NS	0	ug/l	ND	ND	ND	5.9	ND
100-41-4	ETHYLBENZENE	5	6	ug/l	ND	ND	76	51	ND
98-82-8	ISOPROPYLBENZENE (CUMENE)	5	6	ug/l	ND	ND	69	57	ND
108-87-2	METHYLCYCLOHEXANE	NS	0	ug/l	ND	ND	ND	4.8	ND
75-09-2	METHYLENE CHLORIDE	5 (G)	0	ug/l	ND	ND	ND	ND	ND
1634-04-4	TERT-BUTYL METHYL ETHER	10 (G)	0	ug/l	ND	6.2	ND	5	ND
127-18-4	TETRACHLOROETHYLENE(PCE)	5	1	ug/l	2.8	190	ND	ND	ND
108-88-3	TOLUENE	5	0	ug/l	ND	ND	ND	1.6	ND
79-01-6	TRICHLOROETHYLENE (TCE)	5	0	ug/l	ND	3.9	ND	ND	ND
XYLENES	XYLENES, TOTAL	5	6	ug/l	ND	ND	84	28	ND
	Total VOCs				2.8	202	6329	343.3	ND
	SEMIVOLATILES								
91-57-6	2-METHYLNAPHTHALENE	NS	0	ug/l	ND	1.6 J	17	46	ND
83-32-9	ACENAPHTHENE	20 (G)	7	ug/l	ND	ND	83	110	ND
208-96-8	ACENAPHTHYLENE	NS	0	ug/l	ND	ND	1.3 J	ND	ND
98-86-2	ACETOPHENONE	NS	0	ug/l	ND	ND	5.6 J	ND	ND
120-12-7	ANTHRACENE	50 (G)	0	ug/l	ND	ND	3.9 J	3.7 J	ND
56-55-3	BENZO(A)ANTHRACENE	0.002 (G)	1	ug/l	ND	ND	ND	ND	ND
50-32-8	BENZO(A)PYRENE	ND	0	ug/l	ND	ND	ND	ND	ND
205-99-2	BENZO(B)FLUORANTHENE	0.002 (G)	1	ug/l	ND	ND	ND	ND	ND
92-52-4	BIPHENYL (DIPHENYL)	5	0	ug/l	ND	ND	2 J	2.7 J	ND
86-74-8	CARBAZOLE	NS	0	ug/l	ND	ND	3 J	4 J	ND
218-01-9	CHRYSENE	0.002 (G)	1	ug/l	ND	ND	ND	ND	ND
132-64-9	DIBENZOFURAN	NS	0	ug/l	ND	ND	4.9 J	4.9 J	ND
206-44-0	FLUORANTHENE	50 (G)	0	ug/l	ND	ND	3.4 J	1.6 J	ND
86-73-7	FLUORENE	50 (G)	0	ug/l	ND	ND	27	27	ND
91-20-3	NAPHTHALENE	10 (G)	3	ug/l	ND	2.5 J	100	150	ND
85-01-8	PHENANTHRENE	50 (G)	0	ug/l	ND	ND	26	18	ND
108-95-2	PHENOL	1	4	ug/l	ND	ND	51 J+	ND	ND
129-00-0	PYRENE	50 (G)	0	ug/l	ND	ND	3.8 J	2 J	ND
	Total SVOCs				ND	4.1	331.9	369.9	ND
Exceeds NY Class GA Standards									

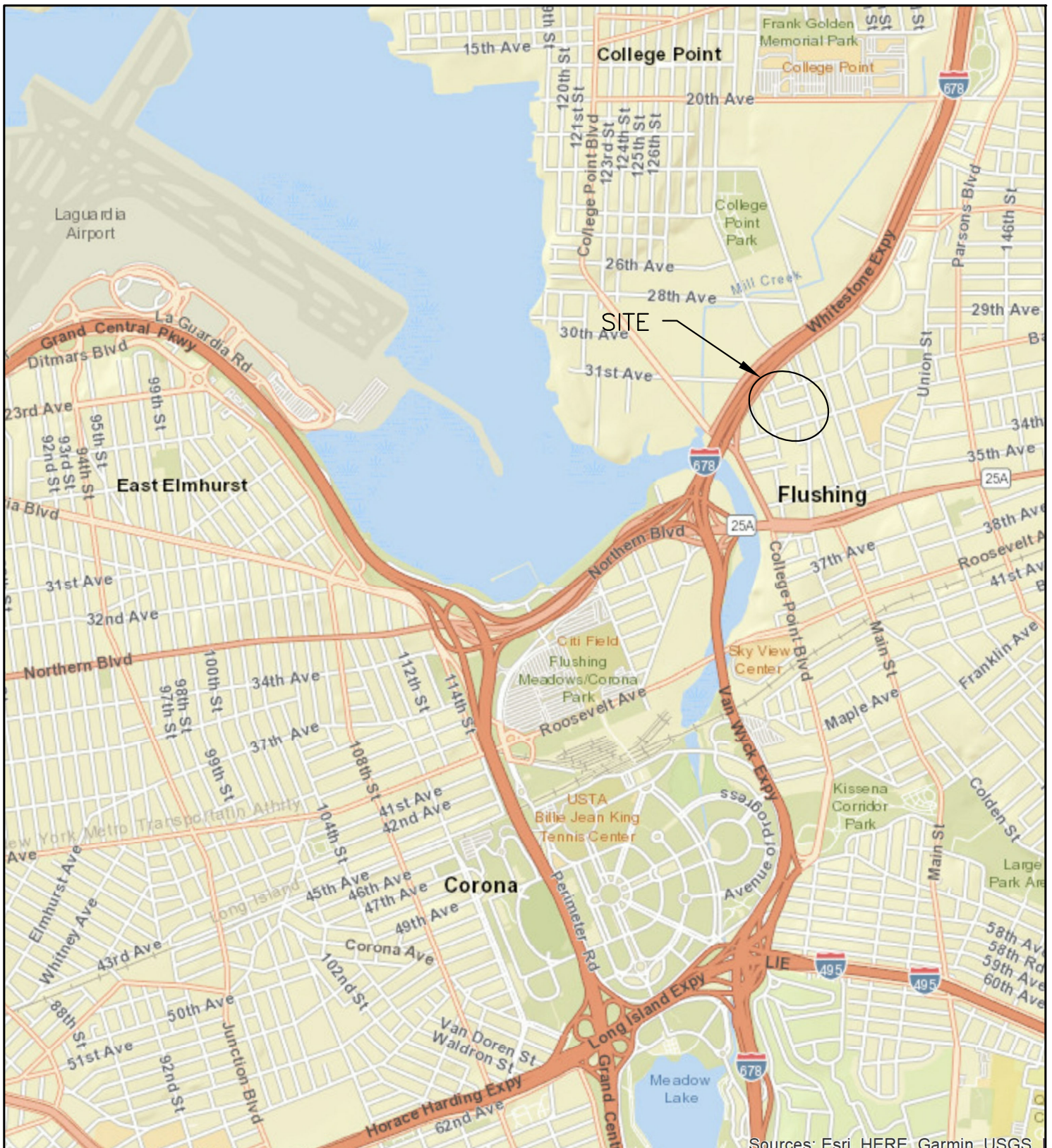
Table 2
Groundwater Analytical Results
Farrington Street Former Manufactured Gas Plant
Supplemental Remedial Investigation
Consolidated Edison Company of New York

Consolidated Edison Farrington Street MGP Site Validated 2018 Groundwater Analytical Data SDGs: 460-169523 & 460-169869 Detected Compound Summary				Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	MW-27 MW-27-20181114 460-169523-8 TALED 4601695231 WATER 11/14/2018 13:15 1/21/2019	MW-28 MW-28-20181114 460-169523-9 TALED 4601695231 WATER 11/14/2018 9:45 1/21/2019	MW-30 MW-30-20181114 460-169523-10 TALED 4601695231 WATER 11/14/2018 12:05 1/21/2019	CMW-38 MW-38-20181121 460-169869-1 TALED 4601698691 WATER 11/21/2018 12:35 1/21/2019	MW-CSB-60 MW-CSB-60-20181114 460-169523-6 TALED 4601695231 WATER 11/14/2018 9:55 1/21/2019
		NY Class GA Standards	NY Class GA Exceedances	UNITS:					
CAS NO.	COMPOUND								
	INORGANICS								
7429-90-5	ALUMINUM	NS	0	ug/l	97.5 J	382	831	61.5 J	31.5 J
7440-36-0	ANTIMONY	3	1	ug/l	ND	ND	ND	ND	ND
7440-38-2	ARSENIC	25	0	ug/l	ND	ND	ND	2.7 J	ND
7440-39-3	BARIUM	1000	1	ug/l	63.4 J	106 J	898	311	561
7440-43-9	CADMIUM	5	0	ug/l	ND	ND	ND	ND	ND
7440-70-2	CALCIUM	NS	0	ug/l	45700	105000	180000	134000	128000
7440-47-3	CHROMIUM, TOTAL	50	0	ug/l	1.3 J	4.5 J	2.4 J	ND	ND
7440-48-4	COBALT	NS	0	ug/l	ND	ND	6 J	ND	ND
7440-50-8	COPPER	200	0	ug/l	ND	ND	5.7 J	ND	ND
7439-89-6	IRON	300	11	ug/l	203 J+	630 J+	88300 J+	37800	25500 J+
7439-92-1	LEAD	25	0	ug/l	ND	ND	ND	ND	ND
7439-95-4	MAGNESIUM	35000 (G)	4	ug/l	12400	31500	63300	37600	22100
7439-96-5	MANGANESE	300	11	ug/l	72.5	903	950	274	838
7440-02-0	NICKEL	100	0	ug/l	3 J	14 J	19.2 J	6.7 J	1.9 J
7440-09-7	POTASSIUM	NS	0	ug/l	4820 J	7280	29800	14100	31000
7440-23-5	SODIUM	20000	13	ug/l	85000	241000	586000	169000	710000
7440-62-2	VANADIUM	NS	0	ug/l	ND	ND	ND	ND	ND
7440-66-6	ZINC	2000 (G)	0	ug/l	ND	10.8 J	4.4 J	ND	ND
57-12-5	CYANIDE	200	0	ug/l	ND	ND	38	91	18 J
Exceeds NY Class GA Standards									

Table 3
Summary of Hydraulic Conductivity Results
Farrington Stret Former Manufactured Gas Plant
Supplemental Remedial Investigation
Consolidated Edison Company of New York

<i>Well</i>	<i>Rising or Falling</i>	<i>Test #</i>	<i>Hydraulic Conductivity Hvorslev (ft/day)</i>	<i>Hydraulic Conductivity Bouwer & Rice (ft/day)</i>	<i>Depth to top of screen (ft TOC)</i>	<i>Depth to bottom of screen (ft TOC)</i>	<i>Screen length</i>	<i>Notes (if not indicated, 3' slug used)</i>
MW-15	R	Test 1 of 1	12.4	9.24	11	26	15	NAPL present.
MW-19	R	Test 1 of 1	23.7	17.1	12	28	16	Well screen not fully saturated. 5' slug.
MW-20	R	Test 1 of 1	60	44.4	12	22	10	Well screen not fully saturated.
MW-21	R	Test 1 of 2	7.19	5.67	12	22	10	
	R	Test 2 of 2	7.88	5.87				
MW-25	R	Test 1 of 1	0.27	0.22				
MW-27	R	Test 1 of 1	9.67	7.66	13	23	10	
MW-28	R	Test 1 of 1	1.36	1.07	11	21	10	
MW-30	R	Test 1 of 1	224	172	23	33	10	Screened in fine - course sand with trace gravel.
MW-36	R	Test 1 of 1	42.1	32.6	13	23	10	
MW-38	R	Test 1 of 1	28.3	19.3	9	39	30	NAPL present. Well screen not fully saturated. 5' slug.
MW-40	R	Test 1 of 1	156	110	13	23	10	Well screen not fully saturated.
MW-41	R	Test 1 of 1	3.28	2.27	5	13	8	Well screen not fully saturated.
MW-60	R	Test 1 of 1	107	85.3	5	15	10	Well screen not fully saturated. Well is screened ABOVE the clay layer. Screen is in sandy gravel layer.
GeoMean			15.63	11.76				

FIGURES



Source: Esri, Garmin, USGS, Intermap, INCREMENT P, NRCO, NGCC, OpenStreetMap Contributors, and the GIS User Community, 2018.



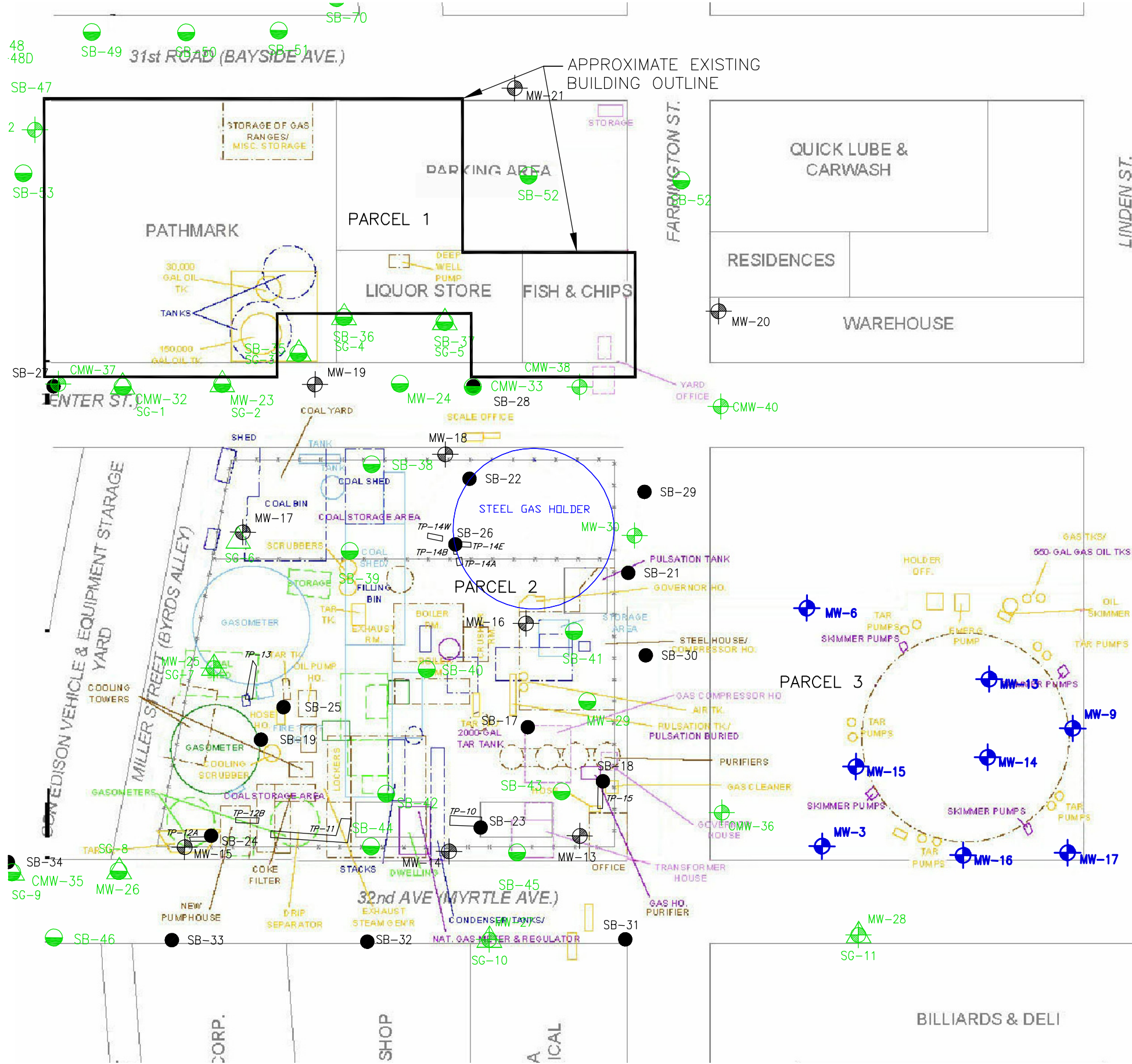
FIGURE 1

CONSOLIDATED EDISON
FORMER FARRINGTON STREET GAS WORKS
SUPPLEMENTAL REMEDIAL INVESTIGATION
QUEENS, NEW YORK

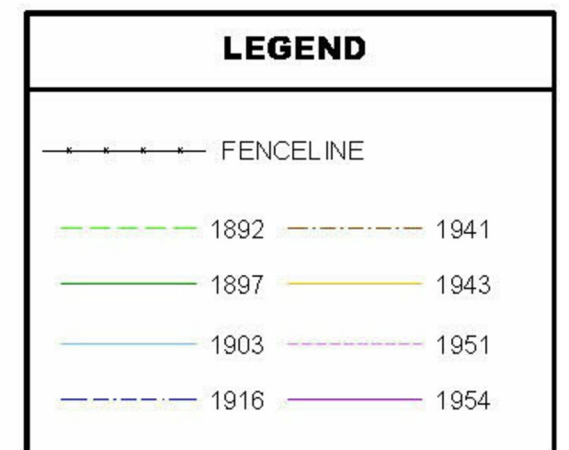
SITE LOCATION MAP

PARSONS

301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, N.Y. 13212, PHONE: 315-451-9560



- LEGEND:
- ◆ SITE CHARACTERIZATION MONITORING WELL LOCATIONS
 - SITE CHARACTERIZATION SOIL BORING LOCATIONS
 - TEST PIT LOCATIONS
 - ◆ REMEDIAL INVESTIGATION MONITORING WELL LOCATIONS
 - REMEDIAL INVESTIGATION SOIL BORING LOCATIONS
 - △ REMEDIAL INVESTIGATION SOIL GAS LOCATIONS
 - ◆ HOLDER STATION (PARCEL 3) NEW MONITORING WELL LOCATION
 - PARCEL BOUNDARY



NOTES

1) LOCATIONS OF HISTORIC STRUCTURES BASED ON FIGURE 4 IN THE SITE HISTORY REPORT (ENSR, 2003) WITH ONE EXCEPTION. THE LOCATION OF THE FORMER STEEL GAS HOLDER IN THE NORTHEASTERN PORTION OF PARCEL 2 HAS BEEN SHIFTED BASED ON OBSERVATIONS DURING THE SITE CHARACTERIZATION. ALL HISTORIC STRUCTURES AND ROAD LOCATIONS SHOULD BE CONSIDERED APPROXIMATE ON THIS FIGURE.



SCALE: 1"=80'

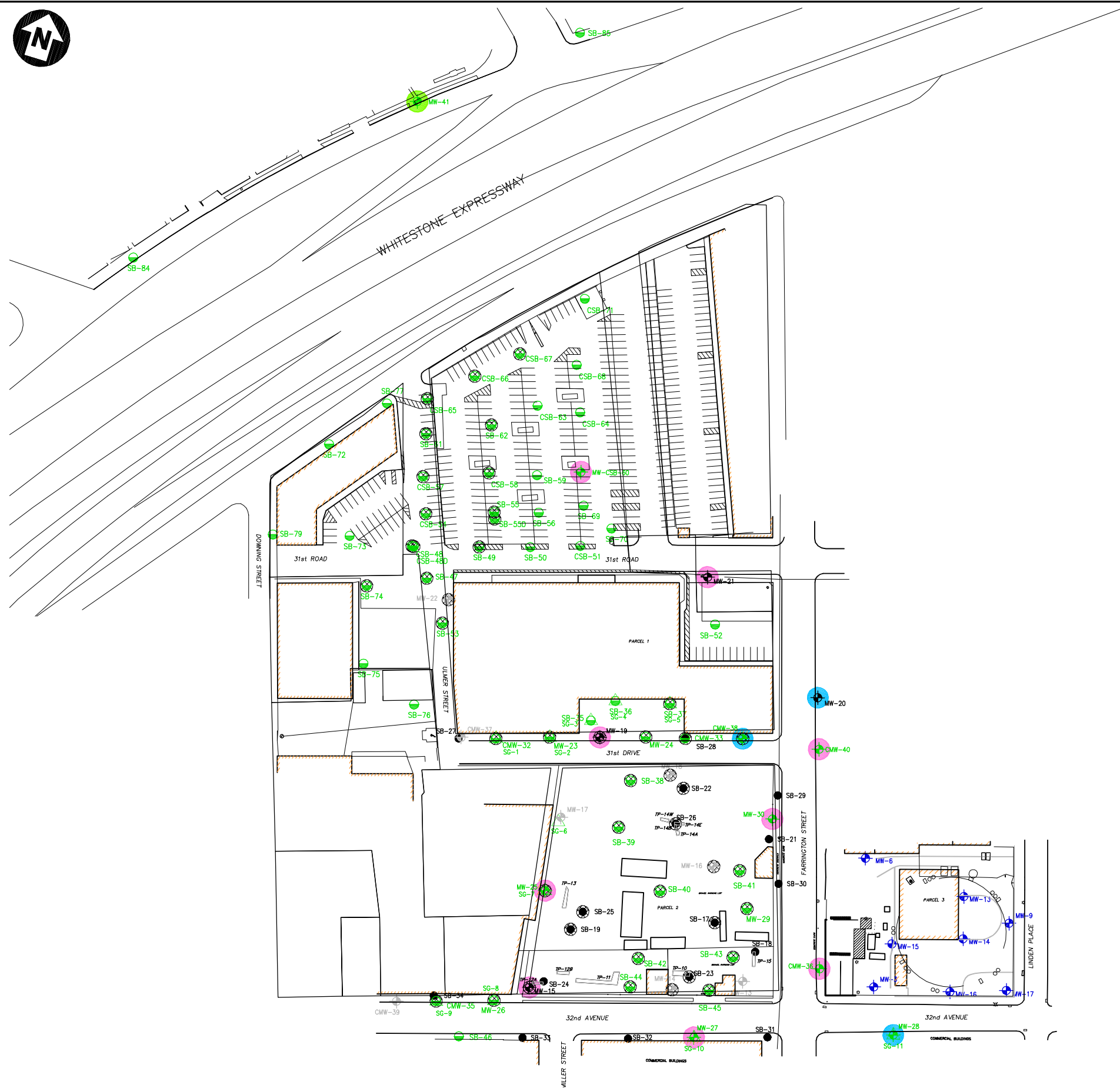
FIGURE 2

CON EDISON
FORMER FARRINGTON STREET WORKS
SUPPLEMENTAL REMEDIAL INVESTIGATION
QUEENS, NEW YORK

FORMER MGP STRUCTURES

PARSONS

301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NEW YORK 13212 PHONE:315-451-9560



LEGEND:

- SITE CHARACTERIZATION MONITORING WELL LOCATIONS
- SITE CHARACTERIZATION SOIL BORING LOCATIONS
- TEST PIT LOCATIONS
- REMEDIAL INVESTIGATION MONITORING WELL LOCATIONS
- REMEDIAL INVESTIGATION SOIL BORING LOCATIONS
- REMEDIAL INVESTIGATION SOIL GAS LOCATIONS
- HOLDER STATION (PARCEL 3) MONITORING WELL LOCATION
- MONITORING WELL DESTROYED/MISSING
- GROUNDWATER SAMPLING AND CONDUCTIVITY TESTING LOCATION
- GROUNDWATER SAMPLING, CONDUCTIVITY TESTING, AND TIDAL STUDY LOCATION
- TIDAL STUDY LOCATION

NOTES

1. BASE MAP PROVIDED BY CHAZEN ENGINEERING, CO., P.C. DATED 2/02/15.
2. HORIZONTAL POSITIONS ARE REFERENCED TO THE NEW YORK STATE PLANE COORDINATE SYSTEM, LONG ISLAND ZONE. THE REFERENCE DATUM IS NORTH AMERICAN DATUM OF 1983(NAD83)(CORS96)(EPOCH2002.00)
3. VERTICAL DATUM IS BASED UPON NAVD88.
4. MONITORING WELL LOCATIONS LOCATED IN PARCEL 3 WERE BASED ON A FIELD SURVEY CONDUCTED ON MAY 1, 2014 AND ARE PART OF A POST-IRM GROUNDWATER MONITORING PROGRAM.

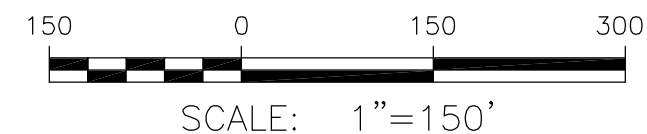
FIGURE 3

CON EDISON
FORMER FARRINGTON STREET WORKS
NEW YORK, NEW YORK

SAMPLE LOCATION MAP

PARSONS

301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NEW YORK 13212 PHONE:315-451-9560





LEGEND:

-  GROUNDWATER MONITORING WELL
GAUGED IN NOVEMBER 2018
-  INFERRED GROUNDWATER
CONTOUR
-  GROUNDWATER CONTOURS
- (1.1') NOVEMBER 2018
GROUNDWATER ELEVATIONS
(FT ASML)

NOTES:

- GROUNDWATER ELEVATIONS IN FEET AMSL
- GROUNDWATER ELEVATION
DATA COLLECTED 11/13/2018
- LNAPL WAS MEASURED IN MONITORING
WELLS MW-15 AND MW-19 DURING
THE NOVEMBER 2018 GAUGING EVENT.
A SPECIFIC GRAVITY OF 0.93 WAS USED
TO CALCULATE A CORRECTION FACTOR
THAT WAS USED TO ADJUST
GROUNDWATER ELEVATIONS IN
THESE WELLS.
- THE FOLLOWING MONITORING WELLS
COULD NOT BE LOCATED OR WERE
DAMAGED AT THE TIME OF GAUGING:
MW-13, MW-14, MW-16, MW-17,
MW-18, MW-22, CMW-37,
AND CMW-39.

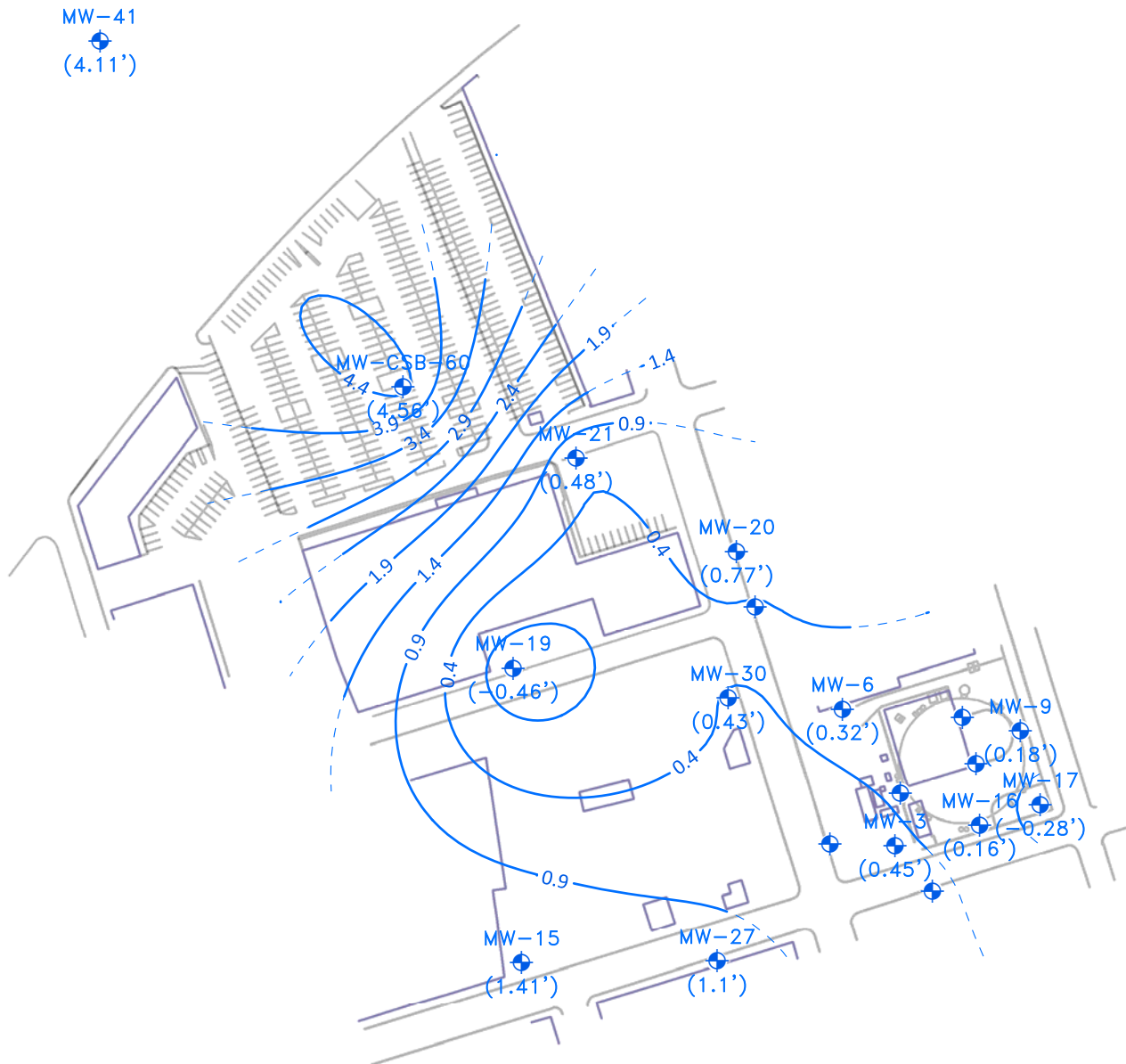


FIGURE 4

CON EDISON
SUPPLEMENTAL REMEDIAL INVESTIGATION
FORMER FARRINGTON STREET WORKS
NEW YORK, NEW YORK

GROUNDWATER CONTOUR MAP

PARSONS

301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NEW YORK 13212 PHONE:315-451-9560



NOTES

1. ALL CONCENTRATIONS ARE IN PARTS PER BILLION (ppb).
2. SHADED VALUES EXCEED NYSDEC GROUNDWATER QUALITY STANDARDS OR GUIDANCE VALUES (TOGS 1.1.1).
3. NO VOCs OR SVOCs WERE DETECTED ABOVE QUALITY STANDARDS OR GUIDANCE VALUES IN CMW-36, CMW-39, MW-27, MW-41, OR MW-CSB-60.
4. ONLY COMPOUNDS THAT EXCEED QUALITY STANDARDS OR GUIDANCE VALUES, FOR A GIVEN LOCATION, ARE SHOWN.
5. ND INDICATES COMPOUND WAS NOT DETECTED.
6. "J" INDICATES AN ESTIMATED CONCENTRATION.

MW-21	2009	2011	2015	2018
PHENOL	4.1	ND	ND	ND
TOTAL SVOCs	6.5	ND	ND	2.3

CMW-38	2011	2018
BENZENE	360	190
ETHYLBENZENE	320	51
ISOPROPYLBENZENE	54	57
TOTAL XYLENE	113	28
TERT-BUTYL METHYL ETHER	17	ND
TOTAL VOCs	883.3	343.3
ACENAPHTHENE	17	ND
BENZO(A)ANTHRACENE	17	ND
BENZO(B)FLUORANTHENE	8.6 J	ND
CHRYSENE	15	ND
FLUORENE	60	27
NAPHTHALENE	1800	150
PHENANTHRENE	120	18
TOTAL SVOCs	2925.9	369.9

MW-20	2009	2011	2015	2018
BENZENE	3.4 J	ND	ND	520
CIS-1,2-DICHLOROETHENE	5.7	ND	ND	ND
TERT-BUTYL METHYL ETHER	24	12	ND	9.9
ISOPROPYLBENZENE	ND	ND	ND	13
TOTAL XYLENES	ND	ND	ND	12
TOTAL VOCs	34.2	23	0.56	564.8
ACENAPHTHENE	22	23	ND	35
PHENOL	17.7	ND	ND	3.3 J
TOTAL SVOCs	26.4	23	ND	53.43

CMW-40	2011	2015	2018
BENZENE	1400	0.55 J	4500
ETHYLBENZENE	4.4	ND	5.3 J
ISOPROPYLBENZENE	7.6	ND	25
TOTAL XYLENES	8.6 J	ND	14.3
TOTAL VOCs	1428.7	3.86	4560.6
ACENAPHTHENE	16	3.2	32
PHENOL	17	ND	44 J±
TOTAL SVOCs	39.9	3.2	98.86

MW-30	2011	2015	2018
BENZENE	2800	1.4 J	6100
ETHYLBENZENE	210 J	ND	76
ISOPROPYLBENZENE	80	1.1 J	69
TOTAL XYLENE	26	ND	84
TOLUENE	97	0.48 J	ND
TOTAL VOCs	3211.3	14.66	6329
ACENAPHTHENE	140	ND	83
NAPHTHALENE	370	ND	100
PHENANTHRENE	55	3.2 J	ND
PHENOL	17	ND	51 J±
TOTAL SVOCs	889.8	7.9	331.9

MW-16	2009	2011	2015
BENZENE	2300	270	180
ETHYLBENZENE	250	78	13
ISOPROPYLBENZENE	110 J	27	14.3
o-XYLENES	67 J	8.6 J	2.4 J
m/p-XYLENES	170 J	28	5.3
TOLUENE	17 J	ND	0.74 J
TOTAL VOCs	2933.4	439.1	221.69
ACENAPHTHENE	180 J	57	50.8
NAPHTHALENE	1900	200	49.4
PENTACHLOROPHENOL	4.2 J	ND	ND
PHENOL	22	ND	ND
TOTAL SVOCs	2681.1	414.1	140.2

CMW-36	2018
TETRACHLOROETHYLENE (PCE)	48.7
TOTAL VOCs	48.7

MW-28	2011	2015	2018
TETRACHLOROETHYLENE (PCE)	33.5	37.5	202
TOTAL VOCs	33.5	37.5	202

MW-13	2009	2011	2015
ACENAPHTHENE	89	ND	ND
BENZO(A)ANTHRACENE	1.8 J	ND	ND
CHRYSENE	1.7 J	ND	ND
NAPHTHALENE	510	ND	ND
PHENOL	5.2 J	ND	ND
TOTAL SVOCs	809.1	ND	ND

MW-14	2009	DUP
BENZENE	2.8 J	2.9 J
CIS-1,2-DICHLOROETHENE	8.1	8.4
ETHYLBENZENE	90	120
ISOPROPYLBENZENE	14	15
o-XYLENE	25	25
VINYL CHLORIDE	2.4 J	1.2 J
TOTAL VOCs	158.3	190.8
2-METHYLPHENOL	ND	1.3 J
ACENAPHTHENE	9.2 J	110
BENZO(A)ANTHRACENE	ND	2.3 J
BENZO(B)FLUORANTHENE	ND	1.2 J
CHRYSENE	ND	2.2 J
NAPHTHALENE	21 J	650 J
PHENANTHRENE	2.1 J	5.3 J
PHENOL	ND	8.9 J
TOTAL SVOCs	42.6	1015.6

MW-15	2009	2011	2018
BENZENE	13	3.7 J	0.52
ETHYLBENZENE	94	25	8.4
ISOPROPYLBENZENE	24	5.2	2.4
TOTAL XYLENE	21.2	7.95	3.9
TOTAL VOCs	161.1	47	15.77
ACENAPHTHENE	130	100	76
BENZO(A)ANTHRACENE	1.6 J	23	2.1
BENZO(B)FLUORANTHENE	ND	1.3	1.2 J
CHRYSENE	1.5 J	20	2.1
INDENO(1,2,3-C,D)PYRENE	ND	4.5 J	ND
NAPHTHALENE	220	35	2.4
TOTAL SVOCs	427.8	404.5	127.6

CMW-37	2011	2015
BENZENE	3.9 J	4.6 J
TOTAL VOCs	10.4	15.15
NAPHTHALENE	23	317
TOTAL SVOCs	34	54.4

MW-19	2009	2011	2018
BENZENE	8.8	4.8 J	4.6
ETHYLBENZENE	310	100	74
ISOPROPYLBENZENE	45	25	35
TOTAL XYLENES	198	38.2 J	50
TOLUENE	8.2	ND	2.6
TOTAL VOCs	592.1	183.9	191.84
ACENAPHTHENE	94	70	88
NAPHTHALENE	3000	980	430
PENTACHLOROPHENOL	2.4 J	ND	ND
PHENOL	3 J	ND	ND
TOTAL SVOCs	3469.8	1188.6	638.3

MW-18	2009	2011
BENZENE	940	830
ETHYLBENZENE	170	150
ISOPROPYLBENZENE	75	33
m/p-XYLENES	16	22
o-XYLENE	32	20
TOTAL VOCs	1256.5	1088.1
ACENAPHTHENE	82	40
NAPHTHALENE	380	130
PHENOL	18	6.2 J
TOTAL SVOCs	759.4	336.5

MW-17	2009	2011	2015	DUP
BENZENE	9.9	ND	ND	ND
TERT-BUTYL METHYL ETHER	57	89	27.2	100
TOTAL VOCs	73.2	89	27.49	100
ACENAPHTHENE	11 J	ND	17.1	17
NAPHTHALENE	11 J	ND	ND	ND
PHENOL	1.4 J	ND	ND	ND
TOTAL SVOCs	73.3	35.2	17.1	30

MW-25	2011	2015	2018
BENZENE	8.4	ND	2.5
ETHYLBENZENE	100	ND	ND
ISOPROPYLBENZENE	11	ND	ND
m/p-XYLENE	28	ND	ND
o-XYLENE	27	ND	ND
TERT-BUTYL METHYL ETHER	75	ND	ND
TOTAL VOCs	256.6	4.89	2.5
ACENAPHTHENE	52	ND	ND
NAPHTHALENE	45	ND	ND
TOTAL SVOCs	183.9	ND	ND

LEGEND:

- SITE CHARACTERIZATION MONITORING WELL LOCATIONS
- SITE CHARACTERIZATION SOIL BORING LOCATIONS
- TEST PIT LOCATIONS
- REMEDIAL INVESTIGATION MONITORING WELL LOCATIONS
- REMEDIAL INVESTIGATION SOIL BORING LOCATIONS
- ▲ REMEDIAL INVESTIGATION SOIL GAS LOCATIONS
- HOLDER STATION (PARCEL 3) MONITORING WELL LOCATION
- ⊗ NAPL OBSERVED DURING INSTALLATION

80 40 0 80 160
SCALE: 1"=80'

FIGURE 5
CON EDISON
FORMER FARRINGTON STREET WORKS
SUPPLEMENTAL REMEDIAL INVESTIGATION
QUEENS, NEW YORK
VOC AND SVOC EXCEEDANCES IN
GROUNDWATER

Figure 6
NAPL Sampling - Specific Gravity versus Temperature
Farrington Street Former Manufactured Gas Plant
Supplemental Remedial Investigation
Consolidated Edison Company of New York

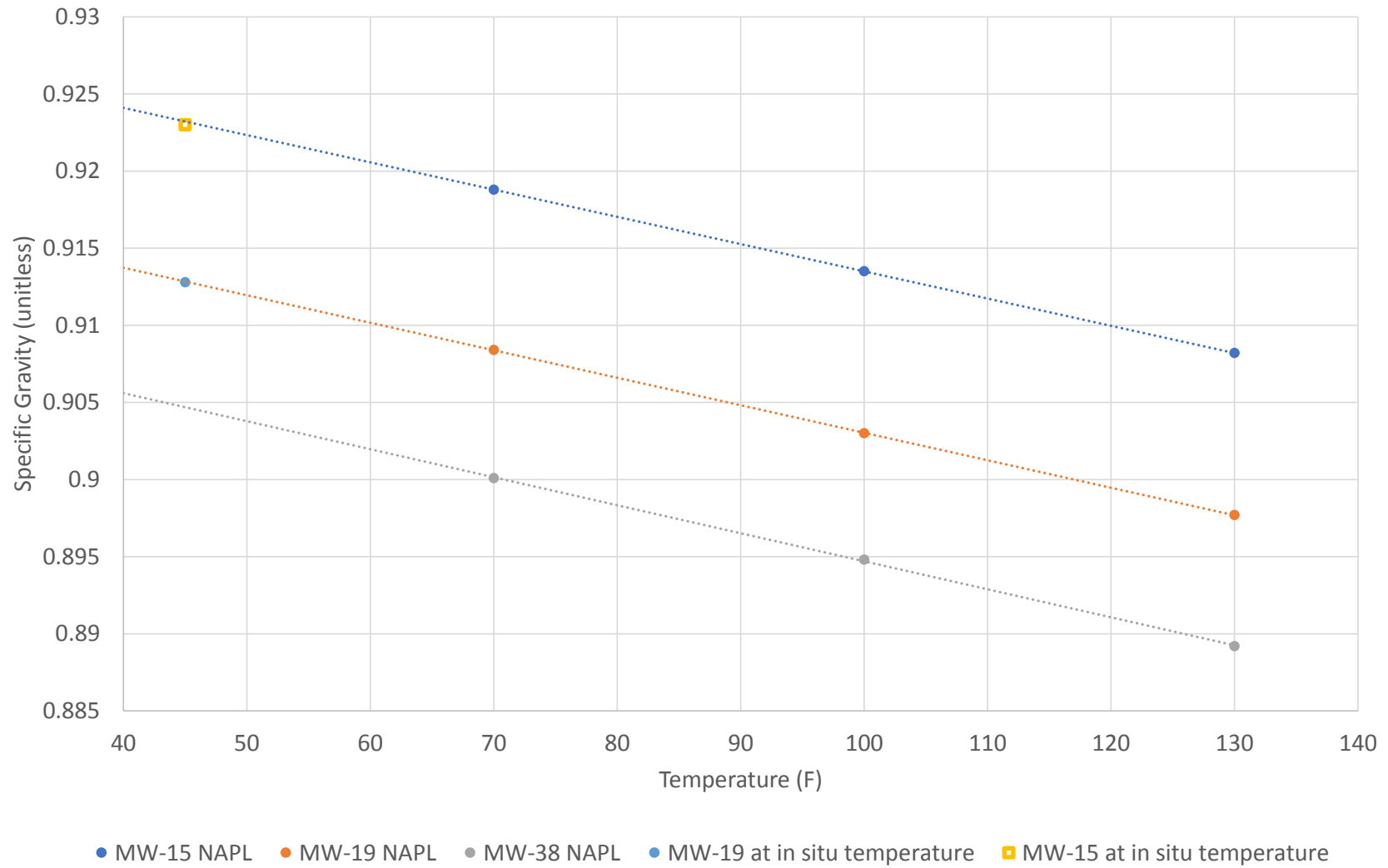


Figure 7
NAPL Sampling - NAPL versus Water Viscosity
Farrington Street Former Manufactured Gas Plant
Supplemental Remedial Investigation
Consolidated Edison Company of New York

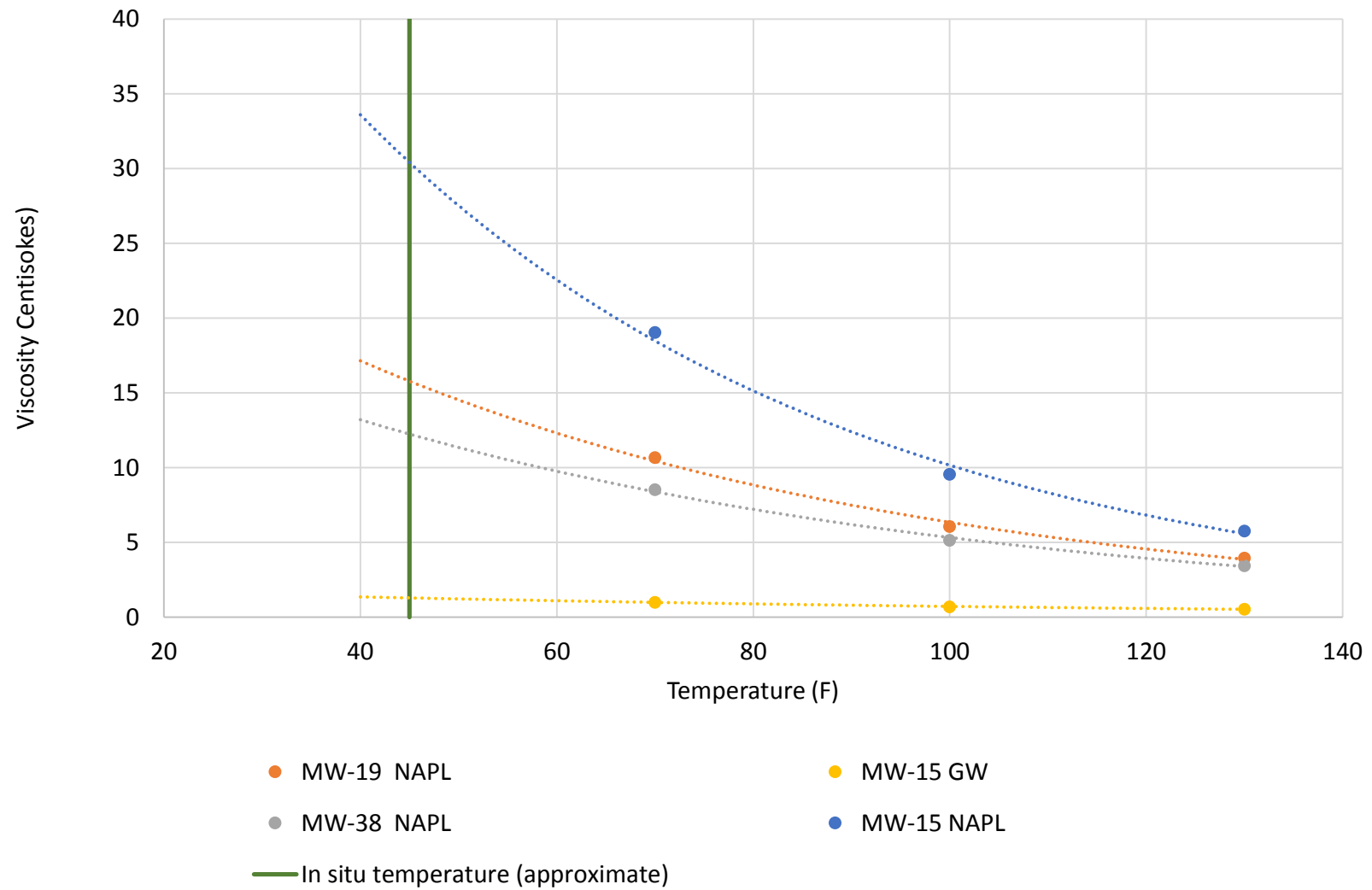
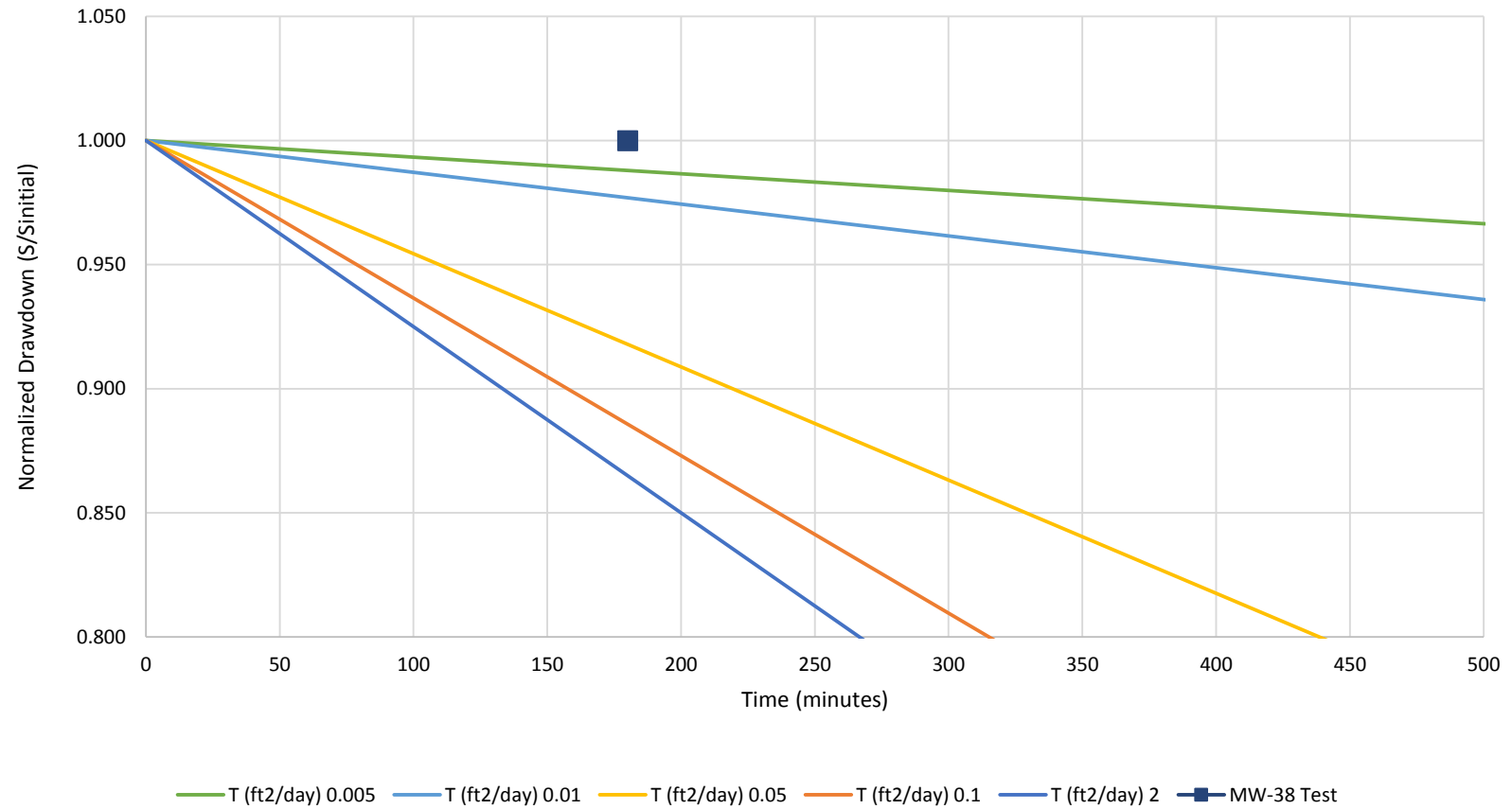
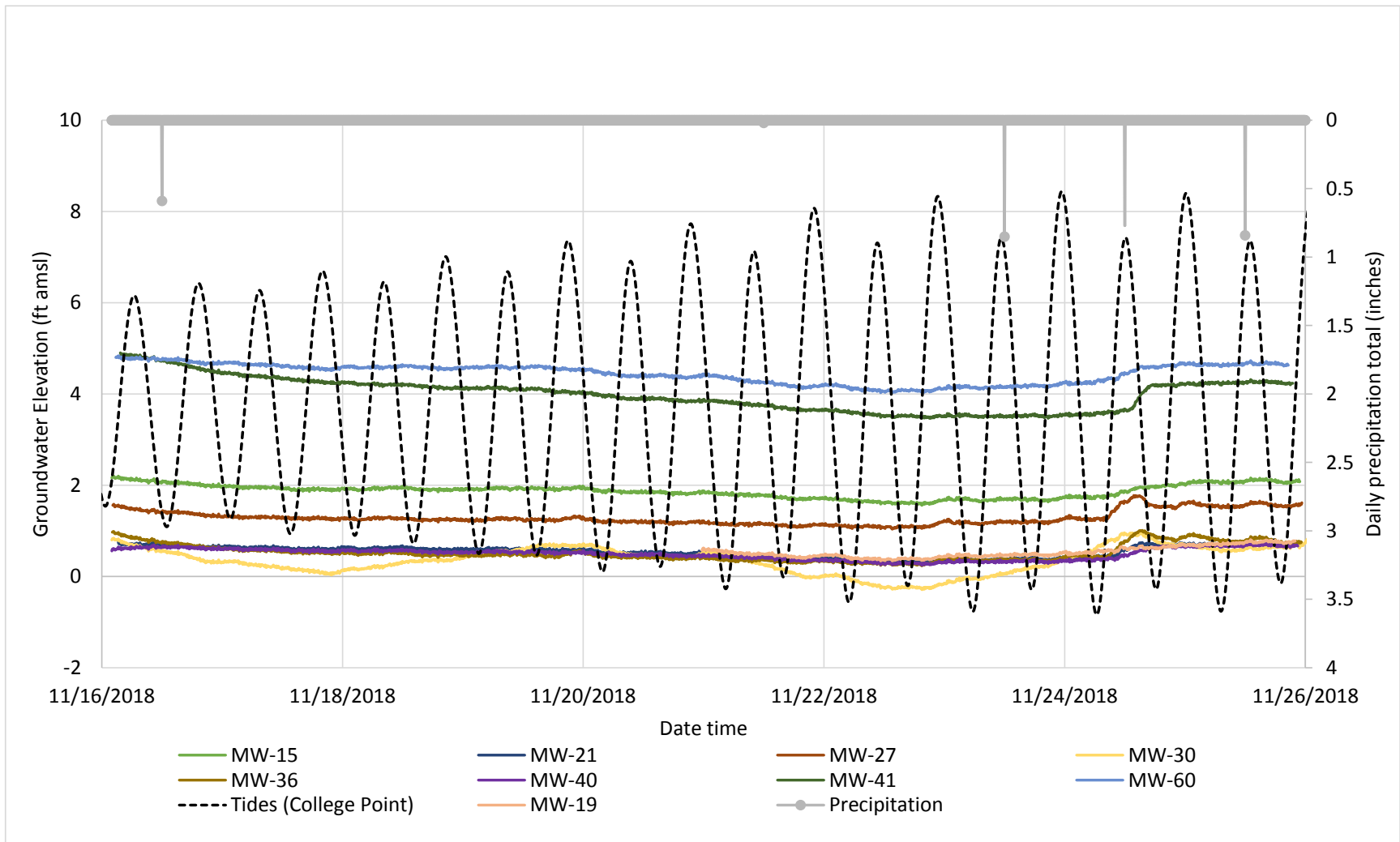


Figure 8
Types Curves of NAPL Transmissivity and CMW-38 Test Attmpt
Farrington Street Former Manufactured Gas Plant
Supplemental Remedial Investigation
Consolidated Edison Company of New York



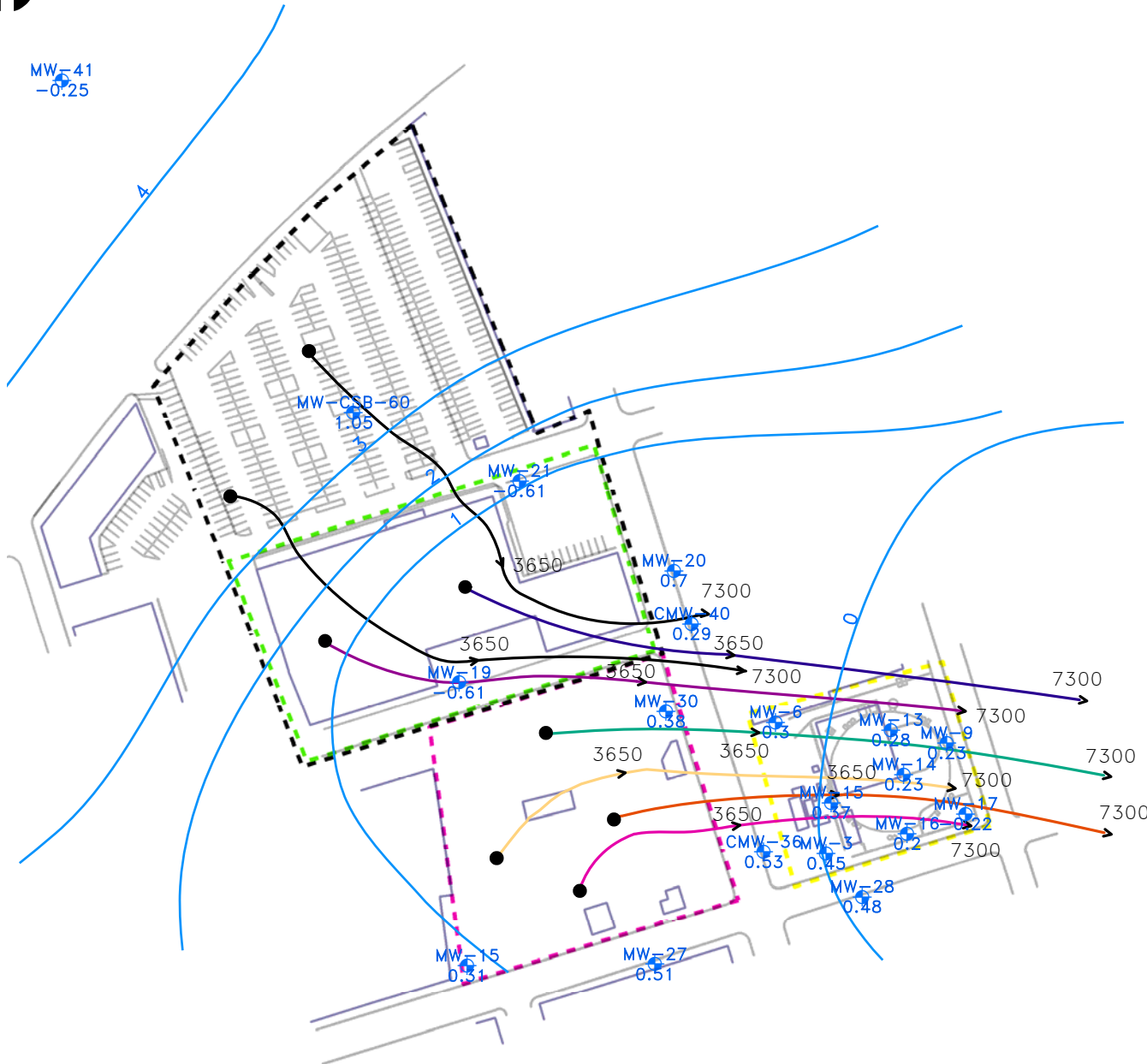
Type Curves from API NAPL Workbook (API PUBLICATION 4762 APRIL 2016)

Figure 9
 Summary of Tidal Influence
 Farrington Stret Former Manufactured Gas Plant
 Supplemental Remedial Investigation
 Consolidated Edison Company of New York





MW-41
-0.25



LEGEND:

- PARCEL 1
- PARCEL 2
- PARCEL 3
- MARKET AREA
- CALIBRATION TARGETS
- GROUNDWATER CONTOURS
- NORTHERN BARRIER WALL PARTICLES
- PARTICLE 1
- PARTICLE 2
- PARTICLE 3
- PARTICLE 4
- PARTICLE 5
- PARTICLE 6
- PARTICLE STARTING LOCATIONS

NOTES:

1. EACH ARROW REPRESENTS A TIME STAMP IN DAYS. PARTICLES END AT 20 YRS.
2. EACH TARGET IS DISPLAYED WITH THE HYDRAULIC HEAD RESIDUAL. SIMULATED - OBSERVED.
3. CONTOUR INTERVAL = 1 FOOT
4. ELEVATIONS IN FEET AMSL

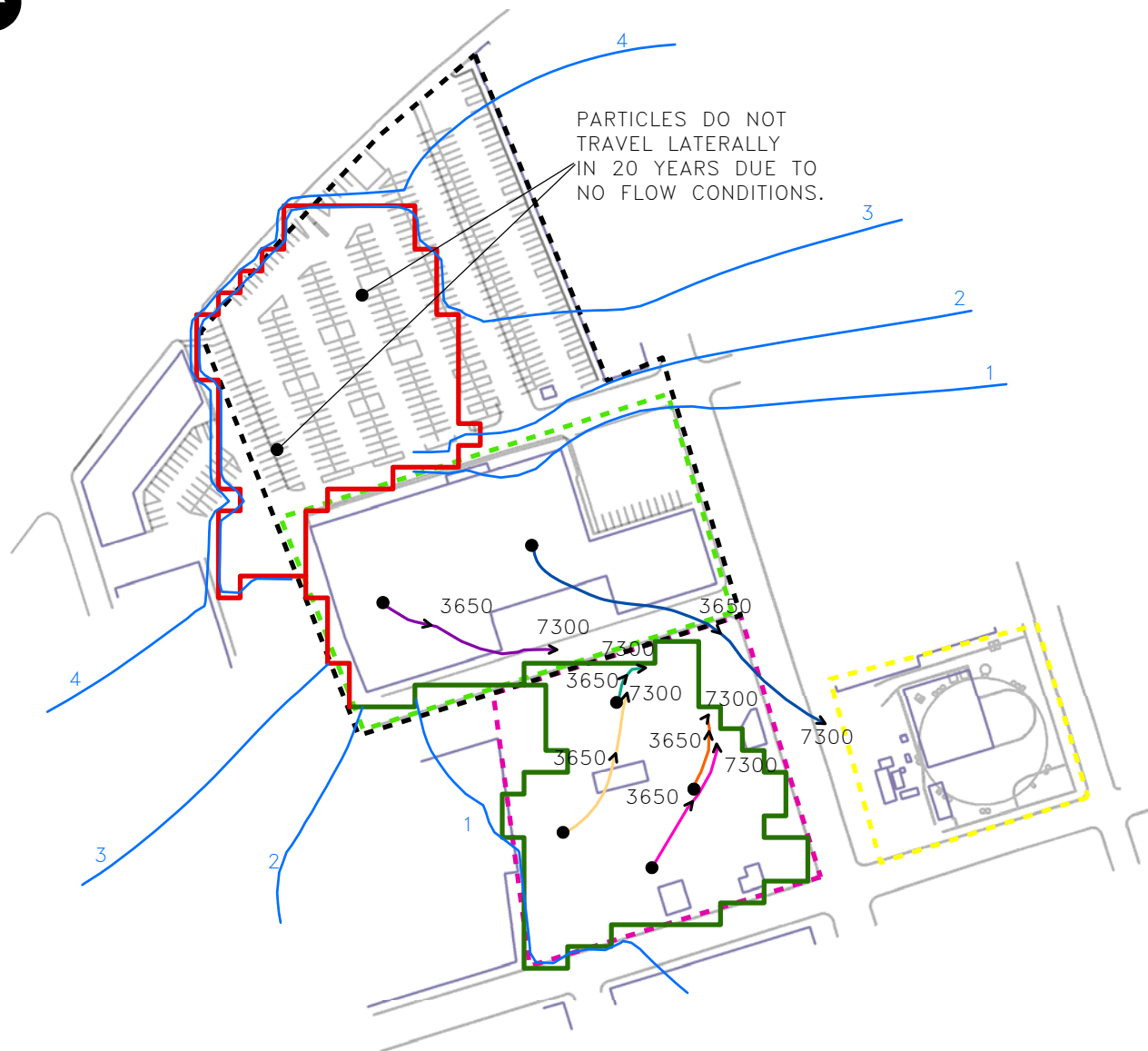
FIGURE 10

CON EDISON
SUPPLEMENTAL REMEDIAL INVESTIGATION
FORMER FARRINGTON STREET WORKS
NEW YORK, NEW YORK
GROUNDWATER MODEL
EXISTING CONDITIONS

PARSONS

301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NEW YORK 13212 PHONE: 315-451-9560





LEGEND:

- PARCEL 1
- PARCEL 2
- PARCEL 3
- MARKET AREA
- GROUNDWATER CONTOURS
- BARRIER WALL 18 FEET BGS
- BARRIER WALL 40 FEET BGS
- PARTICLE 1
- PARTICLE 2
- PARTICLE 3
- PARTICLE 4
- PARTICLE 5
- PARTICLE 6
- PARTICLE STARTING LOCATIONS

NOTES:

1. EACH ARROW REPRESENTS A TIME STAMP IN DAYS. PARTICLES END AT 20 YEARS
2. CONTOUR INTERVAL = 1 FOOT
3. ELEVATIONS IN FEET AMSL

FIGURE 11

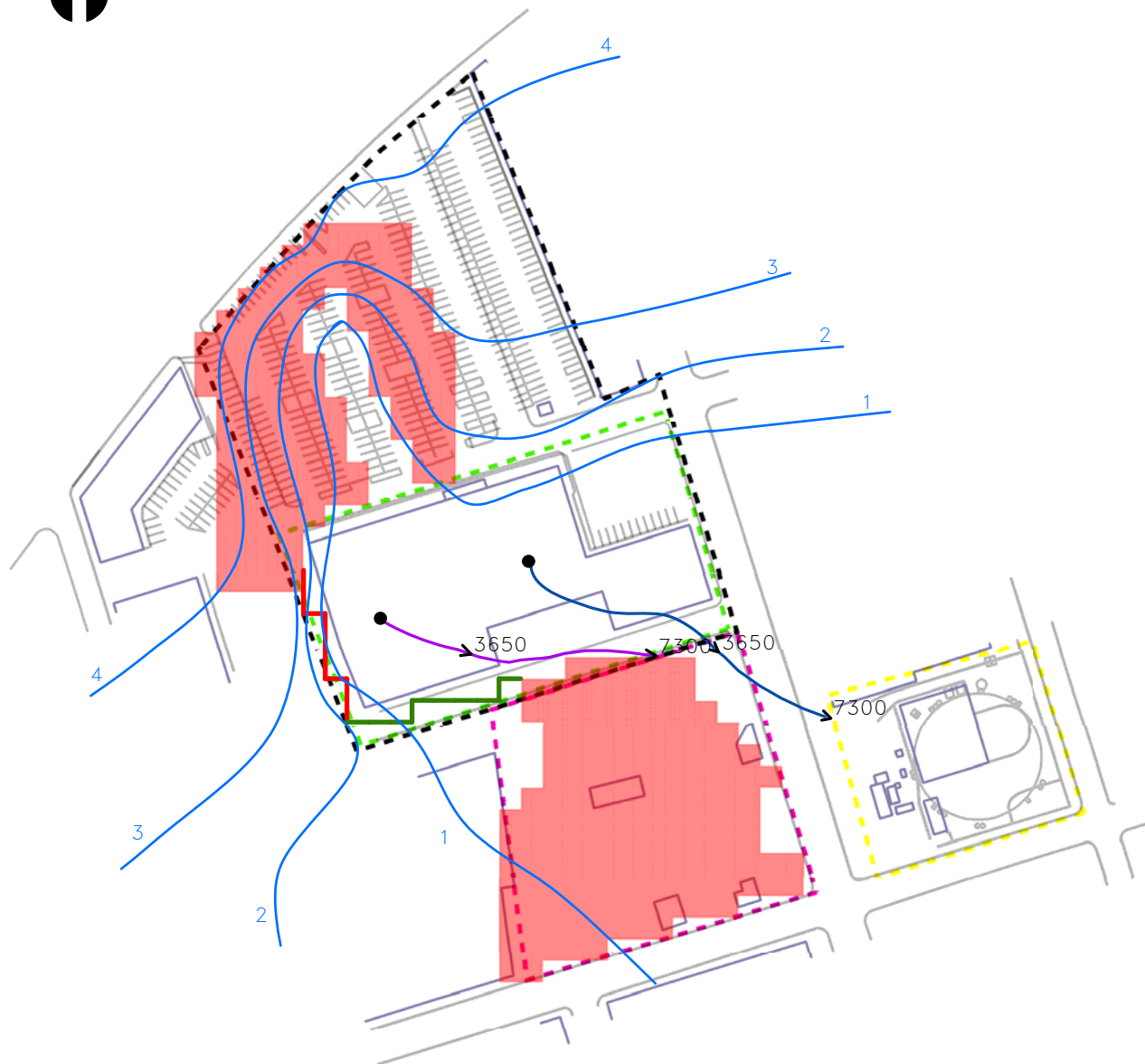
CON EDISON
SUPPLEMENTAL REMEDIAL INVESTIGATION
FORMER FARRINGTON STREET WORKS
NEW YORK, NEW YORK

GROUNDWATER MODEL
BARRIER WALL

PARSONS

301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NEW YORK 13212 PHONE: 315-451-9560





LEGEND:

- PARCEL 1
- PARCEL 2
- PARCEL 3
- MARKET AREA
- GROUNDWATER CONTOURS
- PARTICLE 1
- PARTICLE 2
- BARRIER WALL 40 FEET BGS
- BARRIER WALL 18 FEET BGS
- ISS
- PARTICLE STARTING LOCATIONS

NOTES:

1. EACH ARROW REPRESENTS A TIME STAMP IN DAYS. PARTICLES END AT 20 YEARS
2. CONTOUR INTERVAL = 1 FOOT
3. ELEVATIONS IN FEET AMSL

FIGURE 12

CON EDISON
SUPPLEMENTAL REMEDIAL INVESTIGATION
FORMER FARRINGTON STREET WORKS
NEW YORK, NEW YORK

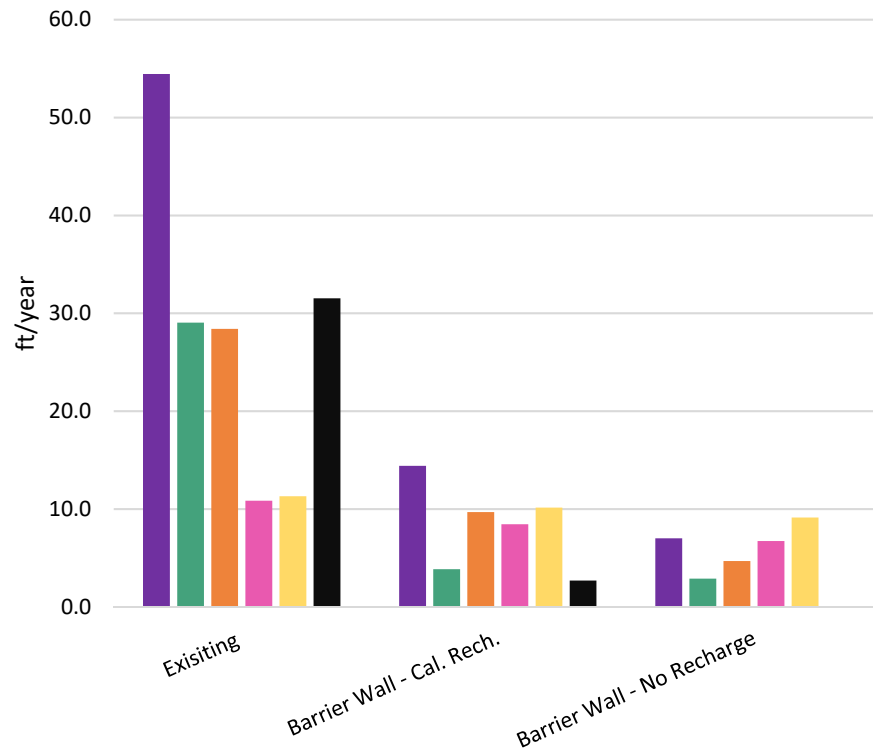
GROUNDWATER MODEL
ISS AND BARRIER WALL

PARSONS

301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NEW YORK 13212 PHONE: 315-451-9560



Average Linear Velocity - Existing Conditions
Compared with the Barrier Wall (with and without
recharge)



■ Market Parcel - West Particle
 ■ Parcel 2 North Particle
 ■ Parcel 2 East Particle
 ■ Parcel 2 South Particle
 ■ Parcel 2 West Particle
 ■ Parking Lot

Average Linear Velocity for the Market
Parcel Comparison

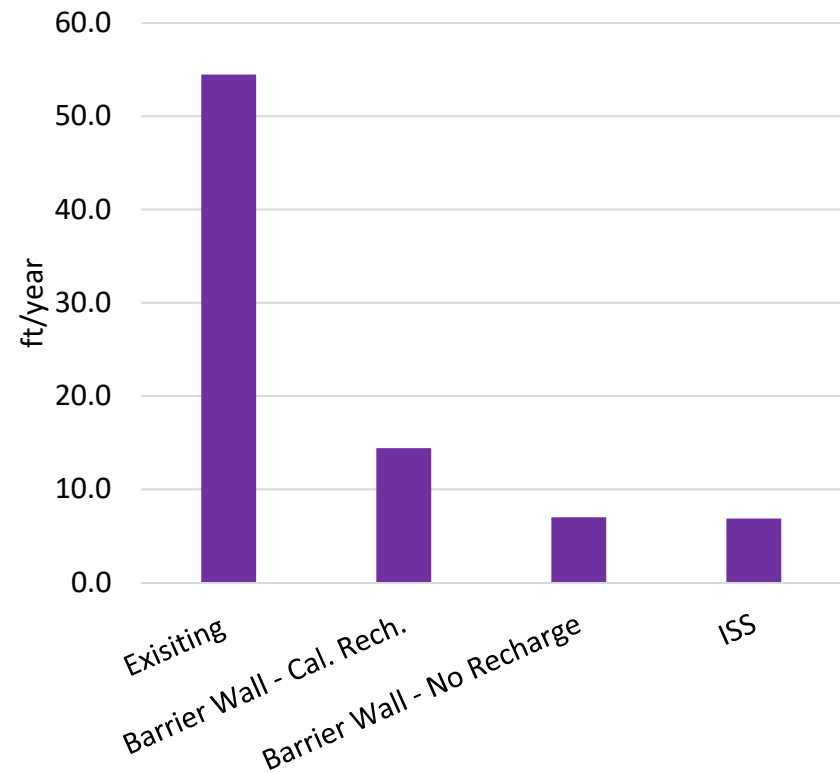


FIGURE 13

CON EDISON
FORMER FARRINGTON STREET WORKS
SUPPLEMENTAL INVESTIGATION
QUEENS, NEW YORK

COMPARISON OF GROUNDWATER
VELOCITIES FOR EACH SCENARIO

PARSONS

301 PLAINFIELD ROAD, SUITE 350 SYRACUSE, NEW YORK 13212
PHONE: 315-451-9560

APPENDIX A

GROUNDWATER SAMPLING LOGS

PARSONS

SITE NAME:	Farrington Street Former MGP		
PROJECT NUMBER:	451356.01000		
Purge Date:	11/15/18		
Sampling Date:	11/15/18		
Samplers:	Tom Horn	of	Parsons / Somerset, NJ
SAMPLE ID:	MW-15-20181114		
Sampling Method:	Low-flow		

WELL PURGING

Static Water Level (TOC):	<u>10.80</u>		
Depth to Well Bottom (TOC):	<u>27.75</u>		
CALCULATIONS:			
	Ft. of Water in Well _____	X (GAL / FT) = _____	Gallons
2-inch Casing:	Ft. of Water in Well <u>16.95</u>	x 0.16 = _____	<u>2.71</u> Gallons
3-inch Casing:	Ft. of Water in Well _____	x 0.32 = _____	Gallons
4-inch Casing:	Ft. of Water in Well _____	x 1.48 = _____	Gallons
Method:			

SAMPLE DESCRIPTION

Odor : _____
Other : _____

FIELD TESTS

Time	1315	1320	1325	1330	1335	1340	1345	1350
Depth To Water (TOC) (ft)	10.80	10.82	10.85	10.85	10.85	10.85	10.85	
Flow Rate (ml/min)	300	300	300	300	300	300	300	
Volume of Water Purged	0.00	0.40	0.79	1.19	1.59	1.98	2.38	
pH (s.u.)	6.44	6.45	6.45	6.47	6.50	6.47	6.46	
Conductivity (mS/cm)	24.6	23.2	22.1	22.2	16.6	16.8	16.9	
Turbidity (NTUs)	45.4	42.8	36.3	40.1	38.8	31.4	30.9	
Dissolved Oxygen (mg/L)	3.77	3.72	3.70	1.96	0	0	0	
Temperature (Degrees C)	16.08	16.15	16.26	16.52	16.85	16.90	16.91	
ORP (mV)	-48	-50	-53	-56	-62	-61	-61	

SAMPLE ANALYSIS / LABORATORY VOCs

Analyze For:	SVOCs
	TAL Metals
	Cyanide
Shipped Via:	Courier
Laboratory	Test America
Other Notes:	

PARSONS

GROUNDWATER SAMPLING RECORD

SITE NAME: Farrington Street Former MGP
PROJECT NUMBER: 451356.01000
Purge Date: 11/15/18
Sampling Date: 11/15/18
Samplers: Tom Horn of Parsons / Somerset, NJ
SAMPLE ID: MW-19-20181114
Sampling Method: Low-flow

WELL PURGING

Static Water Level (TOC): 13.24
 Depth to Well Bottom (TOC): 28.74
CALCULATIONS:
 2-inch Casing: Ft. of Water in Well 15.50 X (GAL / FT) = 2.48 Gallons
 3-inch Casing: Ft. of Water in Well x 0.32 = Gallons
 4-inch Casing: Ft. of Water in Well x 1.48 = Gallons
 Method:

SAMPLE DESCRIPTION

Odor :
 Other :

FIELD TESTS

	PURGE	PURGE	PURGE	PURGE	PURGE	PURGE	PURGE	SAMPLE
Time	1100	1105	1110	1115	1120	1125	1130	1135
Depth To Water (TOC) (ft)	13.24	13.24	13.24	13.24	13.24	13.24	13.24	
Flow Rate (ml/min)	300	300	300	300	300	300	300	
Volume of Water Purged	0.00	0.40	0.79	1.19	1.59	1.98	2.38	
pH (s.u.)	6.76	6.76	6.78	6.79	6.79	6.79	6.79	
Conductivity (mS/cm)	2.4	2.41	2.4	2.35	2.31	2.29	2.26	
Turbidity (NTUs)	24.6	24.7	27.7	20.6	8.8	2.6	0.7	
Dissolved Oxygen (mg/L)	3.31	3.26	0.69	0.24	0.09	0.0	0.0	
Temperature (Degrees C)	14.8	14.84	14.92	15.19	15.20	15.22	15.34	
ORP (mV)	-130	-131	-133	-138	-140	-141	-142	

SAMPLE ANALYSIS / LABORATORY VOCs

Analyze For: SVOCs
TAL Metals
Cyanide
 Shipped Via: Courier
 Laboratory: Test America
 Other Notes:

PARSONS

GROUNDWATER SAMPLING RECORD

SITE NAME: Farrington Street Former MGP
PROJECT NUMBER: 451356.01000
Purge Date: 11/15/18
Sampling Date: 11/15/18
Samplers: Tom Horn of Parsons / Somerset, NJ
SAMPLE ID: MW-27-20181114
Sampling Method: Low-flow

WELL PURGING

Static Water Level (TOC): 10.31
 Depth to Well Bottom (TOC): 22.45
CALCULATIONS:
 2-inch Casing: Ft. of Water in Well 12.14 X (GAL / FT) = 1.94 Gallons
 3-inch Casing: Ft. of Water in Well x 0.32 = Gallons
 4-inch Casing: Ft. of Water in Well x 1.48 = Gallons
 Method:

SAMPLE DESCRIPTION

Odor :
 Other :

FIELD TESTS

	PURGE	PURGE	PURGE	PURGE	PURGE	PURGE	PURGE	PURGE
Time	1430	1435	1440	1445	1450	1455	1500	1505
Depth To Water (TOC) (ft)	10.43	10.44	10.44	10.44	10.44	10.44	10.44	10.44
Flow Rate (ml/min)	300	300	300	300	300	300	300	300
Volume of Water Purged	0.00	0.40	0.79	1.19	1.59	1.98	2.38	2.77
pH (s.u.)	6.51	6.49	6.46	6.43	6.41	6.40	6.39	6.38
Conductivity (mS/cm)	0.862	0.860	0.856	0.837	0.873	0.807	0.805	0.803
Turbidity (NTUs)	116	110	80.1	45.6	30.3	26.4	20.7	16.2
Dissolved Oxygen (mg/L)	1.73	1.67	1.54	1.62	1.79	1.88	2.16	2.31
Temperature (Degrees C)	14.41	14.47	14.57	14.71	14.80	14.88	14.85	14.87
ORP (mV)	100	102	108	123	131	135	140	145

SAMPLE ANALYSIS / LABORATORY VOCs

Analyze For: SVOCs
TAL Metals
Cyanide
 Shipped Via: Courier
 Laboratory: Test America
 Other Notes:

PARSONS

GROUNDWATER SAMPLING RECORD

SITE NAME: Farrington Street Former MGP
PROJECT NUMBER: 451356.01000
Purge Date: 11/15/18
Sampling Date: 11/15/18
Samplers: Tom Horn of Parsons / Somerset, NJ
SAMPLE ID: MW-27-20181114
Sampling Method: Low-flow

WELL PURGING

Static Water Level (TOC): 10.31
 Depth to Well Bottom (TOC): 22.45
CALCULATIONS:
 2-inch Casing: Ft. of Water in Well 12.14 X (GAL / FT) = 1.94 Gallons
 3-inch Casing: Ft. of Water in Well x 0.32 = Gallons
 4-inch Casing: Ft. of Water in Well x 1.48 = Gallons
 Method:

SAMPLE DESCRIPTION

Odor :
 Other :

FIELD TESTS

	PURGE	SAMPLE						
Time	1510	1515						
Depth To Water (TOC) (ft)	10.44							
Flow Rate (ml/min)	300							
Volume of Water Purged	3.17							
pH (s.u.)	6.39							
Conductivity (mS/cm)	0.801							
Turbidity (NTUs)	10.9							
Dissolved Oxygen (mg/L)	2.5							
Temperature (Degrees C)	14.9							
ORP (mV)	149							

SAMPLE ANALYSIS / LABORATORY VOCs

Analyze For: SVOCs
TAL Metals
Cyanide
 Shipped Via: Courier
 Laboratory: Test America
 Other Notes:

PARSONS

GROUNDWATER SAMPLING RECORD

SITE NAME: Farrington Street Former MGP
PROJECT NUMBER: 451356.01000
Purge Date: 11/14/18
Sampling Date: 11/14/18
Samplers: Tom Horn of Parsons / Somerset, NJ
SAMPLE ID: MW-21-20181114
Sampling Method: Low-flow

WELL PURGING

Static Water Level (TOC): 11.47
 Depth to Well Bottom (TOC): 22.05
CALCULATIONS:
 2-inch Casing: Ft. of Water in Well 10.58 X (GAL / FT) = 1.69 Gallons
 3-inch Casing: Ft. of Water in Well x 0.32 = Gallons
 4-inch Casing: Ft. of Water in Well x 1.48 = Gallons
 Method:

SAMPLE DESCRIPTION

Odor :
 Other :

FIELD TESTS

	PURGE	PURGE	PURGE	PURGE	PURGE	PURGE	PURGE
Time	1220	1225	1230	1235	1240	1245	1250
Depth To Water (TOC) (ft)	11.47	11.55	11.61	11.63	11.63	11.63	11.63
Flow Rate (ml/min)	300	300	300	300	300	300	300
Volume of Water Purged	0.00	0.40	0.79	1.19	1.59	1.98	2.38
pH (s.u.)	6.7	6.76	6.76	6.76	6.76	6.76	6.76
Conductivity (mS/cm)	6.40	6.44	6.45	6.46	6.49	6.52	6.54
Turbidity (NTUs)	101.1	80.6	72.3	55.5	49.8	41.2	36.4
Dissolved Oxygen (mg/L)	1.13	1.05	0.81	0.0	0.0	0.0	0.0
Temperature (Degrees C)	17.27	17.30	17.36	17.40	17.38	17.40	17.41
ORP (mV)	-130	-132	-134	-135	-136	-136	-137

SAMPLE ANALYSIS / LABORATORY VOCs

Analyze For: SVOCs
TAL Metals
Cyanide
 Shipped Via: Courier
 Laboratory: Test America
 Other Notes:

PARSONS

GROUNDWATER SAMPLING RECORD

SITE NAME: Farrington Street Former MGP
PROJECT NUMBER: 451356.01000
Purge Date: 11/14/18
Sampling Date: 11/14/18
Samplers: Tom Horn of Parsons / Somerset, NJ
SAMPLE ID: MW-21-20181114
Sampling Method: Low-flow

WELL PURGING

Static Water Level (TOC): 11.47
 Depth to Well Bottom (TOC): 22.05
CALCULATIONS:
 2-inch Casing: Ft. of Water in Well 10.58 X (GAL / FT) = 1.69 Gallons
 3-inch Casing: Ft. of Water in Well x 0.32 = Gallons
 4-inch Casing: Ft. of Water in Well x 1.48 = Gallons
 Method:

SAMPLE DESCRIPTION

Odor :
 Other :

FIELD TESTS

	PURGE	SAMPLE						
Time	1300	1305						
Depth To Water (TOC) (ft)	11.63	11.63						
Flow Rate (ml/min)	300	300						
Volume of Water Purged	3.16	3.55						
pH (s.u.)	6.76	6.76						
Conductivity (mS/cm)	6.56	6.57						
Turbidity (NTUs)	28.5	23.4						
Dissolved Oxygen (mg/L)	0.0	0.0						
Temperature (Degrees C)	17.48	17.48						
ORP (mV)	-137	-137						

SAMPLE ANALYSIS / LABORATORY VOCs

Analyze For: SVOCs
TAL Metals
Cyanide
 Shipped Via: Courier
 Laboratory: Test America
 Other Notes:

PARSONS

SITE NAME:	Farrington Street Former MGP		
PROJECT NUMBER:	451356.01000		
Purge Date:	11/14/18		
Sampling Date:	11/14/18		
Samplers:	Tom Horn	of	Parsons / Somerset, NJ
SAMPLE ID:	MW-CSB-60-20181114		
Sampling Method:	Low-flow		

WELL PURGING

Static Water Level (TOC): 5.55

Depth to Well Bottom (TOC): 14.86

CALCULATIONS:

2-inch Casing: Ft. of Water in Well 9.31 X (GAL / FT) = 1.49 Gallons

3-inch Casing: Ft. of Water in Well _____ x 0.32 = _____ Gallons

4-inch Casing: Ft. of Water in Well _____ x 1.48 = _____ Gallons

Method: _____

SAMPLE DESCRIPTION

Odor : _____
Other : _____

FIELD TESTS

	PURGE	PURGE	PURGE	PURGE	PURGE	PURGE	PURGE	PURGE
Time	0900	0905	0910	0915	0920	0925	0930	0935
Depth To Water (TOC) (ft)	5.55	5.56	5.56	5.57	5.57	5.58	5.58	5.58
Flow Rate (ml/min)	300	300	300	300	300	300	300	300
Volume of Water Purged	0.00	0.40	0.79	1.19	1.59	1.98	2.38	2.77
pH (s.u.)	6.95	6.95	6.96	6.96	6.96	6.97	6.97	6.98
Conductivity (mS/cm)	5.21	5.20	5.20	5.19	5.19	5.19	5.18	5.17
Turbidity (NTUs)	32.1	25.8	22.6	21.4	20.6	20.1	12.2	4.3
Dissolved Oxygen (mg/L)	0.09	0.07	0.05	0.03	0.0	0.0	0.0	0.0
Temperature (Degrees C)	18.03	18.05	18.07	18.10	18.15	18.23	18.31	18.38
ORP (mV)	-144	-145	-145	-146	-147	-147	-149	-152

SAMPLE ANALYSIS / LABORATORY VOCs

Analyze For:	SVOCs
	TAL Metals
	Cyanide
Shipped Via:	Courier
Laboratory	Test America
Other Notes:	

PARSONS

GROUNDWATER SAMPLING RECORD

SITE NAME: Farrington Street Former MGP
PROJECT NUMBER: 451356.01000
Purge Date: 11/14/18
Sampling Date: 11/14/18
Samplers: Tom Horn of Parsons / Somerset, NJ
SAMPLE ID: MW-CSB-60-20181114
Sampling Method: Low-flow

WELL PURGING

Static Water Level (TOC): 5.55
 Depth to Well Bottom (TOC): 14.86
CALCULATIONS:
 2-inch Casing: Ft. of Water in Well 9.31 X (GAL / FT) = 1.49 Gallons
 3-inch Casing: Ft. of Water in Well x 0.32 = Gallons
 4-inch Casing: Ft. of Water in Well x 1.48 = Gallons
 Method:

SAMPLE DESCRIPTION

Odor :
 Other :

FIELD TESTS

	PURGE	SAMPLE						
Time	0940	0945						
Depth To Water (TOC) (ft)	5.58	5.58						
Flow Rate (ml/min)	300	300						
Volume of Water Purged	2.77	3.17						
pH (s.u.)	6.98	6.98						
Conductivity (mS/cm)	5.16	5.16						
Turbidity (NTUs)	0.0	0.0						
Dissolved Oxygen (mg/L)	0.0	0.0						
Temperature (Degrees C)	18.44	18.47						
ORP (mV)	-155	-156						

SAMPLE ANALYSIS / LABORATORY VOCs

Analyze For: SVOCs
TAL Metals
Cyanide
 Shipped Via: Courier
 Laboratory: Test America
 Other Notes:

PARSONS

GROUNDWATER SAMPLING RECORD

SITE NAME: Farrington Street Former MGP
PROJECT NUMBER: 451356.01000
Purge Date: 11/21/18
Sampling Date: 11/21/18
Samplers: Aaron Feshbach-Meriney of Parsons / Somerset, NJ
SAMPLE ID: CMW-38-20181121
Sampling Method: Low-flow

WELL PURGING

Static Water Level (TOC): 12.40
 Depth to Well Bottom (TOC): NM
CALCULATIONS:
 2-inch Casing: Ft. of Water in Well _____ X (GAL / FT) = _____ Gallons
 3-inch Casing: Ft. of Water in Well _____ x 0.16 = _____ Gallons
 4-inch Casing: Ft. of Water in Well _____ x 0.32 = _____ Gallons
 Method: _____

SAMPLE DESCRIPTION

Odor : _____
 Other : _____

FIELD TESTS

	PURGE	PURGE	PURGE	PURGE	PURGE	SAMPLE		
Time	1210	1215	1220	1225	1230	1235		
Depth To Water (TOC) (ft)								
Flow Rate (ml/min)	225	250	275	300	300	300		
Volume of Water Purged	0.00	0.33	0.69	1.09	1.49	1.88		
pH (s.u.)	7.16	7.14	7.14	7.13	7.13	7.13		
Conductivity (mS/cm)	1.47	1.45	1.44	1.45	1.45	1.46		
Turbidity (NTUs)	29.8	9.4	8.1	8.6	8.2	7.9		
Dissolved Oxygen (mg/L)	0.60	0.0	0.0	0.0	0.0	0.0		
Temperature (Degrees C)	16.22	16.32	16.30	16.30	16.27	16.27		
ORP (mV)	-125	-135	-135	-137	-138	-138		

SAMPLE ANALYSIS / LABORATORY VOCs

Analyze For: SVOCs
TAL Metals
Cyanide
 Shipped Via: Courier
 Laboratory: Test America
 Other Notes: _____

PARSONS

GROUNDWATER SAMPLING RECORD

SITE NAME: Farrington Street Former MGP
PROJECT NUMBER: 451356.01000
Purge Date: 11/15/18
Sampling Date: 11/15/18
Samplers: Aaron Feshbach-Meriney of Parsons / Somerset, NJ
SAMPLE ID: CMW-38-20181114
Sampling Method: Low-flow

WELL PURGING

Static Water Level (TOC): 6.00
 Depth to Well Bottom (TOC): NM
CALCULATIONS:
 2-inch Casing: Ft. of Water in Well _____ X (GAL / FT) = _____ Gallons
 3-inch Casing: Ft. of Water in Well _____ x 0.16 = _____ Gallons
 4-inch Casing: Ft. of Water in Well _____ x 0.32 = _____ Gallons
 Method: Ft. of Water in Well _____ x 1.48 = _____ Gallons

SAMPLE DESCRIPTION

Odor : _____
 Other : _____

FIELD TESTS

	PURGE	PURGE	PURGE	PURGE	PURGE	PURGE	SAMPLE
Time	1325	1330	1335	1340	1345	1350	1355
Depth To Water (TOC) (ft)	6.00	6.01	6.02	6.03	6.04	6.05	6.06
Flow Rate (ml/min)	300	300	300	300	300	300	300
Volume of Water Purged	0.00	0.40	0.79	1.19	1.59	1.98	2.38
pH (s.u.)	6.72	6.59	6.60	6.62	6.62	6.63	6.63
Conductivity (mS/cm)	0.454	0.437	0.442	0.449	0.456	0.460	0.463
Turbidity (NTUs)	>1000	187	-	60.2	9.5	9.1	8.6
Dissolved Oxygen (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature (Degrees C)	15.6	16.04	16.06	16.05	16.00	15.97	15.94
ORP (mV)	-59	-71	-73	-76	-79	-83	-88

SAMPLE ANALYSIS / LABORATORY VOCs

Analyze For: SVOCs
 TAL Metals
 Cyanide
 Shipped Via: Courier
 Laboratory: Test America
 Other Notes: _____

PARSONS GROUNDWATER SAMPLING RECORD

SITE NAME: Farrington Street Former MGP
PROJECT NUMBER: 451356.01000
Purge Date: November 6, 2018
Sampling Date: November 6, 2018
Samplers: Tom Horn of Parsons / Somerset, NJ
SAMPLE ID: CMW-36-20181106
Sampling Method: Low-flow

WELL PURGING

Static Water Level (TOC): 11.82
 Depth to Well Bottom (TOC): 22.80
CALCULATIONS: Ft. of Water in Well _____ X (GAL / FT) = _____ Gallons
1-inch Casing: Ft. of Water in Well _____ x 0.041 = _____ Gallons
2-inch Casing: Ft. of Water in Well 10.98 x 0.16 = 1.76 Gallons
3-inch Casing: Ft. of Water in Well _____ x 0.32 = _____ Gallons
4-inch Casing: Ft. of Water in Well _____ x 0.64 = _____ Gallons
Method: Low Flow Purge Monsoon Pump

SAMPLE DESCRIPTION

Odor : No odor
 Other : Clear

FIELD TESTS

	PURGE	PURGE	PURGE	PURGE	PURGE	PURGE	SAMPLE
Time	0955	1000	1005	1010	1015	1020	1025
Depth To Water (TOC) (ft)	11.82	11.85	11.85	11.86	11.86	11.86	
Depth To Pump (TOC) (ft)	20.80	20.80	20.80	20.80	20.80	20.80	
Flow Rate (ml/min)	300	300	300	300	300	300	
Volume of Water Purged		0.4	0.8	1.2	1.6	2.0	
pH (s.u.)	6.55	6.5	6.57	6.57	6.58	6.59	
Conductivity (mS/cm)	6.92	6.8	6.86	6.82	6.80	6.79	
Turbidity (NTUs)	28.5	28	29.6	22.2	12.2	6.7	
Dissolved Oxygen (mg/L)	1.88	0.75	0.79	0.0	0.0	0.0	
Temperature (Degrees C)		16.5	16.96	17.01	17.03	17.01	
ORP (mV)		161	162	165	168	168	
Salinity (%)							
TDS (g/L)							

SAMPLE ANALYSIS / LABORATORY

Analyze For: VOCs, SVOCs
 Shipped Via: Test America
 Laboratory:
 Other Notes: FB-11-6-2017 at 1000, EB-11-6-2017 at 1005

PARSONS

GROUNDWATER SAMPLING RECORD

SITE NAME: Farrington Street Former MGP
PROJECT NUMBER: 451356.01000
Purge Date: 11/14/18
Sampling Date: 11/14/18
Samplers: Aaron Feshbach-Meriney of Parsons / Somerset, NJ
SAMPLE ID: CMW-36-20181114
Sampling Method: Low-flow

WELL PURGING

Static Water Level (TOC): 11.79
 Depth to Well Bottom (TOC): 22.80
CALCULATIONS:
 2-inch Casing: Ft. of Water in Well 11.79 X (GAL / FT) = 1.89 Gallons
 3-inch Casing: Ft. of Water in Well x 0.16 = Gallons
 4-inch Casing: Ft. of Water in Well x 0.32 = Gallons
 Method: Ft. of Water in Well x 1.48 = Gallons

SAMPLE DESCRIPTION

Odor :
 Other :

FIELD TESTS

	PURGE	PURGE	PURGE	PURGE	PURGE	PURGE	PURGE	SAMPLE
Time	0855	0900	0905	0910	0915	0920	0920	0930
Depth To Water (TOC) (ft)	11.79	11.79	11.79	11.76	11.76	11.75	11.75	11.75
Flow Rate (ml/min)	300	300	300	300	300	300	300	301
Volume of Water Purged	0.00	0.40	0.79	1.19	1.59	1.98	2.38	2.78
pH (s.u.)	6.36	6.33	6.41	6.33	6.33	6.34	6.35	6.36
Conductivity (mS/cm)	4.83	4.79	4.79	4.78	4.80	4.81	4.83	4.84
Turbidity (NTUs)	>1000	926	921	63.2	16.5	16.9	8.9	9.3
Dissolved Oxygen (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature (Degrees C)	16.35	16.30	16.30	16.62	16.64	16.60	16.67	16.70
ORP (mV)	251	224	221	217	201	203	200	198

SAMPLE ANALYSIS / LABORATORY TAL Metals

Analyze For: Cyanide
 Shipped Via: Courier
 Laboratory: Test America
 Other Notes:

PARSONS

GROUNDWATER SAMPLING RECORD

SITE NAME: Farrington Street Former MGP
PROJECT NUMBER: 451356.01000
Purge Date: 11/14/18
Sampling Date: 11/14/18
Samplers: Aaron Feshbach-Meriney of Parsons / Somerset, NJ
SAMPLE ID: CMW-40-20181114
Sampling Method: Low-flow

WELL PURGING

Static Water Level (TOC): 13.83
 Depth to Well Bottom (TOC): 23.25
CALCULATIONS:
 2-inch Casing: Ft. of Water in Well 9.42 X (GAL / FT) = 1.51 Gallons
 3-inch Casing: Ft. of Water in Well x 0.16 = Gallons
 4-inch Casing: Ft. of Water in Well x 0.32 = Gallons
 Method: Ft. of Water in Well x 1.48 = Gallons

SAMPLE DESCRIPTION

Odor :
 Other :

FIELD TESTS

	PURGE	PURGE	PURGE	PURGE	PURGE	PURGE	PURGE	SAMPLE
Time	1220	1225	1230	1235	1240	1245	1250	1255
Depth To Water (TOC) (ft)	13.83	13.83	13.83	13.83	13.83	13.83	13.83	13.83
Flow Rate (ml/min)	250	250	250	250	250	250	250	250
Volume of Water Purged	0.00	0.33	0.66	0.99	1.32	1.65	1.98	2.31
pH (s.u.)	6.89	6.65	6.67	6.13	6.10	6.68	6.69	6.66
Conductivity (mS/cm)	2.49	2.51	2.59	2.61	2.57	2.55	2.52	2.50
Turbidity (NTUs)	829	315	127	40.3	29.8	28.1	27.7	27.3
Dissolved Oxygen (mg/L)	3.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature (Degrees C)	16.26	16.49	16.73	16.69	16.62	16.60	16.57	16.56
ORP (mV)	-106	-103	-105	-111	-111	-113	-114	-116

SAMPLE ANALYSIS / LABORATORY TAL Metals

Analyze For: Cyanide
 Shipped Via: Courier
 Laboratory: Test America
 Other Notes:

PARSONS

GROUNDWATER SAMPLING RECORD

SITE NAME: Farrington Street Former MGP
PROJECT NUMBER: 451356.01000
Purge Date: 11/14/18
Sampling Date: 11/14/18
Samplers: Aaron Feshbach-Meriney of Parsons / Somerset, NJ
SAMPLE ID: MW-20-20181114
Sampling Method: Low-flow

WELL PURGING

Static Water Level (TOC): 13.10
 Depth to Well Bottom (TOC): 21.38
CALCULATIONS:
 2-inch Casing: Ft. of Water in Well 8.28 X (GAL / FT) = 1.32 Gallons
 3-inch Casing: Ft. of Water in Well x 0.16 = Gallons
 4-inch Casing: Ft. of Water in Well x 0.32 = Gallons
 Method: Ft. of Water in Well x 1.48 = Gallons

SAMPLE DESCRIPTION

Odor :
 Other :

FIELD TESTS

	PURGE	PURGE	PURGE	PURGE	PURGE	SAMPLE		
Time	1320	1325	1330	1335	1340	1345		
Depth To Water (TOC) (ft)	13.10	13.10	13.10	13.10	13.10	13.10		
Flow Rate (ml/min)	300	300	300	300	300	300		
Volume of Water Purged	0.00	0.40	0.79	1.19	1.59	1.98		
pH (s.u.)	6.77	6.29	6.35	6.39	6.41	6.42		
Conductivity (mS/cm)	1.0000	00.051	1.01	0.981	0.985	0.989		
Turbidity (NTUs)	1000	586	0.4	0.0	0.0	0.0		
Dissolved Oxygen (mg/L)	1.9	0.0	0.0	0.0	0.0	0.0		
Temperature (Degrees C)	16.63	17.44	17.38	17.81	17.83	17.84		
ORP (mV)	-14	-5	-5	2	5	7		

SAMPLE ANALYSIS / LABORATORY TAL Metals

Analyze For: Cyanide
 Shipped Via: Courier
 Laboratory: Test America
 Other Notes:

PARSONS

GROUNDWATER SAMPLING RECORD

SITE NAME: Farrington Street Former MGP
PROJECT NUMBER: 451356.01000
Purge Date: 11/15/18
Sampling Date: 11/15/18
Samplers: Aaron Feshbach-Meriney of Parsons / Somerset, NJ
SAMPLE ID: MW-28-20181114
Sampling Method: Low-flow

WELL PURGING

Static Water Level (TOC): 14.70
 Depth to Well Bottom (TOC): 20.60
CALCULATIONS:
 2-inch Casing: Ft. of Water in Well 5.90 X (GAL / FT) = 0.94 Gallons
 3-inch Casing: Ft. of Water in Well x 0.32 = Gallons
 4-inch Casing: Ft. of Water in Well x 1.48 = Gallons
 Method:

SAMPLE DESCRIPTION

Odor :
 Other :

FIELD TESTS

	PURGE	PURGE	PURGE	PURGE	PURGE	PURGE	PURGE
Time	0900	0905	0910	0915	0920	0925	0930
Depth To Water (TOC) (ft)	14.70	14.72	14.74	14.76	14.77	14.79	14.80
Flow Rate (ml/min)	300	300	300	300	300	300	300
Volume of Water Purged	0.00	0.40	0.79	1.19	1.59	1.98	2.38
pH (s.u.)	6.57	6.43	6.32	6.32	6.31	6.31	6.30
Conductivity (mS/cm)	1.67	1.66	1.65	1.64	1.63	1.62	1.62
Turbidity (NTUs)	>1000	818	156	112	80.3	57.2	34.6
Dissolved Oxygen (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature (Degrees C)	16.5	16.48	16.32	16.31	16.31	16.31	16.39
ORP (mV)	170	185	191	190	189	189	183

SAMPLE ANALYSIS / LABORATORY VOCs

Analyze For: SVOCs
 TAL Metals
 Cyanide
 Shipped Via: Courier
 Laboratory: Test America
 Other Notes:

PARSONS

GROUNDWATER SAMPLING RECORD

SITE NAME: Farrington Street Former MGP
PROJECT NUMBER: 451356.01000
Purge Date: 11/15/18
Sampling Date: 11/15/18
Samplers: Aaron Feshbach-Meriney of Parsons / Somerset, NJ
SAMPLE ID: MW-28-20181114
Sampling Method: Low-flow

WELL PURGING

Static Water Level (TOC): 14.70
 Depth to Well Bottom (TOC): 20.60
CALCULATIONS:
 2-inch Casing: Ft. of Water in Well 5.90 X (GAL / FT) = 0.94 Gallons
 3-inch Casing: Ft. of Water in Well x 0.32 = Gallons
 4-inch Casing: Ft. of Water in Well x 1.48 = Gallons
 Method:

SAMPLE DESCRIPTION

Odor :
 Other :

FIELD TESTS

	PURGE	SAMPLE						
Time	0940	0945						
Depth To Water (TOC) (ft)	14.81	14.83						
Flow Rate (ml/min)	300	300						
Volume of Water Purged	3.16	3.56						
pH (s.u.)	6.29	6.29						
Conductivity (mS/cm)	1.61	1.61						
Turbidity (NTUs)	18.2	17.4						
Dissolved Oxygen (mg/L)	0.0	0.0						
Temperature (Degrees C)	16.28	16.26						
ORP (mV)	177	172						

SAMPLE ANALYSIS / LABORATORY VOCs

Analyze For: SVOCs
 TAL Metals
 Cyanide
 Shipped Via: Courier
 Laboratory: Test America
 Other Notes:

PARSONS

GROUNDWATER SAMPLING RECORD

SITE NAME: Farrington Street Former MGP
PROJECT NUMBER: 451356.01000
Purge Date: 11/15/18
Sampling Date: 11/15/18
Samplers: Aaron Feshbach-Meriney of Parsons / Somerset, NJ
SAMPLE ID: MW-30-20181114
Sampling Method: Low-flow

WELL PURGING

Static Water Level (TOC): 13.60
 Depth to Well Bottom (TOC): 32.75
CALCULATIONS:
 2-inch Casing: Ft. of Water in Well 19.15 X (GAL / FT) = 3.06 Gallons
 3-inch Casing: Ft. of Water in Well x 0.32 = Gallons
 4-inch Casing: Ft. of Water in Well x 1.48 = Gallons
 Method:

SAMPLE DESCRIPTION

Odor :
 Other :

FIELD TESTS

	PURGE	PURGE	PURGE	PURGE	PURGE	PURGE	PURGE
Time	1120	1125	1130	1135	1140	1145	1150
Depth To Water (TOC) (ft)	13.6	13.6	13.6	13.6	13.6	13.6	13.6
Flow Rate (ml/min)	200	200	200	200	200	200	200
Volume of Water Purged	0.00	0.26	0.53	0.79	1.06	1.32	1.59
pH (s.u.)	6.7	6.69	6.70	6.72	6.75	6.73	6.77
Conductivity (mS/cm)	4.42	4.01	4.19	4.28	4.23	4.21	4.20
Turbidity (NTUs)	>1000	>1000	>1000	274	72.4	26.1	8.9
Dissolved Oxygen (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature (Degrees C)	13.92	14.03	14.36	14.12	14.23	14.28	14.30
ORP (mV)	-96	-106	-110	-107	-114	-122	-125

SAMPLE ANALYSIS / LABORATORY

Analyze For: VOCs
 TAL Metals
 Cyanide
 Shipped Via: Courier
 Laboratory: Test America
 Other Notes:

PARSONS

GROUNDWATER SAMPLING RECORD

SITE NAME: Farrington Street Former MGP
PROJECT NUMBER: 451356.01000
Purge Date: 11/15/18
Sampling Date: 11/15/18
Samplers: Aaron Feshbach-Meriney of Parsons / Somerset, NJ
SAMPLE ID: MW-30-20181114
Sampling Method: Low-flow

WELL PURGING

Static Water Level (TOC): 13.60
 Depth to Well Bottom (TOC): 32.75
CALCULATIONS:
 2-inch Casing: Ft. of Water in Well 19.15 X (GAL / FT) = 3.06 Gallons
 3-inch Casing: Ft. of Water in Well x 0.32 = Gallons
 4-inch Casing: Ft. of Water in Well x 1.48 = Gallons
 Method:

SAMPLE DESCRIPTION

Odor :
 Other :

FIELD TESTS

	PURGE	SAMPLE						
Time	1200	1205						
Depth To Water (TOC) (ft)	13.6	13.6						
Flow Rate (ml/min)	200	200						
Volume of Water Purged	2.11	2.37						
pH (s.u.)	6.78	6.79						
Conductivity (mS/cm)	4.18	4.18						
Turbidity (NTUs)	8.0	7.7						
Dissolved Oxygen (mg/L)	0.0	0.0						
Temperature (Degrees C)	14.33	14.34						
ORP (mV)	-129	-132						

SAMPLE ANALYSIS / LABORATORY VOCs

Analyze For: SVOCs
 TAL Metals
 Cyanide
 Shipped Via: Courier
 Laboratory: Test America
 Other Notes:

APPENDIX B

DATA USABILITY SUMMARY REPORT

DATA USABILITY SUMMARY REPORT

SUPPLEMENTAL REMEDIAL INVESTIGATION FARRINGTON STREET MGP

Prepared For:



CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.

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Prepared By:

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JANUARY 2019

TABLE OF CONTENTS

	<u>Page</u>
SECTION 1 DATA USABILITY SUMMARY	1-1
1.1 LABORATORY DATA PACKAGES.....	1-1
1.2 SAMPLING AND CHAIN-OF-CUSTODY	1-1
1.3 LABORATORY ANALYTICAL METHODS.....	1-1
1.3.1 Volatile Organic Analysis	1-2
1.3.2 Semivolatile Organic Analysis	1-2
1.3.3 Inorganic Analysis.....	1-2
SECTION 2 DATA VALIDATION REPORT	2-1
2.1 GROUNDWATER SAMPLES	2-1
2.1.1 Volatiles.....	2-1
2.1.2 Semivolatiles	2-2
2.1.3 Inorganics	2-3

LIST OF ATTACHMENTS

ATTACHMENT A VALIDATED LABORATORY DATA

SECTION 1

DATA USABILITY SUMMARY

Groundwater samples were collected from the Consolidated Edison Farrington Street MGP site on November 14, 2018 and November 21, 2018. Analytical results from these samples were validated and reviewed by Parsons for usability with respect to the following requirements:

- Work Plan,
- Analytical methodologies, and
- USEPA Region II Standard Operating Procedures (SOPs).

The analytical laboratory for this project was Test America Laboratories (TAL) in Edison, New Jersey. This laboratory is certified to perform project analyses by the New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP).

1.1 LABORATORY DATA PACKAGES

The laboratory data package turnaround time, defined as the time from sample receipt by the laboratory to receipt of the analytical data packages by Parsons, was 14 days for the project samples.

The data packages received from TAL were paginated, complete, and overall were of good quality. Comments on specific quality control (QC) and other requirements are discussed in detail in the attached data validation report which is summarized in Section 2.

1.2 SAMPLING AND CHAIN-OF-CUSTODY

The samples were collected, properly preserved, shipped under a chain-of-custody (COC) record, and received at TAL within one to two days of sampling. All samples were received intact and in good condition at the laboratory.

1.3 LABORATORY ANALYTICAL METHODS

Groundwater samples were collected from the site and analyzed for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), metals, and cyanide. Summaries of issues concerning these laboratory analyses are presented in Subsections 1.3.1 through 1.3.3. The data qualifications resulting from the data validation review and statements on the laboratory analytical precision, accuracy, representativeness, completeness, comparability, and sensitivity (PARCCS) are discussed for each analytical method in Section 2. The laboratory data were reviewed and may be qualified with the following validation flags:

- "U" - not detected at the value given,
- "UJ" - estimated and not detected at the value given,
- "J" - estimated at the value given,
- "J+" - estimated biased high at the value given,
- "J-" - estimated biased low at the value given,
- "N" - presumptive evidence at the value given, and
- "R" - unusable value.

The validated laboratory data were tabulated and are presented in Attachment A.

1.3.1 Volatile Organic Analysis

Groundwater samples were analyzed for VOCs using the USEPA SW-846 8260C analytical method. Certain reported VOC analytical results were qualified as estimated based upon instrument calibrations. The reported VOC analytical results were 100% complete (i.e., usable) for the analytical data. PARCCS requirements were met.

1.3.2 Semivolatile Organic Analysis

Groundwater samples were analyzed for SVOCs using the USEPA SW-846 8270D analytical method. Certain reported results for the groundwater SVOC samples were qualified as estimated based upon laboratory control sample (LCS) recoveries and instrument calibrations. The reported SVOC analytical results were 100% complete (i.e., usable) for the analytical data. PARCCS requirements were met.

1.3.3 Inorganic Analysis

Groundwater samples were analyzed for metals and cyanide using the USEPA SW-846 6010D/7470A/9012B analytical methods. Certain reported results for the inorganic samples were qualified as estimated based upon matrix spike recoveries and instrument calibrations. The reported inorganic analytical results were 100% complete (i.e., usable) for the analytical data. PARCCS requirements were met.

SECTION 2

DATA VALIDATION REPORT

2.1 GROUNDWATER SAMPLES

Data review has been completed for data packages generated by TAL containing analytical results from groundwater samples collected from the site. All of these samples were properly preserved, shipped under a COC record, and received intact by the analytical laboratory. Analytical data were submitted in sample delivery groups (SDGs) 460-169523-1 and 460-169869-1.

Data validation was performed for all samples in accordance with the most current editions of the USEPA Region II SOPs for organic and inorganic data review. This data validation and usability report is presented by analysis type. The validated laboratory data are presented in Attachment A.

2.1.1 Volatiles

The following items were reviewed for compliancy in the volatile analysis:

- Custody documentation
- Holding times
- Surrogate recoveries
- Matrix spike/matrix spike duplicate (MS/MSD) precision and accuracy
- Laboratory control sample (LCS) recoveries
- Laboratory method blank and trip/equipment blank contamination
- GC/MS instrument performance
- Initial and continuing calibrations
- Internal standard area counts and retention times
- Field duplicate precision
- Sample result verification and identification
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exception of MS/MSD precision and accuracy, LCS recoveries, blank contamination, and continuing calibrations as discussed below.

MS/MSD Precision and Accuracy

All MS/MSD precision (relative percent difference; RPD) and accuracy (percent recovery; %R) measurements were considered acceptable and within QC limits for designated spiked project samples with the exception of the many high MS accuracy results and the low MSD accuracy result for vinyl chloride during the spiked analyses of sample MW-CSB-60. Validation qualification of the parent sample was not required.

LCS Recoveries

All LCS recoveries were considered acceptable and within QC limits with the exception of the high LCS recoveries for 1,1-dichloroethene (126%R; QC limit 74-123%R), chloroform (123%R; QC limit 80-120%R), and trans-1,2-dichloroethene (128%R; QC limit 79-120%R) associated with sample MW-30. Validation qualification was not required for this sample since these compounds were not detected.

Blank Contamination

The field equipment blank FB-11142018 associated with samples collected on 11/14/18 contained methylene chloride at a concentration of 4.1 µg/L; and the trip blank associated with sample MW-38 contained methylene chloride below the reporting limit at a concentration of 0.36 µg/L. Validation qualification of these samples was not required.

Continuing Calibrations

All continuing calibration compounds were compliant with a minimum relative response factor (RRF) of 0.05 (0.01 for poor performers) and a percent difference (%D) within ±20% (±40% for poor performers) with the exception of bromomethane (-29.3%D, -35.7%D, -43.9%D) in the continuing calibrations associated with sample MW-30 and samples collected on 11/21/18; bromoform (-31.9) in the continuing calibration associated with samples with lab IDs 460-169523-2, -3, -5, -7, -8, -13, and -14; and 1,1-dichloroethene (21.6%D), trans-1,2-dichloroethene (25.8%D), 1,4-dioxane (63.8%D), and bromoform (-26.1%D) in the continuing calibration associated with samples with lab IDs 460-169523-4, -6, -9, -11, and -12. Therefore, the results for these compounds which were nondetects were considered estimated and qualified "UJ" for the affected samples.

Usability

All volatile sample results were considered usable following data validation.

Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, comparability, and sensitivity. The volatile groundwater data presented by TAL were 100% complete (i.e., usable). The validated volatile laboratory data are tabulated and presented in Attachment A.

2.1.2 Semivolatiles

The following items were reviewed for compliancy in the semivolatile analysis:

- Custody documentation
- Holding times
- Surrogate recoveries
- MS/MSD precision and accuracy
- LCS recoveries
- Laboratory method blank and equipment blank contamination
- GC/MS instrument performance
- Initial and continuing calibrations
- Internal standard area counts and retention times
- Field duplicate precision

- Sample result verification and identification
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exception of the surrogate recoveries, MS/MSD precision and accuracy, LCS recoveries, and continuing calibrations as discussed below.

Surrogate Recoveries

All surrogate recoveries were considered acceptable and within QC limits except for the high surrogate recoveries for phenol-d5 (QC limit 14-39%R) and nitrobenzene-d5 (QC limit 51-108%R) in sample MW-27 (42%R and 112%R, respectively). Validation qualification for this sample was not required.

MS/MSD Precision and Accuracy

All MS/MSD precision (relative percent difference; RPD) and accuracy (percent accuracy; %R) measurements were considered acceptable and within QC limits for designated spiked project samples with the exception of the high MSD accuracy result for phenol during the spiked analyses of sample MW-CSB-60. Validation qualification of the parent sample was not required.

LCS Recoveries

All LCS recoveries were considered acceptable and within QC limits with the exception of the high LCS recoveries for phenol (46%R, 45%R; QC limit 16-43%R) associated with all samples. Therefore, positive results for this compound were considered estimated, possibly biased high, and qualified "J+" for the affected samples.

Continuing Calibrations

All continuing calibration compounds were compliant with a minimum relative response factor (RRF) of 0.05 (0.01 for poor performers) and a percent difference (%D) within $\pm 20\%$ ($\pm 40\%$ for poor performers) with the exception of 2,4-dinitrophenol (54%D) in the continuing calibration associated with sample MW-19. Therefore, the nondetected result for this compound was considered estimated and qualified "UJ" for the affected sample.

Usability

All semivolatile sample results were considered usable following data validation

Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, comparability, and sensitivity. The groundwater semivolatile data presented by TAL were 100% complete (i.e., usable). The validated semivolatile laboratory data are tabulated and presented in Attachment A.

2.1.3 Inorganics

The following items were reviewed for compliancy in the inorganics analysis:

- Custody documentation
- Holding times
- Matrix spike/matrix spike duplicate (MS/MSD) precision and accuracy

- Laboratory control sample (LCS) recoveries
- Laboratory preparation blank and equipment blank contamination
- ICP serial dilutions
- Interference check sample (ICS) recoveries
- Initial and continuing calibration verifications
- Laboratory duplicate precision
- Field duplicate precision
- Sample result verification and identification
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with exception of matrix spike recoveries and calibrations as discussed below.

Matrix Spike Recoveries

All matrix spike recoveries were considered acceptable and within the 75-125%R QC limit with the exception of the high matrix spike recoveries for cyanide (115%R, 118%R; QC limit 90-110%R) associated with sample MW-CSB-60. Therefore, the cyanide result was considered estimated and qualified “J” for the affected sample.

Calibrations

All initial and continuing calibration verifications were analyzed at the appropriate frequency and within QC limits. All reference standard recoveries were within QC limits with the exception of iron (141%R; QC limit 70-130%R) associated with samples in SDG 460-169523-1. Therefore, positive iron results were considered estimated, possibly biased high, and qualified “J+” for the affected samples.

Usability

All inorganic sample results were considered usable following data validation.

Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, comparability, and sensitivity. The inorganic groundwater data presented by TAL were 100% complete (i.e., usable). The validated inorganics laboratory data are tabulated and presented in Attachment A.

ATTACHMENT A

VALIDATED LABORATORY DATA

			Dup of CMW-40-20181114			
Consolidated Edison Farrington Street MGP Site Validated 2018 Groundwater Analytical Data SDGs: 460-169523 & 460-169869		Location ID:	CMW-36	CMW-40	CMW-40	MW-15
		Sample ID:	CMW-36-20181114	CMW-40-20181114	CMW-140-20181114	MW-15-20181114
		Lab Sample Id:	460-169523-1	460-169523-2	460-169523-3	460-169523-12
		Source:	TALED	TALED	TALED	TALED
		SDG:	4601695231	4601695231	4601695231	4601695231
		Matrix:	WATER	WATER	WATER	WATER
		Sampled:	11/14/2018 9:30	11/14/2018 12:55	11/14/2018 12:00	11/14/2018 13:50
		Validated:	1/21/2019	1/21/2019	1/21/2019	1/21/2019
CAS NO.	COMPOUND	UNITS:				
	VOLATILES					
71-55-6	1,1,1-TRICHLOROETHANE	ug/l		10 U	10 U	1 U
79-34-5	1,1,2,2-TETRACHLOROETHANE	ug/l		10 U	10 U	1 U
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l		10 U	10 U	1 U
79-00-5	1,1,2-TRICHLOROETHANE	ug/l		10 U	10 U	1 U
75-34-3	1,1-DICHLOROETHANE	ug/l		10 U	10 U	1 U
75-35-4	1,1-DICHLOROETHENE	ug/l		10 U	10 U	1 UJ
87-61-6	1,2,3-TRICHLOROBENZENE	ug/l		10 U	10 U	1 U
120-82-1	1,2,4-TRICHLOROBENZENE	ug/l		10 U	10 U	1 U
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	ug/l		10 U	10 U	1 U
106-93-4	1,2-DIBROMOETHANE	ug/l		10 U	10 U	1 U
95-50-1	1,2-DICHLOROBENZENE	ug/l		10 U	10 U	1 U
107-06-2	1,2-DICHLOROETHANE	ug/l		10 U	10 U	1 U
78-87-5	1,2-DICHLOROPROPANE	ug/l		10 U	10 U	1 U
541-73-1	1,3-DICHLOROBENZENE	ug/l		10 U	10 U	1 U
106-46-7	1,4-DICHLOROBENZENE	ug/l		10 U	10 U	1 U
123-91-1	1,4-DIOXANE (P-DIOXANE)	ug/l		500 U	500 U	50 UJ
591-78-6	2-HEXANONE	ug/l		50 U	50 U	5 U
67-64-1	ACETONE	ug/l		50 U	50 U	5 U
71-43-2	BENZENE	ug/l		4100	4500	0.52 J
74-97-5	BROMOCHLOROMETHANE	ug/l		10 U	10 U	1 U
75-27-4	BROMODICHLOROMETHANE	ug/l		10 U	10 U	1 U
75-25-2	BROMOFORM	ug/l		10 UJ	10 UJ	1 UJ
74-83-9	BROMOMETHANE	ug/l		10 U	10 U	1 U
75-15-0	CARBON DISULFIDE	ug/l		10 U	10 U	1 U
56-23-5	CARBON TETRACHLORIDE	ug/l		10 U	10 U	1 U
108-90-7	CHLOROBENZENE	ug/l		10 U	10 U	1 U
75-00-3	CHLOROETHANE	ug/l		10 U	10 U	1 U
67-66-3	CHLOROFORM	ug/l		10 U	10 U	1 U
74-87-3	CHLOROMETHANE	ug/l		10 U	10 U	1 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l		10 U	10 U	0.27 J
10061-01-5	CIS-1,3-DICHLOROPROPENE	ug/l		10 U	10 U	1 U
110-82-7	CYCLOHEXANE	ug/l		4.6 J	5.6 J	1 U
124-48-1	DIBROMOCHLOROMETHANE	ug/l		10 U	10 U	1 U
75-71-8	DICHLORODIFLUOROMETHANE	ug/l		10 U	10 U	1 U
100-41-4	ETHYLBENZENE	ug/l		5.3 J	5.2 J	8.4
98-82-8	ISOPROPYLBENZENE (CUMENE)	ug/l		23	25	2.4
79-20-9	METHYL ACETATE	ug/l		50 U	50 U	5 U
78-93-3	METHYL ETHYL KETONE (2-BUTANONE)	ug/l		50 U	50 U	5 U
108-10-1	METHYL ISOBUTYL KETONE	ug/l		50 U	50 U	5 U
108-87-2	METHYLCYCLOHEXANE	ug/l		10 U	4.8 J	0.28 J
75-09-2	METHYLENE CHLORIDE	ug/l		10 U	10 U	1 U
100-42-5	STYRENE	ug/l		10 U	10 U	1 U
1634-04-4	TERT-BUTYL METHYL ETHER	ug/l		10 U	10 U	1 U
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l		2.7 J	10 U	1 U
108-88-3	TOLUENE	ug/l		10 U	10 U	1 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l		10 U	10 U	1 UJ
10061-02-6	TRANS-1,3-DICHLOROPROPENE	ug/l		10 U	10 U	1 U
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l		10 U	10 U	1 U
75-69-4	TRICHLOROFLUOROMETHANE	ug/l		10 U	10 U	1 U
75-01-4	VINYL CHLORIDE	ug/l		10 U	10 U	1 U
XYLENES	XYLENES, TOTAL	ug/l		19 J	20	3.9

			Dup of CMW-40-20181114			
Consolidated Edison Farrington Street MGP Site Validated 2018 Groundwater Analytical Data SDGs: 460-169523 & 460-169869		Location ID:	CMW-36	CMW-40	CMW-40	MW-15
		Sample ID:	CMW-36-20181114	CMW-40-20181114	CMW-140-20181114	MW-15-20181114
		Lab Sample Id:	460-169523-1	460-169523-2	460-169523-3	460-169523-12
		Source:	TALED	TALED	TALED	TALED
		SDG:	4601695231	4601695231	4601695231	4601695231
		Matrix:	WATER	WATER	WATER	WATER
		Sampled:	11/14/2018 9:30	11/14/2018 12:55	11/14/2018 12:00	11/14/2018 13:50
		Validated:	1/21/2019	1/21/2019	1/21/2019	1/21/2019
CAS NO.	COMPOUND	UNITS:				
	SEMIVOLATILES					
95-95-4	2,4,5-TRICHLOROPHENOL	ug/l		10 U	10 U	10 U
88-06-2	2,4,6-TRICHLOROPHENOL	ug/l		10 U	10 U	10 U
120-83-2	2,4-DICHLOROPHENOL	ug/l		10 U	10 U	10 U
105-67-9	2,4-DIMETHYLPHENOL	ug/l		10 U	10 U	10 U
51-28-5	2,4-DINITROPHENOL	ug/l		20 U	20 U	20 U
121-14-2	2,4-DINITROTOLUENE	ug/l		2 U	2 U	2 U
606-20-2	2,6-DINITROTOLUENE	ug/l		2 U	2 U	2 U
91-58-7	2-CHLORONAPHTHALENE	ug/l		10 U	10 U	10 U
95-57-8	2-CHLOROPHENOL	ug/l		10 U	10 U	10 U
91-57-6	2-METHYLNAPHTHALENE	ug/l		10 U	10 U	10 U
95-48-7	2-METHYLPHENOL (O-CRESOL)	ug/l		10 U	10 U	10 U
88-74-4	2-NITROANILINE	ug/l		10 U	10 U	10 U
88-75-5	2-NITROPHENOL	ug/l		10 U	10 U	10 U
91-94-1	3,3'-DICHLOROBENZIDINE	ug/l		10 U	10 U	10 U
99-09-2	3-NITROANILINE	ug/l		10 U	10 U	10 U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	ug/l		20 U	20 U	20 U
101-55-3	4-BROMOPHENYL PHENYL ETHER	ug/l		10 U	10 U	10 U
59-50-7	4-CHLORO-3-METHYLPHENOL	ug/l		10 U	10 U	10 U
106-47-8	4-CHLOROANILINE	ug/l		10 U	10 U	10 U
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	ug/l		10 U	10 U	10 U
106-44-5	4-METHYLPHENOL (P-CRESOL)	ug/l		10 U	10 U	10 U
100-01-6	4-NITROANILINE	ug/l		10 U	10 U	10 U
100-02-7	4-NITROPHENOL	ug/l		20 U	20 U	20 U
83-32-9	ACENAPHTHENE	ug/l		22	32	76
208-96-8	ACENAPHTHYLENE	ug/l		10 U	0.86 J	2.8 J
98-86-2	ACETOPHENONE	ug/l		10 U	10 U	1.8 J
120-12-7	ANTHRACENE	ug/l		0.92 J	1.6 J	4.5 J
1912-24-9	ATRAZINE	ug/l		2 U	2 U	2 U
100-52-7	BENZALDEHYDE	ug/l		10 U	10 U	10 U
56-55-3	BENZO(A)ANTHRACENE	ug/l		1 U	1 U	2.1
50-32-8	BENZO(A)PYRENE	ug/l		1 U	1 U	1.4
205-99-2	BENZO(B)FLUORANTHENE	ug/l		2 U	2 U	1.2 J
191-24-2	BENZO(G,H,I)PERYLENE	ug/l		10 U	10 U	10 U
207-08-9	BENZO(K)FLUORANTHENE	ug/l		1 U	1 U	1 U
85-68-7	BENZYL BUTYL PHTHALATE	ug/l		10 U	10 U	10 U
92-52-4	BIPHENYL (DIPHENYL)	ug/l		10 U	10 U	10 U
111-91-1	BIS(2-CHLOROETHOXY) METHANE	ug/l		10 U	10 U	10 U
111-44-4	BIS(2-CHLOROETHYL) ETHER	ug/l		1 U	1 U	1 U
108-60-1	BIS(2-CHLOROISOPROPYL) ETHER	ug/l		10 U	10 U	10 U
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	ug/l		2 U	2 U	2 U
105-60-2	CAPROLACTAM	ug/l		10 U	10 U	10 U
86-74-8	CARBAZOLE	ug/l		10 U	10 U	10 U
218-01-9	CHRYSENE	ug/l		2 U	2 U	2.1
53-70-3	DIBENZ(A,H)ANTHRACENE	ug/l		1 U	1 U	1 U
132-64-9	DIBENZOFURAN	ug/l		10 U	1.4 J	1.9 J
84-66-2	DIETHYL PHTHALATE	ug/l		10 U	10 U	10 U
131-11-3	DIMETHYL PHTHALATE	ug/l		10 U	10 U	10 U
84-74-2	DI-N-BUTYL PHTHALATE	ug/l		10 U	10 U	10 U
117-84-0	DI-N-OCTYLPHTHALATE	ug/l		10 U	10 U	10 U
206-44-0	FLUORANTHENE	ug/l		10 U	10 U	5.4 J
86-73-7	FLUORENE	ug/l		5.5 J	8.1 J	8 J
118-74-1	HEXACHLOROBENZENE	ug/l		1 U	1 U	1 U
87-68-3	HEXACHLOROBUTADIENE	ug/l		1 U	1 U	1 U
77-47-4	HEXACHLOROCYCLOPENTADIENE	ug/l		10 U	10 U	10 U
67-72-1	HEXACHLOROETHANE	ug/l		2 U	2 U	2 U
193-39-5	INDENO(1,2,3-C,D)PYRENE	ug/l		2 U	2 U	2 U
78-59-1	ISOPHORONE	ug/l		10 U	10 U	10 U
91-20-3	NAPHTHALENE	ug/l		3.6 J	4.8 J	2.4 J
98-95-3	NITROBENZENE	ug/l		1 U	1 U	1 U
621-64-7	N-NITROSODI-N-PROPYLAMINE	ug/l		1 U	1 U	1 U
86-30-6	N-NITROSODIPHENYLAMINE	ug/l		10 U	10 U	10 U
87-86-5	PENTACHLOROPHENOL	ug/l		20 U	20 U	20 U
85-01-8	PHENANTHRENE	ug/l		3.9 J	6.1 J	10
108-95-2	PHENOL	ug/l		43 J+	44 J+	10 U
129-00-0	PYRENE	ug/l		10 U	10 U	8 J

			Dup of CMW-40-20181114				
Consolidated Edison Farrington Street MGP Site Validated 2018 Groundwater Analytical Data SDGs: 460-169523 & 460-169869			Location ID:	CMW-36	CMW-40	CMW-40	MW-15
			Sample ID:	CMW-36-20181114	CMW-40-20181114	CMW-140-20181114	MW-15-20181114
			Lab Sample Id:	460-169523-1	460-169523-2	460-169523-3	460-169523-12
			Source:	TALED	TALED	TALED	TALED
			SDG:	4601695231	4601695231	4601695231	4601695231
			Matrix:	WATER	WATER	WATER	WATER
			Sampled:	11/14/2018 9:30	11/14/2018 12:55	11/14/2018 12:00	11/14/2018 13:50
			Validated:	1/21/2019	1/21/2019	1/21/2019	1/21/2019
CAS NO.	COMPOUND	UNITS:					
	INORGANICS						
7429-90-5	ALUMINUM	ug/l	165 J	97.4 J	43.4 J	64.3 J	
7440-36-0	ANTIMONY	ug/l	20 U	20 U	20 U	20 U	
7440-38-2	ARSENIC	ug/l	15 U	15 U	15 U	15 U	
7440-39-3	BARIUM	ug/l	90 J	397	378	231	
7440-41-7	BERYLLIUM	ug/l	2 U	2 U	2 U	2 U	
7440-43-9	CADMIUM	ug/l	0.42 J	4 U	4 U	4 U	
7440-70-2	CALCIUM	ug/l	131000	145000	146000	179000	
7440-47-3	CHROMIUM, TOTAL	ug/l	10 U	10 U	10 U	10 U	
7440-48-4	COBALT	ug/l	5.6 J	50 U	50 U	50 U	
7440-50-8	COPPER	ug/l	25 U	25 U	25 U	5.2 J	
7439-89-6	IRON	ug/l	271 J+	42400 J+	36100 J+	14000 J+	
7439-92-1	LEAD	ug/l	10 U	10 U	10 U	10 U	
7439-95-4	MAGNESIUM	ug/l	53800	32200	32600	80700	
7439-96-5	MANGANESE	ug/l	2510	648	624	1740	
7439-97-6	MERCURY	ug/l	0.2 U	0.2 U	0.2 U	0.2 U	
7440-02-0	NICKEL	ug/l	15.2 J	5.4 J	6.1 J	5.4 J	
7440-09-7	POTASSIUM	ug/l	24500	13300	13300	33100	
7782-49-2	SELENIUM	ug/l	20 U	20 U	20 U	20 U	
7440-22-4	SILVER	ug/l	10 U	10 U	10 U	10 U	
7440-23-5	SODIUM	ug/l	810000	343000	352000	1100000	
7440-28-0	THALLIUM	ug/l	20 U	20 U	20 U	20 U	
7440-62-2	VANADIUM	ug/l	50 U	50 U	50 U	3.6 J	
7440-66-6	ZINC	ug/l	30 U	30 U	30 U	30 U	
57-12-5	CYANIDE	ug/l	10 U	21	21	2.4 J	

Consolidated Edison Farrington Street MGP Site Validated 2018 Groundwater Analytical Data SDGs: 460-169523 & 460-169869		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	MW-19 MW-19-20181114 460-169523-13 TALED 4601695231 WATER 11/14/2018 11:35 1/21/2019	MW-20 MW-20-20181114 460-169523-4 TALED 4601695231 WATER 11/14/2018 13:45 1/21/2019	MW-21 MW-21-20181114 460-169523-7 TALED 4601695231 WATER 11/14/2018 13:05 1/21/2019	MW-25 MW-25-20181114 460-169523-11 TALED 4601695231 WATER 11/14/2018 13:55 1/21/2019
CAS NO.	COMPOUND	UNITS:				
	VOLATILES					
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	1 U	2 U	1 U	1 U
79-34-5	1,1,2,2-TETRACHLOROETHANE	ug/l	1 U	2 U	1 U	1 U
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	1 U	2 U	1 U	1 U
79-00-5	1,1,2-TRICHLOROETHANE	ug/l	1 U	2 U	1 U	1 U
75-34-3	1,1-DICHLOROETHANE	ug/l	1 U	2 U	1 U	1 U
75-35-4	1,1-DICHLOROETHENE	ug/l	1 U	2 UJ	1 U	1 UJ
87-61-6	1,2,3-TRICHLOROBENZENE	ug/l	1 U	2 U	1 U	1 U
120-82-1	1,2,4-TRICHLOROBENZENE	ug/l	1 U	2 U	1 U	1 U
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	ug/l	1 U	2 U	1 U	1 U
106-93-4	1,2-DIBROMOETHANE	ug/l	1 U	2 U	1 U	1 U
95-50-1	1,2-DICHLOROBENZENE	ug/l	1 U	2 U	1 U	1 U
107-06-2	1,2-DICHLOROETHANE	ug/l	1 U	2 U	1 U	1 U
78-87-5	1,2-DICHLOROPROPANE	ug/l	1 U	2 U	1 U	1 U
541-73-1	1,3-DICHLOROBENZENE	ug/l	1 U	2 U	1 U	1 U
106-46-7	1,4-DICHLOROBENZENE	ug/l	1 U	2 U	1 U	1 U
123-91-1	1,4-DIOXANE (P-DIOXANE)	ug/l	50 U	100 UJ	50 U	50 UJ
591-78-6	2-HEXANONE	ug/l	5 U	10 U	5 U	5 U
67-64-1	ACETONE	ug/l	5 U	10 U	5 U	5 U
71-43-2	BENZENE	ug/l	4.6	520	1 U	2.5
74-97-5	BROMOCHLOROMETHANE	ug/l	1 U	2 U	1 U	1 U
75-27-4	BROMODICHLOROMETHANE	ug/l	1 U	2 U	1 U	1 U
75-25-2	BROMOFORM	ug/l	1 UJ	2 UJ	1 UJ	1 UJ
74-83-9	BROMOMETHANE	ug/l	1 U	2 U	1 U	1 U
75-15-0	CARBON DISULFIDE	ug/l	1 U	2 U	1 U	1 U
56-23-5	CARBON TETRACHLORIDE	ug/l	1 U	2 U	1 U	1 U
108-90-7	CHLOROBENZENE	ug/l	1 U	2 U	1 U	1 U
75-00-3	CHLOROETHANE	ug/l	1 U	2 U	1 U	1 U
67-66-3	CHLOROFORM	ug/l	1 U	2 U	1 U	1 U
74-87-3	CHLOROMETHANE	ug/l	1 U	2 U	1 U	1 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	1 U	2 U	1 U	1 U
10061-01-5	CIS-1,3-DICHLOROPROPENE	ug/l	1 U	2 U	1 U	1 U
110-82-7	CYCLOHEXANE	ug/l	12	2.6	1 U	1 U
124-48-1	DIBROMOCHLOROMETHANE	ug/l	1 U	2 U	1 U	1 U
75-71-8	DICHLORODIFLUOROMETHANE	ug/l	1 U	2 U	1 U	1 U
100-41-4	ETHYLBENZENE	ug/l	74	3.7	1 U	1 U
98-82-8	ISOPROPYLBENZENE (CUMENE)	ug/l	35	13	1 U	1 U
79-20-9	METHYL ACETATE	ug/l	5 U	10 U	5 U	5 U
78-93-3	METHYL ETHYL KETONE (2-BUTANONE)	ug/l	5 U	10 U	5 U	5 U
108-10-1	METHYL ISOBUTYL KETONE	ug/l	5 U	10 U	5 U	5 U
108-87-2	METHYLCYCLOHEXANE	ug/l	13	2.2	1 U	1 U
75-09-2	METHYLENE CHLORIDE	ug/l	1 U	2 U	1 U	1 U
100-42-5	STYRENE	ug/l	1 U	2 U	1 U	1 U
1634-04-4	TERT-BUTYL METHYL ETHER	ug/l	0.64 J	9.9	1	1 U
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	1 U	2 U	1 U	1 U
108-88-3	TOLUENE	ug/l	2.6	1.4 J	1 U	1 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	1 U	2 UJ	1 U	1 UJ
10061-02-6	TRANS-1,3-DICHLOROPROPENE	ug/l	1 U	2 U	1 U	1 U
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	1 U	2 U	1 U	1 U
75-69-4	TRICHLOROFLUOROMETHANE	ug/l	1 U	2 U	1 U	1 U
75-01-4	VINYL CHLORIDE	ug/l	1 U	2 U	1 U	1 U
XYLENES	XYLENES, TOTAL	ug/l	50	12	2 U	2 U

Consolidated Edison Farrington Street MGP Site Validated 2018 Groundwater Analytical Data SDGs: 460-169523 & 460-169869		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	MW-19 MW-19-20181114 460-169523-13 TALED 4601695231 WATER 11/14/2018 11:35 1/21/2019	MW-20 MW-20-20181114 460-169523-4 TALED 4601695231 WATER 11/14/2018 13:45 1/21/2019	MW-21 MW-21-20181114 460-169523-7 TALED 4601695231 WATER 11/14/2018 13:05 1/21/2019	MW-25 MW-25-20181114 460-169523-11 TALED 4601695231 WATER 11/14/2018 13:55 1/21/2019
CAS NO.	COMPOUND	UNITS:				
	SEMIVOLATILES					
95-95-4	2,4,5-TRICHLOROPHENOL	ug/l	50 U	10 U	10 U	10 U
88-06-2	2,4,6-TRICHLOROPHENOL	ug/l	50 U	10 U	10 U	10 U
120-83-2	2,4-DICHLOROPHENOL	ug/l	50 U	10 U	10 U	10 U
105-67-9	2,4-DIMETHYLPHENOL	ug/l	50 U	10 U	10 U	10 U
51-28-5	2,4-DINITROPHENOL	ug/l	100 UJ	20 U	20 U	20 U
121-14-2	2,4-DINITROTOLUENE	ug/l	10 U	2 U	2 U	2 U
606-20-2	2,6-DINITROTOLUENE	ug/l	10 U	2 U	2 U	2 U
91-58-7	2-CHLORONAPHTHALENE	ug/l	50 U	10 U	10 U	10 U
95-57-8	2-CHLOROPHENOL	ug/l	50 U	10 U	10 U	10 U
91-57-6	2-METHYLNAPHTHALENE	ug/l	59	1.6 J	10 U	10 U
95-48-7	2-METHYLPHENOL (O-CRESOL)	ug/l	50 U	10 U	10 U	10 U
88-74-4	2-NITROANILINE	ug/l	50 U	10 U	10 U	10 U
88-75-5	2-NITROPHENOL	ug/l	50 U	10 U	10 U	10 U
91-94-1	3,3'-DICHLOROBENZIDINE	ug/l	50 U	10 U	10 U	10 U
99-09-2	3-NITROANILINE	ug/l	50 U	10 U	10 U	10 U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	ug/l	100 U	20 U	20 U	20 U
101-55-3	4-BROMOPHENYL PHENYL ETHER	ug/l	50 U	10 U	10 U	10 U
59-50-7	4-CHLORO-3-METHYLPHENOL	ug/l	50 U	10 U	10 U	10 U
106-47-8	4-CHLOROANILINE	ug/l	50 U	10 U	10 U	10 U
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	ug/l	50 U	10 U	10 U	10 U
106-44-5	4-METHYLPHENOL (P-CRESOL)	ug/l	50 U	10 U	10 U	10 U
100-01-6	4-NITROANILINE	ug/l	50 U	10 U	10 U	10 U
100-02-7	4-NITROPHENOL	ug/l	100 U	20 U	20 U	20 U
83-32-9	ACENAPHTHENE	ug/l	88	36	2.3 J	10 U
208-96-8	ACENAPHTHYLENE	ug/l	50 U	0.89 J	10 U	10 U
98-86-2	ACETOPHENONE	ug/l	50 U	10 U	10 U	10 U
120-12-7	ANTHRACENE	ug/l	5.1 J	0.84 J	10 U	10 U
1912-24-9	ATRAZINE	ug/l	10 U	2 U	2 U	2 U
100-52-7	BENZALDEHYDE	ug/l	50 U	10 U	10 U	10 U
56-55-3	BENZO(A)ANTHRACENE	ug/l	5 U	1 U	1 U	1 U
50-32-8	BENZO(A)PYRENE	ug/l	5 U	1 U	1 U	1 U
205-99-2	BENZO(B)FLUORANTHENE	ug/l	10 U	2 U	2 U	2 U
191-24-2	BENZO(G,H,I)PERYLENE	ug/l	50 U	10 U	10 U	10 U
207-08-9	BENZO(K)FLUORANTHENE	ug/l	5 U	1 U	1 U	1 U
85-68-7	BENZYL BUTYL PHTHALATE	ug/l	50 U	10 U	10 U	10 U
92-52-4	BIPHENYL (DIPHENYL)	ug/l	50 U	10 U	10 U	10 U
111-91-1	BIS(2-CHLOROETHOXY) METHANE	ug/l	50 U	10 U	10 U	10 U
111-44-4	BIS(2-CHLOROETHYL) ETHER	ug/l	5 U	1 U	1 U	1 U
108-60-1	BIS(2-CHLOROISOPROPYL) ETHER	ug/l	50 U	10 U	10 U	10 U
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	ug/l	10 U	2 U	2 U	2 U
105-60-2	CAPROLACTAM	ug/l	50 U	10 U	10 U	10 U
86-74-8	CARBAZOLE	ug/l	5.2 J	10 U	10 U	10 U
218-01-9	CHRYSENE	ug/l	10 U	2 U	2 U	2 U
53-70-3	DIBENZ(A,H)ANTHRACENE	ug/l	5 U	1 U	1 U	1 U
132-64-9	DIBENZOFURAN	ug/l	50 U	10 U	10 U	10 U
84-66-2	DIETHYL PHTHALATE	ug/l	50 U	10 U	10 U	10 U
131-11-3	DIMETHYL PHTHALATE	ug/l	50 U	10 U	10 U	10 U
84-74-2	DI-N-BUTYL PHTHALATE	ug/l	50 U	10 U	10 U	10 U
117-84-0	DI-N-OCTYLPHTHALATE	ug/l	50 U	10 U	10 U	10 U
206-44-0	FLUORANTHENE	ug/l	50 U	10 U	10 U	10 U
86-73-7	FLUORENE	ug/l	23 J	2.2 J	10 U	10 U
118-74-1	HEXACHLOROBENZENE	ug/l	5 U	1 U	1 U	1 U
87-68-3	HEXACHLOROBUTADIENE	ug/l	5 U	1 U	1 U	1 U
77-47-4	HEXACHLOROCYCLOPENTADIENE	ug/l	50 U	10 U	10 U	10 U
67-72-1	HEXACHLOROETHANE	ug/l	10 U	2 U	2 U	2 U
193-39-5	INDENO(1,2,3-C,D)PYRENE	ug/l	10 U	2 U	2 U	2 U
78-59-1	ISOPHORONE	ug/l	50 U	10 U	10 U	10 U
91-20-3	NAPHTHALENE	ug/l	430	6.8 J	10 U	10 U
98-95-3	NITROBENZENE	ug/l	5 U	1 U	1 U	1 U
621-64-7	N-NITROSODI-N-PROPYLAMINE	ug/l	5 U	1 U	1 U	1 U
86-30-6	N-NITROSODIPHENYLAMINE	ug/l	50 U	10 U	10 U	10 U
87-86-5	PENTACHLOROPHENOL	ug/l	100 U	20 U	20 U	20 U
85-01-8	PHENANTHRENE	ug/l	28 J	1.8 J	10 U	10 U
108-95-2	PHENOL	ug/l	50 U	3.3 J	10 U	10 U
129-00-0	PYRENE	ug/l	50 U	10 U	10 U	10 U

Consolidated Edison Farrington Street MGP Site Validated 2018 Groundwater Analytical Data SDGs: 460-169523 & 460-169869		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	MW-19 MW-19-20181114 460-169523-13 TALED 4601695231 WATER 11/14/2018 11:35 1/21/2019	MW-20 MW-20-20181114 460-169523-4 TALED 4601695231 WATER 11/14/2018 13:45 1/21/2019	MW-21 MW-21-20181114 460-169523-7 TALED 4601695231 WATER 11/14/2018 13:05 1/21/2019	MW-25 MW-25-20181114 460-169523-11 TALED 4601695231 WATER 11/14/2018 13:55 1/21/2019
CAS NO.	COMPOUND	UNITS:				
	INORGANICS					
7429-90-5	ALUMINUM	ug/l	35.5 J	200 U	41.5 J	113 J
7440-36-0	ANTIMONY	ug/l	20 U	3.3 J	20 U	20 U
7440-38-2	ARSENIC	ug/l	6 J	15 U	3.5 J	17
7440-39-3	BARIUM	ug/l	326	264	1040	69.6 J
7440-41-7	BERYLLIUM	ug/l	2 U	2 U	2 U	2 U
7440-43-9	CADMIUM	ug/l	4 U	4 U	4 U	4 U
7440-70-2	CALCIUM	ug/l	174000	82500	202000	43200
7440-47-3	CHROMIUM, TOTAL	ug/l	10 U	10 U	10 U	5.2 J
7440-48-4	COBALT	ug/l	50 U	2.3 J	50 U	8.1 J
7440-50-8	COPPER	ug/l	25 U	25 U	25 U	25 U
7439-89-6	IRON	ug/l	73200 J+	6370 J+	70500 J+	16700 J+
7439-92-1	LEAD	ug/l	10 U	10 U	10 U	2.9 J
7439-95-4	MAGNESIUM	ug/l	24700	16700	31200	5000
7439-96-5	MANGANESE	ug/l	1160	430	1290	917
7439-97-6	MERCURY	ug/l	0.2 U	0.2 U	0.2 U	0.2 U
7440-02-0	NICKEL	ug/l	4.4 J	9.1 J	40 U	5.9 J
7440-09-7	POTASSIUM	ug/l	12900	6920	42100	4870 J
7782-49-2	SELENIUM	ug/l	20 U	20 U	20 U	20 U
7440-22-4	SILVER	ug/l	10 U	10 U	10 U	10 U
7440-23-5	SODIUM	ug/l	143000	204000	902000	97900
7440-28-0	THALLIUM	ug/l	20 U	20 U	20 U	20 U
7440-62-2	VANADIUM	ug/l	50 U	50 U	50 U	50 U
7440-66-6	ZINC	ug/l	30 U	30 U	30 U	16.6 J
57-12-5	CYANIDE	ug/l	35	61	39	13

Consolidated Edison Farrington Street MGP Site Validated 2018 Groundwater Analytical Data SDGs: 460-169523 & 460-169869		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	MW-27 MW-27-20181114 460-169523-8 TALED 4601695231 WATER 11/14/2018 13:15 1/21/2019	MW-28 MW-28-20181114 460-169523-9 TALED 4601695231 WATER 11/14/2018 9:45 1/21/2019	MW-30 MW-30-20181114 460-169523-10 TALED 4601695231 WATER 11/14/2018 12:05 1/21/2019	MW-38 MW-38-20181121 460-169869-1 TALED 4601698691 WATER 11/21/2018 12:35 1/21/2019
CAS NO.	COMPOUND	UNITS:				
	VOLATILES					
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	1 U	1 U	25 U	1 U
79-34-5	1,1,2,2-TETRACHLOROETHANE	ug/l	1 U	1 U	25 UJ	1 U
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	1 U	1 U	25 U	1 U
79-00-5	1,1,2-TRICHLOROETHANE	ug/l	1 U	1 U	25 U	1 U
75-34-3	1,1-DICHLOROETHANE	ug/l	1 U	1 U	25 U	1 U
75-35-4	1,1-DICHLOROETHENE	ug/l	1 U	1 UJ	25 U	1 U
87-61-6	1,2,3-TRICHLOROBENZENE	ug/l	1 U	1 U	25 U	1 U
120-82-1	1,2,4-TRICHLOROBENZENE	ug/l	1 U	1 U	25 U	1 U
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	ug/l	1 U	1 U	25 U	1 U
106-93-4	1,2-DIBROMOETHANE	ug/l	1 U	1 U	25 U	1 U
95-50-1	1,2-DICHLOROBENZENE	ug/l	1 U	1 U	25 U	1 U
107-06-2	1,2-DICHLOROETHANE	ug/l	1 U	1 U	25 U	1 U
78-87-5	1,2-DICHLOROPROPANE	ug/l	1 U	1 U	25 U	1 U
541-73-1	1,3-DICHLOROBENZENE	ug/l	1 U	1 U	25 U	1 U
106-46-7	1,4-DICHLOROBENZENE	ug/l	1 U	1 U	25 U	1 U
123-91-1	1,4-DIOXANE (P-DIOXANE)	ug/l	50 U	50 UJ	1300 U	50 U
591-78-6	2-HEXANONE	ug/l	5 U	5 U	130 U	5 U
67-64-1	ACETONE	ug/l	5 U	5 U	130 U	5 U
71-43-2	BENZENE	ug/l	1 U	1 U	6100	190
74-97-5	BROMOCHLOROMETHANE	ug/l	1 U	1 U	25 U	1 U
75-27-4	BROMODICHLOROMETHANE	ug/l	1 U	1 U	25 U	1 U
75-25-2	BROMOFORM	ug/l	1 UJ	1 UJ	25 UJ	1 U
74-83-9	BROMOMETHANE	ug/l	1 U	1 U	25 UJ	1 UJ
75-15-0	CARBON DISULFIDE	ug/l	1 U	1 U	25 U	1 U
56-23-5	CARBON TETRACHLORIDE	ug/l	1 U	1 U	25 U	1 U
108-90-7	CHLOROBENZENE	ug/l	1 U	1 U	25 U	1 U
75-00-3	CHLOROETHANE	ug/l	1 U	1 U	25 U	1 U
67-66-3	CHLOROFORM	ug/l	1 U	1 U	25 U	1 U
74-87-3	CHLOROMETHANE	ug/l	1 U	1 U	25 U	1 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	1 U	1.9	25 U	1 U
10061-01-5	CIS-1,3-DICHLOROPROPENE	ug/l	1 U	1 U	25 U	1 U
110-82-7	CYCLOHEXANE	ug/l	1 U	1 U	25 U	5.9
124-48-1	DIBROMOCHLOROMETHANE	ug/l	1 U	1 U	25 U	1 U
75-71-8	DICHLORODIFLUOROMETHANE	ug/l	1 U	1 U	25 U	1 U
100-41-4	ETHYLBENZENE	ug/l	1 U	1 U	76	51
98-82-8	ISOPROPYLBENZENE (CUMENE)	ug/l	1 U	1 U	69	57
79-20-9	METHYL ACETATE	ug/l	5 U	5 U	130 U	5 U
78-93-3	METHYL ETHYL KETONE (2-BUTANONE)	ug/l	5 U	5 U	130 U	5 U
108-10-1	METHYL ISOBUTYL KETONE	ug/l	5 U	5 U	130 U	5 U
108-87-2	METHYLCYCLOHEXANE	ug/l	1 U	1 U	25 U	4.8
75-09-2	METHYLENE CHLORIDE	ug/l	1 U	1 U	25 U	1 U
100-42-5	STYRENE	ug/l	1 U	1 U	25 U	1 U
1634-04-4	TERT-BUTYL METHYL ETHER	ug/l	1 U	6.2	25 U	5
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	2.8	190	25 U	1 U
108-88-3	TOLUENE	ug/l	1 U	1 U	25 U	1.6
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	1 U	1 UJ	25 U	1 U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	ug/l	1 U	1 U	25 U	1 U
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	1 U	3.9	25 U	1 U
75-69-4	TRICHLOROFLUOROMETHANE	ug/l	1 U	1 U	25 U	1 U
75-01-4	VINYL CHLORIDE	ug/l	1 U	1 U	25 U	1 U
XYLENES	XYLENES, TOTAL	ug/l	2 U	2 U	84	28

Consolidated Edison Farrington Street MGP Site Validated 2018 Groundwater Analytical Data SDGs: 460-169523 & 460-169869		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	MW-27 MW-27-20181114 460-169523-8 TALED 4601695231 WATER 11/14/2018 13:15 1/21/2019	MW-28 MW-28-20181114 460-169523-9 TALED 4601695231 WATER 11/14/2018 9:45 1/21/2019	MW-30 MW-30-20181114 460-169523-10 TALED 4601695231 WATER 11/14/2018 12:05 1/21/2019	MW-38 MW-38-20181121 460-169869-1 TALED 4601698691 WATER 11/21/2018 12:35 1/21/2019
CAS NO.	COMPOUND	UNITS:				
	SEMIVOLATILES					
95-95-4	2,4,5-TRICHLOROPHENOL	ug/l	10 U	10 U	10 U	10 U
88-06-2	2,4,6-TRICHLOROPHENOL	ug/l	10 U	10 U	10 U	10 U
120-83-2	2,4-DICHLOROPHENOL	ug/l	10 U	10 U	10 U	10 U
105-67-9	2,4-DIMETHYLPHENOL	ug/l	10 U	10 U	10 U	10 U
51-28-5	2,4-DINITROPHENOL	ug/l	20 U	20 U	20 U	21 U
121-14-2	2,4-DINITROTOLUENE	ug/l	2 U	2 U	2 U	2.1 U
606-20-2	2,6-DINITROTOLUENE	ug/l	2 U	2 U	2 U	2.1 U
91-58-7	2-CHLORONAPHTHALENE	ug/l	10 U	10 U	10 U	10 U
95-57-8	2-CHLOROPHENOL	ug/l	10 U	10 U	10 U	10 U
91-57-6	2-METHYLNAPHTHALENE	ug/l	10 U	1.6 J	17	46
95-48-7	2-METHYLPHENOL (O-CRESOL)	ug/l	10 U	10 U	10 U	10 U
88-74-4	2-NITROANILINE	ug/l	10 U	10 U	10 U	10 U
88-75-5	2-NITROPHENOL	ug/l	10 U	10 U	10 U	10 U
91-94-1	3,3'-DICHLOROBENZIDINE	ug/l	10 U	10 U	10 U	10 U
99-09-2	3-NITROANILINE	ug/l	10 U	10 U	10 U	10 U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	ug/l	20 U	20 U	20 U	21 U
101-55-3	4-BROMOPHENYL PHENYL ETHER	ug/l	10 U	10 U	10 U	10 U
59-50-7	4-CHLORO-3-METHYLPHENOL	ug/l	10 U	10 U	10 U	10 U
106-47-8	4-CHLOROANILINE	ug/l	10 U	10 U	10 U	10 U
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	ug/l	10 U	10 U	10 U	10 U
106-44-5	4-METHYLPHENOL (P-CRESOL)	ug/l	10 U	10 U	10 U	10 U
100-01-6	4-NITROANILINE	ug/l	10 U	10 U	10 U	10 U
100-02-7	4-NITROPHENOL	ug/l	20 U	20 U	20 U	21 U
83-32-9	ACENAPHTHENE	ug/l	10 U	10 U	83	110
208-96-8	ACENAPHTHYLENE	ug/l	10 U	10 U	1.3 J	10 U
98-86-2	ACETOPHENONE	ug/l	10 U	10 U	5.6 J	10 U
120-12-7	ANTHRACENE	ug/l	10 U	10 U	3.9 J	3.7 J
1912-24-9	ATRAZINE	ug/l	2 U	2 U	2 U	2.1 U
100-52-7	BENZALDEHYDE	ug/l	10 U	10 U	10 U	10 U
56-55-3	BENZO(A)ANTHRACENE	ug/l	1 U	1 U	1 U	1 U
50-32-8	BENZO(A)PYRENE	ug/l	1 U	1 U	1 U	1 U
205-99-2	BENZO(B)FLUORANTHENE	ug/l	2 U	2 U	2 U	2.1 U
191-24-2	BENZO(G,H,I)PERYLENE	ug/l	10 U	10 U	10 U	10 U
207-08-9	BENZO(K)FLUORANTHENE	ug/l	1 U	1 U	1 U	1 U
85-68-7	BENZYL BUTYL PHTHALATE	ug/l	10 U	10 U	10 U	10 U
92-52-4	BIPHENYL (DIPHENYL)	ug/l	10 U	10 U	2 J	2.7 J
111-91-1	BIS(2-CHLOROETHOXY) METHANE	ug/l	10 U	10 U	10 U	10 U
111-44-4	BIS(2-CHLOROETHYL) ETHER	ug/l	1 U	1 U	1 U	1 U
108-60-1	BIS(2-CHLOROISOPROPYL) ETHER	ug/l	10 U	10 U	10 U	10 U
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	ug/l	2 U	2 U	2 U	2.1 U
105-60-2	CAPROLACTAM	ug/l	10 U	10 U	10 U	10 U
86-74-8	CARBAZOLE	ug/l	10 U	10 U	3 J	4 J
218-01-9	CHRYSENE	ug/l	2 U	2 U	2 U	2.1 U
53-70-3	DIBENZ(A,H)ANTHRACENE	ug/l	1 U	1 U	1 U	1 U
132-64-9	DIBENZOFURAN	ug/l	10 U	10 U	4.9 J	4.9 J
84-66-2	DIETHYL PHTHALATE	ug/l	10 U	10 U	10 U	10 U
131-11-3	DIMETHYL PHTHALATE	ug/l	10 U	10 U	10 U	10 U
84-74-2	DI-N-BUTYL PHTHALATE	ug/l	10 U	10 U	10 U	10 U
117-84-0	DI-N-OCTYLPHTHALATE	ug/l	10 U	10 U	10 U	10 U
206-44-0	FLUORANTHENE	ug/l	10 U	10 U	3.4 J	1.6 J
86-73-7	FLUORENE	ug/l	10 U	10 U	27	27
118-74-1	HEXACHLOROBENZENE	ug/l	1 U	1 U	1 U	1 U
87-68-3	HEXACHLOROBUTADIENE	ug/l	1 U	1 U	1 U	1 U
77-47-4	HEXACHLOROCYCLOPENTADIENE	ug/l	10 U	10 U	10 U	10 U
67-72-1	HEXACHLOROETHANE	ug/l	2 U	2 U	2 U	2.1 U
193-39-5	INDENO(1,2,3-C,D)PYRENE	ug/l	2 U	2 U	2 U	2.1 U
78-59-1	ISOPHORONE	ug/l	10 U	10 U	10 U	10 U
91-20-3	NAPHTHALENE	ug/l	10 U	2.5 J	100	150
98-95-3	NITROBENZENE	ug/l	1 U	1 U	1 U	1 U
621-64-7	N-NITROSODI-N-PROPYLAMINE	ug/l	1 U	1 U	1 U	1 U
86-30-6	N-NITROSODIPHENYLAMINE	ug/l	10 U	10 U	10 U	10 U
87-86-5	PENTACHLOROPHENOL	ug/l	20 U	20 U	20 U	21 U
85-01-8	PHENANTHRENE	ug/l	10 U	10 U	26	18
108-95-2	PHENOL	ug/l	10 U	10 U	51 J+	10 U
129-00-0	PYRENE	ug/l	10 U	10 U	3.8 J	2 J

Consolidated Edison Farrington Street MGP Site Validated 2018 Groundwater Analytical Data SDGs: 460-169523 & 460-169869		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	MW-27 MW-27-20181114 460-169523-8 TALED 4601695231 WATER 11/14/2018 13:15 1/21/2019	MW-28 MW-28-20181114 460-169523-9 TALED 4601695231 WATER 11/14/2018 9:45 1/21/2019	MW-30 MW-30-20181114 460-169523-10 TALED 4601695231 WATER 11/14/2018 12:05 1/21/2019	MW-38 MW-38-20181121 460-169869-1 TALED 4601698691 WATER 11/21/2018 12:35 1/21/2019
CAS NO.	COMPOUND	UNITS:				
	INORGANICS					
7429-90-5	ALUMINUM	ug/l	97.5 J	382	831	61.5 J
7440-36-0	ANTIMONY	ug/l	20 U	20 U	20 U	20 U
7440-38-2	ARSENIC	ug/l	15 U	15 U	15 U	2.7 J
7440-39-3	BARIUM	ug/l	63.4 J	106 J	898	311
7440-41-7	BERYLLIUM	ug/l	2 U	2 U	2 U	2 U
7440-43-9	CADMIUM	ug/l	4 U	4 U	4 U	4 U
7440-70-2	CALCIUM	ug/l	45700	105000	180000	134000
7440-47-3	CHROMIUM, TOTAL	ug/l	1.3 J	4.5 J	2.4 J	10 U
7440-48-4	COBALT	ug/l	50 U	50 U	6 J	50 U
7440-50-8	COPPER	ug/l	25 U	25 U	5.7 J	25 U
7439-89-6	IRON	ug/l	203 J+	630 J+	88300 J+	37800
7439-92-1	LEAD	ug/l	10 U	10 U	10 U	10 U
7439-95-4	MAGNESIUM	ug/l	12400	31500	63300	37600
7439-96-5	MANGANESE	ug/l	72.5	903	950	274
7439-97-6	MERCURY	ug/l	0.2 U	0.2 U	0.2 U	0.2 U
7440-02-0	NICKEL	ug/l	3 J	14 J	19.2 J	6.7 J
7440-09-7	POTASSIUM	ug/l	4820 J	7280	29800	14100
7782-49-2	SELENIUM	ug/l	20 U	20 U	20 U	20 U
7440-22-4	SILVER	ug/l	10 U	10 U	10 U	10 U
7440-23-5	SODIUM	ug/l	85000	241000	586000	169000
7440-28-0	THALLIUM	ug/l	20 U	20 U	20 U	20 U
7440-62-2	VANADIUM	ug/l	50 U	50 U	50 U	50 U
7440-66-6	ZINC	ug/l	30 U	10.8 J	4.4 J	30 U
57-12-5	CYANIDE	ug/l	10 U	10 U	38	91

Consolidated Edison Farrington Street MGP Site Validated 2018 Groundwater Analytical Data SDGs: 460-169523 & 460-169869		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	MW-CSB-60 MW-CSB-60-20181114 460-169523-6 TALED 4601695231 WATER 11/14/2018 9:55 1/21/2019	FIELDQC FB-11142018-20181114 460-169523-5 TALED 4601695231 WATER 11/14/2018 15:00 1/21/2019	FIELDQC TB-11212018-20181121 460-169869-2 TALED 4601698691 WATER 11/21/2018 0:00 1/21/2019	FIELDQC TB--20181114 460-169523-14 TALED 4601695231 WATER 11/14/2018 15:15 1/21/2019
CAS NO.	COMPOUND	UNITS:				
	VOLATILES					
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	1 U	1 U	1 U	1 U
79-34-5	1,1,2,2-TETRACHLOROETHANE	ug/l	1 U	1 U	1 U	1 U
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	1 U	1 U	1 U	1 U
79-00-5	1,1,2-TRICHLOROETHANE	ug/l	1 U	1 U	1 U	1 U
75-34-3	1,1-DICHLOROETHANE	ug/l	1 U	1 U	1 U	1 U
75-35-4	1,1-DICHLOROETHENE	ug/l	1 UJ	1 U	1 U	1 U
87-61-6	1,2,3-TRICHLOROBENZENE	ug/l	1 U	1 U	1 U	1 U
120-82-1	1,2,4-TRICHLOROBENZENE	ug/l	1 U	1 U	1 U	1 U
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	ug/l	1 U	1 U	1 U	1 U
106-93-4	1,2-DIBROMOETHANE	ug/l	1 U	1 U	1 U	1 U
95-50-1	1,2-DICHLOROBENZENE	ug/l	1 U	1 U	1 U	1 U
107-06-2	1,2-DICHLOROETHANE	ug/l	1 U	1 U	1 U	1 U
78-87-5	1,2-DICHLOROPROPANE	ug/l	1 U	1 U	1 U	1 U
541-73-1	1,3-DICHLOROBENZENE	ug/l	1 U	1 U	1 U	1 U
106-46-7	1,4-DICHLOROBENZENE	ug/l	1 U	1 U	1 U	1 U
123-91-1	1,4-DIOXANE (P-DIOXANE)	ug/l	50 UJ	50 U	50 U	50 U
591-78-6	2-HEXANONE	ug/l	5 U	5 U	5 U	5 U
67-64-1	ACETONE	ug/l	5 U	5 U	5 U	5 U
71-43-2	BENZENE	ug/l	1 U	1 U	1 U	1 U
74-97-5	BROMOCHLOROMETHANE	ug/l	1 U	1 U	1 U	1 U
75-27-4	BROMODICHLOROMETHANE	ug/l	1 U	1 U	1 U	1 U
75-25-2	BROMOFORM	ug/l	1 UJ	1 UJ	1 U	1 UJ
74-83-9	BROMOMETHANE	ug/l	1 U	1 U	1 UJ	1 U
75-15-0	CARBON DISULFIDE	ug/l	1 U	1 U	1 U	1 U
56-23-5	CARBON TETRACHLORIDE	ug/l	1 U	1 U	1 U	1 U
108-90-7	CHLOROBENZENE	ug/l	1 U	1 U	1 U	1 U
75-00-3	CHLOROETHANE	ug/l	1 U	1 U	1 U	1 U
67-66-3	CHLOROFORM	ug/l	1 U	1 U	1 U	1 U
74-87-3	CHLOROMETHANE	ug/l	1 U	1 U	1 U	1 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	1 U	1 U	1 U	1 U
10061-01-5	CIS-1,3-DICHLOROPROPENE	ug/l	1 U	1 U	1 U	1 U
110-82-7	CYCLOHEXANE	ug/l	1 U	1 U	1 U	1 U
124-48-1	DIBROMOCHLOROMETHANE	ug/l	1 U	1 U	1 U	1 U
75-71-8	DICHLORODIFLUOROMETHANE	ug/l	1 U	1 U	1 U	1 U
100-41-4	ETHYLBENZENE	ug/l	1 U	1 U	1 U	1 U
98-82-8	ISOPROPYLBENZENE (CUMENE)	ug/l	1 U	1 U	1 U	1 U
79-20-9	METHYL ACETATE	ug/l	5 U	5 U	5 U	5 U
78-93-3	METHYL ETHYL KETONE (2-BUTANONE)	ug/l	5 U	5 U	5 U	5 U
108-10-1	METHYL ISOBUTYL KETONE	ug/l	5 U	5 U	5 U	5 U
108-87-2	METHYLCYCLOHEXANE	ug/l	1 U	1 U	1 U	1 U
75-09-2	METHYLENE CHLORIDE	ug/l	1 U	4.1	0.36 J	1 U
100-42-5	STYRENE	ug/l	1 U	1 U	1 U	1 U
1634-04-4	TERT-BUTYL METHYL ETHER	ug/l	1 U	1 U	1 U	1 U
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	1 U	1 U	1 U	1 U
108-88-3	TOLUENE	ug/l	1 U	1 U	1 U	1 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	1 UJ	1 U	1 U	1 U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	ug/l	1 U	1 U	1 U	1 U
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	1 U	1 U	1 U	1 U
75-69-4	TRICHLOROFLUOROMETHANE	ug/l	1 U	1 U	1 U	1 U
75-01-4	VINYL CHLORIDE	ug/l	1 U	1 U	1 U	1 U
XYLENES	XYLENES, TOTAL	ug/l	2 U	2 U	2 U	2 U

Consolidated Edison Farrington Street MGP Site Validated 2018 Groundwater Analytical Data SDGs: 460-169523 & 460-169869		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	MW-CSB-60 MW-CSB-60-20181114 460-169523-6 TALED 4601695231 WATER 11/14/2018 9:55 1/21/2019	FIELDQC FB-11142018-20181114 460-169523-5 TALED 4601695231 WATER 11/14/2018 15:00 1/21/2019	FIELDQC TB-11212018-20181121 460-169869-2 TALED 4601698691 WATER 11/21/2018 0:00 1/21/2019	FIELDQC TB--20181114 460-169523-14 TALED 4601695231 WATER 11/14/2018 15:15 1/21/2019
CAS NO.	COMPOUND	UNITS:				
	SEMIVOLATILES					
95-95-4	2,4,5-TRICHLOROPHENOL	ug/l	10 U	10 U		
88-06-2	2,4,6-TRICHLOROPHENOL	ug/l	10 U	10 U		
120-83-2	2,4-DICHLOROPHENOL	ug/l	10 U	10 U		
105-67-9	2,4-DIMETHYLPHENOL	ug/l	10 U	10 U		
51-28-5	2,4-DINITROPHENOL	ug/l	20 U	20 U		
121-14-2	2,4-DINITROTOLUENE	ug/l	2 U	2 U		
606-20-2	2,6-DINITROTOLUENE	ug/l	2 U	2 U		
91-58-7	2-CHLORONAPHTHALENE	ug/l	10 U	10 U		
95-57-8	2-CHLOROPHENOL	ug/l	10 U	10 U		
91-57-6	2-METHYLNAPHTHALENE	ug/l	10 U	10 U		
95-48-7	2-METHYLPHENOL (O-CRESOL)	ug/l	10 U	10 U		
88-74-4	2-NITROANILINE	ug/l	10 U	10 U		
88-75-5	2-NITROPHENOL	ug/l	10 U	10 U		
91-94-1	3,3'-DICHLOROBENZIDINE	ug/l	10 U	10 U		
99-09-2	3-NITROANILINE	ug/l	10 U	10 U		
534-52-1	4,6-DINITRO-2-METHYLPHENOL	ug/l	20 U	20 U		
101-55-3	4-BROMOPHENYL PHENYL ETHER	ug/l	10 U	10 U		
59-50-7	4-CHLORO-3-METHYLPHENOL	ug/l	10 U	10 U		
106-47-8	4-CHLOROANILINE	ug/l	10 U	10 U		
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	ug/l	10 U	10 U		
106-44-5	4-METHYLPHENOL (P-CRESOL)	ug/l	10 U	10 U		
100-01-6	4-NITROANILINE	ug/l	10 U	10 U		
100-02-7	4-NITROPHENOL	ug/l	20 U	20 U		
83-32-9	ACENAPHTHENE	ug/l	10 U	10 U		
208-96-8	ACENAPHTHYLENE	ug/l	10 U	10 U		
98-86-2	ACETOPHENONE	ug/l	10 U	10 U		
120-12-7	ANTHRACENE	ug/l	10 U	10 U		
1912-24-9	ATRAZINE	ug/l	2 U	2 U		
100-52-7	BENZALDEHYDE	ug/l	10 U	10 U		
56-55-3	BENZO(A)ANTHRACENE	ug/l	1 U	1 U		
50-32-8	BENZO(A)PYRENE	ug/l	1 U	1 U		
205-99-2	BENZO(B)FLUORANTHENE	ug/l	2 U	2 U		
191-24-2	BENZO(G,H,I)PERYLENE	ug/l	10 U	10 U		
207-08-9	BENZO(K)FLUORANTHENE	ug/l	1 U	1 U		
85-68-7	BENZYL BUTYL PHTHALATE	ug/l	10 U	10 U		
92-52-4	BIPHENYL (DIPHENYL)	ug/l	10 U	10 U		
111-91-1	BIS(2-CHLOROETHOXY) METHANE	ug/l	10 U	10 U		
111-44-4	BIS(2-CHLOROETHYL) ETHER	ug/l	1 U	1 U		
108-60-1	BIS(2-CHLOROISOPROPYL) ETHER	ug/l	10 U	10 U		
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	ug/l	2 U	2 U		
105-60-2	CAPROLACTAM	ug/l	10 U	10 U		
86-74-8	CARBAZOLE	ug/l	10 U	10 U		
218-01-9	CHRYSENE	ug/l	2 U	2 U		
53-70-3	DIBENZ(A,H)ANTHRACENE	ug/l	1 U	1 U		
132-64-9	DIBENZOFURAN	ug/l	10 U	10 U		
84-66-2	DIETHYL PHTHALATE	ug/l	10 U	10 U		
131-11-3	DIMETHYL PHTHALATE	ug/l	10 U	10 U		
84-74-2	DI-N-BUTYL PHTHALATE	ug/l	10 U	10 U		
117-84-0	DI-N-OCTYLPHTHALATE	ug/l	10 U	10 U		
206-44-0	FLUORANTHENE	ug/l	10 U	10 U		
86-73-7	FLUORENE	ug/l	10 U	10 U		
118-74-1	HEXACHLOROBENZENE	ug/l	1 U	1 U		
87-68-3	HEXACHLOROBUTADIENE	ug/l	1 U	1 U		
77-47-4	HEXACHLOROCYCLOPENTADIENE	ug/l	10 U	10 U		
67-72-1	HEXACHLOROETHANE	ug/l	2 U	2 U		
193-39-5	INDENO(1,2,3-C,D)PYRENE	ug/l	2 U	2 U		
78-59-1	ISOPHORONE	ug/l	10 U	10 U		
91-20-3	NAPHTHALENE	ug/l	10 U	10 U		
98-95-3	NITROBENZENE	ug/l	1 U	1 U		
621-64-7	N-NITROSODI-N-PROPYLAMINE	ug/l	1 U	1 U		
86-30-6	N-NITROSODIPHENYLAMINE	ug/l	10 U	10 U		
87-86-5	PENTACHLOROPHENOL	ug/l	20 U	20 U		
85-01-8	PHENANTHRENE	ug/l	10 U	10 U		
108-95-2	PHENOL	ug/l	10 U	10 U		
129-00-0	PYRENE	ug/l	10 U	10 U		

Consolidated Edison Farrington Street MGP Site Validated 2018 Groundwater Analytical Data SDGs: 460-169523 & 460-169869		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	MW-CSB-60 MW-CSB-60-20181114 460-169523-6 TALED 4601695231 WATER 11/14/2018 9:55 1/21/2019	FIELDQC FB-11142018-20181114 460-169523-5 TALED 4601695231 WATER 11/14/2018 15:00 1/21/2019	FIELDQC TB-11212018-20181121 460-169869-2 TALED 4601698691 WATER 11/21/2018 0:00 1/21/2019	FIELDQC TB--20181114 460-169523-14 TALED 4601695231 WATER 11/14/2018 15:15 1/21/2019
CAS NO.	COMPOUND	UNITS:				
	INORGANICS					
7429-90-5	ALUMINUM	ug/l	31.5 J	200 U		
7440-36-0	ANTIMONY	ug/l	20 U	20 U		
7440-38-2	ARSENIC	ug/l	15 U	15 U		
7440-39-3	BARIUM	ug/l	561	200 U		
7440-41-7	BERYLLIUM	ug/l	2 U	2 U		
7440-43-9	CADMIUM	ug/l	4 U	4 U		
7440-70-2	CALCIUM	ug/l	128000	5000 U		
7440-47-3	CHROMIUM, TOTAL	ug/l	10 U	10 U		
7440-48-4	COBALT	ug/l	50 U	50 U		
7440-50-8	COPPER	ug/l	25 U	25 U		
7439-89-6	IRON	ug/l	25500 J+	150 U		
7439-92-1	LEAD	ug/l	10 U	10 U		
7439-95-4	MAGNESIUM	ug/l	22100	5000 U		
7439-96-5	MANGANESE	ug/l	838	15 U		
7439-97-6	MERCURY	ug/l	0.2 U	0.2 U		
7440-02-0	NICKEL	ug/l	1.9 J	40 U		
7440-09-7	POTASSIUM	ug/l	31000	5000 U		
7782-49-2	SELENIUM	ug/l	20 U	20 U		
7440-22-4	SILVER	ug/l	10 U	10 U		
7440-23-5	SODIUM	ug/l	710000	5000 U		
7440-28-0	THALLIUM	ug/l	20 U	20 U		
7440-62-2	VANADIUM	ug/l	50 U	50 U		
7440-66-6	ZINC	ug/l	30 U	30 U		
57-12-5	CYANIDE	ug/l	18 J	10 U		

APPENDIX C

LABORATORY ANALYTICAL REPORT - GROUNDWATER

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Edison

777 New Durham Road

Edison, NJ 08817

Tel: (732)549-3900

TestAmerica Job ID: 460-169523-1

Client Project/Site: Farrington St. MGP

For:

Parsons Corporation

301 Plainfield Road

Suite 350

Syracuse, New York 13212

Attn: Maryanne Kosciwicz



Authorized for release by:

11/30/2018 11:28:31 AM

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Designee for

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(732)549-3900

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	5
Detection Summary	8
Client Sample Results	14
Surrogate Summary	58
QC Sample Results	60
QC Association Summary	88
Lab Chronicle	93
Certification Summary	98
Method Summary	99
Sample Summary	100
Chain of Custody	101
Receipt Checklists	105

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

Definitions/Glossary

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	RPD of the LCS and LCSD exceeds the control limits
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
X	Surrogate is outside control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.
*	LCS or LCSD is outside acceptance limits.
F1	MS and/or MSD Recovery is outside acceptance limits.
X	Surrogate is outside control limits

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)

Definitions/Glossary

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

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2

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7

8

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10

11

12

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14

15

Case Narrative

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Job ID: 460-169523-1

Laboratory: TestAmerica Edison

Narrative

CASE NARRATIVE

Client: Parsons Corporation

Project: Farrington St. MGP

Report Number: 460-169523-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 11/16/2018 7:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.2° C and 3.5° C.

Receipt Exceptions

Limited sample volume was provided for the following sample for the SVOC analysis: MW-21 (460-169523-7). Only 1 container was received.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples CMW-40 (460-169523-2), CMW-140 (460-169523-3), MW-20 (460-169523-4), FB-11142018 (460-169523-5), MW-CSB-60 (460-169523-6), MW-21 (460-169523-7), MW-27 (460-169523-8), MW-28 (460-169523-9), MW-30 (460-169523-10), MW-25 (460-169523-11), MW-15 (460-169523-12), MW-19 (460-169523-13) and TB- (460-169523-14) were analyzed for Volatile organic compounds (GC-MS) in accordance with EPA SW-846 Methods 8260C. The samples were analyzed on 11/26/2018, 11/27/2018 and 11/28/2018.

Four surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: MW-CSB-60 (460-169523-6[MS]). These results have been reported and qualified.

The continuing calibration verification (CCV) analyzed in batch 460-571228 was outside the method criteria for the following analyte(s): 1,2,3-Trichlorobenzene (biased high) and Bromoform (biased low). A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for batch analytical batch 460-571228

Case Narrative

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Job ID: 460-169523-1 (Continued)

Laboratory: TestAmerica Edison (Continued)

recovered outside control limits for the following analyte: 1,4-Dioxane.

The continuing calibration verification (CCV) analyzed in batch 460-571469 was outside the method criteria for the following analyte: 1,1,2,2-Tetrachloroethane, Methyl acetate and Bromoform. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

The laboratory control sample (LCS) for analytical batch 460-571469 recovered outside control limits for the following analytes: 1,1-Dichloroethene, Chloroform and trans-1,2-Dichloroethene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

The continuing calibration verification (CCV) analyzed in batch 460-571302 was outside the method criteria for the following analyte(s): 1,4-Dioxane, Chlorobromomethane, 1,2,3-Trichlorobenzene, Chloroform, 1,1-Dichloroethene, 1,1,2-Trichloro-1,2,2-trifluoroethane, Trichlorofluoromethane and trans-1,2-Dichloroethene (biased high) and Bromoform. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Several analytes failed the recovery criteria high for the Matrix Spike (MS) of sample MW-CSB-60MS (460-169523-6) in batch 460-571228.

Vinyl chloride failed the recovery criteria low for the Matrix Spike Duplicate (MSD) of sample MW-CSB-60MSD (460-169523-6) in batch 460-571228. 1,4-Dioxane, Dichlorodifluoromethane and Methyl acetate exceeded the RPD limit.

Refer to the QC report for details.

Samples CMW-40 (460-169523-2)[10X], CMW-140 (460-169523-3)[10X], MW-20 (460-169523-4)[2X] and MW-30 (460-169523-10)[25X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the volatiles analysis.

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples CMW-40 (460-169523-2), CMW-140 (460-169523-3), MW-20 (460-169523-4), FB-11142018 (460-169523-5), MW-CSB-60 (460-169523-6), MW-21 (460-169523-7), MW-27 (460-169523-8), MW-28 (460-169523-9), MW-30 (460-169523-10), MW-25 (460-169523-11), MW-15 (460-169523-12) and MW-19 (460-169523-13) were analyzed for semivolatile organic compounds (GC/MS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 11/20/2018 and analyzed on 11/21/2018 and 11/22/2018.

The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 460-569917 and analytical batch 460-570132 recovered outside control limits for the following analytes: Phenol. These analytes were biased high in the LCS/LCSD; therefore, the data have been reported.

Surrogates recoveries for the following method blank (MB), laboratory control sample (LCS), and laboratory control sample duplicate (LCSD) associated with batch 460-569917 were outside the upper control limits. Samples and MS/MSD surrogates were within limits. Sample has been qualified and reported.

Surrogate recovery for the following sample was outside the upper control limit: MW-27 (460-169523-8). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

The continuing calibration verification (CCV) associated with batch 460-570345 recovered above the upper control limit for 2,4-Dinitrophenol, 2-Nitrophenol, 4,6-Dinitro-2-methylphenol, Butyl benzyl phthalate and Di-n-octyl phthalate. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following sample is impacted: (CCVIS 460-570345/2).

Phenol-d5 (Surr) failed the surrogate recovery criteria high for LCS 460-569917/2-A and LCSD 460-569917/3-A.

Case Narrative

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Job ID: 460-169523-1 (Continued)

Laboratory: TestAmerica Edison (Continued)

Phenol failed the recovery criteria high for the MSD of sample MW-CSB-60MSD (460-169523-6) in batch 460-570132.

Refer to the QC report for details.

Sample MW-19 (460-169523-13)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the semivolatiles analysis.

All other quality control parameters were within the acceptance limits.

METALS

Samples CMW-36 (460-169523-1), CMW-40 (460-169523-2), CMW-140 (460-169523-3), MW-20 (460-169523-4), FB-11142018 (460-169523-5), MW-CSB-60 (460-169523-6), MW-21 (460-169523-7), MW-27 (460-169523-8), MW-28 (460-169523-9), MW-30 (460-169523-10), MW-25 (460-169523-11), MW-15 (460-169523-12) and MW-19 (460-169523-13) were analyzed for Metals in accordance with 6010D. The samples were prepared on 11/27/2018 and analyzed on 11/28/2018.

Iron failed the recovery criteria low for the MS of sample MW-CSB-60MS (460-169523-6) in batch 460-571683. Sodium failed the recovery criteria high.

The presence of the '4' qualifier in the data indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Refer to the QC report for details.

Samples CMW-36 (460-169523-1)[5X], MW-CSB-60 (460-169523-6)[5X], MW-21 (460-169523-7)[5X], MW-30 (460-169523-10)[5X] and MW-15 (460-169523-12)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the Metals analysis.

All other quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples CMW-36 (460-169523-1), CMW-40 (460-169523-2), CMW-140 (460-169523-3), MW-20 (460-169523-4), FB-11142018 (460-169523-5), MW-CSB-60 (460-169523-6), MW-21 (460-169523-7), MW-27 (460-169523-8), MW-28 (460-169523-9), MW-30 (460-169523-10), MW-25 (460-169523-11), MW-15 (460-169523-12) and MW-19 (460-169523-13) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared and analyzed on 11/29/2018.

No difficulties were encountered during the Hg analysis.

All quality control parameters were within the acceptance limits.

TOTAL CYANIDE

Samples CMW-36 (460-169523-1), CMW-40 (460-169523-2), CMW-140 (460-169523-3), MW-20 (460-169523-4), FB-11142018 (460-169523-5), MW-CSB-60 (460-169523-6), MW-21 (460-169523-7), MW-27 (460-169523-8), MW-28 (460-169523-9), MW-30 (460-169523-10), MW-25 (460-169523-11), MW-15 (460-169523-12) and MW-19 (460-169523-13) were analyzed for total cyanide in accordance with EPA SW-846 Method 9012B. The samples were prepared and analyzed on 11/28/2018.

Cyanide, Total failed the recovery criteria high for the MS of sample MW-CSB-60MS (460-169523-6) in batch 460-571712.

Cyanide, Total failed the recovery criteria high for the MSD of sample MW-CSB-60MSD (460-169523-6) in batch 460-571712.

Refer to the QC report for details.

No other difficulties were encountered during the cyanide analysis.

All other quality control parameters were within the acceptance limits.

Detection Summary

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: CMW-36

Lab Sample ID: 460-169523-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Aluminum	165	J	200	28.6	ug/L	1			6010D	Total/NA
Barium	90.0	J	200	7.7	ug/L	1			6010D	Total/NA
Calcium	131000		5000	222	ug/L	1			6010D	Total/NA
Cadmium	0.42	J	4.0	0.22	ug/L	1			6010D	Total/NA
Cobalt	5.6	J	50.0	1.7	ug/L	1			6010D	Total/NA
Iron	271		150	34.2	ug/L	1			6010D	Total/NA
Potassium	24500		5000	323	ug/L	1			6010D	Total/NA
Magnesium	53800		5000	177	ug/L	1			6010D	Total/NA
Manganese	2510		15.0	0.99	ug/L	1			6010D	Total/NA
Sodium	810000		25000	2300	ug/L	5			6010D	Total/NA
Nickel	15.2	J	40.0	1.7	ug/L	1			6010D	Total/NA

Client Sample ID: CMW-40

Lab Sample ID: 460-169523-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Benzene	4100		10	4.3	ug/L	10			8260C	Total/NA
Ethylbenzene	5.3	J	10	3.0	ug/L	10			8260C	Total/NA
Tetrachloroethene	2.7	J	10	2.5	ug/L	10			8260C	Total/NA
Xylenes, Total	19	J	20	6.5	ug/L	10			8260C	Total/NA
Cyclohexane	4.6	J	10	3.2	ug/L	10			8260C	Total/NA
Isopropylbenzene	23		10	3.4	ug/L	10			8260C	Total/NA
Acenaphthene	22		10	1.1	ug/L	1			8270D	Total/NA
Anthracene	0.92	J	10	0.63	ug/L	1			8270D	Total/NA
Fluorene	5.5	J	10	0.91	ug/L	1			8270D	Total/NA
Naphthalene	3.6	J	10	1.1	ug/L	1			8270D	Total/NA
Phenanthrene	3.9	J	10	0.58	ug/L	1			8270D	Total/NA
Phenol	43	*	10	0.29	ug/L	1			8270D	Total/NA
Aluminum	97.4	J	200	28.6	ug/L	1			6010D	Total/NA
Barium	397		200	7.7	ug/L	1			6010D	Total/NA
Calcium	145000		5000	222	ug/L	1			6010D	Total/NA
Iron	42400		150	34.2	ug/L	1			6010D	Total/NA
Potassium	13300		5000	323	ug/L	1			6010D	Total/NA
Magnesium	32200		5000	177	ug/L	1			6010D	Total/NA
Manganese	648		15.0	0.99	ug/L	1			6010D	Total/NA
Sodium	343000		5000	460	ug/L	1			6010D	Total/NA
Nickel	5.4	J	40.0	1.7	ug/L	1			6010D	Total/NA
Cyanide, Total	0.021		0.010	0.0020	mg/L	1			9012B	Total/NA

Client Sample ID: CMW-140

Lab Sample ID: 460-169523-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Benzene	4500		10	4.3	ug/L	10			8260C	Total/NA
Ethylbenzene	5.2	J	10	3.0	ug/L	10			8260C	Total/NA
Xylenes, Total	20		20	6.5	ug/L	10			8260C	Total/NA
Cyclohexane	5.6	J	10	3.2	ug/L	10			8260C	Total/NA
Isopropylbenzene	25		10	3.4	ug/L	10			8260C	Total/NA
Methylcyclohexane	4.8	J	10	2.6	ug/L	10			8260C	Total/NA
Acenaphthene	32		10	1.1	ug/L	1			8270D	Total/NA
Acenaphthylene	0.86	J	10	0.82	ug/L	1			8270D	Total/NA
Anthracene	1.6	J	10	0.63	ug/L	1			8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Edison

Detection Summary

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: CMW-140 (Continued)

Lab Sample ID: 460-169523-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Dibenzofuran	1.4	J	10	1.1	ug/L	1			8270D	Total/NA
Fluorene	8.1	J	10	0.91	ug/L	1			8270D	Total/NA
Naphthalene	4.8	J	10	1.1	ug/L	1			8270D	Total/NA
Phenanthrene	6.1	J	10	0.58	ug/L	1			8270D	Total/NA
Phenol	44	*	10	0.29	ug/L	1			8270D	Total/NA
Aluminum	43.4	J	200	28.6	ug/L	1			6010D	Total/NA
Barium	378		200	7.7	ug/L	1			6010D	Total/NA
Calcium	146000		5000	222	ug/L	1			6010D	Total/NA
Iron	36100		150	34.2	ug/L	1			6010D	Total/NA
Potassium	13300		5000	323	ug/L	1			6010D	Total/NA
Magnesium	32600		5000	177	ug/L	1			6010D	Total/NA
Manganese	624		15.0	0.99	ug/L	1			6010D	Total/NA
Sodium	352000		5000	460	ug/L	1			6010D	Total/NA
Nickel	6.1	J	40.0	1.7	ug/L	1			6010D	Total/NA
Cyanide, Total	0.021		0.010	0.0020	mg/L	1			9012B	Total/NA

Client Sample ID: MW-20

Lab Sample ID: 460-169523-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Benzene	520		2.0	0.86	ug/L	2			8260C	Total/NA
Ethylbenzene	3.7		2.0	0.60	ug/L	2			8260C	Total/NA
Toluene	1.4	J	2.0	0.76	ug/L	2			8260C	Total/NA
Xylenes, Total	12		4.0	1.3	ug/L	2			8260C	Total/NA
Methyl tert-butyl ether	9.9		2.0	0.93	ug/L	2			8260C	Total/NA
Cyclohexane	2.6		2.0	0.64	ug/L	2			8260C	Total/NA
Isopropylbenzene	13		2.0	0.67	ug/L	2			8260C	Total/NA
Methylcyclohexane	2.2		2.0	0.52	ug/L	2			8260C	Total/NA
2-Methylnaphthalene	1.6	J	10	1.1	ug/L	1			8270D	Total/NA
Acenaphthene	36		10	1.1	ug/L	1			8270D	Total/NA
Acenaphthylene	0.89	J	10	0.82	ug/L	1			8270D	Total/NA
Anthracene	0.84	J	10	0.63	ug/L	1			8270D	Total/NA
Fluorene	2.2	J	10	0.91	ug/L	1			8270D	Total/NA
Naphthalene	6.8	J	10	1.1	ug/L	1			8270D	Total/NA
Phenanthrene	1.8	J	10	0.58	ug/L	1			8270D	Total/NA
Phenol	3.3	J *	10	0.29	ug/L	1			8270D	Total/NA
Barium	264		200	7.7	ug/L	1			6010D	Total/NA
Calcium	82500		5000	222	ug/L	1			6010D	Total/NA
Cobalt	2.3	J	50.0	1.7	ug/L	1			6010D	Total/NA
Iron	6370		150	34.2	ug/L	1			6010D	Total/NA
Potassium	6920		5000	323	ug/L	1			6010D	Total/NA
Magnesium	16700		5000	177	ug/L	1			6010D	Total/NA
Manganese	430		15.0	0.99	ug/L	1			6010D	Total/NA
Sodium	204000		5000	460	ug/L	1			6010D	Total/NA
Nickel	9.1	J	40.0	1.7	ug/L	1			6010D	Total/NA
Antimony	3.3	J	20.0	2.9	ug/L	1			6010D	Total/NA
Cyanide, Total	0.061		0.010	0.0020	mg/L	1			9012B	Total/NA

Client Sample ID: FB-11142018

Lab Sample ID: 460-169523-5

This Detection Summary does not include radiochemical test results.

TestAmerica Edison

Detection Summary

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: FB-11142018 (Continued)

Lab Sample ID: 460-169523-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Methylene Chloride	4.1		1.0	0.32	ug/L	1			8260C	Total/NA

Client Sample ID: MW-CSB-60

Lab Sample ID: 460-169523-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Aluminum	31.5	J	200	28.6	ug/L	1			6010D	Total/NA
Barium	561		200	7.7	ug/L	1			6010D	Total/NA
Calcium	128000		5000	222	ug/L	1			6010D	Total/NA
Iron	25500		150	34.2	ug/L	1			6010D	Total/NA
Potassium	31000		5000	323	ug/L	1			6010D	Total/NA
Magnesium	22100		5000	177	ug/L	1			6010D	Total/NA
Manganese	838		15.0	0.99	ug/L	1			6010D	Total/NA
Sodium	710000		25000	2300	ug/L	5			6010D	Total/NA
Nickel	1.9	J	40.0	1.7	ug/L	1			6010D	Total/NA
Cyanide, Total	0.018	F1	0.010	0.0020	mg/L	1			9012B	Total/NA

Client Sample ID: MW-21

Lab Sample ID: 460-169523-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Methyl tert-butyl ether	1.0		1.0	0.47	ug/L	1			8260C	Total/NA
Acenaphthene	2.3	J	10	1.1	ug/L	1			8270D	Total/NA
Aluminum	41.5	J	200	28.6	ug/L	1			6010D	Total/NA
Arsenic	3.5	J	15.0	2.7	ug/L	1			6010D	Total/NA
Barium	1040		200	7.7	ug/L	1			6010D	Total/NA
Calcium	202000		5000	222	ug/L	1			6010D	Total/NA
Iron	70500		150	34.2	ug/L	1			6010D	Total/NA
Potassium	42100		5000	323	ug/L	1			6010D	Total/NA
Magnesium	31200		5000	177	ug/L	1			6010D	Total/NA
Manganese	1290		15.0	0.99	ug/L	1			6010D	Total/NA
Sodium	902000		25000	2300	ug/L	5			6010D	Total/NA
Cyanide, Total	0.039		0.010	0.0020	mg/L	1			9012B	Total/NA

Client Sample ID: MW-27

Lab Sample ID: 460-169523-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Tetrachloroethene	2.8		1.0	0.25	ug/L	1			8260C	Total/NA
Aluminum	97.5	J	200	28.6	ug/L	1			6010D	Total/NA
Barium	63.4	J	200	7.7	ug/L	1			6010D	Total/NA
Calcium	45700		5000	222	ug/L	1			6010D	Total/NA
Chromium	1.3	J	10.0	1.3	ug/L	1			6010D	Total/NA
Iron	203		150	34.2	ug/L	1			6010D	Total/NA
Potassium	4820	J	5000	323	ug/L	1			6010D	Total/NA
Magnesium	12400		5000	177	ug/L	1			6010D	Total/NA
Manganese	72.5		15.0	0.99	ug/L	1			6010D	Total/NA
Sodium	85000		5000	460	ug/L	1			6010D	Total/NA
Nickel	3.0	J	40.0	1.7	ug/L	1			6010D	Total/NA

Client Sample ID: MW-28

Lab Sample ID: 460-169523-9

This Detection Summary does not include radiochemical test results.

TestAmerica Edison

Detection Summary

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: MW-28 (Continued)

Lab Sample ID: 460-169523-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1.9		1.0	0.22	ug/L	1			8260C	Total/NA
Tetrachloroethene	190		1.0	0.25	ug/L	1			8260C	Total/NA
Trichloroethene	3.9		1.0	0.31	ug/L	1			8260C	Total/NA
Methyl tert-butyl ether	6.2		1.0	0.47	ug/L	1			8260C	Total/NA
2-Methylnaphthalene	1.6	J	10	1.1	ug/L	1			8270D	Total/NA
Naphthalene	2.5	J	10	1.1	ug/L	1			8270D	Total/NA
Aluminum	382		200	28.6	ug/L	1			6010D	Total/NA
Barium	106	J	200	7.7	ug/L	1			6010D	Total/NA
Calcium	105000		5000	222	ug/L	1			6010D	Total/NA
Chromium	4.5	J	10.0	1.3	ug/L	1			6010D	Total/NA
Iron	630		150	34.2	ug/L	1			6010D	Total/NA
Potassium	7280		5000	323	ug/L	1			6010D	Total/NA
Magnesium	31500		5000	177	ug/L	1			6010D	Total/NA
Manganese	903		15.0	0.99	ug/L	1			6010D	Total/NA
Sodium	241000		5000	460	ug/L	1			6010D	Total/NA
Nickel	14.0	J	40.0	1.7	ug/L	1			6010D	Total/NA
Zinc	10.8	J	30.0	3.6	ug/L	1			6010D	Total/NA

Client Sample ID: MW-30

Lab Sample ID: 460-169523-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Benzene	6100		25	11	ug/L	25			8260C	Total/NA
Ethylbenzene	76		25	7.5	ug/L	25			8260C	Total/NA
Xylenes, Total	84		50	16	ug/L	25			8260C	Total/NA
Isopropylbenzene	69		25	8.4	ug/L	25			8260C	Total/NA
1,1'-Biphenyl	2.0	J	10	1.2	ug/L	1			8270D	Total/NA
2-Methylnaphthalene	17		10	1.1	ug/L	1			8270D	Total/NA
Acenaphthene	83		10	1.1	ug/L	1			8270D	Total/NA
Acenaphthylene	1.3	J	10	0.82	ug/L	1			8270D	Total/NA
Acetophenone	5.6	J	10	0.79	ug/L	1			8270D	Total/NA
Anthracene	3.9	J	10	0.63	ug/L	1			8270D	Total/NA
Carbazole	3.0	J	10	0.68	ug/L	1			8270D	Total/NA
Dibenzofuran	4.9	J	10	1.1	ug/L	1			8270D	Total/NA
Fluoranthene	3.4	J	10	0.84	ug/L	1			8270D	Total/NA
Fluorene	27		10	0.91	ug/L	1			8270D	Total/NA
Naphthalene	100		10	1.1	ug/L	1			8270D	Total/NA
Phenanthrene	26		10	0.58	ug/L	1			8270D	Total/NA
Phenol	51	*	10	0.29	ug/L	1			8270D	Total/NA
Pyrene	3.8	J	10	1.6	ug/L	1			8270D	Total/NA
Aluminum	831		200	28.6	ug/L	1			6010D	Total/NA
Barium	898		200	7.7	ug/L	1			6010D	Total/NA
Calcium	180000		5000	222	ug/L	1			6010D	Total/NA
Cobalt	6.0	J	50.0	1.7	ug/L	1			6010D	Total/NA
Chromium	2.4	J	10.0	1.3	ug/L	1			6010D	Total/NA
Copper	5.7	J	25.0	5.1	ug/L	1			6010D	Total/NA
Iron	88300		150	34.2	ug/L	1			6010D	Total/NA
Potassium	29800		5000	323	ug/L	1			6010D	Total/NA
Magnesium	63300		5000	177	ug/L	1			6010D	Total/NA
Manganese	950		15.0	0.99	ug/L	1			6010D	Total/NA
Sodium	586000		25000	2300	ug/L	5			6010D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Edison

Detection Summary

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: MW-30 (Continued)

Lab Sample ID: 460-169523-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nickel	19.2	J	40.0	1.7	ug/L	1		6010D	Total/NA
Zinc	4.4	J	30.0	3.6	ug/L	1		6010D	Total/NA
Cyanide, Total	0.038		0.010	0.0020	mg/L	1		9012B	Total/NA

Client Sample ID: MW-25

Lab Sample ID: 460-169523-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	2.5		1.0	0.43	ug/L	1		8260C	Total/NA
Aluminum	113	J	200	28.6	ug/L	1		6010D	Total/NA
Arsenic	17.0		15.0	2.7	ug/L	1		6010D	Total/NA
Barium	69.6	J	200	7.7	ug/L	1		6010D	Total/NA
Calcium	43200		5000	222	ug/L	1		6010D	Total/NA
Cobalt	8.1	J	50.0	1.7	ug/L	1		6010D	Total/NA
Chromium	5.2	J	10.0	1.3	ug/L	1		6010D	Total/NA
Iron	16700		150	34.2	ug/L	1		6010D	Total/NA
Potassium	4870	J	5000	323	ug/L	1		6010D	Total/NA
Magnesium	5000		5000	177	ug/L	1		6010D	Total/NA
Manganese	917		15.0	0.99	ug/L	1		6010D	Total/NA
Sodium	97900		5000	460	ug/L	1		6010D	Total/NA
Nickel	5.9	J	40.0	1.7	ug/L	1		6010D	Total/NA
Lead	2.9	J	10.0	2.5	ug/L	1		6010D	Total/NA
Zinc	16.6	J	30.0	3.6	ug/L	1		6010D	Total/NA
Cyanide, Total	0.013		0.010	0.0020	mg/L	1		9012B	Total/NA

Client Sample ID: MW-15

Lab Sample ID: 460-169523-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.52	J	1.0	0.43	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	0.27	J	1.0	0.22	ug/L	1		8260C	Total/NA
Ethylbenzene	8.4		1.0	0.30	ug/L	1		8260C	Total/NA
Xylenes, Total	3.9		2.0	0.65	ug/L	1		8260C	Total/NA
Isopropylbenzene	2.4		1.0	0.34	ug/L	1		8260C	Total/NA
Methylcyclohexane	0.28	J	1.0	0.26	ug/L	1		8260C	Total/NA
Acenaphthene	76		10	1.1	ug/L	1		8270D	Total/NA
Acenaphthylene	2.8	J	10	0.82	ug/L	1		8270D	Total/NA
Acetophenone	1.8	J	10	0.79	ug/L	1		8270D	Total/NA
Anthracene	4.5	J	10	0.63	ug/L	1		8270D	Total/NA
Benzo[a]anthracene	2.1		1.0	0.59	ug/L	1		8270D	Total/NA
Benzo[a]pyrene	1.4		1.0	0.41	ug/L	1		8270D	Total/NA
Benzo[b]fluoranthene	1.2	J	2.0	1.1	ug/L	1		8270D	Total/NA
Chrysene	2.1		2.0	0.91	ug/L	1		8270D	Total/NA
Dibenzofuran	1.9	J	10	1.1	ug/L	1		8270D	Total/NA
Fluoranthene	5.4	J	10	0.84	ug/L	1		8270D	Total/NA
Fluorene	8.0	J	10	0.91	ug/L	1		8270D	Total/NA
Naphthalene	2.4	J	10	1.1	ug/L	1		8270D	Total/NA
Phenanthrene	10		10	0.58	ug/L	1		8270D	Total/NA
Pyrene	8.0	J	10	1.6	ug/L	1		8270D	Total/NA
Aluminum	64.3	J	200	28.6	ug/L	1		6010D	Total/NA
Barium	231		200	7.7	ug/L	1		6010D	Total/NA
Calcium	179000		5000	222	ug/L	1		6010D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Edison

Detection Summary

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: MW-15 (Continued)

Lab Sample ID: 460-169523-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	5.2	J	25.0	5.1	ug/L	1		6010D	Total/NA
Iron	14000		150	34.2	ug/L	1		6010D	Total/NA
Potassium	33100		5000	323	ug/L	1		6010D	Total/NA
Magnesium	80700		5000	177	ug/L	1		6010D	Total/NA
Manganese	1740		15.0	0.99	ug/L	1		6010D	Total/NA
Sodium	1100000		25000	2300	ug/L	5		6010D	Total/NA
Nickel	5.4	J	40.0	1.7	ug/L	1		6010D	Total/NA
Vanadium	3.6	J	50.0	2.5	ug/L	1		6010D	Total/NA
Cyanide, Total	0.0024	J	0.010	0.0020	mg/L	1		9012B	Total/NA

Client Sample ID: MW-19

Lab Sample ID: 460-169523-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	4.6		1.0	0.43	ug/L	1		8260C	Total/NA
Ethylbenzene	74		1.0	0.30	ug/L	1		8260C	Total/NA
Toluene	2.6		1.0	0.38	ug/L	1		8260C	Total/NA
Xylenes, Total	50		2.0	0.65	ug/L	1		8260C	Total/NA
Methyl tert-butyl ether	0.64	J	1.0	0.47	ug/L	1		8260C	Total/NA
Cyclohexane	12		1.0	0.32	ug/L	1		8260C	Total/NA
Isopropylbenzene	35		1.0	0.34	ug/L	1		8260C	Total/NA
Methylcyclohexane	13		1.0	0.26	ug/L	1		8260C	Total/NA
2-Methylnaphthalene	59		50	5.5	ug/L	5		8270D	Total/NA
Acenaphthene	88		50	5.4	ug/L	5		8270D	Total/NA
Anthracene	5.1	J	50	3.2	ug/L	5		8270D	Total/NA
Carbazole	5.2	J	50	3.4	ug/L	5		8270D	Total/NA
Fluorene	23	J	50	4.6	ug/L	5		8270D	Total/NA
Naphthalene	430		50	5.7	ug/L	5		8270D	Total/NA
Phenanthrene	28	J	50	2.9	ug/L	5		8270D	Total/NA
Aluminum	35.5	J	200	28.6	ug/L	1		6010D	Total/NA
Arsenic	6.0	J	15.0	2.7	ug/L	1		6010D	Total/NA
Barium	326		200	7.7	ug/L	1		6010D	Total/NA
Calcium	174000		5000	222	ug/L	1		6010D	Total/NA
Iron	73200		150	34.2	ug/L	1		6010D	Total/NA
Potassium	12900		5000	323	ug/L	1		6010D	Total/NA
Magnesium	24700		5000	177	ug/L	1		6010D	Total/NA
Manganese	1160		15.0	0.99	ug/L	1		6010D	Total/NA
Sodium	143000		5000	460	ug/L	1		6010D	Total/NA
Nickel	4.4	J	40.0	1.7	ug/L	1		6010D	Total/NA
Cyanide, Total	0.035		0.010	0.0020	mg/L	1		9012B	Total/NA

Client Sample ID: TB-

Lab Sample ID: 460-169523-14

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: CMW-36

Date Collected: 11/14/18 09:30

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-1

Matrix: Water

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	10.0	U	10.0	1.1	ug/L		11/27/18 08:49	11/28/18 01:10	1
Aluminum	165	J	200	28.6	ug/L		11/27/18 08:49	11/28/18 01:10	1
Arsenic	15.0	U	15.0	2.7	ug/L		11/27/18 08:49	11/28/18 01:10	1
Barium	90.0	J	200	7.7	ug/L		11/27/18 08:49	11/28/18 01:10	1
Beryllium	2.0	U	2.0	0.23	ug/L		11/27/18 08:49	11/28/18 01:10	1
Calcium	131000		5000	222	ug/L		11/27/18 08:49	11/28/18 01:10	1
Cadmium	0.42	J	4.0	0.22	ug/L		11/27/18 08:49	11/28/18 01:10	1
Cobalt	5.6	J	50.0	1.7	ug/L		11/27/18 08:49	11/28/18 01:10	1
Chromium	10.0	U	10.0	1.3	ug/L		11/27/18 08:49	11/28/18 01:10	1
Copper	25.0	U	25.0	5.1	ug/L		11/27/18 08:49	11/28/18 01:10	1
Iron	271		150	34.2	ug/L		11/27/18 08:49	11/28/18 01:10	1
Potassium	24500		5000	323	ug/L		11/27/18 08:49	11/28/18 01:10	1
Magnesium	53800		5000	177	ug/L		11/27/18 08:49	11/28/18 01:10	1
Manganese	2510		15.0	0.99	ug/L		11/27/18 08:49	11/28/18 01:10	1
Sodium	810000		25000	2300	ug/L		11/27/18 08:49	11/28/18 13:16	5
Nickel	15.2	J	40.0	1.7	ug/L		11/27/18 08:49	11/28/18 01:10	1
Lead	10.0	U	10.0	2.5	ug/L		11/27/18 08:49	11/28/18 01:10	1
Antimony	20.0	U	20.0	2.9	ug/L		11/27/18 08:49	11/28/18 01:10	1
Selenium	20.0	U	20.0	6.6	ug/L		11/27/18 08:49	11/28/18 01:10	1
Thallium	20.0	U	20.0	5.4	ug/L		11/27/18 08:49	11/28/18 01:10	1
Vanadium	50.0	U	50.0	2.5	ug/L		11/27/18 08:49	11/28/18 01:10	1
Zinc	30.0	U	30.0	3.6	ug/L		11/27/18 08:49	11/28/18 01:10	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		11/29/18 11:57	11/29/18 14:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0020	mg/L		11/28/18 09:28	11/28/18 12:54	1

Client Sample ID: CMW-40

Date Collected: 11/14/18 12:55

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-2

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	10	U	10	2.4	ug/L			11/27/18 04:04	10
1,1,2,2-Tetrachloroethane	10	U	10	3.7	ug/L			11/27/18 04:04	10
1,1,2-Trichloroethane	10	U	10	4.3	ug/L			11/27/18 04:04	10
1,1-Dichloroethane	10	U	10	2.6	ug/L			11/27/18 04:04	10
1,1-Dichloroethene	10	U	10	1.2	ug/L			11/27/18 04:04	10
1,2-Dichloroethane	10	U	10	4.3	ug/L			11/27/18 04:04	10
1,2-Dichloropropane	10	U	10	3.5	ug/L			11/27/18 04:04	10
2-Butanone (MEK)	50	U	50	19	ug/L			11/27/18 04:04	10
2-Hexanone	50	U	50	29	ug/L			11/27/18 04:04	10
4-Methyl-2-pentanone (MIBK)	50	U	50	27	ug/L			11/27/18 04:04	10
Acetone	50	U	50	50	ug/L			11/27/18 04:04	10
Benzene	4100		10	4.3	ug/L			11/27/18 04:04	10
Bromoform	10	U	10	5.4	ug/L			11/27/18 04:04	10

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: CMW-40

Lab Sample ID: 460-169523-2

Date Collected: 11/14/18 12:55

Matrix: Water

Date Received: 11/16/18 19:00

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	10	U	10	1.4	ug/L			11/27/18 04:04	10
Bromomethane	10	U	10	10	ug/L			11/27/18 04:04	10
Carbon disulfide	10	U	10	1.6	ug/L			11/27/18 04:04	10
Carbon tetrachloride	10	U	10	2.1	ug/L			11/27/18 04:04	10
Chlorobenzene	10	U	10	3.8	ug/L			11/27/18 04:04	10
Chlorodibromomethane	10	U	10	2.8	ug/L			11/27/18 04:04	10
Chloroethane	10	U	10	3.2	ug/L			11/27/18 04:04	10
Chloroform	10	U	10	3.3	ug/L			11/27/18 04:04	10
Chloromethane	10	U	10	1.4	ug/L			11/27/18 04:04	10
cis-1,2-Dichloroethene	10	U	10	2.2	ug/L			11/27/18 04:04	10
cis-1,3-Dichloropropene	10	U	10	4.6	ug/L			11/27/18 04:04	10
Dichlorobromomethane	10	U	10	3.4	ug/L			11/27/18 04:04	10
Ethylbenzene	5.3	J	10	3.0	ug/L			11/27/18 04:04	10
Methylene Chloride	10	U	10	3.2	ug/L			11/27/18 04:04	10
Styrene	10	U	10	4.2	ug/L			11/27/18 04:04	10
Tetrachloroethene	2.7	J	10	2.5	ug/L			11/27/18 04:04	10
Toluene	10	U	10	3.8	ug/L			11/27/18 04:04	10
trans-1,2-Dichloroethene	10	U	10	2.4	ug/L			11/27/18 04:04	10
trans-1,3-Dichloropropene	10	U	10	4.9	ug/L			11/27/18 04:04	10
Trichloroethene	10	U	10	3.1	ug/L			11/27/18 04:04	10
Vinyl chloride	10	U	10	1.7	ug/L			11/27/18 04:04	10
Xylenes, Total	19	J	20	6.5	ug/L			11/27/18 04:04	10
1,1,2-Trichloro-1,2,2-trifluoroethane	10	U	10	3.1	ug/L			11/27/18 04:04	10
Methyl tert-butyl ether	10	U	10	4.7	ug/L			11/27/18 04:04	10
Cyclohexane	4.6	J	10	3.2	ug/L			11/27/18 04:04	10
Ethylene Dibromide	10	U	10	5.0	ug/L			11/27/18 04:04	10
1,3-Dichlorobenzene	10	U	10	3.4	ug/L			11/27/18 04:04	10
1,4-Dichlorobenzene	10	U	10	7.6	ug/L			11/27/18 04:04	10
1,2-Dichlorobenzene	10	U	10	4.3	ug/L			11/27/18 04:04	10
Dichlorodifluoromethane	10	U	10	1.2	ug/L			11/27/18 04:04	10
1,2,4-Trichlorobenzene	10	U	10	3.7	ug/L			11/27/18 04:04	10
1,4-Dioxane	500	U *	500	280	ug/L			11/27/18 04:04	10
1,2,3-Trichlorobenzene	10	U	10	3.6	ug/L			11/27/18 04:04	10
1,2-Dibromo-3-Chloropropane	10	U	10	3.8	ug/L			11/27/18 04:04	10
Chlorobromomethane	10	U	10	4.1	ug/L			11/27/18 04:04	10
Isopropylbenzene	23		10	3.4	ug/L			11/27/18 04:04	10
Methyl acetate	50	U	50	3.1	ug/L			11/27/18 04:04	10
Methylcyclohexane	10	U	10	2.6	ug/L			11/27/18 04:04	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		74 - 132		11/27/18 04:04	10
4-Bromofluorobenzene	95		77 - 124		11/27/18 04:04	10
Dibromofluoromethane (Surr)	104		72 - 131		11/27/18 04:04	10
Toluene-d8 (Surr)	101		80 - 120		11/27/18 04:04	10

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	10	U	10	1.2	ug/L		11/20/18 09:24	11/21/18 12:16	1
2,2'-oxybis[1-chloropropane]	10	U	10	0.63	ug/L		11/20/18 09:24	11/21/18 12:16	1
2,4,5-Trichlorophenol	10	U	10	0.28	ug/L		11/20/18 09:24	11/21/18 12:16	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: CMW-40

Lab Sample ID: 460-169523-2

Date Collected: 11/14/18 12:55

Matrix: Water

Date Received: 11/16/18 19:00

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,6-Trichlorophenol	10	U	10	0.30	ug/L		11/20/18 09:24	11/21/18 12:16	1
2,4-Dichlorophenol	10	U	10	0.42	ug/L		11/20/18 09:24	11/21/18 12:16	1
2,4-Dimethylphenol	10	U	10	0.24	ug/L		11/20/18 09:24	11/21/18 12:16	1
2,4-Dinitrophenol	20	U	20	14	ug/L		11/20/18 09:24	11/21/18 12:16	1
2,4-Dinitrotoluene	2.0	U	2.0	1.0	ug/L		11/20/18 09:24	11/21/18 12:16	1
2,6-Dinitrotoluene	2.0	U	2.0	0.39	ug/L		11/20/18 09:24	11/21/18 12:16	1
2-Chloronaphthalene	10	U	10	1.2	ug/L		11/20/18 09:24	11/21/18 12:16	1
2-Chlorophenol	10	U	10	0.38	ug/L		11/20/18 09:24	11/21/18 12:16	1
2-Methylnaphthalene	10	U	10	1.1	ug/L		11/20/18 09:24	11/21/18 12:16	1
2-Methylphenol	10	U	10	0.26	ug/L		11/20/18 09:24	11/21/18 12:16	1
2-Nitroaniline	10	U	10	0.47	ug/L		11/20/18 09:24	11/21/18 12:16	1
2-Nitrophenol	10	U	10	0.75	ug/L		11/20/18 09:24	11/21/18 12:16	1
3,3'-Dichlorobenzidine	10	U	10	1.4	ug/L		11/20/18 09:24	11/21/18 12:16	1
3-Nitroaniline	10	U	10	0.96	ug/L		11/20/18 09:24	11/21/18 12:16	1
4,6-Dinitro-2-methylphenol	20	U	20	13	ug/L		11/20/18 09:24	11/21/18 12:16	1
4-Bromophenyl phenyl ether	10	U	10	0.75	ug/L		11/20/18 09:24	11/21/18 12:16	1
4-Chloro-3-methylphenol	10	U	10	0.58	ug/L		11/20/18 09:24	11/21/18 12:16	1
4-Chloroaniline	10	U	10	1.9	ug/L		11/20/18 09:24	11/21/18 12:16	1
4-Chlorophenyl phenyl ether	10	U	10	1.3	ug/L		11/20/18 09:24	11/21/18 12:16	1
4-Methylphenol	10	U	10	0.24	ug/L		11/20/18 09:24	11/21/18 12:16	1
4-Nitroaniline	10	U	10	0.54	ug/L		11/20/18 09:24	11/21/18 12:16	1
4-Nitrophenol	20	U	20	0.69	ug/L		11/20/18 09:24	11/21/18 12:16	1
Acenaphthene	22		10	1.1	ug/L		11/20/18 09:24	11/21/18 12:16	1
Acenaphthylene	10	U	10	0.82	ug/L		11/20/18 09:24	11/21/18 12:16	1
Acetophenone	10	U	10	0.79	ug/L		11/20/18 09:24	11/21/18 12:16	1
Anthracene	0.92	J	10	0.63	ug/L		11/20/18 09:24	11/21/18 12:16	1
Atrazine	2.0	U	2.0	1.3	ug/L		11/20/18 09:24	11/21/18 12:16	1
Benzaldehyde	10	U	10	0.59	ug/L		11/20/18 09:24	11/21/18 12:16	1
Benzo[a]anthracene	1.0	U	1.0	0.59	ug/L		11/20/18 09:24	11/21/18 12:16	1
Benzo[a]pyrene	1.0	U	1.0	0.41	ug/L		11/20/18 09:24	11/21/18 12:16	1
Benzo[b]fluoranthene	2.0	U	2.0	1.1	ug/L		11/20/18 09:24	11/21/18 12:16	1
Benzo[g,h,i]perylene	10	U	10	1.4	ug/L		11/20/18 09:24	11/21/18 12:16	1
Benzo[k]fluoranthene	1.0	U	1.0	0.67	ug/L		11/20/18 09:24	11/21/18 12:16	1
Bis(2-chloroethoxy)methane	10	U	10	0.24	ug/L		11/20/18 09:24	11/21/18 12:16	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.30	ug/L		11/20/18 09:24	11/21/18 12:16	1
Bis(2-ethylhexyl) phthalate	2.0	U	2.0	1.7	ug/L		11/20/18 09:24	11/21/18 12:16	1
Butyl benzyl phthalate	10	U	10	0.85	ug/L		11/20/18 09:24	11/21/18 12:16	1
Caprolactam	10	U	10	0.68	ug/L		11/20/18 09:24	11/21/18 12:16	1
Carbazole	10	U	10	0.68	ug/L		11/20/18 09:24	11/21/18 12:16	1
Chrysene	2.0	U	2.0	0.91	ug/L		11/20/18 09:24	11/21/18 12:16	1
Dibenz(a,h)anthracene	1.0	U	1.0	0.72	ug/L		11/20/18 09:24	11/21/18 12:16	1
Dibenzofuran	10	U	10	1.1	ug/L		11/20/18 09:24	11/21/18 12:16	1
Diethyl phthalate	10	U	10	0.98	ug/L		11/20/18 09:24	11/21/18 12:16	1
Dimethyl phthalate	10	U	10	0.77	ug/L		11/20/18 09:24	11/21/18 12:16	1
Di-n-butyl phthalate	10	U	10	0.84	ug/L		11/20/18 09:24	11/21/18 12:16	1
Di-n-octyl phthalate	10	U	10	4.8	ug/L		11/20/18 09:24	11/21/18 12:16	1
Fluoranthene	10	U	10	0.84	ug/L		11/20/18 09:24	11/21/18 12:16	1
Fluorene	5.5	J	10	0.91	ug/L		11/20/18 09:24	11/21/18 12:16	1
Hexachlorobenzene	1.0	U	1.0	0.40	ug/L		11/20/18 09:24	11/21/18 12:16	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: CMW-40

Date Collected: 11/14/18 12:55

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-2

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	1.0	U	1.0	0.78	ug/L		11/20/18 09:24	11/21/18 12:16	1
Hexachlorocyclopentadiene	10	U	10	1.7	ug/L		11/20/18 09:24	11/21/18 12:16	1
Hexachloroethane	2.0	U	2.0	1.2	ug/L		11/20/18 09:24	11/21/18 12:16	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	1.3	ug/L		11/20/18 09:24	11/21/18 12:16	1
Isophorone	10	U	10	0.80	ug/L		11/20/18 09:24	11/21/18 12:16	1
Naphthalene	3.6	J	10	1.1	ug/L		11/20/18 09:24	11/21/18 12:16	1
Nitrobenzene	1.0	U	1.0	0.57	ug/L		11/20/18 09:24	11/21/18 12:16	1
N-Nitrosodi-n-propylamine	1.0	U	1.0	0.43	ug/L		11/20/18 09:24	11/21/18 12:16	1
N-Nitrosodiphenylamine	10	U	10	0.89	ug/L		11/20/18 09:24	11/21/18 12:16	1
Pentachlorophenol	20	U	20	1.4	ug/L		11/20/18 09:24	11/21/18 12:16	1
Phenanthrene	3.9	J	10	0.58	ug/L		11/20/18 09:24	11/21/18 12:16	1
Phenol	43	*	10	0.29	ug/L		11/20/18 09:24	11/21/18 12:16	1
Pyrene	10	U	10	1.6	ug/L		11/20/18 09:24	11/21/18 12:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	95		26 - 139	11/20/18 09:24	11/21/18 12:16	1
2-Fluorobiphenyl	78		45 - 107	11/20/18 09:24	11/21/18 12:16	1
2-Fluorophenol (Surr)	52		25 - 58	11/20/18 09:24	11/21/18 12:16	1
Nitrobenzene-d5 (Surr)	98		51 - 108	11/20/18 09:24	11/21/18 12:16	1
Phenol-d5 (Surr)	37		14 - 39	11/20/18 09:24	11/21/18 12:16	1
Terphenyl-d14 (Surr)	62		40 - 148	11/20/18 09:24	11/21/18 12:16	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	10.0	U	10.0	1.1	ug/L		11/27/18 08:49	11/28/18 01:13	1
Aluminum	97.4	J	200	28.6	ug/L		11/27/18 08:49	11/28/18 01:13	1
Arsenic	15.0	U	15.0	2.7	ug/L		11/27/18 08:49	11/28/18 01:13	1
Barium	397		200	7.7	ug/L		11/27/18 08:49	11/28/18 01:13	1
Beryllium	2.0	U	2.0	0.23	ug/L		11/27/18 08:49	11/28/18 01:13	1
Calcium	145000		5000	222	ug/L		11/27/18 08:49	11/28/18 01:13	1
Cadmium	4.0	U	4.0	0.22	ug/L		11/27/18 08:49	11/28/18 01:13	1
Cobalt	50.0	U	50.0	1.7	ug/L		11/27/18 08:49	11/28/18 01:13	1
Chromium	10.0	U	10.0	1.3	ug/L		11/27/18 08:49	11/28/18 01:13	1
Copper	25.0	U	25.0	5.1	ug/L		11/27/18 08:49	11/28/18 01:13	1
Iron	42400		150	34.2	ug/L		11/27/18 08:49	11/28/18 01:13	1
Potassium	13300		5000	323	ug/L		11/27/18 08:49	11/28/18 01:13	1
Magnesium	32200		5000	177	ug/L		11/27/18 08:49	11/28/18 01:13	1
Manganese	648		15.0	0.99	ug/L		11/27/18 08:49	11/28/18 01:13	1
Sodium	343000		5000	460	ug/L		11/27/18 08:49	11/28/18 01:13	1
Nickel	5.4	J	40.0	1.7	ug/L		11/27/18 08:49	11/28/18 01:13	1
Lead	10.0	U	10.0	2.5	ug/L		11/27/18 08:49	11/28/18 01:13	1
Antimony	20.0	U	20.0	2.9	ug/L		11/27/18 08:49	11/28/18 01:13	1
Selenium	20.0	U	20.0	6.6	ug/L		11/27/18 08:49	11/28/18 01:13	1
Thallium	20.0	U	20.0	5.4	ug/L		11/27/18 08:49	11/28/18 01:13	1
Vanadium	50.0	U	50.0	2.5	ug/L		11/27/18 08:49	11/28/18 01:13	1
Zinc	30.0	U	30.0	3.6	ug/L		11/27/18 08:49	11/28/18 01:13	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		11/29/18 11:57	11/29/18 14:43	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: CMW-40

Date Collected: 11/14/18 12:55

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-2

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.021		0.010	0.0020	mg/L		11/28/18 09:28	11/28/18 12:55	1

Client Sample ID: CMW-140

Date Collected: 11/14/18 12:00

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-3

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	10	U	10	2.4	ug/L			11/27/18 04:29	10
1,1,2,2-Tetrachloroethane	10	U	10	3.7	ug/L			11/27/18 04:29	10
1,1,2-Trichloroethane	10	U	10	4.3	ug/L			11/27/18 04:29	10
1,1-Dichloroethane	10	U	10	2.6	ug/L			11/27/18 04:29	10
1,1-Dichloroethene	10	U	10	1.2	ug/L			11/27/18 04:29	10
1,2-Dichloroethane	10	U	10	4.3	ug/L			11/27/18 04:29	10
1,2-Dichloropropane	10	U	10	3.5	ug/L			11/27/18 04:29	10
2-Butanone (MEK)	50	U	50	19	ug/L			11/27/18 04:29	10
2-Hexanone	50	U	50	29	ug/L			11/27/18 04:29	10
4-Methyl-2-pentanone (MIBK)	50	U	50	27	ug/L			11/27/18 04:29	10
Acetone	50	U	50	50	ug/L			11/27/18 04:29	10
Benzene	4500		10	4.3	ug/L			11/27/18 04:29	10
Bromoform	10	U	10	5.4	ug/L			11/27/18 04:29	10
Trichlorofluoromethane	10	U	10	1.4	ug/L			11/27/18 04:29	10
Bromomethane	10	U	10	10	ug/L			11/27/18 04:29	10
Carbon disulfide	10	U	10	1.6	ug/L			11/27/18 04:29	10
Carbon tetrachloride	10	U	10	2.1	ug/L			11/27/18 04:29	10
Chlorobenzene	10	U	10	3.8	ug/L			11/27/18 04:29	10
Chlorodibromomethane	10	U	10	2.8	ug/L			11/27/18 04:29	10
Chloroethane	10	U	10	3.2	ug/L			11/27/18 04:29	10
Chloroform	10	U	10	3.3	ug/L			11/27/18 04:29	10
Chloromethane	10	U	10	1.4	ug/L			11/27/18 04:29	10
cis-1,2-Dichloroethene	10	U	10	2.2	ug/L			11/27/18 04:29	10
cis-1,3-Dichloropropene	10	U	10	4.6	ug/L			11/27/18 04:29	10
Dichlorobromomethane	10	U	10	3.4	ug/L			11/27/18 04:29	10
Ethylbenzene	5.2	J	10	3.0	ug/L			11/27/18 04:29	10
Methylene Chloride	10	U	10	3.2	ug/L			11/27/18 04:29	10
Styrene	10	U	10	4.2	ug/L			11/27/18 04:29	10
Tetrachloroethene	10	U	10	2.5	ug/L			11/27/18 04:29	10
Toluene	10	U	10	3.8	ug/L			11/27/18 04:29	10
trans-1,2-Dichloroethene	10	U	10	2.4	ug/L			11/27/18 04:29	10
trans-1,3-Dichloropropene	10	U	10	4.9	ug/L			11/27/18 04:29	10
Trichloroethene	10	U	10	3.1	ug/L			11/27/18 04:29	10
Vinyl chloride	10	U	10	1.7	ug/L			11/27/18 04:29	10
Xylenes, Total	20		20	6.5	ug/L			11/27/18 04:29	10
1,1,2-Trichloro-1,2,2-trifluoroethane	10	U	10	3.1	ug/L			11/27/18 04:29	10
Methyl tert-butyl ether	10	U	10	4.7	ug/L			11/27/18 04:29	10
Cyclohexane	5.6	J	10	3.2	ug/L			11/27/18 04:29	10
Ethylene Dibromide	10	U	10	5.0	ug/L			11/27/18 04:29	10
1,3-Dichlorobenzene	10	U	10	3.4	ug/L			11/27/18 04:29	10
1,4-Dichlorobenzene	10	U	10	7.6	ug/L			11/27/18 04:29	10
1,2-Dichlorobenzene	10	U	10	4.3	ug/L			11/27/18 04:29	10

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: CMW-140

Lab Sample ID: 460-169523-3

Date Collected: 11/14/18 12:00

Matrix: Water

Date Received: 11/16/18 19:00

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	10	U	10	1.2	ug/L			11/27/18 04:29	10
1,2,4-Trichlorobenzene	10	U	10	3.7	ug/L			11/27/18 04:29	10
1,4-Dioxane	500	U *	500	280	ug/L			11/27/18 04:29	10
1,2,3-Trichlorobenzene	10	U	10	3.6	ug/L			11/27/18 04:29	10
1,2-Dibromo-3-Chloropropane	10	U	10	3.8	ug/L			11/27/18 04:29	10
Chlorobromomethane	10	U	10	4.1	ug/L			11/27/18 04:29	10
Isopropylbenzene	25		10	3.4	ug/L			11/27/18 04:29	10
Methyl acetate	50	U	50	3.1	ug/L			11/27/18 04:29	10
Methylcyclohexane	4.8	J	10	2.6	ug/L			11/27/18 04:29	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		74 - 132		11/27/18 04:29	10
4-Bromofluorobenzene	100		77 - 124		11/27/18 04:29	10
Dibromofluoromethane (Surr)	112		72 - 131		11/27/18 04:29	10
Toluene-d8 (Surr)	105		80 - 120		11/27/18 04:29	10

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	10	U	10	1.2	ug/L		11/20/18 09:24	11/21/18 12:37	1
2,2'-oxybis[1-chloropropane]	10	U	10	0.63	ug/L		11/20/18 09:24	11/21/18 12:37	1
2,4,5-Trichlorophenol	10	U	10	0.28	ug/L		11/20/18 09:24	11/21/18 12:37	1
2,4,6-Trichlorophenol	10	U	10	0.30	ug/L		11/20/18 09:24	11/21/18 12:37	1
2,4-Dichlorophenol	10	U	10	0.42	ug/L		11/20/18 09:24	11/21/18 12:37	1
2,4-Dimethylphenol	10	U	10	0.24	ug/L		11/20/18 09:24	11/21/18 12:37	1
2,4-Dinitrophenol	20	U	20	14	ug/L		11/20/18 09:24	11/21/18 12:37	1
2,4-Dinitrotoluene	2.0	U	2.0	1.0	ug/L		11/20/18 09:24	11/21/18 12:37	1
2,6-Dinitrotoluene	2.0	U	2.0	0.39	ug/L		11/20/18 09:24	11/21/18 12:37	1
2-Chloronaphthalene	10	U	10	1.2	ug/L		11/20/18 09:24	11/21/18 12:37	1
2-Chlorophenol	10	U	10	0.38	ug/L		11/20/18 09:24	11/21/18 12:37	1
2-Methylnaphthalene	10	U	10	1.1	ug/L		11/20/18 09:24	11/21/18 12:37	1
2-Methylphenol	10	U	10	0.26	ug/L		11/20/18 09:24	11/21/18 12:37	1
2-Nitroaniline	10	U	10	0.47	ug/L		11/20/18 09:24	11/21/18 12:37	1
2-Nitrophenol	10	U	10	0.75	ug/L		11/20/18 09:24	11/21/18 12:37	1
3,3'-Dichlorobenzidine	10	U	10	1.4	ug/L		11/20/18 09:24	11/21/18 12:37	1
3-Nitroaniline	10	U	10	0.96	ug/L		11/20/18 09:24	11/21/18 12:37	1
4,6-Dinitro-2-methylphenol	20	U	20	13	ug/L		11/20/18 09:24	11/21/18 12:37	1
4-Bromophenyl phenyl ether	10	U	10	0.75	ug/L		11/20/18 09:24	11/21/18 12:37	1
4-Chloro-3-methylphenol	10	U	10	0.58	ug/L		11/20/18 09:24	11/21/18 12:37	1
4-Chloroaniline	10	U	10	1.9	ug/L		11/20/18 09:24	11/21/18 12:37	1
4-Chlorophenyl phenyl ether	10	U	10	1.3	ug/L		11/20/18 09:24	11/21/18 12:37	1
4-Methylphenol	10	U	10	0.24	ug/L		11/20/18 09:24	11/21/18 12:37	1
4-Nitroaniline	10	U	10	0.54	ug/L		11/20/18 09:24	11/21/18 12:37	1
4-Nitrophenol	20	U	20	0.69	ug/L		11/20/18 09:24	11/21/18 12:37	1
Acenaphthene	32		10	1.1	ug/L		11/20/18 09:24	11/21/18 12:37	1
Acenaphthylene	0.86	J	10	0.82	ug/L		11/20/18 09:24	11/21/18 12:37	1
Acetophenone	10	U	10	0.79	ug/L		11/20/18 09:24	11/21/18 12:37	1
Anthracene	1.6	J	10	0.63	ug/L		11/20/18 09:24	11/21/18 12:37	1
Atrazine	2.0	U	2.0	1.3	ug/L		11/20/18 09:24	11/21/18 12:37	1
Benzaldehyde	10	U	10	0.59	ug/L		11/20/18 09:24	11/21/18 12:37	1
Benzo[a]anthracene	1.0	U	1.0	0.59	ug/L		11/20/18 09:24	11/21/18 12:37	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: CMW-140

Lab Sample ID: 460-169523-3

Date Collected: 11/14/18 12:00

Matrix: Water

Date Received: 11/16/18 19:00

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	1.0	U	1.0	0.41	ug/L		11/20/18 09:24	11/21/18 12:37	1
Benzo[b]fluoranthene	2.0	U	2.0	1.1	ug/L		11/20/18 09:24	11/21/18 12:37	1
Benzo[g,h,i]perylene	10	U	10	1.4	ug/L		11/20/18 09:24	11/21/18 12:37	1
Benzo[k]fluoranthene	1.0	U	1.0	0.67	ug/L		11/20/18 09:24	11/21/18 12:37	1
Bis(2-chloroethoxy)methane	10	U	10	0.24	ug/L		11/20/18 09:24	11/21/18 12:37	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.30	ug/L		11/20/18 09:24	11/21/18 12:37	1
Bis(2-ethylhexyl) phthalate	2.0	U	2.0	1.7	ug/L		11/20/18 09:24	11/21/18 12:37	1
Butyl benzyl phthalate	10	U	10	0.85	ug/L		11/20/18 09:24	11/21/18 12:37	1
Caprolactam	10	U	10	0.68	ug/L		11/20/18 09:24	11/21/18 12:37	1
Carbazole	10	U	10	0.68	ug/L		11/20/18 09:24	11/21/18 12:37	1
Chrysene	2.0	U	2.0	0.91	ug/L		11/20/18 09:24	11/21/18 12:37	1
Dibenz(a,h)anthracene	1.0	U	1.0	0.72	ug/L		11/20/18 09:24	11/21/18 12:37	1
Dibenzofuran	1.4	J	10	1.1	ug/L		11/20/18 09:24	11/21/18 12:37	1
Diethyl phthalate	10	U	10	0.98	ug/L		11/20/18 09:24	11/21/18 12:37	1
Dimethyl phthalate	10	U	10	0.77	ug/L		11/20/18 09:24	11/21/18 12:37	1
Di-n-butyl phthalate	10	U	10	0.84	ug/L		11/20/18 09:24	11/21/18 12:37	1
Di-n-octyl phthalate	10	U	10	4.8	ug/L		11/20/18 09:24	11/21/18 12:37	1
Fluoranthene	10	U	10	0.84	ug/L		11/20/18 09:24	11/21/18 12:37	1
Fluorene	8.1	J	10	0.91	ug/L		11/20/18 09:24	11/21/18 12:37	1
Hexachlorobenzene	1.0	U	1.0	0.40	ug/L		11/20/18 09:24	11/21/18 12:37	1
Hexachlorobutadiene	1.0	U	1.0	0.78	ug/L		11/20/18 09:24	11/21/18 12:37	1
Hexachlorocyclopentadiene	10	U	10	1.7	ug/L		11/20/18 09:24	11/21/18 12:37	1
Hexachloroethane	2.0	U	2.0	1.2	ug/L		11/20/18 09:24	11/21/18 12:37	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	1.3	ug/L		11/20/18 09:24	11/21/18 12:37	1
Isophorone	10	U	10	0.80	ug/L		11/20/18 09:24	11/21/18 12:37	1
Naphthalene	4.8	J	10	1.1	ug/L		11/20/18 09:24	11/21/18 12:37	1
Nitrobenzene	1.0	U	1.0	0.57	ug/L		11/20/18 09:24	11/21/18 12:37	1
N-Nitrosodi-n-propylamine	1.0	U	1.0	0.43	ug/L		11/20/18 09:24	11/21/18 12:37	1
N-Nitrosodiphenylamine	10	U	10	0.89	ug/L		11/20/18 09:24	11/21/18 12:37	1
Pentachlorophenol	20	U	20	1.4	ug/L		11/20/18 09:24	11/21/18 12:37	1
Phenanthrene	6.1	J	10	0.58	ug/L		11/20/18 09:24	11/21/18 12:37	1
Phenol	44	*	10	0.29	ug/L		11/20/18 09:24	11/21/18 12:37	1
Pyrene	10	U	10	1.6	ug/L		11/20/18 09:24	11/21/18 12:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	98		26 - 139	11/20/18 09:24	11/21/18 12:37	1
2-Fluorobiphenyl	78		45 - 107	11/20/18 09:24	11/21/18 12:37	1
2-Fluorophenol (Surr)	57		25 - 58	11/20/18 09:24	11/21/18 12:37	1
Nitrobenzene-d5 (Surr)	101		51 - 108	11/20/18 09:24	11/21/18 12:37	1
Phenol-d5 (Surr)	38		14 - 39	11/20/18 09:24	11/21/18 12:37	1
Terphenyl-d14 (Surr)	64		40 - 148	11/20/18 09:24	11/21/18 12:37	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	10.0	U	10.0	1.1	ug/L		11/27/18 08:49	11/28/18 01:17	1
Aluminum	43.4	J	200	28.6	ug/L		11/27/18 08:49	11/28/18 01:17	1
Arsenic	15.0	U	15.0	2.7	ug/L		11/27/18 08:49	11/28/18 01:17	1
Barium	378		200	7.7	ug/L		11/27/18 08:49	11/28/18 01:17	1
Beryllium	2.0	U	2.0	0.23	ug/L		11/27/18 08:49	11/28/18 01:17	1
Calcium	146000		5000	222	ug/L		11/27/18 08:49	11/28/18 01:17	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: CMW-140

Date Collected: 11/14/18 12:00

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-3

Matrix: Water

Method: 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	4.0	U	4.0	0.22	ug/L		11/27/18 08:49	11/28/18 01:17	1
Cobalt	50.0	U	50.0	1.7	ug/L		11/27/18 08:49	11/28/18 01:17	1
Chromium	10.0	U	10.0	1.3	ug/L		11/27/18 08:49	11/28/18 01:17	1
Copper	25.0	U	25.0	5.1	ug/L		11/27/18 08:49	11/28/18 01:17	1
Iron	36100		150	34.2	ug/L		11/27/18 08:49	11/28/18 01:17	1
Potassium	13300		5000	323	ug/L		11/27/18 08:49	11/28/18 01:17	1
Magnesium	32600		5000	177	ug/L		11/27/18 08:49	11/28/18 01:17	1
Manganese	624		15.0	0.99	ug/L		11/27/18 08:49	11/28/18 01:17	1
Sodium	352000		5000	460	ug/L		11/27/18 08:49	11/28/18 01:17	1
Nickel	6.1	J	40.0	1.7	ug/L		11/27/18 08:49	11/28/18 01:17	1
Lead	10.0	U	10.0	2.5	ug/L		11/27/18 08:49	11/28/18 01:17	1
Antimony	20.0	U	20.0	2.9	ug/L		11/27/18 08:49	11/28/18 01:17	1
Selenium	20.0	U	20.0	6.6	ug/L		11/27/18 08:49	11/28/18 01:17	1
Thallium	20.0	U	20.0	5.4	ug/L		11/27/18 08:49	11/28/18 01:17	1
Vanadium	50.0	U	50.0	2.5	ug/L		11/27/18 08:49	11/28/18 01:17	1
Zinc	30.0	U	30.0	3.6	ug/L		11/27/18 08:49	11/28/18 01:17	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		11/29/18 11:57	11/29/18 14:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.021		0.010	0.0020	mg/L		11/28/18 09:28	11/28/18 12:56	1

Client Sample ID: MW-20

Date Collected: 11/14/18 13:45

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-4

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	2.0	U	2.0	0.48	ug/L			11/27/18 15:45	2
1,1,2,2-Tetrachloroethane	2.0	U	2.0	0.73	ug/L			11/27/18 15:45	2
1,1,2-Trichloroethane	2.0	U	2.0	0.87	ug/L			11/27/18 15:45	2
1,1-Dichloroethane	2.0	U	2.0	0.53	ug/L			11/27/18 15:45	2
1,1-Dichloroethene	2.0	U	2.0	0.23	ug/L			11/27/18 15:45	2
1,2-Dichloroethane	2.0	U	2.0	0.86	ug/L			11/27/18 15:45	2
1,2-Dichloropropane	2.0	U	2.0	0.71	ug/L			11/27/18 15:45	2
2-Butanone (MEK)	10	U	10	3.7	ug/L			11/27/18 15:45	2
2-Hexanone	10	U	10	5.8	ug/L			11/27/18 15:45	2
4-Methyl-2-pentanone (MIBK)	10	U	10	5.5	ug/L			11/27/18 15:45	2
Acetone	10	U	10	10	ug/L			11/27/18 15:45	2
Benzene	520		2.0	0.86	ug/L			11/27/18 15:45	2
Bromoform	2.0	U	2.0	1.1	ug/L			11/27/18 15:45	2
Trichlorofluoromethane	2.0	U	2.0	0.29	ug/L			11/27/18 15:45	2
Bromomethane	2.0	U	2.0	2.0	ug/L			11/27/18 15:45	2
Carbon disulfide	2.0	U	2.0	0.31	ug/L			11/27/18 15:45	2
Carbon tetrachloride	2.0	U	2.0	0.42	ug/L			11/27/18 15:45	2
Chlorobenzene	2.0	U	2.0	0.75	ug/L			11/27/18 15:45	2
Chlorodibromomethane	2.0	U	2.0	0.56	ug/L			11/27/18 15:45	2

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: MW-20

Date Collected: 11/14/18 13:45

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-4

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroethane	2.0	U	2.0	0.64	ug/L			11/27/18 15:45	2
Chloroform	2.0	U	2.0	0.65	ug/L			11/27/18 15:45	2
Chloromethane	2.0	U	2.0	0.29	ug/L			11/27/18 15:45	2
cis-1,2-Dichloroethene	2.0	U	2.0	0.44	ug/L			11/27/18 15:45	2
cis-1,3-Dichloropropene	2.0	U	2.0	0.91	ug/L			11/27/18 15:45	2
Dichlorobromomethane	2.0	U	2.0	0.69	ug/L			11/27/18 15:45	2
Ethylbenzene	3.7		2.0	0.60	ug/L			11/27/18 15:45	2
Methylene Chloride	2.0	U	2.0	0.63	ug/L			11/27/18 15:45	2
Styrene	2.0	U	2.0	0.83	ug/L			11/27/18 15:45	2
Tetrachloroethene	2.0	U	2.0	0.50	ug/L			11/27/18 15:45	2
Toluene	1.4	J	2.0	0.76	ug/L			11/27/18 15:45	2
trans-1,2-Dichloroethene	2.0	U	2.0	0.47	ug/L			11/27/18 15:45	2
trans-1,3-Dichloropropene	2.0	U	2.0	0.97	ug/L			11/27/18 15:45	2
Trichloroethene	2.0	U	2.0	0.63	ug/L			11/27/18 15:45	2
Vinyl chloride	2.0	U	2.0	0.34	ug/L			11/27/18 15:45	2
Xylenes, Total	12		4.0	1.3	ug/L			11/27/18 15:45	2
1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	U	2.0	0.62	ug/L			11/27/18 15:45	2
Methyl tert-butyl ether	9.9		2.0	0.93	ug/L			11/27/18 15:45	2
Cyclohexane	2.6		2.0	0.64	ug/L			11/27/18 15:45	2
Ethylene Dibromide	2.0	U	2.0	1.0	ug/L			11/27/18 15:45	2
1,3-Dichlorobenzene	2.0	U	2.0	0.68	ug/L			11/27/18 15:45	2
1,4-Dichlorobenzene	2.0	U	2.0	1.5	ug/L			11/27/18 15:45	2
1,2-Dichlorobenzene	2.0	U	2.0	0.86	ug/L			11/27/18 15:45	2
Dichlorodifluoromethane	2.0	U	2.0	0.24	ug/L			11/27/18 15:45	2
1,2,4-Trichlorobenzene	2.0	U	2.0	0.73	ug/L			11/27/18 15:45	2
1,4-Dioxane	100	U	100	56	ug/L			11/27/18 15:45	2
1,2,3-Trichlorobenzene	2.0	U	2.0	0.71	ug/L			11/27/18 15:45	2
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.75	ug/L			11/27/18 15:45	2
Chlorobromomethane	2.0	U	2.0	0.82	ug/L			11/27/18 15:45	2
Isopropylbenzene	13		2.0	0.67	ug/L			11/27/18 15:45	2
Methyl acetate	10	U	10	0.63	ug/L			11/27/18 15:45	2
Methylcyclohexane	2.2		2.0	0.52	ug/L			11/27/18 15:45	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		74 - 132		11/27/18 15:45	2
4-Bromofluorobenzene	104		77 - 124		11/27/18 15:45	2
Dibromofluoromethane (Surr)	113		72 - 131		11/27/18 15:45	2
Toluene-d8 (Surr)	107		80 - 120		11/27/18 15:45	2

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	10	U	10	1.2	ug/L		11/20/18 09:24	11/21/18 12:57	1
2,2'-oxybis[1-chloropropane]	10	U	10	0.63	ug/L		11/20/18 09:24	11/21/18 12:57	1
2,4,5-Trichlorophenol	10	U	10	0.28	ug/L		11/20/18 09:24	11/21/18 12:57	1
2,4,6-Trichlorophenol	10	U	10	0.30	ug/L		11/20/18 09:24	11/21/18 12:57	1
2,4-Dichlorophenol	10	U	10	0.42	ug/L		11/20/18 09:24	11/21/18 12:57	1
2,4-Dimethylphenol	10	U	10	0.24	ug/L		11/20/18 09:24	11/21/18 12:57	1
2,4-Dinitrophenol	20	U	20	14	ug/L		11/20/18 09:24	11/21/18 12:57	1
2,4-Dinitrotoluene	2.0	U	2.0	1.0	ug/L		11/20/18 09:24	11/21/18 12:57	1
2,6-Dinitrotoluene	2.0	U	2.0	0.39	ug/L		11/20/18 09:24	11/21/18 12:57	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: MW-20

Date Collected: 11/14/18 13:45

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-4

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloronaphthalene	10	U	10	1.2	ug/L		11/20/18 09:24	11/21/18 12:57	1
2-Chlorophenol	10	U	10	0.38	ug/L		11/20/18 09:24	11/21/18 12:57	1
2-Methylnaphthalene	1.6	J	10	1.1	ug/L		11/20/18 09:24	11/21/18 12:57	1
2-Methylphenol	10	U	10	0.26	ug/L		11/20/18 09:24	11/21/18 12:57	1
2-Nitroaniline	10	U	10	0.47	ug/L		11/20/18 09:24	11/21/18 12:57	1
2-Nitrophenol	10	U	10	0.75	ug/L		11/20/18 09:24	11/21/18 12:57	1
3,3'-Dichlorobenzidine	10	U	10	1.4	ug/L		11/20/18 09:24	11/21/18 12:57	1
3-Nitroaniline	10	U	10	0.96	ug/L		11/20/18 09:24	11/21/18 12:57	1
4,6-Dinitro-2-methylphenol	20	U	20	13	ug/L		11/20/18 09:24	11/21/18 12:57	1
4-Bromophenyl phenyl ether	10	U	10	0.75	ug/L		11/20/18 09:24	11/21/18 12:57	1
4-Chloro-3-methylphenol	10	U	10	0.58	ug/L		11/20/18 09:24	11/21/18 12:57	1
4-Chloroaniline	10	U	10	1.9	ug/L		11/20/18 09:24	11/21/18 12:57	1
4-Chlorophenyl phenyl ether	10	U	10	1.3	ug/L		11/20/18 09:24	11/21/18 12:57	1
4-Methylphenol	10	U	10	0.24	ug/L		11/20/18 09:24	11/21/18 12:57	1
4-Nitroaniline	10	U	10	0.54	ug/L		11/20/18 09:24	11/21/18 12:57	1
4-Nitrophenol	20	U	20	0.69	ug/L		11/20/18 09:24	11/21/18 12:57	1
Acenaphthene	36		10	1.1	ug/L		11/20/18 09:24	11/21/18 12:57	1
Acenaphthylene	0.89	J	10	0.82	ug/L		11/20/18 09:24	11/21/18 12:57	1
Acetophenone	10	U	10	0.79	ug/L		11/20/18 09:24	11/21/18 12:57	1
Anthracene	0.84	J	10	0.63	ug/L		11/20/18 09:24	11/21/18 12:57	1
Atrazine	2.0	U	2.0	1.3	ug/L		11/20/18 09:24	11/21/18 12:57	1
Benzaldehyde	10	U	10	0.59	ug/L		11/20/18 09:24	11/21/18 12:57	1
Benzo[a]anthracene	1.0	U	1.0	0.59	ug/L		11/20/18 09:24	11/21/18 12:57	1
Benzo[a]pyrene	1.0	U	1.0	0.41	ug/L		11/20/18 09:24	11/21/18 12:57	1
Benzo[b]fluoranthene	2.0	U	2.0	1.1	ug/L		11/20/18 09:24	11/21/18 12:57	1
Benzo[g,h,i]perylene	10	U	10	1.4	ug/L		11/20/18 09:24	11/21/18 12:57	1
Benzo[k]fluoranthene	1.0	U	1.0	0.67	ug/L		11/20/18 09:24	11/21/18 12:57	1
Bis(2-chloroethoxy)methane	10	U	10	0.24	ug/L		11/20/18 09:24	11/21/18 12:57	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.30	ug/L		11/20/18 09:24	11/21/18 12:57	1
Bis(2-ethylhexyl) phthalate	2.0	U	2.0	1.7	ug/L		11/20/18 09:24	11/21/18 12:57	1
Butyl benzyl phthalate	10	U	10	0.85	ug/L		11/20/18 09:24	11/21/18 12:57	1
Caprolactam	10	U	10	0.68	ug/L		11/20/18 09:24	11/21/18 12:57	1
Carbazole	10	U	10	0.68	ug/L		11/20/18 09:24	11/21/18 12:57	1
Chrysene	2.0	U	2.0	0.91	ug/L		11/20/18 09:24	11/21/18 12:57	1
Dibenz(a,h)anthracene	1.0	U	1.0	0.72	ug/L		11/20/18 09:24	11/21/18 12:57	1
Dibenzofuran	10	U	10	1.1	ug/L		11/20/18 09:24	11/21/18 12:57	1
Diethyl phthalate	10	U	10	0.98	ug/L		11/20/18 09:24	11/21/18 12:57	1
Dimethyl phthalate	10	U	10	0.77	ug/L		11/20/18 09:24	11/21/18 12:57	1
Di-n-butyl phthalate	10	U	10	0.84	ug/L		11/20/18 09:24	11/21/18 12:57	1
Di-n-octyl phthalate	10	U	10	4.8	ug/L		11/20/18 09:24	11/21/18 12:57	1
Fluoranthene	10	U	10	0.84	ug/L		11/20/18 09:24	11/21/18 12:57	1
Fluorene	2.2	J	10	0.91	ug/L		11/20/18 09:24	11/21/18 12:57	1
Hexachlorobenzene	1.0	U	1.0	0.40	ug/L		11/20/18 09:24	11/21/18 12:57	1
Hexachlorobutadiene	1.0	U	1.0	0.78	ug/L		11/20/18 09:24	11/21/18 12:57	1
Hexachlorocyclopentadiene	10	U	10	1.7	ug/L		11/20/18 09:24	11/21/18 12:57	1
Hexachloroethane	2.0	U	2.0	1.2	ug/L		11/20/18 09:24	11/21/18 12:57	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	1.3	ug/L		11/20/18 09:24	11/21/18 12:57	1
Isophorone	10	U	10	0.80	ug/L		11/20/18 09:24	11/21/18 12:57	1
Naphthalene	6.8	J	10	1.1	ug/L		11/20/18 09:24	11/21/18 12:57	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: MW-20

Date Collected: 11/14/18 13:45

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-4

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	1.0	U	1.0	0.57	ug/L		11/20/18 09:24	11/21/18 12:57	1
N-Nitrosodi-n-propylamine	1.0	U	1.0	0.43	ug/L		11/20/18 09:24	11/21/18 12:57	1
N-Nitrosodiphenylamine	10	U	10	0.89	ug/L		11/20/18 09:24	11/21/18 12:57	1
Pentachlorophenol	20	U	20	1.4	ug/L		11/20/18 09:24	11/21/18 12:57	1
Phenanthrene	1.8	J	10	0.58	ug/L		11/20/18 09:24	11/21/18 12:57	1
Phenol	3.3	J *	10	0.29	ug/L		11/20/18 09:24	11/21/18 12:57	1
Pyrene	10	U	10	1.6	ug/L		11/20/18 09:24	11/21/18 12:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	91		26 - 139	11/20/18 09:24	11/21/18 12:57	1
2-Fluorobiphenyl	68		45 - 107	11/20/18 09:24	11/21/18 12:57	1
2-Fluorophenol (Surr)	51		25 - 58	11/20/18 09:24	11/21/18 12:57	1
Nitrobenzene-d5 (Surr)	94		51 - 108	11/20/18 09:24	11/21/18 12:57	1
Phenol-d5 (Surr)	35		14 - 39	11/20/18 09:24	11/21/18 12:57	1
Terphenyl-d14 (Surr)	58		40 - 148	11/20/18 09:24	11/21/18 12:57	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	10.0	U	10.0	1.1	ug/L		11/27/18 09:56	11/28/18 01:21	1
Aluminum	200	U	200	28.6	ug/L		11/27/18 09:56	11/28/18 01:21	1
Arsenic	15.0	U	15.0	2.7	ug/L		11/27/18 09:56	11/28/18 01:21	1
Barium	264		200	7.7	ug/L		11/27/18 09:56	11/28/18 01:21	1
Beryllium	2.0	U	2.0	0.23	ug/L		11/27/18 09:56	11/28/18 01:21	1
Calcium	82500		5000	222	ug/L		11/27/18 09:56	11/28/18 01:21	1
Cadmium	4.0	U	4.0	0.22	ug/L		11/27/18 09:56	11/28/18 01:21	1
Cobalt	2.3	J	50.0	1.7	ug/L		11/27/18 09:56	11/28/18 01:21	1
Chromium	10.0	U	10.0	1.3	ug/L		11/27/18 09:56	11/28/18 01:21	1
Copper	25.0	U	25.0	5.1	ug/L		11/27/18 09:56	11/28/18 01:21	1
Iron	6370		150	34.2	ug/L		11/27/18 09:56	11/28/18 01:21	1
Potassium	6920		5000	323	ug/L		11/27/18 09:56	11/28/18 01:21	1
Magnesium	16700		5000	177	ug/L		11/27/18 09:56	11/28/18 01:21	1
Manganese	430		15.0	0.99	ug/L		11/27/18 09:56	11/28/18 01:21	1
Sodium	204000		5000	460	ug/L		11/27/18 09:56	11/28/18 01:21	1
Nickel	9.1	J	40.0	1.7	ug/L		11/27/18 09:56	11/28/18 01:21	1
Lead	10.0	U	10.0	2.5	ug/L		11/27/18 09:56	11/28/18 01:21	1
Antimony	3.3	J	20.0	2.9	ug/L		11/27/18 09:56	11/28/18 01:21	1
Selenium	20.0	U	20.0	6.6	ug/L		11/27/18 09:56	11/28/18 01:21	1
Thallium	20.0	U	20.0	5.4	ug/L		11/27/18 09:56	11/28/18 01:21	1
Vanadium	50.0	U	50.0	2.5	ug/L		11/27/18 09:56	11/28/18 01:21	1
Zinc	30.0	U	30.0	3.6	ug/L		11/27/18 09:56	11/28/18 01:21	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		11/29/18 11:57	11/29/18 14:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.061		0.010	0.0020	mg/L		11/28/18 09:28	11/28/18 12:57	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: FB-11142018

Lab Sample ID: 460-169523-5

Date Collected: 11/14/18 15:00

Matrix: Water

Date Received: 11/16/18 19:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/26/18 22:18	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			11/26/18 22:18	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			11/26/18 22:18	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			11/26/18 22:18	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			11/26/18 22:18	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			11/26/18 22:18	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			11/26/18 22:18	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			11/26/18 22:18	1
2-Hexanone	5.0	U	5.0	2.9	ug/L			11/26/18 22:18	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.7	ug/L			11/26/18 22:18	1
Acetone	5.0	U	5.0	5.0	ug/L			11/26/18 22:18	1
Benzene	1.0	U	1.0	0.43	ug/L			11/26/18 22:18	1
Bromoform	1.0	U	1.0	0.54	ug/L			11/26/18 22:18	1
Trichlorofluoromethane	1.0	U	1.0	0.14	ug/L			11/26/18 22:18	1
Bromomethane	1.0	U	1.0	1.0	ug/L			11/26/18 22:18	1
Carbon disulfide	1.0	U	1.0	0.16	ug/L			11/26/18 22:18	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			11/26/18 22:18	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			11/26/18 22:18	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			11/26/18 22:18	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/26/18 22:18	1
Chloroform	1.0	U	1.0	0.33	ug/L			11/26/18 22:18	1
Chloromethane	1.0	U	1.0	0.14	ug/L			11/26/18 22:18	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			11/26/18 22:18	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			11/26/18 22:18	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			11/26/18 22:18	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			11/26/18 22:18	1
Methylene Chloride	4.1		1.0	0.32	ug/L			11/26/18 22:18	1
Styrene	1.0	U	1.0	0.42	ug/L			11/26/18 22:18	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			11/26/18 22:18	1
Toluene	1.0	U	1.0	0.38	ug/L			11/26/18 22:18	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			11/26/18 22:18	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			11/26/18 22:18	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			11/26/18 22:18	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			11/26/18 22:18	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			11/26/18 22:18	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/26/18 22:18	1
Methyl tert-butyl ether	1.0	U	1.0	0.47	ug/L			11/26/18 22:18	1
Cyclohexane	1.0	U	1.0	0.32	ug/L			11/26/18 22:18	1
Ethylene Dibromide	1.0	U	1.0	0.50	ug/L			11/26/18 22:18	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			11/26/18 22:18	1
1,4-Dichlorobenzene	1.0	U	1.0	0.76	ug/L			11/26/18 22:18	1
1,2-Dichlorobenzene	1.0	U	1.0	0.43	ug/L			11/26/18 22:18	1
Dichlorodifluoromethane	1.0	U	1.0	0.12	ug/L			11/26/18 22:18	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.37	ug/L			11/26/18 22:18	1
1,4-Dioxane	50	U *	50	28	ug/L			11/26/18 22:18	1
1,2,3-Trichlorobenzene	1.0	U	1.0	0.36	ug/L			11/26/18 22:18	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.38	ug/L			11/26/18 22:18	1
Chlorobromomethane	1.0	U	1.0	0.41	ug/L			11/26/18 22:18	1
Isopropylbenzene	1.0	U	1.0	0.34	ug/L			11/26/18 22:18	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: FB-11142018

Lab Sample ID: 460-169523-5

Date Collected: 11/14/18 15:00

Matrix: Water

Date Received: 11/16/18 19:00

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl acetate	5.0	U	5.0	0.31	ug/L			11/26/18 22:18	1
Methylcyclohexane	1.0	U	1.0	0.26	ug/L			11/26/18 22:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		74 - 132					11/26/18 22:18	1
4-Bromofluorobenzene	101		77 - 124					11/26/18 22:18	1
Dibromofluoromethane (Surr)	112		72 - 131					11/26/18 22:18	1
Toluene-d8 (Surr)	104		80 - 120					11/26/18 22:18	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	10	U	10	1.2	ug/L		11/20/18 09:24	11/21/18 13:18	1
2,2'-oxybis[1-chloropropane]	10	U	10	0.63	ug/L		11/20/18 09:24	11/21/18 13:18	1
2,4,5-Trichlorophenol	10	U	10	0.28	ug/L		11/20/18 09:24	11/21/18 13:18	1
2,4,6-Trichlorophenol	10	U	10	0.30	ug/L		11/20/18 09:24	11/21/18 13:18	1
2,4-Dichlorophenol	10	U	10	0.42	ug/L		11/20/18 09:24	11/21/18 13:18	1
2,4-Dimethylphenol	10	U	10	0.24	ug/L		11/20/18 09:24	11/21/18 13:18	1
2,4-Dinitrophenol	20	U	20	14	ug/L		11/20/18 09:24	11/21/18 13:18	1
2,4-Dinitrotoluene	2.0	U	2.0	1.0	ug/L		11/20/18 09:24	11/21/18 13:18	1
2,6-Dinitrotoluene	2.0	U	2.0	0.39	ug/L		11/20/18 09:24	11/21/18 13:18	1
2-Chloronaphthalene	10	U	10	1.2	ug/L		11/20/18 09:24	11/21/18 13:18	1
2-Chlorophenol	10	U	10	0.38	ug/L		11/20/18 09:24	11/21/18 13:18	1
2-Methylnaphthalene	10	U	10	1.1	ug/L		11/20/18 09:24	11/21/18 13:18	1
2-Methylphenol	10	U	10	0.26	ug/L		11/20/18 09:24	11/21/18 13:18	1
2-Nitroaniline	10	U	10	0.47	ug/L		11/20/18 09:24	11/21/18 13:18	1
2-Nitrophenol	10	U	10	0.75	ug/L		11/20/18 09:24	11/21/18 13:18	1
3,3'-Dichlorobenzidine	10	U	10	1.4	ug/L		11/20/18 09:24	11/21/18 13:18	1
3-Nitroaniline	10	U	10	0.96	ug/L		11/20/18 09:24	11/21/18 13:18	1
4,6-Dinitro-2-methylphenol	20	U	20	13	ug/L		11/20/18 09:24	11/21/18 13:18	1
4-Bromophenyl phenyl ether	10	U	10	0.75	ug/L		11/20/18 09:24	11/21/18 13:18	1
4-Chloro-3-methylphenol	10	U	10	0.58	ug/L		11/20/18 09:24	11/21/18 13:18	1
4-Chloroaniline	10	U	10	1.9	ug/L		11/20/18 09:24	11/21/18 13:18	1
4-Chlorophenyl phenyl ether	10	U	10	1.3	ug/L		11/20/18 09:24	11/21/18 13:18	1
4-Methylphenol	10	U	10	0.24	ug/L		11/20/18 09:24	11/21/18 13:18	1
4-Nitroaniline	10	U	10	0.54	ug/L		11/20/18 09:24	11/21/18 13:18	1
4-Nitrophenol	20	U	20	0.69	ug/L		11/20/18 09:24	11/21/18 13:18	1
Acenaphthene	10	U	10	1.1	ug/L		11/20/18 09:24	11/21/18 13:18	1
Acenaphthylene	10	U	10	0.82	ug/L		11/20/18 09:24	11/21/18 13:18	1
Acetophenone	10	U	10	0.79	ug/L		11/20/18 09:24	11/21/18 13:18	1
Anthracene	10	U	10	0.63	ug/L		11/20/18 09:24	11/21/18 13:18	1
Atrazine	2.0	U	2.0	1.3	ug/L		11/20/18 09:24	11/21/18 13:18	1
Benzaldehyde	10	U	10	0.59	ug/L		11/20/18 09:24	11/21/18 13:18	1
Benzo[a]anthracene	1.0	U	1.0	0.59	ug/L		11/20/18 09:24	11/21/18 13:18	1
Benzo[a]pyrene	1.0	U	1.0	0.41	ug/L		11/20/18 09:24	11/21/18 13:18	1
Benzo[b]fluoranthene	2.0	U	2.0	1.1	ug/L		11/20/18 09:24	11/21/18 13:18	1
Benzo[g,h,i]perylene	10	U	10	1.4	ug/L		11/20/18 09:24	11/21/18 13:18	1
Benzo[k]fluoranthene	1.0	U	1.0	0.67	ug/L		11/20/18 09:24	11/21/18 13:18	1
Bis(2-chloroethoxy)methane	10	U	10	0.24	ug/L		11/20/18 09:24	11/21/18 13:18	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.30	ug/L		11/20/18 09:24	11/21/18 13:18	1
Bis(2-ethylhexyl) phthalate	2.0	U	2.0	1.7	ug/L		11/20/18 09:24	11/21/18 13:18	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: FB-11142018

Lab Sample ID: 460-169523-5

Date Collected: 11/14/18 15:00

Matrix: Water

Date Received: 11/16/18 19:00

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Butyl benzyl phthalate	10	U	10	0.85	ug/L		11/20/18 09:24	11/21/18 13:18	1
Caprolactam	10	U	10	0.68	ug/L		11/20/18 09:24	11/21/18 13:18	1
Carbazole	10	U	10	0.68	ug/L		11/20/18 09:24	11/21/18 13:18	1
Chrysene	2.0	U	2.0	0.91	ug/L		11/20/18 09:24	11/21/18 13:18	1
Dibenz(a,h)anthracene	1.0	U	1.0	0.72	ug/L		11/20/18 09:24	11/21/18 13:18	1
Dibenzofuran	10	U	10	1.1	ug/L		11/20/18 09:24	11/21/18 13:18	1
Diethyl phthalate	10	U	10	0.98	ug/L		11/20/18 09:24	11/21/18 13:18	1
Dimethyl phthalate	10	U	10	0.77	ug/L		11/20/18 09:24	11/21/18 13:18	1
Di-n-butyl phthalate	10	U	10	0.84	ug/L		11/20/18 09:24	11/21/18 13:18	1
Di-n-octyl phthalate	10	U	10	4.8	ug/L		11/20/18 09:24	11/21/18 13:18	1
Fluoranthene	10	U	10	0.84	ug/L		11/20/18 09:24	11/21/18 13:18	1
Fluorene	10	U	10	0.91	ug/L		11/20/18 09:24	11/21/18 13:18	1
Hexachlorobenzene	1.0	U	1.0	0.40	ug/L		11/20/18 09:24	11/21/18 13:18	1
Hexachlorobutadiene	1.0	U	1.0	0.78	ug/L		11/20/18 09:24	11/21/18 13:18	1
Hexachlorocyclopentadiene	10	U	10	1.7	ug/L		11/20/18 09:24	11/21/18 13:18	1
Hexachloroethane	2.0	U	2.0	1.2	ug/L		11/20/18 09:24	11/21/18 13:18	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	1.3	ug/L		11/20/18 09:24	11/21/18 13:18	1
Isophorone	10	U	10	0.80	ug/L		11/20/18 09:24	11/21/18 13:18	1
Naphthalene	10	U	10	1.1	ug/L		11/20/18 09:24	11/21/18 13:18	1
Nitrobenzene	1.0	U	1.0	0.57	ug/L		11/20/18 09:24	11/21/18 13:18	1
N-Nitrosodi-n-propylamine	1.0	U	1.0	0.43	ug/L		11/20/18 09:24	11/21/18 13:18	1
N-Nitrosodiphenylamine	10	U	10	0.89	ug/L		11/20/18 09:24	11/21/18 13:18	1
Pentachlorophenol	20	U	20	1.4	ug/L		11/20/18 09:24	11/21/18 13:18	1
Phenanthrene	10	U	10	0.58	ug/L		11/20/18 09:24	11/21/18 13:18	1
Phenol	10	U *	10	0.29	ug/L		11/20/18 09:24	11/21/18 13:18	1
Pyrene	10	U	10	1.6	ug/L		11/20/18 09:24	11/21/18 13:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	95		26 - 139	11/20/18 09:24	11/21/18 13:18	1
2-Fluorobiphenyl	72		45 - 107	11/20/18 09:24	11/21/18 13:18	1
2-Fluorophenol (Surr)	52		25 - 58	11/20/18 09:24	11/21/18 13:18	1
Nitrobenzene-d5 (Surr)	101		51 - 108	11/20/18 09:24	11/21/18 13:18	1
Phenol-d5 (Surr)	37		14 - 39	11/20/18 09:24	11/21/18 13:18	1
Terphenyl-d14 (Surr)	78		40 - 148	11/20/18 09:24	11/21/18 13:18	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	10.0	U	10.0	1.1	ug/L		11/27/18 09:56	11/28/18 01:25	1
Aluminum	200	U	200	28.6	ug/L		11/27/18 09:56	11/28/18 01:25	1
Arsenic	15.0	U	15.0	2.7	ug/L		11/27/18 09:56	11/28/18 01:25	1
Barium	200	U	200	7.7	ug/L		11/27/18 09:56	11/28/18 01:25	1
Beryllium	2.0	U	2.0	0.23	ug/L		11/27/18 09:56	11/28/18 01:25	1
Calcium	5000	U	5000	222	ug/L		11/27/18 09:56	11/28/18 01:25	1
Cadmium	4.0	U	4.0	0.22	ug/L		11/27/18 09:56	11/28/18 01:25	1
Cobalt	50.0	U	50.0	1.7	ug/L		11/27/18 09:56	11/28/18 01:25	1
Chromium	10.0	U	10.0	1.3	ug/L		11/27/18 09:56	11/28/18 01:25	1
Copper	25.0	U	25.0	5.1	ug/L		11/27/18 09:56	11/28/18 01:25	1
Iron	150	U	150	34.2	ug/L		11/27/18 09:56	11/28/18 01:25	1
Potassium	5000	U	5000	323	ug/L		11/27/18 09:56	11/28/18 01:25	1
Magnesium	5000	U	5000	177	ug/L		11/27/18 09:56	11/28/18 01:25	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: FB-11142018

Lab Sample ID: 460-169523-5

Date Collected: 11/14/18 15:00

Matrix: Water

Date Received: 11/16/18 19:00

Method: 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	15.0	U	15.0	0.99	ug/L	-	11/27/18 09:56	11/28/18 01:25	1
Sodium	5000	U	5000	460	ug/L	-	11/27/18 09:56	11/28/18 01:25	1
Nickel	40.0	U	40.0	1.7	ug/L	-	11/27/18 09:56	11/28/18 01:25	1
Lead	10.0	U	10.0	2.5	ug/L	-	11/27/18 09:56	11/28/18 01:25	1
Antimony	20.0	U	20.0	2.9	ug/L	-	11/27/18 09:56	11/28/18 01:25	1
Selenium	20.0	U	20.0	6.6	ug/L	-	11/27/18 09:56	11/28/18 01:25	1
Thallium	20.0	U	20.0	5.4	ug/L	-	11/27/18 09:56	11/28/18 01:25	1
Vanadium	50.0	U	50.0	2.5	ug/L	-	11/27/18 09:56	11/28/18 01:25	1
Zinc	30.0	U	30.0	3.6	ug/L	-	11/27/18 09:56	11/28/18 01:25	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L	-	11/29/18 11:57	11/29/18 14:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0020	mg/L	-	11/28/18 09:28	11/28/18 12:58	1

Client Sample ID: MW-CSB-60

Lab Sample ID: 460-169523-6

Date Collected: 11/14/18 09:55

Matrix: Water

Date Received: 11/16/18 19:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L	-		11/27/18 10:46	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L	-		11/27/18 10:46	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L	-		11/27/18 10:46	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L	-		11/27/18 10:46	1
1,1-Dichloroethene	1.0	U F1	1.0	0.12	ug/L	-		11/27/18 10:46	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L	-		11/27/18 10:46	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L	-		11/27/18 10:46	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L	-		11/27/18 10:46	1
2-Hexanone	5.0	U	5.0	2.9	ug/L	-		11/27/18 10:46	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.7	ug/L	-		11/27/18 10:46	1
Acetone	5.0	U	5.0	5.0	ug/L	-		11/27/18 10:46	1
Benzene	1.0	U	1.0	0.43	ug/L	-		11/27/18 10:46	1
Bromoform	1.0	U	1.0	0.54	ug/L	-		11/27/18 10:46	1
Trichlorofluoromethane	1.0	U	1.0	0.14	ug/L	-		11/27/18 10:46	1
Bromomethane	1.0	U	1.0	1.0	ug/L	-		11/27/18 10:46	1
Carbon disulfide	1.0	U	1.0	0.16	ug/L	-		11/27/18 10:46	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L	-		11/27/18 10:46	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L	-		11/27/18 10:46	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L	-		11/27/18 10:46	1
Chloroethane	1.0	U	1.0	0.32	ug/L	-		11/27/18 10:46	1
Chloroform	1.0	U F1	1.0	0.33	ug/L	-		11/27/18 10:46	1
Chloromethane	1.0	U	1.0	0.14	ug/L	-		11/27/18 10:46	1
cis-1,2-Dichloroethene	1.0	U F1	1.0	0.22	ug/L	-		11/27/18 10:46	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L	-		11/27/18 10:46	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L	-		11/27/18 10:46	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L	-		11/27/18 10:46	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: MW-CSB-60

Lab Sample ID: 460-169523-6

Date Collected: 11/14/18 09:55

Matrix: Water

Date Received: 11/16/18 19:00

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	1.0	U F1	1.0	0.32	ug/L			11/27/18 10:46	1
Styrene	1.0	U	1.0	0.42	ug/L			11/27/18 10:46	1
Tetrachloroethene	1.0	U F1	1.0	0.25	ug/L			11/27/18 10:46	1
Toluene	1.0	U	1.0	0.38	ug/L			11/27/18 10:46	1
trans-1,2-Dichloroethene	1.0	U F1	1.0	0.24	ug/L			11/27/18 10:46	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			11/27/18 10:46	1
Trichloroethene	1.0	U F1	1.0	0.31	ug/L			11/27/18 10:46	1
Vinyl chloride	1.0	U F1	1.0	0.17	ug/L			11/27/18 10:46	1
Xylenes, Total	2.0	U F1	2.0	0.65	ug/L			11/27/18 10:46	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/27/18 10:46	1
Methyl tert-butyl ether	1.0	U F1	1.0	0.47	ug/L			11/27/18 10:46	1
Cyclohexane	1.0	U	1.0	0.32	ug/L			11/27/18 10:46	1
Ethylene Dibromide	1.0	U	1.0	0.50	ug/L			11/27/18 10:46	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			11/27/18 10:46	1
1,4-Dichlorobenzene	1.0	U	1.0	0.76	ug/L			11/27/18 10:46	1
1,2-Dichlorobenzene	1.0	U	1.0	0.43	ug/L			11/27/18 10:46	1
Dichlorodifluoromethane	1.0	U F2	1.0	0.12	ug/L			11/27/18 10:46	1
1,2,4-Trichlorobenzene	1.0	U F1	1.0	0.37	ug/L			11/27/18 10:46	1
1,4-Dioxane	50	U F2	50	28	ug/L			11/27/18 10:46	1
1,2,3-Trichlorobenzene	1.0	U	1.0	0.36	ug/L			11/27/18 10:46	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.38	ug/L			11/27/18 10:46	1
Chlorobromomethane	1.0	U	1.0	0.41	ug/L			11/27/18 10:46	1
Isopropylbenzene	1.0	U F1	1.0	0.34	ug/L			11/27/18 10:46	1
Methyl acetate	5.0	U F2	5.0	0.31	ug/L			11/27/18 10:46	1
Methylcyclohexane	1.0	U	1.0	0.26	ug/L			11/27/18 10:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		74 - 132		11/27/18 10:46	1
4-Bromofluorobenzene	94		77 - 124		11/27/18 10:46	1
Dibromofluoromethane (Surr)	102		72 - 131		11/27/18 10:46	1
Toluene-d8 (Surr)	94		80 - 120		11/27/18 10:46	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	10	U	10	1.2	ug/L		11/20/18 09:24	11/21/18 09:06	1
2,2'-oxybis[1-chloropropane]	10	U	10	0.63	ug/L		11/20/18 09:24	11/21/18 09:06	1
2,4,5-Trichlorophenol	10	U	10	0.28	ug/L		11/20/18 09:24	11/21/18 09:06	1
2,4,6-Trichlorophenol	10	U	10	0.30	ug/L		11/20/18 09:24	11/21/18 09:06	1
2,4-Dichlorophenol	10	U	10	0.42	ug/L		11/20/18 09:24	11/21/18 09:06	1
2,4-Dimethylphenol	10	U	10	0.24	ug/L		11/20/18 09:24	11/21/18 09:06	1
2,4-Dinitrophenol	20	U	20	14	ug/L		11/20/18 09:24	11/21/18 09:06	1
2,4-Dinitrotoluene	2.0	U	2.0	1.0	ug/L		11/20/18 09:24	11/21/18 09:06	1
2,6-Dinitrotoluene	2.0	U	2.0	0.39	ug/L		11/20/18 09:24	11/21/18 09:06	1
2-Chloronaphthalene	10	U	10	1.2	ug/L		11/20/18 09:24	11/21/18 09:06	1
2-Chlorophenol	10	U	10	0.38	ug/L		11/20/18 09:24	11/21/18 09:06	1
2-Methylnaphthalene	10	U	10	1.1	ug/L		11/20/18 09:24	11/21/18 09:06	1
2-Methylphenol	10	U	10	0.26	ug/L		11/20/18 09:24	11/21/18 09:06	1
2-Nitroaniline	10	U	10	0.47	ug/L		11/20/18 09:24	11/21/18 09:06	1
2-Nitrophenol	10	U	10	0.75	ug/L		11/20/18 09:24	11/21/18 09:06	1
3,3'-Dichlorobenzidine	10	U	10	1.4	ug/L		11/20/18 09:24	11/21/18 09:06	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: MW-CSB-60

Lab Sample ID: 460-169523-6

Date Collected: 11/14/18 09:55

Matrix: Water

Date Received: 11/16/18 19:00

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Nitroaniline	10	U	10	0.96	ug/L		11/20/18 09:24	11/21/18 09:06	1
4,6-Dinitro-2-methylphenol	20	U	20	13	ug/L		11/20/18 09:24	11/21/18 09:06	1
4-Bromophenyl phenyl ether	10	U	10	0.75	ug/L		11/20/18 09:24	11/21/18 09:06	1
4-Chloro-3-methylphenol	10	U	10	0.58	ug/L		11/20/18 09:24	11/21/18 09:06	1
4-Chloroaniline	10	U	10	1.9	ug/L		11/20/18 09:24	11/21/18 09:06	1
4-Chlorophenyl phenyl ether	10	U	10	1.3	ug/L		11/20/18 09:24	11/21/18 09:06	1
4-Methylphenol	10	U	10	0.24	ug/L		11/20/18 09:24	11/21/18 09:06	1
4-Nitroaniline	10	U	10	0.54	ug/L		11/20/18 09:24	11/21/18 09:06	1
4-Nitrophenol	20	U	20	0.69	ug/L		11/20/18 09:24	11/21/18 09:06	1
Acenaphthene	10	U	10	1.1	ug/L		11/20/18 09:24	11/21/18 09:06	1
Acenaphthylene	10	U	10	0.82	ug/L		11/20/18 09:24	11/21/18 09:06	1
Acetophenone	10	U	10	0.79	ug/L		11/20/18 09:24	11/21/18 09:06	1
Anthracene	10	U	10	0.63	ug/L		11/20/18 09:24	11/21/18 09:06	1
Atrazine	2.0	U	2.0	1.3	ug/L		11/20/18 09:24	11/21/18 09:06	1
Benzaldehyde	10	U	10	0.59	ug/L		11/20/18 09:24	11/21/18 09:06	1
Benzo[a]anthracene	1.0	U	1.0	0.59	ug/L		11/20/18 09:24	11/21/18 09:06	1
Benzo[a]pyrene	1.0	U	1.0	0.41	ug/L		11/20/18 09:24	11/21/18 09:06	1
Benzo[b]fluoranthene	2.0	U	2.0	1.1	ug/L		11/20/18 09:24	11/21/18 09:06	1
Benzo[g,h,i]perylene	10	U	10	1.4	ug/L		11/20/18 09:24	11/21/18 09:06	1
Benzo[k]fluoranthene	1.0	U	1.0	0.67	ug/L		11/20/18 09:24	11/21/18 09:06	1
Bis(2-chloroethoxy)methane	10	U	10	0.24	ug/L		11/20/18 09:24	11/21/18 09:06	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.30	ug/L		11/20/18 09:24	11/21/18 09:06	1
Bis(2-ethylhexyl) phthalate	2.0	U	2.0	1.7	ug/L		11/20/18 09:24	11/21/18 09:06	1
Butyl benzyl phthalate	10	U	10	0.85	ug/L		11/20/18 09:24	11/21/18 09:06	1
Caprolactam	10	U	10	0.68	ug/L		11/20/18 09:24	11/21/18 09:06	1
Carbazole	10	U	10	0.68	ug/L		11/20/18 09:24	11/21/18 09:06	1
Chrysene	2.0	U	2.0	0.91	ug/L		11/20/18 09:24	11/21/18 09:06	1
Dibenz(a,h)anthracene	1.0	U	1.0	0.72	ug/L		11/20/18 09:24	11/21/18 09:06	1
Dibenzofuran	10	U	10	1.1	ug/L		11/20/18 09:24	11/21/18 09:06	1
Diethyl phthalate	10	U	10	0.98	ug/L		11/20/18 09:24	11/21/18 09:06	1
Dimethyl phthalate	10	U	10	0.77	ug/L		11/20/18 09:24	11/21/18 09:06	1
Di-n-butyl phthalate	10	U	10	0.84	ug/L		11/20/18 09:24	11/21/18 09:06	1
Di-n-octyl phthalate	10	U	10	4.8	ug/L		11/20/18 09:24	11/21/18 09:06	1
Fluoranthene	10	U	10	0.84	ug/L		11/20/18 09:24	11/21/18 09:06	1
Fluorene	10	U	10	0.91	ug/L		11/20/18 09:24	11/21/18 09:06	1
Hexachlorobenzene	1.0	U	1.0	0.40	ug/L		11/20/18 09:24	11/21/18 09:06	1
Hexachlorobutadiene	1.0	U	1.0	0.78	ug/L		11/20/18 09:24	11/21/18 09:06	1
Hexachlorocyclopentadiene	10	U	10	1.7	ug/L		11/20/18 09:24	11/21/18 09:06	1
Hexachloroethane	2.0	U	2.0	1.2	ug/L		11/20/18 09:24	11/21/18 09:06	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	1.3	ug/L		11/20/18 09:24	11/21/18 09:06	1
Isophorone	10	U	10	0.80	ug/L		11/20/18 09:24	11/21/18 09:06	1
Naphthalene	10	U	10	1.1	ug/L		11/20/18 09:24	11/21/18 09:06	1
Nitrobenzene	1.0	U	1.0	0.57	ug/L		11/20/18 09:24	11/21/18 09:06	1
N-Nitrosodi-n-propylamine	1.0	U	1.0	0.43	ug/L		11/20/18 09:24	11/21/18 09:06	1
N-Nitrosodiphenylamine	10	U	10	0.89	ug/L		11/20/18 09:24	11/21/18 09:06	1
Pentachlorophenol	20	U	20	1.4	ug/L		11/20/18 09:24	11/21/18 09:06	1
Phenanthrene	10	U	10	0.58	ug/L		11/20/18 09:24	11/21/18 09:06	1
Phenol	10	U * F1	10	0.29	ug/L		11/20/18 09:24	11/21/18 09:06	1
Pyrene	10	U	10	1.6	ug/L		11/20/18 09:24	11/21/18 09:06	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: MW-CSB-60

Lab Sample ID: 460-169523-6

Date Collected: 11/14/18 09:55

Matrix: Water

Date Received: 11/16/18 19:00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	92		26 - 139	11/20/18 09:24	11/21/18 09:06	1
2-Fluorobiphenyl	79		45 - 107	11/20/18 09:24	11/21/18 09:06	1
2-Fluorophenol (Surr)	51		25 - 58	11/20/18 09:24	11/21/18 09:06	1
Nitrobenzene-d5 (Surr)	99		51 - 108	11/20/18 09:24	11/21/18 09:06	1
Phenol-d5 (Surr)	36		14 - 39	11/20/18 09:24	11/21/18 09:06	1
Terphenyl-d14 (Surr)	61		40 - 148	11/20/18 09:24	11/21/18 09:06	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	10.0	U	10.0	1.1	ug/L		11/27/18 08:49	11/28/18 00:54	1
Aluminum	31.5	J	200	28.6	ug/L		11/27/18 08:49	11/28/18 00:54	1
Arsenic	15.0	U	15.0	2.7	ug/L		11/27/18 08:49	11/28/18 00:54	1
Barium	561		200	7.7	ug/L		11/27/18 08:49	11/28/18 00:54	1
Beryllium	2.0	U	2.0	0.23	ug/L		11/27/18 08:49	11/28/18 00:54	1
Calcium	128000		5000	222	ug/L		11/27/18 08:49	11/28/18 00:54	1
Cadmium	4.0	U	4.0	0.22	ug/L		11/27/18 08:49	11/28/18 00:54	1
Cobalt	50.0	U	50.0	1.7	ug/L		11/27/18 08:49	11/28/18 00:54	1
Chromium	10.0	U	10.0	1.3	ug/L		11/27/18 08:49	11/28/18 00:54	1
Copper	25.0	U	25.0	5.1	ug/L		11/27/18 08:49	11/28/18 00:54	1
Iron	25500		150	34.2	ug/L		11/27/18 08:49	11/28/18 00:54	1
Potassium	31000		5000	323	ug/L		11/27/18 08:49	11/28/18 00:54	1
Magnesium	22100		5000	177	ug/L		11/27/18 08:49	11/28/18 00:54	1
Manganese	838		15.0	0.99	ug/L		11/27/18 08:49	11/28/18 00:54	1
Sodium	710000		25000	2300	ug/L		11/27/18 08:49	11/28/18 12:53	5
Nickel	1.9	J	40.0	1.7	ug/L		11/27/18 08:49	11/28/18 00:54	1
Lead	10.0	U	10.0	2.5	ug/L		11/27/18 08:49	11/28/18 00:54	1
Antimony	20.0	U	20.0	2.9	ug/L		11/27/18 08:49	11/28/18 00:54	1
Selenium	20.0	U	20.0	6.6	ug/L		11/27/18 08:49	11/28/18 00:54	1
Thallium	20.0	U	20.0	5.4	ug/L		11/27/18 08:49	11/28/18 00:54	1
Vanadium	50.0	U	50.0	2.5	ug/L		11/27/18 08:49	11/28/18 00:54	1
Zinc	30.0	U	30.0	3.6	ug/L		11/27/18 08:49	11/28/18 00:54	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		11/29/18 11:57	11/29/18 14:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.018	F1	0.010	0.0020	mg/L		11/28/18 09:28	11/28/18 12:58	1

Client Sample ID: MW-21

Lab Sample ID: 460-169523-7

Date Collected: 11/14/18 13:05

Matrix: Water

Date Received: 11/16/18 19:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/27/18 00:48	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			11/27/18 00:48	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			11/27/18 00:48	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			11/27/18 00:48	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			11/27/18 00:48	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: MW-21

Date Collected: 11/14/18 13:05

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-7

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			11/27/18 00:48	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			11/27/18 00:48	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			11/27/18 00:48	1
2-Hexanone	5.0	U	5.0	2.9	ug/L			11/27/18 00:48	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.7	ug/L			11/27/18 00:48	1
Acetone	5.0	U	5.0	5.0	ug/L			11/27/18 00:48	1
Benzene	1.0	U	1.0	0.43	ug/L			11/27/18 00:48	1
Bromoform	1.0	U	1.0	0.54	ug/L			11/27/18 00:48	1
Trichlorofluoromethane	1.0	U	1.0	0.14	ug/L			11/27/18 00:48	1
Bromomethane	1.0	U	1.0	1.0	ug/L			11/27/18 00:48	1
Carbon disulfide	1.0	U	1.0	0.16	ug/L			11/27/18 00:48	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			11/27/18 00:48	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			11/27/18 00:48	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			11/27/18 00:48	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/27/18 00:48	1
Chloroform	1.0	U	1.0	0.33	ug/L			11/27/18 00:48	1
Chloromethane	1.0	U	1.0	0.14	ug/L			11/27/18 00:48	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			11/27/18 00:48	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			11/27/18 00:48	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			11/27/18 00:48	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			11/27/18 00:48	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			11/27/18 00:48	1
Styrene	1.0	U	1.0	0.42	ug/L			11/27/18 00:48	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			11/27/18 00:48	1
Toluene	1.0	U	1.0	0.38	ug/L			11/27/18 00:48	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			11/27/18 00:48	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			11/27/18 00:48	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			11/27/18 00:48	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			11/27/18 00:48	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			11/27/18 00:48	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/27/18 00:48	1
Methyl tert-butyl ether	1.0		1.0	0.47	ug/L			11/27/18 00:48	1
Cyclohexane	1.0	U	1.0	0.32	ug/L			11/27/18 00:48	1
Ethylene Dibromide	1.0	U	1.0	0.50	ug/L			11/27/18 00:48	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			11/27/18 00:48	1
1,4-Dichlorobenzene	1.0	U	1.0	0.76	ug/L			11/27/18 00:48	1
1,2-Dichlorobenzene	1.0	U	1.0	0.43	ug/L			11/27/18 00:48	1
Dichlorodifluoromethane	1.0	U	1.0	0.12	ug/L			11/27/18 00:48	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.37	ug/L			11/27/18 00:48	1
1,4-Dioxane	50	U *	50	28	ug/L			11/27/18 00:48	1
1,2,3-Trichlorobenzene	1.0	U	1.0	0.36	ug/L			11/27/18 00:48	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.38	ug/L			11/27/18 00:48	1
Chlorobromomethane	1.0	U	1.0	0.41	ug/L			11/27/18 00:48	1
Isopropylbenzene	1.0	U	1.0	0.34	ug/L			11/27/18 00:48	1
Methyl acetate	5.0	U	5.0	0.31	ug/L			11/27/18 00:48	1
Methylcyclohexane	1.0	U	1.0	0.26	ug/L			11/27/18 00:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		74 - 132		11/27/18 00:48	1
4-Bromofluorobenzene	98		77 - 124		11/27/18 00:48	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: MW-21

Date Collected: 11/14/18 13:05

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-7

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	111		72 - 131		11/27/18 00:48	1
Toluene-d8 (Surr)	106		80 - 120		11/27/18 00:48	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	10	U	10	1.2	ug/L		11/20/18 09:24	11/21/18 13:39	1
2,2'-oxybis[1-chloropropane]	10	U	10	0.63	ug/L		11/20/18 09:24	11/21/18 13:39	1
2,4,5-Trichlorophenol	10	U	10	0.28	ug/L		11/20/18 09:24	11/21/18 13:39	1
2,4,6-Trichlorophenol	10	U	10	0.30	ug/L		11/20/18 09:24	11/21/18 13:39	1
2,4-Dichlorophenol	10	U	10	0.42	ug/L		11/20/18 09:24	11/21/18 13:39	1
2,4-Dimethylphenol	10	U	10	0.24	ug/L		11/20/18 09:24	11/21/18 13:39	1
2,4-Dinitrophenol	20	U	20	14	ug/L		11/20/18 09:24	11/21/18 13:39	1
2,4-Dinitrotoluene	2.0	U	2.0	1.0	ug/L		11/20/18 09:24	11/21/18 13:39	1
2,6-Dinitrotoluene	2.0	U	2.0	0.39	ug/L		11/20/18 09:24	11/21/18 13:39	1
2-Chloronaphthalene	10	U	10	1.2	ug/L		11/20/18 09:24	11/21/18 13:39	1
2-Chlorophenol	10	U	10	0.38	ug/L		11/20/18 09:24	11/21/18 13:39	1
2-Methylnaphthalene	10	U	10	1.1	ug/L		11/20/18 09:24	11/21/18 13:39	1
2-Methylphenol	10	U	10	0.26	ug/L		11/20/18 09:24	11/21/18 13:39	1
2-Nitroaniline	10	U	10	0.47	ug/L		11/20/18 09:24	11/21/18 13:39	1
2-Nitrophenol	10	U	10	0.75	ug/L		11/20/18 09:24	11/21/18 13:39	1
3,3'-Dichlorobenzidine	10	U	10	1.4	ug/L		11/20/18 09:24	11/21/18 13:39	1
3-Nitroaniline	10	U	10	0.96	ug/L		11/20/18 09:24	11/21/18 13:39	1
4,6-Dinitro-2-methylphenol	20	U	20	13	ug/L		11/20/18 09:24	11/21/18 13:39	1
4-Bromophenyl phenyl ether	10	U	10	0.75	ug/L		11/20/18 09:24	11/21/18 13:39	1
4-Chloro-3-methylphenol	10	U	10	0.58	ug/L		11/20/18 09:24	11/21/18 13:39	1
4-Chloroaniline	10	U	10	1.9	ug/L		11/20/18 09:24	11/21/18 13:39	1
4-Chlorophenyl phenyl ether	10	U	10	1.3	ug/L		11/20/18 09:24	11/21/18 13:39	1
4-Methylphenol	10	U	10	0.24	ug/L		11/20/18 09:24	11/21/18 13:39	1
4-Nitroaniline	10	U	10	0.54	ug/L		11/20/18 09:24	11/21/18 13:39	1
4-Nitrophenol	20	U	20	0.69	ug/L		11/20/18 09:24	11/21/18 13:39	1
Acenaphthene	2.3	J	10	1.1	ug/L		11/20/18 09:24	11/21/18 13:39	1
Acenaphthylene	10	U	10	0.82	ug/L		11/20/18 09:24	11/21/18 13:39	1
Acetophenone	10	U	10	0.79	ug/L		11/20/18 09:24	11/21/18 13:39	1
Anthracene	10	U	10	0.63	ug/L		11/20/18 09:24	11/21/18 13:39	1
Atrazine	2.0	U	2.0	1.3	ug/L		11/20/18 09:24	11/21/18 13:39	1
Benzaldehyde	10	U	10	0.59	ug/L		11/20/18 09:24	11/21/18 13:39	1
Benzo[a]anthracene	1.0	U	1.0	0.59	ug/L		11/20/18 09:24	11/21/18 13:39	1
Benzo[a]pyrene	1.0	U	1.0	0.41	ug/L		11/20/18 09:24	11/21/18 13:39	1
Benzo[b]fluoranthene	2.0	U	2.0	1.1	ug/L		11/20/18 09:24	11/21/18 13:39	1
Benzo[g,h,i]perylene	10	U	10	1.4	ug/L		11/20/18 09:24	11/21/18 13:39	1
Benzo[k]fluoranthene	1.0	U	1.0	0.67	ug/L		11/20/18 09:24	11/21/18 13:39	1
Bis(2-chloroethoxy)methane	10	U	10	0.24	ug/L		11/20/18 09:24	11/21/18 13:39	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.30	ug/L		11/20/18 09:24	11/21/18 13:39	1
Bis(2-ethylhexyl) phthalate	2.0	U	2.0	1.7	ug/L		11/20/18 09:24	11/21/18 13:39	1
Butyl benzyl phthalate	10	U	10	0.85	ug/L		11/20/18 09:24	11/21/18 13:39	1
Caprolactam	10	U	10	0.68	ug/L		11/20/18 09:24	11/21/18 13:39	1
Carbazole	10	U	10	0.68	ug/L		11/20/18 09:24	11/21/18 13:39	1
Chrysene	2.0	U	2.0	0.91	ug/L		11/20/18 09:24	11/21/18 13:39	1
Dibenz(a,h)anthracene	1.0	U	1.0	0.72	ug/L		11/20/18 09:24	11/21/18 13:39	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: MW-21

Date Collected: 11/14/18 13:05

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-7

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	10	U	10	1.1	ug/L		11/20/18 09:24	11/21/18 13:39	1
Diethyl phthalate	10	U	10	0.98	ug/L		11/20/18 09:24	11/21/18 13:39	1
Dimethyl phthalate	10	U	10	0.77	ug/L		11/20/18 09:24	11/21/18 13:39	1
Di-n-butyl phthalate	10	U	10	0.84	ug/L		11/20/18 09:24	11/21/18 13:39	1
Di-n-octyl phthalate	10	U	10	4.8	ug/L		11/20/18 09:24	11/21/18 13:39	1
Fluoranthene	10	U	10	0.84	ug/L		11/20/18 09:24	11/21/18 13:39	1
Fluorene	10	U	10	0.91	ug/L		11/20/18 09:24	11/21/18 13:39	1
Hexachlorobenzene	1.0	U	1.0	0.40	ug/L		11/20/18 09:24	11/21/18 13:39	1
Hexachlorobutadiene	1.0	U	1.0	0.78	ug/L		11/20/18 09:24	11/21/18 13:39	1
Hexachlorocyclopentadiene	10	U	10	1.7	ug/L		11/20/18 09:24	11/21/18 13:39	1
Hexachloroethane	2.0	U	2.0	1.2	ug/L		11/20/18 09:24	11/21/18 13:39	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	1.3	ug/L		11/20/18 09:24	11/21/18 13:39	1
Isophorone	10	U	10	0.80	ug/L		11/20/18 09:24	11/21/18 13:39	1
Naphthalene	10	U	10	1.1	ug/L		11/20/18 09:24	11/21/18 13:39	1
Nitrobenzene	1.0	U	1.0	0.57	ug/L		11/20/18 09:24	11/21/18 13:39	1
N-Nitrosodi-n-propylamine	1.0	U	1.0	0.43	ug/L		11/20/18 09:24	11/21/18 13:39	1
N-Nitrosodiphenylamine	10	U	10	0.89	ug/L		11/20/18 09:24	11/21/18 13:39	1
Pentachlorophenol	20	U	20	1.4	ug/L		11/20/18 09:24	11/21/18 13:39	1
Phenanthrene	10	U	10	0.58	ug/L		11/20/18 09:24	11/21/18 13:39	1
Phenol	10	U *	10	0.29	ug/L		11/20/18 09:24	11/21/18 13:39	1
Pyrene	10	U	10	1.6	ug/L		11/20/18 09:24	11/21/18 13:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	92		26 - 139	11/20/18 09:24	11/21/18 13:39	1
2-Fluorobiphenyl	70		45 - 107	11/20/18 09:24	11/21/18 13:39	1
2-Fluorophenol (Surr)	50		25 - 58	11/20/18 09:24	11/21/18 13:39	1
Nitrobenzene-d5 (Surr)	92		51 - 108	11/20/18 09:24	11/21/18 13:39	1
Phenol-d5 (Surr)	37		14 - 39	11/20/18 09:24	11/21/18 13:39	1
Terphenyl-d14 (Surr)	49		40 - 148	11/20/18 09:24	11/21/18 13:39	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	10.0	U	10.0	1.1	ug/L		11/27/18 09:56	11/28/18 01:40	1
Aluminum	41.5	J	200	28.6	ug/L		11/27/18 09:56	11/28/18 01:40	1
Arsenic	3.5	J	15.0	2.7	ug/L		11/27/18 09:56	11/28/18 01:40	1
Barium	1040		200	7.7	ug/L		11/27/18 09:56	11/28/18 01:40	1
Beryllium	2.0	U	2.0	0.23	ug/L		11/27/18 09:56	11/28/18 01:40	1
Calcium	202000		5000	222	ug/L		11/27/18 09:56	11/28/18 01:40	1
Cadmium	4.0	U	4.0	0.22	ug/L		11/27/18 09:56	11/28/18 01:40	1
Cobalt	50.0	U	50.0	1.7	ug/L		11/27/18 09:56	11/28/18 01:40	1
Chromium	10.0	U	10.0	1.3	ug/L		11/27/18 09:56	11/28/18 01:40	1
Copper	25.0	U	25.0	5.1	ug/L		11/27/18 09:56	11/28/18 01:40	1
Iron	70500		150	34.2	ug/L		11/27/18 09:56	11/28/18 01:40	1
Potassium	42100		5000	323	ug/L		11/27/18 09:56	11/28/18 01:40	1
Magnesium	31200		5000	177	ug/L		11/27/18 09:56	11/28/18 01:40	1
Manganese	1290		15.0	0.99	ug/L		11/27/18 09:56	11/28/18 01:40	1
Sodium	902000		25000	2300	ug/L		11/27/18 09:56	11/28/18 13:20	5
Nickel	40.0	U	40.0	1.7	ug/L		11/27/18 09:56	11/28/18 01:40	1
Lead	10.0	U	10.0	2.5	ug/L		11/27/18 09:56	11/28/18 01:40	1
Antimony	20.0	U	20.0	2.9	ug/L		11/27/18 09:56	11/28/18 01:40	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: MW-21

Date Collected: 11/14/18 13:05

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-7

Matrix: Water

Method: 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	20.0	U	20.0	6.6	ug/L	-	11/27/18 09:56	11/28/18 01:40	1
Thallium	20.0	U	20.0	5.4	ug/L	-	11/27/18 09:56	11/28/18 01:40	1
Vanadium	50.0	U	50.0	2.5	ug/L	-	11/27/18 09:56	11/28/18 01:40	1
Zinc	30.0	U	30.0	3.6	ug/L	-	11/27/18 09:56	11/28/18 01:40	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L	-	11/29/18 11:57	11/29/18 14:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.039		0.010	0.0020	mg/L	-	11/28/18 09:28	11/28/18 13:04	1

Client Sample ID: MW-27

Date Collected: 11/14/18 13:15

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-8

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L	-		11/27/18 01:13	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L	-		11/27/18 01:13	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L	-		11/27/18 01:13	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L	-		11/27/18 01:13	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L	-		11/27/18 01:13	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L	-		11/27/18 01:13	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L	-		11/27/18 01:13	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L	-		11/27/18 01:13	1
2-Hexanone	5.0	U	5.0	2.9	ug/L	-		11/27/18 01:13	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.7	ug/L	-		11/27/18 01:13	1
Acetone	5.0	U	5.0	5.0	ug/L	-		11/27/18 01:13	1
Benzene	1.0	U	1.0	0.43	ug/L	-		11/27/18 01:13	1
Bromoform	1.0	U	1.0	0.54	ug/L	-		11/27/18 01:13	1
Trichlorofluoromethane	1.0	U	1.0	0.14	ug/L	-		11/27/18 01:13	1
Bromomethane	1.0	U	1.0	1.0	ug/L	-		11/27/18 01:13	1
Carbon disulfide	1.0	U	1.0	0.16	ug/L	-		11/27/18 01:13	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L	-		11/27/18 01:13	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L	-		11/27/18 01:13	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L	-		11/27/18 01:13	1
Chloroethane	1.0	U	1.0	0.32	ug/L	-		11/27/18 01:13	1
Chloroform	1.0	U	1.0	0.33	ug/L	-		11/27/18 01:13	1
Chloromethane	1.0	U	1.0	0.14	ug/L	-		11/27/18 01:13	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L	-		11/27/18 01:13	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L	-		11/27/18 01:13	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L	-		11/27/18 01:13	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L	-		11/27/18 01:13	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L	-		11/27/18 01:13	1
Styrene	1.0	U	1.0	0.42	ug/L	-		11/27/18 01:13	1
Tetrachloroethene	2.8		1.0	0.25	ug/L	-		11/27/18 01:13	1
Toluene	1.0	U	1.0	0.38	ug/L	-		11/27/18 01:13	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L	-		11/27/18 01:13	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: MW-27

Date Collected: 11/14/18 13:15

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-8

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			11/27/18 01:13	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			11/27/18 01:13	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			11/27/18 01:13	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			11/27/18 01:13	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/27/18 01:13	1
Methyl tert-butyl ether	1.0	U	1.0	0.47	ug/L			11/27/18 01:13	1
Cyclohexane	1.0	U	1.0	0.32	ug/L			11/27/18 01:13	1
Ethylene Dibromide	1.0	U	1.0	0.50	ug/L			11/27/18 01:13	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			11/27/18 01:13	1
1,4-Dichlorobenzene	1.0	U	1.0	0.76	ug/L			11/27/18 01:13	1
1,2-Dichlorobenzene	1.0	U	1.0	0.43	ug/L			11/27/18 01:13	1
Dichlorodifluoromethane	1.0	U	1.0	0.12	ug/L			11/27/18 01:13	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.37	ug/L			11/27/18 01:13	1
1,4-Dioxane	50	U *	50	28	ug/L			11/27/18 01:13	1
1,2,3-Trichlorobenzene	1.0	U	1.0	0.36	ug/L			11/27/18 01:13	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.38	ug/L			11/27/18 01:13	1
Chlorobromomethane	1.0	U	1.0	0.41	ug/L			11/27/18 01:13	1
Isopropylbenzene	1.0	U	1.0	0.34	ug/L			11/27/18 01:13	1
Methyl acetate	5.0	U	5.0	0.31	ug/L			11/27/18 01:13	1
Methylcyclohexane	1.0	U	1.0	0.26	ug/L			11/27/18 01:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		74 - 132		11/27/18 01:13	1
4-Bromofluorobenzene	91		77 - 124		11/27/18 01:13	1
Dibromofluoromethane (Surr)	102		72 - 131		11/27/18 01:13	1
Toluene-d8 (Surr)	92		80 - 120		11/27/18 01:13	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	10	U	10	1.2	ug/L		11/20/18 09:24	11/21/18 14:00	1
2,2'-oxybis[1-chloropropane]	10	U	10	0.63	ug/L		11/20/18 09:24	11/21/18 14:00	1
2,4,5-Trichlorophenol	10	U	10	0.28	ug/L		11/20/18 09:24	11/21/18 14:00	1
2,4,6-Trichlorophenol	10	U	10	0.30	ug/L		11/20/18 09:24	11/21/18 14:00	1
2,4-Dichlorophenol	10	U	10	0.42	ug/L		11/20/18 09:24	11/21/18 14:00	1
2,4-Dimethylphenol	10	U	10	0.24	ug/L		11/20/18 09:24	11/21/18 14:00	1
2,4-Dinitrophenol	20	U	20	14	ug/L		11/20/18 09:24	11/21/18 14:00	1
2,4-Dinitrotoluene	2.0	U	2.0	1.0	ug/L		11/20/18 09:24	11/21/18 14:00	1
2,6-Dinitrotoluene	2.0	U	2.0	0.39	ug/L		11/20/18 09:24	11/21/18 14:00	1
2-Chloronaphthalene	10	U	10	1.2	ug/L		11/20/18 09:24	11/21/18 14:00	1
2-Chlorophenol	10	U	10	0.38	ug/L		11/20/18 09:24	11/21/18 14:00	1
2-Methylnaphthalene	10	U	10	1.1	ug/L		11/20/18 09:24	11/21/18 14:00	1
2-Methylphenol	10	U	10	0.26	ug/L		11/20/18 09:24	11/21/18 14:00	1
2-Nitroaniline	10	U	10	0.47	ug/L		11/20/18 09:24	11/21/18 14:00	1
2-Nitrophenol	10	U	10	0.75	ug/L		11/20/18 09:24	11/21/18 14:00	1
3,3'-Dichlorobenzidine	10	U	10	1.4	ug/L		11/20/18 09:24	11/21/18 14:00	1
3-Nitroaniline	10	U	10	0.96	ug/L		11/20/18 09:24	11/21/18 14:00	1
4,6-Dinitro-2-methylphenol	20	U	20	13	ug/L		11/20/18 09:24	11/21/18 14:00	1
4-Bromophenyl phenyl ether	10	U	10	0.75	ug/L		11/20/18 09:24	11/21/18 14:00	1
4-Chloro-3-methylphenol	10	U	10	0.58	ug/L		11/20/18 09:24	11/21/18 14:00	1
4-Chloroaniline	10	U	10	1.9	ug/L		11/20/18 09:24	11/21/18 14:00	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: MW-27

Date Collected: 11/14/18 13:15

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-8

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorophenyl phenyl ether	10	U	10	1.3	ug/L		11/20/18 09:24	11/21/18 14:00	1
4-Methylphenol	10	U	10	0.24	ug/L		11/20/18 09:24	11/21/18 14:00	1
4-Nitroaniline	10	U	10	0.54	ug/L		11/20/18 09:24	11/21/18 14:00	1
4-Nitrophenol	20	U	20	0.69	ug/L		11/20/18 09:24	11/21/18 14:00	1
Acenaphthene	10	U	10	1.1	ug/L		11/20/18 09:24	11/21/18 14:00	1
Acenaphthylene	10	U	10	0.82	ug/L		11/20/18 09:24	11/21/18 14:00	1
Acetophenone	10	U	10	0.79	ug/L		11/20/18 09:24	11/21/18 14:00	1
Anthracene	10	U	10	0.63	ug/L		11/20/18 09:24	11/21/18 14:00	1
Atrazine	2.0	U	2.0	1.3	ug/L		11/20/18 09:24	11/21/18 14:00	1
Benzaldehyde	10	U	10	0.59	ug/L		11/20/18 09:24	11/21/18 14:00	1
Benzo[a]anthracene	1.0	U	1.0	0.59	ug/L		11/20/18 09:24	11/21/18 14:00	1
Benzo[a]pyrene	1.0	U	1.0	0.41	ug/L		11/20/18 09:24	11/21/18 14:00	1
Benzo[b]fluoranthene	2.0	U	2.0	1.1	ug/L		11/20/18 09:24	11/21/18 14:00	1
Benzo[g,h,i]perylene	10	U	10	1.4	ug/L		11/20/18 09:24	11/21/18 14:00	1
Benzo[k]fluoranthene	1.0	U	1.0	0.67	ug/L		11/20/18 09:24	11/21/18 14:00	1
Bis(2-chloroethoxy)methane	10	U	10	0.24	ug/L		11/20/18 09:24	11/21/18 14:00	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.30	ug/L		11/20/18 09:24	11/21/18 14:00	1
Bis(2-ethylhexyl) phthalate	2.0	U	2.0	1.7	ug/L		11/20/18 09:24	11/21/18 14:00	1
Butyl benzyl phthalate	10	U	10	0.85	ug/L		11/20/18 09:24	11/21/18 14:00	1
Caprolactam	10	U	10	0.68	ug/L		11/20/18 09:24	11/21/18 14:00	1
Carbazole	10	U	10	0.68	ug/L		11/20/18 09:24	11/21/18 14:00	1
Chrysene	2.0	U	2.0	0.91	ug/L		11/20/18 09:24	11/21/18 14:00	1
Dibenz(a,h)anthracene	1.0	U	1.0	0.72	ug/L		11/20/18 09:24	11/21/18 14:00	1
Dibenzofuran	10	U	10	1.1	ug/L		11/20/18 09:24	11/21/18 14:00	1
Diethyl phthalate	10	U	10	0.98	ug/L		11/20/18 09:24	11/21/18 14:00	1
Dimethyl phthalate	10	U	10	0.77	ug/L		11/20/18 09:24	11/21/18 14:00	1
Di-n-butyl phthalate	10	U	10	0.84	ug/L		11/20/18 09:24	11/21/18 14:00	1
Di-n-octyl phthalate	10	U	10	4.8	ug/L		11/20/18 09:24	11/21/18 14:00	1
Fluoranthene	10	U	10	0.84	ug/L		11/20/18 09:24	11/21/18 14:00	1
Fluorene	10	U	10	0.91	ug/L		11/20/18 09:24	11/21/18 14:00	1
Hexachlorobenzene	1.0	U	1.0	0.40	ug/L		11/20/18 09:24	11/21/18 14:00	1
Hexachlorobutadiene	1.0	U	1.0	0.78	ug/L		11/20/18 09:24	11/21/18 14:00	1
Hexachlorocyclopentadiene	10	U	10	1.7	ug/L		11/20/18 09:24	11/21/18 14:00	1
Hexachloroethane	2.0	U	2.0	1.2	ug/L		11/20/18 09:24	11/21/18 14:00	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	1.3	ug/L		11/20/18 09:24	11/21/18 14:00	1
Isophorone	10	U	10	0.80	ug/L		11/20/18 09:24	11/21/18 14:00	1
Naphthalene	10	U	10	1.1	ug/L		11/20/18 09:24	11/21/18 14:00	1
Nitrobenzene	1.0	U	1.0	0.57	ug/L		11/20/18 09:24	11/21/18 14:00	1
N-Nitrosodi-n-propylamine	1.0	U	1.0	0.43	ug/L		11/20/18 09:24	11/21/18 14:00	1
N-Nitrosodiphenylamine	10	U	10	0.89	ug/L		11/20/18 09:24	11/21/18 14:00	1
Pentachlorophenol	20	U	20	1.4	ug/L		11/20/18 09:24	11/21/18 14:00	1
Phenanthrene	10	U	10	0.58	ug/L		11/20/18 09:24	11/21/18 14:00	1
Phenol	10	U *	10	0.29	ug/L		11/20/18 09:24	11/21/18 14:00	1
Pyrene	10	U	10	1.6	ug/L		11/20/18 09:24	11/21/18 14:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	108		26 - 139	11/20/18 09:24	11/21/18 14:00	1
2-Fluorobiphenyl	84		45 - 107	11/20/18 09:24	11/21/18 14:00	1
2-Fluorophenol (Surr)	58		25 - 58	11/20/18 09:24	11/21/18 14:00	1
Nitrobenzene-d5 (Surr)	112	X	51 - 108	11/20/18 09:24	11/21/18 14:00	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: MW-27

Date Collected: 11/14/18 13:15

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-8

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d5 (Surr)	42	X	14 - 39	11/20/18 09:24	11/21/18 14:00	1
Terphenyl-d14 (Surr)	63		40 - 148	11/20/18 09:24	11/21/18 14:00	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	10.0	U	10.0	1.1	ug/L		11/27/18 09:56	11/28/18 01:43	1
Aluminum	97.5	J	200	28.6	ug/L		11/27/18 09:56	11/28/18 01:43	1
Arsenic	15.0	U	15.0	2.7	ug/L		11/27/18 09:56	11/28/18 01:43	1
Barium	63.4	J	200	7.7	ug/L		11/27/18 09:56	11/28/18 01:43	1
Beryllium	2.0	U	2.0	0.23	ug/L		11/27/18 09:56	11/28/18 01:43	1
Calcium	45700		5000	222	ug/L		11/27/18 09:56	11/28/18 01:43	1
Cadmium	4.0	U	4.0	0.22	ug/L		11/27/18 09:56	11/28/18 01:43	1
Cobalt	50.0	U	50.0	1.7	ug/L		11/27/18 09:56	11/28/18 01:43	1
Chromium	1.3	J	10.0	1.3	ug/L		11/27/18 09:56	11/28/18 01:43	1
Copper	25.0	U	25.0	5.1	ug/L		11/27/18 09:56	11/28/18 01:43	1
Iron	203		150	34.2	ug/L		11/27/18 09:56	11/28/18 01:43	1
Potassium	4820	J	5000	323	ug/L		11/27/18 09:56	11/28/18 01:43	1
Magnesium	12400		5000	177	ug/L		11/27/18 09:56	11/28/18 01:43	1
Manganese	72.5		15.0	0.99	ug/L		11/27/18 09:56	11/28/18 01:43	1
Sodium	85000		5000	460	ug/L		11/27/18 09:56	11/28/18 01:43	1
Nickel	3.0	J	40.0	1.7	ug/L		11/27/18 09:56	11/28/18 01:43	1
Lead	10.0	U	10.0	2.5	ug/L		11/27/18 09:56	11/28/18 01:43	1
Antimony	20.0	U	20.0	2.9	ug/L		11/27/18 09:56	11/28/18 01:43	1
Selenium	20.0	U	20.0	6.6	ug/L		11/27/18 09:56	11/28/18 01:43	1
Thallium	20.0	U	20.0	5.4	ug/L		11/27/18 09:56	11/28/18 01:43	1
Vanadium	50.0	U	50.0	2.5	ug/L		11/27/18 09:56	11/28/18 01:43	1
Zinc	30.0	U	30.0	3.6	ug/L		11/27/18 09:56	11/28/18 01:43	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		11/29/18 11:57	11/29/18 14:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0020	mg/L		11/28/18 09:28	11/28/18 13:05	1

Client Sample ID: MW-28

Date Collected: 11/14/18 09:45

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-9

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/27/18 14:55	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			11/27/18 14:55	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			11/27/18 14:55	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			11/27/18 14:55	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			11/27/18 14:55	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			11/27/18 14:55	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			11/27/18 14:55	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			11/27/18 14:55	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: MW-28

Date Collected: 11/14/18 09:45

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-9

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Hexanone	5.0	U	5.0	2.9	ug/L			11/27/18 14:55	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.7	ug/L			11/27/18 14:55	1
Acetone	5.0	U	5.0	5.0	ug/L			11/27/18 14:55	1
Benzene	1.0	U	1.0	0.43	ug/L			11/27/18 14:55	1
Bromoform	1.0	U	1.0	0.54	ug/L			11/27/18 14:55	1
Trichlorofluoromethane	1.0	U	1.0	0.14	ug/L			11/27/18 14:55	1
Bromomethane	1.0	U	1.0	1.0	ug/L			11/27/18 14:55	1
Carbon disulfide	1.0	U	1.0	0.16	ug/L			11/27/18 14:55	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			11/27/18 14:55	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			11/27/18 14:55	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			11/27/18 14:55	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/27/18 14:55	1
Chloroform	1.0	U	1.0	0.33	ug/L			11/27/18 14:55	1
Chloromethane	1.0	U	1.0	0.14	ug/L			11/27/18 14:55	1
cis-1,2-Dichloroethene	1.9		1.0	0.22	ug/L			11/27/18 14:55	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			11/27/18 14:55	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			11/27/18 14:55	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			11/27/18 14:55	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			11/27/18 14:55	1
Styrene	1.0	U	1.0	0.42	ug/L			11/27/18 14:55	1
Tetrachloroethene	190		1.0	0.25	ug/L			11/27/18 14:55	1
Toluene	1.0	U	1.0	0.38	ug/L			11/27/18 14:55	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			11/27/18 14:55	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			11/27/18 14:55	1
Trichloroethene	3.9		1.0	0.31	ug/L			11/27/18 14:55	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			11/27/18 14:55	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			11/27/18 14:55	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/27/18 14:55	1
Methyl tert-butyl ether	6.2		1.0	0.47	ug/L			11/27/18 14:55	1
Cyclohexane	1.0	U	1.0	0.32	ug/L			11/27/18 14:55	1
Ethylene Dibromide	1.0	U	1.0	0.50	ug/L			11/27/18 14:55	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			11/27/18 14:55	1
1,4-Dichlorobenzene	1.0	U	1.0	0.76	ug/L			11/27/18 14:55	1
1,2-Dichlorobenzene	1.0	U	1.0	0.43	ug/L			11/27/18 14:55	1
Dichlorodifluoromethane	1.0	U	1.0	0.12	ug/L			11/27/18 14:55	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.37	ug/L			11/27/18 14:55	1
1,4-Dioxane	50	U	50	28	ug/L			11/27/18 14:55	1
1,2,3-Trichlorobenzene	1.0	U	1.0	0.36	ug/L			11/27/18 14:55	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.38	ug/L			11/27/18 14:55	1
Chlorobromomethane	1.0	U	1.0	0.41	ug/L			11/27/18 14:55	1
Isopropylbenzene	1.0	U	1.0	0.34	ug/L			11/27/18 14:55	1
Methyl acetate	5.0	U	5.0	0.31	ug/L			11/27/18 14:55	1
Methylcyclohexane	1.0	U	1.0	0.26	ug/L			11/27/18 14:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	122		74 - 132		11/27/18 14:55	1
4-Bromofluorobenzene	115		77 - 124		11/27/18 14:55	1
Dibromofluoromethane (Surr)	130		72 - 131		11/27/18 14:55	1
Toluene-d8 (Surr)	120		80 - 120		11/27/18 14:55	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: MW-28

Date Collected: 11/14/18 09:45

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-9

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	10	U	10	1.2	ug/L		11/20/18 09:24	11/21/18 14:21	1
2,2'-oxybis[1-chloropropane]	10	U	10	0.63	ug/L		11/20/18 09:24	11/21/18 14:21	1
2,4,5-Trichlorophenol	10	U	10	0.28	ug/L		11/20/18 09:24	11/21/18 14:21	1
2,4,6-Trichlorophenol	10	U	10	0.30	ug/L		11/20/18 09:24	11/21/18 14:21	1
2,4-Dichlorophenol	10	U	10	0.42	ug/L		11/20/18 09:24	11/21/18 14:21	1
2,4-Dimethylphenol	10	U	10	0.24	ug/L		11/20/18 09:24	11/21/18 14:21	1
2,4-Dinitrophenol	20	U	20	14	ug/L		11/20/18 09:24	11/21/18 14:21	1
2,4-Dinitrotoluene	2.0	U	2.0	1.0	ug/L		11/20/18 09:24	11/21/18 14:21	1
2,6-Dinitrotoluene	2.0	U	2.0	0.39	ug/L		11/20/18 09:24	11/21/18 14:21	1
2-Chloronaphthalene	10	U	10	1.2	ug/L		11/20/18 09:24	11/21/18 14:21	1
2-Chlorophenol	10	U	10	0.38	ug/L		11/20/18 09:24	11/21/18 14:21	1
2-Methylnaphthalene	1.6	J	10	1.1	ug/L		11/20/18 09:24	11/21/18 14:21	1
2-Methylphenol	10	U	10	0.26	ug/L		11/20/18 09:24	11/21/18 14:21	1
2-Nitroaniline	10	U	10	0.47	ug/L		11/20/18 09:24	11/21/18 14:21	1
2-Nitrophenol	10	U	10	0.75	ug/L		11/20/18 09:24	11/21/18 14:21	1
3,3'-Dichlorobenzidine	10	U	10	1.4	ug/L		11/20/18 09:24	11/21/18 14:21	1
3-Nitroaniline	10	U	10	0.96	ug/L		11/20/18 09:24	11/21/18 14:21	1
4,6-Dinitro-2-methylphenol	20	U	20	13	ug/L		11/20/18 09:24	11/21/18 14:21	1
4-Bromophenyl phenyl ether	10	U	10	0.75	ug/L		11/20/18 09:24	11/21/18 14:21	1
4-Chloro-3-methylphenol	10	U	10	0.58	ug/L		11/20/18 09:24	11/21/18 14:21	1
4-Chloroaniline	10	U	10	1.9	ug/L		11/20/18 09:24	11/21/18 14:21	1
4-Chlorophenyl phenyl ether	10	U	10	1.3	ug/L		11/20/18 09:24	11/21/18 14:21	1
4-Methylphenol	10	U	10	0.24	ug/L		11/20/18 09:24	11/21/18 14:21	1
4-Nitroaniline	10	U	10	0.54	ug/L		11/20/18 09:24	11/21/18 14:21	1
4-Nitrophenol	20	U	20	0.69	ug/L		11/20/18 09:24	11/21/18 14:21	1
Acenaphthene	10	U	10	1.1	ug/L		11/20/18 09:24	11/21/18 14:21	1
Acenaphthylene	10	U	10	0.82	ug/L		11/20/18 09:24	11/21/18 14:21	1
Acetophenone	10	U	10	0.79	ug/L		11/20/18 09:24	11/21/18 14:21	1
Anthracene	10	U	10	0.63	ug/L		11/20/18 09:24	11/21/18 14:21	1
Atrazine	2.0	U	2.0	1.3	ug/L		11/20/18 09:24	11/21/18 14:21	1
Benzaldehyde	10	U	10	0.59	ug/L		11/20/18 09:24	11/21/18 14:21	1
Benzo[a]anthracene	1.0	U	1.0	0.59	ug/L		11/20/18 09:24	11/21/18 14:21	1
Benzo[a]pyrene	1.0	U	1.0	0.41	ug/L		11/20/18 09:24	11/21/18 14:21	1
Benzo[b]fluoranthene	2.0	U	2.0	1.1	ug/L		11/20/18 09:24	11/21/18 14:21	1
Benzo[g,h,i]perylene	10	U	10	1.4	ug/L		11/20/18 09:24	11/21/18 14:21	1
Benzo[k]fluoranthene	1.0	U	1.0	0.67	ug/L		11/20/18 09:24	11/21/18 14:21	1
Bis(2-chloroethoxy)methane	10	U	10	0.24	ug/L		11/20/18 09:24	11/21/18 14:21	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.30	ug/L		11/20/18 09:24	11/21/18 14:21	1
Bis(2-ethylhexyl) phthalate	2.0	U	2.0	1.7	ug/L		11/20/18 09:24	11/21/18 14:21	1
Butyl benzyl phthalate	10	U	10	0.85	ug/L		11/20/18 09:24	11/21/18 14:21	1
Caprolactam	10	U	10	0.68	ug/L		11/20/18 09:24	11/21/18 14:21	1
Carbazole	10	U	10	0.68	ug/L		11/20/18 09:24	11/21/18 14:21	1
Chrysene	2.0	U	2.0	0.91	ug/L		11/20/18 09:24	11/21/18 14:21	1
Dibenz(a,h)anthracene	1.0	U	1.0	0.72	ug/L		11/20/18 09:24	11/21/18 14:21	1
Dibenzofuran	10	U	10	1.1	ug/L		11/20/18 09:24	11/21/18 14:21	1
Diethyl phthalate	10	U	10	0.98	ug/L		11/20/18 09:24	11/21/18 14:21	1
Dimethyl phthalate	10	U	10	0.77	ug/L		11/20/18 09:24	11/21/18 14:21	1
Di-n-butyl phthalate	10	U	10	0.84	ug/L		11/20/18 09:24	11/21/18 14:21	1
Di-n-octyl phthalate	10	U	10	4.8	ug/L		11/20/18 09:24	11/21/18 14:21	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: MW-28

Date Collected: 11/14/18 09:45

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-9

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	10	U	10	0.84	ug/L		11/20/18 09:24	11/21/18 14:21	1
Fluorene	10	U	10	0.91	ug/L		11/20/18 09:24	11/21/18 14:21	1
Hexachlorobenzene	1.0	U	1.0	0.40	ug/L		11/20/18 09:24	11/21/18 14:21	1
Hexachlorobutadiene	1.0	U	1.0	0.78	ug/L		11/20/18 09:24	11/21/18 14:21	1
Hexachlorocyclopentadiene	10	U	10	1.7	ug/L		11/20/18 09:24	11/21/18 14:21	1
Hexachloroethane	2.0	U	2.0	1.2	ug/L		11/20/18 09:24	11/21/18 14:21	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	1.3	ug/L		11/20/18 09:24	11/21/18 14:21	1
Isophorone	10	U	10	0.80	ug/L		11/20/18 09:24	11/21/18 14:21	1
Naphthalene	2.5	J	10	1.1	ug/L		11/20/18 09:24	11/21/18 14:21	1
Nitrobenzene	1.0	U	1.0	0.57	ug/L		11/20/18 09:24	11/21/18 14:21	1
N-Nitrosodi-n-propylamine	1.0	U	1.0	0.43	ug/L		11/20/18 09:24	11/21/18 14:21	1
N-Nitrosodiphenylamine	10	U	10	0.89	ug/L		11/20/18 09:24	11/21/18 14:21	1
Pentachlorophenol	20	U	20	1.4	ug/L		11/20/18 09:24	11/21/18 14:21	1
Phenanthrene	10	U	10	0.58	ug/L		11/20/18 09:24	11/21/18 14:21	1
Phenol	10	U *	10	0.29	ug/L		11/20/18 09:24	11/21/18 14:21	1
Pyrene	10	U	10	1.6	ug/L		11/20/18 09:24	11/21/18 14:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	94		26 - 139	11/20/18 09:24	11/21/18 14:21	1
2-Fluorobiphenyl	77		45 - 107	11/20/18 09:24	11/21/18 14:21	1
2-Fluorophenol (Surr)	51		25 - 58	11/20/18 09:24	11/21/18 14:21	1
Nitrobenzene-d5 (Surr)	103		51 - 108	11/20/18 09:24	11/21/18 14:21	1
Phenol-d5 (Surr)	36		14 - 39	11/20/18 09:24	11/21/18 14:21	1
Terphenyl-d14 (Surr)	59		40 - 148	11/20/18 09:24	11/21/18 14:21	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	10.0	U	10.0	1.1	ug/L		11/27/18 09:56	11/28/18 01:47	1
Aluminum	382		200	28.6	ug/L		11/27/18 09:56	11/28/18 01:47	1
Arsenic	15.0	U	15.0	2.7	ug/L		11/27/18 09:56	11/28/18 01:47	1
Barium	106	J	200	7.7	ug/L		11/27/18 09:56	11/28/18 01:47	1
Beryllium	2.0	U	2.0	0.23	ug/L		11/27/18 09:56	11/28/18 01:47	1
Calcium	105000		5000	222	ug/L		11/27/18 09:56	11/28/18 01:47	1
Cadmium	4.0	U	4.0	0.22	ug/L		11/27/18 09:56	11/28/18 01:47	1
Cobalt	50.0	U	50.0	1.7	ug/L		11/27/18 09:56	11/28/18 01:47	1
Chromium	4.5	J	10.0	1.3	ug/L		11/27/18 09:56	11/28/18 01:47	1
Copper	25.0	U	25.0	5.1	ug/L		11/27/18 09:56	11/28/18 01:47	1
Iron	630		150	34.2	ug/L		11/27/18 09:56	11/28/18 01:47	1
Potassium	7280		5000	323	ug/L		11/27/18 09:56	11/28/18 01:47	1
Magnesium	31500		5000	177	ug/L		11/27/18 09:56	11/28/18 01:47	1
Manganese	903		15.0	0.99	ug/L		11/27/18 09:56	11/28/18 01:47	1
Sodium	241000		5000	460	ug/L		11/27/18 09:56	11/28/18 01:47	1
Nickel	14.0	J	40.0	1.7	ug/L		11/27/18 09:56	11/28/18 01:47	1
Lead	10.0	U	10.0	2.5	ug/L		11/27/18 09:56	11/28/18 01:47	1
Antimony	20.0	U	20.0	2.9	ug/L		11/27/18 09:56	11/28/18 01:47	1
Selenium	20.0	U	20.0	6.6	ug/L		11/27/18 09:56	11/28/18 01:47	1
Thallium	20.0	U	20.0	5.4	ug/L		11/27/18 09:56	11/28/18 01:47	1
Vanadium	50.0	U	50.0	2.5	ug/L		11/27/18 09:56	11/28/18 01:47	1
Zinc	10.8	J	30.0	3.6	ug/L		11/27/18 09:56	11/28/18 01:47	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: MW-28

Date Collected: 11/14/18 09:45

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-9

Matrix: Water

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		11/29/18 11:57	11/29/18 14:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0020	mg/L		11/28/18 09:28	11/28/18 13:06	1

Client Sample ID: MW-30

Date Collected: 11/14/18 12:05

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-10

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	25	U	25	6.0	ug/L			11/28/18 00:35	25
1,1,2,2-Tetrachloroethane	25	U	25	9.2	ug/L			11/28/18 00:35	25
1,1,2-Trichloroethane	25	U	25	11	ug/L			11/28/18 00:35	25
1,1-Dichloroethane	25	U	25	6.6	ug/L			11/28/18 00:35	25
1,1-Dichloroethene	25	U *	25	2.9	ug/L			11/28/18 00:35	25
1,2-Dichloroethane	25	U	25	11	ug/L			11/28/18 00:35	25
1,2-Dichloropropane	25	U	25	8.8	ug/L			11/28/18 00:35	25
2-Butanone (MEK)	130	U	130	46	ug/L			11/28/18 00:35	25
2-Hexanone	130	U	130	73	ug/L			11/28/18 00:35	25
4-Methyl-2-pentanone (MIBK)	130	U	130	68	ug/L			11/28/18 00:35	25
Acetone	130	U	130	120	ug/L			11/28/18 00:35	25
Benzene	6100		25	11	ug/L			11/28/18 00:35	25
Bromoform	25	U	25	13	ug/L			11/28/18 00:35	25
Trichlorofluoromethane	25	U	25	3.6	ug/L			11/28/18 00:35	25
Bromomethane	25	U	25	25	ug/L			11/28/18 00:35	25
Carbon disulfide	25	U	25	3.9	ug/L			11/28/18 00:35	25
Carbon tetrachloride	25	U	25	5.2	ug/L			11/28/18 00:35	25
Chlorobenzene	25	U	25	9.4	ug/L			11/28/18 00:35	25
Chlorodibromomethane	25	U	25	7.0	ug/L			11/28/18 00:35	25
Chloroethane	25	U	25	8.0	ug/L			11/28/18 00:35	25
Chloroform	25	U *	25	8.2	ug/L			11/28/18 00:35	25
Chloromethane	25	U	25	3.6	ug/L			11/28/18 00:35	25
cis-1,2-Dichloroethene	25	U	25	5.5	ug/L			11/28/18 00:35	25
cis-1,3-Dichloropropene	25	U	25	11	ug/L			11/28/18 00:35	25
Dichlorobromomethane	25	U	25	8.6	ug/L			11/28/18 00:35	25
Ethylbenzene	76		25	7.5	ug/L			11/28/18 00:35	25
Methylene Chloride	25	U	25	7.9	ug/L			11/28/18 00:35	25
Styrene	25	U	25	10	ug/L			11/28/18 00:35	25
Tetrachloroethene	25	U	25	6.2	ug/L			11/28/18 00:35	25
Toluene	25	U	25	9.5	ug/L			11/28/18 00:35	25
trans-1,2-Dichloroethene	25	U *	25	5.9	ug/L			11/28/18 00:35	25
trans-1,3-Dichloropropene	25	U	25	12	ug/L			11/28/18 00:35	25
Trichloroethene	25	U	25	7.9	ug/L			11/28/18 00:35	25
Vinyl chloride	25	U	25	4.3	ug/L			11/28/18 00:35	25
Xylenes, Total	84		50	16	ug/L			11/28/18 00:35	25
1,1,2-Trichloro-1,2,2-trifluoroethane	25	U	25	7.8	ug/L			11/28/18 00:35	25
Methyl tert-butyl ether	25	U	25	12	ug/L			11/28/18 00:35	25
Cyclohexane	25	U	25	8.0	ug/L			11/28/18 00:35	25

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: MW-30

Date Collected: 11/14/18 12:05

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-10

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	25	U	25	12	ug/L			11/28/18 00:35	25
1,3-Dichlorobenzene	25	U	25	8.6	ug/L			11/28/18 00:35	25
1,4-Dichlorobenzene	25	U	25	19	ug/L			11/28/18 00:35	25
1,2-Dichlorobenzene	25	U	25	11	ug/L			11/28/18 00:35	25
Dichlorodifluoromethane	25	U	25	3.0	ug/L			11/28/18 00:35	25
1,2,4-Trichlorobenzene	25	U	25	9.1	ug/L			11/28/18 00:35	25
1,4-Dioxane	1300	U	1300	710	ug/L			11/28/18 00:35	25
1,2,3-Trichlorobenzene	25	U	25	8.9	ug/L			11/28/18 00:35	25
1,2-Dibromo-3-Chloropropane	25	U	25	9.4	ug/L			11/28/18 00:35	25
Chlorobromomethane	25	U	25	10	ug/L			11/28/18 00:35	25
Isopropylbenzene	69		25	8.4	ug/L			11/28/18 00:35	25
Methyl acetate	130	U	130	7.8	ug/L			11/28/18 00:35	25
Methylcyclohexane	25	U	25	6.5	ug/L			11/28/18 00:35	25

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		74 - 132		11/28/18 00:35	25
4-Bromofluorobenzene	103		77 - 124		11/28/18 00:35	25
Dibromofluoromethane (Surr)	110		72 - 131		11/28/18 00:35	25
Toluene-d8 (Surr)	105		80 - 120		11/28/18 00:35	25

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	2.0	J	10	1.2	ug/L		11/20/18 09:24	11/21/18 14:42	1
2,2'-oxybis[1-chloropropane]	10	U	10	0.63	ug/L		11/20/18 09:24	11/21/18 14:42	1
2,4,5-Trichlorophenol	10	U	10	0.28	ug/L		11/20/18 09:24	11/21/18 14:42	1
2,4,6-Trichlorophenol	10	U	10	0.30	ug/L		11/20/18 09:24	11/21/18 14:42	1
2,4-Dichlorophenol	10	U	10	0.42	ug/L		11/20/18 09:24	11/21/18 14:42	1
2,4-Dimethylphenol	10	U	10	0.24	ug/L		11/20/18 09:24	11/21/18 14:42	1
2,4-Dinitrophenol	20	U	20	14	ug/L		11/20/18 09:24	11/21/18 14:42	1
2,4-Dinitrotoluene	2.0	U	2.0	1.0	ug/L		11/20/18 09:24	11/21/18 14:42	1
2,6-Dinitrotoluene	2.0	U	2.0	0.39	ug/L		11/20/18 09:24	11/21/18 14:42	1
2-Chloronaphthalene	10	U	10	1.2	ug/L		11/20/18 09:24	11/21/18 14:42	1
2-Chlorophenol	10	U	10	0.38	ug/L		11/20/18 09:24	11/21/18 14:42	1
2-Methylnaphthalene	17		10	1.1	ug/L		11/20/18 09:24	11/21/18 14:42	1
2-Methylphenol	10	U	10	0.26	ug/L		11/20/18 09:24	11/21/18 14:42	1
2-Nitroaniline	10	U	10	0.47	ug/L		11/20/18 09:24	11/21/18 14:42	1
2-Nitrophenol	10	U	10	0.75	ug/L		11/20/18 09:24	11/21/18 14:42	1
3,3'-Dichlorobenzidine	10	U	10	1.4	ug/L		11/20/18 09:24	11/21/18 14:42	1
3-Nitroaniline	10	U	10	0.96	ug/L		11/20/18 09:24	11/21/18 14:42	1
4,6-Dinitro-2-methylphenol	20	U	20	13	ug/L		11/20/18 09:24	11/21/18 14:42	1
4-Bromophenyl phenyl ether	10	U	10	0.75	ug/L		11/20/18 09:24	11/21/18 14:42	1
4-Chloro-3-methylphenol	10	U	10	0.58	ug/L		11/20/18 09:24	11/21/18 14:42	1
4-Chloroaniline	10	U	10	1.9	ug/L		11/20/18 09:24	11/21/18 14:42	1
4-Chlorophenyl phenyl ether	10	U	10	1.3	ug/L		11/20/18 09:24	11/21/18 14:42	1
4-Methylphenol	10	U	10	0.24	ug/L		11/20/18 09:24	11/21/18 14:42	1
4-Nitroaniline	10	U	10	0.54	ug/L		11/20/18 09:24	11/21/18 14:42	1
4-Nitrophenol	20	U	20	0.69	ug/L		11/20/18 09:24	11/21/18 14:42	1
Acenaphthene	83		10	1.1	ug/L		11/20/18 09:24	11/21/18 14:42	1
Acenaphthylene	1.3	J	10	0.82	ug/L		11/20/18 09:24	11/21/18 14:42	1
Acetophenone	5.6	J	10	0.79	ug/L		11/20/18 09:24	11/21/18 14:42	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: MW-30

Date Collected: 11/14/18 12:05

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-10

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	3.9	J	10	0.63	ug/L		11/20/18 09:24	11/21/18 14:42	1
Atrazine	2.0	U	2.0	1.3	ug/L		11/20/18 09:24	11/21/18 14:42	1
Benzaldehyde	10	U	10	0.59	ug/L		11/20/18 09:24	11/21/18 14:42	1
Benzo[a]anthracene	1.0	U	1.0	0.59	ug/L		11/20/18 09:24	11/21/18 14:42	1
Benzo[a]pyrene	1.0	U	1.0	0.41	ug/L		11/20/18 09:24	11/21/18 14:42	1
Benzo[b]fluoranthene	2.0	U	2.0	1.1	ug/L		11/20/18 09:24	11/21/18 14:42	1
Benzo[g,h,i]perylene	10	U	10	1.4	ug/L		11/20/18 09:24	11/21/18 14:42	1
Benzo[k]fluoranthene	1.0	U	1.0	0.67	ug/L		11/20/18 09:24	11/21/18 14:42	1
Bis(2-chloroethoxy)methane	10	U	10	0.24	ug/L		11/20/18 09:24	11/21/18 14:42	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.30	ug/L		11/20/18 09:24	11/21/18 14:42	1
Bis(2-ethylhexyl) phthalate	2.0	U	2.0	1.7	ug/L		11/20/18 09:24	11/21/18 14:42	1
Butyl benzyl phthalate	10	U	10	0.85	ug/L		11/20/18 09:24	11/21/18 14:42	1
Caprolactam	10	U	10	0.68	ug/L		11/20/18 09:24	11/21/18 14:42	1
Carbazole	3.0	J	10	0.68	ug/L		11/20/18 09:24	11/21/18 14:42	1
Chrysene	2.0	U	2.0	0.91	ug/L		11/20/18 09:24	11/21/18 14:42	1
Dibenz(a,h)anthracene	1.0	U	1.0	0.72	ug/L		11/20/18 09:24	11/21/18 14:42	1
Dibenzofuran	4.9	J	10	1.1	ug/L		11/20/18 09:24	11/21/18 14:42	1
Diethyl phthalate	10	U	10	0.98	ug/L		11/20/18 09:24	11/21/18 14:42	1
Dimethyl phthalate	10	U	10	0.77	ug/L		11/20/18 09:24	11/21/18 14:42	1
Di-n-butyl phthalate	10	U	10	0.84	ug/L		11/20/18 09:24	11/21/18 14:42	1
Di-n-octyl phthalate	10	U	10	4.8	ug/L		11/20/18 09:24	11/21/18 14:42	1
Fluoranthene	3.4	J	10	0.84	ug/L		11/20/18 09:24	11/21/18 14:42	1
Fluorene	27		10	0.91	ug/L		11/20/18 09:24	11/21/18 14:42	1
Hexachlorobenzene	1.0	U	1.0	0.40	ug/L		11/20/18 09:24	11/21/18 14:42	1
Hexachlorobutadiene	1.0	U	1.0	0.78	ug/L		11/20/18 09:24	11/21/18 14:42	1
Hexachlorocyclopentadiene	10	U	10	1.7	ug/L		11/20/18 09:24	11/21/18 14:42	1
Hexachloroethane	2.0	U	2.0	1.2	ug/L		11/20/18 09:24	11/21/18 14:42	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	1.3	ug/L		11/20/18 09:24	11/21/18 14:42	1
Isophorone	10	U	10	0.80	ug/L		11/20/18 09:24	11/21/18 14:42	1
Naphthalene	100		10	1.1	ug/L		11/20/18 09:24	11/21/18 14:42	1
Nitrobenzene	1.0	U	1.0	0.57	ug/L		11/20/18 09:24	11/21/18 14:42	1
N-Nitrosodi-n-propylamine	1.0	U	1.0	0.43	ug/L		11/20/18 09:24	11/21/18 14:42	1
N-Nitrosodiphenylamine	10	U	10	0.89	ug/L		11/20/18 09:24	11/21/18 14:42	1
Pentachlorophenol	20	U	20	1.4	ug/L		11/20/18 09:24	11/21/18 14:42	1
Phenanthrene	26		10	0.58	ug/L		11/20/18 09:24	11/21/18 14:42	1
Phenol	51	*	10	0.29	ug/L		11/20/18 09:24	11/21/18 14:42	1
Pyrene	3.8	J	10	1.6	ug/L		11/20/18 09:24	11/21/18 14:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	91		26 - 139	11/20/18 09:24	11/21/18 14:42	1
2-Fluorobiphenyl	71		45 - 107	11/20/18 09:24	11/21/18 14:42	1
2-Fluorophenol (Surr)	56		25 - 58	11/20/18 09:24	11/21/18 14:42	1
Nitrobenzene-d5 (Surr)	90		51 - 108	11/20/18 09:24	11/21/18 14:42	1
Phenol-d5 (Surr)	33		14 - 39	11/20/18 09:24	11/21/18 14:42	1
Terphenyl-d14 (Surr)	53		40 - 148	11/20/18 09:24	11/21/18 14:42	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	10.0	U	10.0	1.1	ug/L		11/27/18 09:56	11/28/18 01:51	1
Aluminum	831		200	28.6	ug/L		11/27/18 09:56	11/28/18 01:51	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: MW-30

Date Collected: 11/14/18 12:05

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-10

Matrix: Water

Method: 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	15.0	U	15.0	2.7	ug/L		11/27/18 09:56	11/28/18 01:51	1
Barium	898		200	7.7	ug/L		11/27/18 09:56	11/28/18 01:51	1
Beryllium	2.0	U	2.0	0.23	ug/L		11/27/18 09:56	11/28/18 01:51	1
Calcium	180000		5000	222	ug/L		11/27/18 09:56	11/28/18 01:51	1
Cadmium	4.0	U	4.0	0.22	ug/L		11/27/18 09:56	11/28/18 01:51	1
Cobalt	6.0	J	50.0	1.7	ug/L		11/27/18 09:56	11/28/18 01:51	1
Chromium	2.4	J	10.0	1.3	ug/L		11/27/18 09:56	11/28/18 01:51	1
Copper	5.7	J	25.0	5.1	ug/L		11/27/18 09:56	11/28/18 01:51	1
Iron	88300		150	34.2	ug/L		11/27/18 09:56	11/28/18 01:51	1
Potassium	29800		5000	323	ug/L		11/27/18 09:56	11/28/18 01:51	1
Magnesium	63300		5000	177	ug/L		11/27/18 09:56	11/28/18 01:51	1
Manganese	950		15.0	0.99	ug/L		11/27/18 09:56	11/28/18 01:51	1
Sodium	586000		25000	2300	ug/L		11/27/18 09:56	11/28/18 13:23	5
Nickel	19.2	J	40.0	1.7	ug/L		11/27/18 09:56	11/28/18 01:51	1
Lead	10.0	U	10.0	2.5	ug/L		11/27/18 09:56	11/28/18 01:51	1
Antimony	20.0	U	20.0	2.9	ug/L		11/27/18 09:56	11/28/18 01:51	1
Selenium	20.0	U	20.0	6.6	ug/L		11/27/18 09:56	11/28/18 01:51	1
Thallium	20.0	U	20.0	5.4	ug/L		11/27/18 09:56	11/28/18 01:51	1
Vanadium	50.0	U	50.0	2.5	ug/L		11/27/18 09:56	11/28/18 01:51	1
Zinc	4.4	J	30.0	3.6	ug/L		11/27/18 09:56	11/28/18 01:51	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		11/29/18 11:57	11/29/18 14:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.038		0.010	0.0020	mg/L		11/28/18 09:28	11/28/18 13:07	1

Client Sample ID: MW-25

Date Collected: 11/14/18 13:55

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-11

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/27/18 14:05	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			11/27/18 14:05	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			11/27/18 14:05	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			11/27/18 14:05	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			11/27/18 14:05	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			11/27/18 14:05	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			11/27/18 14:05	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			11/27/18 14:05	1
2-Hexanone	5.0	U	5.0	2.9	ug/L			11/27/18 14:05	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.7	ug/L			11/27/18 14:05	1
Acetone	5.0	U	5.0	5.0	ug/L			11/27/18 14:05	1
Benzene	2.5		1.0	0.43	ug/L			11/27/18 14:05	1
Bromoform	1.0	U	1.0	0.54	ug/L			11/27/18 14:05	1
Trichlorofluoromethane	1.0	U	1.0	0.14	ug/L			11/27/18 14:05	1
Bromomethane	1.0	U	1.0	1.0	ug/L			11/27/18 14:05	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: MW-25

Date Collected: 11/14/18 13:55

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-11

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon disulfide	1.0	U	1.0	0.16	ug/L			11/27/18 14:05	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			11/27/18 14:05	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			11/27/18 14:05	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			11/27/18 14:05	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/27/18 14:05	1
Chloroform	1.0	U	1.0	0.33	ug/L			11/27/18 14:05	1
Chloromethane	1.0	U	1.0	0.14	ug/L			11/27/18 14:05	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			11/27/18 14:05	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			11/27/18 14:05	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			11/27/18 14:05	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			11/27/18 14:05	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			11/27/18 14:05	1
Styrene	1.0	U	1.0	0.42	ug/L			11/27/18 14:05	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			11/27/18 14:05	1
Toluene	1.0	U	1.0	0.38	ug/L			11/27/18 14:05	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			11/27/18 14:05	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			11/27/18 14:05	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			11/27/18 14:05	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			11/27/18 14:05	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			11/27/18 14:05	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/27/18 14:05	1
Methyl tert-butyl ether	1.0	U	1.0	0.47	ug/L			11/27/18 14:05	1
Cyclohexane	1.0	U	1.0	0.32	ug/L			11/27/18 14:05	1
Ethylene Dibromide	1.0	U	1.0	0.50	ug/L			11/27/18 14:05	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			11/27/18 14:05	1
1,4-Dichlorobenzene	1.0	U	1.0	0.76	ug/L			11/27/18 14:05	1
1,2-Dichlorobenzene	1.0	U	1.0	0.43	ug/L			11/27/18 14:05	1
Dichlorodifluoromethane	1.0	U	1.0	0.12	ug/L			11/27/18 14:05	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.37	ug/L			11/27/18 14:05	1
1,4-Dioxane	50	U	50	28	ug/L			11/27/18 14:05	1
1,2,3-Trichlorobenzene	1.0	U	1.0	0.36	ug/L			11/27/18 14:05	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.38	ug/L			11/27/18 14:05	1
Chlorobromomethane	1.0	U	1.0	0.41	ug/L			11/27/18 14:05	1
Isopropylbenzene	1.0	U	1.0	0.34	ug/L			11/27/18 14:05	1
Methyl acetate	5.0	U	5.0	0.31	ug/L			11/27/18 14:05	1
Methylcyclohexane	1.0	U	1.0	0.26	ug/L			11/27/18 14:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		74 - 132		11/27/18 14:05	1
4-Bromofluorobenzene	103		77 - 124		11/27/18 14:05	1
Dibromofluoromethane (Surr)	110		72 - 131		11/27/18 14:05	1
Toluene-d8 (Surr)	107		80 - 120		11/27/18 14:05	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	10	U	10	1.2	ug/L		11/20/18 09:24	11/21/18 15:03	1
2,2'-oxybis[1-chloropropane]	10	U	10	0.63	ug/L		11/20/18 09:24	11/21/18 15:03	1
2,4,5-Trichlorophenol	10	U	10	0.28	ug/L		11/20/18 09:24	11/21/18 15:03	1
2,4,6-Trichlorophenol	10	U	10	0.30	ug/L		11/20/18 09:24	11/21/18 15:03	1
2,4-Dichlorophenol	10	U	10	0.42	ug/L		11/20/18 09:24	11/21/18 15:03	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: MW-25

Date Collected: 11/14/18 13:55

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-11

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	10	U	10	0.24	ug/L		11/20/18 09:24	11/21/18 15:03	1
2,4-Dinitrophenol	20	U	20	14	ug/L		11/20/18 09:24	11/21/18 15:03	1
2,4-Dinitrotoluene	2.0	U	2.0	1.0	ug/L		11/20/18 09:24	11/21/18 15:03	1
2,6-Dinitrotoluene	2.0	U	2.0	0.39	ug/L		11/20/18 09:24	11/21/18 15:03	1
2-Chloronaphthalene	10	U	10	1.2	ug/L		11/20/18 09:24	11/21/18 15:03	1
2-Chlorophenol	10	U	10	0.38	ug/L		11/20/18 09:24	11/21/18 15:03	1
2-Methylnaphthalene	10	U	10	1.1	ug/L		11/20/18 09:24	11/21/18 15:03	1
2-Methylphenol	10	U	10	0.26	ug/L		11/20/18 09:24	11/21/18 15:03	1
2-Nitroaniline	10	U	10	0.47	ug/L		11/20/18 09:24	11/21/18 15:03	1
2-Nitrophenol	10	U	10	0.75	ug/L		11/20/18 09:24	11/21/18 15:03	1
3,3'-Dichlorobenzidine	10	U	10	1.4	ug/L		11/20/18 09:24	11/21/18 15:03	1
3-Nitroaniline	10	U	10	0.96	ug/L		11/20/18 09:24	11/21/18 15:03	1
4,6-Dinitro-2-methylphenol	20	U	20	13	ug/L		11/20/18 09:24	11/21/18 15:03	1
4-Bromophenyl phenyl ether	10	U	10	0.75	ug/L		11/20/18 09:24	11/21/18 15:03	1
4-Chloro-3-methylphenol	10	U	10	0.58	ug/L		11/20/18 09:24	11/21/18 15:03	1
4-Chloroaniline	10	U	10	1.9	ug/L		11/20/18 09:24	11/21/18 15:03	1
4-Chlorophenyl phenyl ether	10	U	10	1.3	ug/L		11/20/18 09:24	11/21/18 15:03	1
4-Methylphenol	10	U	10	0.24	ug/L		11/20/18 09:24	11/21/18 15:03	1
4-Nitroaniline	10	U	10	0.54	ug/L		11/20/18 09:24	11/21/18 15:03	1
4-Nitrophenol	20	U	20	0.69	ug/L		11/20/18 09:24	11/21/18 15:03	1
Acenaphthene	10	U	10	1.1	ug/L		11/20/18 09:24	11/21/18 15:03	1
Acenaphthylene	10	U	10	0.82	ug/L		11/20/18 09:24	11/21/18 15:03	1
Acetophenone	10	U	10	0.79	ug/L		11/20/18 09:24	11/21/18 15:03	1
Anthracene	10	U	10	0.63	ug/L		11/20/18 09:24	11/21/18 15:03	1
Atrazine	2.0	U	2.0	1.3	ug/L		11/20/18 09:24	11/21/18 15:03	1
Benzaldehyde	10	U	10	0.59	ug/L		11/20/18 09:24	11/21/18 15:03	1
Benzo[a]anthracene	1.0	U	1.0	0.59	ug/L		11/20/18 09:24	11/21/18 15:03	1
Benzo[a]pyrene	1.0	U	1.0	0.41	ug/L		11/20/18 09:24	11/21/18 15:03	1
Benzo[b]fluoranthene	2.0	U	2.0	1.1	ug/L		11/20/18 09:24	11/21/18 15:03	1
Benzo[g,h,i]perylene	10	U	10	1.4	ug/L		11/20/18 09:24	11/21/18 15:03	1
Benzo[k]fluoranthene	1.0	U	1.0	0.67	ug/L		11/20/18 09:24	11/21/18 15:03	1
Bis(2-chloroethoxy)methane	10	U	10	0.24	ug/L		11/20/18 09:24	11/21/18 15:03	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.30	ug/L		11/20/18 09:24	11/21/18 15:03	1
Bis(2-ethylhexyl) phthalate	2.0	U	2.0	1.7	ug/L		11/20/18 09:24	11/21/18 15:03	1
Butyl benzyl phthalate	10	U	10	0.85	ug/L		11/20/18 09:24	11/21/18 15:03	1
Caprolactam	10	U	10	0.68	ug/L		11/20/18 09:24	11/21/18 15:03	1
Carbazole	10	U	10	0.68	ug/L		11/20/18 09:24	11/21/18 15:03	1
Chrysene	2.0	U	2.0	0.91	ug/L		11/20/18 09:24	11/21/18 15:03	1
Dibenz(a,h)anthracene	1.0	U	1.0	0.72	ug/L		11/20/18 09:24	11/21/18 15:03	1
Dibenzofuran	10	U	10	1.1	ug/L		11/20/18 09:24	11/21/18 15:03	1
Diethyl phthalate	10	U	10	0.98	ug/L		11/20/18 09:24	11/21/18 15:03	1
Dimethyl phthalate	10	U	10	0.77	ug/L		11/20/18 09:24	11/21/18 15:03	1
Di-n-butyl phthalate	10	U	10	0.84	ug/L		11/20/18 09:24	11/21/18 15:03	1
Di-n-octyl phthalate	10	U	10	4.8	ug/L		11/20/18 09:24	11/21/18 15:03	1
Fluoranthene	10	U	10	0.84	ug/L		11/20/18 09:24	11/21/18 15:03	1
Fluorene	10	U	10	0.91	ug/L		11/20/18 09:24	11/21/18 15:03	1
Hexachlorobenzene	1.0	U	1.0	0.40	ug/L		11/20/18 09:24	11/21/18 15:03	1
Hexachlorobutadiene	1.0	U	1.0	0.78	ug/L		11/20/18 09:24	11/21/18 15:03	1
Hexachlorocyclopentadiene	10	U	10	1.7	ug/L		11/20/18 09:24	11/21/18 15:03	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: MW-25

Date Collected: 11/14/18 13:55

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-11

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachloroethane	2.0	U	2.0	1.2	ug/L		11/20/18 09:24	11/21/18 15:03	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	1.3	ug/L		11/20/18 09:24	11/21/18 15:03	1
Isophorone	10	U	10	0.80	ug/L		11/20/18 09:24	11/21/18 15:03	1
Naphthalene	10	U	10	1.1	ug/L		11/20/18 09:24	11/21/18 15:03	1
Nitrobenzene	1.0	U	1.0	0.57	ug/L		11/20/18 09:24	11/21/18 15:03	1
N-Nitrosodi-n-propylamine	1.0	U	1.0	0.43	ug/L		11/20/18 09:24	11/21/18 15:03	1
N-Nitrosodiphenylamine	10	U	10	0.89	ug/L		11/20/18 09:24	11/21/18 15:03	1
Pentachlorophenol	20	U	20	1.4	ug/L		11/20/18 09:24	11/21/18 15:03	1
Phenanthrene	10	U	10	0.58	ug/L		11/20/18 09:24	11/21/18 15:03	1
Phenol	10	U *	10	0.29	ug/L		11/20/18 09:24	11/21/18 15:03	1
Pyrene	10	U	10	1.6	ug/L		11/20/18 09:24	11/21/18 15:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	88		26 - 139	11/20/18 09:24	11/21/18 15:03	1
2-Fluorobiphenyl	70		45 - 107	11/20/18 09:24	11/21/18 15:03	1
2-Fluorophenol (Surr)	50		25 - 58	11/20/18 09:24	11/21/18 15:03	1
Nitrobenzene-d5 (Surr)	96		51 - 108	11/20/18 09:24	11/21/18 15:03	1
Phenol-d5 (Surr)	35		14 - 39	11/20/18 09:24	11/21/18 15:03	1
Terphenyl-d14 (Surr)	62		40 - 148	11/20/18 09:24	11/21/18 15:03	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	10.0	U	10.0	1.1	ug/L		11/27/18 09:56	11/28/18 01:55	1
Aluminum	113	J	200	28.6	ug/L		11/27/18 09:56	11/28/18 01:55	1
Arsenic	17.0		15.0	2.7	ug/L		11/27/18 09:56	11/28/18 01:55	1
Barium	69.6	J	200	7.7	ug/L		11/27/18 09:56	11/28/18 01:55	1
Beryllium	2.0	U	2.0	0.23	ug/L		11/27/18 09:56	11/28/18 01:55	1
Calcium	43200		5000	222	ug/L		11/27/18 09:56	11/28/18 01:55	1
Cadmium	4.0	U	4.0	0.22	ug/L		11/27/18 09:56	11/28/18 01:55	1
Cobalt	8.1	J	50.0	1.7	ug/L		11/27/18 09:56	11/28/18 01:55	1
Chromium	5.2	J	10.0	1.3	ug/L		11/27/18 09:56	11/28/18 01:55	1
Copper	25.0	U	25.0	5.1	ug/L		11/27/18 09:56	11/28/18 01:55	1
Iron	16700		150	34.2	ug/L		11/27/18 09:56	11/28/18 01:55	1
Potassium	4870	J	5000	323	ug/L		11/27/18 09:56	11/28/18 01:55	1
Magnesium	5000		5000	177	ug/L		11/27/18 09:56	11/28/18 01:55	1
Manganese	917		15.0	0.99	ug/L		11/27/18 09:56	11/28/18 01:55	1
Sodium	97900		5000	460	ug/L		11/27/18 09:56	11/28/18 01:55	1
Nickel	5.9	J	40.0	1.7	ug/L		11/27/18 09:56	11/28/18 01:55	1
Lead	2.9	J	10.0	2.5	ug/L		11/27/18 09:56	11/28/18 01:55	1
Antimony	20.0	U	20.0	2.9	ug/L		11/27/18 09:56	11/28/18 01:55	1
Selenium	20.0	U	20.0	6.6	ug/L		11/27/18 09:56	11/28/18 01:55	1
Thallium	20.0	U	20.0	5.4	ug/L		11/27/18 09:56	11/28/18 01:55	1
Vanadium	50.0	U	50.0	2.5	ug/L		11/27/18 09:56	11/28/18 01:55	1
Zinc	16.6	J	30.0	3.6	ug/L		11/27/18 09:56	11/28/18 01:55	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		11/29/18 12:14	11/29/18 16:09	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: MW-25
Date Collected: 11/14/18 13:55
Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-11
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.013		0.010	0.0020	mg/L		11/28/18 09:28	11/28/18 13:08	1

Client Sample ID: MW-15
Date Collected: 11/14/18 13:50
Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-12
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/27/18 14:30	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			11/27/18 14:30	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			11/27/18 14:30	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			11/27/18 14:30	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			11/27/18 14:30	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			11/27/18 14:30	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			11/27/18 14:30	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			11/27/18 14:30	1
2-Hexanone	5.0	U	5.0	2.9	ug/L			11/27/18 14:30	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.7	ug/L			11/27/18 14:30	1
Acetone	5.0	U	5.0	5.0	ug/L			11/27/18 14:30	1
Benzene	0.52	J	1.0	0.43	ug/L			11/27/18 14:30	1
Bromoform	1.0	U	1.0	0.54	ug/L			11/27/18 14:30	1
Trichlorofluoromethane	1.0	U	1.0	0.14	ug/L			11/27/18 14:30	1
Bromomethane	1.0	U	1.0	1.0	ug/L			11/27/18 14:30	1
Carbon disulfide	1.0	U	1.0	0.16	ug/L			11/27/18 14:30	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			11/27/18 14:30	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			11/27/18 14:30	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			11/27/18 14:30	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/27/18 14:30	1
Chloroform	1.0	U	1.0	0.33	ug/L			11/27/18 14:30	1
Chloromethane	1.0	U	1.0	0.14	ug/L			11/27/18 14:30	1
cis-1,2-Dichloroethene	0.27	J	1.0	0.22	ug/L			11/27/18 14:30	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			11/27/18 14:30	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			11/27/18 14:30	1
Ethylbenzene	8.4		1.0	0.30	ug/L			11/27/18 14:30	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			11/27/18 14:30	1
Styrene	1.0	U	1.0	0.42	ug/L			11/27/18 14:30	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			11/27/18 14:30	1
Toluene	1.0	U	1.0	0.38	ug/L			11/27/18 14:30	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			11/27/18 14:30	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			11/27/18 14:30	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			11/27/18 14:30	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			11/27/18 14:30	1
Xylenes, Total	3.9		2.0	0.65	ug/L			11/27/18 14:30	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/27/18 14:30	1
Methyl tert-butyl ether	1.0	U	1.0	0.47	ug/L			11/27/18 14:30	1
Cyclohexane	1.0	U	1.0	0.32	ug/L			11/27/18 14:30	1
Ethylene Dibromide	1.0	U	1.0	0.50	ug/L			11/27/18 14:30	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			11/27/18 14:30	1
1,4-Dichlorobenzene	1.0	U	1.0	0.76	ug/L			11/27/18 14:30	1
1,2-Dichlorobenzene	1.0	U	1.0	0.43	ug/L			11/27/18 14:30	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: MW-15

Date Collected: 11/14/18 13:50

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-12

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	1.0	U	1.0	0.12	ug/L			11/27/18 14:30	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.37	ug/L			11/27/18 14:30	1
1,4-Dioxane	50	U	50	28	ug/L			11/27/18 14:30	1
1,2,3-Trichlorobenzene	1.0	U	1.0	0.36	ug/L			11/27/18 14:30	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.38	ug/L			11/27/18 14:30	1
Chlorobromomethane	1.0	U	1.0	0.41	ug/L			11/27/18 14:30	1
Isopropylbenzene	2.4		1.0	0.34	ug/L			11/27/18 14:30	1
Methyl acetate	5.0	U	5.0	0.31	ug/L			11/27/18 14:30	1
Methylcyclohexane	0.28	J	1.0	0.26	ug/L			11/27/18 14:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		74 - 132		11/27/18 14:30	1
4-Bromofluorobenzene	102		77 - 124		11/27/18 14:30	1
Dibromofluoromethane (Surr)	110		72 - 131		11/27/18 14:30	1
Toluene-d8 (Surr)	103		80 - 120		11/27/18 14:30	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	10	U	10	1.2	ug/L		11/20/18 09:24	11/21/18 15:24	1
2,2'-oxybis[1-chloropropane]	10	U	10	0.63	ug/L		11/20/18 09:24	11/21/18 15:24	1
2,4,5-Trichlorophenol	10	U	10	0.28	ug/L		11/20/18 09:24	11/21/18 15:24	1
2,4,6-Trichlorophenol	10	U	10	0.30	ug/L		11/20/18 09:24	11/21/18 15:24	1
2,4-Dichlorophenol	10	U	10	0.42	ug/L		11/20/18 09:24	11/21/18 15:24	1
2,4-Dimethylphenol	10	U	10	0.24	ug/L		11/20/18 09:24	11/21/18 15:24	1
2,4-Dinitrophenol	20	U	20	14	ug/L		11/20/18 09:24	11/21/18 15:24	1
2,4-Dinitrotoluene	2.0	U	2.0	1.0	ug/L		11/20/18 09:24	11/21/18 15:24	1
2,6-Dinitrotoluene	2.0	U	2.0	0.39	ug/L		11/20/18 09:24	11/21/18 15:24	1
2-Chloronaphthalene	10	U	10	1.2	ug/L		11/20/18 09:24	11/21/18 15:24	1
2-Chlorophenol	10	U	10	0.38	ug/L		11/20/18 09:24	11/21/18 15:24	1
2-Methylnaphthalene	10	U	10	1.1	ug/L		11/20/18 09:24	11/21/18 15:24	1
2-Methylphenol	10	U	10	0.26	ug/L		11/20/18 09:24	11/21/18 15:24	1
2-Nitroaniline	10	U	10	0.47	ug/L		11/20/18 09:24	11/21/18 15:24	1
2-Nitrophenol	10	U	10	0.75	ug/L		11/20/18 09:24	11/21/18 15:24	1
3,3'-Dichlorobenzidine	10	U	10	1.4	ug/L		11/20/18 09:24	11/21/18 15:24	1
3-Nitroaniline	10	U	10	0.96	ug/L		11/20/18 09:24	11/21/18 15:24	1
4,6-Dinitro-2-methylphenol	20	U	20	13	ug/L		11/20/18 09:24	11/21/18 15:24	1
4-Bromophenyl phenyl ether	10	U	10	0.75	ug/L		11/20/18 09:24	11/21/18 15:24	1
4-Chloro-3-methylphenol	10	U	10	0.58	ug/L		11/20/18 09:24	11/21/18 15:24	1
4-Chloroaniline	10	U	10	1.9	ug/L		11/20/18 09:24	11/21/18 15:24	1
4-Chlorophenyl phenyl ether	10	U	10	1.3	ug/L		11/20/18 09:24	11/21/18 15:24	1
4-Methylphenol	10	U	10	0.24	ug/L		11/20/18 09:24	11/21/18 15:24	1
4-Nitroaniline	10	U	10	0.54	ug/L		11/20/18 09:24	11/21/18 15:24	1
4-Nitrophenol	20	U	20	0.69	ug/L		11/20/18 09:24	11/21/18 15:24	1
Acenaphthene	76		10	1.1	ug/L		11/20/18 09:24	11/21/18 15:24	1
Acenaphthylene	2.8	J	10	0.82	ug/L		11/20/18 09:24	11/21/18 15:24	1
Acetophenone	1.8	J	10	0.79	ug/L		11/20/18 09:24	11/21/18 15:24	1
Anthracene	4.5	J	10	0.63	ug/L		11/20/18 09:24	11/21/18 15:24	1
Atrazine	2.0	U	2.0	1.3	ug/L		11/20/18 09:24	11/21/18 15:24	1
Benzaldehyde	10	U	10	0.59	ug/L		11/20/18 09:24	11/21/18 15:24	1
Benzo[a]anthracene	2.1		1.0	0.59	ug/L		11/20/18 09:24	11/21/18 15:24	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: MW-15

Date Collected: 11/14/18 13:50

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-12

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	1.4		1.0	0.41	ug/L		11/20/18 09:24	11/21/18 15:24	1
Benzo[b]fluoranthene	1.2	J	2.0	1.1	ug/L		11/20/18 09:24	11/21/18 15:24	1
Benzo[g,h,i]perylene	10	U	10	1.4	ug/L		11/20/18 09:24	11/21/18 15:24	1
Benzo[k]fluoranthene	1.0	U	1.0	0.67	ug/L		11/20/18 09:24	11/21/18 15:24	1
Bis(2-chloroethoxy)methane	10	U	10	0.24	ug/L		11/20/18 09:24	11/21/18 15:24	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.30	ug/L		11/20/18 09:24	11/21/18 15:24	1
Bis(2-ethylhexyl) phthalate	2.0	U	2.0	1.7	ug/L		11/20/18 09:24	11/21/18 15:24	1
Butyl benzyl phthalate	10	U	10	0.85	ug/L		11/20/18 09:24	11/21/18 15:24	1
Caprolactam	10	U	10	0.68	ug/L		11/20/18 09:24	11/21/18 15:24	1
Carbazole	10	U	10	0.68	ug/L		11/20/18 09:24	11/21/18 15:24	1
Chrysene	2.1		2.0	0.91	ug/L		11/20/18 09:24	11/21/18 15:24	1
Dibenz(a,h)anthracene	1.0	U	1.0	0.72	ug/L		11/20/18 09:24	11/21/18 15:24	1
Dibenzofuran	1.9	J	10	1.1	ug/L		11/20/18 09:24	11/21/18 15:24	1
Diethyl phthalate	10	U	10	0.98	ug/L		11/20/18 09:24	11/21/18 15:24	1
Dimethyl phthalate	10	U	10	0.77	ug/L		11/20/18 09:24	11/21/18 15:24	1
Di-n-butyl phthalate	10	U	10	0.84	ug/L		11/20/18 09:24	11/21/18 15:24	1
Di-n-octyl phthalate	10	U	10	4.8	ug/L		11/20/18 09:24	11/21/18 15:24	1
Fluoranthene	5.4	J	10	0.84	ug/L		11/20/18 09:24	11/21/18 15:24	1
Fluorene	8.0	J	10	0.91	ug/L		11/20/18 09:24	11/21/18 15:24	1
Hexachlorobenzene	1.0	U	1.0	0.40	ug/L		11/20/18 09:24	11/21/18 15:24	1
Hexachlorobutadiene	1.0	U	1.0	0.78	ug/L		11/20/18 09:24	11/21/18 15:24	1
Hexachlorocyclopentadiene	10	U	10	1.7	ug/L		11/20/18 09:24	11/21/18 15:24	1
Hexachloroethane	2.0	U	2.0	1.2	ug/L		11/20/18 09:24	11/21/18 15:24	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	1.3	ug/L		11/20/18 09:24	11/21/18 15:24	1
Isophorone	10	U	10	0.80	ug/L		11/20/18 09:24	11/21/18 15:24	1
Naphthalene	2.4	J	10	1.1	ug/L		11/20/18 09:24	11/21/18 15:24	1
Nitrobenzene	1.0	U	1.0	0.57	ug/L		11/20/18 09:24	11/21/18 15:24	1
N-Nitrosodi-n-propylamine	1.0	U	1.0	0.43	ug/L		11/20/18 09:24	11/21/18 15:24	1
N-Nitrosodiphenylamine	10	U	10	0.89	ug/L		11/20/18 09:24	11/21/18 15:24	1
Pentachlorophenol	20	U	20	1.4	ug/L		11/20/18 09:24	11/21/18 15:24	1
Phenanthrene	10		10	0.58	ug/L		11/20/18 09:24	11/21/18 15:24	1
Phenol	10	U *	10	0.29	ug/L		11/20/18 09:24	11/21/18 15:24	1
Pyrene	8.0	J	10	1.6	ug/L		11/20/18 09:24	11/21/18 15:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	90		26 - 139	11/20/18 09:24	11/21/18 15:24	1
2-Fluorobiphenyl	72		45 - 107	11/20/18 09:24	11/21/18 15:24	1
2-Fluorophenol (Surr)	51		25 - 58	11/20/18 09:24	11/21/18 15:24	1
Nitrobenzene-d5 (Surr)	94		51 - 108	11/20/18 09:24	11/21/18 15:24	1
Phenol-d5 (Surr)	35		14 - 39	11/20/18 09:24	11/21/18 15:24	1
Terphenyl-d14 (Surr)	52		40 - 148	11/20/18 09:24	11/21/18 15:24	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	10.0	U	10.0	1.1	ug/L		11/27/18 09:56	11/28/18 01:59	1
Aluminum	64.3	J	200	28.6	ug/L		11/27/18 09:56	11/28/18 01:59	1
Arsenic	15.0	U	15.0	2.7	ug/L		11/27/18 09:56	11/28/18 01:59	1
Barium	231		200	7.7	ug/L		11/27/18 09:56	11/28/18 01:59	1
Beryllium	2.0	U	2.0	0.23	ug/L		11/27/18 09:56	11/28/18 01:59	1
Calcium	179000		5000	222	ug/L		11/27/18 09:56	11/28/18 01:59	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: MW-15

Date Collected: 11/14/18 13:50

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-12

Matrix: Water

Method: 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	4.0	U	4.0	0.22	ug/L		11/27/18 09:56	11/28/18 01:59	1
Cobalt	50.0	U	50.0	1.7	ug/L		11/27/18 09:56	11/28/18 01:59	1
Chromium	10.0	U	10.0	1.3	ug/L		11/27/18 09:56	11/28/18 01:59	1
Copper	5.2	J	25.0	5.1	ug/L		11/27/18 09:56	11/28/18 01:59	1
Iron	14000		150	34.2	ug/L		11/27/18 09:56	11/28/18 01:59	1
Potassium	33100		5000	323	ug/L		11/27/18 09:56	11/28/18 01:59	1
Magnesium	80700		5000	177	ug/L		11/27/18 09:56	11/28/18 01:59	1
Manganese	1740		15.0	0.99	ug/L		11/27/18 09:56	11/28/18 01:59	1
Sodium	1100000		25000	2300	ug/L		11/27/18 09:56	11/28/18 13:27	5
Nickel	5.4	J	40.0	1.7	ug/L		11/27/18 09:56	11/28/18 01:59	1
Lead	10.0	U	10.0	2.5	ug/L		11/27/18 09:56	11/28/18 01:59	1
Antimony	20.0	U	20.0	2.9	ug/L		11/27/18 09:56	11/28/18 01:59	1
Selenium	20.0	U	20.0	6.6	ug/L		11/27/18 09:56	11/28/18 01:59	1
Thallium	20.0	U	20.0	5.4	ug/L		11/27/18 09:56	11/28/18 01:59	1
Vanadium	3.6	J	50.0	2.5	ug/L		11/27/18 09:56	11/28/18 01:59	1
Zinc	30.0	U	30.0	3.6	ug/L		11/27/18 09:56	11/28/18 01:59	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		11/29/18 12:14	11/29/18 16:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0024	J	0.010	0.0020	mg/L		11/28/18 09:28	11/28/18 13:09	1

Client Sample ID: MW-19

Date Collected: 11/14/18 11:35

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-13

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/27/18 02:51	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			11/27/18 02:51	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			11/27/18 02:51	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			11/27/18 02:51	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			11/27/18 02:51	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			11/27/18 02:51	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			11/27/18 02:51	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			11/27/18 02:51	1
2-Hexanone	5.0	U	5.0	2.9	ug/L			11/27/18 02:51	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.7	ug/L			11/27/18 02:51	1
Acetone	5.0	U	5.0	5.0	ug/L			11/27/18 02:51	1
Benzene	4.6		1.0	0.43	ug/L			11/27/18 02:51	1
Bromoform	1.0	U	1.0	0.54	ug/L			11/27/18 02:51	1
Trichlorofluoromethane	1.0	U	1.0	0.14	ug/L			11/27/18 02:51	1
Bromomethane	1.0	U	1.0	1.0	ug/L			11/27/18 02:51	1
Carbon disulfide	1.0	U	1.0	0.16	ug/L			11/27/18 02:51	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			11/27/18 02:51	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			11/27/18 02:51	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			11/27/18 02:51	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: MW-19

Date Collected: 11/14/18 11:35

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-13

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroethane	1.0	U	1.0	0.32	ug/L			11/27/18 02:51	1
Chloroform	1.0	U	1.0	0.33	ug/L			11/27/18 02:51	1
Chloromethane	1.0	U	1.0	0.14	ug/L			11/27/18 02:51	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			11/27/18 02:51	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			11/27/18 02:51	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			11/27/18 02:51	1
Ethylbenzene	74		1.0	0.30	ug/L			11/27/18 02:51	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			11/27/18 02:51	1
Styrene	1.0	U	1.0	0.42	ug/L			11/27/18 02:51	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			11/27/18 02:51	1
Toluene	2.6		1.0	0.38	ug/L			11/27/18 02:51	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			11/27/18 02:51	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			11/27/18 02:51	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			11/27/18 02:51	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			11/27/18 02:51	1
Xylenes, Total	50		2.0	0.65	ug/L			11/27/18 02:51	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/27/18 02:51	1
Methyl tert-butyl ether	0.64	J	1.0	0.47	ug/L			11/27/18 02:51	1
Cyclohexane	12		1.0	0.32	ug/L			11/27/18 02:51	1
Ethylene Dibromide	1.0	U	1.0	0.50	ug/L			11/27/18 02:51	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			11/27/18 02:51	1
1,4-Dichlorobenzene	1.0	U	1.0	0.76	ug/L			11/27/18 02:51	1
1,2-Dichlorobenzene	1.0	U	1.0	0.43	ug/L			11/27/18 02:51	1
Dichlorodifluoromethane	1.0	U	1.0	0.12	ug/L			11/27/18 02:51	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.37	ug/L			11/27/18 02:51	1
1,4-Dioxane	50	U *	50	28	ug/L			11/27/18 02:51	1
1,2,3-Trichlorobenzene	1.0	U	1.0	0.36	ug/L			11/27/18 02:51	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.38	ug/L			11/27/18 02:51	1
Chlorobromomethane	1.0	U	1.0	0.41	ug/L			11/27/18 02:51	1
Isopropylbenzene	35		1.0	0.34	ug/L			11/27/18 02:51	1
Methyl acetate	5.0	U	5.0	0.31	ug/L			11/27/18 02:51	1
Methylcyclohexane	13		1.0	0.26	ug/L			11/27/18 02:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		74 - 132		11/27/18 02:51	1
4-Bromofluorobenzene	102		77 - 124		11/27/18 02:51	1
Dibromofluoromethane (Surr)	113		72 - 131		11/27/18 02:51	1
Toluene-d8 (Surr)	106		80 - 120		11/27/18 02:51	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	50	U	50	5.9	ug/L		11/20/18 09:24	11/22/18 04:37	5
2,2'-oxybis[1-chloropropane]	50	U	50	3.1	ug/L		11/20/18 09:24	11/22/18 04:37	5
2,4,5-Trichlorophenol	50	U	50	1.4	ug/L		11/20/18 09:24	11/22/18 04:37	5
2,4,6-Trichlorophenol	50	U	50	1.5	ug/L		11/20/18 09:24	11/22/18 04:37	5
2,4-Dichlorophenol	50	U	50	2.1	ug/L		11/20/18 09:24	11/22/18 04:37	5
2,4-Dimethylphenol	50	U	50	1.2	ug/L		11/20/18 09:24	11/22/18 04:37	5
2,4-Dinitrophenol	100	U	100	72	ug/L		11/20/18 09:24	11/22/18 04:37	5
2,4-Dinitrotoluene	10	U	10	5.0	ug/L		11/20/18 09:24	11/22/18 04:37	5
2,6-Dinitrotoluene	10	U	10	2.0	ug/L		11/20/18 09:24	11/22/18 04:37	5

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: MW-19

Date Collected: 11/14/18 11:35

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-13

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloronaphthalene	50	U	50	5.9	ug/L		11/20/18 09:24	11/22/18 04:37	5
2-Chlorophenol	50	U	50	1.9	ug/L		11/20/18 09:24	11/22/18 04:37	5
2-Methylnaphthalene	59		50	5.5	ug/L		11/20/18 09:24	11/22/18 04:37	5
2-Methylphenol	50	U	50	1.3	ug/L		11/20/18 09:24	11/22/18 04:37	5
2-Nitroaniline	50	U	50	2.4	ug/L		11/20/18 09:24	11/22/18 04:37	5
2-Nitrophenol	50	U	50	3.7	ug/L		11/20/18 09:24	11/22/18 04:37	5
3,3'-Dichlorobenzidine	50	U	50	7.2	ug/L		11/20/18 09:24	11/22/18 04:37	5
3-Nitroaniline	50	U	50	4.8	ug/L		11/20/18 09:24	11/22/18 04:37	5
4,6-Dinitro-2-methylphenol	100	U	100	66	ug/L		11/20/18 09:24	11/22/18 04:37	5
4-Bromophenyl phenyl ether	50	U	50	3.7	ug/L		11/20/18 09:24	11/22/18 04:37	5
4-Chloro-3-methylphenol	50	U	50	2.9	ug/L		11/20/18 09:24	11/22/18 04:37	5
4-Chloroaniline	50	U	50	9.4	ug/L		11/20/18 09:24	11/22/18 04:37	5
4-Chlorophenyl phenyl ether	50	U	50	6.4	ug/L		11/20/18 09:24	11/22/18 04:37	5
4-Methylphenol	50	U	50	1.2	ug/L		11/20/18 09:24	11/22/18 04:37	5
4-Nitroaniline	50	U	50	2.7	ug/L		11/20/18 09:24	11/22/18 04:37	5
4-Nitrophenol	100	U	100	3.4	ug/L		11/20/18 09:24	11/22/18 04:37	5
Acenaphthene	88		50	5.4	ug/L		11/20/18 09:24	11/22/18 04:37	5
Acenaphthylene	50	U	50	4.1	ug/L		11/20/18 09:24	11/22/18 04:37	5
Acetophenone	50	U	50	4.0	ug/L		11/20/18 09:24	11/22/18 04:37	5
Anthracene	5.1 J		50	3.2	ug/L		11/20/18 09:24	11/22/18 04:37	5
Atrazine	10	U	10	6.7	ug/L		11/20/18 09:24	11/22/18 04:37	5
Benzaldehyde	50	U	50	3.0	ug/L		11/20/18 09:24	11/22/18 04:37	5
Benzo[a]anthracene	5.0	U	5.0	3.0	ug/L		11/20/18 09:24	11/22/18 04:37	5
Benzo[a]pyrene	5.0	U	5.0	2.0	ug/L		11/20/18 09:24	11/22/18 04:37	5
Benzo[b]fluoranthene	10	U	10	5.7	ug/L		11/20/18 09:24	11/22/18 04:37	5
Benzo[g,h,i]perylene	50	U	50	7.1	ug/L		11/20/18 09:24	11/22/18 04:37	5
Benzo[k]fluoranthene	5.0	U	5.0	3.4	ug/L		11/20/18 09:24	11/22/18 04:37	5
Bis(2-chloroethoxy)methane	50	U	50	1.2	ug/L		11/20/18 09:24	11/22/18 04:37	5
Bis(2-chloroethyl)ether	5.0	U	5.0	1.5	ug/L		11/20/18 09:24	11/22/18 04:37	5
Bis(2-ethylhexyl) phthalate	10	U	10	8.5	ug/L		11/20/18 09:24	11/22/18 04:37	5
Butyl benzyl phthalate	50	U	50	4.3	ug/L		11/20/18 09:24	11/22/18 04:37	5
Caprolactam	50	U	50	3.4	ug/L		11/20/18 09:24	11/22/18 04:37	5
Carbazole	5.2 J		50	3.4	ug/L		11/20/18 09:24	11/22/18 04:37	5
Chrysene	10	U	10	4.5	ug/L		11/20/18 09:24	11/22/18 04:37	5
Dibenz(a,h)anthracene	5.0	U	5.0	3.6	ug/L		11/20/18 09:24	11/22/18 04:37	5
Dibenzofuran	50	U	50	5.5	ug/L		11/20/18 09:24	11/22/18 04:37	5
Diethyl phthalate	50	U	50	4.9	ug/L		11/20/18 09:24	11/22/18 04:37	5
Dimethyl phthalate	50	U	50	3.8	ug/L		11/20/18 09:24	11/22/18 04:37	5
Di-n-butyl phthalate	50	U	50	4.2	ug/L		11/20/18 09:24	11/22/18 04:37	5
Di-n-octyl phthalate	50	U	50	24	ug/L		11/20/18 09:24	11/22/18 04:37	5
Fluoranthene	50	U	50	4.2	ug/L		11/20/18 09:24	11/22/18 04:37	5
Fluorene	23 J		50	4.6	ug/L		11/20/18 09:24	11/22/18 04:37	5
Hexachlorobenzene	5.0	U	5.0	2.0	ug/L		11/20/18 09:24	11/22/18 04:37	5
Hexachlorobutadiene	5.0	U	5.0	3.9	ug/L		11/20/18 09:24	11/22/18 04:37	5
Hexachlorocyclopentadiene	50	U	50	8.6	ug/L		11/20/18 09:24	11/22/18 04:37	5
Hexachloroethane	10	U	10	6.0	ug/L		11/20/18 09:24	11/22/18 04:37	5
Indeno[1,2,3-cd]pyrene	10	U	10	6.4	ug/L		11/20/18 09:24	11/22/18 04:37	5
Isophorone	50	U	50	4.0	ug/L		11/20/18 09:24	11/22/18 04:37	5
Naphthalene	430		50	5.7	ug/L		11/20/18 09:24	11/22/18 04:37	5

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: MW-19

Date Collected: 11/14/18 11:35

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-13

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	5.0	U	5.0	2.8	ug/L		11/20/18 09:24	11/22/18 04:37	5
N-Nitrosodi-n-propylamine	5.0	U	5.0	2.2	ug/L		11/20/18 09:24	11/22/18 04:37	5
N-Nitrosodiphenylamine	50	U	50	4.5	ug/L		11/20/18 09:24	11/22/18 04:37	5
Pentachlorophenol	100	U	100	7.2	ug/L		11/20/18 09:24	11/22/18 04:37	5
Phenanthrene	28	J	50	2.9	ug/L		11/20/18 09:24	11/22/18 04:37	5
Phenol	50	U *	50	1.5	ug/L		11/20/18 09:24	11/22/18 04:37	5
Pyrene	50	U	50	8.2	ug/L		11/20/18 09:24	11/22/18 04:37	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	100		26 - 139	11/20/18 09:24	11/22/18 04:37	5
2-Fluorobiphenyl	68		45 - 107	11/20/18 09:24	11/22/18 04:37	5
2-Fluorophenol (Surr)	45		25 - 58	11/20/18 09:24	11/22/18 04:37	5
Nitrobenzene-d5 (Surr)	91		51 - 108	11/20/18 09:24	11/22/18 04:37	5
Phenol-d5 (Surr)	29		14 - 39	11/20/18 09:24	11/22/18 04:37	5
Terphenyl-d14 (Surr)	47		40 - 148	11/20/18 09:24	11/22/18 04:37	5

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	10.0	U	10.0	1.1	ug/L		11/27/18 09:56	11/28/18 02:02	1
Aluminum	35.5	J	200	28.6	ug/L		11/27/18 09:56	11/28/18 02:02	1
Arsenic	6.0	J	15.0	2.7	ug/L		11/27/18 09:56	11/28/18 02:02	1
Barium	326		200	7.7	ug/L		11/27/18 09:56	11/28/18 02:02	1
Beryllium	2.0	U	2.0	0.23	ug/L		11/27/18 09:56	11/28/18 02:02	1
Calcium	174000		5000	222	ug/L		11/27/18 09:56	11/28/18 02:02	1
Cadmium	4.0	U	4.0	0.22	ug/L		11/27/18 09:56	11/28/18 02:02	1
Cobalt	50.0	U	50.0	1.7	ug/L		11/27/18 09:56	11/28/18 02:02	1
Chromium	10.0	U	10.0	1.3	ug/L		11/27/18 09:56	11/28/18 02:02	1
Copper	25.0	U	25.0	5.1	ug/L		11/27/18 09:56	11/28/18 02:02	1
Iron	73200		150	34.2	ug/L		11/27/18 09:56	11/28/18 02:02	1
Potassium	12900		5000	323	ug/L		11/27/18 09:56	11/28/18 02:02	1
Magnesium	24700		5000	177	ug/L		11/27/18 09:56	11/28/18 02:02	1
Manganese	1160		15.0	0.99	ug/L		11/27/18 09:56	11/28/18 02:02	1
Sodium	143000		5000	460	ug/L		11/27/18 09:56	11/28/18 02:02	1
Nickel	4.4	J	40.0	1.7	ug/L		11/27/18 09:56	11/28/18 02:02	1
Lead	10.0	U	10.0	2.5	ug/L		11/27/18 09:56	11/28/18 02:02	1
Antimony	20.0	U	20.0	2.9	ug/L		11/27/18 09:56	11/28/18 02:02	1
Selenium	20.0	U	20.0	6.6	ug/L		11/27/18 09:56	11/28/18 02:02	1
Thallium	20.0	U	20.0	5.4	ug/L		11/27/18 09:56	11/28/18 02:02	1
Vanadium	50.0	U	50.0	2.5	ug/L		11/27/18 09:56	11/28/18 02:02	1
Zinc	30.0	U	30.0	3.6	ug/L		11/27/18 09:56	11/28/18 02:02	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		11/29/18 12:14	11/29/18 16:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.035		0.010	0.0020	mg/L		11/28/18 09:28	11/28/18 13:10	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: TB-

Lab Sample ID: 460-169523-14

Date Collected: 11/14/18 15:15

Matrix: Water

Date Received: 11/16/18 19:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/26/18 22:43	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			11/26/18 22:43	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			11/26/18 22:43	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			11/26/18 22:43	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			11/26/18 22:43	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			11/26/18 22:43	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			11/26/18 22:43	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			11/26/18 22:43	1
2-Hexanone	5.0	U	5.0	2.9	ug/L			11/26/18 22:43	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.7	ug/L			11/26/18 22:43	1
Acetone	5.0	U	5.0	5.0	ug/L			11/26/18 22:43	1
Benzene	1.0	U	1.0	0.43	ug/L			11/26/18 22:43	1
Bromoform	1.0	U	1.0	0.54	ug/L			11/26/18 22:43	1
Trichlorofluoromethane	1.0	U	1.0	0.14	ug/L			11/26/18 22:43	1
Bromomethane	1.0	U	1.0	1.0	ug/L			11/26/18 22:43	1
Carbon disulfide	1.0	U	1.0	0.16	ug/L			11/26/18 22:43	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			11/26/18 22:43	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			11/26/18 22:43	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			11/26/18 22:43	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/26/18 22:43	1
Chloroform	1.0	U	1.0	0.33	ug/L			11/26/18 22:43	1
Chloromethane	1.0	U	1.0	0.14	ug/L			11/26/18 22:43	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			11/26/18 22:43	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			11/26/18 22:43	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			11/26/18 22:43	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			11/26/18 22:43	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			11/26/18 22:43	1
Styrene	1.0	U	1.0	0.42	ug/L			11/26/18 22:43	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			11/26/18 22:43	1
Toluene	1.0	U	1.0	0.38	ug/L			11/26/18 22:43	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			11/26/18 22:43	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			11/26/18 22:43	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			11/26/18 22:43	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			11/26/18 22:43	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			11/26/18 22:43	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/26/18 22:43	1
Methyl tert-butyl ether	1.0	U	1.0	0.47	ug/L			11/26/18 22:43	1
Cyclohexane	1.0	U	1.0	0.32	ug/L			11/26/18 22:43	1
Ethylene Dibromide	1.0	U	1.0	0.50	ug/L			11/26/18 22:43	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			11/26/18 22:43	1
1,4-Dichlorobenzene	1.0	U	1.0	0.76	ug/L			11/26/18 22:43	1
1,2-Dichlorobenzene	1.0	U	1.0	0.43	ug/L			11/26/18 22:43	1
Dichlorodifluoromethane	1.0	U	1.0	0.12	ug/L			11/26/18 22:43	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.37	ug/L			11/26/18 22:43	1
1,4-Dioxane	50	U *	50	28	ug/L			11/26/18 22:43	1
1,2,3-Trichlorobenzene	1.0	U	1.0	0.36	ug/L			11/26/18 22:43	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.38	ug/L			11/26/18 22:43	1
Chlorobromomethane	1.0	U	1.0	0.41	ug/L			11/26/18 22:43	1
Isopropylbenzene	1.0	U	1.0	0.34	ug/L			11/26/18 22:43	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: TB-

Date Collected: 11/14/18 15:15

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-14

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl acetate	5.0	U	5.0	0.31	ug/L			11/26/18 22:43	1
Methylcyclohexane	1.0	U	1.0	0.26	ug/L			11/26/18 22:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		74 - 132					11/26/18 22:43	1
4-Bromofluorobenzene	90		77 - 124					11/26/18 22:43	1
Dibromofluoromethane (Surr)	100		72 - 131					11/26/18 22:43	1
Toluene-d8 (Surr)	94		80 - 120					11/26/18 22:43	1

Surrogate Summary

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (74-132)	BFB (77-124)	DBFM (72-131)	TOL (80-120)
460-169523-2	CMW-40	101	95	104	101
460-169523-3	CMW-140	105	100	112	105
460-169523-4	MW-20	107	104	113	107
460-169523-5	FB-11142018	106	101	112	104
460-169523-6	MW-CSB-60	96	94	102	94
460-169523-6 MS	MW-CSB-60	123	117	125	122 X
460-169523-6 MSD	MW-CSB-60	95	94	100	95
460-169523-7	MW-21	106	98	111	106
460-169523-8	MW-27	96	91	102	92
460-169523-9	MW-28	122	115	130	120
460-169523-10	MW-30	104	103	110	105
460-169523-11	MW-25	108	103	110	107
460-169523-12	MW-15	105	102	110	103
460-169523-13	MW-19	105	102	113	106
460-169523-14	TB-	93	90	100	94
LCS 460-571228/3	Lab Control Sample	97	91	103	99
LCS 460-571302/3	Lab Control Sample	95	92	103	96
LCS 460-571469/3	Lab Control Sample	109	102	109	105
LCSD 460-571228/4	Lab Control Sample Dup	109	102	113	111
LCSD 460-571302/4	Lab Control Sample Dup	97	92	100	95
LCSD 460-571469/4	Lab Control Sample Dup	102	96	102	96
MB 460-571228/7	Method Blank	99	91	101	96
MB 460-571302/8	Method Blank	122	116	130	120
MB 460-571469/7	Method Blank	119	117	126	120

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (26-139)	FBP (45-107)	2FP (25-58)	NBZ (51-108)	PHL (14-39)	TPHL (40-148)
460-169523-2	CMW-40	95	78	52	98	37	62
460-169523-3	CMW-140	98	78	57	101	38	64
460-169523-4	MW-20	91	68	51	94	35	58
460-169523-5	FB-11142018	95	72	52	101	37	78
460-169523-6	MW-CSB-60	92	79	51	99	36	61
460-169523-6 MS	MW-CSB-60	84	77	46	90	32	50
460-169523-6 MSD	MW-CSB-60	91	83	52	97	38	63
460-169523-7	MW-21	92	70	50	92	37	49
460-169523-8	MW-27	108	84	58	112 X	42 X	63
460-169523-9	MW-28	94	77	51	103	36	59
460-169523-10	MW-30	91	71	56	90	33	53
460-169523-11	MW-25	88	70	50	96	35	62

TestAmerica Edison

Surrogate Summary

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (26-139)	FBP (45-107)	2FP (25-58)	NBZ (51-108)	PHL (14-39)	TPHL (40-148)
460-169523-12	MW-15	90	72	51	94	35	52
460-169523-13	MW-19	100	68	45	91	29	47
LCS 460-569917/2-A	Lab Control Sample	92	80	58	95	41 X	80
LCS 460-569917/4-A	Lab Control Sample	81	74	52	92	37	72
LCSD 460-569917/3-A	Lab Control Sample Dup	93	83	55	97	40 X	78
LCSD 460-569917/5-A	Lab Control Sample Dup	88	77	52	98	37	74
MB 460-569917/1-A	Method Blank	90	79	55	99	40 X	78

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)

FBP = 2-Fluorobiphenyl

2FP = 2-Fluorophenol (Surr)

NBZ = Nitrobenzene-d5 (Surr)

PHL = Phenol-d5 (Surr)

TPHL = Terphenyl-d14 (Surr)

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 460-571228/7

Matrix: Water

Analysis Batch: 571228

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/26/18 21:53	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			11/26/18 21:53	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			11/26/18 21:53	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			11/26/18 21:53	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			11/26/18 21:53	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			11/26/18 21:53	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			11/26/18 21:53	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			11/26/18 21:53	1
2-Hexanone	5.0	U	5.0	2.9	ug/L			11/26/18 21:53	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.7	ug/L			11/26/18 21:53	1
Acetone	5.0	U	5.0	5.0	ug/L			11/26/18 21:53	1
Benzene	1.0	U	1.0	0.43	ug/L			11/26/18 21:53	1
Bromoform	1.0	U	1.0	0.54	ug/L			11/26/18 21:53	1
Trichlorofluoromethane	1.0	U	1.0	0.14	ug/L			11/26/18 21:53	1
Bromomethane	1.0	U	1.0	1.0	ug/L			11/26/18 21:53	1
Carbon disulfide	1.0	U	1.0	0.16	ug/L			11/26/18 21:53	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			11/26/18 21:53	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			11/26/18 21:53	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			11/26/18 21:53	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/26/18 21:53	1
Chloroform	1.0	U	1.0	0.33	ug/L			11/26/18 21:53	1
Chloromethane	1.0	U	1.0	0.14	ug/L			11/26/18 21:53	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			11/26/18 21:53	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			11/26/18 21:53	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			11/26/18 21:53	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			11/26/18 21:53	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			11/26/18 21:53	1
Styrene	1.0	U	1.0	0.42	ug/L			11/26/18 21:53	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			11/26/18 21:53	1
Toluene	1.0	U	1.0	0.38	ug/L			11/26/18 21:53	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			11/26/18 21:53	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			11/26/18 21:53	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			11/26/18 21:53	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			11/26/18 21:53	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			11/26/18 21:53	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/26/18 21:53	1
Methyl tert-butyl ether	1.0	U	1.0	0.47	ug/L			11/26/18 21:53	1
Cyclohexane	1.0	U	1.0	0.32	ug/L			11/26/18 21:53	1
Ethylene Dibromide	1.0	U	1.0	0.50	ug/L			11/26/18 21:53	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			11/26/18 21:53	1
1,4-Dichlorobenzene	1.0	U	1.0	0.76	ug/L			11/26/18 21:53	1
1,2-Dichlorobenzene	1.0	U	1.0	0.43	ug/L			11/26/18 21:53	1
Dichlorodifluoromethane	1.0	U	1.0	0.12	ug/L			11/26/18 21:53	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.37	ug/L			11/26/18 21:53	1
1,4-Dioxane	50	U	50	28	ug/L			11/26/18 21:53	1
1,2,3-Trichlorobenzene	1.0	U	1.0	0.36	ug/L			11/26/18 21:53	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.38	ug/L			11/26/18 21:53	1
Chlorobromomethane	1.0	U	1.0	0.41	ug/L			11/26/18 21:53	1

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 460-571228/7

Matrix: Water

Analysis Batch: 571228

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	1.0	U	1.0	0.34	ug/L			11/26/18 21:53	1
Methyl acetate	5.0	U	5.0	0.31	ug/L			11/26/18 21:53	1
Methylcyclohexane	1.0	U	1.0	0.26	ug/L			11/26/18 21:53	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		74 - 132		11/26/18 21:53	1
4-Bromofluorobenzene	91		77 - 124		11/26/18 21:53	1
Dibromofluoromethane (Surr)	101		72 - 131		11/26/18 21:53	1
Toluene-d8 (Surr)	96		80 - 120		11/26/18 21:53	1

Lab Sample ID: LCS 460-571228/3

Matrix: Water

Analysis Batch: 571228

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	19.2		ug/L		96	75 - 125
1,1,2,2-Tetrachloroethane	20.0	17.6		ug/L		88	74 - 120
1,1,2-Trichloroethane	20.0	16.4		ug/L		82	78 - 120
1,1-Dichloroethane	20.0	18.6		ug/L		93	77 - 123
1,1-Dichloroethene	20.0	20.1		ug/L		100	74 - 123
1,2-Dichloroethane	20.0	19.6		ug/L		98	76 - 121
1,2-Dichloropropane	20.0	17.2		ug/L		86	77 - 123
2-Butanone (MEK)	100	103		ug/L		103	64 - 120
2-Hexanone	100	77.2		ug/L		77	71 - 125
4-Methyl-2-pentanone (MIBK)	100	85.9		ug/L		86	78 - 124
Acetone	100	93.3		ug/L		93	39 - 150
Benzene	20.0	19.8		ug/L		99	77 - 121
Bromoform	20.0	14.2		ug/L		71	53 - 120
Trichlorofluoromethane	20.0	19.3		ug/L		96	71 - 143
Bromomethane	20.0	12.8		ug/L		64	10 - 150
Carbon disulfide	20.0	15.6		ug/L		78	69 - 133
Carbon tetrachloride	20.0	19.0		ug/L		95	70 - 132
Chlorobenzene	20.0	19.4		ug/L		97	80 - 120
Chlorodibromomethane	20.0	17.0		ug/L		85	73 - 120
Chloroethane	20.0	12.7		ug/L		64	52 - 150
Chloroform	20.0	21.7		ug/L		109	80 - 120
Chloromethane	20.0	14.3		ug/L		71	56 - 131
cis-1,2-Dichloroethene	20.0	20.2		ug/L		101	80 - 120
cis-1,3-Dichloropropene	20.0	17.8		ug/L		89	77 - 120
Dichlorobromomethane	20.0	17.3		ug/L		86	76 - 120
Ethylbenzene	20.0	19.5		ug/L		97	80 - 120
Methylene Chloride	20.0	19.4		ug/L		97	77 - 123
Styrene	20.0	18.0		ug/L		90	80 - 120
Tetrachloroethene	20.0	20.0		ug/L		100	78 - 122
Toluene	20.0	19.2		ug/L		96	80 - 120
trans-1,2-Dichloroethene	20.0	22.1		ug/L		110	79 - 120
trans-1,3-Dichloropropene	20.0	16.1		ug/L		80	76 - 120
Trichloroethene	20.0	19.8		ug/L		99	77 - 120

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-571228/3

Matrix: Water

Analysis Batch: 571228

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	20.0	14.7		ug/L		74	62 - 138
Xylenes, Total	40.0	40.1		ug/L		100	80 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	20.6		ug/L		103	59 - 150
Methyl tert-butyl ether	20.0	19.0		ug/L		95	79 - 122
Cyclohexane	20.0	17.9		ug/L		90	56 - 150
Ethylene Dibromide	20.0	17.7		ug/L		88	80 - 120
1,3-Dichlorobenzene	20.0	20.0		ug/L		100	80 - 120
1,4-Dichlorobenzene	20.0	19.2		ug/L		96	80 - 120
1,2-Dichlorobenzene	20.0	20.4		ug/L		102	80 - 120
Dichlorodifluoromethane	20.0	14.2		ug/L		71	50 - 131
1,2,4-Trichlorobenzene	20.0	21.0		ug/L		105	80 - 124
1,4-Dioxane	400	285		ug/L		71	10 - 150
1,2,3-Trichlorobenzene	20.0	23.3		ug/L		116	78 - 131
1,2-Dibromo-3-Chloropropane	20.0	18.9		ug/L		94	55 - 134
Chlorobromomethane	20.0	21.8		ug/L		109	77 - 127
Isopropylbenzene	20.0	20.9		ug/L		105	80 - 123
Methyl acetate	40.0	34.4		ug/L		86	66 - 144
Methylcyclohexane	20.0	18.7		ug/L		93	61 - 145

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		74 - 132
4-Bromofluorobenzene	91		77 - 124
Dibromofluoromethane (Surr)	103		72 - 131
Toluene-d8 (Surr)	99		80 - 120

Lab Sample ID: LCSD 460-571228/4

Matrix: Water

Analysis Batch: 571228

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	20.0	20.7		ug/L		104	75 - 125	8	30
1,1,2,2-Tetrachloroethane	20.0	19.1		ug/L		96	74 - 120	8	30
1,1,2-Trichloroethane	20.0	19.1		ug/L		95	78 - 120	15	30
1,1-Dichloroethane	20.0	20.9		ug/L		105	77 - 123	12	30
1,1-Dichloroethene	20.0	21.7		ug/L		109	74 - 123	8	30
1,2-Dichloroethane	20.0	21.8		ug/L		109	76 - 121	11	30
1,2-Dichloropropane	20.0	18.4		ug/L		92	77 - 123	7	30
2-Butanone (MEK)	100	116		ug/L		116	64 - 120	12	30
2-Hexanone	100	82.8		ug/L		83	71 - 125	7	30
4-Methyl-2-pentanone (MIBK)	100	93.1		ug/L		93	78 - 124	8	30
Acetone	100	104		ug/L		104	39 - 150	11	30
Benzene	20.0	22.4		ug/L		112	77 - 121	13	30
Bromoform	20.0	15.3		ug/L		76	53 - 120	7	30
Trichlorofluoromethane	20.0	21.5		ug/L		107	71 - 143	11	30
Bromomethane	20.0	16.3		ug/L		81	10 - 150	24	30
Carbon disulfide	20.0	17.0		ug/L		85	69 - 133	9	30
Carbon tetrachloride	20.0	21.1		ug/L		106	70 - 132	11	30

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 460-571228/4

Matrix: Water

Analysis Batch: 571228

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chlorobenzene	20.0	20.7		ug/L		103	80 - 120	7	30
Chlorodibromomethane	20.0	18.0		ug/L		90	73 - 120	6	30
Chloroethane	20.0	15.6		ug/L		78	52 - 150	21	30
Chloroform	20.0	23.1		ug/L		116	80 - 120	6	30
Chloromethane	20.0	16.0		ug/L		80	56 - 131	11	30
cis-1,2-Dichloroethene	20.0	22.3		ug/L		112	80 - 120	10	30
cis-1,3-Dichloropropene	20.0	19.4		ug/L		97	77 - 120	8	30
Dichlorobromomethane	20.0	18.4		ug/L		92	76 - 120	7	30
Ethylbenzene	20.0	21.4		ug/L		107	80 - 120	9	30
Methylene Chloride	20.0	22.1		ug/L		110	77 - 123	13	30
Styrene	20.0	20.5		ug/L		102	80 - 120	13	30
Tetrachloroethene	20.0	22.1		ug/L		110	78 - 122	10	30
Toluene	20.0	21.1		ug/L		105	80 - 120	9	30
trans-1,2-Dichloroethene	20.0	24.0		ug/L		120	79 - 120	8	30
trans-1,3-Dichloropropene	20.0	17.8		ug/L		89	76 - 120	11	30
Trichloroethene	20.0	20.6		ug/L		103	77 - 120	4	30
Vinyl chloride	20.0	16.6		ug/L		83	62 - 138	12	30
Xylenes, Total	40.0	44.2		ug/L		111	80 - 120	10	30
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	20.9		ug/L		104	59 - 150	1	30
Methyl tert-butyl ether	20.0	21.1		ug/L		105	79 - 122	11	30
Cyclohexane	20.0	19.5		ug/L		97	56 - 150	8	30
Ethylene Dibromide	20.0	19.5		ug/L		98	80 - 120	10	30
1,3-Dichlorobenzene	20.0	21.5		ug/L		108	80 - 120	8	30
1,4-Dichlorobenzene	20.0	20.3		ug/L		101	80 - 120	6	30
1,2-Dichlorobenzene	20.0	21.7		ug/L		108	80 - 120	6	30
Dichlorodifluoromethane	20.0	16.0		ug/L		80	50 - 131	12	30
1,2,4-Trichlorobenzene	20.0	24.1		ug/L		121	80 - 124	14	30
1,4-Dioxane	400	449 *		ug/L		112	10 - 150	45	30
1,2,3-Trichlorobenzene	20.0	23.9		ug/L		119	78 - 131	2	30
1,2-Dibromo-3-Chloropropane	20.0	19.9		ug/L		99	55 - 134	5	30
Chlorobromomethane	20.0	24.4		ug/L		122	77 - 127	11	30
Isopropylbenzene	20.0	22.9		ug/L		114	80 - 123	9	30
Methyl acetate	40.0	39.0		ug/L		98	66 - 144	13	30
Methylcyclohexane	20.0	20.2		ug/L		101	61 - 145	8	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	109		74 - 132
4-Bromofluorobenzene	102		77 - 124
Dibromofluoromethane (Surr)	113		72 - 131
Toluene-d8 (Surr)	111		80 - 120

Lab Sample ID: 460-169523-6 MS

Matrix: Water

Analysis Batch: 571228

Client Sample ID: MW-CSB-60

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	1.0	U	20.0	24.5		ug/L		123	75 - 125

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 460-169523-6 MS

Matrix: Water

Analysis Batch: 571228

Client Sample ID: MW-CSB-60

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2,2-Tetrachloroethane	1.0	U	20.0	22.2		ug/L		111	74 - 120
1,1,2-Trichloroethane	1.0	U	20.0	21.5		ug/L		108	78 - 120
1,1-Dichloroethane	1.0	U	20.0	22.8		ug/L		114	77 - 123
1,1-Dichloroethene	1.0	U F1	20.0	26.5	F1	ug/L		132	74 - 123
1,2-Dichloroethane	1.0	U	20.0	24.0		ug/L		120	76 - 121
1,2-Dichloropropane	1.0	U	20.0	21.5		ug/L		107	77 - 123
2-Butanone (MEK)	5.0	U	100	118		ug/L		118	64 - 120
2-Hexanone	5.0	U	100	110		ug/L		110	71 - 125
4-Methyl-2-pentanone (MIBK)	5.0	U	100	114		ug/L		114	78 - 124
Acetone	5.0	U	100	104		ug/L		104	39 - 150
Benzene	1.0	U	20.0	23.8		ug/L		119	77 - 121
Bromoform	1.0	U	20.0	17.0		ug/L		85	53 - 120
Trichlorofluoromethane	1.0	U	20.0	21.1		ug/L		106	71 - 143
Bromomethane	1.0	U	20.0	14.2		ug/L		71	10 - 150
Carbon disulfide	1.0	U	20.0	19.3		ug/L		96	69 - 133
Carbon tetrachloride	1.0	U	20.0	24.4		ug/L		122	70 - 132
Chlorobenzene	1.0	U	20.0	23.8		ug/L		119	80 - 120
Chlorodibromomethane	1.0	U	20.0	20.0		ug/L		100	73 - 120
Chloroethane	1.0	U	20.0	15.0		ug/L		75	52 - 150
Chloroform	1.0	U F1	20.0	26.2	F1	ug/L		131	80 - 120
Chloromethane	1.0	U	20.0	14.4		ug/L		72	56 - 131
cis-1,2-Dichloroethene	1.0	U F1	20.0	24.9	F1	ug/L		125	80 - 120
cis-1,3-Dichloropropene	1.0	U	20.0	21.3		ug/L		107	77 - 120
Dichlorobromomethane	1.0	U	20.0	20.9		ug/L		105	76 - 120
Ethylbenzene	1.0	U	20.0	23.9		ug/L		119	80 - 120
Methylene Chloride	1.0	U F1	20.0	25.4	F1	ug/L		127	77 - 123
Styrene	1.0	U	20.0	22.6		ug/L		113	80 - 120
Tetrachloroethene	1.0	U F1	20.0	24.6	F1	ug/L		123	78 - 122
Toluene	1.0	U	20.0	23.1		ug/L		116	80 - 120
trans-1,2-Dichloroethene	1.0	U F1	20.0	27.5	F1	ug/L		137	79 - 120
trans-1,3-Dichloropropene	1.0	U	20.0	19.7		ug/L		98	76 - 120
Trichloroethene	1.0	U F1	20.0	24.3	F1	ug/L		122	77 - 120
Vinyl chloride	1.0	U F1	20.0	15.6		ug/L		78	62 - 138
Xylenes, Total	2.0	U F1	40.0	48.6	F1	ug/L		122	80 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	20.0	24.8		ug/L		124	59 - 150
Methyl tert-butyl ether	1.0	U F1	20.0	25.8	F1	ug/L		129	79 - 122
Cyclohexane	1.0	U	20.0	23.1		ug/L		115	56 - 150
Ethylene Dibromide	1.0	U	20.0	23.3		ug/L		116	80 - 120
1,3-Dichlorobenzene	1.0	U	20.0	23.8		ug/L		119	80 - 120
1,4-Dichlorobenzene	1.0	U	20.0	22.9		ug/L		115	80 - 120
1,2-Dichlorobenzene	1.0	U	20.0	23.6		ug/L		118	80 - 120
Dichlorodifluoromethane	1.0	U F2	20.0	15.6		ug/L		78	50 - 131
1,2,4-Trichlorobenzene	1.0	U F1	20.0	25.0	F1	ug/L		125	80 - 124
1,4-Dioxane	50	U F2	400	535		ug/L		134	10 - 150
1,2,3-Trichlorobenzene	1.0	U	20.0	25.7		ug/L		128	78 - 131
1,2-Dibromo-3-Chloropropane	1.0	U	20.0	20.7		ug/L		104	55 - 134
Chlorobromomethane	1.0	U	20.0	24.8		ug/L		124	77 - 127

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 460-169523-6 MS

Matrix: Water

Analysis Batch: 571228

Client Sample ID: MW-CSB-60

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Isopropylbenzene	1.0	U F1	20.0	25.0	F1	ug/L		125	80 - 123
Methyl acetate	5.0	U F2	40.0	41.5		ug/L		104	66 - 144
Methylcyclohexane	1.0	U	20.0	22.2		ug/L		111	61 - 145

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	123		74 - 132
4-Bromofluorobenzene	117		77 - 124
Dibromofluoromethane (Surr)	125		72 - 131
Toluene-d8 (Surr)	122	X	80 - 120

Lab Sample ID: 460-169523-6 MSD

Matrix: Water

Analysis Batch: 571228

Client Sample ID: MW-CSB-60

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	1.0	U	20.0	18.3		ug/L		92	75 - 125	29	30
1,1,2,2-Tetrachloroethane	1.0	U	20.0	17.1		ug/L		86	74 - 120	26	30
1,1,2-Trichloroethane	1.0	U	20.0	16.4		ug/L		82	78 - 120	27	30
1,1-Dichloroethane	1.0	U	20.0	17.9		ug/L		90	77 - 123	24	30
1,1-Dichloroethene	1.0	U F1	20.0	19.8		ug/L		99	74 - 123	29	30
1,2-Dichloroethane	1.0	U	20.0	18.8		ug/L		94	76 - 121	24	30
1,2-Dichloropropane	1.0	U	20.0	16.6		ug/L		83	77 - 123	26	30
2-Butanone (MEK)	5.0	U	100	94.9		ug/L		95	64 - 120	21	30
2-Hexanone	5.0	U	100	91.7		ug/L		92	71 - 125	18	30
4-Methyl-2-pentanone (MIBK)	5.0	U	100	91.9		ug/L		92	78 - 124	22	30
Acetone	5.0	U	100	87.2		ug/L		87	39 - 150	17	30
Benzene	1.0	U	20.0	17.8		ug/L		89	77 - 121	29	30
Bromoform	1.0	U	20.0	13.1		ug/L		65	53 - 120	26	30
Trichlorofluoromethane	1.0	U	20.0	16.7		ug/L		83	71 - 143	24	30
Bromomethane	1.0	U	20.0	10.9		ug/L		54	10 - 150	26	30
Carbon disulfide	1.0	U	20.0	15.1		ug/L		76	69 - 133	24	30
Carbon tetrachloride	1.0	U	20.0	18.7		ug/L		94	70 - 132	26	30
Chlorobenzene	1.0	U	20.0	17.6		ug/L		88	80 - 120	30	30
Chlorodibromomethane	1.0	U	20.0	15.1		ug/L		76	73 - 120	28	30
Chloroethane	1.0	U	20.0	11.7		ug/L		58	52 - 150	25	30
Chloroform	1.0	U F1	20.0	19.9		ug/L		99	80 - 120	27	30
Chloromethane	1.0	U	20.0	11.8		ug/L		59	56 - 131	20	30
cis-1,2-Dichloroethene	1.0	U F1	20.0	18.8		ug/L		94	80 - 120	28	30
cis-1,3-Dichloropropene	1.0	U	20.0	16.5		ug/L		82	77 - 120	26	30
Dichlorobromomethane	1.0	U	20.0	16.4		ug/L		82	76 - 120	24	30
Ethylbenzene	1.0	U	20.0	17.8		ug/L		89	80 - 120	29	30
Methylene Chloride	1.0	U F1	20.0	20.0		ug/L		100	77 - 123	24	30
Styrene	1.0	U	20.0	17.3		ug/L		87	80 - 120	26	30
Tetrachloroethene	1.0	U F1	20.0	18.6		ug/L		93	78 - 122	28	30
Toluene	1.0	U	20.0	17.7		ug/L		89	80 - 120	27	30
trans-1,2-Dichloroethene	1.0	U F1	20.0	20.8		ug/L		104	79 - 120	28	30
trans-1,3-Dichloropropene	1.0	U	20.0	15.2		ug/L		76	76 - 120	26	30
Trichloroethene	1.0	U F1	20.0	18.3		ug/L		91	77 - 120	28	30

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 460-169523-6 MSD

Matrix: Water

Analysis Batch: 571228

Client Sample ID: MW-CSB-60

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Vinyl chloride	1.0	U F1	20.0	11.8	F1	ug/L		59	62 - 138	28	30
Xylenes, Total	2.0	U F1	40.0	36.5		ug/L		91	80 - 120	29	30
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	20.0	18.5		ug/L		92	59 - 150	29	30
Methyl tert-butyl ether	1.0	U F1	20.0	19.8		ug/L		99	79 - 122	27	30
Cyclohexane	1.0	U	20.0	17.3		ug/L		87	56 - 150	29	30
Ethylene Dibromide	1.0	U	20.0	17.5		ug/L		88	80 - 120	28	30
1,3-Dichlorobenzene	1.0	U	20.0	18.6		ug/L		93	80 - 120	25	30
1,4-Dichlorobenzene	1.0	U	20.0	18.4		ug/L		92	80 - 120	22	30
1,2-Dichlorobenzene	1.0	U	20.0	19.0		ug/L		95	80 - 120	22	30
Dichlorodifluoromethane	1.0	U F2	20.0	11.4	F2	ug/L		57	50 - 131	31	30
1,2,4-Trichlorobenzene	1.0	U F1	20.0	19.8		ug/L		99	80 - 124	24	30
1,4-Dioxane	50	U F2	400	349	F2	ug/L		87	10 - 150	42	30
1,2,3-Trichlorobenzene	1.0	U	20.0	21.6		ug/L		108	78 - 131	17	30
1,2-Dibromo-3-Chloropropane	1.0	U	20.0	18.4		ug/L		92	55 - 134	12	30
Chlorobromomethane	1.0	U	20.0	20.0		ug/L		100	77 - 127	21	30
Isopropylbenzene	1.0	U F1	20.0	19.1		ug/L		95	80 - 123	27	30
Methyl acetate	5.0	U F2	40.0	30.4	F2	ug/L		76	66 - 144	31	30
Methylcyclohexane	1.0	U	20.0	16.5		ug/L		83	61 - 145	29	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	95		74 - 132
4-Bromofluorobenzene	94		77 - 124
Dibromofluoromethane (Surr)	100		72 - 131
Toluene-d8 (Surr)	95		80 - 120

Lab Sample ID: MB 460-571302/8

Matrix: Water

Analysis Batch: 571302

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/27/18 09:31	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			11/27/18 09:31	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			11/27/18 09:31	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			11/27/18 09:31	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			11/27/18 09:31	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			11/27/18 09:31	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			11/27/18 09:31	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			11/27/18 09:31	1
2-Hexanone	5.0	U	5.0	2.9	ug/L			11/27/18 09:31	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.7	ug/L			11/27/18 09:31	1
Acetone	5.0	U	5.0	5.0	ug/L			11/27/18 09:31	1
Benzene	1.0	U	1.0	0.43	ug/L			11/27/18 09:31	1
Bromoform	1.0	U	1.0	0.54	ug/L			11/27/18 09:31	1
Trichlorofluoromethane	1.0	U	1.0	0.14	ug/L			11/27/18 09:31	1
Bromomethane	1.0	U	1.0	1.0	ug/L			11/27/18 09:31	1
Carbon disulfide	1.0	U	1.0	0.16	ug/L			11/27/18 09:31	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			11/27/18 09:31	1

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 460-571302/8

Matrix: Water

Analysis Batch: 571302

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	1.0	U	1.0	0.38	ug/L			11/27/18 09:31	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			11/27/18 09:31	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/27/18 09:31	1
Chloroform	1.0	U	1.0	0.33	ug/L			11/27/18 09:31	1
Chloromethane	1.0	U	1.0	0.14	ug/L			11/27/18 09:31	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			11/27/18 09:31	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			11/27/18 09:31	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			11/27/18 09:31	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			11/27/18 09:31	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			11/27/18 09:31	1
Styrene	1.0	U	1.0	0.42	ug/L			11/27/18 09:31	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			11/27/18 09:31	1
Toluene	1.0	U	1.0	0.38	ug/L			11/27/18 09:31	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			11/27/18 09:31	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			11/27/18 09:31	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			11/27/18 09:31	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			11/27/18 09:31	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			11/27/18 09:31	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/27/18 09:31	1
Methyl tert-butyl ether	1.0	U	1.0	0.47	ug/L			11/27/18 09:31	1
Cyclohexane	1.0	U	1.0	0.32	ug/L			11/27/18 09:31	1
Ethylene Dibromide	1.0	U	1.0	0.50	ug/L			11/27/18 09:31	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			11/27/18 09:31	1
1,4-Dichlorobenzene	1.0	U	1.0	0.76	ug/L			11/27/18 09:31	1
1,2-Dichlorobenzene	1.0	U	1.0	0.43	ug/L			11/27/18 09:31	1
Dichlorodifluoromethane	1.0	U	1.0	0.12	ug/L			11/27/18 09:31	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.37	ug/L			11/27/18 09:31	1
1,4-Dioxane	50	U	50	28	ug/L			11/27/18 09:31	1
1,2,3-Trichlorobenzene	1.0	U	1.0	0.36	ug/L			11/27/18 09:31	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.38	ug/L			11/27/18 09:31	1
Chlorobromomethane	1.0	U	1.0	0.41	ug/L			11/27/18 09:31	1
Isopropylbenzene	1.0	U	1.0	0.34	ug/L			11/27/18 09:31	1
Methyl acetate	5.0	U	5.0	0.31	ug/L			11/27/18 09:31	1
Methylcyclohexane	1.0	U	1.0	0.26	ug/L			11/27/18 09:31	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	122		74 - 132		11/27/18 09:31	1
4-Bromofluorobenzene	116		77 - 124		11/27/18 09:31	1
Dibromofluoromethane (Surr)	130		72 - 131		11/27/18 09:31	1
Toluene-d8 (Surr)	120		80 - 120		11/27/18 09:31	1

Lab Sample ID: LCS 460-571302/3

Matrix: Water

Analysis Batch: 571302

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	20.5		ug/L		102	75 - 125
1,1,2,2-Tetrachloroethane	20.0	17.4		ug/L		87	74 - 120

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-571302/3

Matrix: Water

Analysis Batch: 571302

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2-Trichloroethane	20.0	17.2		ug/L		86	78 - 120
1,1-Dichloroethane	20.0	18.8		ug/L		94	77 - 123
1,1-Dichloroethene	20.0	21.1		ug/L		106	74 - 123
1,2-Dichloroethane	20.0	20.0		ug/L		100	76 - 121
1,2-Dichloropropane	20.0	17.3		ug/L		86	77 - 123
2-Butanone (MEK)	100	105		ug/L		105	64 - 120
2-Hexanone	100	85.3		ug/L		85	71 - 125
4-Methyl-2-pentanone (MIBK)	100	88.5		ug/L		89	78 - 124
Acetone	100	93.7		ug/L		94	39 - 150
Benzene	20.0	18.9		ug/L		95	77 - 121
Bromoform	20.0	13.7		ug/L		68	53 - 120
Trichlorofluoromethane	20.0	20.9		ug/L		104	71 - 143
Bromomethane	20.0	14.4		ug/L		72	10 - 150
Carbon disulfide	20.0	15.5		ug/L		77	69 - 133
Carbon tetrachloride	20.0	20.4		ug/L		102	70 - 132
Chlorobenzene	20.0	19.3		ug/L		96	80 - 120
Chlorodibromomethane	20.0	16.5		ug/L		83	73 - 120
Chloroethane	20.0	15.1		ug/L		76	52 - 150
Chloroform	20.0	21.7		ug/L		109	80 - 120
Chloromethane	20.0	15.4		ug/L		77	56 - 131
cis-1,2-Dichloroethene	20.0	19.7		ug/L		99	80 - 120
cis-1,3-Dichloropropene	20.0	18.4		ug/L		92	77 - 120
Dichlorobromomethane	20.0	18.0		ug/L		90	76 - 120
Ethylbenzene	20.0	19.5		ug/L		97	80 - 120
Methylene Chloride	20.0	20.4		ug/L		102	77 - 123
Styrene	20.0	18.8		ug/L		94	80 - 120
Tetrachloroethene	20.0	19.9		ug/L		100	78 - 122
Toluene	20.0	19.1		ug/L		95	80 - 120
trans-1,2-Dichloroethene	20.0	22.2		ug/L		111	79 - 120
trans-1,3-Dichloropropene	20.0	16.6		ug/L		83	76 - 120
Trichloroethene	20.0	19.5		ug/L		98	77 - 120
Vinyl chloride	20.0	15.7		ug/L		78	62 - 138
Xylenes, Total	40.0	39.4		ug/L		98	80 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	21.9		ug/L		110	59 - 150
Methyl tert-butyl ether	20.0	20.2		ug/L		101	79 - 122
Cyclohexane	20.0	19.4		ug/L		97	56 - 150
Ethylene Dibromide	20.0	18.5		ug/L		92	80 - 120
1,3-Dichlorobenzene	20.0	19.9		ug/L		99	80 - 120
1,4-Dichlorobenzene	20.0	20.1		ug/L		100	80 - 120
1,2-Dichlorobenzene	20.0	20.2		ug/L		101	80 - 120
Dichlorodifluoromethane	20.0	17.4		ug/L		87	50 - 131
1,2,4-Trichlorobenzene	20.0	21.2		ug/L		106	80 - 124
1,4-Dioxane	400	538		ug/L		134	10 - 150
1,2,3-Trichlorobenzene	20.0	21.4		ug/L		107	78 - 131
1,2-Dibromo-3-Chloropropane	20.0	17.2		ug/L		86	55 - 134
Chlorobromomethane	20.0	21.2		ug/L		106	77 - 127
Isopropylbenzene	20.0	20.3		ug/L		101	80 - 123

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-571302/3

Matrix: Water

Analysis Batch: 571302

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl acetate	40.0	33.4		ug/L		83	66 - 144
Methylcyclohexane	20.0	19.9		ug/L		99	61 - 145

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	95		74 - 132
4-Bromofluorobenzene	92		77 - 124
Dibromofluoromethane (Surr)	103		72 - 131
Toluene-d8 (Surr)	96		80 - 120

Lab Sample ID: LCSD 460-571302/4

Matrix: Water

Analysis Batch: 571302

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	20.0	20.0		ug/L		100	75 - 125	2	30
1,1,2,2-Tetrachloroethane	20.0	17.0		ug/L		85	74 - 120	2	30
1,1,2-Trichloroethane	20.0	16.8		ug/L		84	78 - 120	2	30
1,1-Dichloroethane	20.0	18.6		ug/L		93	77 - 123	1	30
1,1-Dichloroethene	20.0	20.1		ug/L		101	74 - 123	5	30
1,2-Dichloroethane	20.0	20.3		ug/L		102	76 - 121	1	30
1,2-Dichloropropane	20.0	17.2		ug/L		86	77 - 123	0	30
2-Butanone (MEK)	100	109		ug/L		109	64 - 120	4	30
2-Hexanone	100	84.7		ug/L		85	71 - 125	1	30
4-Methyl-2-pentanone (MIBK)	100	90.0		ug/L		90	78 - 124	2	30
Acetone	100	93.8		ug/L		94	39 - 150	0	30
Benzene	20.0	18.6		ug/L		93	77 - 121	2	30
Bromoform	20.0	14.3		ug/L		71	53 - 120	4	30
Trichlorofluoromethane	20.0	20.7		ug/L		103	71 - 143	1	30
Bromomethane	20.0	14.2		ug/L		71	10 - 150	2	30
Carbon disulfide	20.0	15.1		ug/L		75	69 - 133	2	30
Carbon tetrachloride	20.0	20.4		ug/L		102	70 - 132	0	30
Chlorobenzene	20.0	18.9		ug/L		94	80 - 120	2	30
Chlorodibromomethane	20.0	17.2		ug/L		86	73 - 120	4	30
Chloroethane	20.0	14.6		ug/L		73	52 - 150	3	30
Chloroform	20.0	21.4		ug/L		107	80 - 120	1	30
Chloromethane	20.0	15.1		ug/L		75	56 - 131	2	30
cis-1,2-Dichloroethene	20.0	20.3		ug/L		102	80 - 120	3	30
cis-1,3-Dichloropropene	20.0	18.0		ug/L		90	77 - 120	2	30
Dichlorobromomethane	20.0	17.5		ug/L		87	76 - 120	3	30
Ethylbenzene	20.0	19.0		ug/L		95	80 - 120	3	30
Methylene Chloride	20.0	19.9		ug/L		100	77 - 123	2	30
Styrene	20.0	18.6		ug/L		93	80 - 120	1	30
Tetrachloroethene	20.0	20.2		ug/L		101	78 - 122	1	30
Toluene	20.0	19.0		ug/L		95	80 - 120	0	30
trans-1,2-Dichloroethene	20.0	21.6		ug/L		108	79 - 120	3	30
trans-1,3-Dichloropropene	20.0	16.4		ug/L		82	76 - 120	1	30
Trichloroethene	20.0	19.5		ug/L		98	77 - 120	0	30
Vinyl chloride	20.0	15.6		ug/L		78	62 - 138	0	30

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 460-571302/4

Matrix: Water

Analysis Batch: 571302

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Xylenes, Total	40.0	39.1		ug/L		98	80 - 120	1	30
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	22.2		ug/L		111	59 - 150	2	30
Methyl tert-butyl ether	20.0	20.5		ug/L		102	79 - 122	1	30
Cyclohexane	20.0	19.4		ug/L		97	56 - 150	0	30
Ethylene Dibromide	20.0	19.0		ug/L		95	80 - 120	3	30
1,3-Dichlorobenzene	20.0	19.8		ug/L		99	80 - 120	0	30
1,4-Dichlorobenzene	20.0	18.8		ug/L		94	80 - 120	7	30
1,2-Dichlorobenzene	20.0	19.8		ug/L		99	80 - 120	2	30
Dichlorodifluoromethane	20.0	17.3		ug/L		87	50 - 131	0	30
1,2,4-Trichlorobenzene	20.0	19.5		ug/L		97	80 - 124	9	30
1,4-Dioxane	400	511		ug/L		128	10 - 150	5	30
1,2,3-Trichlorobenzene	20.0	21.2		ug/L		106	78 - 131	1	30
1,2-Dibromo-3-Chloropropane	20.0	18.1		ug/L		91	55 - 134	5	30
Chlorobromomethane	20.0	21.6		ug/L		108	77 - 127	2	30
Isopropylbenzene	20.0	19.6		ug/L		98	80 - 123	3	30
Methyl acetate	40.0	33.8		ug/L		85	66 - 144	1	30
Methylcyclohexane	20.0	19.9		ug/L		100	61 - 145	0	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		74 - 132
4-Bromofluorobenzene	92		77 - 124
Dibromofluoromethane (Surr)	100		72 - 131
Toluene-d8 (Surr)	95		80 - 120

Lab Sample ID: MB 460-571469/7

Matrix: Water

Analysis Batch: 571469

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/27/18 21:41	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			11/27/18 21:41	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			11/27/18 21:41	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			11/27/18 21:41	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			11/27/18 21:41	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			11/27/18 21:41	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			11/27/18 21:41	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			11/27/18 21:41	1
2-Hexanone	5.0	U	5.0	2.9	ug/L			11/27/18 21:41	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.7	ug/L			11/27/18 21:41	1
Acetone	5.0	U	5.0	5.0	ug/L			11/27/18 21:41	1
Benzene	1.0	U	1.0	0.43	ug/L			11/27/18 21:41	1
Bromoform	1.0	U	1.0	0.54	ug/L			11/27/18 21:41	1
Trichlorofluoromethane	1.0	U	1.0	0.14	ug/L			11/27/18 21:41	1
Bromomethane	1.0	U	1.0	1.0	ug/L			11/27/18 21:41	1
Carbon disulfide	1.0	U	1.0	0.16	ug/L			11/27/18 21:41	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			11/27/18 21:41	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			11/27/18 21:41	1

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 460-571469/7

Matrix: Water

Analysis Batch: 571469

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			11/27/18 21:41	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/27/18 21:41	1
Chloroform	1.0	U	1.0	0.33	ug/L			11/27/18 21:41	1
Chloromethane	1.0	U	1.0	0.14	ug/L			11/27/18 21:41	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			11/27/18 21:41	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			11/27/18 21:41	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			11/27/18 21:41	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			11/27/18 21:41	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			11/27/18 21:41	1
Styrene	1.0	U	1.0	0.42	ug/L			11/27/18 21:41	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			11/27/18 21:41	1
Toluene	1.0	U	1.0	0.38	ug/L			11/27/18 21:41	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			11/27/18 21:41	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			11/27/18 21:41	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			11/27/18 21:41	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			11/27/18 21:41	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			11/27/18 21:41	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/27/18 21:41	1
Methyl tert-butyl ether	1.0	U	1.0	0.47	ug/L			11/27/18 21:41	1
Cyclohexane	1.0	U	1.0	0.32	ug/L			11/27/18 21:41	1
Ethylene Dibromide	1.0	U	1.0	0.50	ug/L			11/27/18 21:41	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			11/27/18 21:41	1
1,4-Dichlorobenzene	1.0	U	1.0	0.76	ug/L			11/27/18 21:41	1
1,2-Dichlorobenzene	1.0	U	1.0	0.43	ug/L			11/27/18 21:41	1
Dichlorodifluoromethane	1.0	U	1.0	0.12	ug/L			11/27/18 21:41	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.37	ug/L			11/27/18 21:41	1
1,4-Dioxane	50	U	50	28	ug/L			11/27/18 21:41	1
1,2,3-Trichlorobenzene	1.0	U	1.0	0.36	ug/L			11/27/18 21:41	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.38	ug/L			11/27/18 21:41	1
Chlorobromomethane	1.0	U	1.0	0.41	ug/L			11/27/18 21:41	1
Isopropylbenzene	1.0	U	1.0	0.34	ug/L			11/27/18 21:41	1
Methyl acetate	5.0	U	5.0	0.31	ug/L			11/27/18 21:41	1
Methylcyclohexane	1.0	U	1.0	0.26	ug/L			11/27/18 21:41	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	119		74 - 132		11/27/18 21:41	1
4-Bromofluorobenzene	117		77 - 124		11/27/18 21:41	1
Dibromofluoromethane (Surr)	126		72 - 131		11/27/18 21:41	1
Toluene-d8 (Surr)	120		80 - 120		11/27/18 21:41	1

Lab Sample ID: LCS 460-571469/3

Matrix: Water

Analysis Batch: 571469

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	22.5		ug/L		113	75 - 125
1,1,2,2-Tetrachloroethane	20.0	19.0		ug/L		95	74 - 120
1,1,2-Trichloroethane	20.0	18.6		ug/L		93	78 - 120

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-571469/3

Matrix: Water

Analysis Batch: 571469

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	20.0	21.3		ug/L		106	77 - 123
1,1-Dichloroethene	20.0	25.1	*	ug/L		126	74 - 123
1,2-Dichloroethane	20.0	21.6		ug/L		108	76 - 121
1,2-Dichloropropane	20.0	18.9		ug/L		94	77 - 123
2-Butanone (MEK)	100	117		ug/L		117	64 - 120
2-Hexanone	100	92.6		ug/L		93	71 - 125
4-Methyl-2-pentanone (MIBK)	100	96.3		ug/L		96	78 - 124
Acetone	100	103		ug/L		103	39 - 150
Benzene	20.0	21.2		ug/L		106	77 - 121
Bromoform	20.0	14.9		ug/L		75	53 - 120
Trichlorofluoromethane	20.0	23.9		ug/L		120	71 - 143
Bromomethane	20.0	14.4		ug/L		72	10 - 150
Carbon disulfide	20.0	18.5		ug/L		93	69 - 133
Carbon tetrachloride	20.0	23.5		ug/L		117	70 - 132
Chlorobenzene	20.0	21.3		ug/L		106	80 - 120
Chlorodibromomethane	20.0	17.0		ug/L		85	73 - 120
Chloroethane	20.0	15.4		ug/L		77	52 - 150
Chloroform	20.0	24.6	*	ug/L		123	80 - 120
Chloromethane	20.0	19.3		ug/L		96	56 - 131
cis-1,2-Dichloroethene	20.0	22.9		ug/L		114	80 - 120
cis-1,3-Dichloropropene	20.0	18.6		ug/L		93	77 - 120
Dichlorobromomethane	20.0	18.7		ug/L		93	76 - 120
Ethylbenzene	20.0	21.6		ug/L		108	80 - 120
Methylene Chloride	20.0	23.2		ug/L		116	77 - 123
Styrene	20.0	20.1		ug/L		101	80 - 120
Tetrachloroethene	20.0	23.0		ug/L		115	78 - 122
Toluene	20.0	20.7		ug/L		104	80 - 120
trans-1,2-Dichloroethene	20.0	25.6	*	ug/L		128	79 - 120
trans-1,3-Dichloropropene	20.0	18.0		ug/L		90	76 - 120
Trichloroethene	20.0	22.5		ug/L		112	77 - 120
Vinyl chloride	20.0	19.8		ug/L		99	62 - 138
Xylenes, Total	40.0	43.0		ug/L		108	80 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	23.6		ug/L		118	59 - 150
Methyl tert-butyl ether	20.0	22.1		ug/L		110	79 - 122
Cyclohexane	20.0	21.8		ug/L		109	56 - 150
Ethylene Dibromide	20.0	20.8		ug/L		104	80 - 120
1,3-Dichlorobenzene	20.0	22.1		ug/L		110	80 - 120
1,4-Dichlorobenzene	20.0	21.1		ug/L		105	80 - 120
1,2-Dichlorobenzene	20.0	21.4		ug/L		107	80 - 120
Dichlorodifluoromethane	20.0	20.7		ug/L		103	50 - 131
1,2,4-Trichlorobenzene	20.0	23.7		ug/L		119	80 - 124
1,4-Dioxane	400	428		ug/L		107	10 - 150
1,2,3-Trichlorobenzene	20.0	24.2		ug/L		121	78 - 131
1,2-Dibromo-3-Chloropropane	20.0	19.7		ug/L		98	55 - 134
Chlorobromomethane	20.0	24.6		ug/L		123	77 - 127
Isopropylbenzene	20.0	22.5		ug/L		113	80 - 123
Methyl acetate	40.0	41.5		ug/L		104	66 - 144

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-571469/3

Matrix: Water

Analysis Batch: 571469

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylcyclohexane	20.0	21.6		ug/L		108	61 - 145
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1,2-Dichloroethane-d4 (Surr)	109		74 - 132				
4-Bromofluorobenzene	102		77 - 124				
Dibromofluoromethane (Surr)	109		72 - 131				
Toluene-d8 (Surr)	105		80 - 120				

Lab Sample ID: LCSD 460-571469/4

Matrix: Water

Analysis Batch: 571469

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	20.0	19.9		ug/L		99	75 - 125	13	30
1,1,2,2-Tetrachloroethane	20.0	17.4		ug/L		87	74 - 120	9	30
1,1,2-Trichloroethane	20.0	16.9		ug/L		85	78 - 120	9	30
1,1-Dichloroethane	20.0	18.9		ug/L		94	77 - 123	12	30
1,1-Dichloroethene	20.0	21.5		ug/L		108	74 - 123	15	30
1,2-Dichloroethane	20.0	21.1		ug/L		105	76 - 121	3	30
1,2-Dichloropropane	20.0	17.4		ug/L		87	77 - 123	8	30
2-Butanone (MEK)	100	103		ug/L		103	64 - 120	13	30
2-Hexanone	100	85.5		ug/L		85	71 - 125	8	30
4-Methyl-2-pentanone (MIBK)	100	89.5		ug/L		89	78 - 124	7	30
Acetone	100	102		ug/L		102	39 - 150	1	30
Benzene	20.0	19.0		ug/L		95	77 - 121	11	30
Bromoform	20.0	13.7		ug/L		68	53 - 120	9	30
Trichlorofluoromethane	20.0	20.7		ug/L		103	71 - 143	15	30
Bromomethane	20.0	14.0		ug/L		70	10 - 150	3	30
Carbon disulfide	20.0	16.5		ug/L		83	69 - 133	11	30
Carbon tetrachloride	20.0	19.9		ug/L		99	70 - 132	17	30
Chlorobenzene	20.0	18.9		ug/L		95	80 - 120	12	30
Chlorodibromomethane	20.0	16.4		ug/L		82	73 - 120	4	30
Chloroethane	20.0	14.3		ug/L		72	52 - 150	7	30
Chloroform	20.0	21.5		ug/L		108	80 - 120	13	30
Chloromethane	20.0	16.7		ug/L		84	56 - 131	14	30
cis-1,2-Dichloroethene	20.0	21.1		ug/L		105	80 - 120	8	30
cis-1,3-Dichloropropene	20.0	17.9		ug/L		89	77 - 120	4	30
Dichlorobromomethane	20.0	17.4		ug/L		87	76 - 120	7	30
Ethylbenzene	20.0	19.0		ug/L		95	80 - 120	13	30
Methylene Chloride	20.0	21.4		ug/L		107	77 - 123	8	30
Styrene	20.0	18.3		ug/L		92	80 - 120	9	30
Tetrachloroethene	20.0	19.6		ug/L		98	78 - 122	16	30
Toluene	20.0	18.7		ug/L		94	80 - 120	10	30
trans-1,2-Dichloroethene	20.0	22.3		ug/L		112	79 - 120	14	30
trans-1,3-Dichloropropene	20.0	16.3		ug/L		82	76 - 120	10	30
Trichloroethene	20.0	19.2		ug/L		96	77 - 120	16	30
Vinyl chloride	20.0	16.8		ug/L		84	62 - 138	16	30
Xylenes, Total	40.0	38.8		ug/L		97	80 - 120	10	30

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 460-571469/4

Matrix: Water

Analysis Batch: 571469

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	20.0		ug/L		100	59 - 150	16	30
Methyl tert-butyl ether	20.0	20.4		ug/L		102	79 - 122	8	30
Cyclohexane	20.0	17.8		ug/L		89	56 - 150	20	30
Ethylene Dibromide	20.0	18.9		ug/L		94	80 - 120	9	30
1,3-Dichlorobenzene	20.0	19.8		ug/L		99	80 - 120	11	30
1,4-Dichlorobenzene	20.0	19.3		ug/L		96	80 - 120	9	30
1,2-Dichlorobenzene	20.0	19.3		ug/L		97	80 - 120	10	30
Dichlorodifluoromethane	20.0	17.3		ug/L		87	50 - 131	18	30
1,2,4-Trichlorobenzene	20.0	20.5		ug/L		102	80 - 124	15	30
1,4-Dioxane	400	371		ug/L		93	10 - 150	14	30
1,2,3-Trichlorobenzene	20.0	21.8		ug/L		109	78 - 131	11	30
1,2-Dibromo-3-Chloropropane	20.0	18.1		ug/L		90	55 - 134	8	30
Chlorobromomethane	20.0	22.5		ug/L		113	77 - 127	9	30
Isopropylbenzene	20.0	20.1		ug/L		100	80 - 123	11	30
Methyl acetate	40.0	35.8		ug/L		90	66 - 144	15	30
Methylcyclohexane	20.0	17.7		ug/L		89	61 - 145	20	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	102		74 - 132
4-Bromofluorobenzene	96		77 - 124
Dibromofluoromethane (Surr)	102		72 - 131
Toluene-d8 (Surr)	96		80 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 460-569917/1-A

Matrix: Water

Analysis Batch: 570132

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 569917

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	10	U	10	1.2	ug/L		11/20/18 09:24	11/21/18 06:39	1
2,2'-oxybis[1-chloropropane]	10	U	10	0.63	ug/L		11/20/18 09:24	11/21/18 06:39	1
2,4,5-Trichlorophenol	10	U	10	0.28	ug/L		11/20/18 09:24	11/21/18 06:39	1
2,4,6-Trichlorophenol	10	U	10	0.30	ug/L		11/20/18 09:24	11/21/18 06:39	1
2,4-Dichlorophenol	10	U	10	0.42	ug/L		11/20/18 09:24	11/21/18 06:39	1
2,4-Dimethylphenol	10	U	10	0.24	ug/L		11/20/18 09:24	11/21/18 06:39	1
2,4-Dinitrophenol	20	U	20	14	ug/L		11/20/18 09:24	11/21/18 06:39	1
2,4-Dinitrotoluene	2.0	U	2.0	1.0	ug/L		11/20/18 09:24	11/21/18 06:39	1
2,6-Dinitrotoluene	2.0	U	2.0	0.39	ug/L		11/20/18 09:24	11/21/18 06:39	1
2-Chloronaphthalene	10	U	10	1.2	ug/L		11/20/18 09:24	11/21/18 06:39	1
2-Chlorophenol	10	U	10	0.38	ug/L		11/20/18 09:24	11/21/18 06:39	1
2-Methylnaphthalene	10	U	10	1.1	ug/L		11/20/18 09:24	11/21/18 06:39	1
2-Methylphenol	10	U	10	0.26	ug/L		11/20/18 09:24	11/21/18 06:39	1
2-Nitroaniline	10	U	10	0.47	ug/L		11/20/18 09:24	11/21/18 06:39	1
2-Nitrophenol	10	U	10	0.75	ug/L		11/20/18 09:24	11/21/18 06:39	1
3,3'-Dichlorobenzidine	10	U	10	1.4	ug/L		11/20/18 09:24	11/21/18 06:39	1
3-Nitroaniline	10	U	10	0.96	ug/L		11/20/18 09:24	11/21/18 06:39	1

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-569917/1-A

Matrix: Water

Analysis Batch: 570132

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 569917

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,6-Dinitro-2-methylphenol	20	U	20	13	ug/L		11/20/18 09:24	11/21/18 06:39	1
4-Bromophenyl phenyl ether	10	U	10	0.75	ug/L		11/20/18 09:24	11/21/18 06:39	1
4-Chloro-3-methylphenol	10	U	10	0.58	ug/L		11/20/18 09:24	11/21/18 06:39	1
4-Chloroaniline	10	U	10	1.9	ug/L		11/20/18 09:24	11/21/18 06:39	1
4-Chlorophenyl phenyl ether	10	U	10	1.3	ug/L		11/20/18 09:24	11/21/18 06:39	1
4-Methylphenol	10	U	10	0.24	ug/L		11/20/18 09:24	11/21/18 06:39	1
4-Nitroaniline	10	U	10	0.54	ug/L		11/20/18 09:24	11/21/18 06:39	1
4-Nitrophenol	20	U	20	0.69	ug/L		11/20/18 09:24	11/21/18 06:39	1
Acenaphthene	10	U	10	1.1	ug/L		11/20/18 09:24	11/21/18 06:39	1
Acenaphthylene	10	U	10	0.82	ug/L		11/20/18 09:24	11/21/18 06:39	1
Acetophenone	10	U	10	0.79	ug/L		11/20/18 09:24	11/21/18 06:39	1
Anthracene	10	U	10	0.63	ug/L		11/20/18 09:24	11/21/18 06:39	1
Atrazine	2.0	U	2.0	1.3	ug/L		11/20/18 09:24	11/21/18 06:39	1
Benzaldehyde	10	U	10	0.59	ug/L		11/20/18 09:24	11/21/18 06:39	1
Benzo[a]anthracene	1.0	U	1.0	0.59	ug/L		11/20/18 09:24	11/21/18 06:39	1
Benzo[a]pyrene	1.0	U	1.0	0.41	ug/L		11/20/18 09:24	11/21/18 06:39	1
Benzo[b]fluoranthene	2.0	U	2.0	1.1	ug/L		11/20/18 09:24	11/21/18 06:39	1
Benzo[g,h,i]perylene	10	U	10	1.4	ug/L		11/20/18 09:24	11/21/18 06:39	1
Benzo[k]fluoranthene	1.0	U	1.0	0.67	ug/L		11/20/18 09:24	11/21/18 06:39	1
Bis(2-chloroethoxy)methane	10	U	10	0.24	ug/L		11/20/18 09:24	11/21/18 06:39	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.30	ug/L		11/20/18 09:24	11/21/18 06:39	1
Bis(2-ethylhexyl) phthalate	2.0	U	2.0	1.7	ug/L		11/20/18 09:24	11/21/18 06:39	1
Butyl benzyl phthalate	10	U	10	0.85	ug/L		11/20/18 09:24	11/21/18 06:39	1
Caprolactam	10	U	10	0.68	ug/L		11/20/18 09:24	11/21/18 06:39	1
Carbazole	10	U	10	0.68	ug/L		11/20/18 09:24	11/21/18 06:39	1
Chrysene	2.0	U	2.0	0.91	ug/L		11/20/18 09:24	11/21/18 06:39	1
Dibenz(a,h)anthracene	1.0	U	1.0	0.72	ug/L		11/20/18 09:24	11/21/18 06:39	1
Dibenzofuran	10	U	10	1.1	ug/L		11/20/18 09:24	11/21/18 06:39	1
Diethyl phthalate	10	U	10	0.98	ug/L		11/20/18 09:24	11/21/18 06:39	1
Dimethyl phthalate	10	U	10	0.77	ug/L		11/20/18 09:24	11/21/18 06:39	1
Di-n-butyl phthalate	10	U	10	0.84	ug/L		11/20/18 09:24	11/21/18 06:39	1
Di-n-octyl phthalate	10	U	10	4.8	ug/L		11/20/18 09:24	11/21/18 06:39	1
Fluoranthene	10	U	10	0.84	ug/L		11/20/18 09:24	11/21/18 06:39	1
Fluorene	10	U	10	0.91	ug/L		11/20/18 09:24	11/21/18 06:39	1
Hexachlorobenzene	1.0	U	1.0	0.40	ug/L		11/20/18 09:24	11/21/18 06:39	1
Hexachlorobutadiene	1.0	U	1.0	0.78	ug/L		11/20/18 09:24	11/21/18 06:39	1
Hexachlorocyclopentadiene	10	U	10	1.7	ug/L		11/20/18 09:24	11/21/18 06:39	1
Hexachloroethane	2.0	U	2.0	1.2	ug/L		11/20/18 09:24	11/21/18 06:39	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	1.3	ug/L		11/20/18 09:24	11/21/18 06:39	1
Isophorone	10	U	10	0.80	ug/L		11/20/18 09:24	11/21/18 06:39	1
Naphthalene	10	U	10	1.1	ug/L		11/20/18 09:24	11/21/18 06:39	1
Nitrobenzene	1.0	U	1.0	0.57	ug/L		11/20/18 09:24	11/21/18 06:39	1
N-Nitrosodi-n-propylamine	1.0	U	1.0	0.43	ug/L		11/20/18 09:24	11/21/18 06:39	1
N-Nitrosodiphenylamine	10	U	10	0.89	ug/L		11/20/18 09:24	11/21/18 06:39	1
Pentachlorophenol	20	U	20	1.4	ug/L		11/20/18 09:24	11/21/18 06:39	1
Phenanthrene	10	U	10	0.58	ug/L		11/20/18 09:24	11/21/18 06:39	1
Phenol	10	U	10	0.29	ug/L		11/20/18 09:24	11/21/18 06:39	1
Pyrene	10	U	10	1.6	ug/L		11/20/18 09:24	11/21/18 06:39	1

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-569917/1-A

Matrix: Water

Analysis Batch: 570132

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 569917

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	90		26 - 139	11/20/18 09:24	11/21/18 06:39	1
2-Fluorobiphenyl	79		45 - 107	11/20/18 09:24	11/21/18 06:39	1
2-Fluorophenol (Surr)	55		25 - 58	11/20/18 09:24	11/21/18 06:39	1
Nitrobenzene-d5 (Surr)	99		51 - 108	11/20/18 09:24	11/21/18 06:39	1
Phenol-d5 (Surr)	40	X	14 - 39	11/20/18 09:24	11/21/18 06:39	1
Terphenyl-d14 (Surr)	78		40 - 148	11/20/18 09:24	11/21/18 06:39	1

Lab Sample ID: LCS 460-569917/2-A

Matrix: Water

Analysis Batch: 570132

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 569917

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1'-Biphenyl	80.0	63.0		ug/L		79	54 - 108
2,2'-oxybis[1-chloropropane]	80.0	70.9		ug/L		89	50 - 108
2,4,5-Trichlorophenol	80.0	72.8		ug/L		91	59 - 117
2,4,6-Trichlorophenol	80.0	76.8		ug/L		96	62 - 120
2,4-Dichlorophenol	80.0	72.2		ug/L		90	62 - 102
2,4-Dimethylphenol	80.0	69.3		ug/L		87	61 - 95
2,4-Dinitrophenol	160	162		ug/L		101	45 - 125
2,4-Dinitrotoluene	80.0	77.0		ug/L		96	70 - 123
2,6-Dinitrotoluene	80.0	78.9		ug/L		99	68 - 121
2-Chloronaphthalene	80.0	62.5		ug/L		78	54 - 105
2-Chlorophenol	80.0	66.8		ug/L		83	54 - 92
2-Methylnaphthalene	80.0	54.1		ug/L		68	47 - 104
2-Methylphenol	80.0	59.0		ug/L		74	43 - 80
2-Nitroaniline	80.0	68.0		ug/L		85	46 - 124
2-Nitrophenol	80.0	76.7		ug/L		96	58 - 109
3,3'-Dichlorobenzidine	80.0	71.0		ug/L		89	68 - 123
3-Nitroaniline	80.0	64.4		ug/L		81	60 - 117
4,6-Dinitro-2-methylphenol	160	154		ug/L		96	59 - 132
4-Bromophenyl phenyl ether	80.0	70.3		ug/L		88	57 - 126
4-Chloro-3-methylphenol	80.0	66.9		ug/L		84	58 - 98
4-Chloroaniline	80.0	63.3		ug/L		79	51 - 108
4-Chlorophenyl phenyl ether	80.0	69.4		ug/L		87	60 - 114
4-Nitroaniline	80.0	68.6		ug/L		86	48 - 135
4-Nitrophenol	160	73.9		ug/L		46	11 - 47
Acenaphthene	80.0	68.0		ug/L		85	58 - 107
Acenaphthylene	80.0	73.2		ug/L		92	61 - 106
Acetophenone	80.0	67.3		ug/L		84	54 - 115
Anthracene	80.0	70.0		ug/L		87	70 - 118
Benzo[a]anthracene	80.0	69.7		ug/L		87	73 - 119
Benzo[a]pyrene	80.0	72.5		ug/L		91	76 - 125
Benzo[b]fluoranthene	80.0	70.3		ug/L		88	78 - 123
Benzo[g,h,i]perylene	80.0	73.5		ug/L		92	63 - 133
Benzo[k]fluoranthene	80.0	73.6		ug/L		92	71 - 126
Bis(2-chloroethoxy)methane	80.0	73.5		ug/L		92	67 - 104
Bis(2-chloroethyl)ether	80.0	69.8		ug/L		87	63 - 106
Bis(2-ethylhexyl) phthalate	80.0	79.4		ug/L		99	63 - 135

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-569917/2-A

Matrix: Water

Analysis Batch: 570132

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 569917

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Butyl benzyl phthalate	80.0	79.6		ug/L		99	66 - 129
Carbazole	80.0	70.9		ug/L		89	68 - 121
Chrysene	80.0	73.9		ug/L		92	73 - 121
Dibenz(a,h)anthracene	80.0	76.4		ug/L		96	59 - 136
Dibenzofuran	80.0	68.1		ug/L		85	67 - 108
Diethyl phthalate	80.0	73.7		ug/L		92	61 - 129
Dimethyl phthalate	80.0	71.5		ug/L		89	65 - 121
Di-n-butyl phthalate	80.0	76.5		ug/L		96	64 - 130
Di-n-octyl phthalate	80.0	78.8		ug/L		98	64 - 131
Fluoranthene	80.0	71.9		ug/L		90	66 - 123
Fluorene	80.0	69.8		ug/L		87	67 - 112
Hexachlorobenzene	80.0	69.4		ug/L		87	63 - 125
Hexachlorobutadiene	80.0	43.6		ug/L		54	34 - 99
Hexachlorocyclopentadiene	80.0	52.9		ug/L		66	18 - 99
Hexachloroethane	80.0	42.3		ug/L		53	39 - 92
Indeno[1,2,3-cd]pyrene	80.0	73.4		ug/L		92	57 - 142
Isophorone	80.0	65.4		ug/L		82	55 - 105
Naphthalene	80.0	55.4		ug/L		69	51 - 98
Nitrobenzene	80.0	68.0		ug/L		85	56 - 106
N-Nitrosodi-n-propylamine	80.0	70.9		ug/L		89	48 - 118
N-Nitrosodiphenylamine	80.0	72.7		ug/L		91	69 - 118
Pentachlorophenol	160	131		ug/L		82	54 - 120
Phenanthrene	80.0	69.6		ug/L		87	70 - 117
Phenol	80.0	36.6	*	ug/L		46	16 - 43
Pyrene	80.0	72.4		ug/L		90	63 - 129

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	92		26 - 139
2-Fluorobiphenyl	80		45 - 107
2-Fluorophenol (Surr)	58		25 - 58
Nitrobenzene-d5 (Surr)	95		51 - 108
Phenol-d5 (Surr)	41	X	14 - 39
Terphenyl-d14 (Surr)	80		40 - 148

Lab Sample ID: LCS 460-569917/4-A

Matrix: Water

Analysis Batch: 570132

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 569917

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Atrazine	160	155		ug/L		97	38 - 146
Benzaldehyde	160	143		ug/L		89	46 - 111
Caprolactam	160	40.5		ug/L		25	10 - 43

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	81		26 - 139
2-Fluorobiphenyl	74		45 - 107
2-Fluorophenol (Surr)	52		25 - 58

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-569917/4-A

Matrix: Water

Analysis Batch: 570132

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 569917

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5 (Surr)	92		51 - 108
Phenol-d5 (Surr)	37		14 - 39
Terphenyl-d14 (Surr)	72		40 - 148

Lab Sample ID: LCSD 460-569917/3-A

Matrix: Water

Analysis Batch: 570132

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 569917

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1'-Biphenyl	80.0	62.4		ug/L		78	54 - 108	1	30
2,2'-oxybis[1-chloropropane]	80.0	68.7		ug/L		86	50 - 108	3	30
2,4,5-Trichlorophenol	80.0	71.7		ug/L		90	59 - 117	2	30
2,4,6-Trichlorophenol	80.0	76.2		ug/L		95	62 - 120	1	30
2,4-Dichlorophenol	80.0	71.2		ug/L		89	62 - 102	1	30
2,4-Dimethylphenol	80.0	69.6		ug/L		87	61 - 95	1	30
2,4-Dinitrophenol	160	164		ug/L		102	45 - 125	1	30
2,4-Dinitrotoluene	80.0	78.0		ug/L		97	70 - 123	1	30
2,6-Dinitrotoluene	80.0	78.9		ug/L		99	68 - 121	0	30
2-Chloronaphthalene	80.0	62.0		ug/L		78	54 - 105	1	30
2-Chlorophenol	80.0	65.2		ug/L		82	54 - 92	2	30
2-Methylnaphthalene	80.0	53.3		ug/L		67	47 - 104	2	30
2-Methylphenol	80.0	58.1		ug/L		73	43 - 80	1	30
2-Nitroaniline	80.0	69.3		ug/L		87	46 - 124	2	30
2-Nitrophenol	80.0	75.2		ug/L		94	58 - 109	2	30
3,3'-Dichlorobenzidine	80.0	69.1		ug/L		86	68 - 123	3	30
3-Nitroaniline	80.0	64.6		ug/L		81	60 - 117	0	30
4,6-Dinitro-2-methylphenol	160	153		ug/L		96	59 - 132	1	30
4-Bromophenyl phenyl ether	80.0	69.5		ug/L		87	57 - 126	1	30
4-Chloro-3-methylphenol	80.0	66.6		ug/L		83	58 - 98	1	30
4-Chloroaniline	80.0	60.3		ug/L		75	51 - 108	5	30
4-Chlorophenyl phenyl ether	80.0	69.8		ug/L		87	60 - 114	1	30
4-Nitroaniline	80.0	71.0		ug/L		89	48 - 135	3	30
4-Nitrophenol	160	74.7		ug/L		47	11 - 47	1	30
Acenaphthene	80.0	67.7		ug/L		85	58 - 107	0	30
Acenaphthylene	80.0	72.2		ug/L		90	61 - 106	1	30
Acetophenone	80.0	69.6		ug/L		87	54 - 115	3	30
Anthracene	80.0	69.6		ug/L		87	70 - 118	1	30
Benzo[a]anthracene	80.0	70.9		ug/L		89	73 - 119	2	30
Benzo[a]pyrene	80.0	72.7		ug/L		91	76 - 125	0	30
Benzo[b]fluoranthene	80.0	72.2		ug/L		90	78 - 123	3	30
Benzo[g,h,i]perylene	80.0	74.9		ug/L		94	63 - 133	2	30
Benzo[k]fluoranthene	80.0	71.5		ug/L		89	71 - 126	3	30
Bis(2-chloroethoxy)methane	80.0	73.1		ug/L		91	67 - 104	1	30
Bis(2-chloroethyl)ether	80.0	68.7		ug/L		86	63 - 106	2	30
Bis(2-ethylhexyl) phthalate	80.0	79.7		ug/L		100	63 - 135	0	30
Butyl benzyl phthalate	80.0	79.9		ug/L		100	66 - 129	0	30
Carbazole	80.0	72.7		ug/L		91	68 - 121	3	30
Chrysene	80.0	72.7		ug/L		91	73 - 121	2	30

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 460-569917/3-A

Matrix: Water

Analysis Batch: 570132

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 569917

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dibenz(a,h)anthracene	80.0	78.7		ug/L		98	59 - 136	3	30
Dibenzofuran	80.0	68.2		ug/L		85	67 - 108	0	30
Diethyl phthalate	80.0	73.9		ug/L		92	61 - 129	0	30
Dimethyl phthalate	80.0	73.0		ug/L		91	65 - 121	2	30
Di-n-butyl phthalate	80.0	78.4		ug/L		98	64 - 130	3	30
Di-n-octyl phthalate	80.0	77.8		ug/L		97	64 - 131	1	30
Fluoranthene	80.0	73.0		ug/L		91	66 - 123	1	30
Fluorene	80.0	69.3		ug/L		87	67 - 112	1	30
Hexachlorobenzene	80.0	69.2		ug/L		87	63 - 125	0	30
Hexachlorobutadiene	80.0	43.0		ug/L		54	34 - 99	1	30
Hexachlorocyclopentadiene	80.0	50.2		ug/L		63	18 - 99	5	30
Hexachloroethane	80.0	40.8		ug/L		51	39 - 92	4	30
Indeno[1,2,3-cd]pyrene	80.0	76.3		ug/L		95	57 - 142	4	30
Isophorone	80.0	65.5		ug/L		82	55 - 105	0	30
Naphthalene	80.0	53.7		ug/L		67	51 - 98	3	30
Nitrobenzene	80.0	69.4		ug/L		87	56 - 106	2	30
N-Nitrosodi-n-propylamine	80.0	72.1		ug/L		90	48 - 118	2	30
N-Nitrosodiphenylamine	80.0	71.8		ug/L		90	69 - 118	1	30
Pentachlorophenol	160	132		ug/L		82	54 - 120	0	30
Phenanthrene	80.0	70.8		ug/L		88	70 - 117	2	30
Phenol	80.0	36.4 *		ug/L		45	16 - 43	1	30
Pyrene	80.0	71.1		ug/L		89	63 - 129	2	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	93		26 - 139
2-Fluorobiphenyl	83		45 - 107
2-Fluorophenol (Surr)	55		25 - 58
Nitrobenzene-d5 (Surr)	97		51 - 108
Phenol-d5 (Surr)	40	X	14 - 39
Terphenyl-d14 (Surr)	78		40 - 148

Lab Sample ID: LCSD 460-569917/5-A

Matrix: Water

Analysis Batch: 570132

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 569917

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Atrazine	160	156		ug/L		98	38 - 146	1	30
Benzaldehyde	160	152		ug/L		95	46 - 111	6	30
Caprolactam	160	33.5		ug/L		21	10 - 43	19	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	88		26 - 139
2-Fluorobiphenyl	77		45 - 107
2-Fluorophenol (Surr)	52		25 - 58
Nitrobenzene-d5 (Surr)	98		51 - 108
Phenol-d5 (Surr)	37		14 - 39
Terphenyl-d14 (Surr)	74		40 - 148

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-169523-6 MS

Matrix: Water

Analysis Batch: 570132

Client Sample ID: MW-CSB-60

Prep Type: Total/NA

Prep Batch: 569917

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
1,1'-Biphenyl	10	U	80.0	64.3		ug/L		80	54 - 108
2,2'-oxybis[1-chloropropane]	10	U	80.0	68.1		ug/L		85	50 - 108
2,4,5-Trichlorophenol	10	U	80.0	66.1		ug/L		83	59 - 117
2,4,6-Trichlorophenol	10	U	80.0	70.2		ug/L		88	62 - 120
2,4-Dichlorophenol	10	U	80.0	65.3		ug/L		82	62 - 102
2,4-Dimethylphenol	10	U	80.0	63.6		ug/L		79	61 - 95
2,4-Dinitrophenol	20	U	160	153		ug/L		96	45 - 125
2,4-Dinitrotoluene	2.0	U	80.0	73.5		ug/L		92	70 - 123
2,6-Dinitrotoluene	2.0	U	80.0	73.9		ug/L		92	68 - 121
2-Chloronaphthalene	10	U	80.0	63.7		ug/L		80	54 - 105
2-Chlorophenol	10	U	80.0	59.4		ug/L		74	54 - 92
2-Methylnaphthalene	10	U	80.0	58.9		ug/L		74	47 - 104
2-Methylphenol	10	U	80.0	52.1		ug/L		65	43 - 80
2-Nitroaniline	10	U	80.0	65.0		ug/L		81	46 - 124
2-Nitrophenol	10	U	80.0	70.9		ug/L		89	58 - 109
3,3'-Dichlorobenzidine	10	U	80.0	54.7		ug/L		68	68 - 123
3-Nitroaniline	10	U	80.0	58.1		ug/L		73	60 - 117
4,6-Dinitro-2-methylphenol	20	U	160	143		ug/L		90	59 - 132
4-Bromophenyl phenyl ether	10	U	80.0	64.7		ug/L		81	57 - 126
4-Chloro-3-methylphenol	10	U	80.0	62.4		ug/L		78	58 - 98
4-Chloroaniline	10	U	80.0	56.9		ug/L		71	51 - 108
4-Chlorophenyl phenyl ether	10	U	80.0	67.3		ug/L		84	60 - 114
4-Nitroaniline	10	U	80.0	64.4		ug/L		81	48 - 135
4-Nitrophenol	20	U	160	63.3		ug/L		40	11 - 47
Acenaphthene	10	U	80.0	66.6		ug/L		83	58 - 107
Acenaphthylene	10	U	80.0	72.3		ug/L		90	61 - 106
Acetophenone	10	U	80.0	65.2		ug/L		82	54 - 115
Anthracene	10	U	80.0	65.9		ug/L		82	70 - 118
Atrazine	2.0	U	160	149		ug/L		93	38 - 146
Benzaldehyde	10	U	160	132		ug/L		82	46 - 111
Benzo[a]anthracene	1.0	U	80.0	65.0		ug/L		81	73 - 119
Benzo[a]pyrene	1.0	U	80.0	67.5		ug/L		84	76 - 125
Benzo[b]fluoranthene	2.0	U	80.0	64.9		ug/L		81	78 - 123
Benzo[g,h,i]perylene	10	U	80.0	71.4		ug/L		89	63 - 133
Benzo[k]fluoranthene	1.0	U	80.0	65.6		ug/L		82	71 - 126
Bis(2-chloroethoxy)methane	10	U	80.0	68.9		ug/L		86	67 - 104
Bis(2-chloroethyl)ether	1.0	U	80.0	65.6		ug/L		82	63 - 106
Bis(2-ethylhexyl) phthalate	2.0	U	80.0	75.1		ug/L		94	63 - 135
Butyl benzyl phthalate	10	U	80.0	75.1		ug/L		94	66 - 129
Caprolactam	10	U	160	33.2		ug/L		21	10 - 43
Carbazole	10	U	80.0	67.7		ug/L		85	68 - 121
Chrysene	2.0	U	80.0	66.5		ug/L		83	73 - 121
Dibenz(a,h)anthracene	1.0	U	80.0	72.9		ug/L		91	59 - 136
Dibenzofuran	10	U	80.0	66.5		ug/L		83	67 - 108
Diethyl phthalate	10	U	80.0	70.0		ug/L		88	61 - 129
Dimethyl phthalate	10	U	80.0	68.8		ug/L		86	65 - 121
Di-n-butyl phthalate	10	U	80.0	73.6		ug/L		92	64 - 130
Di-n-octyl phthalate	10	U	80.0	71.5		ug/L		89	64 - 131

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-169523-6 MS

Matrix: Water

Analysis Batch: 570132

Client Sample ID: MW-CSB-60

Prep Type: Total/NA

Prep Batch: 569917

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoranthene	10	U	80.0	69.5		ug/L		87	66 - 123
Fluorene	10	U	80.0	67.6		ug/L		84	67 - 112
Hexachlorobenzene	1.0	U	80.0	64.8		ug/L		81	63 - 125
Hexachlorobutadiene	1.0	U	80.0	44.0		ug/L		55	34 - 99
Hexachlorocyclopentadiene	10	U	80.0	55.4		ug/L		69	18 - 99
Hexachloroethane	2.0	U	80.0	40.1		ug/L		50	39 - 92
Indeno[1,2,3-cd]pyrene	2.0	U	80.0	71.3		ug/L		89	57 - 142
Isophorone	10	U	80.0	62.6		ug/L		78	55 - 105
Naphthalene	10	U	80.0	57.0		ug/L		71	51 - 98
Nitrobenzene	1.0	U	80.0	66.4		ug/L		83	56 - 106
N-Nitrosodi-n-propylamine	1.0	U	80.0	69.1		ug/L		86	48 - 118
N-Nitrosodiphenylamine	10	U	80.0	66.5		ug/L		83	69 - 118
Pentachlorophenol	20	U	160	132		ug/L		82	54 - 120
Phenanthrene	10	U	80.0	66.1		ug/L		83	70 - 117
Phenol	10	U * F1	80.0	29.4		ug/L		37	16 - 43
Pyrene	10	U	80.0	67.1		ug/L		84	63 - 129

Surrogate	MS %Recovery	MS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	84		26 - 139
2-Fluorobiphenyl	77		45 - 107
2-Fluorophenol (Surr)	46		25 - 58
Nitrobenzene-d5 (Surr)	90		51 - 108
Phenol-d5 (Surr)	32		14 - 39
Terphenyl-d14 (Surr)	50		40 - 148

Lab Sample ID: 460-169523-6 MSD

Matrix: Water

Analysis Batch: 570132

Client Sample ID: MW-CSB-60

Prep Type: Total/NA

Prep Batch: 569917

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
1,1'-Biphenyl	10	U	80.0	70.1		ug/L		88	54 - 108	9	30
2,2'-oxybis[1-chloropropane]	10	U	80.0	75.2		ug/L		94	50 - 108	10	30
2,4,5-Trichlorophenol	10	U	80.0	72.2		ug/L		90	59 - 117	9	30
2,4,6-Trichlorophenol	10	U	80.0	74.8		ug/L		94	62 - 120	6	30
2,4-Dichlorophenol	10	U	80.0	71.6		ug/L		89	62 - 102	9	30
2,4-Dimethylphenol	10	U	80.0	69.8		ug/L		87	61 - 95	9	30
2,4-Dinitrophenol	20	U	160	162		ug/L		101	45 - 125	6	30
2,4-Dinitrotoluene	2.0	U	80.0	77.5		ug/L		97	70 - 123	5	30
2,6-Dinitrotoluene	2.0	U	80.0	80.4		ug/L		101	68 - 121	8	30
2-Chloronaphthalene	10	U	80.0	70.0		ug/L		87	54 - 105	9	30
2-Chlorophenol	10	U	80.0	66.1		ug/L		83	54 - 92	11	30
2-Methylnaphthalene	10	U	80.0	66.3		ug/L		83	47 - 104	12	30
2-Methylphenol	10	U	80.0	59.5		ug/L		74	43 - 80	13	30
2-Nitroaniline	10	U	80.0	70.5		ug/L		88	46 - 124	8	30
2-Nitrophenol	10	U	80.0	78.5		ug/L		98	58 - 109	10	30
3,3'-Dichlorobenzidine	10	U	80.0	58.5		ug/L		73	68 - 123	7	30
3-Nitroaniline	10	U	80.0	63.4		ug/L		79	60 - 117	9	30
4,6-Dinitro-2-methylphenol	20	U	160	150		ug/L		94	59 - 132	4	30

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-169523-6 MSD

Matrix: Water

Analysis Batch: 570132

Client Sample ID: MW-CSB-60

Prep Type: Total/NA

Prep Batch: 569917

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4-Bromophenyl phenyl ether	10	U	80.0	69.6		ug/L		87	57 - 126	7	30
4-Chloro-3-methylphenol	10	U	80.0	69.1		ug/L		86	58 - 98	10	30
4-Chloroaniline	10	U	80.0	63.8		ug/L		80	51 - 108	11	30
4-Chlorophenyl phenyl ether	10	U	80.0	71.0		ug/L		89	60 - 114	5	30
4-Nitroaniline	10	U	80.0	69.0		ug/L		86	48 - 135	7	30
4-Nitrophenol	20	U	160	70.2		ug/L		44	11 - 47	10	30
Acenaphthene	10	U	80.0	70.9		ug/L		89	58 - 107	6	30
Acenaphthylene	10	U	80.0	77.9		ug/L		97	61 - 106	7	30
Acetophenone	10	U	80.0	72.1		ug/L		90	54 - 115	10	30
Anthracene	10	U	80.0	69.5		ug/L		87	70 - 118	5	30
Atrazine	2.0	U	160	128		ug/L		80	38 - 146	15	30
Benzaldehyde	10	U	160	124		ug/L		78	46 - 111	6	30
Benzo[a]anthracene	1.0	U	80.0	69.5		ug/L		87	73 - 119	7	30
Benzo[a]pyrene	1.0	U	80.0	71.7		ug/L		90	76 - 125	6	30
Benzo[b]fluoranthene	2.0	U	80.0	69.5		ug/L		87	78 - 123	7	30
Benzo[g,h,i]perylene	10	U	80.0	74.3		ug/L		93	63 - 133	4	30
Benzo[k]fluoranthene	1.0	U	80.0	71.9		ug/L		90	71 - 126	9	30
Bis(2-chloroethoxy)methane	10	U	80.0	74.5		ug/L		93	67 - 104	8	30
Bis(2-chloroethyl)ether	1.0	U	80.0	71.0		ug/L		89	63 - 106	8	30
Bis(2-ethylhexyl) phthalate	2.0	U	80.0	81.4		ug/L		102	63 - 135	8	30
Butyl benzyl phthalate	10	U	80.0	81.9		ug/L		102	66 - 129	9	30
Caprolactam	10	U	160	39.4		ug/L		25	10 - 43	17	30
Carbazole	10	U	80.0	68.9		ug/L		86	68 - 121	2	30
Chrysene	2.0	U	80.0	71.5		ug/L		89	73 - 121	7	30
Dibenz(a,h)anthracene	1.0	U	80.0	76.7		ug/L		96	59 - 136	5	30
Dibenzofuran	10	U	80.0	72.9		ug/L		91	67 - 108	9	30
Diethyl phthalate	10	U	80.0	75.3		ug/L		94	61 - 129	7	30
Dimethyl phthalate	10	U	80.0	73.2		ug/L		92	65 - 121	6	30
Di-n-butyl phthalate	10	U	80.0	74.8		ug/L		93	64 - 130	2	30
Di-n-octyl phthalate	10	U	80.0	79.3		ug/L		99	64 - 131	10	30
Fluoranthene	10	U	80.0	69.1		ug/L		86	66 - 123	1	30
Fluorene	10	U	80.0	72.3		ug/L		90	67 - 112	7	30
Hexachlorobenzene	1.0	U	80.0	68.4		ug/L		86	63 - 125	5	30
Hexachlorobutadiene	1.0	U	80.0	49.5		ug/L		62	34 - 99	12	30
Hexachlorocyclopentadiene	10	U	80.0	66.0		ug/L		83	18 - 99	17	30
Hexachloroethane	2.0	U	80.0	44.5		ug/L		56	39 - 92	11	30
Indeno[1,2,3-cd]pyrene	2.0	U	80.0	74.0		ug/L		92	57 - 142	4	30
Isophorone	10	U	80.0	68.9		ug/L		86	55 - 105	10	30
Naphthalene	10	U	80.0	64.1		ug/L		80	51 - 98	12	30
Nitrobenzene	1.0	U	80.0	72.7		ug/L		91	56 - 106	9	30
N-Nitrosodi-n-propylamine	1.0	U	80.0	76.0		ug/L		95	48 - 118	10	30
N-Nitrosodiphenylamine	10	U	80.0	70.9		ug/L		89	69 - 118	6	30
Pentachlorophenol	20	U	160	134		ug/L		83	54 - 120	2	30
Phenanthrene	10	U	80.0	68.8		ug/L		86	70 - 117	4	30
Phenol	10	U * F1	80.0	35.3	F1	ug/L		44	16 - 43	19	30
Pyrene	10	U	80.0	75.7		ug/L		95	63 - 129	12	30

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-169523-6 MSD

Matrix: Water

Analysis Batch: 570132

Client Sample ID: MW-CSB-60

Prep Type: Total/NA

Prep Batch: 569917

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	91		26 - 139
2-Fluorobiphenyl	83		45 - 107
2-Fluorophenol (Surr)	52		25 - 58
Nitrobenzene-d5 (Surr)	97		51 - 108
Phenol-d5 (Surr)	38		14 - 39
Terphenyl-d14 (Surr)	63		40 - 148

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 460-571359/1-A

Matrix: Water

Analysis Batch: 571494

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 571359

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	10.0	U	10.0	1.1	ug/L		11/27/18 08:49	11/28/18 00:51	1
Aluminum	200	U	200	28.6	ug/L		11/27/18 08:49	11/28/18 00:51	1
Arsenic	15.0	U	15.0	2.7	ug/L		11/27/18 08:49	11/28/18 00:51	1
Barium	200	U	200	7.7	ug/L		11/27/18 08:49	11/28/18 00:51	1
Beryllium	2.0	U	2.0	0.23	ug/L		11/27/18 08:49	11/28/18 00:51	1
Calcium	5000	U	5000	222	ug/L		11/27/18 08:49	11/28/18 00:51	1
Cadmium	4.0	U	4.0	0.22	ug/L		11/27/18 08:49	11/28/18 00:51	1
Cobalt	50.0	U	50.0	1.7	ug/L		11/27/18 08:49	11/28/18 00:51	1
Chromium	10.0	U	10.0	1.3	ug/L		11/27/18 08:49	11/28/18 00:51	1
Copper	25.0	U	25.0	5.1	ug/L		11/27/18 08:49	11/28/18 00:51	1
Iron	150	U	150	34.2	ug/L		11/27/18 08:49	11/28/18 00:51	1
Potassium	5000	U	5000	323	ug/L		11/27/18 08:49	11/28/18 00:51	1
Magnesium	5000	U	5000	177	ug/L		11/27/18 08:49	11/28/18 00:51	1
Manganese	15.0	U	15.0	0.99	ug/L		11/27/18 08:49	11/28/18 00:51	1
Sodium	5000	U	5000	460	ug/L		11/27/18 08:49	11/28/18 00:51	1
Nickel	40.0	U	40.0	1.7	ug/L		11/27/18 08:49	11/28/18 00:51	1
Lead	10.0	U	10.0	2.5	ug/L		11/27/18 08:49	11/28/18 00:51	1
Antimony	20.0	U	20.0	2.9	ug/L		11/27/18 08:49	11/28/18 00:51	1
Selenium	20.0	U	20.0	6.6	ug/L		11/27/18 08:49	11/28/18 00:51	1
Thallium	20.0	U	20.0	5.4	ug/L		11/27/18 08:49	11/28/18 00:51	1
Vanadium	50.0	U	50.0	2.5	ug/L		11/27/18 08:49	11/28/18 00:51	1
Zinc	30.0	U	30.0	3.6	ug/L		11/27/18 08:49	11/28/18 00:51	1

Lab Sample ID: LCS 460-571359/2-A

Matrix: Water

Analysis Batch: 571494

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 571359

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	50.0	45.55		ug/L		91	80 - 120
Aluminum	2000	1954		ug/L		98	80 - 120
Arsenic	2000	1889		ug/L		94	80 - 120
Barium	2000	1978		ug/L		99	80 - 120
Beryllium	50.0	47.47		ug/L		95	80 - 120
Calcium	20000	18920		ug/L		95	80 - 120

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LCS 460-571359/2-A

Matrix: Water

Analysis Batch: 571494

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 571359

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	50.0	49.40		ug/L		99	80 - 120
Cobalt	500	497.3		ug/L		99	80 - 120
Chromium	200	195.0		ug/L		98	80 - 120
Copper	250	234.5		ug/L		94	80 - 120
Iron	1000	1047		ug/L		105	80 - 120
Potassium	20000	19500		ug/L		98	80 - 120
Magnesium	20000	18600		ug/L		93	80 - 120
Manganese	500	491.4		ug/L		98	80 - 120
Sodium	20000	19640		ug/L		98	80 - 120
Nickel	500	492.0		ug/L		98	80 - 120
Lead	500	500.7		ug/L		100	80 - 120
Antimony	500	478.8		ug/L		96	80 - 120
Selenium	2000	1886		ug/L		94	80 - 120
Thallium	2000	2103		ug/L		105	80 - 120
Vanadium	500	476.4		ug/L		95	80 - 120
Zinc	500	497.7		ug/L		100	80 - 120

Lab Sample ID: 460-169523-6 MS

Matrix: Water

Analysis Batch: 571494

Client Sample ID: MW-CSB-60

Prep Type: Total/NA

Prep Batch: 571359

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	10.0	U	50.0	47.54		ug/L		95	75 - 125
Aluminum	31.5	J	2000	1994		ug/L		98	75 - 125
Arsenic	15.0	U	2000	2025		ug/L		101	75 - 125
Barium	561		2000	2531		ug/L		99	75 - 125
Beryllium	2.0	U	50.0	49.19		ug/L		98	75 - 125
Calcium	128000		20000	146100	4	ug/L		90	75 - 125
Cadmium	4.0	U	50.0	48.93		ug/L		98	75 - 125
Cobalt	50.0	U	500	495.9		ug/L		99	75 - 125
Chromium	10.0	U	200	200.0		ug/L		100	75 - 125
Copper	25.0	U	250	246.7		ug/L		99	75 - 125
Iron	25500		1000	26110	4	ug/L		58	75 - 125
Potassium	31000		20000	50510		ug/L		98	75 - 125
Magnesium	22100		20000	40810		ug/L		94	75 - 125
Manganese	838		500	1324		ug/L		97	75 - 125
Nickel	1.9	J	500	488.0		ug/L		97	75 - 125
Lead	10.0	U	500	490.1		ug/L		98	75 - 125
Antimony	20.0	U	500	504.3		ug/L		101	75 - 125
Selenium	20.0	U	2000	2004		ug/L		100	75 - 125
Thallium	20.0	U	2000	1967		ug/L		98	75 - 125
Vanadium	50.0	U	500	500.2		ug/L		100	75 - 125
Zinc	30.0	U	500	508.0		ug/L		102	75 - 125

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: 460-169523-6 MS

Matrix: Water

Analysis Batch: 571683

Client Sample ID: MW-CSB-60

Prep Type: Total/NA

Prep Batch: 571359

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sodium	710000		20000	735000	4	ug/L		128	75 - 125

Lab Sample ID: 460-169523-6 DU

Matrix: Water

Analysis Batch: 571494

Client Sample ID: MW-CSB-60

Prep Type: Total/NA

Prep Batch: 571359

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Silver	10.0	U	10.0	U	ug/L		NC	20
Aluminum	31.5	J	36.00	J	ug/L		13	20
Arsenic	15.0	U	15.0	U	ug/L		NC	20
Barium	561		559.0		ug/L		0.3	20
Beryllium	2.0	U	2.0	U	ug/L		NC	20
Calcium	128000		126900		ug/L		0.9	20
Cadmium	4.0	U	4.0	U	ug/L		NC	20
Cobalt	50.0	U	50.0	U	ug/L		NC	20
Chromium	10.0	U	10.0	U	ug/L		NC	20
Copper	25.0	U	25.0	U	ug/L		NC	20
Iron	25500		25260		ug/L		1	20
Potassium	31000		30730		ug/L		0.9	20
Magnesium	22100		21880		ug/L		1	20
Manganese	838		830.8		ug/L		0.9	20
Nickel	1.9	J	40.0	U	ug/L		NC	20
Lead	10.0	U	10.0	U	ug/L		NC	20
Antimony	20.0	U	20.0	U	ug/L		NC	20
Selenium	20.0	U	20.0	U	ug/L		NC	20
Thallium	20.0	U	20.0	U	ug/L		NC	20
Vanadium	50.0	U	50.0	U	ug/L		NC	20
Zinc	30.0	U	30.0	U	ug/L		NC	20

Lab Sample ID: 460-169523-6 DU

Matrix: Water

Analysis Batch: 571683

Client Sample ID: MW-CSB-60

Prep Type: Total/NA

Prep Batch: 571359

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sodium	710000		706500		ug/L		0.4	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 460-571957/1-A

Matrix: Water

Analysis Batch: 572037

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 571957

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		11/29/18 11:57	11/29/18 14:10	1

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 460-571957/2-A

Matrix: Water

Analysis Batch: 572037

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 571957

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	1.00	0.975		ug/L		97	80 - 120

Lab Sample ID: 460-169523-6 MS

Matrix: Water

Analysis Batch: 572037

Client Sample ID: MW-CSB-60

Prep Type: Total/NA

Prep Batch: 571957

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.20	U	1.00	0.977		ug/L		98	75 - 125

Lab Sample ID: 460-169523-6 DU

Matrix: Water

Analysis Batch: 572037

Client Sample ID: MW-CSB-60

Prep Type: Total/NA

Prep Batch: 571957

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Mercury	0.20	U	0.20	U	ug/L		NC	20

Lab Sample ID: MB 460-571962/1-A

Matrix: Water

Analysis Batch: 572037

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 571962

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		11/29/18 12:14	11/29/18 15:58	1

Lab Sample ID: LCS 460-571962/2-A

Matrix: Water

Analysis Batch: 572037

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 571962

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	1.00	0.955		ug/L		96	80 - 120

Lab Sample ID: 460-169537-F-3-D MS

Matrix: Water

Analysis Batch: 572037

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 571962

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.20	U	1.00	0.985		ug/L		98	75 - 125

Lab Sample ID: 460-169537-B-3-B DU

Matrix: Water

Analysis Batch: 572037

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 571962

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Mercury	0.20	U	0.20	U	ug/L		NC	20

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 460-571657/1-A

Matrix: Water

Analysis Batch: 571712

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 571657

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0020	mg/L	—	11/28/18 09:28	11/28/18 12:42	1

Lab Sample ID: LCS 460-571657/2-A

Matrix: Water

Analysis Batch: 571712

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 571657

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.100	0.100		mg/L	—	100	85 - 115

Lab Sample ID: 460-169523-6 MS

Matrix: Water

Analysis Batch: 571712

Client Sample ID: MW-CSB-60

Prep Type: Total/NA

Prep Batch: 571657

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.018	F1	0.200	0.248	F1	mg/L	—	115	90 - 110

Lab Sample ID: 460-169523-6 MSD

Matrix: Water

Analysis Batch: 571712

Client Sample ID: MW-CSB-60

Prep Type: Total/NA

Prep Batch: 571657

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.018	F1	0.200	0.253	F1	mg/L	—	118	90 - 110	2	20

TestAmerica Edison

QC Association Summary

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

GC/MS VOA

Analysis Batch: 571228

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-169523-2	CMW-40	Total/NA	Water	8260C	
460-169523-3	CMW-140	Total/NA	Water	8260C	
460-169523-5	FB-11142018	Total/NA	Water	8260C	
460-169523-7	MW-21	Total/NA	Water	8260C	
460-169523-8	MW-27	Total/NA	Water	8260C	
460-169523-13	MW-19	Total/NA	Water	8260C	
460-169523-14	TB-	Total/NA	Water	8260C	
MB 460-571228/7	Method Blank	Total/NA	Water	8260C	
LCS 460-571228/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 460-571228/4	Lab Control Sample Dup	Total/NA	Water	8260C	
460-169523-6 MS	MW-CSB-60	Total/NA	Water	8260C	
460-169523-6 MSD	MW-CSB-60	Total/NA	Water	8260C	

Analysis Batch: 571302

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-169523-4	MW-20	Total/NA	Water	8260C	
460-169523-6	MW-CSB-60	Total/NA	Water	8260C	
460-169523-9	MW-28	Total/NA	Water	8260C	
460-169523-11	MW-25	Total/NA	Water	8260C	
460-169523-12	MW-15	Total/NA	Water	8260C	
MB 460-571302/8	Method Blank	Total/NA	Water	8260C	
LCS 460-571302/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 460-571302/4	Lab Control Sample Dup	Total/NA	Water	8260C	

Analysis Batch: 571469

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-169523-10	MW-30	Total/NA	Water	8260C	
MB 460-571469/7	Method Blank	Total/NA	Water	8260C	
LCS 460-571469/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 460-571469/4	Lab Control Sample Dup	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 569917

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-169523-2	CMW-40	Total/NA	Water	3510C	
460-169523-3	CMW-140	Total/NA	Water	3510C	
460-169523-4	MW-20	Total/NA	Water	3510C	
460-169523-5	FB-11142018	Total/NA	Water	3510C	
460-169523-6	MW-CSB-60	Total/NA	Water	3510C	
460-169523-7	MW-21	Total/NA	Water	3510C	
460-169523-8	MW-27	Total/NA	Water	3510C	
460-169523-9	MW-28	Total/NA	Water	3510C	
460-169523-10	MW-30	Total/NA	Water	3510C	
460-169523-11	MW-25	Total/NA	Water	3510C	
460-169523-12	MW-15	Total/NA	Water	3510C	
460-169523-13	MW-19	Total/NA	Water	3510C	
MB 460-569917/1-A	Method Blank	Total/NA	Water	3510C	
LCS 460-569917/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 460-569917/4-A	Lab Control Sample	Total/NA	Water	3510C	

TestAmerica Edison

QC Association Summary

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

GC/MS Semi VOA (Continued)

Prep Batch: 569917 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 460-569917/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
LCSD 460-569917/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	
460-169523-6 MS	MW-CSB-60	Total/NA	Water	3510C	
460-169523-6 MSD	MW-CSB-60	Total/NA	Water	3510C	

Analysis Batch: 570132

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-169523-2	CMW-40	Total/NA	Water	8270D	569917
460-169523-3	CMW-140	Total/NA	Water	8270D	569917
460-169523-4	MW-20	Total/NA	Water	8270D	569917
460-169523-5	FB-11142018	Total/NA	Water	8270D	569917
460-169523-6	MW-CSB-60	Total/NA	Water	8270D	569917
460-169523-7	MW-21	Total/NA	Water	8270D	569917
460-169523-8	MW-27	Total/NA	Water	8270D	569917
460-169523-9	MW-28	Total/NA	Water	8270D	569917
460-169523-10	MW-30	Total/NA	Water	8270D	569917
460-169523-11	MW-25	Total/NA	Water	8270D	569917
460-169523-12	MW-15	Total/NA	Water	8270D	569917
MB 460-569917/1-A	Method Blank	Total/NA	Water	8270D	569917
LCS 460-569917/2-A	Lab Control Sample	Total/NA	Water	8270D	569917
LCS 460-569917/4-A	Lab Control Sample	Total/NA	Water	8270D	569917
LCSD 460-569917/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	569917
LCSD 460-569917/5-A	Lab Control Sample Dup	Total/NA	Water	8270D	569917
460-169523-6 MS	MW-CSB-60	Total/NA	Water	8270D	569917
460-169523-6 MSD	MW-CSB-60	Total/NA	Water	8270D	569917

Analysis Batch: 570345

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-169523-13	MW-19	Total/NA	Water	8270D	569917

Metals

Prep Batch: 571359

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-169523-1	CMW-36	Total/NA	Water	3010A	
460-169523-2	CMW-40	Total/NA	Water	3010A	
460-169523-3	CMW-140	Total/NA	Water	3010A	
460-169523-4	MW-20	Total/NA	Water	3010A	
460-169523-5	FB-11142018	Total/NA	Water	3010A	
460-169523-6	MW-CSB-60	Total/NA	Water	3010A	
460-169523-7	MW-21	Total/NA	Water	3010A	
460-169523-8	MW-27	Total/NA	Water	3010A	
460-169523-9	MW-28	Total/NA	Water	3010A	
460-169523-10	MW-30	Total/NA	Water	3010A	
460-169523-11	MW-25	Total/NA	Water	3010A	
460-169523-12	MW-15	Total/NA	Water	3010A	
460-169523-13	MW-19	Total/NA	Water	3010A	
MB 460-571359/1-A	Method Blank	Total/NA	Water	3010A	
LCS 460-571359/2-A	Lab Control Sample	Total/NA	Water	3010A	
460-169523-6 MS	MW-CSB-60	Total/NA	Water	3010A	

TestAmerica Edison

QC Association Summary

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Metals (Continued)

Prep Batch: 571359 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-169523-6 DU	MW-CSB-60	Total/NA	Water	3010A	

Analysis Batch: 571494

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-169523-1	CMW-36	Total/NA	Water	6010D	571359
460-169523-2	CMW-40	Total/NA	Water	6010D	571359
460-169523-3	CMW-140	Total/NA	Water	6010D	571359
460-169523-4	MW-20	Total/NA	Water	6010D	571359
460-169523-5	FB-11142018	Total/NA	Water	6010D	571359
460-169523-6	MW-CSB-60	Total/NA	Water	6010D	571359
460-169523-7	MW-21	Total/NA	Water	6010D	571359
460-169523-8	MW-27	Total/NA	Water	6010D	571359
460-169523-9	MW-28	Total/NA	Water	6010D	571359
460-169523-10	MW-30	Total/NA	Water	6010D	571359
460-169523-11	MW-25	Total/NA	Water	6010D	571359
460-169523-12	MW-15	Total/NA	Water	6010D	571359
460-169523-13	MW-19	Total/NA	Water	6010D	571359
MB 460-571359/1-A	Method Blank	Total/NA	Water	6010D	571359
LCS 460-571359/2-A	Lab Control Sample	Total/NA	Water	6010D	571359
460-169523-6 MS	MW-CSB-60	Total/NA	Water	6010D	571359
460-169523-6 DU	MW-CSB-60	Total/NA	Water	6010D	571359

Analysis Batch: 571683

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-169523-1	CMW-36	Total/NA	Water	6010D	571359
460-169523-6	MW-CSB-60	Total/NA	Water	6010D	571359
460-169523-7	MW-21	Total/NA	Water	6010D	571359
460-169523-10	MW-30	Total/NA	Water	6010D	571359
460-169523-12	MW-15	Total/NA	Water	6010D	571359
460-169523-6 MS	MW-CSB-60	Total/NA	Water	6010D	571359
460-169523-6 DU	MW-CSB-60	Total/NA	Water	6010D	571359

Prep Batch: 571957

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-169523-1	CMW-36	Total/NA	Water	7470A	
460-169523-2	CMW-40	Total/NA	Water	7470A	
460-169523-3	CMW-140	Total/NA	Water	7470A	
460-169523-4	MW-20	Total/NA	Water	7470A	
460-169523-5	FB-11142018	Total/NA	Water	7470A	
460-169523-6	MW-CSB-60	Total/NA	Water	7470A	
460-169523-7	MW-21	Total/NA	Water	7470A	
460-169523-8	MW-27	Total/NA	Water	7470A	
460-169523-9	MW-28	Total/NA	Water	7470A	
460-169523-10	MW-30	Total/NA	Water	7470A	
MB 460-571957/1-A	Method Blank	Total/NA	Water	7470A	
LCS 460-571957/2-A	Lab Control Sample	Total/NA	Water	7470A	
460-169523-6 MS	MW-CSB-60	Total/NA	Water	7470A	
460-169523-6 DU	MW-CSB-60	Total/NA	Water	7470A	

TestAmerica Edison

QC Association Summary

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Metals (Continued)

Prep Batch: 571962

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-169523-11	MW-25	Total/NA	Water	7470A	
460-169523-12	MW-15	Total/NA	Water	7470A	
460-169523-13	MW-19	Total/NA	Water	7470A	
MB 460-571962/1-A	Method Blank	Total/NA	Water	7470A	
LCS 460-571962/2-A	Lab Control Sample	Total/NA	Water	7470A	
460-169537-F-3-D MS	Matrix Spike	Total/NA	Water	7470A	
460-169537-B-3-B DU	Duplicate	Total/NA	Water	7470A	

Analysis Batch: 572037

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-169523-1	CMW-36	Total/NA	Water	7470A	571957
460-169523-2	CMW-40	Total/NA	Water	7470A	571957
460-169523-3	CMW-140	Total/NA	Water	7470A	571957
460-169523-4	MW-20	Total/NA	Water	7470A	571957
460-169523-5	FB-11142018	Total/NA	Water	7470A	571957
460-169523-6	MW-CSB-60	Total/NA	Water	7470A	571957
460-169523-7	MW-21	Total/NA	Water	7470A	571957
460-169523-8	MW-27	Total/NA	Water	7470A	571957
460-169523-9	MW-28	Total/NA	Water	7470A	571957
460-169523-10	MW-30	Total/NA	Water	7470A	571957
460-169523-11	MW-25	Total/NA	Water	7470A	571962
460-169523-12	MW-15	Total/NA	Water	7470A	571962
460-169523-13	MW-19	Total/NA	Water	7470A	571962
MB 460-571957/1-A	Method Blank	Total/NA	Water	7470A	571957
MB 460-571962/1-A	Method Blank	Total/NA	Water	7470A	571962
LCS 460-571957/2-A	Lab Control Sample	Total/NA	Water	7470A	571957
LCS 460-571962/2-A	Lab Control Sample	Total/NA	Water	7470A	571962
460-169523-6 MS	MW-CSB-60	Total/NA	Water	7470A	571957
460-169537-F-3-D MS	Matrix Spike	Total/NA	Water	7470A	571962
460-169523-6 DU	MW-CSB-60	Total/NA	Water	7470A	571957
460-169537-B-3-B DU	Duplicate	Total/NA	Water	7470A	571962

General Chemistry

Prep Batch: 571657

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-169523-1	CMW-36	Total/NA	Water	9012B	
460-169523-2	CMW-40	Total/NA	Water	9012B	
460-169523-3	CMW-140	Total/NA	Water	9012B	
460-169523-4	MW-20	Total/NA	Water	9012B	
460-169523-5	FB-11142018	Total/NA	Water	9012B	
460-169523-6	MW-CSB-60	Total/NA	Water	9012B	
460-169523-7	MW-21	Total/NA	Water	9012B	
460-169523-8	MW-27	Total/NA	Water	9012B	
460-169523-9	MW-28	Total/NA	Water	9012B	
460-169523-10	MW-30	Total/NA	Water	9012B	
460-169523-11	MW-25	Total/NA	Water	9012B	
460-169523-12	MW-15	Total/NA	Water	9012B	
460-169523-13	MW-19	Total/NA	Water	9012B	
MB 460-571657/1-A	Method Blank	Total/NA	Water	9012B	

TestAmerica Edison

QC Association Summary

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

General Chemistry (Continued)

Prep Batch: 571657 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 460-571657/2-A	Lab Control Sample	Total/NA	Water	9012B	
460-169523-6 MS	MW-CSB-60	Total/NA	Water	9012B	
460-169523-6 MSD	MW-CSB-60	Total/NA	Water	9012B	

Analysis Batch: 571712

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-169523-1	CMW-36	Total/NA	Water	9012B	571657
460-169523-2	CMW-40	Total/NA	Water	9012B	571657
460-169523-3	CMW-140	Total/NA	Water	9012B	571657
460-169523-4	MW-20	Total/NA	Water	9012B	571657
460-169523-5	FB-11142018	Total/NA	Water	9012B	571657
460-169523-6	MW-CSB-60	Total/NA	Water	9012B	571657
460-169523-7	MW-21	Total/NA	Water	9012B	571657
460-169523-8	MW-27	Total/NA	Water	9012B	571657
460-169523-9	MW-28	Total/NA	Water	9012B	571657
460-169523-10	MW-30	Total/NA	Water	9012B	571657
460-169523-11	MW-25	Total/NA	Water	9012B	571657
460-169523-12	MW-15	Total/NA	Water	9012B	571657
460-169523-13	MW-19	Total/NA	Water	9012B	571657
MB 460-571657/1-A	Method Blank	Total/NA	Water	9012B	571657
LCS 460-571657/2-A	Lab Control Sample	Total/NA	Water	9012B	571657
460-169523-6 MS	MW-CSB-60	Total/NA	Water	9012B	571657
460-169523-6 MSD	MW-CSB-60	Total/NA	Water	9012B	571657

Lab Chronicle

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: CMW-36

Date Collected: 11/14/18 09:30

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			571359	11/27/18 08:49	QZY	TAL EDI
Total/NA	Analysis	6010D		1	571494	11/28/18 01:10	CDC	TAL EDI
Total/NA	Prep	3010A			571359	11/27/18 08:49	QZY	TAL EDI
Total/NA	Analysis	6010D		5	571683	11/28/18 13:16	CDC	TAL EDI
Total/NA	Prep	7470A			571957	11/29/18 11:57	RBS	TAL EDI
Total/NA	Analysis	7470A		1	572037	11/29/18 14:41	RBS	TAL EDI
Total/NA	Prep	9012B			571657	11/28/18 09:28	IAA	TAL EDI
Total/NA	Analysis	9012B		1	571712	11/28/18 12:54	AJP	TAL EDI

Client Sample ID: CMW-40

Date Collected: 11/14/18 12:55

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	571228	11/27/18 04:04	AAT	TAL EDI
Total/NA	Prep	3510C			569917	11/20/18 09:24	MIS	TAL EDI
Total/NA	Analysis	8270D		1	570132	11/21/18 12:16	FAM	TAL EDI
Total/NA	Prep	3010A			571359	11/27/18 08:49	QZY	TAL EDI
Total/NA	Analysis	6010D		1	571494	11/28/18 01:13	CDC	TAL EDI
Total/NA	Prep	7470A			571957	11/29/18 11:57	RBS	TAL EDI
Total/NA	Analysis	7470A		1	572037	11/29/18 14:43	RBS	TAL EDI
Total/NA	Prep	9012B			571657	11/28/18 09:28	IAA	TAL EDI
Total/NA	Analysis	9012B		1	571712	11/28/18 12:55	AJP	TAL EDI

Client Sample ID: CMW-140

Date Collected: 11/14/18 12:00

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	571228	11/27/18 04:29	AAT	TAL EDI
Total/NA	Prep	3510C			569917	11/20/18 09:24	MIS	TAL EDI
Total/NA	Analysis	8270D		1	570132	11/21/18 12:37	FAM	TAL EDI
Total/NA	Prep	3010A			571359	11/27/18 08:49	QZY	TAL EDI
Total/NA	Analysis	6010D		1	571494	11/28/18 01:17	CDC	TAL EDI
Total/NA	Prep	7470A			571957	11/29/18 11:57	RBS	TAL EDI
Total/NA	Analysis	7470A		1	572037	11/29/18 14:44	RBS	TAL EDI
Total/NA	Prep	9012B			571657	11/28/18 09:28	IAA	TAL EDI
Total/NA	Analysis	9012B		1	571712	11/28/18 12:56	AJP	TAL EDI

TestAmerica Edison

Lab Chronicle

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: MW-20

Date Collected: 11/14/18 13:45

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2	571302	11/27/18 15:45	AAT	TAL EDI
Total/NA	Prep	3510C			569917	11/20/18 09:24	MIS	TAL EDI
Total/NA	Analysis	8270D		1	570132	11/21/18 12:57	FAM	TAL EDI
Total/NA	Prep	3010A			571359	11/27/18 09:56	QZY	TAL EDI
Total/NA	Analysis	6010D		1	571494	11/28/18 01:21	CDC	TAL EDI
Total/NA	Prep	7470A			571957	11/29/18 11:57	RBS	TAL EDI
Total/NA	Analysis	7470A		1	572037	11/29/18 14:46	RBS	TAL EDI
Total/NA	Prep	9012B			571657	11/28/18 09:28	IAA	TAL EDI
Total/NA	Analysis	9012B		1	571712	11/28/18 12:57	AJP	TAL EDI

Client Sample ID: FB-11142018

Date Collected: 11/14/18 15:00

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	571228	11/26/18 22:18	AAT	TAL EDI
Total/NA	Prep	3510C			569917	11/20/18 09:24	MIS	TAL EDI
Total/NA	Analysis	8270D		1	570132	11/21/18 13:18	FAM	TAL EDI
Total/NA	Prep	3010A			571359	11/27/18 09:56	QZY	TAL EDI
Total/NA	Analysis	6010D		1	571494	11/28/18 01:25	CDC	TAL EDI
Total/NA	Prep	7470A			571957	11/29/18 11:57	RBS	TAL EDI
Total/NA	Analysis	7470A		1	572037	11/29/18 14:51	RBS	TAL EDI
Total/NA	Prep	9012B			571657	11/28/18 09:28	IAA	TAL EDI
Total/NA	Analysis	9012B		1	571712	11/28/18 12:58	AJP	TAL EDI

Client Sample ID: MW-CSB-60

Date Collected: 11/14/18 09:55

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	571302	11/27/18 10:46	AAT	TAL EDI
Total/NA	Prep	3510C			569917	11/20/18 09:24	MIS	TAL EDI
Total/NA	Analysis	8270D		1	570132	11/21/18 09:06	FAM	TAL EDI
Total/NA	Prep	3010A			571359	11/27/18 08:49	QZY	TAL EDI
Total/NA	Analysis	6010D		1	571494	11/28/18 00:54	CDC	TAL EDI
Total/NA	Prep	3010A			571359	11/27/18 08:49	QZY	TAL EDI
Total/NA	Analysis	6010D		5	571683	11/28/18 12:53	CDC	TAL EDI
Total/NA	Prep	7470A			571957	11/29/18 11:57	RBS	TAL EDI
Total/NA	Analysis	7470A		1	572037	11/29/18 14:14	RBS	TAL EDI
Total/NA	Prep	9012B			571657	11/28/18 09:28	IAA	TAL EDI
Total/NA	Analysis	9012B		1	571712	11/28/18 12:58	AJP	TAL EDI

TestAmerica Edison

Lab Chronicle

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: MW-21

Date Collected: 11/14/18 13:05

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	571228	11/27/18 00:48	AAT	TAL EDI
Total/NA	Prep	3510C			569917	11/20/18 09:24	MIS	TAL EDI
Total/NA	Analysis	8270D		1	570132	11/21/18 13:39	FAM	TAL EDI
Total/NA	Prep	3010A			571359	11/27/18 09:56	QZY	TAL EDI
Total/NA	Analysis	6010D		1	571494	11/28/18 01:40	CDC	TAL EDI
Total/NA	Prep	3010A			571359	11/27/18 09:56	QZY	TAL EDI
Total/NA	Analysis	6010D		5	571683	11/28/18 13:20	CDC	TAL EDI
Total/NA	Prep	7470A			571957	11/29/18 11:57	RBS	TAL EDI
Total/NA	Analysis	7470A		1	572037	11/29/18 14:53	RBS	TAL EDI
Total/NA	Prep	9012B			571657	11/28/18 09:28	IAA	TAL EDI
Total/NA	Analysis	9012B		1	571712	11/28/18 13:04	AJP	TAL EDI

Client Sample ID: MW-27

Date Collected: 11/14/18 13:15

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	571228	11/27/18 01:13	AAT	TAL EDI
Total/NA	Prep	3510C			569917	11/20/18 09:24	MIS	TAL EDI
Total/NA	Analysis	8270D		1	570132	11/21/18 14:00	FAM	TAL EDI
Total/NA	Prep	3010A			571359	11/27/18 09:56	QZY	TAL EDI
Total/NA	Analysis	6010D		1	571494	11/28/18 01:43	CDC	TAL EDI
Total/NA	Prep	7470A			571957	11/29/18 11:57	RBS	TAL EDI
Total/NA	Analysis	7470A		1	572037	11/29/18 14:55	RBS	TAL EDI
Total/NA	Prep	9012B			571657	11/28/18 09:28	IAA	TAL EDI
Total/NA	Analysis	9012B		1	571712	11/28/18 13:05	AJP	TAL EDI

Client Sample ID: MW-28

Date Collected: 11/14/18 09:45

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	571302	11/27/18 14:55	AAT	TAL EDI
Total/NA	Prep	3510C			569917	11/20/18 09:24	MIS	TAL EDI
Total/NA	Analysis	8270D		1	570132	11/21/18 14:21	FAM	TAL EDI
Total/NA	Prep	3010A			571359	11/27/18 09:56	QZY	TAL EDI
Total/NA	Analysis	6010D		1	571494	11/28/18 01:47	CDC	TAL EDI
Total/NA	Prep	7470A			571957	11/29/18 11:57	RBS	TAL EDI
Total/NA	Analysis	7470A		1	572037	11/29/18 14:57	RBS	TAL EDI
Total/NA	Prep	9012B			571657	11/28/18 09:28	IAA	TAL EDI
Total/NA	Analysis	9012B		1	571712	11/28/18 13:06	AJP	TAL EDI

TestAmerica Edison

Lab Chronicle

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: MW-30

Lab Sample ID: 460-169523-10

Date Collected: 11/14/18 12:05

Matrix: Water

Date Received: 11/16/18 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		25	571469	11/28/18 00:35	VBP	TAL EDI
Total/NA	Prep	3510C			569917	11/20/18 09:24	MIS	TAL EDI
Total/NA	Analysis	8270D		1	570132	11/21/18 14:42	FAM	TAL EDI
Total/NA	Prep	3010A			571359	11/27/18 09:56	QZY	TAL EDI
Total/NA	Analysis	6010D		1	571494	11/28/18 01:51	CDC	TAL EDI
Total/NA	Prep	3010A			571359	11/27/18 09:56	QZY	TAL EDI
Total/NA	Analysis	6010D		5	571683	11/28/18 13:23	CDC	TAL EDI
Total/NA	Prep	7470A			571957	11/29/18 11:57	RBS	TAL EDI
Total/NA	Analysis	7470A		1	572037	11/29/18 14:58	RBS	TAL EDI
Total/NA	Prep	9012B			571657	11/28/18 09:28	IAA	TAL EDI
Total/NA	Analysis	9012B		1	571712	11/28/18 13:07	AJP	TAL EDI

Client Sample ID: MW-25

Lab Sample ID: 460-169523-11

Date Collected: 11/14/18 13:55

Matrix: Water

Date Received: 11/16/18 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	571302	11/27/18 14:05	AAT	TAL EDI
Total/NA	Prep	3510C			569917	11/20/18 09:24	MIS	TAL EDI
Total/NA	Analysis	8270D		1	570132	11/21/18 15:03	FAM	TAL EDI
Total/NA	Prep	3010A			571359	11/27/18 09:56	QZY	TAL EDI
Total/NA	Analysis	6010D		1	571494	11/28/18 01:55	CDC	TAL EDI
Total/NA	Prep	7470A			571962	11/29/18 12:14	RBS	TAL EDI
Total/NA	Analysis	7470A		1	572037	11/29/18 16:09	RBS	TAL EDI
Total/NA	Prep	9012B			571657	11/28/18 09:28	IAA	TAL EDI
Total/NA	Analysis	9012B		1	571712	11/28/18 13:08	AJP	TAL EDI

Client Sample ID: MW-15

Lab Sample ID: 460-169523-12

Date Collected: 11/14/18 13:50

Matrix: Water

Date Received: 11/16/18 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	571302	11/27/18 14:30	AAT	TAL EDI
Total/NA	Prep	3510C			569917	11/20/18 09:24	MIS	TAL EDI
Total/NA	Analysis	8270D		1	570132	11/21/18 15:24	FAM	TAL EDI
Total/NA	Prep	3010A			571359	11/27/18 09:56	QZY	TAL EDI
Total/NA	Analysis	6010D		1	571494	11/28/18 01:59	CDC	TAL EDI
Total/NA	Prep	3010A			571359	11/27/18 09:56	QZY	TAL EDI
Total/NA	Analysis	6010D		5	571683	11/28/18 13:27	CDC	TAL EDI
Total/NA	Prep	7470A			571962	11/29/18 12:14	RBS	TAL EDI
Total/NA	Analysis	7470A		1	572037	11/29/18 16:14	RBS	TAL EDI
Total/NA	Prep	9012B			571657	11/28/18 09:28	IAA	TAL EDI
Total/NA	Analysis	9012B		1	571712	11/28/18 13:09	AJP	TAL EDI

TestAmerica Edison

Lab Chronicle

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Client Sample ID: MW-19

Date Collected: 11/14/18 11:35

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-13

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	571228	11/27/18 02:51	AAT	TAL EDI
Total/NA	Prep	3510C			569917	11/20/18 09:24	MIS	TAL EDI
Total/NA	Analysis	8270D		5	570345	11/22/18 04:37	MME	TAL EDI
Total/NA	Prep	3010A			571359	11/27/18 09:56	QZY	TAL EDI
Total/NA	Analysis	6010D		1	571494	11/28/18 02:02	CDC	TAL EDI
Total/NA	Prep	7470A			571962	11/29/18 12:14	RBS	TAL EDI
Total/NA	Analysis	7470A		1	572037	11/29/18 16:16	RBS	TAL EDI
Total/NA	Prep	9012B			571657	11/28/18 09:28	IAA	TAL EDI
Total/NA	Analysis	9012B		1	571712	11/28/18 13:10	AJP	TAL EDI

Client Sample ID: TB-

Date Collected: 11/14/18 15:15

Date Received: 11/16/18 19:00

Lab Sample ID: 460-169523-14

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	571228	11/26/18 22:43	AAT	TAL EDI

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Laboratory: TestAmerica Edison

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	11452	04-01-19

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Method Summary

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL EDI
6010D	Metals (ICP)	SW846	TAL EDI
7470A	Mercury (CVAA)	SW846	TAL EDI
9012B	Cyanide, Total and/or Amenable	SW846	TAL EDI
3010A	Preparation, Total Metals	SW846	TAL EDI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL EDI
5030C	Purge and Trap	SW846	TAL EDI
7470A	Preparation, Mercury	SW846	TAL EDI
9012B	Cyanide, Total and/or Amenable, Distillation	SW846	TAL EDI

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169523-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-169523-1	CMW-36	Water	11/14/18 09:30	11/16/18 19:00
460-169523-2	CMW-40	Water	11/14/18 12:55	11/16/18 19:00
460-169523-3	CMW-140	Water	11/14/18 12:00	11/16/18 19:00
460-169523-4	MW-20	Water	11/14/18 13:45	11/16/18 19:00
460-169523-5	FB-11142018	Water	11/14/18 15:00	11/16/18 19:00
460-169523-6	MW-CSB-60	Water	11/14/18 09:55	11/16/18 19:00
460-169523-7	MW-21	Water	11/14/18 13:05	11/16/18 19:00
460-169523-8	MW-27	Water	11/14/18 13:15	11/16/18 19:00
460-169523-9	MW-28	Water	11/14/18 09:45	11/16/18 19:00
460-169523-10	MW-30	Water	11/14/18 12:05	11/16/18 19:00
460-169523-11	MW-25	Water	11/14/18 13:55	11/16/18 19:00
460-169523-12	MW-15	Water	11/14/18 13:50	11/16/18 19:00
460-169523-13	MW-19	Water	11/14/18 11:35	11/16/18 19:00
460-169523-14	TB-	Water	11/14/18 15:15	11/16/18 19:00

CHAIN OF CUSTODY / ANALYSIS REQUEST

Page 1 of 2

Name (for report and invoice) Dan Martoccia		Samplers Name (Printed) Tom Horn + Aaron FM		Site/Project Identification Farrington St. M6P	
Company Parsons		P.O. #		State (Location of site): NJ: ☐ NY: ☒ Other: ☐	
Address 200 Cottontail Lane		Analysis Turnaround Time Standard ☐ Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☒ per contract		Regulatory Program: ☐	
City Somerset		State MS		LAB USE ONLY Project No:	
Phone 908 625 5376		Fax		Job No: 169523	
Sample Identification		Date	Time	Matrix	No. of Cont.
CMW-36	11/14/18	0930	W	2	
CMW-40		1255		7	
CMW-140		1200		7	
MW-20		1345		7	
FB-11142010		1500		7	
MW-CSB-60		0955		7	
MW-CSB-60-MS				7	
MW-CSB-60-MSD				7	
MW-21		1305		6	
MW-27		1515		7	

Preservation Used: 1 = ICE, 2 = HCl, 3 = H₂SO₄, 4 = HNO₃, 5 = NaOH
6 = Other, 7 = Other

Water: 1, 2, 1, 1, 1, 5

Soil: 1, 1, 1, 1, 1, 5

460-169523 Chain of Custody

Job No: 169523

Sample Numbers: 1, 2, 3, 4, 5, 6, 6, 7, 8

Special Instructions analyze per contract		Water Metals Filtered (Yes/No)?	
Relinquished by	Company Parsons	Date / Time 11/16/18 11:50	Received by K. P.
Relinquished by	Company Parsons	Date / Time 11/16/18 19:00	Received by K. P.
Relinquished by	Company	Date / Time	Received by
Relinquished by	Company	Date / Time	Received by
Relinquished by	Company	Date / Time	Received by
Relinquished by	Company	Date / Time	Received by

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132),

Massachusetts (M-NJ312), North Carolina (No. 578)

TAL - 0016 (0715)

TestAmerica Edison Receipt Temperature and pH Log

Page ____ of ____

Job Number:

169523

Number of Coolers: 2 IR Gun # 9

RAW / CORRECTED		RAW / CORRECTED		RAW / CORRECTED	
Cooler #1	32.0 °C	Cooler #4	32.0 °C	Cooler #7	32.0 °C
Cooler #2	31.5 °C	Cooler #5	31.5 °C	Cooler #8	31.5 °C
Cooler #3	31.5 °C	Cooler #6	31.5 °C	Cooler #9	31.5 °C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate (pH<2)	Nitrite (pH<2)	Metals (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other
1					42								>12		
2					42								>12		
3					42								>12		
4					42								>12		
5					42								>12		
6					42								>12		
6008H50					42								>12		
6ms					42								>12		
7					42								>12		
8					42								>12		
9					42								>12		
10					42								>12		
11					42								>12		

If pH adjustments are required record the information below:

Sample No(s) adjusted: _____

Preservative Name/Conc.: _____ Volume of Preservative used (ml): _____

Lot # of Preservative(s): _____ Expiration Date: _____

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

* Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.

Initials: _____ Date: 11/16/18

Job Number:

169523

Number of Coolers:

IR Gun

C

Cooler Temperatures

ADMM		CORRECTED		RAW		CORRECTED		
Cooler #1	32.0 °C	32.0 °C	32.0 °C	Cooler #4	30.0 °C	30.0 °C	Cooler #7	30.0 °C
Cooler #2	35.0 °C	35.0 °C	35.0 °C	Cooler #5	30.0 °C	30.0 °C	Cooler #8	30.0 °C
Cooler #3	30.0 °C	30.0 °C	30.0 °C	Cooler #6	30.0 °C	30.0 °C	Cooler #9	30.0 °C

TALS Sample Number

[illegible]

If pH adjustments are required record the information below:

Sample No(s). adjusted:

Preservative Name/Conc.:

Volume of Preservative used (ml):

Lot # of Preservative(s):

Expiration Date:

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.

Initials:

V

Date: _____

11/16/18

Login Sample Receipt Checklist

Client: Parsons Corporation

Job Number: 460-169523-1

Login Number: 169523

List Source: TestAmerica Edison

List Number: 1

Creator: Rivera, Kenneth

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	False	Refer to Job Narrative for details.
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Edison

777 New Durham Road

Edison, NJ 08817

Tel: (732)549-3900

TestAmerica Job ID: 460-169869-1

Client Project/Site: Farrington St. MGP

For:

Parsons Corporation

100 High Street

4th Floor

Boston, Massachusetts 02110-1713

Attn: Rebecca Foulger



Authorized for release by:

12/5/2018 11:51:38 AM

Thomas Chupela, Project Management Assistant I

thomas.chupela@testamericainc.com

Designee for

Allison Bennett, Project Manager I

(732)549-3900

allison.bennett@testamericainc.com

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Detection Summary	6
Client Sample Results	7
Surrogate Summary	12
QC Sample Results	13
QC Association Summary	38
Lab Chronicle	41
Certification Summary	42
Method Summary	43
Sample Summary	44
Chain of Custody	45
Receipt Checklists	47



Definitions/Glossary

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169869-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.
*	LCS or LCSD is outside acceptance limits.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169869-1

Job ID: 460-169869-1

Laboratory: TestAmerica Edison

Narrative

CASE NARRATIVE

Client: Parsons Corporation

Project: Farrington St. MGP

Report Number: 460-169869-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 11/21/2018 4:07 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.5° C.

Receipt Exceptions

The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. No turnaround time indicated in COC.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples MW-38 (460-169869-1) and TB-11212018 (460-169869-2) were analyzed for Volatile organic compounds (GC-MS) in accordance with EPA SW-846 Methods 8260C. The samples were analyzed on 11/30/2018 and 12/01/2018.

The continuing calibration verification (CCV) analyzed in batch 460-572143 was outside the method criteria for the following analytes: Bromomethane and Dichlorodifluoromethane. The minimum response factor (RF) for Bromomethane was outside required limits. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analytes is considered estimated.

The continuing calibration verification (CCV) analyzed in batch 460-572342 was outside the method criteria for the following analyte(s): Dichlorodifluoromethane, Chloromethane and Bromomethane. The response factor for Bromomethane was below the minimum required. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Refer to the QC report for details.

No other difficulties were encountered during the volatiles analysis.

Case Narrative

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169869-1

Job ID: 460-169869-1 (Continued)

Laboratory: TestAmerica Edison (Continued)

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS)

Sample MW-38 (460-169869-1) was analyzed for semivolatile organic compounds (GC/MS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 11/25/2018 and analyzed on 11/26/2018.

The laboratory control sample (LCS) for preparation batch 460-570966 and analytical batch 460-570911 recovered outside control limits for the following analytes: Phenol. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Refer to the QC report for details.

No other difficulties were encountered during the semivolatiles analysis.

All other quality control parameters were within the acceptance limits.

METALS

Sample MW-38 (460-169869-1) was analyzed for Metals in accordance with 6010D. The samples were prepared on 11/29/2018 and analyzed on 12/02/2018.

The presence of the '4' qualifier in the data indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Refer to the QC report for details.

No other difficulties were encountered during the Metals analysis.

All other quality control parameters were within the acceptance limits.

TOTAL MERCURY

Sample MW-38 (460-169869-1) was analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared and analyzed on 12/04/2018.

No difficulties were encountered during the Hg analysis.

All quality control parameters were within the acceptance limits.

TOTAL CYANIDE

Sample MW-38 (460-169869-1) was analyzed for total cyanide in accordance with EPA SW-846 Method 9012B. The samples were prepared and analyzed on 11/29/2018.

Cyanide, Total failed the recovery criteria low for the Matrix Spike (MS) of sample 460-169542-5 in batch 460-571958.

Cyanide, Total failed the recovery criteria high for the Matrix Spike Duplicate (MSD) of sample 460-169872-3 in batch 460-571958.

Refer to the QC report for details.

No other difficulties were encountered during the cyanide analysis.

All other quality control parameters were within the acceptance limits.

Detection Summary

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169869-1

Client Sample ID: MW-38

Lab Sample ID: 460-169869-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Benzene	190		1.0	0.43	ug/L	1			8260C	Total/NA
Ethylbenzene	51		1.0	0.30	ug/L	1			8260C	Total/NA
Toluene	1.6		1.0	0.38	ug/L	1			8260C	Total/NA
Xylenes, Total	28		2.0	0.65	ug/L	1			8260C	Total/NA
Methyl tert-butyl ether	5.0		1.0	0.47	ug/L	1			8260C	Total/NA
Cyclohexane	5.9		1.0	0.32	ug/L	1			8260C	Total/NA
Isopropylbenzene	57		1.0	0.34	ug/L	1			8260C	Total/NA
Methylcyclohexane	4.8		1.0	0.26	ug/L	1			8260C	Total/NA
1,1'-Biphenyl	2.7	J	10	1.2	ug/L	1			8270D	Total/NA
2-Methylnaphthalene	46		10	1.1	ug/L	1			8270D	Total/NA
Acenaphthene	110		10	1.1	ug/L	1			8270D	Total/NA
Anthracene	3.7	J	10	0.66	ug/L	1			8270D	Total/NA
Carbazole	4.0	J	10	0.71	ug/L	1			8270D	Total/NA
Dibenzofuran	4.9	J	10	1.1	ug/L	1			8270D	Total/NA
Fluoranthene	1.6	J	10	0.88	ug/L	1			8270D	Total/NA
Fluorene	27		10	0.95	ug/L	1			8270D	Total/NA
Naphthalene	150		10	1.2	ug/L	1			8270D	Total/NA
Phenanthrene	18		10	0.60	ug/L	1			8270D	Total/NA
Pyrene	2.0	J	10	1.7	ug/L	1			8270D	Total/NA
Aluminum	61.5	J	200	28.6	ug/L	1			6010D	Total/NA
Arsenic	2.7	J	15.0	2.7	ug/L	1			6010D	Total/NA
Barium	311		200	7.7	ug/L	1			6010D	Total/NA
Calcium	134000		5000	222	ug/L	1			6010D	Total/NA
Iron	37800		150	34.2	ug/L	1			6010D	Total/NA
Magnesium	37600		5000	177	ug/L	1			6010D	Total/NA
Manganese	274		15.0	0.99	ug/L	1			6010D	Total/NA
Nickel	6.7	J	40.0	1.7	ug/L	1			6010D	Total/NA
Potassium	14100		5000	323	ug/L	1			6010D	Total/NA
Sodium	169000		5000	460	ug/L	1			6010D	Total/NA
Cyanide, Total	0.091		0.010	0.0020	mg/L	1			9012B	Total/NA

Client Sample ID: TB-11212018

Lab Sample ID: 460-169869-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Methylene Chloride	0.36	J	1.0	0.32	ug/L	1			8260C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169869-1

Client Sample ID: MW-38

Date Collected: 11/21/18 12:35

Date Received: 11/21/18 16:07

Lab Sample ID: 460-169869-1

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			12/01/18 01:38	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			12/01/18 01:38	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			12/01/18 01:38	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			12/01/18 01:38	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			12/01/18 01:38	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			12/01/18 01:38	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			12/01/18 01:38	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			12/01/18 01:38	1
2-Hexanone	5.0	U	5.0	2.9	ug/L			12/01/18 01:38	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.7	ug/L			12/01/18 01:38	1
Acetone	5.0	U	5.0	5.0	ug/L			12/01/18 01:38	1
Benzene	190		1.0	0.43	ug/L			12/01/18 01:38	1
Bromoform	1.0	U	1.0	0.54	ug/L			12/01/18 01:38	1
Trichlorofluoromethane	1.0	U	1.0	0.14	ug/L			12/01/18 01:38	1
Bromomethane	1.0	U	1.0	1.0	ug/L			12/01/18 01:38	1
Carbon disulfide	1.0	U	1.0	0.16	ug/L			12/01/18 01:38	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			12/01/18 01:38	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			12/01/18 01:38	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			12/01/18 01:38	1
Chloroethane	1.0	U	1.0	0.32	ug/L			12/01/18 01:38	1
Chloroform	1.0	U	1.0	0.33	ug/L			12/01/18 01:38	1
Chloromethane	1.0	U	1.0	0.14	ug/L			12/01/18 01:38	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			12/01/18 01:38	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			12/01/18 01:38	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			12/01/18 01:38	1
Ethylbenzene	51		1.0	0.30	ug/L			12/01/18 01:38	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			12/01/18 01:38	1
Styrene	1.0	U	1.0	0.42	ug/L			12/01/18 01:38	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			12/01/18 01:38	1
Toluene	1.6		1.0	0.38	ug/L			12/01/18 01:38	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			12/01/18 01:38	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			12/01/18 01:38	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			12/01/18 01:38	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			12/01/18 01:38	1
Xylenes, Total	28		2.0	0.65	ug/L			12/01/18 01:38	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			12/01/18 01:38	1
Methyl tert-butyl ether	5.0		1.0	0.47	ug/L			12/01/18 01:38	1
Cyclohexane	5.9		1.0	0.32	ug/L			12/01/18 01:38	1
Ethylene Dibromide	1.0	U	1.0	0.50	ug/L			12/01/18 01:38	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			12/01/18 01:38	1
1,4-Dichlorobenzene	1.0	U	1.0	0.76	ug/L			12/01/18 01:38	1
1,2-Dichlorobenzene	1.0	U	1.0	0.43	ug/L			12/01/18 01:38	1
Dichlorodifluoromethane	1.0	U	1.0	0.12	ug/L			12/01/18 01:38	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.37	ug/L			12/01/18 01:38	1
1,4-Dioxane	50	U	50	28	ug/L			12/01/18 01:38	1
1,2,3-Trichlorobenzene	1.0	U	1.0	0.36	ug/L			12/01/18 01:38	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.38	ug/L			12/01/18 01:38	1
Chlorobromomethane	1.0	U	1.0	0.41	ug/L			12/01/18 01:38	1
Isopropylbenzene	57		1.0	0.34	ug/L			12/01/18 01:38	1

TestAmerica Edison

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TestAmerica Job ID: 460-169869-1

Client Sample ID: MW-38

Date Collected: 11/21/18 12:35

Date Received: 11/21/18 16:07

Lab Sample ID: 460-169869-1

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl acetate	5.0	U	5.0	0.31	ug/L			12/01/18 01:38	1
Methylcyclohexane	4.8		1.0	0.26	ug/L			12/01/18 01:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		74 - 132					12/01/18 01:38	1
4-Bromofluorobenzene	102		77 - 124					12/01/18 01:38	1
Dibromofluoromethane (Surr)	98		72 - 131					12/01/18 01:38	1
Toluene-d8 (Surr)	101		80 - 120					12/01/18 01:38	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	2.7	J	10	1.2	ug/L		11/25/18 10:10	11/26/18 05:36	1
2,2'-oxybis[1-chloropropane]	10	U	10	0.66	ug/L		11/25/18 10:10	11/26/18 05:36	1
2,4,5-Trichlorophenol	10	U	10	0.29	ug/L		11/25/18 10:10	11/26/18 05:36	1
2,4,6-Trichlorophenol	10	U	10	0.31	ug/L		11/25/18 10:10	11/26/18 05:36	1
2,4-Dichlorophenol	10	U	10	0.44	ug/L		11/25/18 10:10	11/26/18 05:36	1
2,4-Dimethylphenol	10	U	10	0.25	ug/L		11/25/18 10:10	11/26/18 05:36	1
2,4-Dinitrophenol	21	U	21	15	ug/L		11/25/18 10:10	11/26/18 05:36	1
2,4-Dinitrotoluene	2.1	U	2.1	1.0	ug/L		11/25/18 10:10	11/26/18 05:36	1
2,6-Dinitrotoluene	2.1	U	2.1	0.41	ug/L		11/25/18 10:10	11/26/18 05:36	1
2-Chloronaphthalene	10	U	10	1.2	ug/L		11/25/18 10:10	11/26/18 05:36	1
2-Chlorophenol	10	U	10	0.39	ug/L		11/25/18 10:10	11/26/18 05:36	1
2-Methylnaphthalene	46		10	1.1	ug/L		11/25/18 10:10	11/26/18 05:36	1
2-Methylphenol	10	U	10	0.27	ug/L		11/25/18 10:10	11/26/18 05:36	1
2-Nitroaniline	10	U	10	0.49	ug/L		11/25/18 10:10	11/26/18 05:36	1
2-Nitrophenol	10	U	10	0.78	ug/L		11/25/18 10:10	11/26/18 05:36	1
3,3'-Dichlorobenzidine	10	U	10	1.5	ug/L		11/25/18 10:10	11/26/18 05:36	1
3-Nitroaniline	10	U	10	1.0	ug/L		11/25/18 10:10	11/26/18 05:36	1
4,6-Dinitro-2-methylphenol	21	U	21	14	ug/L		11/25/18 10:10	11/26/18 05:36	1
4-Bromophenyl phenyl ether	10	U	10	0.78	ug/L		11/25/18 10:10	11/26/18 05:36	1
4-Chloro-3-methylphenol	10	U	10	0.60	ug/L		11/25/18 10:10	11/26/18 05:36	1
4-Chloroaniline	10	U	10	2.0	ug/L		11/25/18 10:10	11/26/18 05:36	1
4-Chlorophenyl phenyl ether	10	U	10	1.3	ug/L		11/25/18 10:10	11/26/18 05:36	1
4-Methylphenol	10	U	10	0.24	ug/L		11/25/18 10:10	11/26/18 05:36	1
4-Nitroaniline	10	U	10	0.57	ug/L		11/25/18 10:10	11/26/18 05:36	1
4-Nitrophenol	21	U	21	0.72	ug/L		11/25/18 10:10	11/26/18 05:36	1
Acenaphthene	110		10	1.1	ug/L		11/25/18 10:10	11/26/18 05:36	1
Acenaphthylene	10	U	10	0.86	ug/L		11/25/18 10:10	11/26/18 05:36	1
Acetophenone	10	U	10	0.82	ug/L		11/25/18 10:10	11/26/18 05:36	1
Anthracene	3.7	J	10	0.66	ug/L		11/25/18 10:10	11/26/18 05:36	1
Atrazine	2.1	U	2.1	1.4	ug/L		11/25/18 10:10	11/26/18 05:36	1
Benzaldehyde	10	U	10	0.62	ug/L		11/25/18 10:10	11/26/18 05:36	1
Benzo[a]anthracene	1.0	U	1.0	0.62	ug/L		11/25/18 10:10	11/26/18 05:36	1
Benzo[a]pyrene	1.0	U	1.0	0.42	ug/L		11/25/18 10:10	11/26/18 05:36	1
Benzo[b]fluoranthene	2.1	U	2.1	1.2	ug/L		11/25/18 10:10	11/26/18 05:36	1
Benzo[g,h,i]perylene	10	U	10	1.5	ug/L		11/25/18 10:10	11/26/18 05:36	1
Benzo[k]fluoranthene	1.0	U	1.0	0.70	ug/L		11/25/18 10:10	11/26/18 05:36	1
Bis(2-chloroethoxy)methane	10	U	10	0.25	ug/L		11/25/18 10:10	11/26/18 05:36	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.31	ug/L		11/25/18 10:10	11/26/18 05:36	1
Bis(2-ethylhexyl) phthalate	2.1	U	2.1	1.8	ug/L		11/25/18 10:10	11/26/18 05:36	1

TestAmerica Edison

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TestAmerica Job ID: 460-169869-1

Client Sample ID: MW-38

Date Collected: 11/21/18 12:35

Date Received: 11/21/18 16:07

Lab Sample ID: 460-169869-1

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Butyl benzyl phthalate	10	U	10	0.89	ug/L		11/25/18 10:10	11/26/18 05:36	1
Caprolactam	10	U	10	0.71	ug/L		11/25/18 10:10	11/26/18 05:36	1
Carbazole	4.0	J	10	0.71	ug/L		11/25/18 10:10	11/26/18 05:36	1
Chrysene	2.1	U	2.1	0.94	ug/L		11/25/18 10:10	11/26/18 05:36	1
Dibenz(a,h)anthracene	1.0	U	1.0	0.75	ug/L		11/25/18 10:10	11/26/18 05:36	1
Dibenzofuran	4.9	J	10	1.1	ug/L		11/25/18 10:10	11/26/18 05:36	1
Diethyl phthalate	10	U	10	1.0	ug/L		11/25/18 10:10	11/26/18 05:36	1
Dimethyl phthalate	10	U	10	0.80	ug/L		11/25/18 10:10	11/26/18 05:36	1
Di-n-butyl phthalate	10	U	10	0.88	ug/L		11/25/18 10:10	11/26/18 05:36	1
Di-n-octyl phthalate	10	U	10	5.0	ug/L		11/25/18 10:10	11/26/18 05:36	1
Fluoranthene	1.6	J	10	0.88	ug/L		11/25/18 10:10	11/26/18 05:36	1
Fluorene	27		10	0.95	ug/L		11/25/18 10:10	11/26/18 05:36	1
Hexachlorobenzene	1.0	U	1.0	0.41	ug/L		11/25/18 10:10	11/26/18 05:36	1
Hexachlorobutadiene	1.0	U	1.0	0.81	ug/L		11/25/18 10:10	11/26/18 05:36	1
Hexachlorocyclopentadiene	10	U	10	1.8	ug/L		11/25/18 10:10	11/26/18 05:36	1
Hexachloroethane	2.1	U	2.1	1.2	ug/L		11/25/18 10:10	11/26/18 05:36	1
Indeno[1,2,3-cd]pyrene	2.1	U	2.1	1.3	ug/L		11/25/18 10:10	11/26/18 05:36	1
Isophorone	10	U	10	0.83	ug/L		11/25/18 10:10	11/26/18 05:36	1
Naphthalene	150		10	1.2	ug/L		11/25/18 10:10	11/26/18 05:36	1
Nitrobenzene	1.0	U	1.0	0.59	ug/L		11/25/18 10:10	11/26/18 05:36	1
N-Nitrosodi-n-propylamine	1.0	U	1.0	0.45	ug/L		11/25/18 10:10	11/26/18 05:36	1
N-Nitrosodiphenylamine	10	U	10	0.93	ug/L		11/25/18 10:10	11/26/18 05:36	1
Pentachlorophenol	21	U	21	1.5	ug/L		11/25/18 10:10	11/26/18 05:36	1
Phenanthrene	18		10	0.60	ug/L		11/25/18 10:10	11/26/18 05:36	1
Phenol	10	U *	10	0.30	ug/L		11/25/18 10:10	11/26/18 05:36	1
Pyrene	2.0	J	10	1.7	ug/L		11/25/18 10:10	11/26/18 05:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	90		26 - 139	11/25/18 10:10	11/26/18 05:36	1
2-Fluorobiphenyl	71		45 - 107	11/25/18 10:10	11/26/18 05:36	1
2-Fluorophenol (Surr)	50		25 - 58	11/25/18 10:10	11/26/18 05:36	1
Nitrobenzene-d5 (Surr)	88		51 - 108	11/25/18 10:10	11/26/18 05:36	1
Phenol-d5 (Surr)	35		14 - 39	11/25/18 10:10	11/26/18 05:36	1
Terphenyl-d14 (Surr)	71		40 - 148	11/25/18 10:10	11/26/18 05:36	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	61.5	J	200	28.6	ug/L		11/29/18 23:45	12/02/18 16:10	1
Antimony	20.0	U	20.0	2.9	ug/L		11/29/18 23:45	12/02/18 16:10	1
Arsenic	2.7	J	15.0	2.7	ug/L		11/29/18 23:45	12/02/18 16:10	1
Barium	311		200	7.7	ug/L		11/29/18 23:45	12/02/18 16:10	1
Beryllium	2.0	U	2.0	0.23	ug/L		11/29/18 23:45	12/02/18 16:10	1
Cadmium	4.0	U	4.0	0.22	ug/L		11/29/18 23:45	12/02/18 16:10	1
Calcium	134000		5000	222	ug/L		11/29/18 23:45	12/02/18 16:10	1
Chromium	10.0	U	10.0	1.3	ug/L		11/29/18 23:45	12/02/18 16:10	1
Cobalt	50.0	U	50.0	1.7	ug/L		11/29/18 23:45	12/02/18 16:10	1
Copper	25.0	U	25.0	5.1	ug/L		11/29/18 23:45	12/02/18 16:10	1
Iron	37800		150	34.2	ug/L		11/29/18 23:45	12/02/18 16:10	1
Lead	10.0	U	10.0	2.5	ug/L		11/29/18 23:45	12/02/18 16:10	1
Magnesium	37600		5000	177	ug/L		11/29/18 23:45	12/02/18 16:10	1

TestAmerica Edison

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TestAmerica Job ID: 460-169869-1

Client Sample ID: MW-38

Date Collected: 11/21/18 12:35

Date Received: 11/21/18 16:07

Lab Sample ID: 460-169869-1

Matrix: Water

Method: 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	274		15.0	0.99	ug/L		11/29/18 23:45	12/02/18 16:10	1
Nickel	6.7	J	40.0	1.7	ug/L		11/29/18 23:45	12/02/18 16:10	1
Potassium	14100		5000	323	ug/L		11/29/18 23:45	12/02/18 16:10	1
Selenium	20.0	U	20.0	6.6	ug/L		11/29/18 23:45	12/02/18 16:10	1
Silver	10.0	U	10.0	1.1	ug/L		11/29/18 23:45	12/02/18 16:10	1
Sodium	169000		5000	460	ug/L		11/29/18 23:45	12/02/18 16:10	1
Thallium	20.0	U	20.0	5.4	ug/L		11/29/18 23:45	12/02/18 16:10	1
Vanadium	50.0	U	50.0	2.5	ug/L		11/29/18 23:45	12/02/18 16:10	1
Zinc	30.0	U	30.0	3.6	ug/L		11/29/18 23:45	12/02/18 16:10	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		12/04/18 12:46	12/04/18 15:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.091		0.010	0.0020	mg/L		11/29/18 09:02	11/29/18 11:29	1

Client Sample ID: TB-11212018

Date Collected: 11/21/18 00:00

Date Received: 11/21/18 16:07

Lab Sample ID: 460-169869-2

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/30/18 16:42	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			11/30/18 16:42	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			11/30/18 16:42	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			11/30/18 16:42	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			11/30/18 16:42	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			11/30/18 16:42	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			11/30/18 16:42	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			11/30/18 16:42	1
2-Hexanone	5.0	U	5.0	2.9	ug/L			11/30/18 16:42	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.7	ug/L			11/30/18 16:42	1
Acetone	5.0	U	5.0	5.0	ug/L			11/30/18 16:42	1
Benzene	1.0	U	1.0	0.43	ug/L			11/30/18 16:42	1
Bromoform	1.0	U	1.0	0.54	ug/L			11/30/18 16:42	1
Trichlorofluoromethane	1.0	U	1.0	0.14	ug/L			11/30/18 16:42	1
Bromomethane	1.0	U	1.0	1.0	ug/L			11/30/18 16:42	1
Carbon disulfide	1.0	U	1.0	0.16	ug/L			11/30/18 16:42	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			11/30/18 16:42	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			11/30/18 16:42	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			11/30/18 16:42	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/30/18 16:42	1
Chloroform	1.0	U	1.0	0.33	ug/L			11/30/18 16:42	1
Chloromethane	1.0	U	1.0	0.14	ug/L			11/30/18 16:42	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			11/30/18 16:42	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			11/30/18 16:42	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			11/30/18 16:42	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			11/30/18 16:42	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169869-1

Client Sample ID: TB-11212018

Lab Sample ID: 460-169869-2

Date Collected: 11/21/18 00:00

Matrix: Water

Date Received: 11/21/18 16:07

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.36	J	1.0	0.32	ug/L			11/30/18 16:42	1
Styrene	1.0	U	1.0	0.42	ug/L			11/30/18 16:42	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			11/30/18 16:42	1
Toluene	1.0	U	1.0	0.38	ug/L			11/30/18 16:42	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			11/30/18 16:42	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			11/30/18 16:42	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			11/30/18 16:42	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			11/30/18 16:42	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			11/30/18 16:42	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/30/18 16:42	1
Methyl tert-butyl ether	1.0	U	1.0	0.47	ug/L			11/30/18 16:42	1
Cyclohexane	1.0	U	1.0	0.32	ug/L			11/30/18 16:42	1
Ethylene Dibromide	1.0	U	1.0	0.50	ug/L			11/30/18 16:42	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			11/30/18 16:42	1
1,4-Dichlorobenzene	1.0	U	1.0	0.76	ug/L			11/30/18 16:42	1
1,2-Dichlorobenzene	1.0	U	1.0	0.43	ug/L			11/30/18 16:42	1
Dichlorodifluoromethane	1.0	U	1.0	0.12	ug/L			11/30/18 16:42	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.37	ug/L			11/30/18 16:42	1
1,4-Dioxane	50	U	50	28	ug/L			11/30/18 16:42	1
1,2,3-Trichlorobenzene	1.0	U	1.0	0.36	ug/L			11/30/18 16:42	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.38	ug/L			11/30/18 16:42	1
Chlorobromomethane	1.0	U	1.0	0.41	ug/L			11/30/18 16:42	1
Isopropylbenzene	1.0	U	1.0	0.34	ug/L			11/30/18 16:42	1
Methyl acetate	5.0	U	5.0	0.31	ug/L			11/30/18 16:42	1
Methylcyclohexane	1.0	U	1.0	0.26	ug/L			11/30/18 16:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		74 - 132					11/30/18 16:42	1
4-Bromofluorobenzene	95		77 - 124					11/30/18 16:42	1
Dibromofluoromethane (Surr)	101		72 - 131					11/30/18 16:42	1
Toluene-d8 (Surr)	101		80 - 120					11/30/18 16:42	1

TestAmerica Edison

Surrogate Summary

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169869-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (74-132)	BFB (77-124)	DBFM (72-131)	TOL (80-120)
460-169864-A-6 MS	Matrix Spike	95	101	100	100
460-169864-A-6 MSD	Matrix Spike Duplicate	93	103	100	103
460-169869-1	MW-38	95	102	98	101
460-169869-2	TB-11212018	98	95	101	101
460-170182-B-1 MS	Matrix Spike	96	102	103	103
460-170182-B-1 MSD	Matrix Spike Duplicate	94	99	100	102
LCS 460-572143/3	Lab Control Sample	93	99	98	102
LCS 460-572342/4	Lab Control Sample	95	99	101	101
LCSD 460-572342/5	Lab Control Sample Dup	93	99	101	102
MB 460-572143/8	Method Blank	94	95	103	99
MB 460-572342/9	Method Blank	97	96	103	101

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (26-139)	FBP (45-107)	2FP (25-58)	NBZ (51-108)	PHL (14-39)	TPHL (40-148)
460-169869-1	MW-38	90	71	50	88	35	71
460-169897-E-2-A MS	Matrix Spike	96	82	48	94	33	86
460-169897-E-2-B MSD	Matrix Spike Duplicate	90	79	44	90	30	77
LCS 460-570966/2-A	Lab Control Sample	101	84	55	100	38	90
LCS 460-570966/4-A	Lab Control Sample	96	77	52	96	39	75
LCSD 460-570966/3-A	Lab Control Sample Dup	96	81	49	94	34	81
LCSD 460-570966/5-A	Lab Control Sample Dup	96	73	52	96	39	76
MB 460-570966/1-A	Method Blank	93	72	52	95	37	77

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)

FBP = 2-Fluorobiphenyl

2FP = 2-Fluorophenol (Surr)

NBZ = Nitrobenzene-d5 (Surr)

PHL = Phenol-d5 (Surr)

TPHL = Terphenyl-d14 (Surr)

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169869-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 460-572143/8

Matrix: Water

Analysis Batch: 572143

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/30/18 10:54	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			11/30/18 10:54	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			11/30/18 10:54	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			11/30/18 10:54	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			11/30/18 10:54	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			11/30/18 10:54	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			11/30/18 10:54	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			11/30/18 10:54	1
2-Hexanone	5.0	U	5.0	2.9	ug/L			11/30/18 10:54	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.7	ug/L			11/30/18 10:54	1
Acetone	5.0	U	5.0	5.0	ug/L			11/30/18 10:54	1
Benzene	1.0	U	1.0	0.43	ug/L			11/30/18 10:54	1
Bromoform	1.0	U	1.0	0.54	ug/L			11/30/18 10:54	1
Trichlorofluoromethane	1.0	U	1.0	0.14	ug/L			11/30/18 10:54	1
Bromomethane	1.0	U	1.0	1.0	ug/L			11/30/18 10:54	1
Carbon disulfide	1.0	U	1.0	0.16	ug/L			11/30/18 10:54	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			11/30/18 10:54	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			11/30/18 10:54	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			11/30/18 10:54	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/30/18 10:54	1
Chloroform	1.0	U	1.0	0.33	ug/L			11/30/18 10:54	1
Chloromethane	1.0	U	1.0	0.14	ug/L			11/30/18 10:54	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			11/30/18 10:54	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			11/30/18 10:54	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			11/30/18 10:54	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			11/30/18 10:54	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			11/30/18 10:54	1
Styrene	1.0	U	1.0	0.42	ug/L			11/30/18 10:54	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			11/30/18 10:54	1
Toluene	1.0	U	1.0	0.38	ug/L			11/30/18 10:54	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			11/30/18 10:54	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			11/30/18 10:54	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			11/30/18 10:54	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			11/30/18 10:54	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			11/30/18 10:54	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/30/18 10:54	1
Methyl tert-butyl ether	1.0	U	1.0	0.47	ug/L			11/30/18 10:54	1
Cyclohexane	1.0	U	1.0	0.32	ug/L			11/30/18 10:54	1
Ethylene Dibromide	1.0	U	1.0	0.50	ug/L			11/30/18 10:54	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			11/30/18 10:54	1
1,4-Dichlorobenzene	1.0	U	1.0	0.76	ug/L			11/30/18 10:54	1
1,2-Dichlorobenzene	1.0	U	1.0	0.43	ug/L			11/30/18 10:54	1
Dichlorodifluoromethane	1.0	U	1.0	0.12	ug/L			11/30/18 10:54	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.37	ug/L			11/30/18 10:54	1
1,4-Dioxane	50	U	50	28	ug/L			11/30/18 10:54	1
1,2,3-Trichlorobenzene	1.0	U	1.0	0.36	ug/L			11/30/18 10:54	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.38	ug/L			11/30/18 10:54	1
Chlorobromomethane	1.0	U	1.0	0.41	ug/L			11/30/18 10:54	1

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169869-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 460-572143/8

Matrix: Water

Analysis Batch: 572143

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	1.0	U	1.0	0.34	ug/L			11/30/18 10:54	1
Methyl acetate	5.0	U	5.0	0.31	ug/L			11/30/18 10:54	1
Methylcyclohexane	1.0	U	1.0	0.26	ug/L			11/30/18 10:54	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		74 - 132		11/30/18 10:54	1
4-Bromofluorobenzene	95		77 - 124		11/30/18 10:54	1
Dibromofluoromethane (Surr)	103		72 - 131		11/30/18 10:54	1
Toluene-d8 (Surr)	99		80 - 120		11/30/18 10:54	1

Lab Sample ID: LCS 460-572143/3

Matrix: Water

Analysis Batch: 572143

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	19.0		ug/L		95	75 - 125
1,1,2,2-Tetrachloroethane	20.0	20.4		ug/L		102	74 - 120
1,1,2-Trichloroethane	20.0	21.4		ug/L		107	78 - 120
1,1-Dichloroethane	20.0	19.8		ug/L		99	77 - 123
1,1-Dichloroethene	20.0	19.9		ug/L		99	74 - 123
1,2-Dichloroethane	20.0	20.0		ug/L		100	76 - 121
1,2-Dichloropropane	20.0	20.7		ug/L		103	77 - 123
2-Butanone (MEK)	100	105		ug/L		105	64 - 120
2-Hexanone	100	107		ug/L		107	71 - 125
4-Methyl-2-pentanone (MIBK)	100	108		ug/L		108	78 - 124
Acetone	100	96.1		ug/L		96	39 - 150
Benzene	20.0	20.9		ug/L		104	77 - 121
Bromoform	20.0	20.1		ug/L		101	53 - 120
Trichlorofluoromethane	20.0	20.1		ug/L		100	71 - 143
Bromomethane	20.0	13.6		ug/L		68	10 - 150
Carbon disulfide	20.0	19.9		ug/L		100	69 - 133
Carbon tetrachloride	20.0	19.3		ug/L		96	70 - 132
Chlorobenzene	20.0	20.9		ug/L		104	80 - 120
Chlorodibromomethane	20.0	21.5		ug/L		108	73 - 120
Chloroethane	20.0	20.5		ug/L		102	52 - 150
Chloroform	20.0	20.0		ug/L		100	80 - 120
Chloromethane	20.0	16.1		ug/L		81	56 - 131
cis-1,2-Dichloroethene	20.0	21.2		ug/L		106	80 - 120
cis-1,3-Dichloropropene	20.0	20.0		ug/L		100	77 - 120
Dichlorobromomethane	20.0	19.8		ug/L		99	76 - 120
Ethylbenzene	20.0	19.2		ug/L		96	80 - 120
Methylene Chloride	20.0	19.6		ug/L		98	77 - 123
Styrene	20.0	20.4		ug/L		102	80 - 120
Tetrachloroethene	20.0	21.3		ug/L		106	78 - 122
Toluene	20.0	20.3		ug/L		101	80 - 120
trans-1,2-Dichloroethene	20.0	21.0		ug/L		105	79 - 120
trans-1,3-Dichloropropene	20.0	19.5		ug/L		98	76 - 120
Trichloroethene	20.0	20.8		ug/L		104	77 - 120

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169869-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-572143/3

Matrix: Water

Analysis Batch: 572143

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	20.0	18.5		ug/L		92	62 - 138
Xylenes, Total	40.0	39.3		ug/L		98	80 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	19.7		ug/L		99	59 - 150
Methyl tert-butyl ether	20.0	19.8		ug/L		99	79 - 122
Cyclohexane	20.0	19.1		ug/L		95	56 - 150
Ethylene Dibromide	20.0	20.6		ug/L		103	80 - 120
1,3-Dichlorobenzene	20.0	19.8		ug/L		99	80 - 120
1,4-Dichlorobenzene	20.0	20.7		ug/L		104	80 - 120
1,2-Dichlorobenzene	20.0	20.7		ug/L		103	80 - 120
Dichlorodifluoromethane	20.0	12.8		ug/L		64	50 - 131
1,2,4-Trichlorobenzene	20.0	18.4		ug/L		92	80 - 124
1,4-Dioxane	400	428		ug/L		107	10 - 150
1,2,3-Trichlorobenzene	20.0	20.7		ug/L		104	78 - 131
1,2-Dibromo-3-Chloropropane	20.0	19.6		ug/L		98	55 - 134
Chlorobromomethane	20.0	22.5		ug/L		112	77 - 127
Isopropylbenzene	20.0	18.7		ug/L		93	80 - 123
Methyl acetate	40.0	37.3		ug/L		93	66 - 144
Methylcyclohexane	20.0	15.9		ug/L		79	61 - 145

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	93		74 - 132
4-Bromofluorobenzene	99		77 - 124
Dibromofluoromethane (Surr)	98		72 - 131
Toluene-d8 (Surr)	102		80 - 120

Lab Sample ID: 460-170182-B-1 MS

Matrix: Water

Analysis Batch: 572143

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	1.0	U	200	179		ug/L		89	75 - 125
1,1,2,2-Tetrachloroethane	1.0	U	200	195		ug/L		98	74 - 120
1,1,2-Trichloroethane	1.0	U	200	200		ug/L		100	78 - 120
1,1-Dichloroethane	1.0	U	200	186		ug/L		93	77 - 123
1,1-Dichloroethene	1.0	U	200	197		ug/L		99	74 - 123
1,2-Dichloroethane	1.0	U	200	187		ug/L		94	76 - 121
1,2-Dichloropropane	1.0	U	200	191		ug/L		95	77 - 123
2-Butanone (MEK)	5.0	U	1000	941		ug/L		94	64 - 120
2-Hexanone	5.0	U	1000	966		ug/L		97	71 - 125
4-Methyl-2-pentanone (MIBK)	5.0	U	1000	989		ug/L		99	78 - 124
Acetone	5.0	U	1000	856		ug/L		86	39 - 150
Benzene	1.0	U	200	193		ug/L		96	77 - 121
Bromoform	1.0	U	200	193		ug/L		96	53 - 120
Trichlorofluoromethane	1.0	U	200	203		ug/L		101	71 - 143
Bromomethane	1.0	U	200	126		ug/L		63	10 - 150
Carbon disulfide	1.0	U	200	187		ug/L		94	69 - 133
Carbon tetrachloride	1.0	U	200	183		ug/L		92	70 - 132

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169869-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 460-170182-B-1 MS

Matrix: Water

Analysis Batch: 572143

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chlorobenzene	1.0	U	200	194		ug/L		97	80 - 120
Chlorodibromomethane	1.0	U	200	197		ug/L		98	73 - 120
Chloroethane	1.0	U	200	205		ug/L		103	52 - 150
Chloroform	1.0	U	200	190		ug/L		95	80 - 120
Chloromethane	1.0	U	200	175		ug/L		88	56 - 131
cis-1,2-Dichloroethene	1.0	U	200	209		ug/L		104	80 - 120
cis-1,3-Dichloropropene	1.0	U	200	182		ug/L		91	77 - 120
Dichlorobromomethane	1.0	U	200	190		ug/L		95	76 - 120
Ethylbenzene	1.0	U	200	183		ug/L		91	80 - 120
Methylene Chloride	1.0	U	200	190		ug/L		95	77 - 123
Styrene	1.0	U	200	194		ug/L		97	80 - 120
Tetrachloroethene	1.0	U	200	200		ug/L		100	78 - 122
Toluene	1.0	U	200	191		ug/L		96	80 - 120
trans-1,2-Dichloroethene	1.0	U	200	197		ug/L		98	79 - 120
trans-1,3-Dichloropropene	1.0	U	200	175		ug/L		87	76 - 120
Trichloroethene	1.0	U	200	193		ug/L		97	77 - 120
Vinyl chloride	1.0	U	200	191		ug/L		96	62 - 138
Xylenes, Total	2.0	U	400	360		ug/L		90	80 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	200	194		ug/L		97	59 - 150
Methyl tert-butyl ether	1.0	U	200	187		ug/L		94	79 - 122
Cyclohexane	1.0	U	200	179		ug/L		90	56 - 150
Ethylene Dibromide	1.0	U	200	194		ug/L		97	80 - 120
1,3-Dichlorobenzene	1.0	U	200	187		ug/L		93	80 - 120
1,4-Dichlorobenzene	1.0	U	200	193		ug/L		96	80 - 120
1,2-Dichlorobenzene	1.0	U	200	190		ug/L		95	80 - 120
Dichlorodifluoromethane	1.0	U	200	179		ug/L		90	50 - 131
1,2,4-Trichlorobenzene	1.0	U	200	159		ug/L		80	80 - 124
1,4-Dioxane	50	U	4000	3990		ug/L		100	10 - 150
1,2,3-Trichlorobenzene	1.0	U	200	167		ug/L		84	78 - 131
1,2-Dibromo-3-Chloropropane	1.0	U	200	183		ug/L		92	55 - 134
Chlorobromomethane	1.0	U	200	211		ug/L		105	77 - 127
Isopropylbenzene	1.0	U	200	168		ug/L		84	80 - 123
Methyl acetate	5.0	U	400	347		ug/L		87	66 - 144
Methylcyclohexane	1.0	U	200	143		ug/L		72	61 - 145

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	96		74 - 132
4-Bromofluorobenzene	102		77 - 124
Dibromofluoromethane (Surr)	103		72 - 131
Toluene-d8 (Surr)	103		80 - 120

Lab Sample ID: 460-170182-B-1 MSD

Matrix: Water

Analysis Batch: 572143

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	1.0	U	200	183		ug/L		92	75 - 125	2	30

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169869-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 460-170182-B-1 MSD

Matrix: Water

Analysis Batch: 572143

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,2,2-Tetrachloroethane	1.0	U	200	190		ug/L		95	74 - 120	3	30
1,1,2-Trichloroethane	1.0	U	200	198		ug/L		99	78 - 120	1	30
1,1-Dichloroethane	1.0	U	200	181		ug/L		90	77 - 123	3	30
1,1-Dichloroethene	1.0	U	200	195		ug/L		97	74 - 123	1	30
1,2-Dichloroethane	1.0	U	200	187		ug/L		93	76 - 121	0	30
1,2-Dichloropropane	1.0	U	200	189		ug/L		95	77 - 123	1	30
2-Butanone (MEK)	5.0	U	1000	975		ug/L		97	64 - 120	4	30
2-Hexanone	5.0	U	1000	973		ug/L		97	71 - 125	1	30
4-Methyl-2-pentanone (MIBK)	5.0	U	1000	982		ug/L		98	78 - 124	1	30
Acetone	5.0	U	1000	843		ug/L		84	39 - 150	2	30
Benzene	1.0	U	200	197		ug/L		98	77 - 121	2	30
Bromoform	1.0	U	200	193		ug/L		97	53 - 120	0	30
Trichlorofluoromethane	1.0	U	200	205		ug/L		102	71 - 143	1	30
Bromomethane	1.0	U	200	145		ug/L		73	10 - 150	14	30
Carbon disulfide	1.0	U	200	186		ug/L		93	69 - 133	1	30
Carbon tetrachloride	1.0	U	200	178		ug/L		89	70 - 132	3	30
Chlorobenzene	1.0	U	200	195		ug/L		97	80 - 120	0	30
Chlorodibromomethane	1.0	U	200	195		ug/L		97	73 - 120	1	30
Chloroethane	1.0	U	200	207		ug/L		104	52 - 150	1	30
Chloroform	1.0	U	200	183		ug/L		91	80 - 120	4	30
Chloromethane	1.0	U	200	177		ug/L		89	56 - 131	1	30
cis-1,2-Dichloroethene	1.0	U	200	205		ug/L		102	80 - 120	2	30
cis-1,3-Dichloropropene	1.0	U	200	179		ug/L		89	77 - 120	2	30
Dichlorobromomethane	1.0	U	200	193		ug/L		96	76 - 120	2	30
Ethylbenzene	1.0	U	200	183		ug/L		91	80 - 120	0	30
Methylene Chloride	1.0	U	200	187		ug/L		94	77 - 123	1	30
Styrene	1.0	U	200	194		ug/L		97	80 - 120	0	30
Tetrachloroethene	1.0	U	200	196		ug/L		98	78 - 122	2	30
Toluene	1.0	U	200	189		ug/L		94	80 - 120	1	30
trans-1,2-Dichloroethene	1.0	U	200	195		ug/L		97	79 - 120	1	30
trans-1,3-Dichloropropene	1.0	U	200	176		ug/L		88	76 - 120	1	30
Trichloroethene	1.0	U	200	196		ug/L		98	77 - 120	1	30
Vinyl chloride	1.0	U	200	199		ug/L		100	62 - 138	4	30
Xylenes, Total	2.0	U	400	359		ug/L		90	80 - 120	0	30
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	200	190		ug/L		95	59 - 150	2	30
Methyl tert-butyl ether	1.0	U	200	186		ug/L		93	79 - 122	1	30
Cyclohexane	1.0	U	200	179		ug/L		90	56 - 150	0	30
Ethylene Dibromide	1.0	U	200	191		ug/L		96	80 - 120	1	30
1,3-Dichlorobenzene	1.0	U	200	188		ug/L		94	80 - 120	1	30
1,4-Dichlorobenzene	1.0	U	200	193		ug/L		96	80 - 120	0	30
1,2-Dichlorobenzene	1.0	U	200	189		ug/L		94	80 - 120	1	30
Dichlorodifluoromethane	1.0	U	200	176		ug/L		88	50 - 131	2	30
1,2,4-Trichlorobenzene	1.0	U	200	167		ug/L		83	80 - 124	4	30
1,4-Dioxane	50	U	4000	4220		ug/L		106	10 - 150	6	30
1,2,3-Trichlorobenzene	1.0	U	200	192		ug/L		96	78 - 131	14	30
1,2-Dibromo-3-Chloropropane	1.0	U	200	195		ug/L		98	55 - 134	6	30
Chlorobromomethane	1.0	U	200	212		ug/L		106	77 - 127	1	30

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169869-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 460-170182-B-1 MSD

Matrix: Water

Analysis Batch: 572143

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Isopropylbenzene	1.0	U	200	174		ug/L		87	80 - 123	3	30
Methyl acetate	5.0	U	400	351		ug/L		88	66 - 144	1	30
Methylcyclohexane	1.0	U	200	148		ug/L		74	61 - 145	3	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	94		74 - 132
4-Bromofluorobenzene	99		77 - 124
Dibromofluoromethane (Surr)	100		72 - 131
Toluene-d8 (Surr)	102		80 - 120

Lab Sample ID: MB 460-572342/9

Matrix: Water

Analysis Batch: 572342

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/30/18 23:51	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			11/30/18 23:51	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			11/30/18 23:51	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			11/30/18 23:51	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			11/30/18 23:51	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			11/30/18 23:51	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			11/30/18 23:51	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			11/30/18 23:51	1
2-Hexanone	5.0	U	5.0	2.9	ug/L			11/30/18 23:51	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.7	ug/L			11/30/18 23:51	1
Acetone	5.0	U	5.0	5.0	ug/L			11/30/18 23:51	1
Benzene	1.0	U	1.0	0.43	ug/L			11/30/18 23:51	1
Bromoform	1.0	U	1.0	0.54	ug/L			11/30/18 23:51	1
Trichlorofluoromethane	1.0	U	1.0	0.14	ug/L			11/30/18 23:51	1
Bromomethane	1.0	U	1.0	1.0	ug/L			11/30/18 23:51	1
Carbon disulfide	1.0	U	1.0	0.16	ug/L			11/30/18 23:51	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			11/30/18 23:51	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			11/30/18 23:51	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			11/30/18 23:51	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/30/18 23:51	1
Chloroform	1.0	U	1.0	0.33	ug/L			11/30/18 23:51	1
Chloromethane	1.0	U	1.0	0.14	ug/L			11/30/18 23:51	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			11/30/18 23:51	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			11/30/18 23:51	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			11/30/18 23:51	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			11/30/18 23:51	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			11/30/18 23:51	1
Styrene	1.0	U	1.0	0.42	ug/L			11/30/18 23:51	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			11/30/18 23:51	1
Toluene	1.0	U	1.0	0.38	ug/L			11/30/18 23:51	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			11/30/18 23:51	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			11/30/18 23:51	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			11/30/18 23:51	1

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169869-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 460-572342/9

Matrix: Water

Analysis Batch: 572342

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.17	ug/L			11/30/18 23:51	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			11/30/18 23:51	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/30/18 23:51	1
Methyl tert-butyl ether	1.0	U	1.0	0.47	ug/L			11/30/18 23:51	1
Cyclohexane	1.0	U	1.0	0.32	ug/L			11/30/18 23:51	1
Ethylene Dibromide	1.0	U	1.0	0.50	ug/L			11/30/18 23:51	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			11/30/18 23:51	1
1,4-Dichlorobenzene	1.0	U	1.0	0.76	ug/L			11/30/18 23:51	1
1,2-Dichlorobenzene	1.0	U	1.0	0.43	ug/L			11/30/18 23:51	1
Dichlorodifluoromethane	1.0	U	1.0	0.12	ug/L			11/30/18 23:51	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.37	ug/L			11/30/18 23:51	1
1,4-Dioxane	50	U	50	28	ug/L			11/30/18 23:51	1
1,2,3-Trichlorobenzene	1.0	U	1.0	0.36	ug/L			11/30/18 23:51	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.38	ug/L			11/30/18 23:51	1
Chlorobromomethane	1.0	U	1.0	0.41	ug/L			11/30/18 23:51	1
Isopropylbenzene	1.0	U	1.0	0.34	ug/L			11/30/18 23:51	1
Methyl acetate	5.0	U	5.0	0.31	ug/L			11/30/18 23:51	1
Methylcyclohexane	1.0	U	1.0	0.26	ug/L			11/30/18 23:51	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		74 - 132		11/30/18 23:51	1
4-Bromofluorobenzene	96		77 - 124		11/30/18 23:51	1
Dibromofluoromethane (Surr)	103		72 - 131		11/30/18 23:51	1
Toluene-d8 (Surr)	101		80 - 120		11/30/18 23:51	1

Lab Sample ID: LCS 460-572342/4

Matrix: Water

Analysis Batch: 572342

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	18.7		ug/L		94	75 - 125
1,1,1,2-Tetrachloroethane	20.0	20.6		ug/L		103	74 - 120
1,1,2-Trichloroethane	20.0	20.2		ug/L		101	78 - 120
1,1-Dichloroethane	20.0	19.4		ug/L		97	77 - 123
1,1-Dichloroethene	20.0	20.5		ug/L		103	74 - 123
1,2-Dichloroethane	20.0	19.1		ug/L		96	76 - 121
1,2-Dichloropropane	20.0	19.5		ug/L		98	77 - 123
2-Butanone (MEK)	100	100		ug/L		100	64 - 120
2-Hexanone	100	100		ug/L		100	71 - 125
4-Methyl-2-pentanone (MIBK)	100	103		ug/L		103	78 - 124
Acetone	100	89.9		ug/L		90	39 - 150
Benzene	20.0	20.6		ug/L		103	77 - 121
Bromoform	20.0	19.8		ug/L		99	53 - 120
Trichlorofluoromethane	20.0	17.7		ug/L		88	71 - 143
Bromomethane	20.0	11.2		ug/L		56	10 - 150
Carbon disulfide	20.0	19.0		ug/L		95	69 - 133
Carbon tetrachloride	20.0	18.8		ug/L		94	70 - 132
Chlorobenzene	20.0	20.5		ug/L		102	80 - 120

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169869-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-572342/4

Matrix: Water

Analysis Batch: 572342

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chlorodibromomethane	20.0	20.5		ug/L		102	73 - 120
Chloroethane	20.0	18.9		ug/L		95	52 - 150
Chloroform	20.0	19.4		ug/L		97	80 - 120
Chloromethane	20.0	16.2		ug/L		81	56 - 131
cis-1,2-Dichloroethene	20.0	21.7		ug/L		108	80 - 120
cis-1,3-Dichloropropene	20.0	19.3		ug/L		96	77 - 120
Dichlorobromomethane	20.0	19.7		ug/L		99	76 - 120
Ethylbenzene	20.0	19.3		ug/L		97	80 - 120
Methylene Chloride	20.0	19.2		ug/L		96	77 - 123
Styrene	20.0	20.0		ug/L		100	80 - 120
Tetrachloroethene	20.0	21.1		ug/L		105	78 - 122
Toluene	20.0	20.3		ug/L		102	80 - 120
trans-1,2-Dichloroethene	20.0	20.5		ug/L		102	79 - 120
trans-1,3-Dichloropropene	20.0	18.8		ug/L		94	76 - 120
Trichloroethene	20.0	20.8		ug/L		104	77 - 120
Vinyl chloride	20.0	17.5		ug/L		88	62 - 138
Xylenes, Total	40.0	39.0		ug/L		98	80 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	17.9		ug/L		90	59 - 150
Methyl tert-butyl ether	20.0	19.1		ug/L		95	79 - 122
Cyclohexane	20.0	17.7		ug/L		89	56 - 150
Ethylene Dibromide	20.0	19.9		ug/L		99	80 - 120
1,3-Dichlorobenzene	20.0	19.8		ug/L		99	80 - 120
1,4-Dichlorobenzene	20.0	20.1		ug/L		100	80 - 120
1,2-Dichlorobenzene	20.0	19.8		ug/L		99	80 - 120
Dichlorodifluoromethane	20.0	14.3		ug/L		72	50 - 131
1,2,4-Trichlorobenzene	20.0	18.3		ug/L		91	80 - 124
1,4-Dioxane	400	438		ug/L		110	10 - 150
1,2,3-Trichlorobenzene	20.0	20.6		ug/L		103	78 - 131
1,2-Dibromo-3-Chloropropane	20.0	20.3		ug/L		101	55 - 134
Chlorobromomethane	20.0	20.9		ug/L		105	77 - 127
Isopropylbenzene	20.0	18.4		ug/L		92	80 - 123
Methyl acetate	40.0	34.8		ug/L		87	66 - 144
Methylcyclohexane	20.0	14.9		ug/L		75	61 - 145

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	95		74 - 132
4-Bromofluorobenzene	99		77 - 124
Dibromofluoromethane (Surr)	101		72 - 131
Toluene-d8 (Surr)	101		80 - 120

Lab Sample ID: LCSD 460-572342/5

Matrix: Water

Analysis Batch: 572342

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	20.0	18.7		ug/L		93	75 - 125	0	30
1,1,2,2-Tetrachloroethane	20.0	20.0		ug/L		100	74 - 120	3	30

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169869-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 460-572342/5

Matrix: Water

Analysis Batch: 572342

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,2-Trichloroethane	20.0	20.3		ug/L		101	78 - 120	0	30
1,1-Dichloroethane	20.0	19.0		ug/L		95	77 - 123	2	30
1,1-Dichloroethene	20.0	20.0		ug/L		100	74 - 123	3	30
1,2-Dichloroethane	20.0	19.0		ug/L		95	76 - 121	1	30
1,2-Dichloropropane	20.0	19.3		ug/L		96	77 - 123	1	30
2-Butanone (MEK)	100	99.7		ug/L		100	64 - 120	1	30
2-Hexanone	100	100		ug/L		100	71 - 125	0	30
4-Methyl-2-pentanone (MIBK)	100	102		ug/L		102	78 - 124	1	30
Acetone	100	90.7		ug/L		91	39 - 150	1	30
Benzene	20.0	19.8		ug/L		99	77 - 121	4	30
Bromoform	20.0	19.3		ug/L		96	53 - 120	3	30
Trichlorofluoromethane	20.0	17.1		ug/L		86	71 - 143	3	30
Bromomethane	20.0	13.1		ug/L		66	10 - 150	16	30
Carbon disulfide	20.0	18.5		ug/L		93	69 - 133	2	30
Carbon tetrachloride	20.0	18.5		ug/L		93	70 - 132	1	30
Chlorobenzene	20.0	20.2		ug/L		101	80 - 120	1	30
Chlorodibromomethane	20.0	20.1		ug/L		100	73 - 120	2	30
Chloroethane	20.0	18.8		ug/L		94	52 - 150	1	30
Chloroform	20.0	19.1		ug/L		95	80 - 120	2	30
Chloromethane	20.0	15.6		ug/L		78	56 - 131	3	30
cis-1,2-Dichloroethene	20.0	19.8		ug/L		99	80 - 120	9	30
cis-1,3-Dichloropropene	20.0	19.2		ug/L		96	77 - 120	1	30
Dichlorobromomethane	20.0	19.5		ug/L		97	76 - 120	1	30
Ethylbenzene	20.0	19.4		ug/L		97	80 - 120	0	30
Methylene Chloride	20.0	19.2		ug/L		96	77 - 123	0	30
Styrene	20.0	20.1		ug/L		101	80 - 120	1	30
Tetrachloroethene	20.0	20.8		ug/L		104	78 - 122	1	30
Toluene	20.0	20.0		ug/L		100	80 - 120	2	30
trans-1,2-Dichloroethene	20.0	20.3		ug/L		102	79 - 120	1	30
trans-1,3-Dichloropropene	20.0	17.9		ug/L		89	76 - 120	5	30
Trichloroethene	20.0	20.1		ug/L		100	77 - 120	4	30
Vinyl chloride	20.0	17.0		ug/L		85	62 - 138	3	30
Xylenes, Total	40.0	37.4		ug/L		93	80 - 120	4	30
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	17.6		ug/L		88	59 - 150	2	30
Methyl tert-butyl ether	20.0	19.0		ug/L		95	79 - 122	1	30
Cyclohexane	20.0	17.6		ug/L		88	56 - 150	1	30
Ethylene Dibromide	20.0	19.5		ug/L		97	80 - 120	2	30
1,3-Dichlorobenzene	20.0	19.5		ug/L		97	80 - 120	2	30
1,4-Dichlorobenzene	20.0	19.9		ug/L		100	80 - 120	1	30
1,2-Dichlorobenzene	20.0	19.7		ug/L		99	80 - 120	1	30
Dichlorodifluoromethane	20.0	14.3		ug/L		72	50 - 131	0	30
1,2,4-Trichlorobenzene	20.0	18.0		ug/L		90	80 - 124	2	30
1,4-Dioxane	400	431		ug/L		108	10 - 150	2	30
1,2,3-Trichlorobenzene	20.0	19.9		ug/L		100	78 - 131	3	30
1,2-Dibromo-3-Chloropropane	20.0	20.2		ug/L		101	55 - 134	0	30
Chlorobromomethane	20.0	21.5		ug/L		107	77 - 127	3	30
Isopropylbenzene	20.0	18.3		ug/L		91	80 - 123	1	30

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169869-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 460-572342/5

Matrix: Water

Analysis Batch: 572342

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methyl acetate	40.0	34.8		ug/L		87	66 - 144	0	30
Methylcyclohexane	20.0	14.5		ug/L		72	61 - 145	3	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	93		74 - 132
4-Bromofluorobenzene	99		77 - 124
Dibromofluoromethane (Surr)	101		72 - 131
Toluene-d8 (Surr)	102		80 - 120

Lab Sample ID: 460-169864-A-6 MS

Matrix: Water

Analysis Batch: 572342

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	1.0	U	200	182		ug/L		91	75 - 125
1,1,2,2-Tetrachloroethane	1.0	U	200	193		ug/L		97	74 - 120
1,1,2-Trichloroethane	1.0	U	200	192		ug/L		96	78 - 120
1,1-Dichloroethane	1.0	U	200	192		ug/L		96	77 - 123
1,1-Dichloroethene	1.0	U	200	188		ug/L		94	74 - 123
1,2-Dichloroethane	1.0	U	200	184		ug/L		92	76 - 121
1,2-Dichloropropane	1.0	U	200	188		ug/L		94	77 - 123
2-Butanone (MEK)	5.0	U	1000	991		ug/L		99	64 - 120
2-Hexanone	5.0	U	1000	981		ug/L		98	71 - 125
4-Methyl-2-pentanone (MIBK)	5.0	U	1000	993		ug/L		99	78 - 124
Acetone	5.0	U	1000	838		ug/L		84	39 - 150
Benzene	1.0	U	200	196		ug/L		98	77 - 121
Bromoform	1.0	U	200	190		ug/L		95	53 - 120
Trichlorofluoromethane	1.0	U	200	172		ug/L		86	71 - 143
Bromomethane	1.0	U	200	102		ug/L		51	10 - 150
Carbon disulfide	1.0	U	200	183		ug/L		91	69 - 133
Carbon tetrachloride	1.0	U	200	180		ug/L		90	70 - 132
Chlorobenzene	1.0	U	200	198		ug/L		99	80 - 120
Chlorodibromomethane	1.0	U	200	199		ug/L		99	73 - 120
Chloroethane	1.0	U	200	198		ug/L		99	52 - 150
Chloroform	1.0	U	200	188		ug/L		94	80 - 120
Chloromethane	1.0	U	200	156		ug/L		78	56 - 131
cis-1,2-Dichloroethene	1.0	U	200	203		ug/L		101	80 - 120
cis-1,3-Dichloropropene	1.0	U	200	181		ug/L		91	77 - 120
Dichlorobromomethane	1.0	U	200	196		ug/L		98	76 - 120
Ethylbenzene	1.0	U	200	190		ug/L		95	80 - 120
Methylene Chloride	1.0	U	200	191		ug/L		96	77 - 123
Styrene	1.0	U	200	194		ug/L		97	80 - 120
Tetrachloroethene	1.0	U	200	200		ug/L		100	78 - 122
Toluene	1.0	U	200	194		ug/L		97	80 - 120
trans-1,2-Dichloroethene	1.0	U	200	201		ug/L		101	79 - 120
trans-1,3-Dichloropropene	1.0	U	200	181		ug/L		90	76 - 120
Trichloroethene	1.0	U	200	198		ug/L		99	77 - 120
Vinyl chloride	1.0	U	200	168		ug/L		84	62 - 138

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169869-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 460-169864-A-6 MS

Matrix: Water

Analysis Batch: 572342

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Xylenes, Total	2.0	U	400	374		ug/L		94	80 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	200	169		ug/L		84	59 - 150
Methyl tert-butyl ether	1.0	U	200	187		ug/L		94	79 - 122
Cyclohexane	1.0	U	200	171		ug/L		86	56 - 150
Ethylene Dibromide	1.0	U	200	194		ug/L		97	80 - 120
1,3-Dichlorobenzene	1.0	U	200	193		ug/L		96	80 - 120
1,4-Dichlorobenzene	1.0	U	200	190		ug/L		95	80 - 120
1,2-Dichlorobenzene	1.0	U	200	194		ug/L		97	80 - 120
Dichlorodifluoromethane	1.0	U	200	134		ug/L		67	50 - 131
1,2,4-Trichlorobenzene	1.0	U	200	167		ug/L		84	80 - 124
1,4-Dioxane	50	U	4000	3800		ug/L		95	10 - 150
1,2,3-Trichlorobenzene	1.0	U	200	170		ug/L		85	78 - 131
1,2-Dibromo-3-Chloropropane	1.0	U	200	185		ug/L		92	55 - 134
Chlorobromomethane	1.0	U	200	215		ug/L		108	77 - 127
Isopropylbenzene	1.0	U	200	178		ug/L		89	80 - 123
Methyl acetate	5.0	U	400	345		ug/L		86	66 - 144
Methylcyclohexane	1.0	U	200	140		ug/L		70	61 - 145

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	95		74 - 132
4-Bromofluorobenzene	101		77 - 124
Dibromofluoromethane (Surr)	100		72 - 131
Toluene-d8 (Surr)	100		80 - 120

Lab Sample ID: 460-169864-A-6 MSD

Matrix: Water

Analysis Batch: 572342

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	1.0	U	200	176		ug/L		88	75 - 125	4	30
1,1,2,2-Tetrachloroethane	1.0	U	200	191		ug/L		96	74 - 120	1	30
1,1,2-Trichloroethane	1.0	U	200	194		ug/L		97	78 - 120	1	30
1,1-Dichloroethane	1.0	U	200	182		ug/L		91	77 - 123	5	30
1,1-Dichloroethene	1.0	U	200	185		ug/L		92	74 - 123	1	30
1,2-Dichloroethane	1.0	U	200	180		ug/L		90	76 - 121	2	30
1,2-Dichloropropane	1.0	U	200	188		ug/L		94	77 - 123	0	30
2-Butanone (MEK)	5.0	U	1000	1000		ug/L		100	64 - 120	1	30
2-Hexanone	5.0	U	1000	1000		ug/L		100	71 - 125	2	30
4-Methyl-2-pentanone (MIBK)	5.0	U	1000	1010		ug/L		101	78 - 124	2	30
Acetone	5.0	U	1000	836		ug/L		84	39 - 150	0	30
Benzene	1.0	U	200	197		ug/L		98	77 - 121	1	30
Bromoform	1.0	U	200	197		ug/L		98	53 - 120	4	30
Trichlorofluoromethane	1.0	U	200	162		ug/L		81	71 - 143	6	30
Bromomethane	1.0	U	200	112		ug/L		56	10 - 150	10	30
Carbon disulfide	1.0	U	200	176		ug/L		88	69 - 133	4	30
Carbon tetrachloride	1.0	U	200	174		ug/L		87	70 - 132	3	30
Chlorobenzene	1.0	U	200	200		ug/L		100	80 - 120	1	30

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169869-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 460-169864-A-6 MSD

Matrix: Water

Analysis Batch: 572342

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chlorodibromomethane	1.0	U	200	201		ug/L		101	73 - 120	1	30
Chloroethane	1.0	U	200	165		ug/L		82	52 - 150	19	30
Chloroform	1.0	U	200	183		ug/L		92	80 - 120	3	30
Chloromethane	1.0	U	200	153		ug/L		76	56 - 131	2	30
cis-1,2-Dichloroethene	1.0	U	200	203		ug/L		101	80 - 120	0	30
cis-1,3-Dichloropropene	1.0	U	200	182		ug/L		91	77 - 120	0	30
Dichlorobromomethane	1.0	U	200	190		ug/L		95	76 - 120	3	30
Ethylbenzene	1.0	U	200	190		ug/L		95	80 - 120	0	30
Methylene Chloride	1.0	U	200	182		ug/L		91	77 - 123	5	30
Styrene	1.0	U	200	198		ug/L		99	80 - 120	2	30
Tetrachloroethene	1.0	U	200	196		ug/L		98	78 - 122	2	30
Toluene	1.0	U	200	196		ug/L		98	80 - 120	1	30
trans-1,2-Dichloroethene	1.0	U	200	191		ug/L		96	79 - 120	5	30
trans-1,3-Dichloropropene	1.0	U	200	179		ug/L		90	76 - 120	1	30
Trichloroethene	1.0	U	200	188		ug/L		94	77 - 120	5	30
Vinyl chloride	1.0	U	200	161		ug/L		80	62 - 138	5	30
Xylenes, Total	2.0	U	400	380		ug/L		95	80 - 120	1	30
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	200	160		ug/L		80	59 - 150	5	30
Methyl tert-butyl ether	1.0	U	200	186		ug/L		93	79 - 122	1	30
Cyclohexane	1.0	U	200	163		ug/L		81	56 - 150	5	30
Ethylene Dibromide	1.0	U	200	195		ug/L		98	80 - 120	0	30
1,3-Dichlorobenzene	1.0	U	200	191		ug/L		96	80 - 120	1	30
1,4-Dichlorobenzene	1.0	U	200	192		ug/L		96	80 - 120	1	30
1,2-Dichlorobenzene	1.0	U	200	191		ug/L		95	80 - 120	2	30
Dichlorodifluoromethane	1.0	U	200	130		ug/L		65	50 - 131	4	30
1,2,4-Trichlorobenzene	1.0	U	200	169		ug/L		85	80 - 124	1	30
1,4-Dioxane	50	U	4000	4130		ug/L		103	10 - 150	8	30
1,2,3-Trichlorobenzene	1.0	U	200	192		ug/L		96	78 - 131	13	30
1,2-Dibromo-3-Chloropropane	1.0	U	200	185		ug/L		92	55 - 134	0	30
Chlorobromomethane	1.0	U	200	207		ug/L		103	77 - 127	4	30
Isopropylbenzene	1.0	U	200	176		ug/L		88	80 - 123	1	30
Methyl acetate	5.0	U	400	331		ug/L		83	66 - 144	4	30
Methylcyclohexane	1.0	U	200	131		ug/L		66	61 - 145	6	30
MSD MSD											
Surrogate	%Recovery	Qualifier	Limits								
1,2-Dichloroethane-d4 (Surr)	93		74 - 132								
4-Bromofluorobenzene	103		77 - 124								
Dibromofluoromethane (Surr)	100		72 - 131								
Toluene-d8 (Surr)	103		80 - 120								

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169869-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 460-570966/1-A

Matrix: Water

Analysis Batch: 570911

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 570966

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	10	U	10	1.2	ug/L		11/25/18 10:10	11/25/18 20:30	1
2,2'-oxybis[1-chloropropane]	10	U	10	0.63	ug/L		11/25/18 10:10	11/25/18 20:30	1
2,4,5-Trichlorophenol	10	U	10	0.28	ug/L		11/25/18 10:10	11/25/18 20:30	1
2,4,6-Trichlorophenol	10	U	10	0.30	ug/L		11/25/18 10:10	11/25/18 20:30	1
2,4-Dichlorophenol	10	U	10	0.42	ug/L		11/25/18 10:10	11/25/18 20:30	1
2,4-Dimethylphenol	10	U	10	0.24	ug/L		11/25/18 10:10	11/25/18 20:30	1
2,4-Dinitrophenol	20	U	20	14	ug/L		11/25/18 10:10	11/25/18 20:30	1
2,4-Dinitrotoluene	2.0	U	2.0	1.0	ug/L		11/25/18 10:10	11/25/18 20:30	1
2,6-Dinitrotoluene	2.0	U	2.0	0.39	ug/L		11/25/18 10:10	11/25/18 20:30	1
2-Chloronaphthalene	10	U	10	1.2	ug/L		11/25/18 10:10	11/25/18 20:30	1
2-Chlorophenol	10	U	10	0.38	ug/L		11/25/18 10:10	11/25/18 20:30	1
2-Methylnaphthalene	10	U	10	1.1	ug/L		11/25/18 10:10	11/25/18 20:30	1
2-Methylphenol	10	U	10	0.26	ug/L		11/25/18 10:10	11/25/18 20:30	1
2-Nitroaniline	10	U	10	0.47	ug/L		11/25/18 10:10	11/25/18 20:30	1
2-Nitrophenol	10	U	10	0.75	ug/L		11/25/18 10:10	11/25/18 20:30	1
3,3'-Dichlorobenzidine	10	U	10	1.4	ug/L		11/25/18 10:10	11/25/18 20:30	1
3-Nitroaniline	10	U	10	0.96	ug/L		11/25/18 10:10	11/25/18 20:30	1
4,6-Dinitro-2-methylphenol	20	U	20	13	ug/L		11/25/18 10:10	11/25/18 20:30	1
4-Bromophenyl phenyl ether	10	U	10	0.75	ug/L		11/25/18 10:10	11/25/18 20:30	1
4-Chloro-3-methylphenol	10	U	10	0.58	ug/L		11/25/18 10:10	11/25/18 20:30	1
4-Chloroaniline	10	U	10	1.9	ug/L		11/25/18 10:10	11/25/18 20:30	1
4-Chlorophenyl phenyl ether	10	U	10	1.3	ug/L		11/25/18 10:10	11/25/18 20:30	1
4-Methylphenol	10	U	10	0.24	ug/L		11/25/18 10:10	11/25/18 20:30	1
4-Nitroaniline	10	U	10	0.54	ug/L		11/25/18 10:10	11/25/18 20:30	1
4-Nitrophenol	20	U	20	0.69	ug/L		11/25/18 10:10	11/25/18 20:30	1
Acenaphthene	10	U	10	1.1	ug/L		11/25/18 10:10	11/25/18 20:30	1
Acenaphthylene	10	U	10	0.82	ug/L		11/25/18 10:10	11/25/18 20:30	1
Acetophenone	10	U	10	0.79	ug/L		11/25/18 10:10	11/25/18 20:30	1
Anthracene	10	U	10	0.63	ug/L		11/25/18 10:10	11/25/18 20:30	1
Atrazine	2.0	U	2.0	1.3	ug/L		11/25/18 10:10	11/25/18 20:30	1
Benzaldehyde	10	U	10	0.59	ug/L		11/25/18 10:10	11/25/18 20:30	1
Benzo[a]anthracene	1.0	U	1.0	0.59	ug/L		11/25/18 10:10	11/25/18 20:30	1
Benzo[a]pyrene	1.0	U	1.0	0.41	ug/L		11/25/18 10:10	11/25/18 20:30	1
Benzo[b]fluoranthene	2.0	U	2.0	1.1	ug/L		11/25/18 10:10	11/25/18 20:30	1
Benzo[g,h,i]perylene	10	U	10	1.4	ug/L		11/25/18 10:10	11/25/18 20:30	1
Benzo[k]fluoranthene	1.0	U	1.0	0.67	ug/L		11/25/18 10:10	11/25/18 20:30	1
Bis(2-chloroethoxy)methane	10	U	10	0.24	ug/L		11/25/18 10:10	11/25/18 20:30	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.30	ug/L		11/25/18 10:10	11/25/18 20:30	1
Bis(2-ethylhexyl) phthalate	2.0	U	2.0	1.7	ug/L		11/25/18 10:10	11/25/18 20:30	1
Butyl benzyl phthalate	10	U	10	0.85	ug/L		11/25/18 10:10	11/25/18 20:30	1
Caprolactam	10	U	10	0.68	ug/L		11/25/18 10:10	11/25/18 20:30	1
Carbazole	10	U	10	0.68	ug/L		11/25/18 10:10	11/25/18 20:30	1
Chrysene	2.0	U	2.0	0.91	ug/L		11/25/18 10:10	11/25/18 20:30	1
Dibenz(a,h)anthracene	1.0	U	1.0	0.72	ug/L		11/25/18 10:10	11/25/18 20:30	1
Dibenzofuran	10	U	10	1.1	ug/L		11/25/18 10:10	11/25/18 20:30	1
Diethyl phthalate	10	U	10	0.98	ug/L		11/25/18 10:10	11/25/18 20:30	1
Dimethyl phthalate	10	U	10	0.77	ug/L		11/25/18 10:10	11/25/18 20:30	1
Di-n-butyl phthalate	10	U	10	0.84	ug/L		11/25/18 10:10	11/25/18 20:30	1

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169869-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-570966/1-A

Matrix: Water

Analysis Batch: 570911

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 570966

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate	10	U	10	4.8	ug/L		11/25/18 10:10	11/25/18 20:30	1
Fluoranthene	10	U	10	0.84	ug/L		11/25/18 10:10	11/25/18 20:30	1
Fluorene	10	U	10	0.91	ug/L		11/25/18 10:10	11/25/18 20:30	1
Hexachlorobenzene	1.0	U	1.0	0.40	ug/L		11/25/18 10:10	11/25/18 20:30	1
Hexachlorobutadiene	1.0	U	1.0	0.78	ug/L		11/25/18 10:10	11/25/18 20:30	1
Hexachlorocyclopentadiene	10	U	10	1.7	ug/L		11/25/18 10:10	11/25/18 20:30	1
Hexachloroethane	2.0	U	2.0	1.2	ug/L		11/25/18 10:10	11/25/18 20:30	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	1.3	ug/L		11/25/18 10:10	11/25/18 20:30	1
Isophorone	10	U	10	0.80	ug/L		11/25/18 10:10	11/25/18 20:30	1
Naphthalene	10	U	10	1.1	ug/L		11/25/18 10:10	11/25/18 20:30	1
Nitrobenzene	1.0	U	1.0	0.57	ug/L		11/25/18 10:10	11/25/18 20:30	1
N-Nitrosodi-n-propylamine	1.0	U	1.0	0.43	ug/L		11/25/18 10:10	11/25/18 20:30	1
N-Nitrosodiphenylamine	10	U	10	0.89	ug/L		11/25/18 10:10	11/25/18 20:30	1
Pentachlorophenol	20	U	20	1.4	ug/L		11/25/18 10:10	11/25/18 20:30	1
Phenanthrene	10	U	10	0.58	ug/L		11/25/18 10:10	11/25/18 20:30	1
Phenol	10	U	10	0.29	ug/L		11/25/18 10:10	11/25/18 20:30	1
Pyrene	10	U	10	1.6	ug/L		11/25/18 10:10	11/25/18 20:30	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	93		26 - 139	11/25/18 10:10	11/25/18 20:30	1
2-Fluorobiphenyl	72		45 - 107	11/25/18 10:10	11/25/18 20:30	1
2-Fluorophenol (Surr)	52		25 - 58	11/25/18 10:10	11/25/18 20:30	1
Nitrobenzene-d5 (Surr)	95		51 - 108	11/25/18 10:10	11/25/18 20:30	1
Phenol-d5 (Surr)	37		14 - 39	11/25/18 10:10	11/25/18 20:30	1
Terphenyl-d14 (Surr)	77		40 - 148	11/25/18 10:10	11/25/18 20:30	1

Lab Sample ID: LCS 460-570966/2-A

Matrix: Water

Analysis Batch: 570911

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 570966

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1,1'-Biphenyl	80.0	67.4		ug/L		84	54 - 108
2,2'-oxybis[1-chloropropane]	80.0	71.6		ug/L		89	50 - 108
2,4,5-Trichlorophenol	80.0	75.3		ug/L		94	59 - 117
2,4,6-Trichlorophenol	80.0	76.9		ug/L		96	62 - 120
2,4-Dichlorophenol	80.0	73.7		ug/L		92	62 - 102
2,4-Dimethylphenol	80.0	71.9		ug/L		90	61 - 95
2,4-Dinitrophenol	160	183		ug/L		114	45 - 125
2,4-Dinitrotoluene	80.0	80.7		ug/L		101	70 - 123
2,6-Dinitrotoluene	80.0	86.0		ug/L		108	68 - 121
2-Chloronaphthalene	80.0	66.5		ug/L		83	54 - 105
2-Chlorophenol	80.0	65.5		ug/L		82	54 - 92
2-Methylnaphthalene	80.0	62.2		ug/L		78	47 - 104
2-Methylphenol	80.0	58.6		ug/L		73	43 - 80
2-Nitroaniline	80.0	82.6		ug/L		103	46 - 124
2-Nitrophenol	80.0	78.3		ug/L		98	58 - 109
3,3'-Dichlorobenzidine	80.0	75.4		ug/L		94	68 - 123
3-Nitroaniline	80.0	72.7		ug/L		91	60 - 117

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169869-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-570966/2-A

Matrix: Water

Analysis Batch: 570911

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 570966

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,6-Dinitro-2-methylphenol	160	163		ug/L		102	59 - 132
4-Bromophenyl phenyl ether	80.0	72.4		ug/L		91	57 - 126
4-Chloro-3-methylphenol	80.0	71.2		ug/L		89	58 - 98
4-Chloroaniline	80.0	68.0		ug/L		85	51 - 108
4-Chlorophenyl phenyl ether	80.0	74.9		ug/L		94	60 - 114
4-Nitroaniline	80.0	78.8		ug/L		99	48 - 135
4-Nitrophenol	160	67.7		ug/L		42	11 - 47
Acenaphthene	80.0	71.7		ug/L		90	58 - 107
Acenaphthylene	80.0	78.2		ug/L		98	61 - 106
Acetophenone	80.0	71.0		ug/L		89	54 - 115
Anthracene	80.0	73.9		ug/L		92	70 - 118
Benzo[a]anthracene	80.0	76.0		ug/L		95	73 - 119
Benzo[a]pyrene	80.0	78.8		ug/L		98	76 - 125
Benzo[b]fluoranthene	80.0	80.1		ug/L		100	78 - 123
Benzo[g,h,i]perylene	80.0	66.5		ug/L		83	63 - 133
Benzo[k]fluoranthene	80.0	82.0		ug/L		103	71 - 126
Bis(2-chloroethoxy)methane	80.0	76.8		ug/L		96	67 - 104
Bis(2-chloroethyl)ether	80.0	70.2		ug/L		88	63 - 106
Bis(2-ethylhexyl) phthalate	80.0	86.9		ug/L		109	63 - 135
Butyl benzyl phthalate	80.0	87.3		ug/L		109	66 - 129
Carbazole	80.0	75.0		ug/L		94	68 - 121
Chrysene	80.0	76.5		ug/L		96	73 - 121
Dibenz(a,h)anthracene	80.0	71.6		ug/L		90	59 - 136
Dibenzofuran	80.0	70.1		ug/L		88	67 - 108
Diethyl phthalate	80.0	82.4		ug/L		103	61 - 129
Dimethyl phthalate	80.0	78.3		ug/L		98	65 - 121
Di-n-butyl phthalate	80.0	83.2		ug/L		104	64 - 130
Di-n-octyl phthalate	80.0	93.1		ug/L		116	64 - 131
Fluoranthene	80.0	76.2		ug/L		95	66 - 123
Fluorene	80.0	75.1		ug/L		94	67 - 112
Hexachlorobenzene	80.0	72.8		ug/L		91	63 - 125
Hexachlorobutadiene	80.0	47.8		ug/L		60	34 - 99
Hexachlorocyclopentadiene	80.0	63.5		ug/L		79	18 - 99
Hexachloroethane	80.0	43.8		ug/L		55	39 - 92
Indeno[1,2,3-cd]pyrene	80.0	69.2		ug/L		87	57 - 142
Isophorone	80.0	77.7		ug/L		97	55 - 105
Naphthalene	80.0	60.4		ug/L		75	51 - 98
Nitrobenzene	80.0	70.7		ug/L		88	56 - 106
N-Nitrosodi-n-propylamine	80.0	75.4		ug/L		94	48 - 118
N-Nitrosodiphenylamine	80.0	74.6		ug/L		93	69 - 118
Pentachlorophenol	160	147		ug/L		92	54 - 120
Phenanthrene	80.0	75.1		ug/L		94	70 - 117
Phenol	80.0	36.7	*	ug/L		46	16 - 43
Pyrene	80.0	81.3		ug/L		102	63 - 129

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	101		26 - 139
2-Fluorobiphenyl	84		45 - 107

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169869-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-570966/2-A

Matrix: Water

Analysis Batch: 570911

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 570966

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorophenol (Surr)	55		25 - 58
Nitrobenzene-d5 (Surr)	100		51 - 108
Phenol-d5 (Surr)	38		14 - 39
Terphenyl-d14 (Surr)	90		40 - 148

Lab Sample ID: LCS 460-570966/4-A

Matrix: Water

Analysis Batch: 570911

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 570966

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Atrazine	160	199		ug/L		124	38 - 146
Benzaldehyde	160	162		ug/L		101	46 - 111
Caprolactam	160	57.1		ug/L		36	10 - 43

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	96		26 - 139
2-Fluorobiphenyl	77		45 - 107
2-Fluorophenol (Surr)	52		25 - 58
Nitrobenzene-d5 (Surr)	96		51 - 108
Phenol-d5 (Surr)	39		14 - 39
Terphenyl-d14 (Surr)	75		40 - 148

Lab Sample ID: LCSD 460-570966/3-A

Matrix: Water

Analysis Batch: 570911

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 570966

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1'-Biphenyl	80.0	65.2		ug/L		82	54 - 108	3	30
2,2'-oxybis[1-chloropropane]	80.0	69.0		ug/L		86	50 - 108	4	30
2,4,5-Trichlorophenol	80.0	73.0		ug/L		91	59 - 117	3	30
2,4,6-Trichlorophenol	80.0	74.3		ug/L		93	62 - 120	3	30
2,4-Dichlorophenol	80.0	69.5		ug/L		87	62 - 102	6	30
2,4-Dimethylphenol	80.0	66.5		ug/L		83	61 - 95	8	30
2,4-Dinitrophenol	160	176		ug/L		110	45 - 125	4	30
2,4-Dinitrotoluene	80.0	78.9		ug/L		99	70 - 123	2	30
2,6-Dinitrotoluene	80.0	82.3		ug/L		103	68 - 121	4	30
2-Chloronaphthalene	80.0	64.1		ug/L		80	54 - 105	4	30
2-Chlorophenol	80.0	62.6		ug/L		78	54 - 92	5	30
2-Methylnaphthalene	80.0	59.9		ug/L		75	47 - 104	4	30
2-Methylphenol	80.0	55.0		ug/L		69	43 - 80	6	30
2-Nitroaniline	80.0	79.8		ug/L		100	46 - 124	4	30
2-Nitrophenol	80.0	75.4		ug/L		94	58 - 109	4	30
3,3'-Dichlorobenzidine	80.0	73.4		ug/L		92	68 - 123	3	30
3-Nitroaniline	80.0	69.7		ug/L		87	60 - 117	4	30
4,6-Dinitro-2-methylphenol	160	158		ug/L		99	59 - 132	3	30
4-Bromophenyl phenyl ether	80.0	69.5		ug/L		87	57 - 126	4	30
4-Chloro-3-methylphenol	80.0	67.9		ug/L		85	58 - 98	5	30
4-Chloroaniline	80.0	64.8		ug/L		81	51 - 108	5	30

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169869-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 460-570966/3-A

Matrix: Water

Analysis Batch: 570911

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 570966

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4-Chlorophenyl phenyl ether	80.0	72.4		ug/L		90	60 - 114	3	30
4-Nitroaniline	80.0	73.9		ug/L		92	48 - 135	6	30
4-Nitrophenol	160	61.3		ug/L		38	11 - 47	10	30
Acenaphthene	80.0	70.6		ug/L		88	58 - 107	1	30
Acenaphthylene	80.0	76.6		ug/L		96	61 - 106	2	30
Acetophenone	80.0	68.7		ug/L		86	54 - 115	3	30
Anthracene	80.0	71.1		ug/L		89	70 - 118	4	30
Benzo[a]anthracene	80.0	74.2		ug/L		93	73 - 119	2	30
Benzo[a]pyrene	80.0	74.8		ug/L		93	76 - 125	5	30
Benzo[b]fluoranthene	80.0	74.8		ug/L		93	78 - 123	7	30
Benzo[g,h,i]perylene	80.0	65.2		ug/L		81	63 - 133	2	30
Benzo[k]fluoranthene	80.0	77.7		ug/L		97	71 - 126	5	30
Bis(2-chloroethoxy)methane	80.0	73.9		ug/L		92	67 - 104	4	30
Bis(2-chloroethyl)ether	80.0	68.0		ug/L		85	63 - 106	3	30
Bis(2-ethylhexyl) phthalate	80.0	82.0		ug/L		103	63 - 135	6	30
Butyl benzyl phthalate	80.0	83.0		ug/L		104	66 - 129	5	30
Carbazole	80.0	72.4		ug/L		90	68 - 121	4	30
Chrysene	80.0	73.8		ug/L		92	73 - 121	4	30
Dibenz(a,h)anthracene	80.0	69.9		ug/L		87	59 - 136	2	30
Dibenzofuran	80.0	68.1		ug/L		85	67 - 108	3	30
Diethyl phthalate	80.0	79.4		ug/L		99	61 - 129	4	30
Dimethyl phthalate	80.0	74.1		ug/L		93	65 - 121	6	30
Di-n-butyl phthalate	80.0	79.5		ug/L		99	64 - 130	5	30
Di-n-octyl phthalate	80.0	85.7		ug/L		107	64 - 131	8	30
Fluoranthene	80.0	72.9		ug/L		91	66 - 123	4	30
Fluorene	80.0	72.1		ug/L		90	67 - 112	4	30
Hexachlorobenzene	80.0	70.1		ug/L		88	63 - 125	4	30
Hexachlorobutadiene	80.0	44.1		ug/L		55	34 - 99	8	30
Hexachlorocyclopentadiene	80.0	60.7		ug/L		76	18 - 99	5	30
Hexachloroethane	80.0	41.6		ug/L		52	39 - 92	5	30
Indeno[1,2,3-cd]pyrene	80.0	67.7		ug/L		85	57 - 142	2	30
Isophorone	80.0	74.3		ug/L		93	55 - 105	5	30
Naphthalene	80.0	58.3		ug/L		73	51 - 98	3	30
Nitrobenzene	80.0	69.2		ug/L		87	56 - 106	2	30
N-Nitrosodi-n-propylamine	80.0	72.0		ug/L		90	48 - 118	5	30
N-Nitrosodiphenylamine	80.0	72.4		ug/L		91	69 - 118	3	30
Pentachlorophenol	160	140		ug/L		87	54 - 120	5	30
Phenanthrene	80.0	71.2		ug/L		89	70 - 117	5	30
Phenol	80.0	32.6		ug/L		41	16 - 43	12	30
Pyrene	80.0	79.9		ug/L		100	63 - 129	2	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	96		26 - 139
2-Fluorobiphenyl	81		45 - 107
2-Fluorophenol (Surr)	49		25 - 58
Nitrobenzene-d5 (Surr)	94		51 - 108
Phenol-d5 (Surr)	34		14 - 39
Terphenyl-d14 (Surr)	81		40 - 148

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169869-1

Lab Sample ID: LCSD 460-570966/5-A

Matrix: Water

Analysis Batch: 570911

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 570966

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Atrazine	160	203		ug/L		127	38 - 146	2	30
Benzaldehyde	160	162		ug/L		102	46 - 111	0	30
Caprolactam	160	56.8		ug/L		36	10 - 43	0	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	96		26 - 139
2-Fluorobiphenyl	73		45 - 107
2-Fluorophenol (Surr)	52		25 - 58
Nitrobenzene-d5 (Surr)	96		51 - 108
Phenol-d5 (Surr)	39		14 - 39
Terphenyl-d14 (Surr)	76		40 - 148

Lab Sample ID: 460-169897-E-2-A MS

Matrix: Water

Analysis Batch: 570911

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 570966

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1'-Biphenyl	10	U	81.6	71.9		ug/L		88	54 - 108
2,2'-oxybis[1-chloropropane]	10	U	81.6	74.8		ug/L		92	50 - 108
2,4,5-Trichlorophenol	10	U	81.6	74.1		ug/L		91	59 - 117
2,4,6-Trichlorophenol	10	U	81.6	77.9		ug/L		95	62 - 120
2,4-Dichlorophenol	10	U	81.6	72.8		ug/L		89	62 - 102
2,4-Dimethylphenol	10	U	81.6	70.1		ug/L		86	61 - 95
2,4-Dinitrophenol	20	U	163	175		ug/L		107	45 - 125
2,4-Dinitrotoluene	2.0	U	81.6	79.7		ug/L		98	70 - 123
2,6-Dinitrotoluene	2.0	U	81.6	85.3		ug/L		104	68 - 121
2-Chloronaphthalene	10	U	81.6	71.0		ug/L		87	54 - 105
2-Chlorophenol	10	U	81.6	65.4		ug/L		80	54 - 92
2-Methylnaphthalene	10	U	81.6	67.6		ug/L		83	47 - 104
2-Methylphenol	10	U	81.6	57.0		ug/L		70	43 - 80
2-Nitroaniline	10	U	81.6	83.7		ug/L		103	46 - 124
2-Nitrophenol	10	U	81.6	79.1		ug/L		97	58 - 109
3,3'-Dichlorobenzidine	10	U	81.6	73.4		ug/L		90	68 - 123
3-Nitroaniline	10	U	81.6	70.8		ug/L		87	60 - 117
4,6-Dinitro-2-methylphenol	20	U	163	166		ug/L		102	59 - 132
4-Bromophenyl phenyl ether	10	U	81.6	75.2		ug/L		92	57 - 126
4-Chloro-3-methylphenol	10	U	81.6	70.5		ug/L		86	58 - 98
4-Chloroaniline	10	U	81.6	66.1		ug/L		81	51 - 108
4-Chlorophenyl phenyl ether	10	U	81.6	75.9		ug/L		93	60 - 114
4-Nitroaniline	10	U	81.6	77.6		ug/L		95	48 - 135
4-Nitrophenol	20	U	163	59.9		ug/L		37	11 - 47
Acenaphthene	10	U	81.6	73.6		ug/L		90	58 - 107
Acenaphthylene	10	U	81.6	81.1		ug/L		99	61 - 106
Acetophenone	10	U	81.6	71.7		ug/L		88	54 - 115
Anthracene	10	U	81.6	75.5		ug/L		93	70 - 118
Atrazine	2.0	U	163	193		ug/L		118	38 - 146
Benzaldehyde	10	U	163	162		ug/L		99	46 - 111
Benzo[a]anthracene	1.0	U	81.6	77.3		ug/L		95	73 - 119
Benzo[a]pyrene	1.0	U	81.6	78.8		ug/L		97	76 - 125
Benzo[b]fluoranthene	2.0	U	81.6	78.9		ug/L		97	78 - 123

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169869-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-169897-E-2-A MS

Matrix: Water

Analysis Batch: 570911

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 570966

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[g,h,i]perylene	10	U	81.6	69.9		ug/L		86	63 - 133
Benzo[k]fluoranthene	1.0	U	81.6	80.6		ug/L		99	71 - 126
Bis(2-chloroethoxy)methane	10	U	81.6	76.8		ug/L		94	67 - 104
Bis(2-chloroethyl)ether	1.0	U	81.6	71.4		ug/L		87	63 - 106
Bis(2-ethylhexyl) phthalate	2.0	U	81.6	86.7		ug/L		106	63 - 135
Butyl benzyl phthalate	10	U	81.6	88.8		ug/L		109	66 - 129
Caprolactam	10	U	163	46.4		ug/L		28	10 - 43
Carbazole	10	U	81.6	75.2		ug/L		92	68 - 121
Chrysene	2.0	U	81.6	76.2		ug/L		93	73 - 121
Dibenz(a,h)anthracene	1.0	U	81.6	74.7		ug/L		91	59 - 136
Dibenzofuran	10	U	81.6	71.9		ug/L		88	67 - 108
Diethyl phthalate	10	U	81.6	80.9		ug/L		99	61 - 129
Dimethyl phthalate	10	U	81.6	76.5		ug/L		94	65 - 121
Di-n-butyl phthalate	10	U	81.6	83.1		ug/L		102	64 - 130
Di-n-octyl phthalate	10	U	81.6	92.4		ug/L		113	64 - 131
Fluoranthene	10	U	81.6	76.2		ug/L		93	66 - 123
Fluorene	10	U	81.6	76.6		ug/L		94	67 - 112
Hexachlorobenzene	1.0	U	81.6	74.7		ug/L		92	63 - 125
Hexachlorobutadiene	1.0	U	81.6	53.0		ug/L		65	34 - 99
Hexachlorocyclopentadiene	10	U	81.6	72.8		ug/L		89	18 - 99
Hexachloroethane	2.0	U	81.6	46.7		ug/L		57	39 - 92
Indeno[1,2,3-cd]pyrene	2.0	U	81.6	72.2		ug/L		88	57 - 142
Isophorone	10	U	81.6	78.3		ug/L		96	55 - 105
Naphthalene	10	U	81.6	65.8		ug/L		81	51 - 98
Nitrobenzene	1.0	U	81.6	71.8		ug/L		88	56 - 106
N-Nitrosodi-n-propylamine	1.0	U	81.6	76.4		ug/L		94	48 - 118
N-Nitrosodiphenylamine	10	U	81.6	76.4		ug/L		94	69 - 118
Pentachlorophenol	20	U	163	146		ug/L		90	54 - 120
Phenanthrene	10	U	81.6	75.1		ug/L		92	70 - 117
Phenol	10	U *	81.6	32.9		ug/L		40	16 - 43
Pyrene	10	U	81.6	84.8		ug/L		104	63 - 129

Surrogate	MS %Recovery	MS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	96		26 - 139
2-Fluorobiphenyl	82		45 - 107
2-Fluorophenol (Surr)	48		25 - 58
Nitrobenzene-d5 (Surr)	94		51 - 108
Phenol-d5 (Surr)	33		14 - 39
Terphenyl-d14 (Surr)	86		40 - 148

Lab Sample ID: 460-169897-E-2-B MSD

Matrix: Water

Analysis Batch: 570911

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 570966

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
1,1'-Biphenyl	10	U	80.0	65.4		ug/L		82	54 - 108	9	30
2,2'-oxybis[1-chloropropane]	10	U	80.0	68.5		ug/L		86	50 - 108	9	30
2,4,5-Trichlorophenol	10	U	80.0	68.1		ug/L		85	59 - 117	9	30

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169869-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-169897-E-2-B MSD

Matrix: Water

Analysis Batch: 570911

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 570966

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4,6-Trichlorophenol	10	U	80.0	71.7		ug/L		90	62 - 120	8	30
2,4-Dichlorophenol	10	U	80.0	66.5		ug/L		83	62 - 102	9	30
2,4-Dimethylphenol	10	U	80.0	64.6		ug/L		81	61 - 95	8	30
2,4-Dinitrophenol	20	U	160	164		ug/L		103	45 - 125	6	30
2,4-Dinitrotoluene	2.0	U	80.0	73.4		ug/L		92	70 - 123	8	30
2,6-Dinitrotoluene	2.0	U	80.0	78.8		ug/L		99	68 - 121	8	30
2-Chloronaphthalene	10	U	80.0	65.2		ug/L		82	54 - 105	9	30
2-Chlorophenol	10	U	80.0	58.9		ug/L		74	54 - 92	10	30
2-Methylnaphthalene	10	U	80.0	61.7		ug/L		77	47 - 104	9	30
2-Methylphenol	10	U	80.0	51.5		ug/L		64	43 - 80	10	30
2-Nitroaniline	10	U	80.0	76.0		ug/L		95	46 - 124	10	30
2-Nitrophenol	10	U	80.0	72.7		ug/L		91	58 - 109	8	30
3,3'-Dichlorobenzidine	10	U	80.0	65.8		ug/L		82	68 - 123	11	30
3-Nitroaniline	10	U	80.0	65.6		ug/L		82	60 - 117	8	30
4,6-Dinitro-2-methylphenol	20	U	160	150		ug/L		94	59 - 132	10	30
4-Bromophenyl phenyl ether	10	U	80.0	67.7		ug/L		85	57 - 126	10	30
4-Chloro-3-methylphenol	10	U	80.0	64.6		ug/L		81	58 - 98	9	30
4-Chloroaniline	10	U	80.0	60.8		ug/L		76	51 - 108	8	30
4-Chlorophenyl phenyl ether	10	U	80.0	68.9		ug/L		86	60 - 114	10	30
4-Nitroaniline	10	U	80.0	71.1		ug/L		89	48 - 135	9	30
4-Nitrophenol	20	U	160	54.6		ug/L		34	11 - 47	9	30
Acenaphthene	10	U	80.0	68.3		ug/L		85	58 - 107	7	30
Acenaphthylene	10	U	80.0	74.8		ug/L		93	61 - 106	8	30
Acetophenone	10	U	80.0	65.8		ug/L		82	54 - 115	9	30
Anthracene	10	U	80.0	68.1		ug/L		85	70 - 118	10	30
Atrazine	2.0	U	160	178		ug/L		111	38 - 146	8	30
Benzaldehyde	10	U	160	152		ug/L		95	46 - 111	7	30
Benzo[a]anthracene	1.0	U	80.0	70.3		ug/L		88	73 - 119	10	30
Benzo[a]pyrene	1.0	U	80.0	70.9		ug/L		89	76 - 125	11	30
Benzo[b]fluoranthene	2.0	U	80.0	71.1		ug/L		89	78 - 123	10	30
Benzo[g,h,i]perylene	10	U	80.0	62.8		ug/L		79	63 - 133	11	30
Benzo[k]fluoranthene	1.0	U	80.0	72.0		ug/L		90	71 - 126	11	30
Bis(2-chloroethoxy)methane	10	U	80.0	70.5		ug/L		88	67 - 104	8	30
Bis(2-chloroethyl)ether	1.0	U	80.0	65.7		ug/L		82	63 - 106	8	30
Bis(2-ethylhexyl) phthalate	2.0	U	80.0	78.6		ug/L		98	63 - 135	10	30
Butyl benzyl phthalate	10	U	80.0	80.1		ug/L		100	66 - 129	10	30
Caprolactam	10	U	160	42.2		ug/L		26	10 - 43	9	30
Carbazole	10	U	80.0	68.7		ug/L		86	68 - 121	9	30
Chrysene	2.0	U	80.0	69.5		ug/L		87	73 - 121	9	30
Dibenz(a,h)anthracene	1.0	U	80.0	66.8		ug/L		84	59 - 136	11	30
Dibenzofuran	10	U	80.0	66.3		ug/L		83	67 - 108	8	30
Diethyl phthalate	10	U	80.0	75.3		ug/L		94	61 - 129	7	30
Dimethyl phthalate	10	U	80.0	70.3		ug/L		88	65 - 121	9	30
Di-n-butyl phthalate	10	U	80.0	74.8		ug/L		94	64 - 130	10	30
Di-n-octyl phthalate	10	U	80.0	83.2		ug/L		104	64 - 131	10	30
Fluoranthene	10	U	80.0	68.7		ug/L		86	66 - 123	10	30
Fluorene	10	U	80.0	69.9		ug/L		87	67 - 112	9	30
Hexachlorobenzene	1.0	U	80.0	67.6		ug/L		85	63 - 125	10	30

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169869-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-169897-E-2-B MSD

Matrix: Water

Analysis Batch: 570911

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 570966

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hexachlorobutadiene	1.0	U	80.0	49.1		ug/L		61	34 - 99	8	30
Hexachlorocyclopentadiene	10	U	80.0	66.7		ug/L		83	18 - 99	9	30
Hexachloroethane	2.0	U	80.0	43.6		ug/L		54	39 - 92	7	30
Indeno[1,2,3-cd]pyrene	2.0	U	80.0	66.4		ug/L		83	57 - 142	8	30
Isophorone	10	U	80.0	71.3		ug/L		89	55 - 105	9	30
Naphthalene	10	U	80.0	60.6		ug/L		76	51 - 98	8	30
Nitrobenzene	1.0	U	80.0	65.5		ug/L		82	56 - 106	9	30
N-Nitrosodi-n-propylamine	1.0	U	80.0	68.7		ug/L		86	48 - 118	11	30
N-Nitrosodiphenylamine	10	U	80.0	69.3		ug/L		87	69 - 118	10	30
Pentachlorophenol	20	U	160	132		ug/L		82	54 - 120	11	30
Phenanthrene	10	U	80.0	68.6		ug/L		86	70 - 117	9	30
Phenol	10	U *	80.0	29.4		ug/L		37	16 - 43	11	30
Pyrene	10	U	80.0	76.5		ug/L		96	63 - 129	10	30

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
2,4,6-Tribromophenol (Surr)	90		26 - 139
2-Fluorobiphenyl	79		45 - 107
2-Fluorophenol (Surr)	44		25 - 58
Nitrobenzene-d5 (Surr)	90		51 - 108
Phenol-d5 (Surr)	30		14 - 39
Terphenyl-d14 (Surr)	77		40 - 148

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 460-572110/1-A

Matrix: Water

Analysis Batch: 572572

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 572110

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	200	U	200	28.6	ug/L		11/29/18 23:45	12/02/18 16:07	1
Antimony	20.0	U	20.0	2.9	ug/L		11/29/18 23:45	12/02/18 16:07	1
Arsenic	15.0	U	15.0	2.7	ug/L		11/29/18 23:45	12/02/18 16:07	1
Barium	200	U	200	7.7	ug/L		11/29/18 23:45	12/02/18 16:07	1
Beryllium	2.0	U	2.0	0.23	ug/L		11/29/18 23:45	12/02/18 16:07	1
Cadmium	4.0	U	4.0	0.22	ug/L		11/29/18 23:45	12/02/18 16:07	1
Calcium	5000	U	5000	222	ug/L		11/29/18 23:45	12/02/18 16:07	1
Chromium	10.0	U	10.0	1.3	ug/L		11/29/18 23:45	12/02/18 16:07	1
Cobalt	50.0	U	50.0	1.7	ug/L		11/29/18 23:45	12/02/18 16:07	1
Copper	25.0	U	25.0	5.1	ug/L		11/29/18 23:45	12/02/18 16:07	1
Iron	150	U	150	34.2	ug/L		11/29/18 23:45	12/02/18 16:07	1
Lead	10.0	U	10.0	2.5	ug/L		11/29/18 23:45	12/02/18 16:07	1
Magnesium	5000	U	5000	177	ug/L		11/29/18 23:45	12/02/18 16:07	1
Manganese	15.0	U	15.0	0.99	ug/L		11/29/18 23:45	12/02/18 16:07	1
Nickel	40.0	U	40.0	1.7	ug/L		11/29/18 23:45	12/02/18 16:07	1
Potassium	5000	U	5000	323	ug/L		11/29/18 23:45	12/02/18 16:07	1
Selenium	20.0	U	20.0	6.6	ug/L		11/29/18 23:45	12/02/18 16:07	1
Silver	10.0	U	10.0	1.1	ug/L		11/29/18 23:45	12/02/18 16:07	1
Sodium	5000	U	5000	460	ug/L		11/29/18 23:45	12/02/18 16:07	1

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169869-1

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: MB 460-572110/1-A

Matrix: Water

Analysis Batch: 572572

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 572110

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	20.0	U	20.0	5.4	ug/L		11/29/18 23:45	12/02/18 16:07	1
Vanadium	50.0	U	50.0	2.5	ug/L		11/29/18 23:45	12/02/18 16:07	1
Zinc	30.0	U	30.0	3.6	ug/L		11/29/18 23:45	12/02/18 16:07	1

Lab Sample ID: LCS 460-572110/2-A

Matrix: Water

Analysis Batch: 572447

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 572110

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	2000	2027		ug/L		101	80 - 120
Antimony	500	490.3		ug/L		98	80 - 120
Arsenic	2000	1864		ug/L		93	80 - 120
Barium	2000	2010		ug/L		101	80 - 120
Beryllium	50.0	48.24		ug/L		96	80 - 120
Cadmium	50.0	49.18		ug/L		98	80 - 120
Calcium	20000	20210		ug/L		101	80 - 120
Chromium	200	203.2		ug/L		102	80 - 120
Cobalt	500	508.1		ug/L		102	80 - 120
Copper	250	243.3		ug/L		97	80 - 120
Iron	1000	1080		ug/L		108	80 - 120
Lead	500	507.2		ug/L		101	80 - 120
Magnesium	20000	19120		ug/L		96	80 - 120
Manganese	500	529.8		ug/L		106	80 - 120
Nickel	500	509.3		ug/L		102	80 - 120
Potassium	20000	20020		ug/L		100	80 - 120
Selenium	2000	1953		ug/L		98	80 - 120
Silver	50.0	44.24		ug/L		88	80 - 120
Sodium	20000	20340		ug/L		102	80 - 120
Thallium	2000	2130		ug/L		107	80 - 120
Vanadium	500	507.7		ug/L		102	80 - 120
Zinc	500	490.5		ug/L		98	80 - 120

Lab Sample ID: 460-170072-D-1-C MS

Matrix: Water

Analysis Batch: 572447

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 572110

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	200	U	2000	2048		ug/L		102	75 - 125
Antimony	20.0	U	500	491.5		ug/L		98	75 - 125
Arsenic	15.0	U	2000	1881		ug/L		94	75 - 125
Barium	537		2000	2529		ug/L		100	75 - 125
Beryllium	2.0	U	50.0	47.89		ug/L		96	75 - 125
Cadmium	0.64	J	50.0	49.37		ug/L		97	75 - 125
Calcium	94100		20000	114400	4	ug/L		101	75 - 125
Chromium	10.0	U	200	201.6		ug/L		101	75 - 125
Cobalt	3.2	J	500	501.2		ug/L		100	75 - 125
Copper	25.0	U	250	243.0		ug/L		97	75 - 125
Iron	150	U	1000	1119		ug/L		112	75 - 125
Lead	10.0	U	500	497.7		ug/L		100	75 - 125

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169869-1

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: 460-170072-D-1-C MS

Matrix: Water

Analysis Batch: 572447

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 572110

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Magnesium	24400		20000	43400		ug/L		95	75 - 125
Manganese	1620		500	2145		ug/L		105	75 - 125
Nickel	8.6	J	500	504.9		ug/L		99	75 - 125
Potassium	2270	J	20000	22540		ug/L		101	75 - 125
Selenium	20.0	U	2000	1943		ug/L		97	75 - 125
Silver	10.0	U	50.0	45.31		ug/L		91	75 - 125
Sodium	36800		20000	57620		ug/L		104	75 - 125
Thallium	20.0	U	2000	2079		ug/L		104	75 - 125
Vanadium	50.0	U	500	511.2		ug/L		102	75 - 125
Zinc	5.5	J	500	491.3		ug/L		97	75 - 125

Lab Sample ID: 460-170072-D-1-B DU

Matrix: Water

Analysis Batch: 572447

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 572110

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Aluminum	200	U	200	U	ug/L		NC	20
Antimony	20.0	U	20.0	U	ug/L		NC	20
Arsenic	15.0	U	15.0	U	ug/L		NC	20
Barium	537		529.9		ug/L		1	20
Beryllium	2.0	U	2.0	U	ug/L		NC	20
Cadmium	0.64	J	0.625	J	ug/L		3	20
Calcium	94100		93240		ug/L		0.9	20
Chromium	10.0	U	10.0	U	ug/L		NC	20
Cobalt	3.2	J	3.06	J	ug/L		4	20
Copper	25.0	U	25.0	U	ug/L		NC	20
Iron	150	U	150	U	ug/L		NC	20
Lead	10.0	U	10.0	U	ug/L		NC	20
Magnesium	24400		24090		ug/L		1	20
Manganese	1620		1606		ug/L		0.9	20
Nickel	8.6	J	8.46	J	ug/L		1	20
Potassium	2270	J	2267	J	ug/L		0.3	20
Selenium	20.0	U	20.0	U	ug/L		NC	20
Silver	10.0	U	10.0	U	ug/L		NC	20
Sodium	36800		36360		ug/L		1	20
Thallium	20.0	U	20.0	U	ug/L		NC	20
Vanadium	50.0	U	50.0	U	ug/L		NC	20
Zinc	5.5	J	5.76	J	ug/L		4	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 460-573020/1-A

Matrix: Water

Analysis Batch: 573096

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 573020

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		12/04/18 12:46	12/04/18 14:42	1

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169869-1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 460-573020/2-A

Matrix: Water

Analysis Batch: 573096

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 573020

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	1.00	0.942		ug/L		94	80 - 120

Lab Sample ID: 460-169870-D-1-D MS

Matrix: Water

Analysis Batch: 573096

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 573020

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.20	U	1.00	0.934		ug/L		93	75 - 125

Lab Sample ID: 460-169870-D-1-C DU

Matrix: Water

Analysis Batch: 573096

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 573020

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Mercury	0.20	U	0.20	U	ug/L		NC	20

Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 460-571909/1-A

Matrix: Water

Analysis Batch: 571958

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 571909

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0020	mg/L		11/29/18 09:02	11/29/18 11:12	1

Lab Sample ID: LCS 460-571909/2-A

Matrix: Water

Analysis Batch: 571958

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 571909

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.100	0.100		mg/L		100	85 - 115

Lab Sample ID: 460-169542-D-5-B MS ^5

Matrix: Water

Analysis Batch: 571958

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 571909

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.79	F1	0.200	0.955	F1	mg/L		85	90 - 110

Lab Sample ID: 460-169542-D-5-C MSD ^5

Matrix: Water

Analysis Batch: 571958

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 571909

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Cyanide, Total	0.79	F1	0.200	0.970		mg/L		93	90 - 110	2	20

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169869-1

Method: 9012B - Cyanide, Total and/or Amenable (Continued)

Lab Sample ID: 460-169872-D-3-C MSD

Matrix: Water

Analysis Batch: 571958

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 571909

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.010	U F1	0.200	0.224	F1	mg/L	—	112	90 - 110	3	20

Lab Sample ID: MB 460-571921/1-A

Matrix: Water

Analysis Batch: 571958

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 571921

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0020	mg/L	—	11/29/18 09:20	11/29/18 11:41	1

Lab Sample ID: LCS 460-571921/2-A

Matrix: Water

Analysis Batch: 571958

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 571921

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.100	0.101		mg/L	—	101	85 - 115

Lab Sample ID: 460-169756-A-1-C MSD

Matrix: Water

Analysis Batch: 571958

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 571921

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.035	F1	0.200	0.253		mg/L	—	109	90 - 110	6	20

QC Association Summary

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169869-1

GC/MS VOA

Analysis Batch: 572143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-169869-2	TB-11212018	Total/NA	Water	8260C	
MB 460-572143/8	Method Blank	Total/NA	Water	8260C	
LCS 460-572143/3	Lab Control Sample	Total/NA	Water	8260C	
460-170182-B-1 MS	Matrix Spike	Total/NA	Water	8260C	
460-170182-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260C	

Analysis Batch: 572342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-169869-1	MW-38	Total/NA	Water	8260C	
MB 460-572342/9	Method Blank	Total/NA	Water	8260C	
LCS 460-572342/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 460-572342/5	Lab Control Sample Dup	Total/NA	Water	8260C	
460-169864-A-6 MS	Matrix Spike	Total/NA	Water	8260C	
460-169864-A-6 MSD	Matrix Spike Duplicate	Total/NA	Water	8260C	

GC/MS Semi VOA

Analysis Batch: 570911

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-169869-1	MW-38	Total/NA	Water	8270D	570966
MB 460-570966/1-A	Method Blank	Total/NA	Water	8270D	570966
LCS 460-570966/2-A	Lab Control Sample	Total/NA	Water	8270D	570966
LCS 460-570966/4-A	Lab Control Sample	Total/NA	Water	8270D	570966
LCSD 460-570966/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	570966
LCSD 460-570966/5-A	Lab Control Sample Dup	Total/NA	Water	8270D	570966
460-169897-E-2-A MS	Matrix Spike	Total/NA	Water	8270D	570966
460-169897-E-2-B MSD	Matrix Spike Duplicate	Total/NA	Water	8270D	570966

Prep Batch: 570966

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-169869-1	MW-38	Total/NA	Water	3510C	
MB 460-570966/1-A	Method Blank	Total/NA	Water	3510C	
LCS 460-570966/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 460-570966/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 460-570966/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
LCSD 460-570966/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	
460-169897-E-2-A MS	Matrix Spike	Total/NA	Water	3510C	
460-169897-E-2-B MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

Metals

Prep Batch: 572110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-169869-1	MW-38	Total/NA	Water	3010A	
MB 460-572110/1-A	Method Blank	Total/NA	Water	3010A	
LCS 460-572110/2-A	Lab Control Sample	Total/NA	Water	3010A	
460-170072-D-1-C MS	Matrix Spike	Total/NA	Water	3010A	
460-170072-D-1-B DU	Duplicate	Total/NA	Water	3010A	

TestAmerica Edison

QC Association Summary

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169869-1

Metals (Continued)

Analysis Batch: 572447

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 460-572110/2-A	Lab Control Sample	Total/NA	Water	6010D	572110
460-170072-D-1-C MS	Matrix Spike	Total/NA	Water	6010D	572110
460-170072-D-1-B DU	Duplicate	Total/NA	Water	6010D	572110

Analysis Batch: 572572

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-169869-1	MW-38	Total/NA	Water	6010D	572110
MB 460-572110/1-A	Method Blank	Total/NA	Water	6010D	572110

Prep Batch: 573020

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-169869-1	MW-38	Total/NA	Water	7470A	
MB 460-573020/1-A	Method Blank	Total/NA	Water	7470A	
LCS 460-573020/2-A	Lab Control Sample	Total/NA	Water	7470A	
460-169870-D-1-D MS	Matrix Spike	Total/NA	Water	7470A	
460-169870-D-1-C DU	Duplicate	Total/NA	Water	7470A	

Analysis Batch: 573096

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-169869-1	MW-38	Total/NA	Water	7470A	573020
MB 460-573020/1-A	Method Blank	Total/NA	Water	7470A	573020
LCS 460-573020/2-A	Lab Control Sample	Total/NA	Water	7470A	573020
460-169870-D-1-D MS	Matrix Spike	Total/NA	Water	7470A	573020
460-169870-D-1-C DU	Duplicate	Total/NA	Water	7470A	573020

General Chemistry

Prep Batch: 571909

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-169869-1	MW-38	Total/NA	Water	9012B	
MB 460-571909/1-A	Method Blank	Total/NA	Water	9012B	
LCS 460-571909/2-A	Lab Control Sample	Total/NA	Water	9012B	
460-169542-D-5-B MS ^5	Matrix Spike	Total/NA	Water	9012B	
460-169542-D-5-C MSD ^5	Matrix Spike Duplicate	Total/NA	Water	9012B	
460-169872-D-3-C MSD	Matrix Spike Duplicate	Total/NA	Water	9012B	

Prep Batch: 571921

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 460-571921/1-A	Method Blank	Total/NA	Water	9012B	
LCS 460-571921/2-A	Lab Control Sample	Total/NA	Water	9012B	
460-169756-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	9012B	

Analysis Batch: 571958

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-169869-1	MW-38	Total/NA	Water	9012B	571909
MB 460-571909/1-A	Method Blank	Total/NA	Water	9012B	571909
MB 460-571921/1-A	Method Blank	Total/NA	Water	9012B	571921
LCS 460-571909/2-A	Lab Control Sample	Total/NA	Water	9012B	571909
LCS 460-571921/2-A	Lab Control Sample	Total/NA	Water	9012B	571921
460-169542-D-5-B MS ^5	Matrix Spike	Total/NA	Water	9012B	571909

TestAmerica Edison

QC Association Summary

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169869-1

General Chemistry (Continued)

Analysis Batch: 571958 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-169542-D-5-C MSD ^5	Matrix Spike Duplicate	Total/NA	Water	9012B	571909
460-169756-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	9012B	571921
460-169872-D-3-C MSD	Matrix Spike Duplicate	Total/NA	Water	9012B	571909

Lab Chronicle

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169869-1

Client Sample ID: MW-38

Date Collected: 11/21/18 12:35

Date Received: 11/21/18 16:07

Lab Sample ID: 460-169869-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	572342	12/01/18 01:38	AAT	TAL EDI
Total/NA	Prep	3510C			570966	11/25/18 10:10	MIS	TAL EDI
Total/NA	Analysis	8270D		1	570911	11/26/18 05:36	YAH	TAL EDI
Total/NA	Prep	3010A			572110	11/29/18 23:45	GAE	TAL EDI
Total/NA	Analysis	6010D		1	572572	12/02/18 16:10	CDC	TAL EDI
Total/NA	Prep	7470A			573020	12/04/18 12:46	RBS	TAL EDI
Total/NA	Analysis	7470A		1	573096	12/04/18 15:13	RBS	TAL EDI
Total/NA	Prep	9012B			571909	11/29/18 09:02	IAA	TAL EDI
Total/NA	Analysis	9012B		1	571958	11/29/18 11:29	PHM	TAL EDI

Client Sample ID: TB-11212018

Date Collected: 11/21/18 00:00

Date Received: 11/21/18 16:07

Lab Sample ID: 460-169869-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	572143	11/30/18 16:42	AAT	TAL EDI

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169869-1

Laboratory: TestAmerica Edison

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	11452	04-01-19

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Method Summary

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169869-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL EDI
6010D	Metals (ICP)	SW846	TAL EDI
7470A	Mercury (CVAA)	SW846	TAL EDI
9012B	Cyanide, Total and/or Amenable	SW846	TAL EDI
3010A	Preparation, Total Metals	SW846	TAL EDI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL EDI
5030C	Purge and Trap	SW846	TAL EDI
7470A	Preparation, Mercury	SW846	TAL EDI
9012B	Cyanide, Total and/or Amenable, Distillation	SW846	TAL EDI

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: Parsons Corporation
Project/Site: Farrington St. MGP

TestAmerica Job ID: 460-169869-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-169869-1	MW-38	Water	11/21/18 12:35	11/21/18 16:07
460-169869-2	TB-11212018	Water	11/21/18 00:00	11/21/18 16:07

1

2

3

4

5

6

7

8

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10

11

12

13

14

15

Login Sample Receipt Checklist

Client: Parsons Corporation

Job Number: 460-169869-1

Login Number: 169869

List Source: TestAmerica Edison

List Number: 1

Creator: Cabaron, Christopher V

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

APPENDIX D

LABORATORY ANALYTICAL REPORT - NAPL



5730 Centralcrest St. • Houston, TX 77092
Telephone (713) 316-1800 • Fax (877) 225-9953

December 7, 2018

Dan Martoccia.
Project Manager,
PARSONS.
200 Cottontail Lane,
Somerset, NJ 08873.

Re: PTS File No: 48267
Project Name: Cow Edison Farrington, MGP
Project Number: N/A

Subject: **Fluid Properties Package – (Density; Specific Gravity; Viscosity & Interfacial Tension (IFT))**

Dear Dan Martoccia,

Please find enclosed report for Physical Properties analyses conducted upon samples received from your **Cow Edison Farrington, MGP** project. All analyses were performed by applicable ASTM, EPA, or API methodologies. The samples are currently in storage and will be retained for thirty days past the completion of testing at no charge. Please note that the samples will be disposed of at that time. You may contact me regarding storage, disposal, or return of the samples

PTS Laboratories appreciates the opportunity to be of service. If you have any questions or require additional information, please contact myself or Emeka Anazodo at (713) 316-1800.

Sincerely,
PTS Laboratories, Inc.

C.A.Umeh

Chidi Umeh
Flow Laboratory Supervisor

Encl.

Project Name: Cow Edison Farrington MGP
Project Number: N/A

PTS File No: 48267
Client: PARSONS

TEST PROGRAM - 20181204

FLUID ID	Date	Time	Fluid Type	Fluid Properties Pkg.	Fluid Cleaning	Comment 1	Comment 2
Date Received: 20181204			Method:	ASTM D1481, 445, 971	Proprietary		
MW-15	11-15-18	1230	NAPL/GW	X	X		(2)250ml Amber bottle
MW-19	11-15-18	1030	NAPL/GW	X	X		(2)250ml Amber bottle
MW-38	11-21-18	0930	NAPL/GW	X	X		(2)250ml Amber bottle
TOTALS:			6 Bottle	3	3		3

Laboratory Test Program Notes

Standard TAT for basic analysis is 10-15 business days. completion of analyses.

Fluid Properties Package - LNAPL & Water: Includes dynamic viscosity and fluid density at three temperatures (70, 100 and 130°F), surface tension for each fluid, and interfacial tensions (three phase pairs; oil/water, oil/air, and water/air (at ambient laboratory temperature)).

If no groundwater received, use filtered SFS tap water for interfacial tension testing.

PTS File No: 48267
 Client: PARSONS
 Report Date: 12/07/18

VISCOSITY, DENSITY, and SPECIFIC GRAVITY DATA

(METHODOLOGY: ASTM D445, ASTM D1481, API RP40)

Project Name: Cow Edison Farrington, MGP
 Project No: N/A

SAMPLE ID	MATRIX	TEMPERATURE, °F	SPECIFIC GRAVITY	DENSITY, g/cc	VISCOSITY	
					centistokes	centipoise
MW-15 _NAPL	NAPL	70	0.9188	0.9186	19.05	17.50
		100	0.9135	0.9072	9.56	8.67
		130	0.9082	0.8955	5.76	5.16
MW-19 _NAPL	NAPL	70	0.9084	0.9082	10.67	9.69
		100	0.9030	0.8967	6.07	5.44
		130	0.8977	0.8851	3.95	3.50
MW-38 _NAPL	NAPL	70	0.9001	0.8999	8.53	7.67
		100	0.8948	0.8885	5.15	4.57
		130	0.8892	0.8767	3.44	3.02
MW-15 _GW	Ground Water	70	0.9984	0.9982	1.00	1.00
		100	0.9995	0.9926	0.70	0.70
		130	0.9956	0.9816	0.53	0.52
MW-19 _GW	Ground Water	70	0.9987	0.9985	1.00	1.00
		100	1.0006	0.9936	0.69	0.69
		130	0.9989	0.9849	0.57	0.56
MW-38 _GW	Ground Water	70	0.9985	0.9983	1.01	1.00
		100	1.0005	0.9935	0.71	0.70
		130	0.9994	0.9854	0.57	0.56

QUALITY CONTROL DATA

Date: 12/06/18

FLUID TYPE: Cannon® CVS S3

TEMPERATURE, °F:	70
DENSITY, MEASURED:	0.8613
DENSITY, PUBLISHED:	0.8615
RPD:	-0.02
VISCOSITY, MEASURED:	4.50
VISCOSITY, PUBLISHED:	4.47
RPD:	0.67
CVS Lot #: 17301	CVS = Certified Viscosity Standard

PTS File No: 48267
Client: PARSONS
Report Date: 12/07/18

INTERFACIAL / SURFACE TENSION DATA
(METHODOLOGY: DuNuoy Method - ASTM D971)

Project Name: Cow Edison Farrington, MGP
Project No: N/A

PHASE PAIR		TEMPERATURE, °F	INTERFACIAL TENSION, Dynes/centimeter
SAMPLE ID / PHASE	SAMPLE ID / PHASE		
MW-15 _GW	Air	72.2	61.8
MW-15 _NAPL	Air	71.8	30.4
MW-15 _GW	MW-15 _NAPL	73.0	15.4
MW-19 _GW	Air	72.2	62.2
MW-19 _NAPL	Air	73.0	29.6
MW-19 _GW	MW-19 _NAPL	73.2	18.9
MW-38 _GW	Air	72.6	66.4
MW-38 _NAPL	Air	72.4	28.8
MW-38 _GW	MW-38 _NAPL	73.6	19.6

GW = Ground Water

QUALITY CONTROL DATA

Date: 12/06/18
PHASE PAIR: DIWATER / AIR
TEMPERATURE, °F: 71.3
IFT, MEASURED: 71.9
IFT, PUBLISHED: 72.5
RPD: -0.83

COMPANY PARSONS				ANALYSIS REQUEST																		PO#																																													
ADDRESS 200 COTTONTAIL LANE		CITY SUMMIT, NJ		ZIP CODE 08873		<table border="1"> <tr> <td rowspan="5">NUMBER OF SAMPLES</td> <td rowspan="5">SOIL PROPERTIES PACKAGE</td> <td rowspan="5">HYDRAULIC CONDUCTIVITY PACKAGE</td> <td rowspan="5">PORE FLUID SATURATIONS PACKAGE</td> <td rowspan="5">TCEQ/TNRC PROPERTIES PACKAGE</td> <td rowspan="5">CAPILLARITY PACKAGE</td> <td rowspan="5">FLUID PROPERTIES PACKAGE</td> <td rowspan="5">PHOTOLOG: CORE PHOTOGRAPHY</td> <td rowspan="5">VAPOR TRANSPORT PACKAGE</td> <td rowspan="5">POROSITY: TOTAL, AIR FILLED, WATER FILLED</td> <td rowspan="5">POROSITY: EFFECTIVE, ASTM D425M</td> <td rowspan="5">SPECIFIC GRAVITY, ASTM D854</td> <td rowspan="5">BULK DENSITY (DRY), API RP40 or ASTM D2937</td> <td rowspan="5">AIR PERMEABILITY, API RP40</td> <td rowspan="5">HYDRAULIC CONDUCTIVITY, EPA9100/API RP40 or D5084</td> <td rowspan="5">GRAIN SIZE DISTRIBUTION, ASTM D422 or 4464M</td> <td rowspan="5">TOC: WALKLEY-BLACK</td> <td rowspan="5">ATTERBERG LIMITS, ASTM D4318</td> <td rowspan="5">VAPOR INTRUSION PACKAGE</td> <td rowspan="5">FREE-PRODUCT MOBILITY PACKAGE</td> <td rowspan="5">ASTM D455</td> <td rowspan="5">ASTM D971</td> </tr> </table>																		NUMBER OF SAMPLES	SOIL PROPERTIES PACKAGE	HYDRAULIC CONDUCTIVITY PACKAGE	PORE FLUID SATURATIONS PACKAGE	TCEQ/TNRC PROPERTIES PACKAGE	CAPILLARITY PACKAGE	FLUID PROPERTIES PACKAGE	PHOTOLOG: CORE PHOTOGRAPHY	VAPOR TRANSPORT PACKAGE	POROSITY: TOTAL, AIR FILLED, WATER FILLED	POROSITY: EFFECTIVE, ASTM D425M	SPECIFIC GRAVITY, ASTM D854	BULK DENSITY (DRY), API RP40 or ASTM D2937	AIR PERMEABILITY, API RP40	HYDRAULIC CONDUCTIVITY, EPA9100/API RP40 or D5084	GRAIN SIZE DISTRIBUTION, ASTM D422 or 4464M	TOC: WALKLEY-BLACK	ATTERBERG LIMITS, ASTM D4318	VAPOR INTRUSION PACKAGE	FREE-PRODUCT MOBILITY PACKAGE	ASTM D455	ASTM D971	TURNAROUND TIME 24 HOURS ☐ 5 DAYS ☐ 72 HOURS ☐ NORMAL ☐																					
NUMBER OF SAMPLES	SOIL PROPERTIES PACKAGE	HYDRAULIC CONDUCTIVITY PACKAGE	PORE FLUID SATURATIONS PACKAGE	TCEQ/TNRC PROPERTIES PACKAGE	CAPILLARITY PACKAGE																																									FLUID PROPERTIES PACKAGE	PHOTOLOG: CORE PHOTOGRAPHY	VAPOR TRANSPORT PACKAGE	POROSITY: TOTAL, AIR FILLED, WATER FILLED	POROSITY: EFFECTIVE, ASTM D425M	SPECIFIC GRAVITY, ASTM D854	BULK DENSITY (DRY), API RP40 or ASTM D2937	AIR PERMEABILITY, API RP40	HYDRAULIC CONDUCTIVITY, EPA9100/API RP40 or D5084	GRAIN SIZE DISTRIBUTION, ASTM D422 or 4464M	TOC: WALKLEY-BLACK	ATTERBERG LIMITS, ASTM D4318	VAPOR INTRUSION PACKAGE	FREE-PRODUCT MOBILITY PACKAGE	ASTM D455	ASTM D971						
																																																														PROJECT MANAGER DAN MARTOCCIA		email		OTHER: PER CONTRACT	
																																																														PROJECT NAME CON EDISON FARRINGTON, MGP		PHONE NUMBER		SAMPLE INTEGRITY (CHECK): INTACT ☒ TEMP(F) 68.9	
																																																														PROJECT NUMBER		FAX NUMBER		PTS QUOTE NO.	
						SITE LOCATION FLUSHING NY		SAMPLER SIGNATURE <i>[Signature]</i>		PTS FILE: 48267																																																									
SAMPLE ID	DATE	TIME	DEPTH, FT																			COMMENTS																																													
✓ MW-15	11-15-18	1230																																																																	
✓ MW-19	11-15-18	1030																																																																	
✓ MW-38	11-21-18	0930																																																																	
1. RELINQUISHED BY <i>[Signature]</i>			2. RECEIVED BY <i>[Signature]</i>			3. RELINQUISHED BY										4. RECEIVED BY																																																			
COMPANY PARSONS			COMPANY PTS Laboratories, Inc			COMPANY										COMPANY																																																			
DATE 11-27-18			TIME 1730			DATE 12/4/18			TIME 1000			DATE			TIME			DATE			TIME																																														

APPENDIX E

HYDRAULIC CONDUCTIVITY DATA

Slug Test Analysis Report

Project: Farrington

Number:

Client: ConEd

Location: Queens, NY

Slug Test: MW-15 Rising Head

Test Well: MW15

Test Conducted by: Zohar Lavy

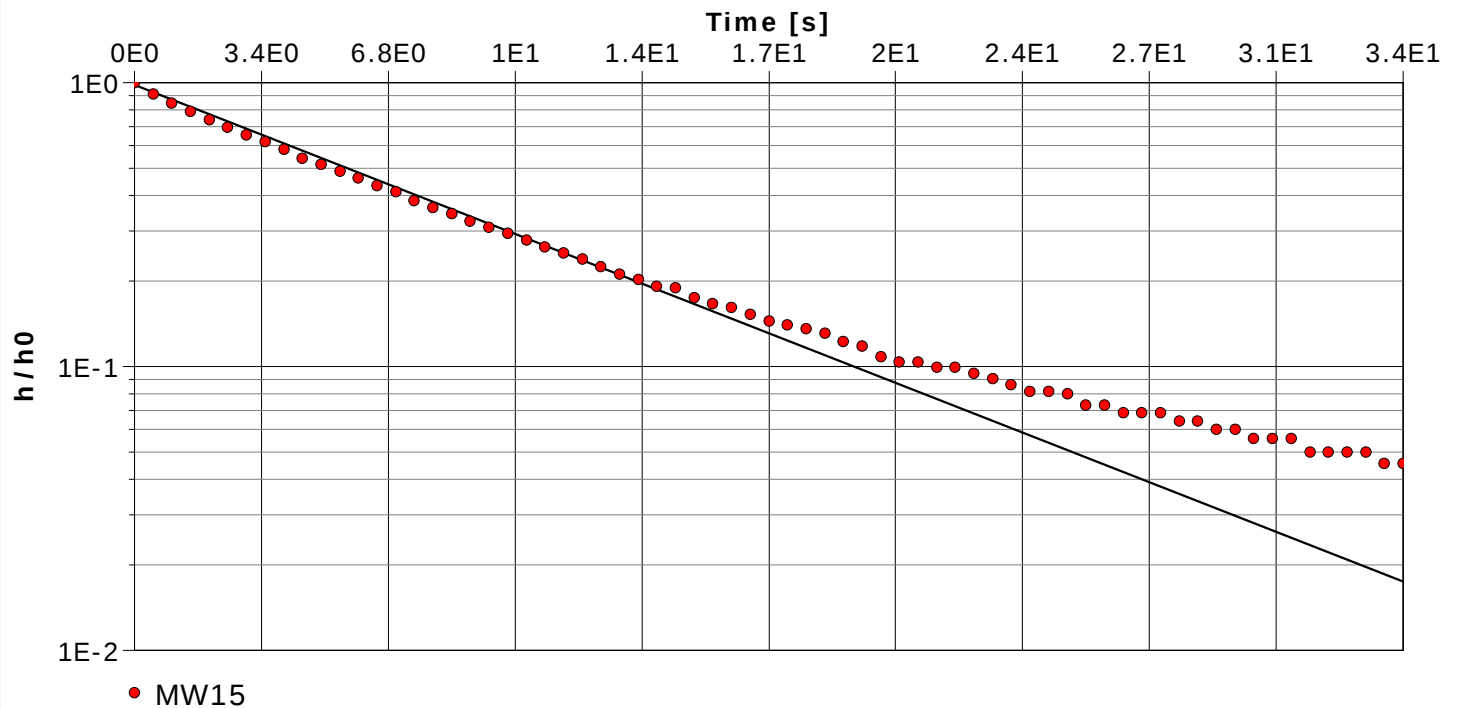
Test Date: 11/27/2018

Analysis Performed by: Melanie Beck

Hvorslev

Analysis Date: 1/31/2019

Aquifer Thickness: 12.00 ft



Calculation using Hvorslev

Observation Well	Hydraulic Conductivity [ft/d]
MW15	1.24×10^1

Slug Test Analysis Report

Project: Farrington

Number:

Client: ConEd

Location: Queens, NY

Slug Test: MW-15 Rising Head

Test Well: MW15

Test Conducted by: Zohar Lavy

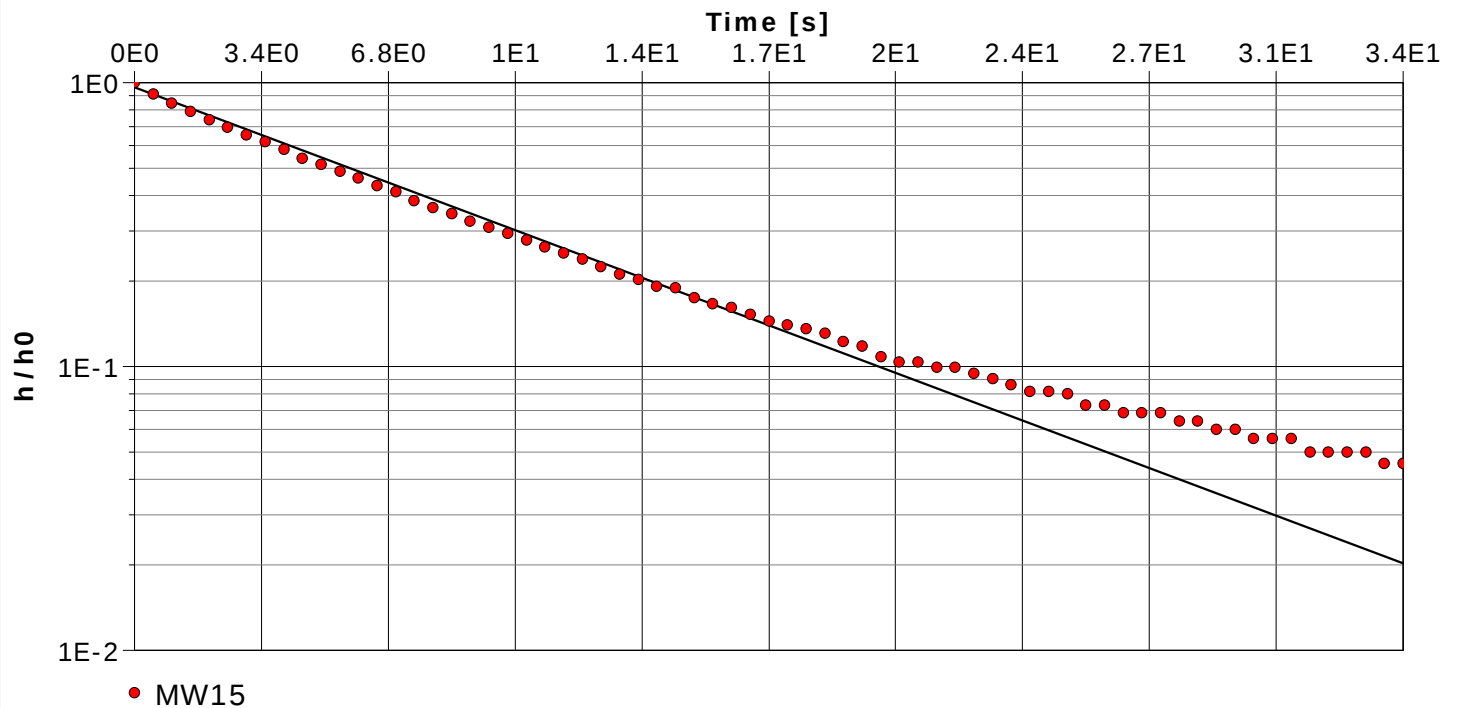
Test Date: 11/27/2018

Analysis Performed by: Melanie Beck

Bouwer-Rice

Analysis Date: 1/31/2019

Aquifer Thickness: 12.00 ft



Calculation using Bouwer & Rice

Observation Well	Hydraulic Conductivity [ft/d]
MW15	9.24×10^0

Slug Test Analysis Report

Project: Farrington

Number:

Client: ConEd

Location: Queens, NY

Slug Test: MW-19 Rising Head

Test Well: MW19

Test Conducted by: Zohar Lavy

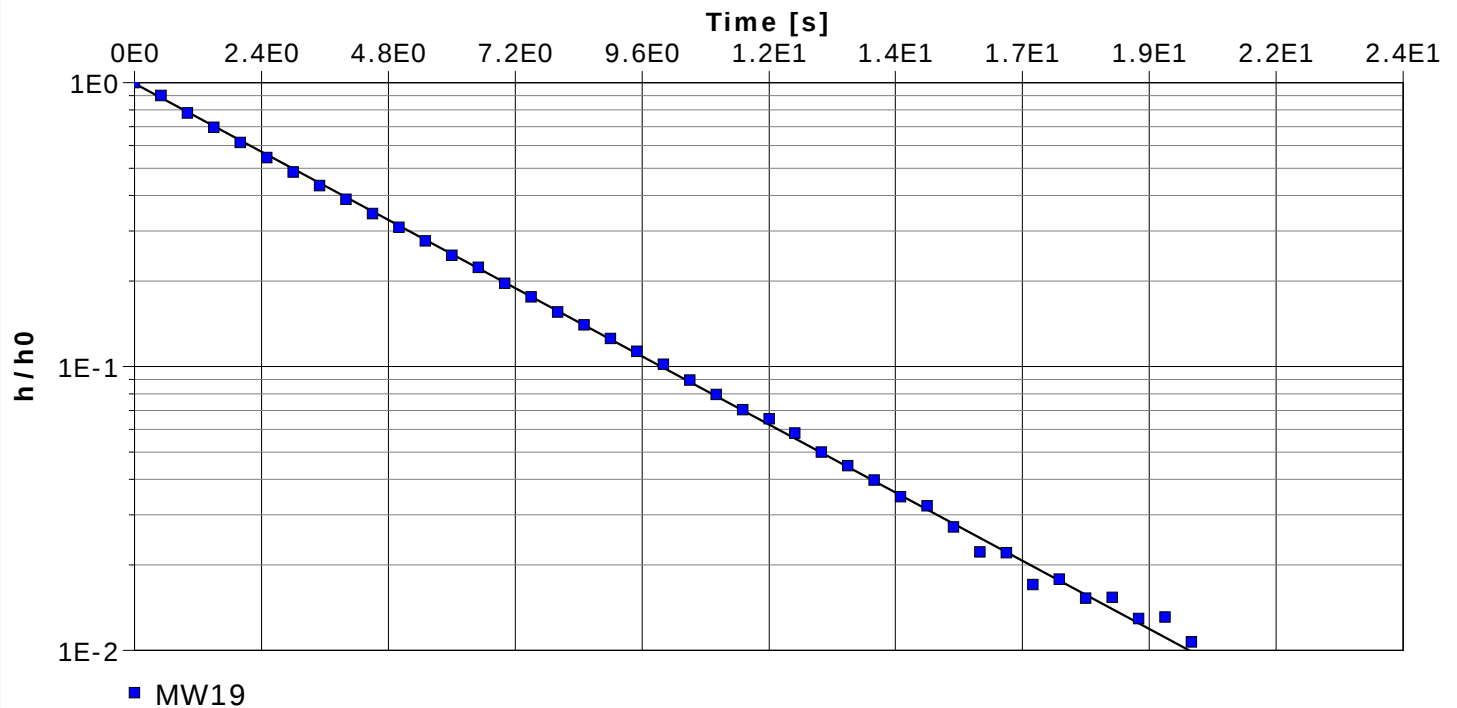
Test Date: 11/28/2018

Analysis Performed by: Melanie Beck

Hvorslev

Analysis Date: 1/31/2019

Aquifer Thickness: 16.00 ft



Calculation using Hvorslev

Observation Well	Hydraulic Conductivity [ft/d]
MW19	2.37×10^1

Slug Test Analysis Report

Project: Farrington

Number:

Client: ConEd

Location: Queens, NY

Slug Test: MW-19 Rising Head

Test Well: MW19

Test Conducted by: Zohar Lavy

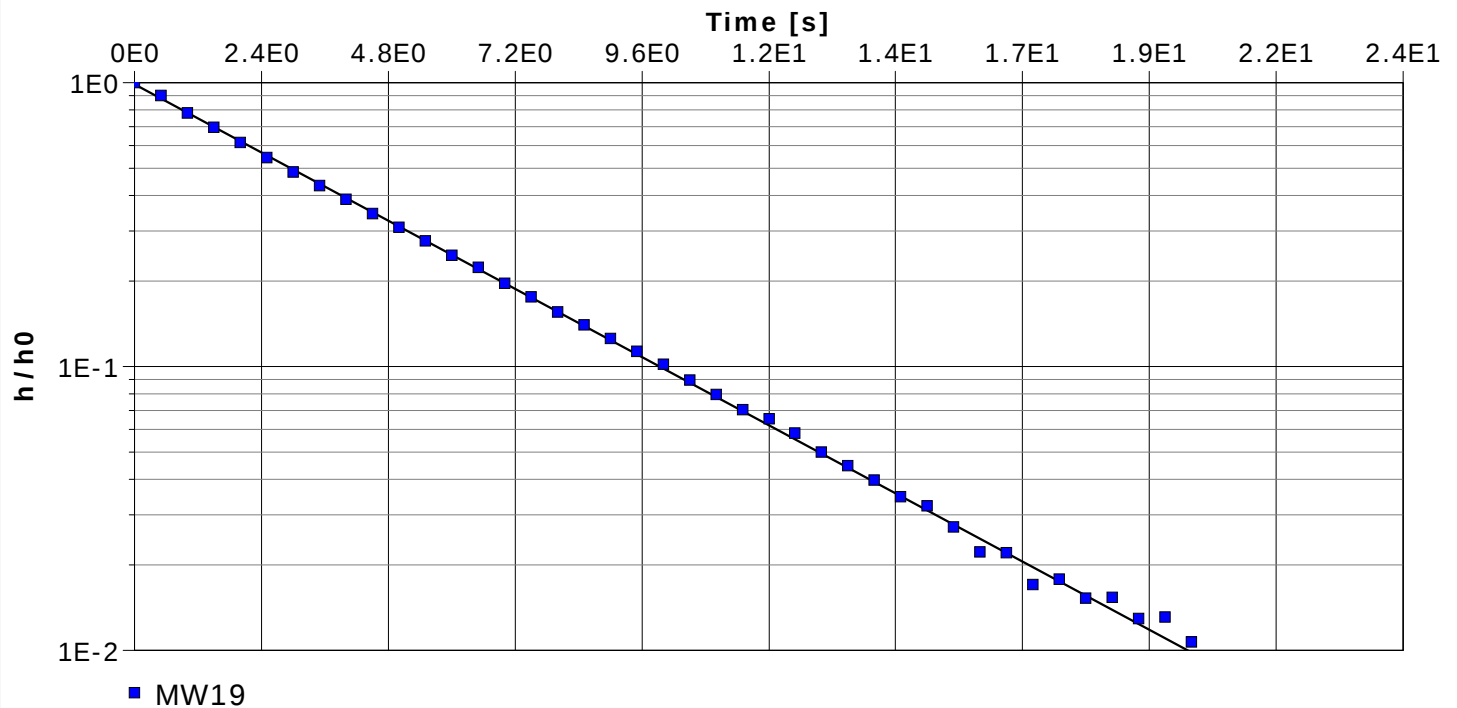
Test Date: 11/28/2018

Analysis Performed by: Melanie Beck

Bouwer-Rice

Analysis Date: 1/31/2019

Aquifer Thickness: 16.00 ft



Calculation using Bouwer & Rice

Observation Well	Hydraulic Conductivity [ft/d]
MW19	1.71×10^1

Slug Test Analysis Report

Project: Farrington

Number:

Client: ConEd

Location: Queens, NY

Slug Test: MW-20 Rising head

Test Well: MW20

Test Conducted by: Zohar Lavy

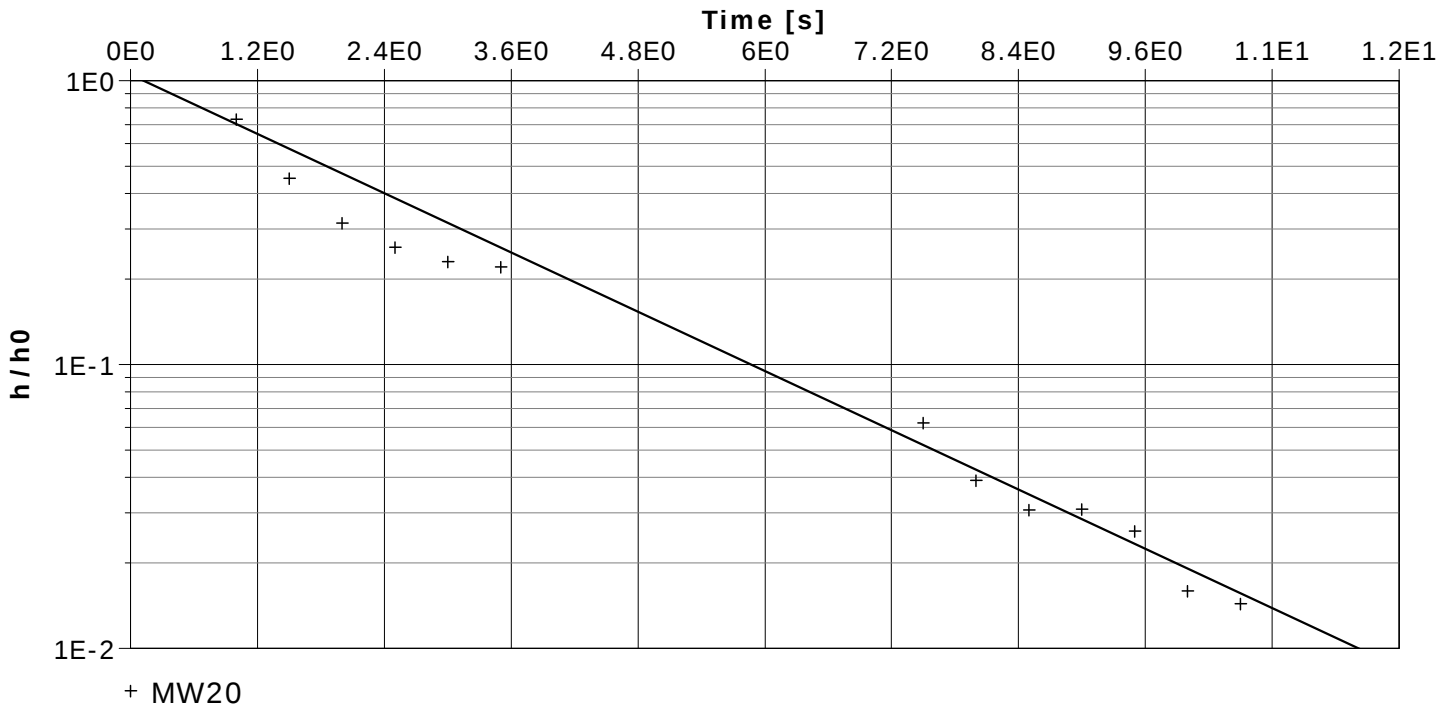
Test Date: 11/27/2018

Analysis Performed by: Melanie Beck

Hvorslev

Analysis Date: 2/4/2019

Aquifer Thickness: 10.00 ft



Calculation using Hvorslev

Observation Well

Hydraulic Conductivity
[ft/d]

MW20

6.00×10^1

Slug Test Analysis Report

Project: Farrington

Number:

Client: ConEd

Location: Queens, NY

Slug Test: MW-20 Rising head

Test Well: MW20

Test Conducted by: Zohar Lavy

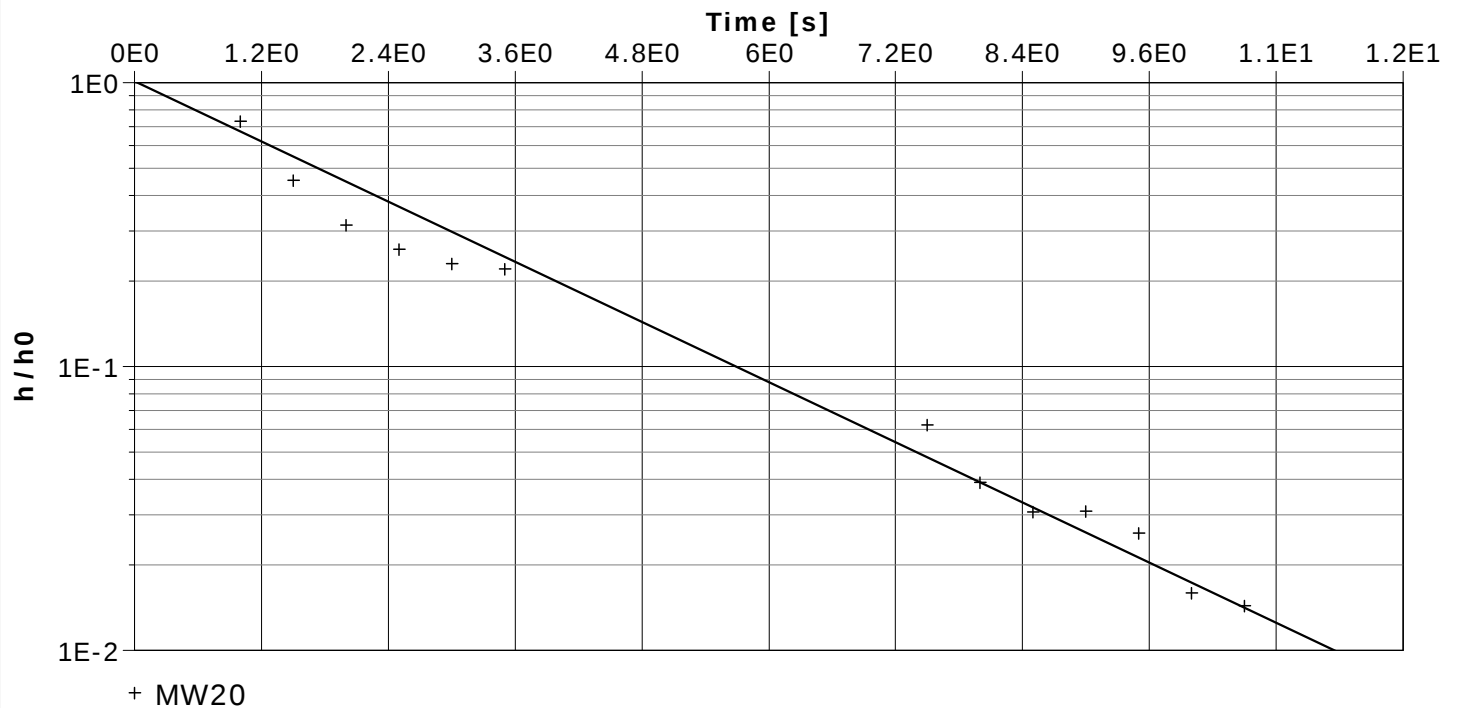
Test Date: 11/27/2018

Analysis Performed by: Melanie Beck

Bouwer & Rice

Analysis Date: 2/4/2019

Aquifer Thickness: 10.00 ft



Calculation using Bouwer & Rice

Observation Well

Hydraulic Conductivity
[ft/d]

MW20

4.44×10^1

Slug Test Analysis Report

Project: Farrington

Number:

Client: ConEd

Location: Queens, NY

Slug Test: MW-21 Rising Head 1

Test Well: MW21

Test Conducted by: Zohar Lavy

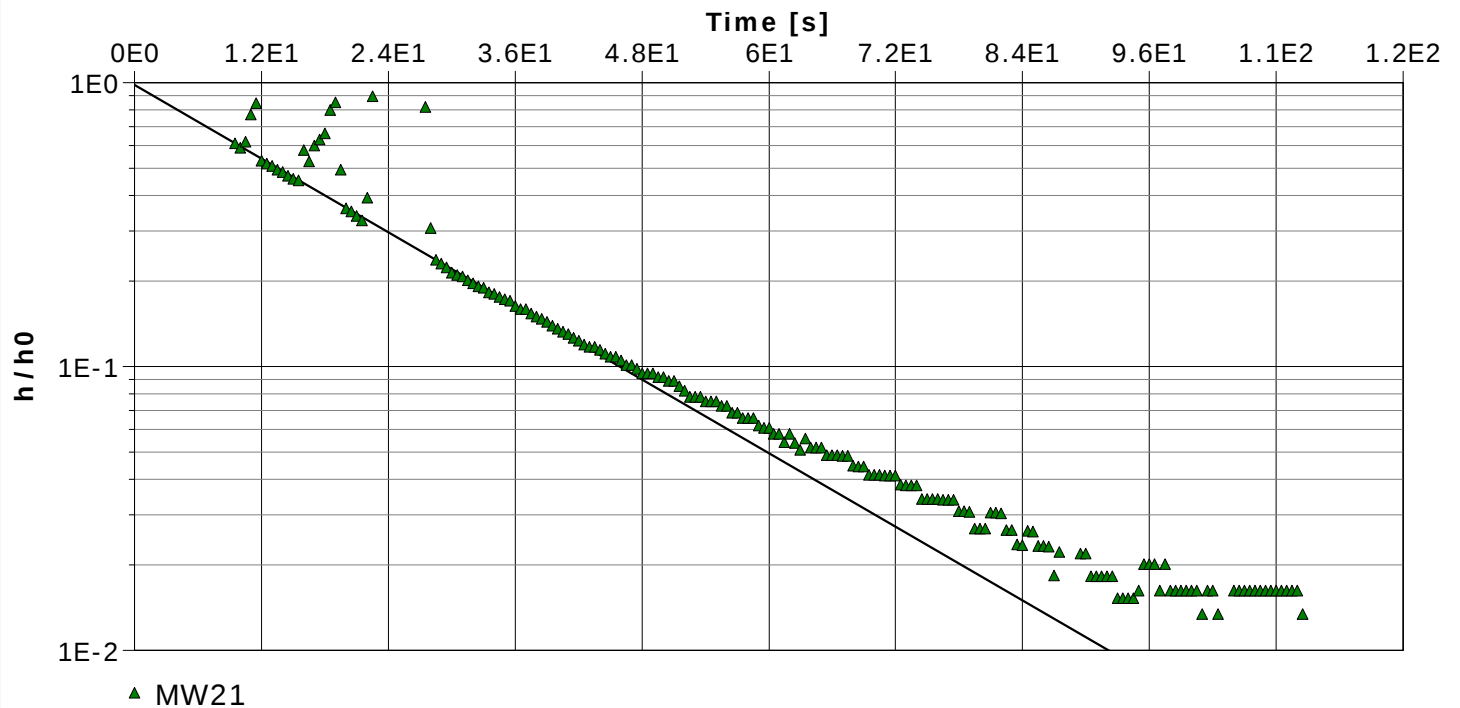
Test Date: 11/26/2018

Analysis Performed by: Melanie Beck

Hvorslev

Analysis Date: 1/31/2019

Aquifer Thickness: 10.00 ft



Calculation using Hvorslev

Observation Well	Hydraulic Conductivity [ft/d]
MW21	7.19×10^0

Slug Test Analysis Report

Project: Farrington

Number:

Client: ConEd

Location: Queens, NY

Slug Test: MW-21 Rising Head 1

Test Well: MW21

Test Conducted by: Zohar Lavy

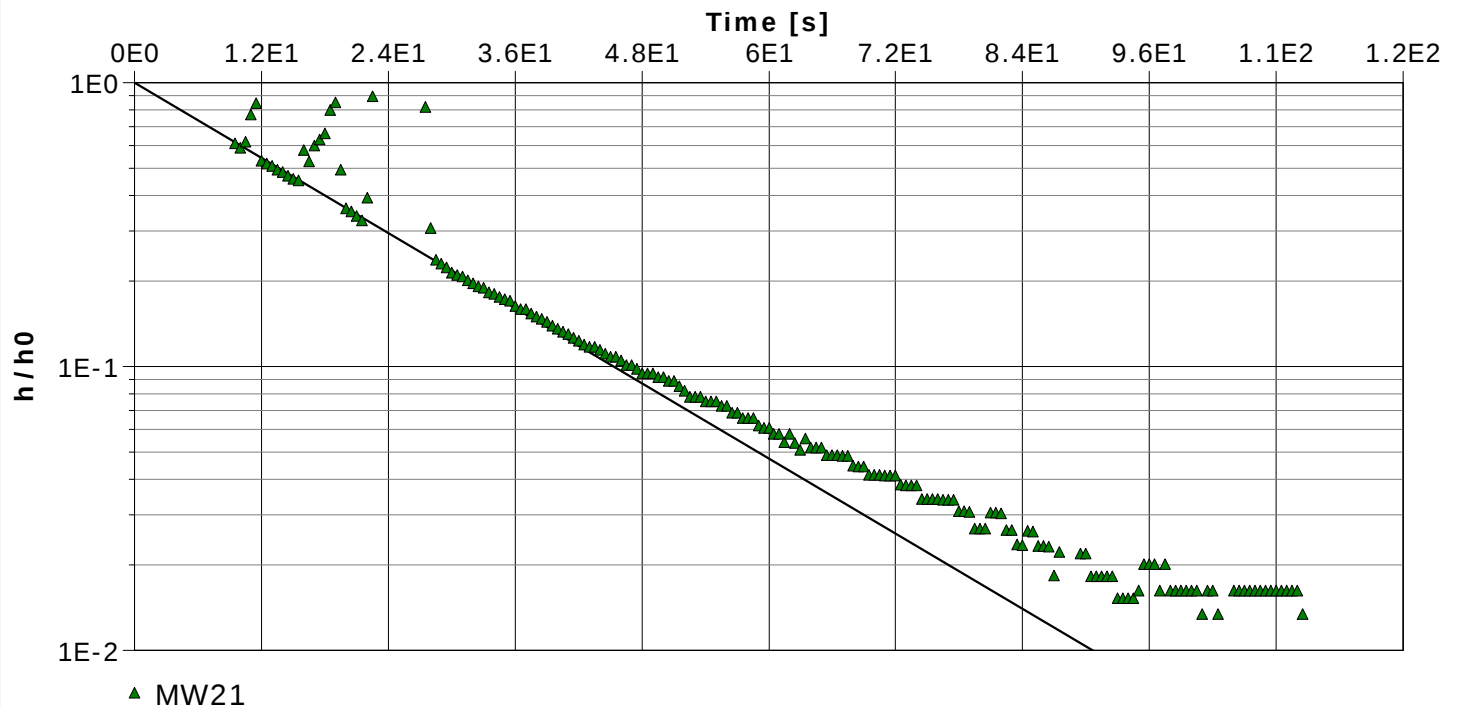
Test Date: 11/26/2018

Analysis Performed by: Melanie Beck

Bouwer & Rice

Analysis Date: 1/31/2019

Aquifer Thickness: 10.00 ft



Calculation using Bouwer & Rice

Observation Well	Hydraulic Conductivity [ft/d]
MW21	5.67×10^0

Slug Test Analysis Report

Project: Farrington

Number:

Client: ConEd

Location: Queens, NY

Slug Test: MW-21 Rising Head 2

Test Well: MW21

Test Conducted by: Zohar Lavy

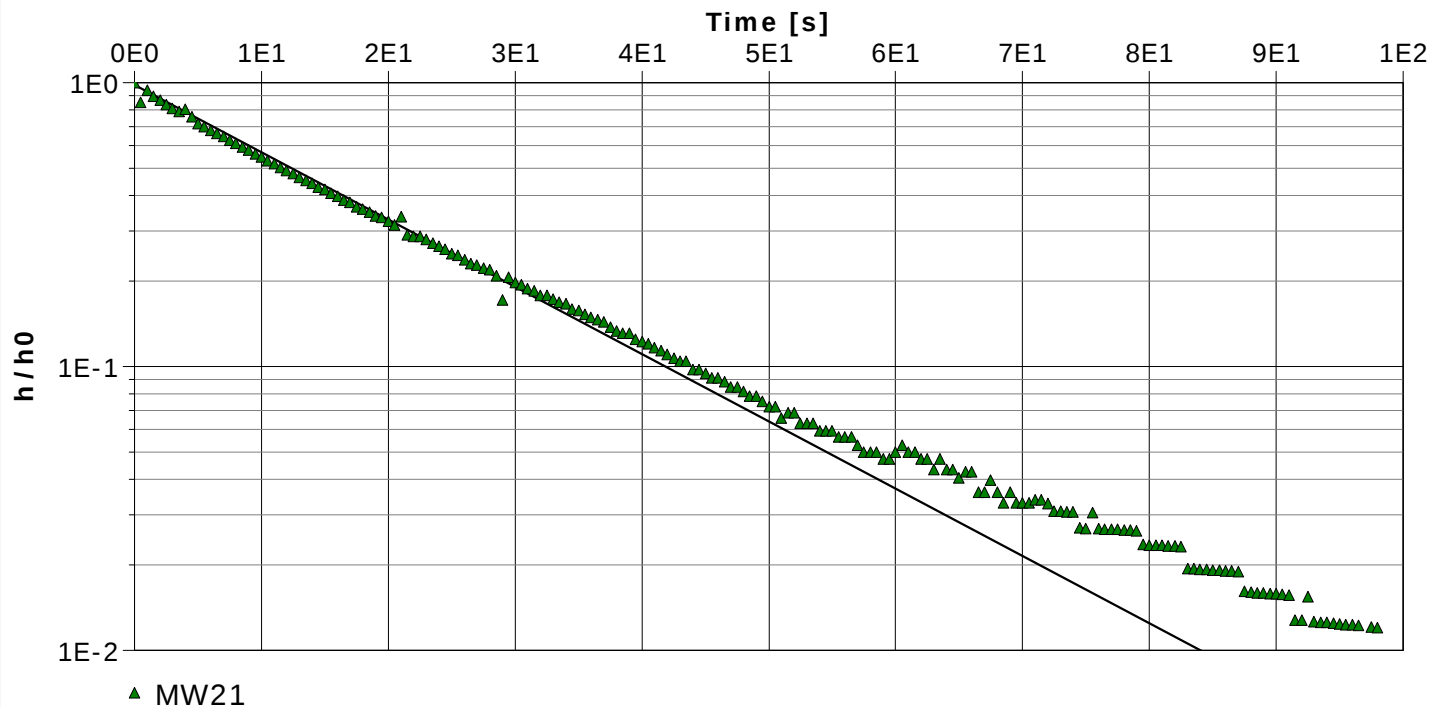
Test Date: 11/26/2018

Analysis Performed by: Melanie Beck

Hvorslev

Analysis Date: 1/31/2019

Aquifer Thickness: 10.00 ft



Calculation using Hvorslev

Observation Well	Hydraulic Conductivity [ft/d]
MW21	7.88×10^0

Slug Test Analysis Report

Project: Farrington

Number:

Client: ConEd

Location: Queens, NY

Slug Test: MW-21 Rising Head 2

Test Well: MW21

Test Conducted by: Zohar Lavy

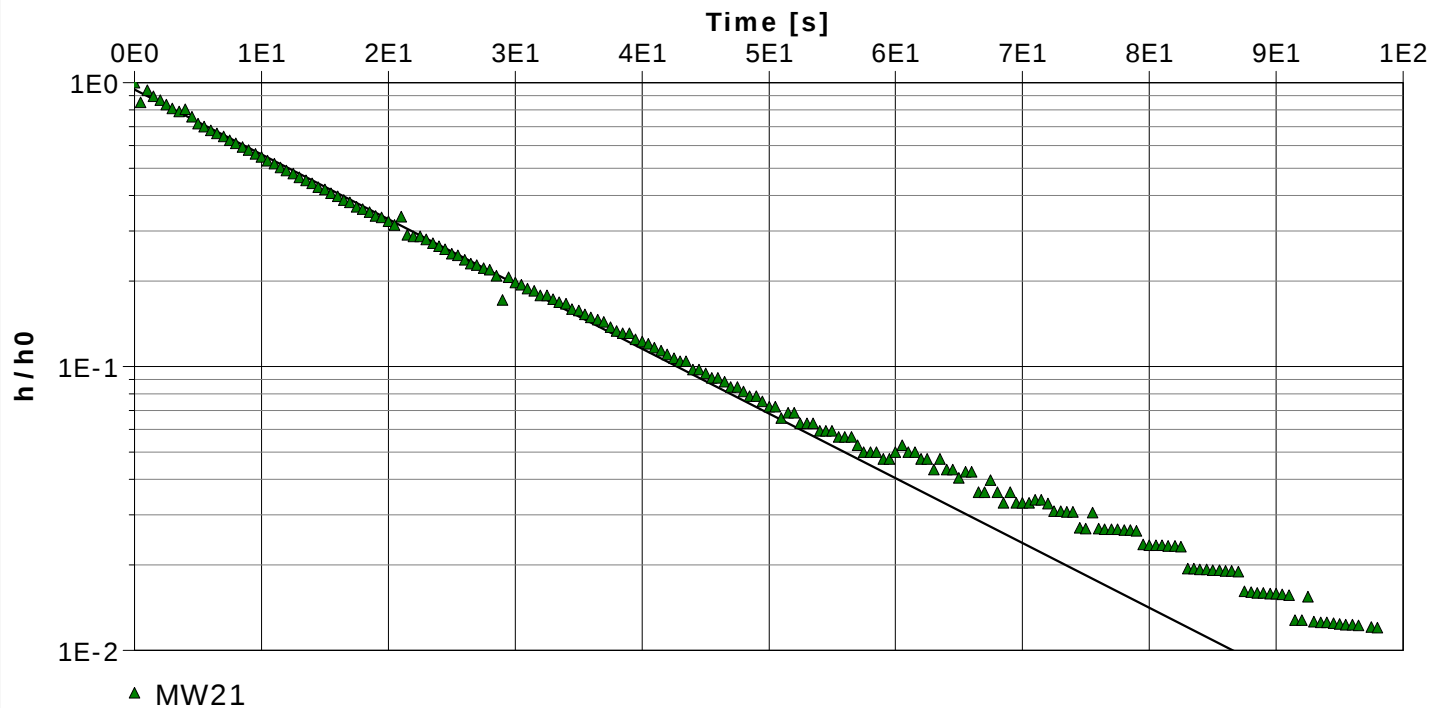
Test Date: 11/26/2018

Analysis Performed by: Melanie Beck

Bouwer & Rice

Analysis Date: 1/31/2019

Aquifer Thickness: 10.00 ft



Calculation using Bouwer & Rice

Observation Well	Hydraulic Conductivity [ft/d]
MW21	5.87×10^0

Slug Test Analysis Report

Project: Farrington

Number:

Client: ConEd

Location: Queens, NY

Slug Test: MW-25 Rising Head

Test Well: MW25

Test Conducted by: Zohar Lavy

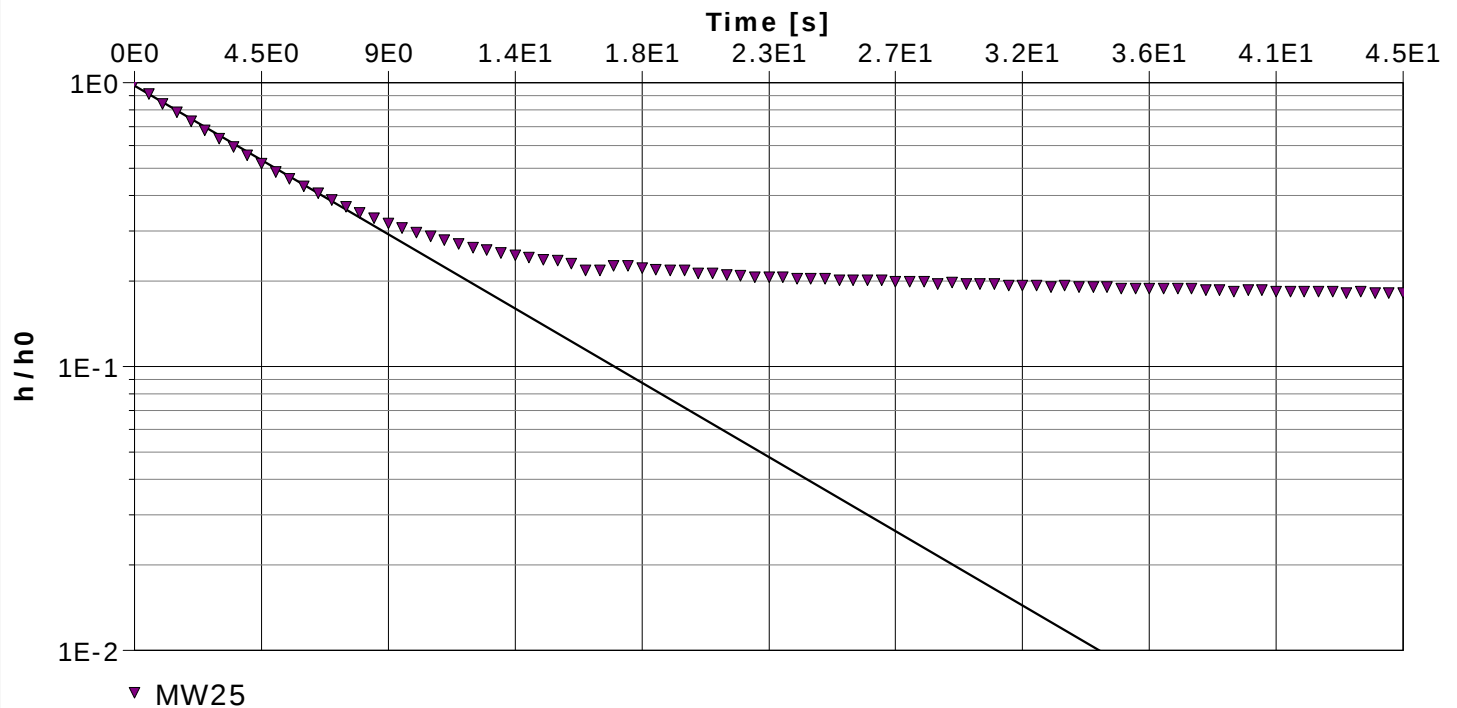
Test Date: 11/30/2018

Analysis Performed by: Melanie Beck

Hvorslev

Analysis Date: 2/4/2019

Aquifer Thickness: 40.00 ft



Calculation using Hvorslev

Observation Well

Hydraulic Conductivity
[ft/d]

MW25

6.27×10^0

Slug Test Analysis Report

Project: Farrington

Number:

Client: ConEd

Location: Queens, NY

Slug Test: MW-25 Rising Head

Test Well: MW25

Test Conducted by: Zohar Lavy

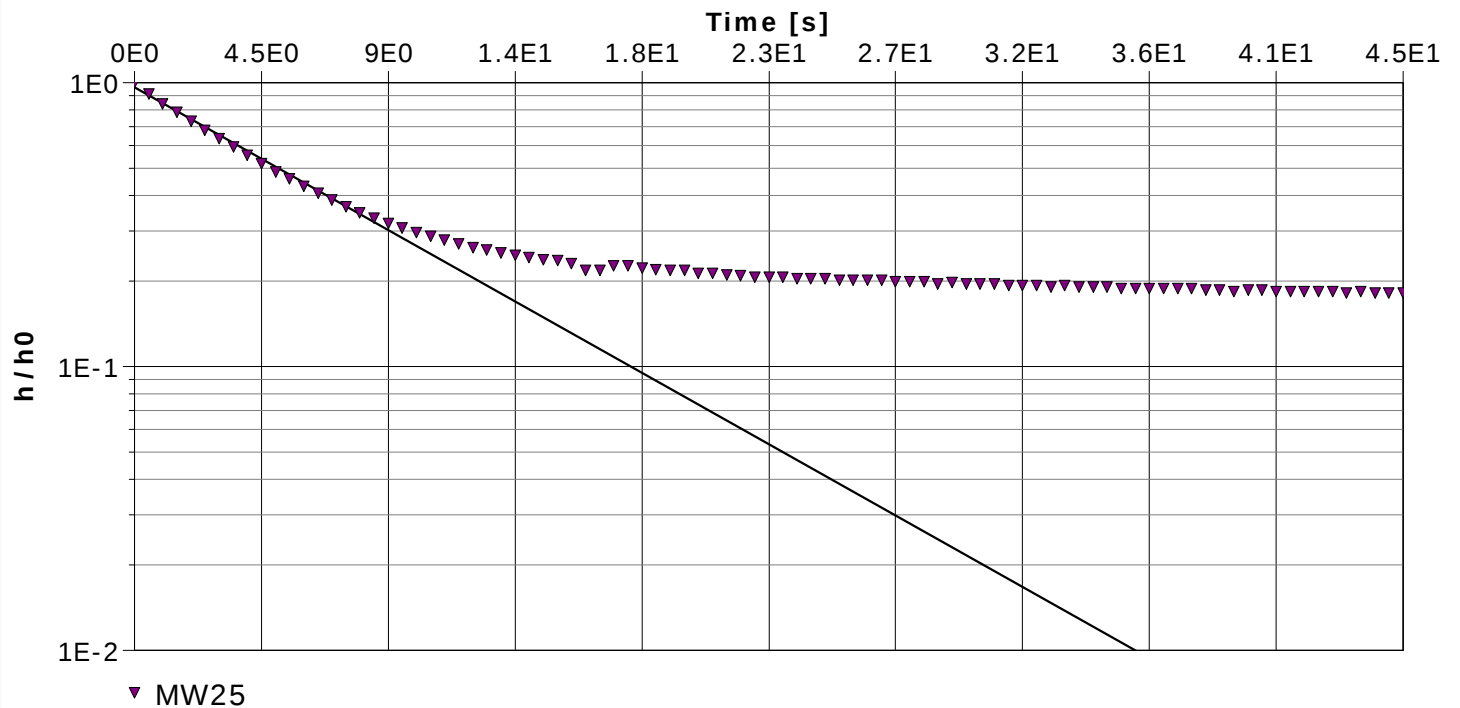
Test Date: 11/30/2018

Analysis Performed by: Melanie Beck

Bouwer-Rice

Analysis Date: 2/4/2019

Aquifer Thickness: 40.00 ft



Calculation using Bouwer & Rice

Observation Well

Hydraulic Conductivity
[ft/d]

MW25

4.87×10^0

Slug Test Analysis Report

Project: Farrington

Number:

Client: ConEd

Location: Queens, NY

Slug Test: MW-27 Rising Head

Test Well: MW27

Test Conducted by: Zohar Lavy

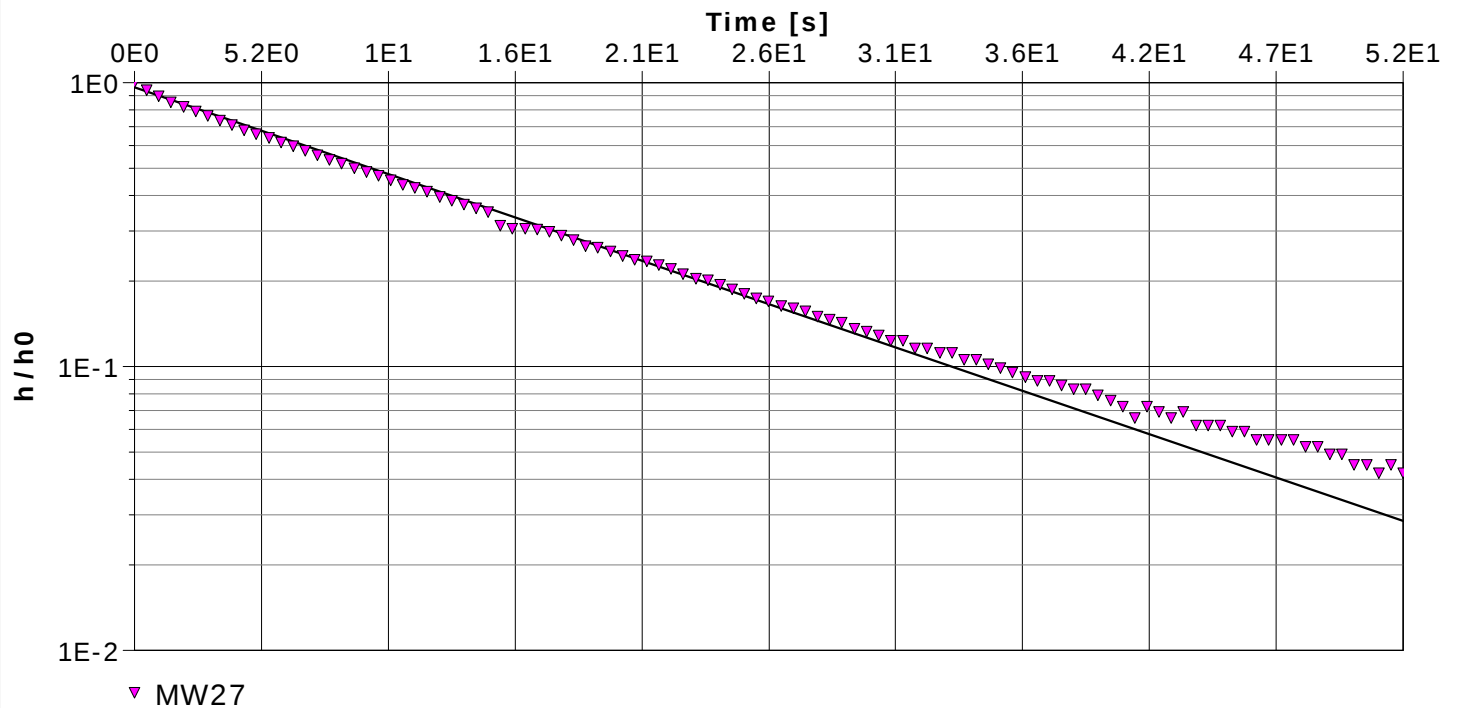
Test Date: 11/27/2018

Analysis Performed by: Melanie

Hvorslev

Analysis Date: 1/31/2019

Aquifer Thickness: 10.00 ft



Calculation using Hvorslev

Observation Well	Hydraulic Conductivity [ft/d]
MW27	9.76×10^0

Slug Test Analysis Report

Project: Farrington

Number:

Client: ConEd

Location: Queens, NY

Slug Test: MW-27 Rising Head

Test Well: MW27

Test Conducted by: Zohar Lavy

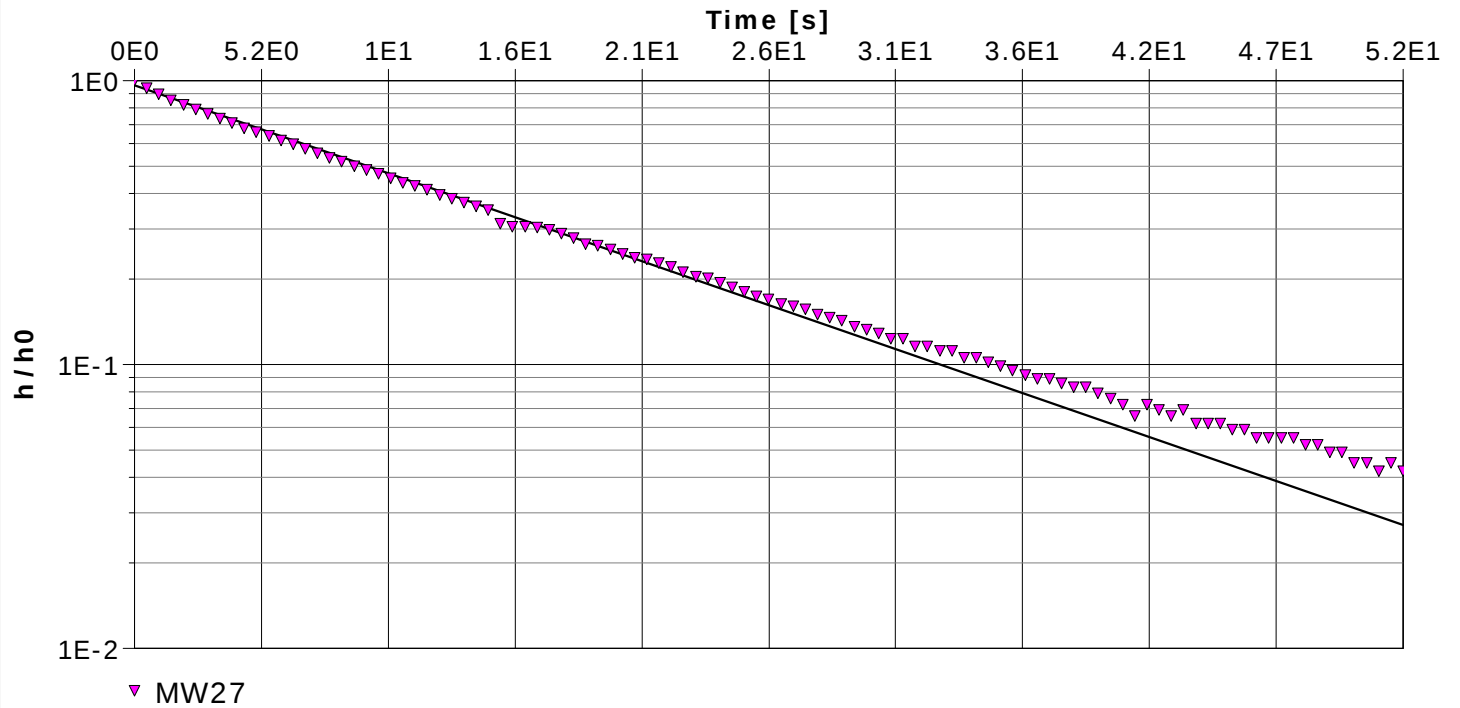
Test Date: 11/27/2018

Analysis Performed by: Melanie Beck

Bouwer & Rice

Analysis Date: 1/31/2019

Aquifer Thickness: 10.00 ft



Calculation using Bouwer & Rice

Observation Well	Hydraulic Conductivity [ft/d]
MW27	7.66×10^0

Slug Test Analysis Report

Project: Farrington

Number:

Client: ConEd

Location: Queens, NY

Slug Test: MW-28 Rising Head

Test Well: MW28

Test Conducted by: Zohar Lavy

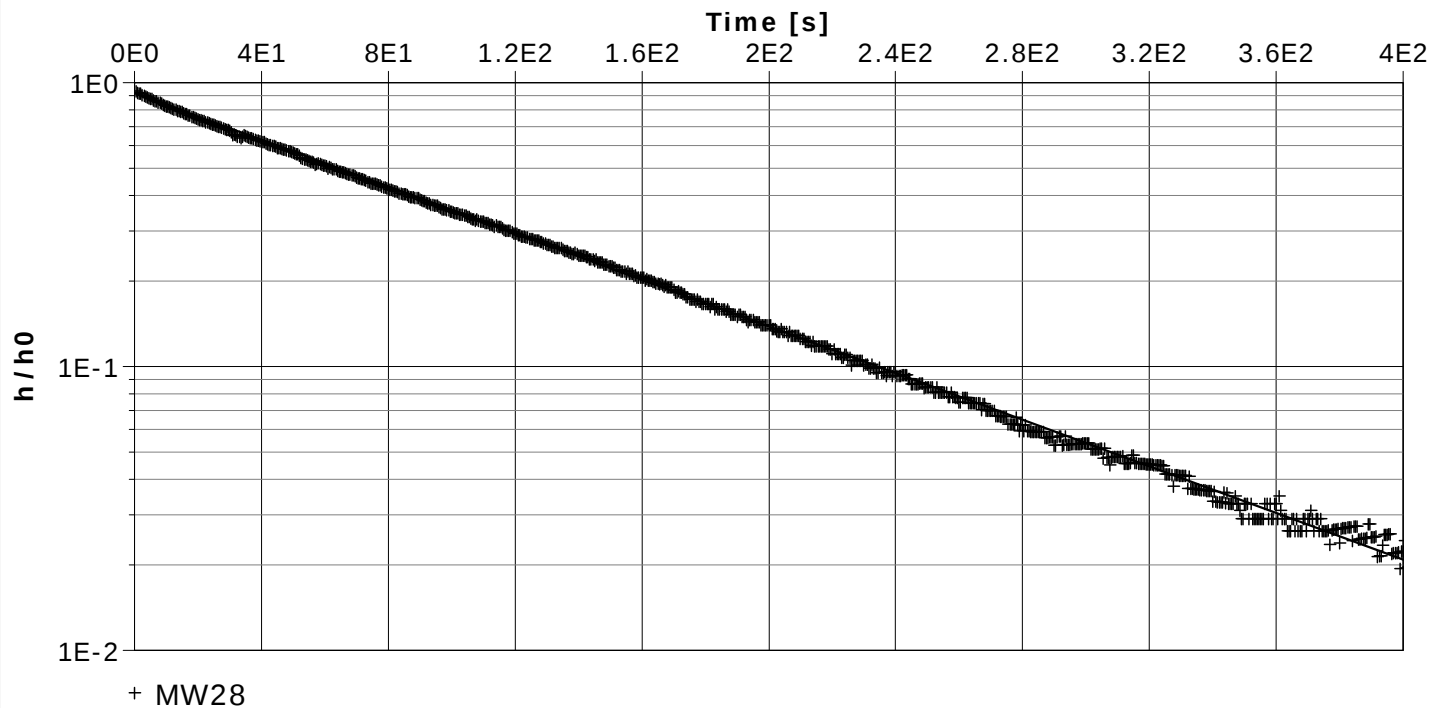
Test Date: 11/27/2018

Analysis Performed by: Melanie Beck

Hvorslev

Analysis Date: 1/31/2019

Aquifer Thickness: 10.00 ft



Calculation using Hvorslev

Observation Well

Hydraulic Conductivity
[ft/d]

MW28

1.36×10^0

Slug Test Analysis Report

Project: Farrington

Number:

Client: ConEd

Location: Queens, NY

Slug Test: MW-28 Rising Head

Test Well: MW28

Test Conducted by: Zohar Lavy

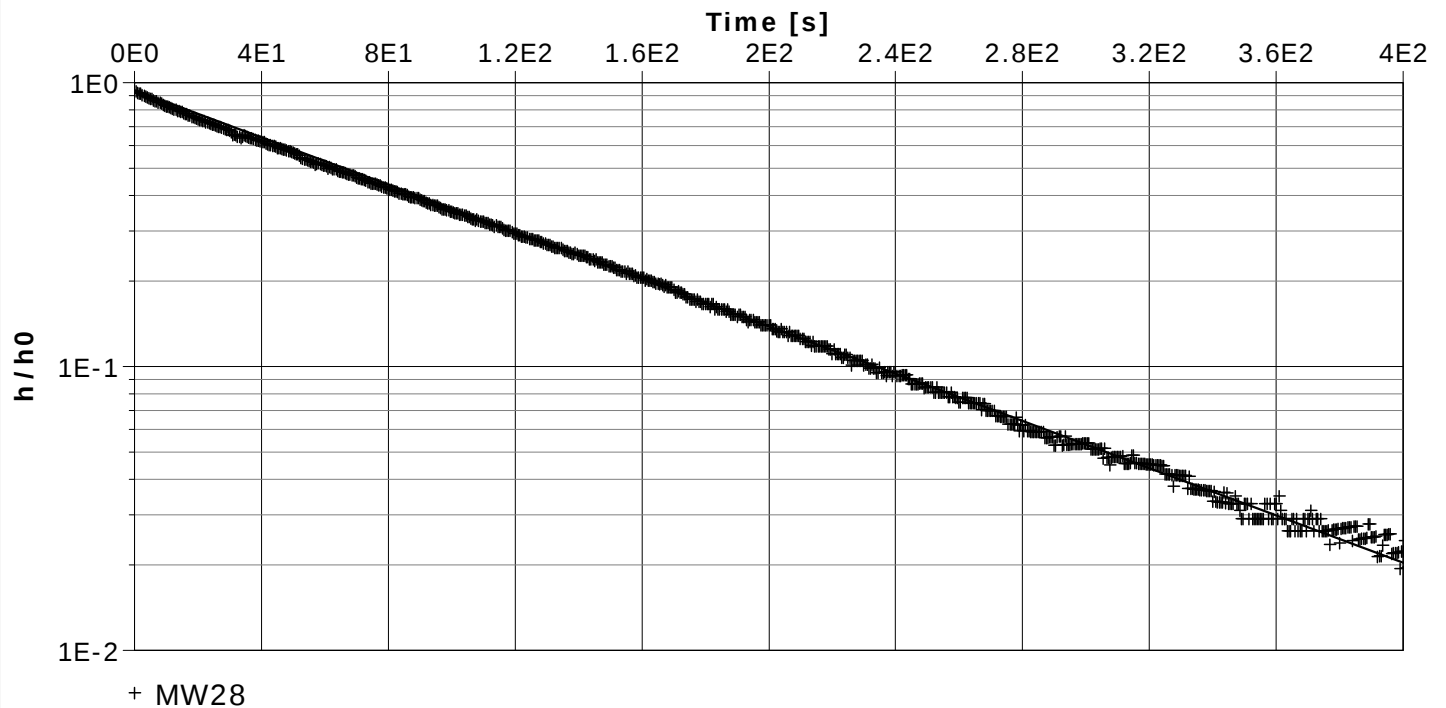
Test Date: 11/27/2018

Analysis Performed by:

Bouwer & Rice

Analysis Date: 1/31/2019

Aquifer Thickness: 10.00 ft



Calculation using Bouwer & Rice

Observation Well

Hydraulic Conductivity
[ft/d]

MW28

1.07×10^0

Slug Test Analysis Report

Project: Farrington

Number:

Client: ConEd

Location: Queens, NY

Slug Test: MW-30 Rising Head

Test Well: MW30

Test Conducted by: Zohar Lavy

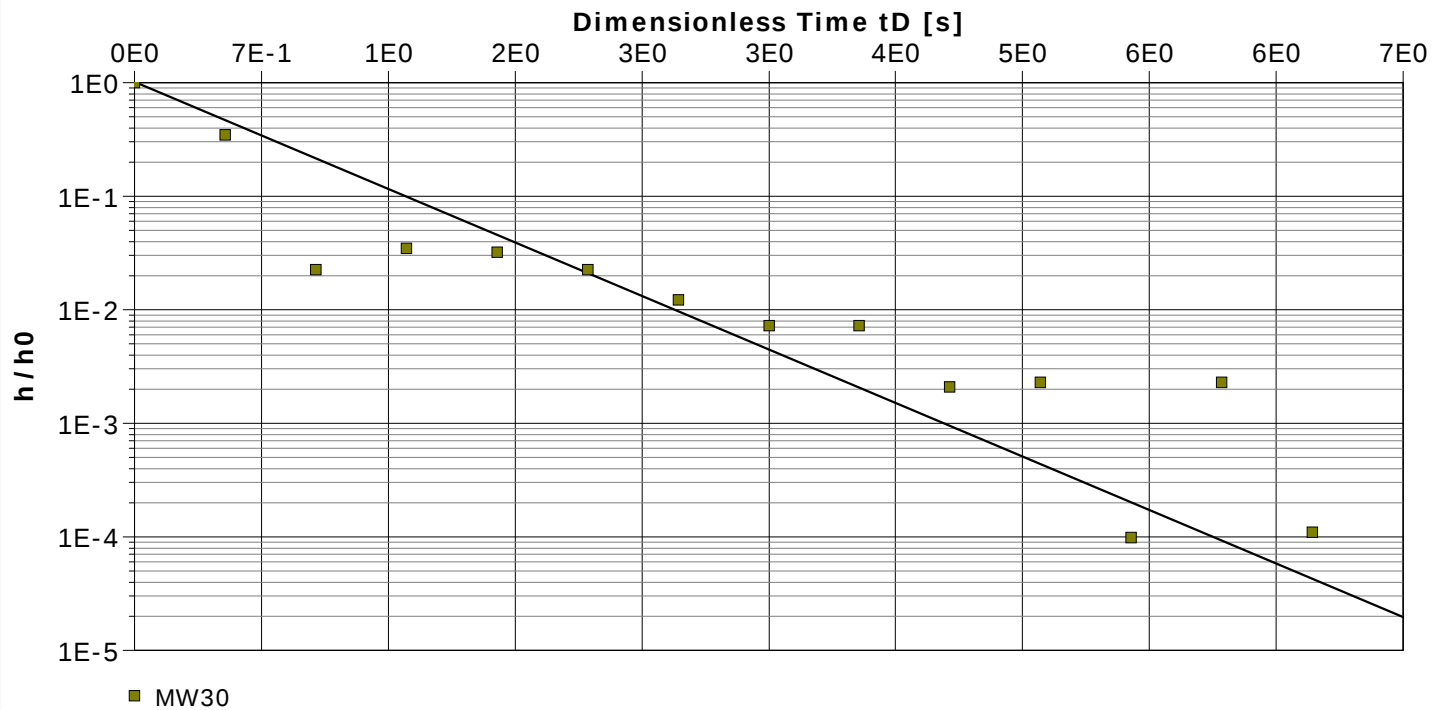
Test Date: 11/27/2018

Analysis Performed by: Melanie Beck

Hvorslev

Analysis Date: 1/31/2019

Aquifer Thickness: 10.00 ft



Calculation using Hvorslev

Observation Well	Hydraulic Conductivity [ft/d]
MW30	2.24×10^2

Slug Test Analysis Report

Project: Farrington

Number:

Client: ConEd

Location: Queens, NY

Slug Test: MW-30 Rising Head

Test Well: MW30

Test Conducted by: Zohar Lavy

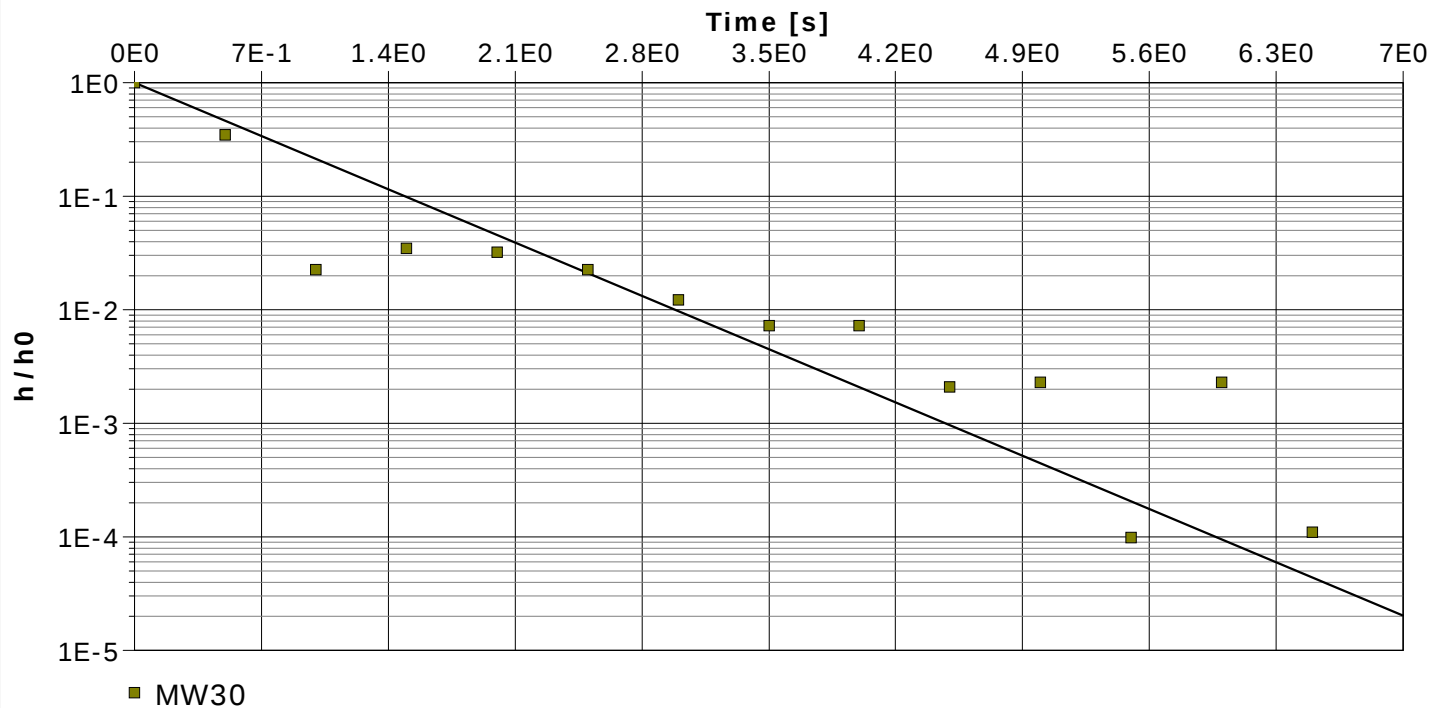
Test Date: 11/27/2018

Analysis Performed by: Melanie Beck

Bouwer & Rice

Analysis Date: 1/31/2019

Aquifer Thickness: 10.00 ft



Calculation using Bouwer & Rice

Observation Well

Hydraulic Conductivity
[ft/d]

MW30

1.72×10^2

Slug Test Analysis Report

Project: Farrington

Number:

Client: ConEd

Location: Queens, NY

Slug Test: MW-36 Rising Head

Test Well: MW36

Test Conducted by: Zohar Lavy

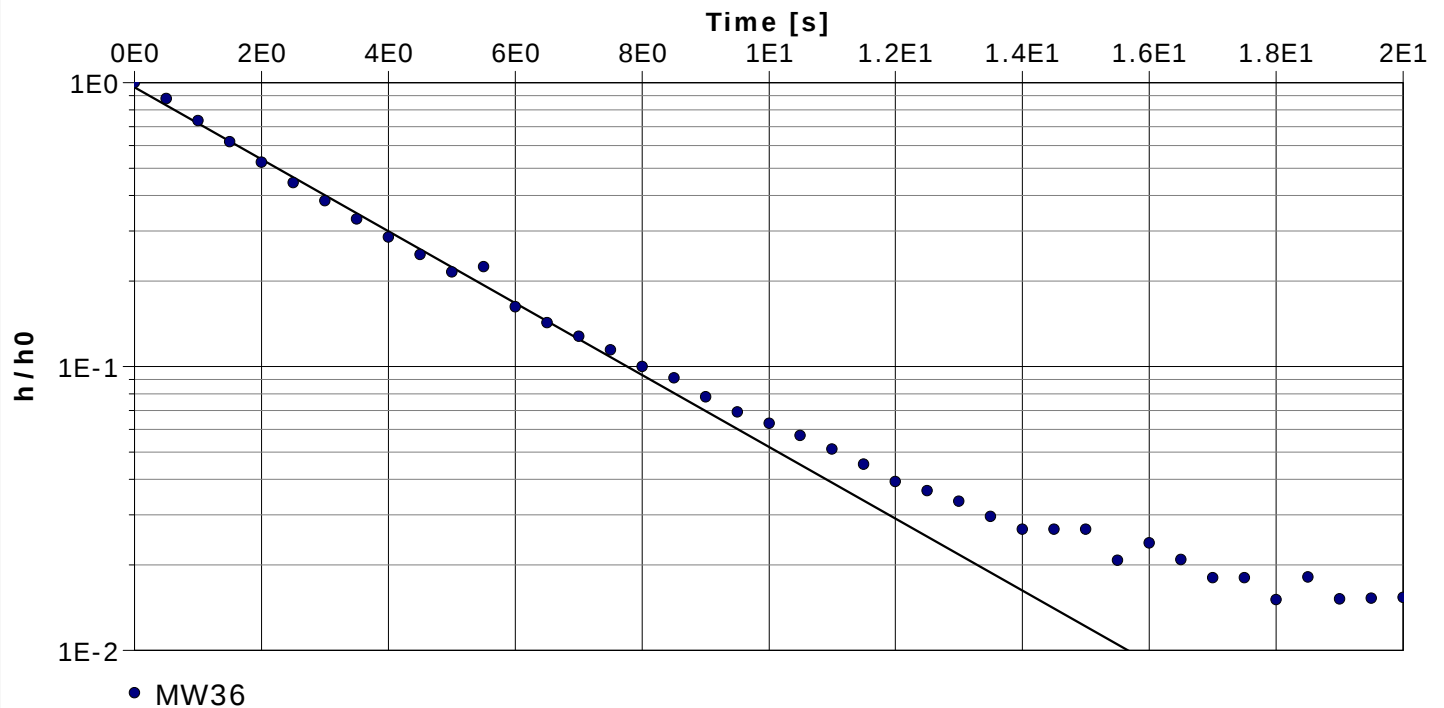
Test Date: 11/27/2018

Analysis Performed by: Melanie Beck

Hvorslev

Analysis Date: 1/31/2019

Aquifer Thickness: 8.00 ft



Calculation using Hvorslev

Observation Well

Hydraulic Conductivity
[ft/d]

MW36

4.21×10^1

Slug Test Analysis Report

Project: Farrington

Number:

Client: ConEd

Location: Queens, NY

Slug Test: MW-36 Rising Head

Test Well: MW36

Test Conducted by: Zohar Lavy

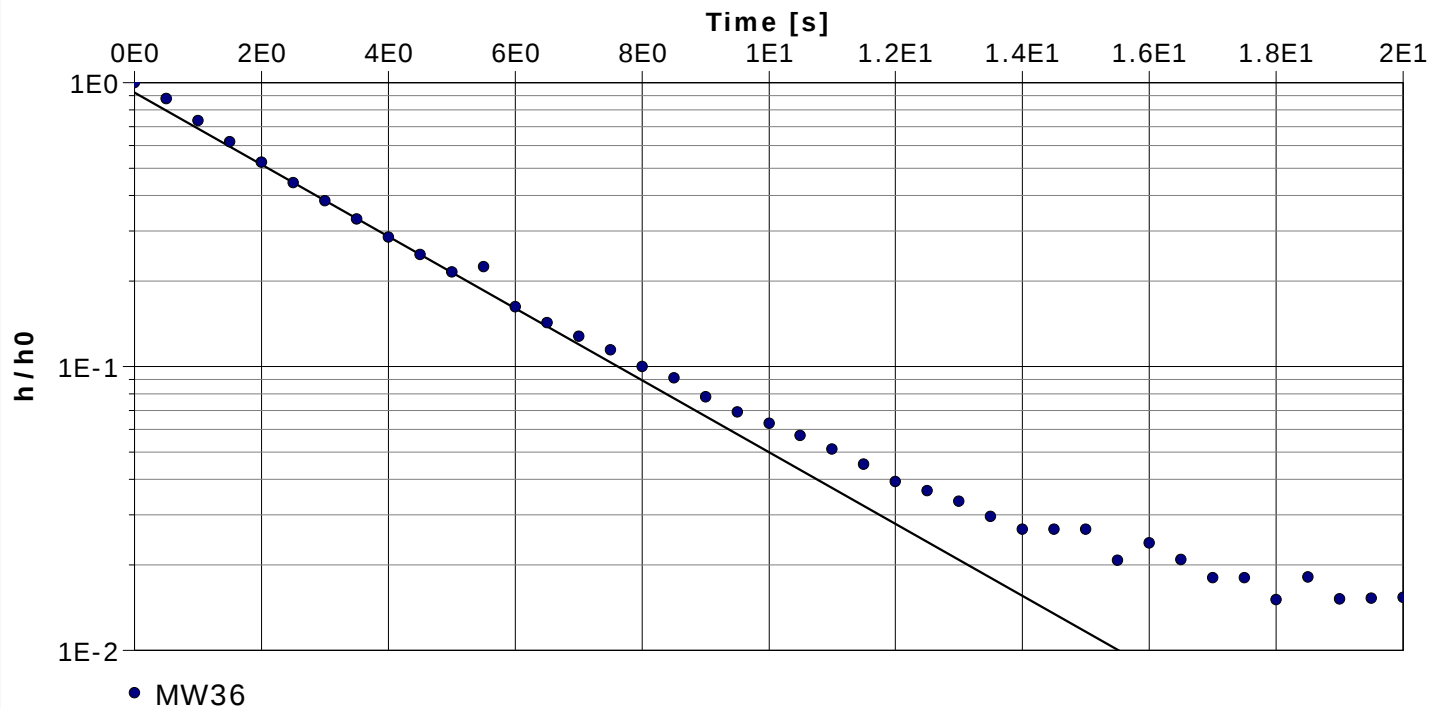
Test Date: 11/27/2018

Analysis Performed by: Melanie Beck

Bouwer & Rice

Analysis Date: 1/31/2019

Aquifer Thickness: 8.00 ft



Calculation using Bouwer & Rice

Observation Well

Hydraulic Conductivity
[ft/d]

MW36

3.26×10^1

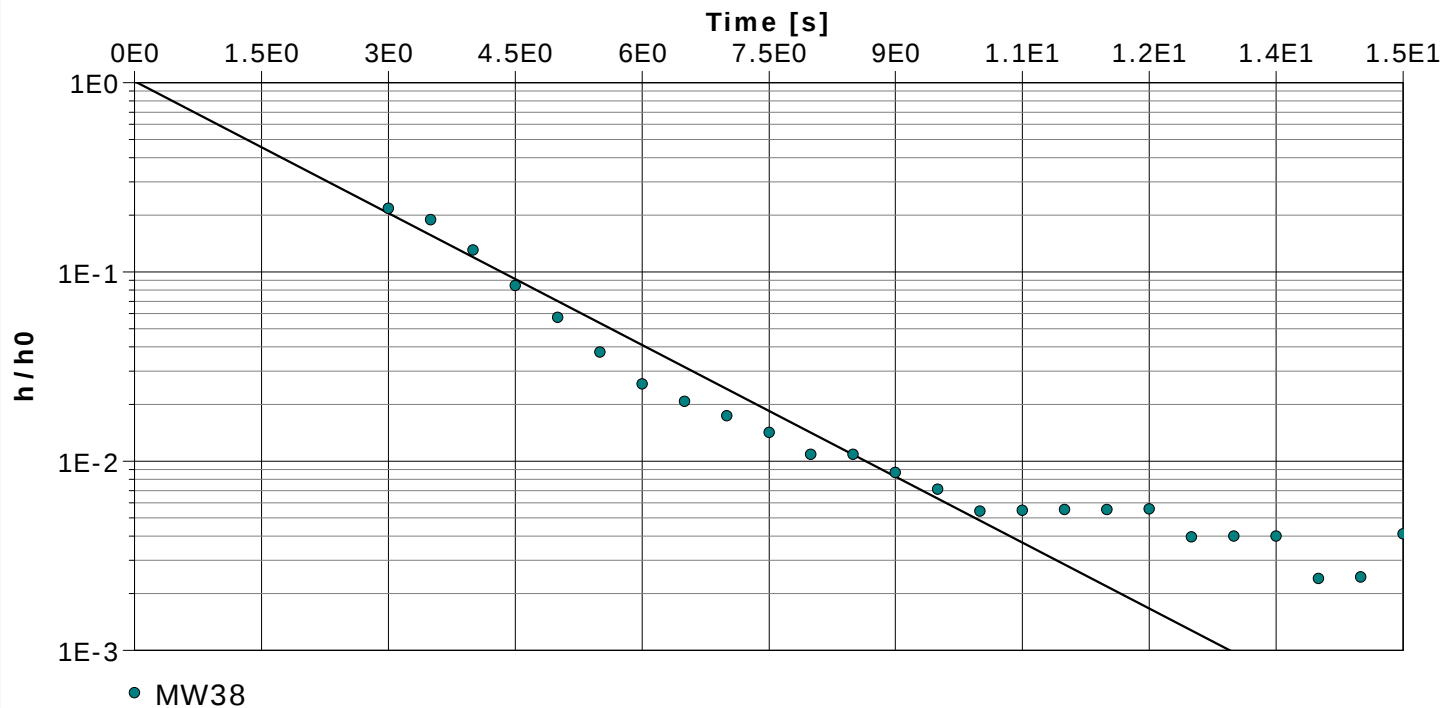
Slug Test Analysis Report

Project: Farrington

Number:

Client: ConEd

Location: Queens, NY	Slug Test: MW-38 Rising Head	Test Well: MW38
Test Conducted by: Zohar Lavy		Test Date: 2/4/2019
Analysis Performed by: Melanie Beck	Hvorslev	Analysis Date: 2/4/2019
Aquifer Thickness: 98.43 ft		



Calculation using Hvorslev		
Observation Well	Hydraulic Conductivity [ft/d]	
MW38	3.50×10^1	

Slug Test Analysis Report

Project: Farrington

Number:

Client: ConEd

Location: Queens, NY

Slug Test: MW-38 Rising Head

Test Well: MW38

Test Conducted by: Zohar Lavy

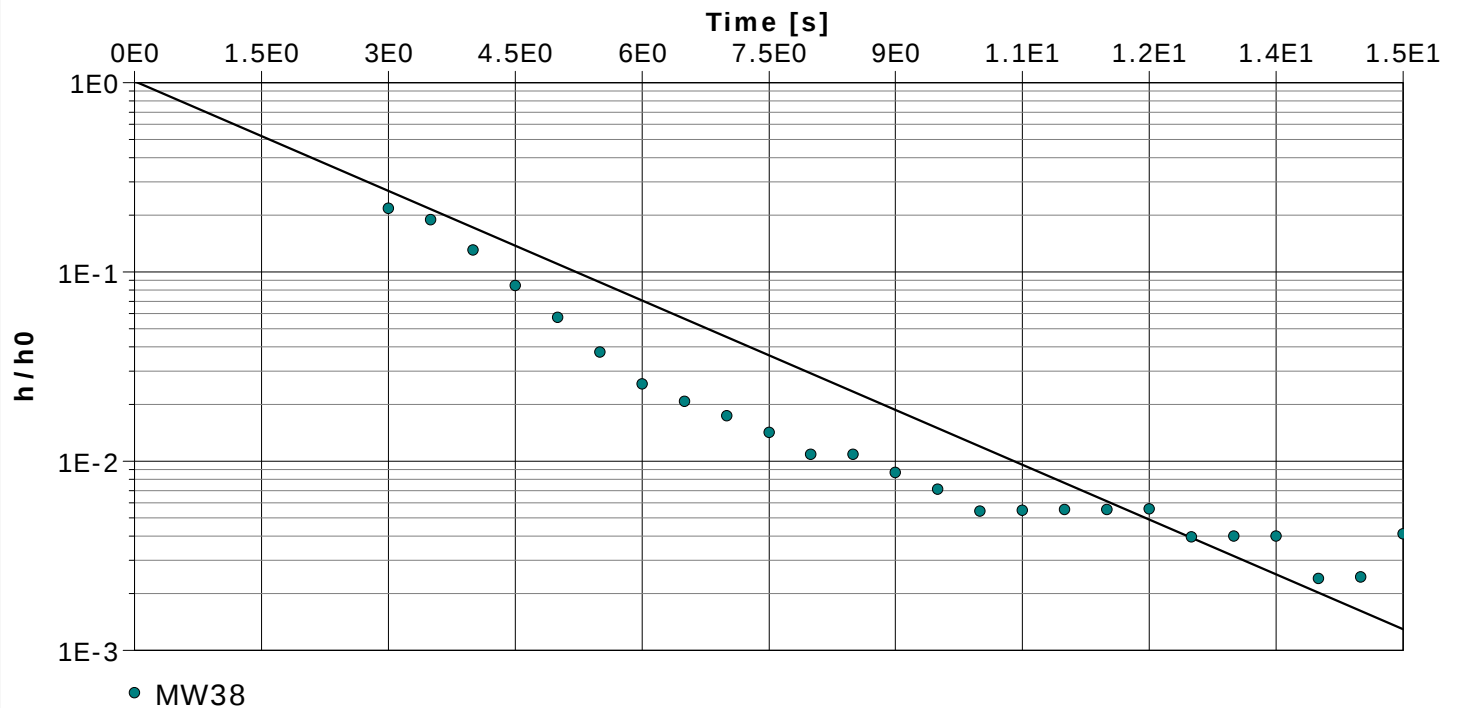
Test Date: 2/4/2019

Analysis Performed by: Melanie Beck

Bouwer-Rice

Analysis Date: 2/4/2019

Aquifer Thickness: 98.43 ft



Calculation using Bouwer & Rice

Observation Well

Hydraulic Conductivity
[ft/d]

MW38

1.93×10^1

Slug Test Analysis Report

Project: Farrington

Number:

Client: ConEd

Location: Queens, NY

Slug Test: MW-40 Rising Head

Test Well: MW40

Test Conducted by: Zohar Lavy

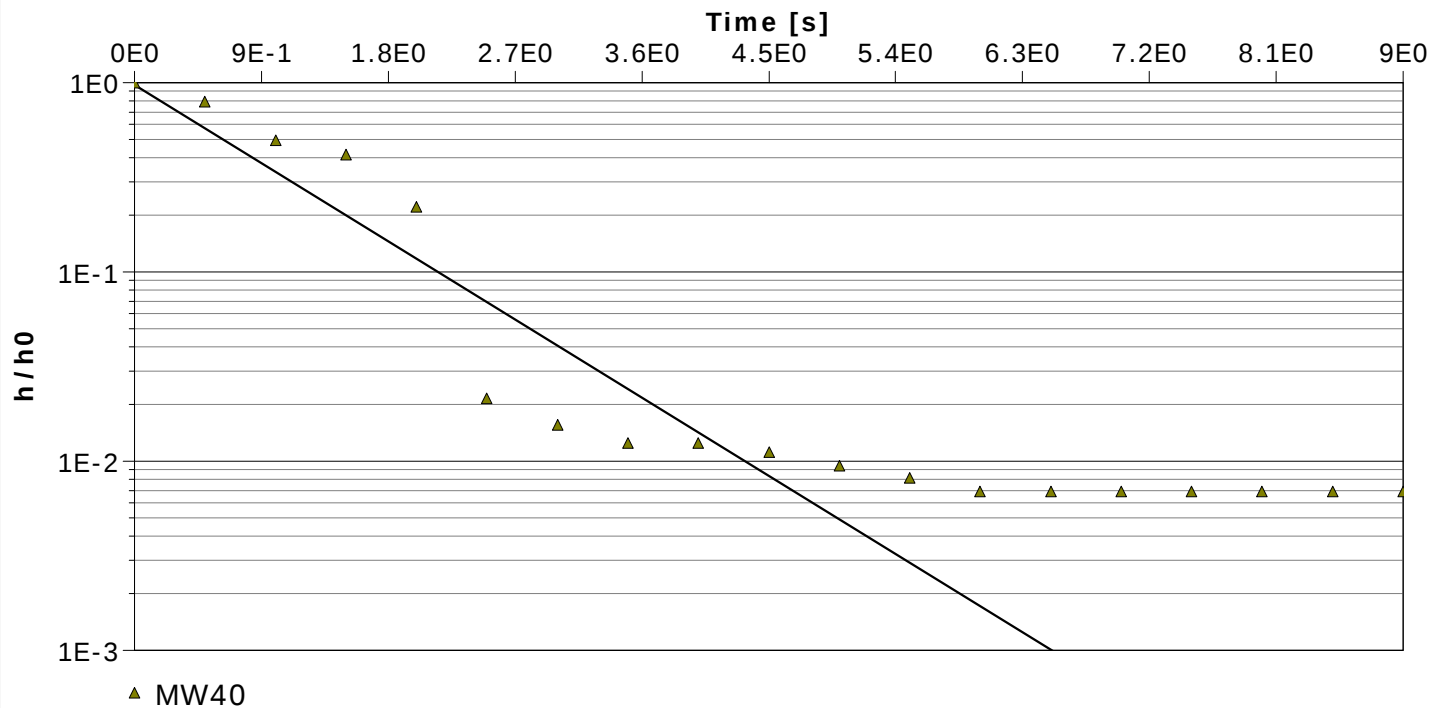
Test Date: 11/27/2018

Analysis Performed by: Melanie Beck

Hvorslev

Analysis Date: 2/4/2019

Aquifer Thickness: 10.00 ft



Calculation using Hvorslev

Observation Well

Hydraulic Conductivity
[ft/d]

MW40

1.56×10^2

Slug Test Analysis Report

Project: Farrington

Number:

Client: ConEd

Location: Queens, NY

Slug Test: MW-40 Rising Head

Test Well: MW40

Test Conducted by: Zohar Lavy

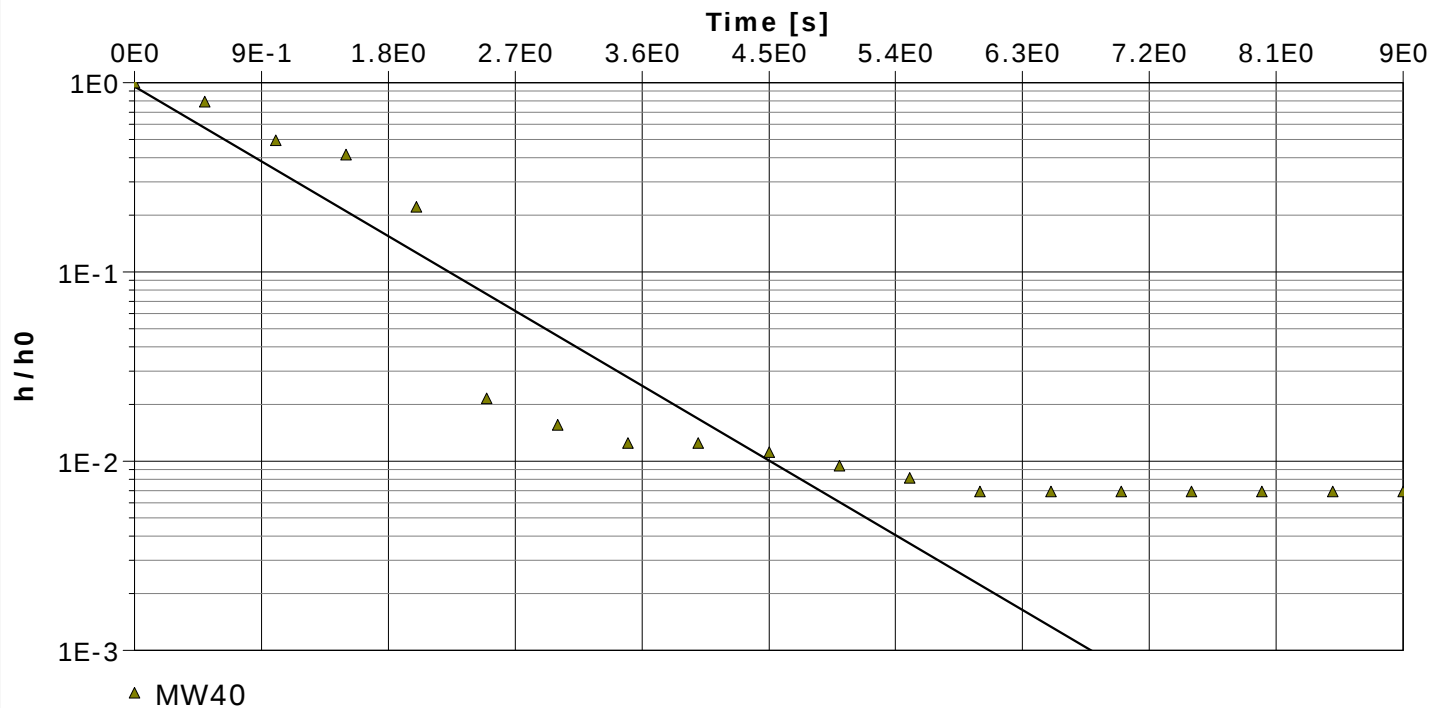
Test Date: 11/27/2018

Analysis Performed by: Melanie Beck

Bouwer-Rice

Analysis Date: 2/4/2019

Aquifer Thickness: 10.00 ft



Calculation using Bouwer & Rice

Observation Well

Hydraulic Conductivity
[ft/d]

MW40

1.10×10^2

Slug Test Analysis Report

Project: Farrington

Number:

Client: ConEd

Location: Queens, NY

Slug Test: MW-41 Rising Head

Test Well: MW41

Test Conducted by: Zohar Lavy

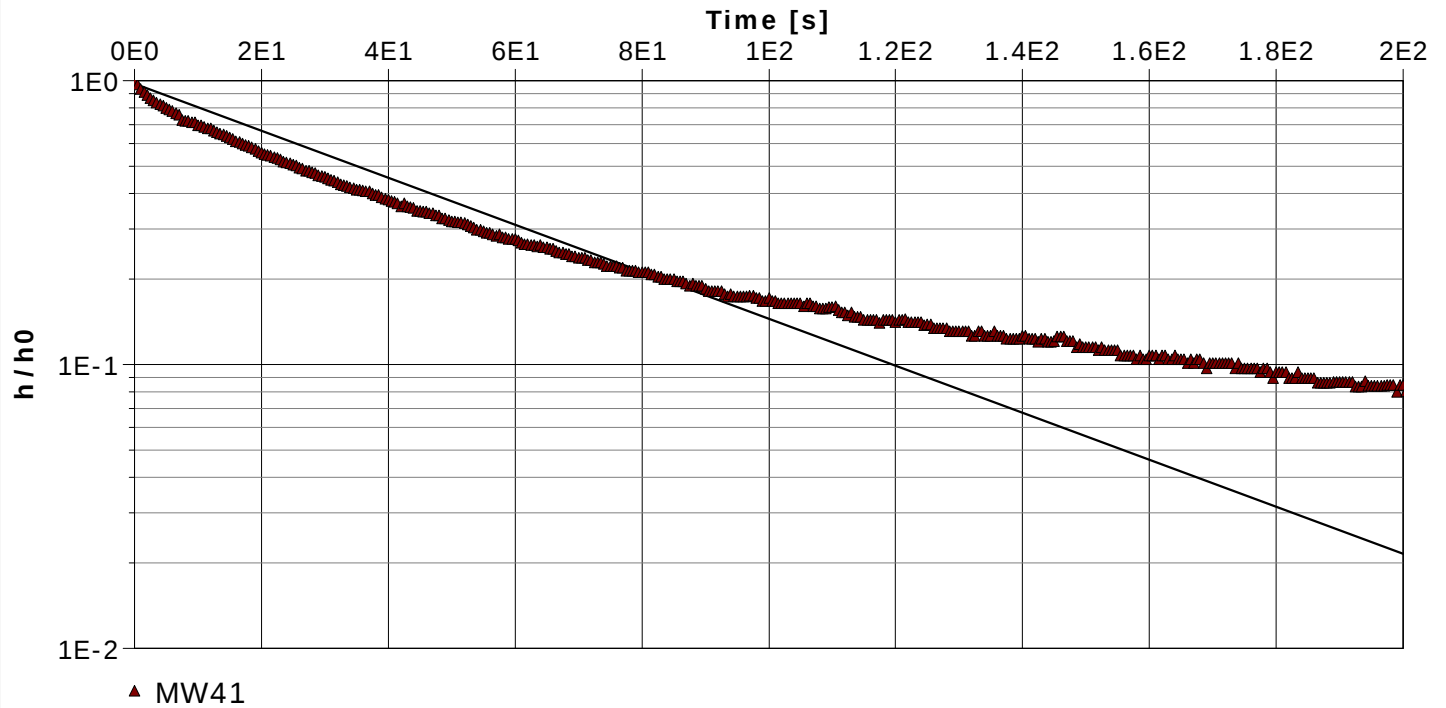
Test Date: 11/26/2018

Analysis Performed by: Melanie Beck

Hvorslev

Analysis Date: 1/31/2019

Aquifer Thickness: 9.00 ft



Calculation using Hvorslev

Observation Well	Hydraulic Conductivity [ft/d]
MW41	3.28×10^0

Slug Test Analysis Report

Project: Farrington

Number:

Client: ConEd

Location: Queens, NY

Slug Test: MW-41 Rising Head

Test Well: MW41

Test Conducted by: Zohar Lavy

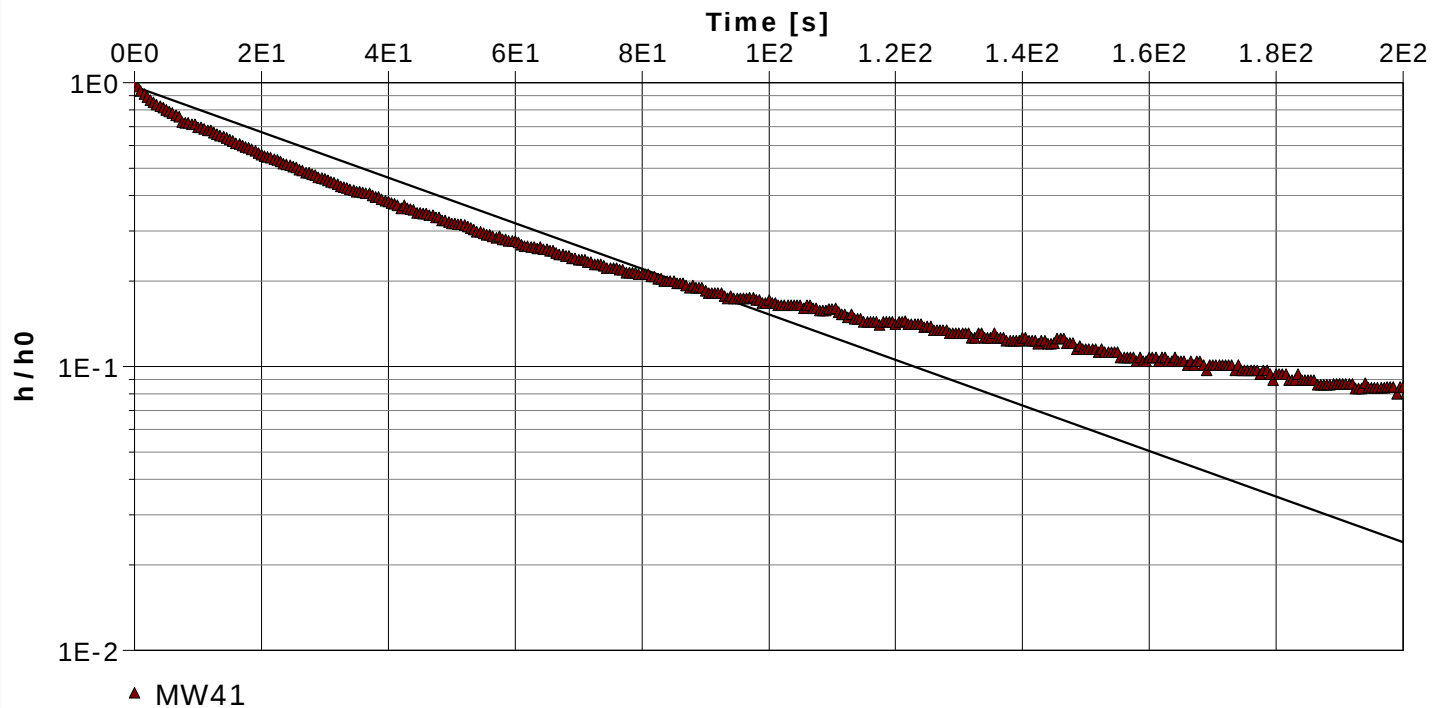
Test Date: 11/26/2018

Analysis Performed by: Melanie Beck

Bouwer & Rice

Analysis Date: 1/31/2019

Aquifer Thickness: 9.00 ft



Calculation using Bouwer & Rice

Observation Well	Hydraulic Conductivity [ft/d]
MW41	2.27×10^0

Slug Test Analysis Report

Project: Farrington

Number:

Client: ConEd

Location: Queens, NY

Slug Test: MW-60 Rising Head

Test Well: MW60

Test Conducted by: Zohar Lavy

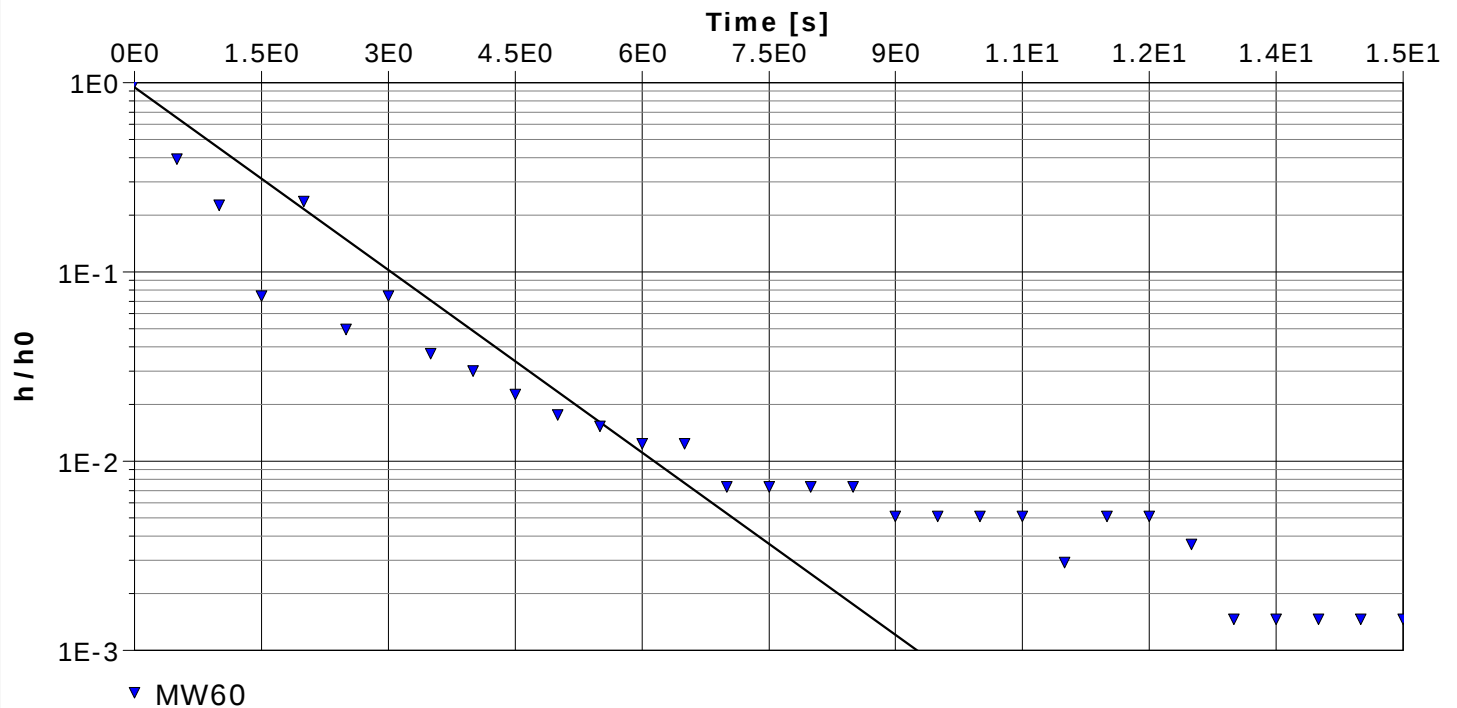
Test Date: 11/27/2018

Analysis Performed by: Melanie Beck

Hvorslev

Analysis Date: 1/31/2019

Aquifer Thickness: 10.00 ft



Calculation using Hvorslev

Observation Well

Hydraulic Conductivity
[ft/d]

MW60

1.07×10^2

Slug Test Analysis Report

Project: Farrington

Number:

Client: ConEd

Location: Queens, NY

Slug Test: MW-60 Rising Head

Test Well: MW60

Test Conducted by: Zohar Lavy

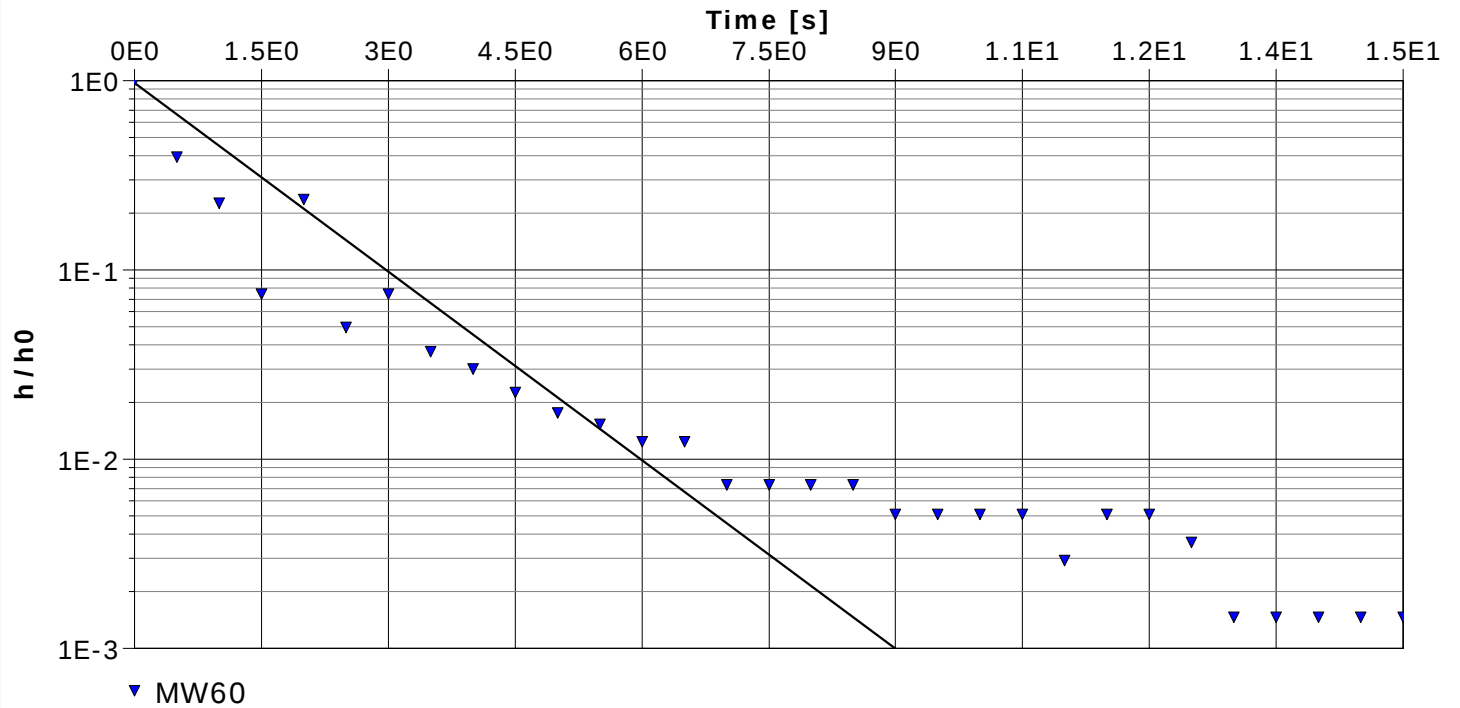
Test Date: 11/27/2018

Analysis Performed by: Melanie Beck

Bouwer & Rice

Analysis Date: 1/31/2019

Aquifer Thickness: 10.00 ft



Calculation using Bouwer & Rice

Observation Well

Hydraulic Conductivity
[ft/d]

MW60

8.53×10^1

APPENDIX F

GROUNDWATER MODELING REPORT

GROUNDWATER MODELING REPORT

FARRINGTON STREET FORMER MANUFACTURED GAS PLANT SITE SUPPLEMENTAL REMEDIAL INVESTIGATION CONSTRUCTION, CALIBRATION, AND DESIGN SCENARIOS

Prepared for:



Prepared by:

PARSONS

April 2019

TABLE OF CONTENTS

1.0	INTRODUCTION.....	1
1.1	Purpose.....	1
1.2	Approach	1
2.0	MODEL DESIGN	1
2.1	Model Code.....	1
2.2	Model Domain, Grid and Boundary Conditions.....	2
2.3	Boundary Conditions	2
2.4	Initial Hydraulic Parameters	2
2.5	Model Calibration Procedure and Objectives.....	3
	2.5.1 Calibrated Parameters	3
3.0	RESULTS.....	4
4.0	ASSUMPTIONS.....	5
5.0	REFERENCES.....	5

LIST OF TABLES

Table 1	Groundwater Model Specifications
Table 2	Calibrated Precipitation and Recharge Values – Initial (Pre-PEST) and Post-PEST

LIST OF FIGURES

Figure 1	Modeling Process Diagram
Figure 2	Groundwater Contour Map
Figure 3	Groundwater Model Finite Difference Grid
Figure 4	Model Cross Section
Figure 5	Groundwater Model Layer 1 – Hydraulic Conductivity Zones
Figure 6	Groundwater Model Layer 2 – Hydraulic Conductivity Zones
Figure 7	Groundwater Model Layer 3 – Hydraulic Conductivity Zones
Figure 8	Groundwater Model Layers 4 and 5 – Hydraulic Conductivity Zones
Figure 9	Groundwater Model Layers 6 and 7 – Hydraulic Conductivity Zones
Figure 10	Model Calibration Progression
Figure 11	Calibration Plot of Simulated versus Observed
Figure 12	Model Parameter Sensitivity
Figure 13	Groundwater Model – Existing Conditions
Figure 14	Groundwater Model – Barrier Wall
Figure 15	Groundwater Model – ISS and Barrier Wall
Figure 16	Comparison of Groundwater Velocity for Each Scenario

1.0 INTRODUCTION

1.1 Purpose

This report summarizes the groundwater modeling that was conducted as part of the Supplemental Remedial Investigation (SRI) activities outlined in the *Former Farrington Street Manufactured Gas Plant Site (Site No. V00560) Supplemental Remedial Investigation Work Plan (SRIWP)* (Parsons, 2018) approved by the New York State Department of Environmental Conservation (NYSDEC) on September 12, 2018. The purpose of the model was to qualitatively and quantitatively evaluate groundwater flow at the former Farrington Street Gas Works Site (the “Site”) located in Queens, New York with specific relevance to the remedial scenarios of *In-Situ* Stabilization (ISS) and barrier wall containment. This document describes groundwater flow modeling to provide hydrogeologic support for remedial improvement scenarios for the Consolidated Edison Company of New York, Inc. (Con Edison) for the former Farrington Street Gas Works Site (the “Site”) located in Queens, New York

Utilizing data collected during the SRI activities, a numerical finite difference groundwater model was developed, constructed, and calibrated (with sensitivity testing) to simulate groundwater flow conditions, and identify groundwater particle paths and associated velocities for the Site. The steady state model was calibrated to one set of synoptic water levels using existing and new groundwater hydraulic information (transmissivity, regional gradients, aquifer architecture, potential for tidal influences, etc. collected during SRI field activities).

The preliminary groundwater modeling addressed three scenarios for the Site:

- Scenario 1 – simulate existing subsurface conditions at the Site;
- Scenario 2 – simulate subsurface conditions at the Site should the remedy include perimeter containment barriers at Parcels 1 and 2 and in vicinity of the Market Area of Parcel 1 (“Market Area”); and
- Scenario 3 – simulate subsurface conditions at the Site should the remedy include in-situ soil stabilization/solidification (ISS) at Parcels 1 and 2 and a perimeter containment barrier in vicinity of the Market Area.

1.2 Approach

This report provides the documentation for the groundwater modeling so that the team can review the model with stakeholders and revise as necessary. [Figure 1](#) provides a process diagram of model construction, calibration, and predictive scenarios.

2.0 MODEL DESIGN

2.1 Model Code

MODFLOW-2005 (Harbaugh 2005) and MODPATH Version 5 (Pollock 1994) were used for this groundwater modeling effort. MODFLOW-2005 is being used for flow only

simulations and groundwater flow paths are delineated using MODPATH Version 5. Both models are well-known, well-documented, and in the public domain. Environmental Simulations Incorporated (ESI) Ground Water Vistas (Version 2) was used as the graphic user interface (GUI) to manage pre- and post-process data. For flow-only testing, the MODFLOW-2005 model used the Layer Property Flow package solved by the Preconditioned Conjugate-Gradient Package (PCG2). The model was steady state and since the model was built to simulate flow only there are no solvers included for advection, dispersion, retardation, or degradation. To improve the calibration process and complete sensitivity testing the well-known and documented Parameter ESTimation tool (PEST) was used (Doherty, 2010).

All final MODFLOW model runs exhibited 0.0 percent (%) water balance error, indicating that a sufficiently accurate solution of the flow problem was achieved. This is a check on the internal numerical solution and differs from model calibration processes and accuracy of the model relative to real world conditions; see calibration section of detail on model comparison to measured values. Water balance error less than 1% is considered acceptable for this type model (Anderson and Woessner, 1992).

2.2 Model Domain, Grid and Boundary Conditions

A finite difference grid telescoped from 10-foot x 10-foot cells in the area of interest to a maximum size of 100 feet x 100 feet. The area covered 116,000,000 square feet (ft²) of active area with 188,566 active cells. The vertical domain was discretized in seven layers to a depth of -40 ft AMSL. [Figure 3](#) provides a map of the cell grid, and [Figure 4](#) provides the vertical grid in the area of interest. The layer elevations were determined from boring logs. Using spatial interpolative techniques (kriging) all available data were integrated to create the model structure.

2.3 Boundary Conditions

Multiple MODFLOW packages were included in the model to create boundary conditions and simulate groundwater flow. These include: Recharge Package, Drain Package, River Package, and General Head Package. The River Package was used to simulate Flushing Bay. The General Head Package simulated recharge areas northwest of the Site and also identified on aerial photography. The Drain Package simulated surface water features identified on aerial photography as well as groundwater sink southeast of the Site. Pre- and post-calibration parameters are provided in [Table 2](#).

The Recharge Package simulated vertical recharge to the water table as a means of precipitation as well as evapotranspiration in regions of shallow water table conditions and heavy vegetation. [Table 2](#) provides the pre- and post-calibration values for recharge.

2.4 Initial Hydraulic Parameters

Initial hydraulic parameters such as hydraulic conductivity (K_h and K_v), porosity, dispersivity are provided in [Table 1](#) while [Table 2](#) provides the pre- and post-calibration values. The initial hydraulic conductivity values are based on slug tests, during initial calibration, these values are adjusted within the observed/literature range as part of the

inversion process (incrementally adjusting the values to reduce residuals), see below (section 2.6.1) for more details.

2.5 Model Calibration Procedure and Objectives

Water level calibration targets and associated groundwater contour maps are provided in [Figure 2](#). A total of 19 monitoring well measurements were used as targets in the static condition calibration. No weighting of calibration targets was used in the calibration. The initial model was calibrated through trial and error techniques to lower the residual error (target water level elevation minus that simulated) both statistically and qualitatively in the areas of interest. The calibration goals for the groundwater model are scaled root mean squared error of hydraulic head less than 0.1 (dimensionless) and reduced sum of squared residuals (head) to the extent practical.

Initially manual calibration techniques were used along with Site specific observations regarding hydraulic conductivity zones based on drilling observations and aquifer pumping tests. After the initial manual calibration, the well-known and documented Parameter Estimation Tool (PEST) was used to further refine the calculated parameters and test sensitivities for hydraulic conductivity, recharge, and evapotranspiration. [Figure 10](#) demonstrates the overall model progression and the change from manual calibration to PEST. [Figure 11](#) provides a plot of simulated versus observed for each model layer (with calibration targets). [Figure 12](#) provides the relative sensitivities.

2.5.1 Calibrated Parameters

After the initial calibration, PEST was run in parameter estimation mode, and provided a revised set of hydraulic conductivities, recharge, and evapotranspiration. Subsequently, these values were slightly altered from the PEST runs to remove non-sensitive discrepancies and remove exaggerated values created by the PEST auto-calibration.

[Table 2](#) provides the PEST calibrated parameter values as well as the initial manual calibration parameters, for comparison. [Figures 5](#) through [8](#) provide the hydraulic conductivity zones in each layer.

The model was calibrated using regional information (surface water bodies), field data (hydraulic head measurements), and inverse modeling processes (software algorithms). Once calibrated objectives were met and the model produced agreeable results, predictive scenarios were developed. Regional recharge to the aquifer was estimated at a low value of 1.16 inches per year, but slightly above published value of 0.89 inches per year. Due to the localized Market Area retail building the recharge under this building was reduced to 0.22 inches per year to support calibration. It was observed that because of the steady state simulation, and the idealized nature of the model, elevated water mounding occurred in the Parcel 1. Therefore, predictive model runs were established with calibrated recharge and zero recharge for the three parcels. While surface improvements and engineering design can further reduce recharge in parcels, it remains unknown if recharge could be reduced to zero. As such, for the varying recharge predictive scenarios, the calibrated recharge and zero recharge simulations provide a range of groundwater velocities and it is likely the actual velocity would be near the mean.

3.0 RESULTS

Figures 13 through **15** demonstrate the results from each scenario and are summarized here. **Figure 16** provides a comparison of groundwater velocities.

Existing Conditions:

- The groundwater flow under existing conditions travels to the southeast off of a slightly elevated groundwater mound, on top of the clay observed under the parking lot area and northwest of the Site; and
- Based on the calibrated model, the existing groundwater velocity through the Site is low to moderate varying from approximately 10 to 54 feet per year.

Subsurface Barrier Wall:

- In the parking lot area of Parcel 1, the simulated particle velocities decreased to negligible rates of approximately 3 feet per year using calibrated recharge, and 0.06 feet per year assuming no recharge to the water table. This is due to the result of the low permeability underlying clay and the typical conductivity of subsurface barrier walls (e.g., 10^{-7} centimeters per second);
- In the Market Area, the simulated particle velocities decreased due to groundwater being diverted around this area. On the western side of the Market Area, the simulated average particle velocity is reduced to 6 feet per year due to the decrease in head that would be caused by the subsurface barrier walls nearly surrounding the parcel. Near the east side of the Site, the average linear velocity would be approximately 28 feet per year; and
- In the southern area (Parcel 2) of the Site, simulated particle velocities decreased to approximately 3 feet per year due to the lower recharge and low vertical hydraulic conductivity of the sand in this unit (0.32 feet per day to 2 feet per day).

ISS:

- Under this remedial scenario, ISS would be performed in the parking lot area of Parcel 1, and within Parcel 2, as noted on **Figure 15**. No particles were tracked from within the ISS areas, as it was assumed the ISS would eliminate flux; and
- In the Market Area, the groundwater flow was reduced to similar rates as the subsurface barrier wall alternative. On the western side of the Market Area, the average linear velocity was reduced to 7 feet per year. Closer to the east side of the Site the average linear velocity was approximately 28 feet per year.

Overall, the results of the groundwater modeling indicate that there is minimal difference between a subsurface barrier wall remedy compared to an ISS remedy for the Site in terms of overall effectiveness in reducing the potential for contaminant migration off-site. In both scenarios, groundwater flow in the parking lot area of Parcel 1 is fully contained, and groundwater flow in the majority of the Market Area and Parcel 2 is reduced to less than 10 feet per year. Furthermore, groundwater flowing from each parcel follows a path onto the adjacent Holder site which is currently under natural attenuation monitoring and will continue to be monitored for impacts from the Site. Lastly, groundwater flow in the

eastern portion of the Market Area can be further reduced should a subsurface barrier wall be extended or added in this area of the Site.

4.0 ASSUMPTIONS

The following assumptions were made for the model:

- It was assumed that the barrier walls can be installed as established in the groundwater model and there is no leakage through weaknesses or imperfections in the design or construction.
- Recharge can be further reduced to eliminate any mounding and ponding of water within the parking lot barrier walls.
- There is no anthropogenic input of water such as leaking piping or sewers.
- Recharge in the region is low at approximately 1-2 inches per year.

5.0 REFERENCES

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TABLES

TABLE 1
Groundwater Model Specifications
Groundwater Modeling Report
ConEd Farrington

	Input Parameter	Value	Unit	Comments
Grid Properties	Number of Columns (NCOL)	151	-	
	Number of Rows (NROW)	180	-	
	Number of Layers (NLAY)	7	-	
	Total Active Cells	188566	-	
	Total Model Area	4.16	sq mi	
	deltaX (DELR)	25-100	ft	
	deltay (DELC)	25-100	ft	
	deltaz (DZ)	Variable	ft	
Physical Properties		Kx	Kv	
	Horizontal hydraulic conductivity Zone 1	1.6	0.32	ft/day Low K Sand
	Horizontal hydraulic conductivity Zone 2	0.0028	0.000056	ft/day Clay
	Horizontal hydraulic conductivity Zone 3	68.5	2	ft/day High K Sand
	Horizontal hydraulic conductivity Zone 4	10	0.1	ft/day Fill
	Horizontal hydraulic conductivity Zone 5	115	0.5	ft/day Very High K Sand
	Recharge regional	1.16	NA	in/year
	Recharge under market parcel	0.22	NA	in/year
MODFLOW PARAMETERS	porosity ($\emptyset$)	0.30	NA	unitless
	Stress Period	Steady State		
	Solver	PCG2	-	
	Flow Package			
	Head Change Criteria	0.001	-	
	Residual Criteria for convergence	1	-	
	Volumetric Water Balance from MODFLOW	0.00	%	

Table 2
Calibrated Precipitation and Recharge Values - Initial (pre-PEST) and Post-PEST
Groundwater Modeling Report
ConEd Farrington

	Hydraulic Conductivity Zones						
	Model		Initial Model Calibration		Post PEST Model Calibration		Area
Hydraulic Conductivity	Zone ID Layer(s)		K _h (ft/day)	K _v (ft/day)	K _h (ft/day)	K _v (ft/day)	
	1	1	1.6E+01	3.2E-01	1.6E+00	3.2E-01	Low K Sand
	2	2,3	2.8E-03	5.6E-05	2.8E-03	5.6E-05	Clay
	3	4	1.0E+02	2.0E+00	6.9E+01	2.0E+00	High K Sand
	4	5	1.0E+00	2.0E-02	1.0E+01	1.0E-01	Fill
	5	6,7	1.0E+02	2.0E+00	1.2E+02	1.0E+00	Very High K Sand
Recharge	Recharge Zones						
	Model		Initial Model Calibration		Post PEST Model Calibration		
	Zone ID Layer(s)		ft/day	inches/year	ft/day	inches/year	Area
	r1	1	5.0E-04	2.2	1.92E-03	8.4	General
General Head and Drains	General Head and Drains						
	Model		Initial Model Calibration		Post PEST Model Calibration		
	Zone ID Layer(s)		ft		ft/day	inches/year	Area
	gh10	1.00	6.0E+00		1.00E+00		Drainage ditches to the north
	dh3	2	-3.0E+00		-1.00E+00		Anthropogenic Sink

FIGURES

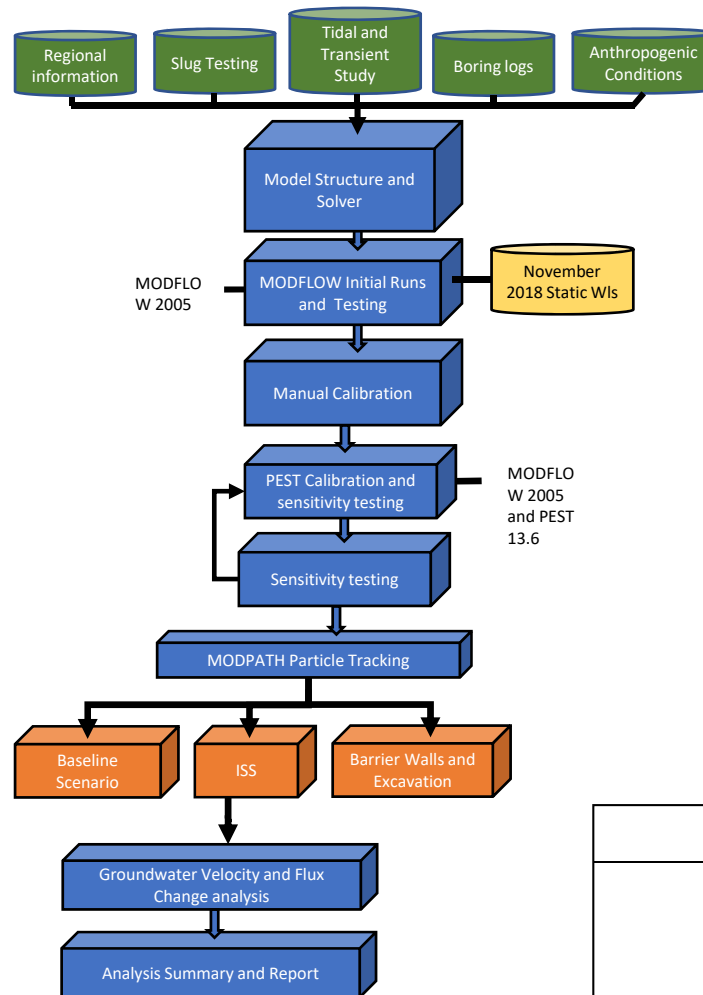


FIGURE 1

CON EDISON
FORMER FARRINGTON STREET WORKS
SUPPLEMENTAL INVESTIGATION
QUEENS, NEW YORK

MODELING PROCESS DIAGRAM

PARSONS

301 PLAINFIELD ROAD, SUITE 350 SYRACUSE, NEW YORK 13212
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MW-41
(4.11')



GROUNDWATER MONITORING WELL



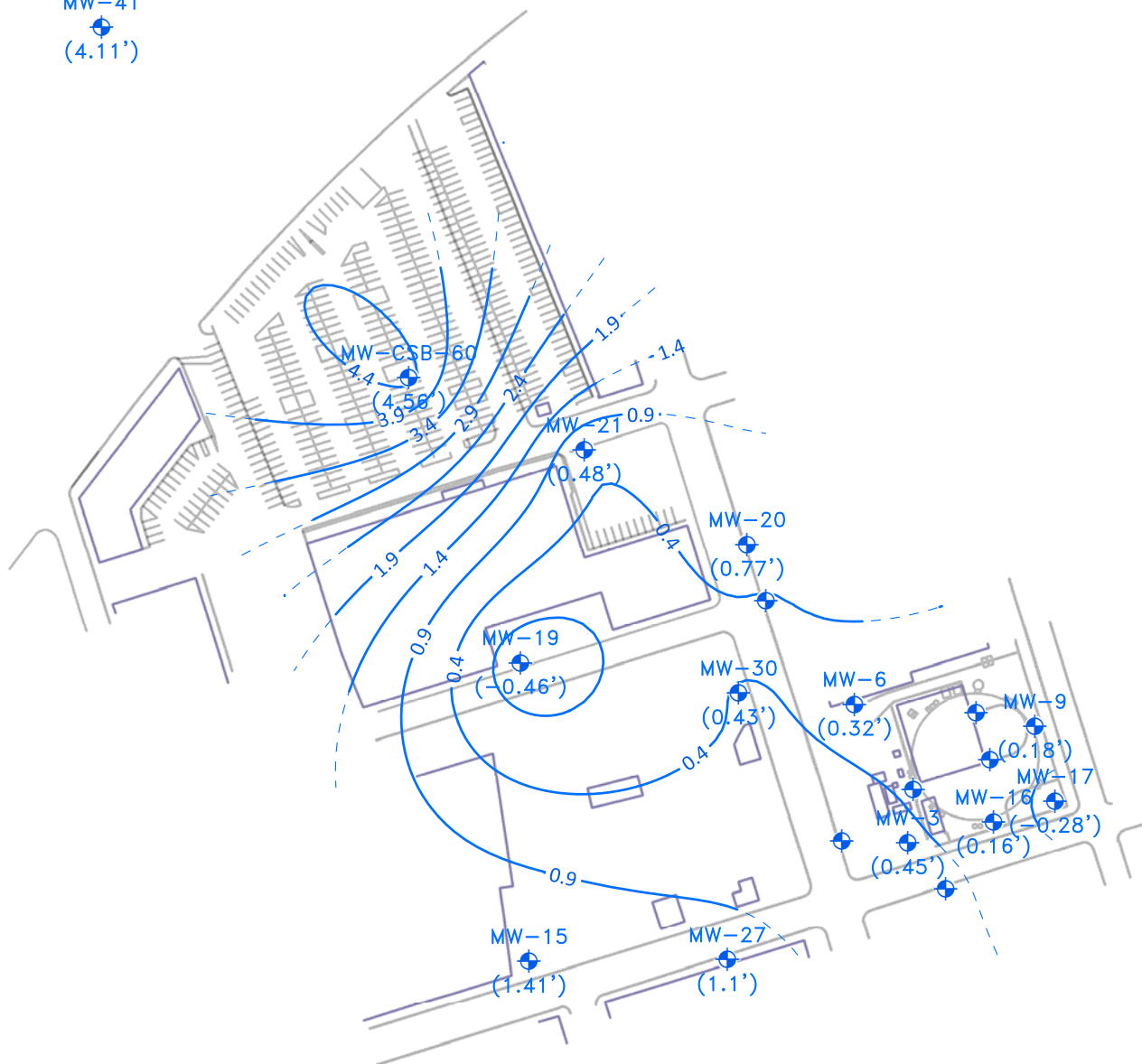
INFERRED GROUNDWATER



(1.1') NOVEMBER 2018
GROUNDWATER ELEVATIONS
(FT ASML)

NOTES:

1. GROUNDWATER ELEVATIONS IN FEET AMSL
2. GROUNDWATER ELEVATION DATA COLLECTED 11/13/2018
3. LNAPL WAS MEASURED IN MONITORING WELLS MW-15 AND MW-19 DURING THE NOVEMBER 2018 GAUGING EVENT. A SPECIFIC GRAVITY OF 0.93 WAS USED TO CALCULATE A CORRECTION FACTOR THAT WAS USED TO ADJUST GROUNDWATER ELEVATIONS IN THESE WELLS.
4. THE FOLLOWING MONITORING WELLS COULD NOT BE LOCATED OR WERE DAMAGED AT THE TIME OF GAUGING: MW-13, MW-14, MW-16, MW-17, MW-18, MW-22, CMW-37, AND CMW-39.



150 75 0 150 300

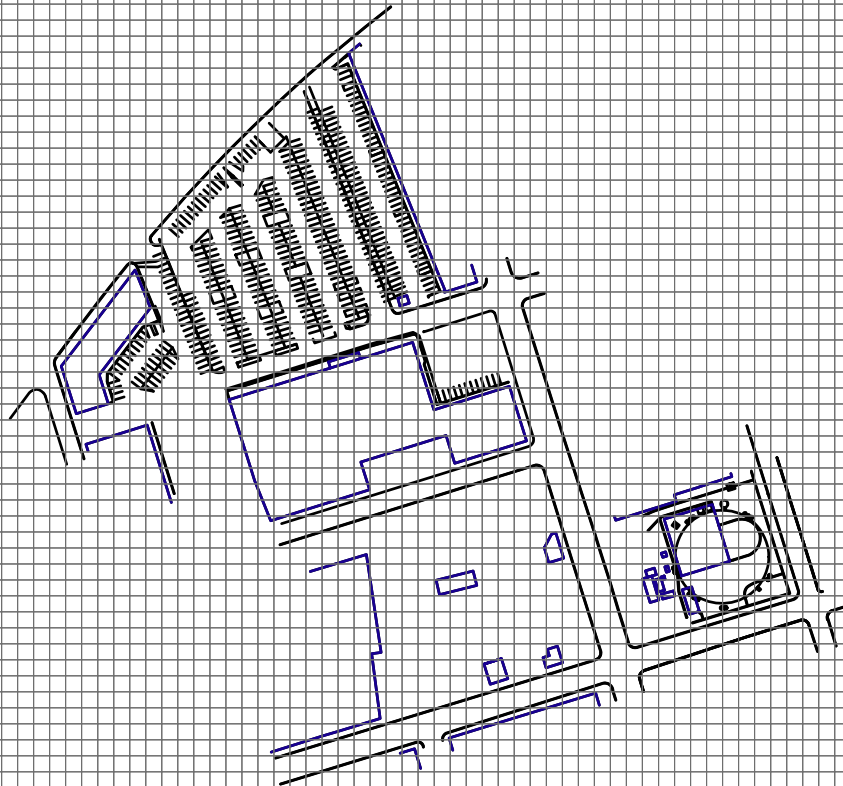


FIGURE 2

CON EDISON
SUPPLEMENTAL REMEDIAL INVESTIGATION
FORMER FARRINGTON STREET WORKS
NEW YORK, NEW YORK

GROUNDWATER CONTOUR MAP

PARSONS



NOTES:

1. FINITE DIFFERENCE GRID WITH CELL DIMENSIONS 100' X 100' TELESOPED IN PROJECT AREA TO 10' X 10'

FIGURE 3

CON EDISON
SUPPLEMENTAL REMEDIAL INVESTIGATION
FORMER FARRINGTON STREET WORKS
NEW YORK, NEW YORK

GROUNDWATER MODEL
FINITE DIFFERENCE GRID

PARSONS

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South

Site Area

GHB

North

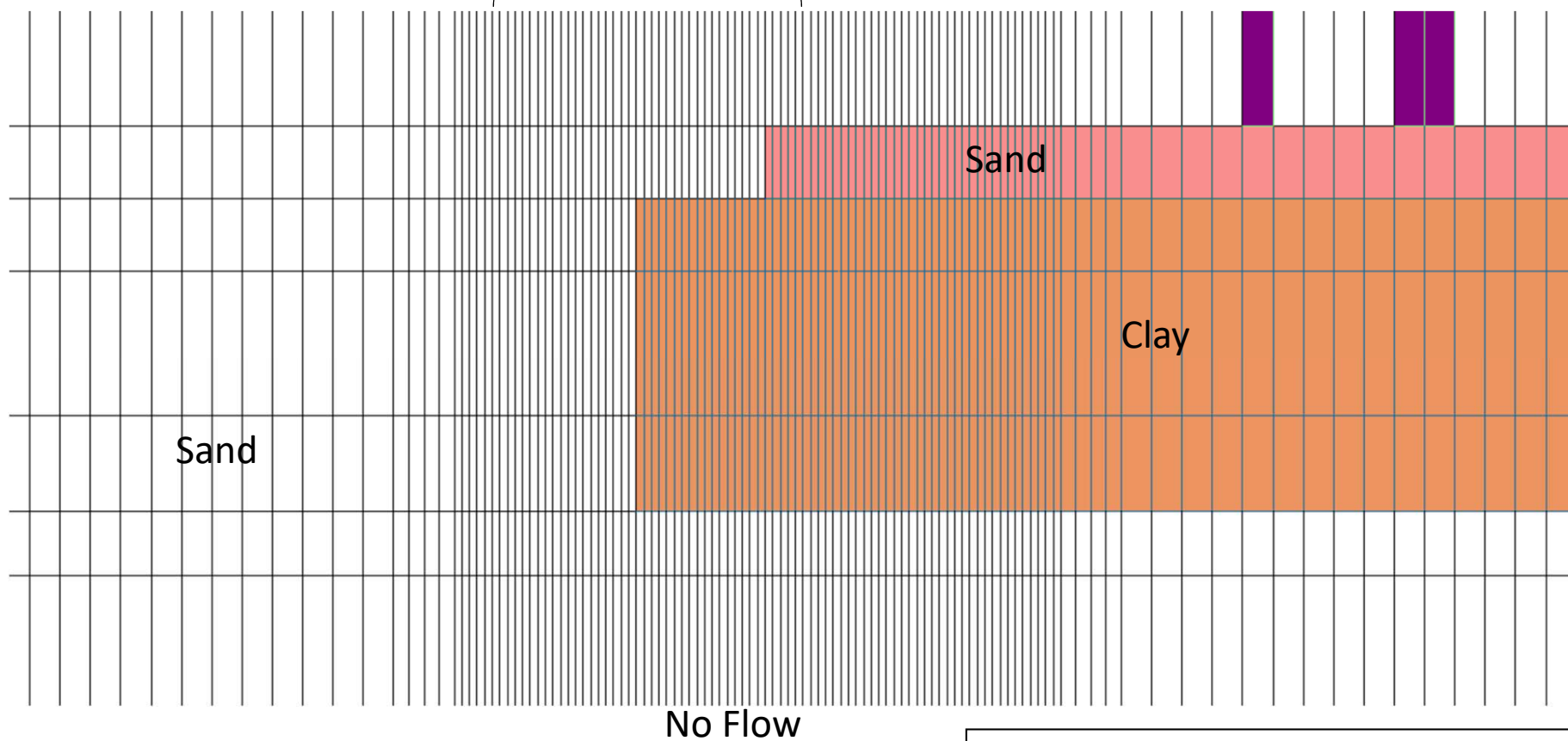


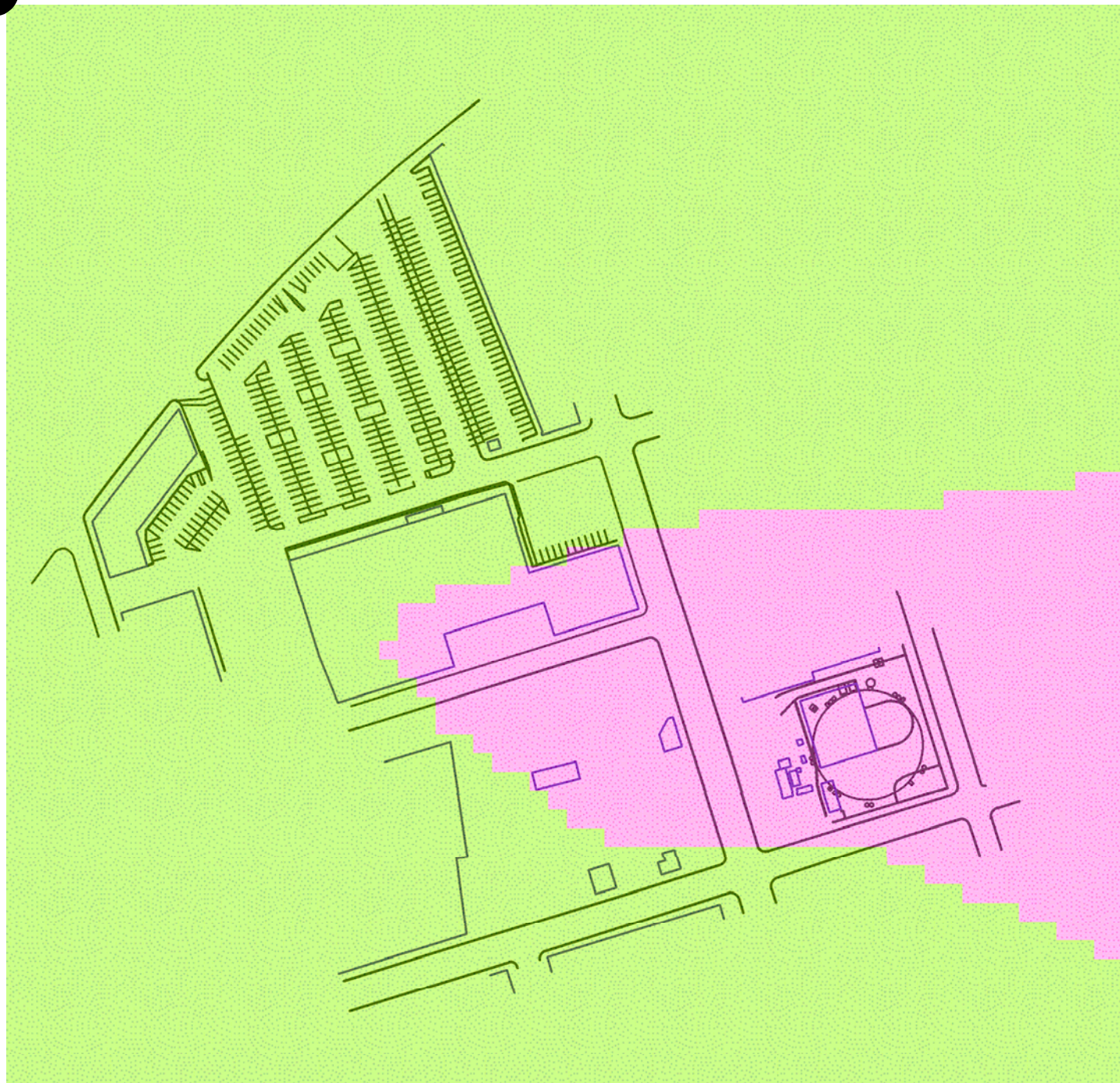
FIGURE 4

CON EDISON
FORMER FARRINGTON STREET WORKS
SUPPLEMENTAL INVESTIGATION
QUEENS, NEW YORK

MODEL CROSS SECTION

PARSONS

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PHONE: 315-451-9560



LEGEND:

- ZONE 1: $K_x=1.6/K_z=0.32$
[ft/day]
- ZONE 3: $K_x=68.5/K_z=2$
[ft/day]

FIGURE 5

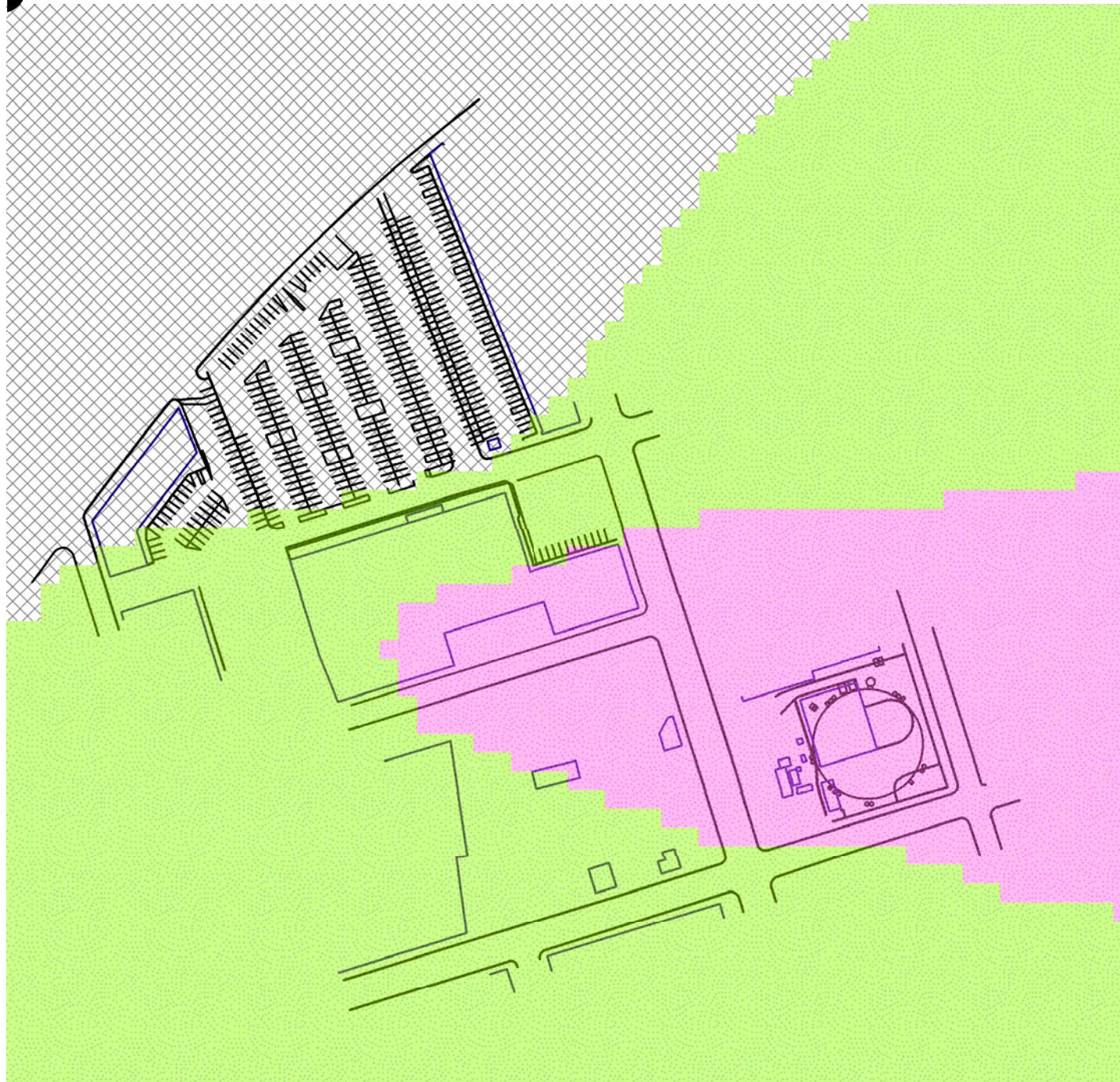
CON EDISON
SUPPLEMENTAL REMEDIAL INVESTIGATION
FORMER FARRINGTON STREET WORKS
NEW YORK, NEW YORK

GROUNDWATER MODEL
LAYER 1 HYDRAULIC
CONDUCTIVITY ZONES

PARSONS

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LEGEND:

- ZONE 1: $K_x=1.6/K_z=0.32$
[ft/day]
- ZONE 3: $K_x=68.5/K_z=2$
[ft/day]
- ZONE 4: $K_x=10/K_z=0.1$
[ft/day]

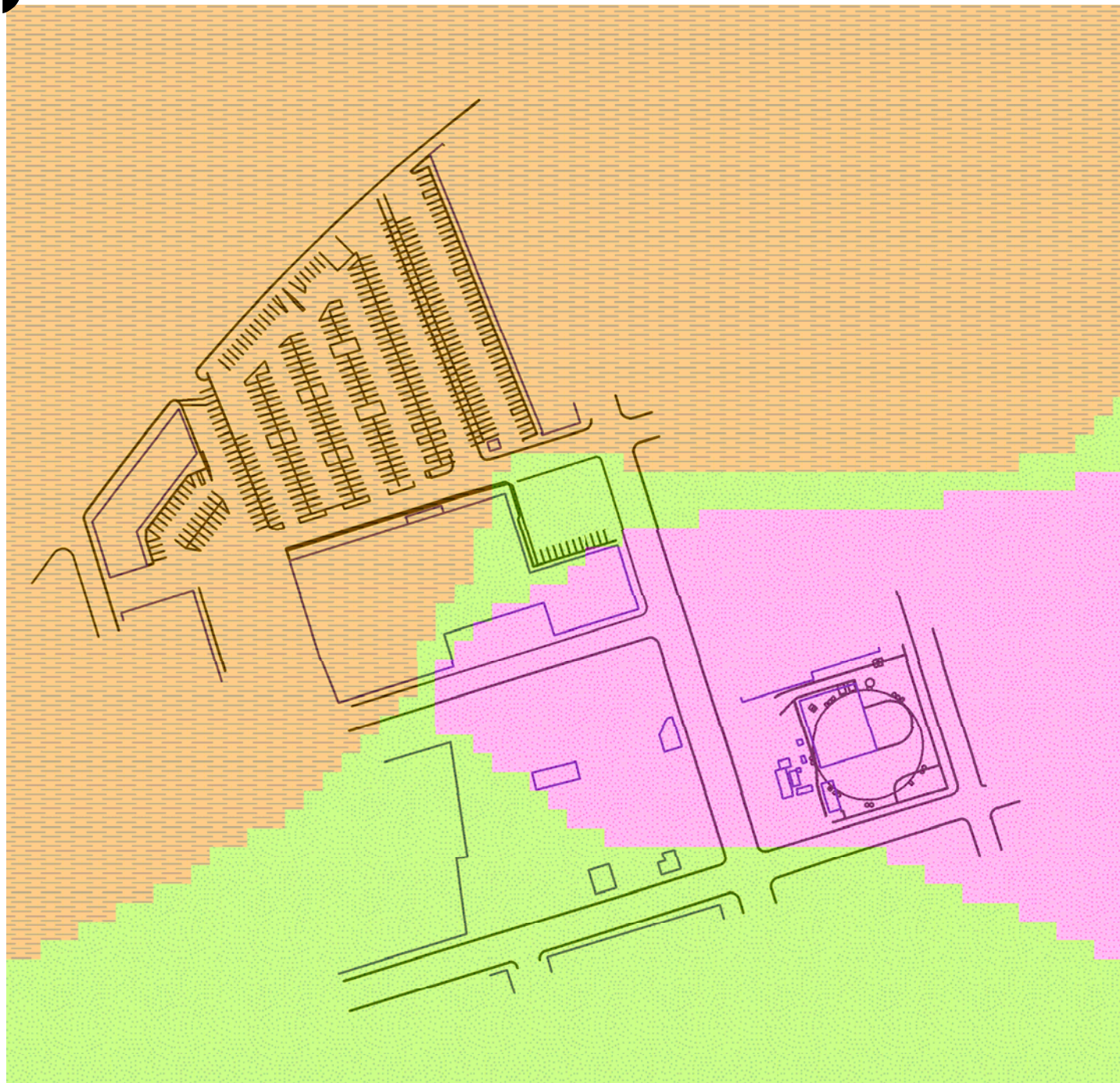
FIGURE 6

CON EDISON
SUPPLEMENTAL REMEDIAL INVESTIGATION
FORMER FARRINGTON STREET WORKS
NEW YORK, NEW YORK
GROUNDWATER MODEL
LAYER 2 HYDRAULIC
CONDUCTIVITY ZONES

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LEGEND:

- ZONE 1: $K_x=1.6/K_z=0.32$
[ft/day]
- ZONE 2:
 $K_x=0.0028/K_z=0.000056$
[ft/day]
- ZONE 3: $K_x=68.5/K_z=2$

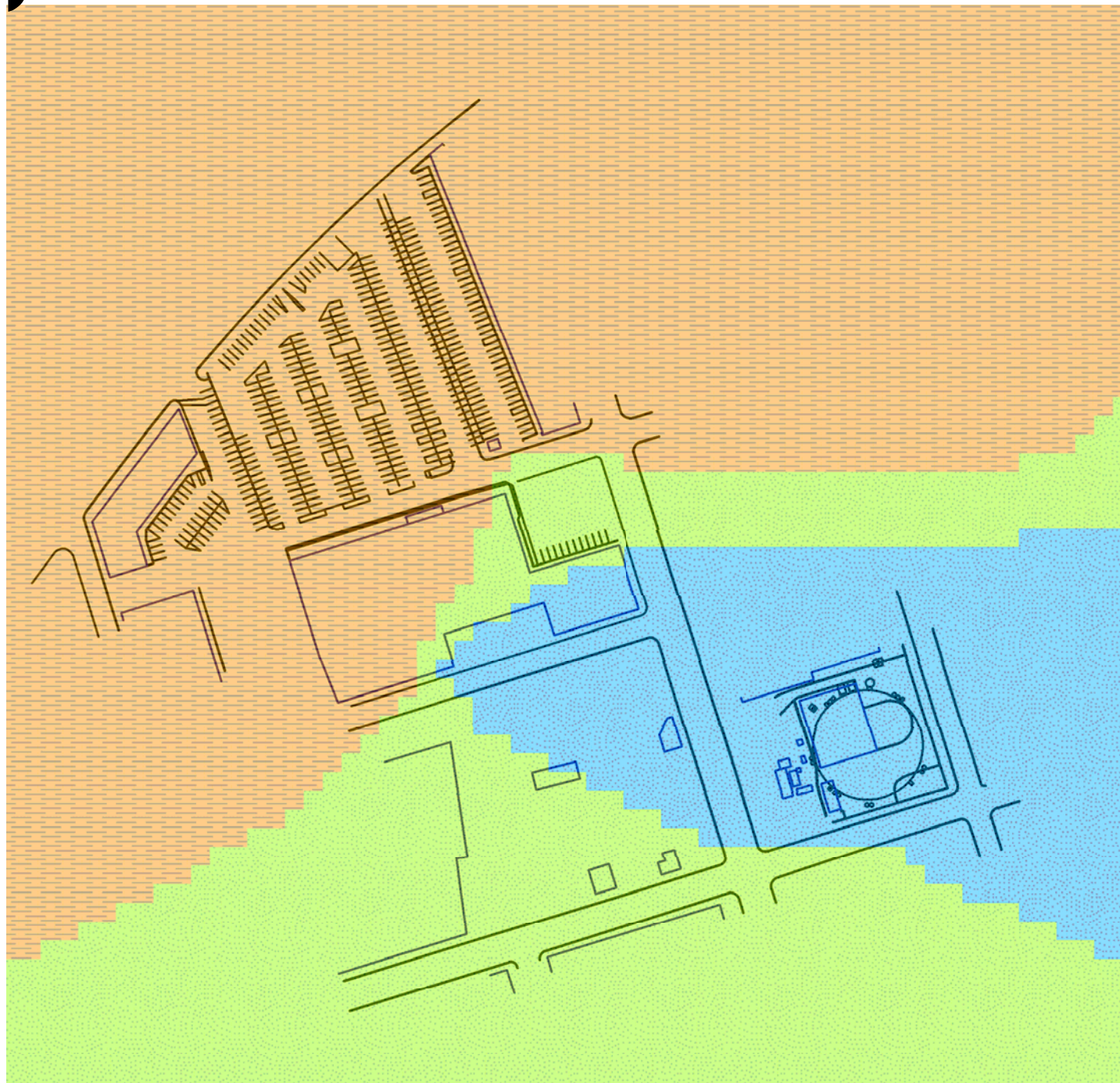
FIGURE 7

CON EDISON
FORMER FARRINGTON STREET WORKS
NEW YORK, NEW YORK
GROUNDWATER MODEL
LAYER 3 HYDRAULIC
CONDUCTIVITY ZONES

PARSONS

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LEGEND:

- ZONE 1: $K_x=1.6/K_z=0.32$
[ft/day]
- ZONE 2:
 $K_x=0.0028/K_z=0.000056$
[ft/day]
- ZONE 5: $K_x=115/K_z=0.5$
[ft/day]

150 75 0 150 300



FILE NAME: \nybuf03fs01\ConEd Farrington\Groundwater_Model\Report\MXD\K Fields Layer 4 n 5.mxd
PLOT DATE: 3/21/2019 PLOTTED BY: BECK, MELANIE

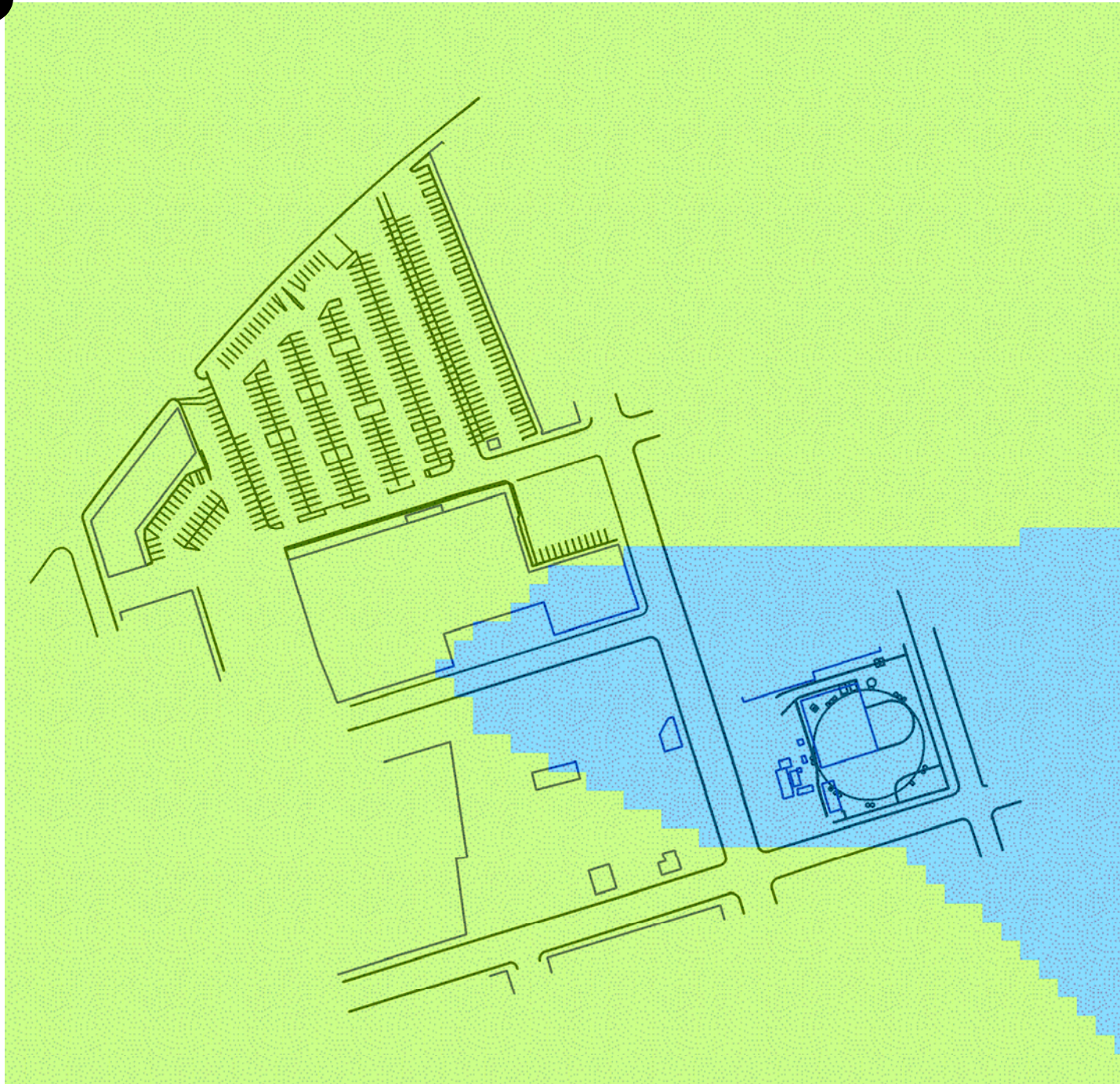
FIGURE 8

CON EDISON
SUPPLEMENTAL REMEDIAL INVESTIGATION
FORMER FARRINGTON STREET WORKS
NEW YORK, NEW YORK

GROUNDWATER MODEL
LAYERS 4 AND 5 HYDRAULIC
CONDUCTIVITY ZONES

PARSONS

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LEGEND:

- ZONE 1: $K_x=1.6/K_z=0.32$
[ft/day]
- ZONE 5: $K_x=115/K_z=0.5$
[ft/day]

150 75 0 150 300



FILE NAME: \nybuf03fs01\ConEd Farington\Groundwater_Model\Report\MXD\K Fields Layer 6 n 7.mxd
PLOT DATE: 3/21/2019 PLOTTED BY: BECK, MELANIE

FIGURE 9

CON EDISON
FORMER FARRINGTON STREET WORKS
NEW YORK, NEW YORK

GROUNDWATER MODEL
LAYERS 6 AND 7 HYDRAULIC
CONDUCTIVITY ZONES

PARSONS

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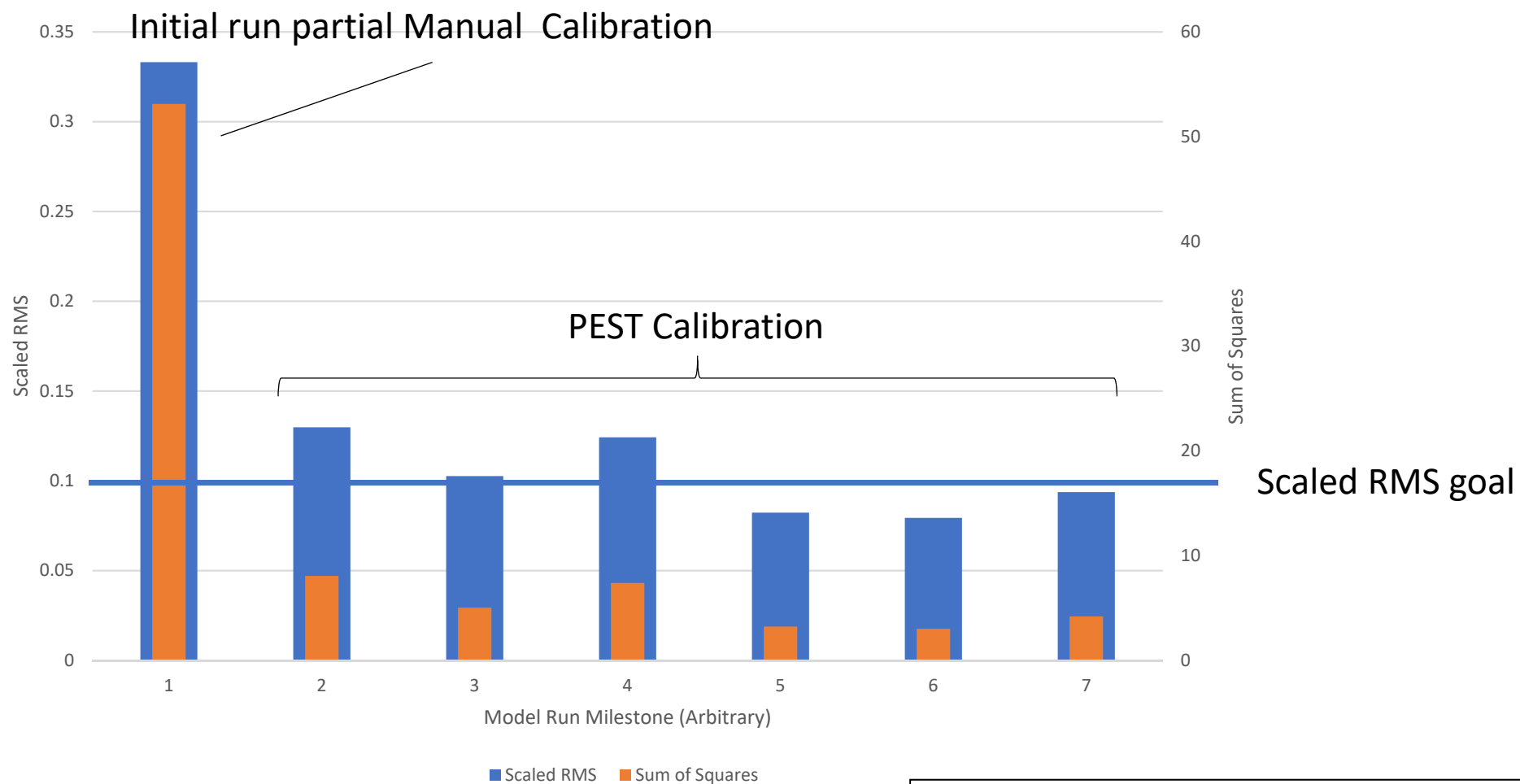


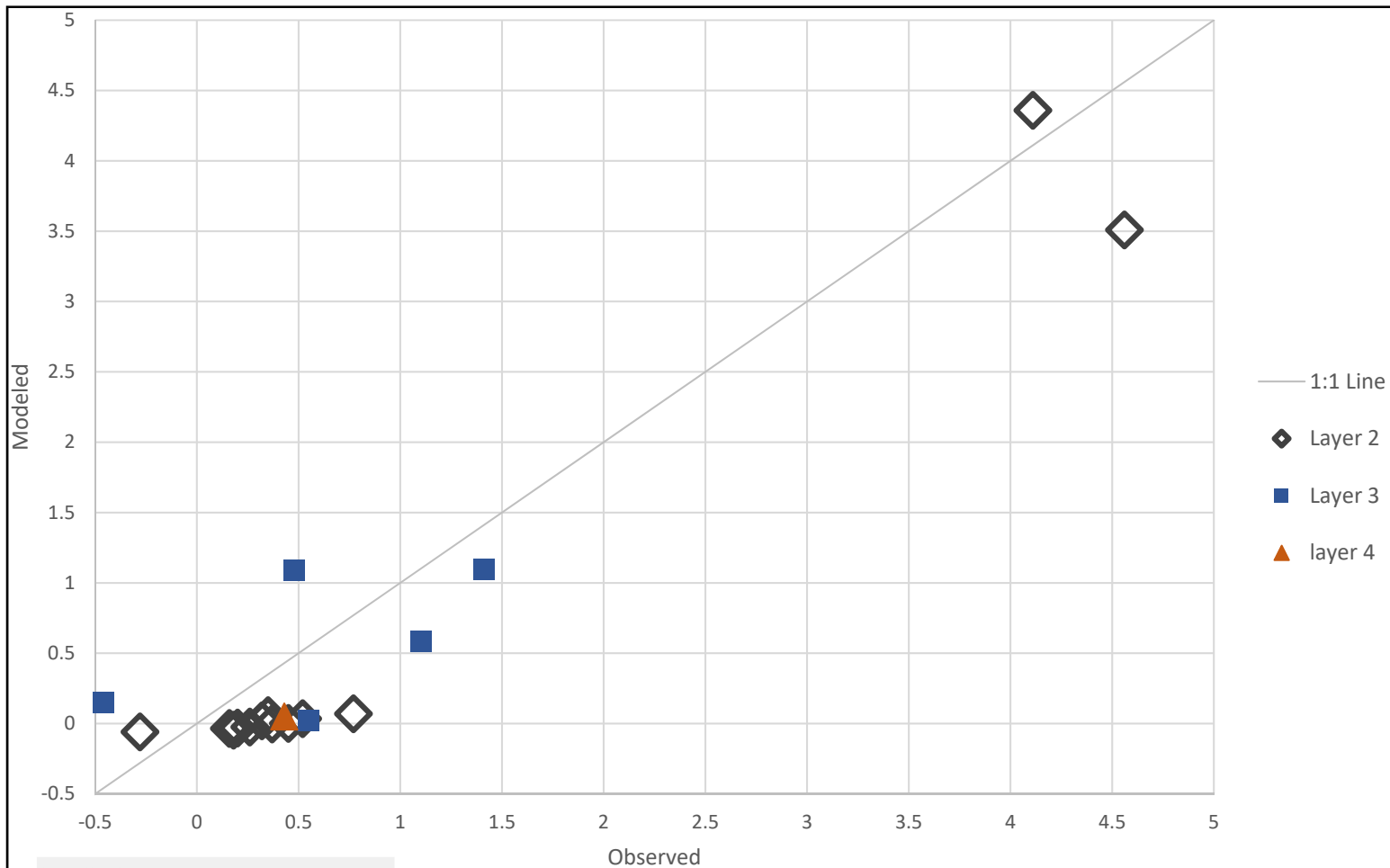
FIGURE 10

CON EDISON
FORMER FARRINGTON STREET WORKS
SUPPLEMENTAL INVESTIGATION
QUEENS, NEW YORK

MODEL CALIBRATION PROGRESSION

PARSONS

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Residual Mean	= -0.01
Residual Standard Dev.	= 0.39
Absolute Residual Mean	= 0.28
Residual Sum of Squares	= 2.92e+000
RMS Error	= 0.39
Minimum Residual	= -0.85
Maximum Residual	= 0.73
Range of Observations	= 5.02
Scaled Res. Std. Dev.	= 0.078
Scaled Abs. Mean	= 0.055
Scaled RMS	= 0.078
Number of Observations	= 19

FIGURE 11

CON EDISON
FORMER FARRINGTON STREET WORKS
SUPPLEMENTAL INVESTIGATION
QUEENS, NEW YORK

CALIBRATION PLOT SIMULATED VS
OBSERVED

PARSONS

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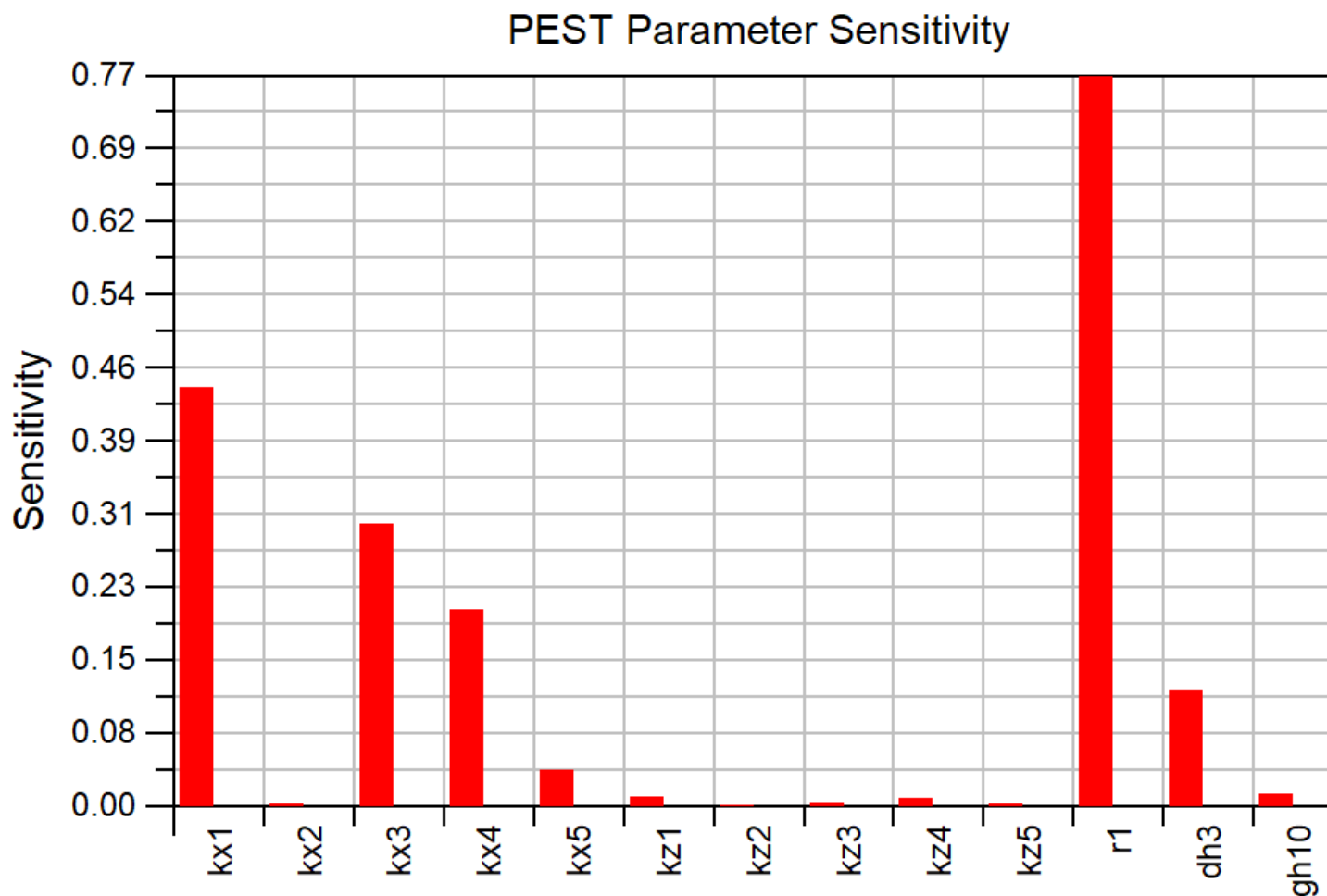


FIGURE 12

CON EDISON
FORMER FARRINGTON STREET WORKS
SUPPLEMENTAL INVESTIGATION
QUEENS, NEW YORK

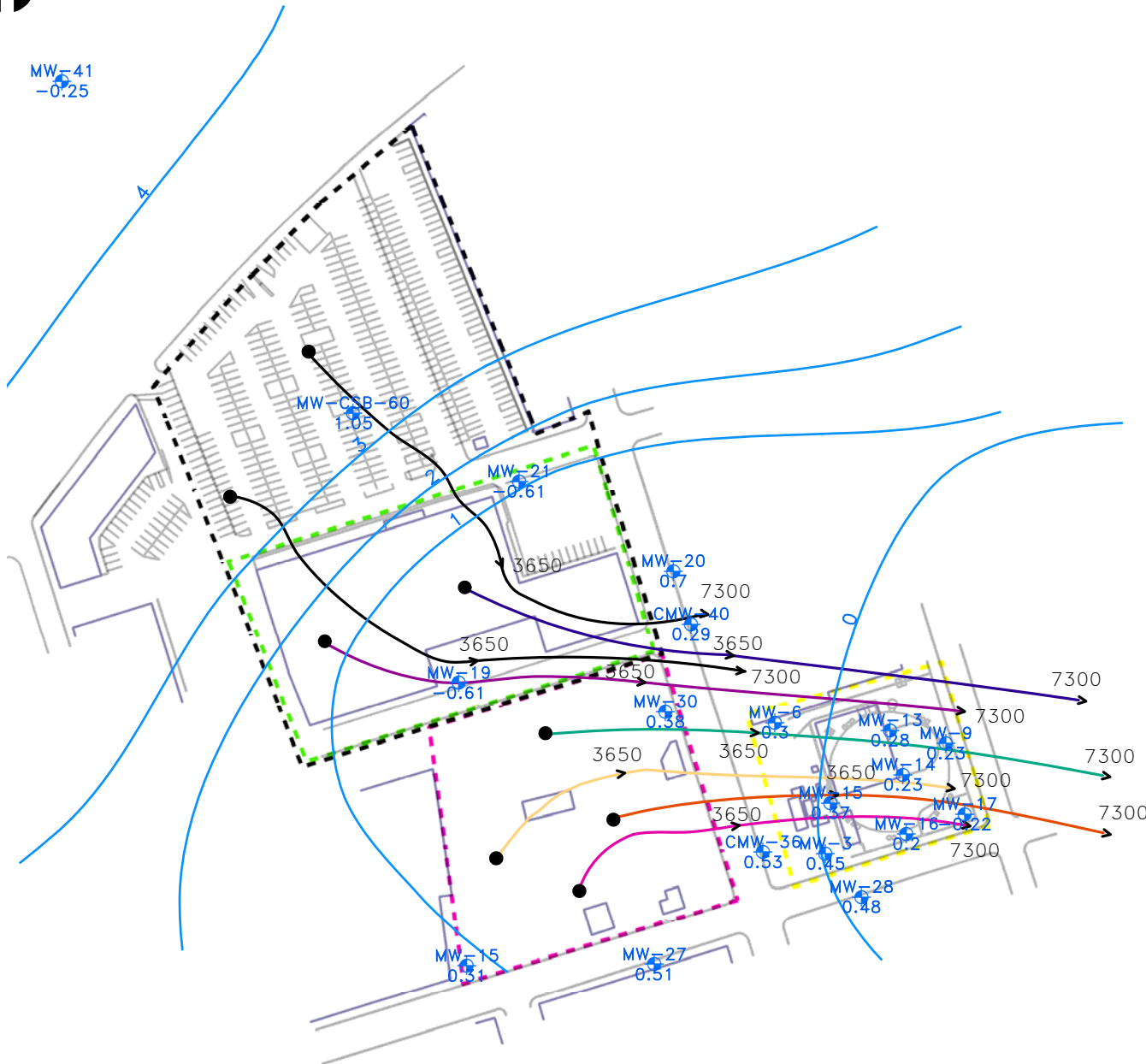
MODEL PARAMETER SENSITIVITY

PARSONS

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PHONE: 315-451-9560



MW-41
-0.25



LEGEND:

- PARCEL 1
- PARCEL 2
- PARCEL 3
- MARKET AREA
- CALIBRATION TARGETS
- GROUNDWATER CONTOURS
- NORTHERN BARRIER WALL PARTICLES
- PARTICLE 1
- PARTICLE 2
- PARTICLE 3
- PARTICLE 4
- PARTICLE 5
- PARTICLE 6
- PARTICLE STARTING LOCATIONS

NOTES:

1. EACH ARROW REPRESENTS A TIME STAMP IN DAYS. PARTICLES END AT 20 YRS.
2. EACH TARGET IS DISPLAYED WITH THE HYDRAULIC HEAD RESIDUAL. SIMULATED - OBSERVED.
3. CONTOUR INTERVAL = 1 FOOT
4. ELEVATIONS IN FEET AMSL

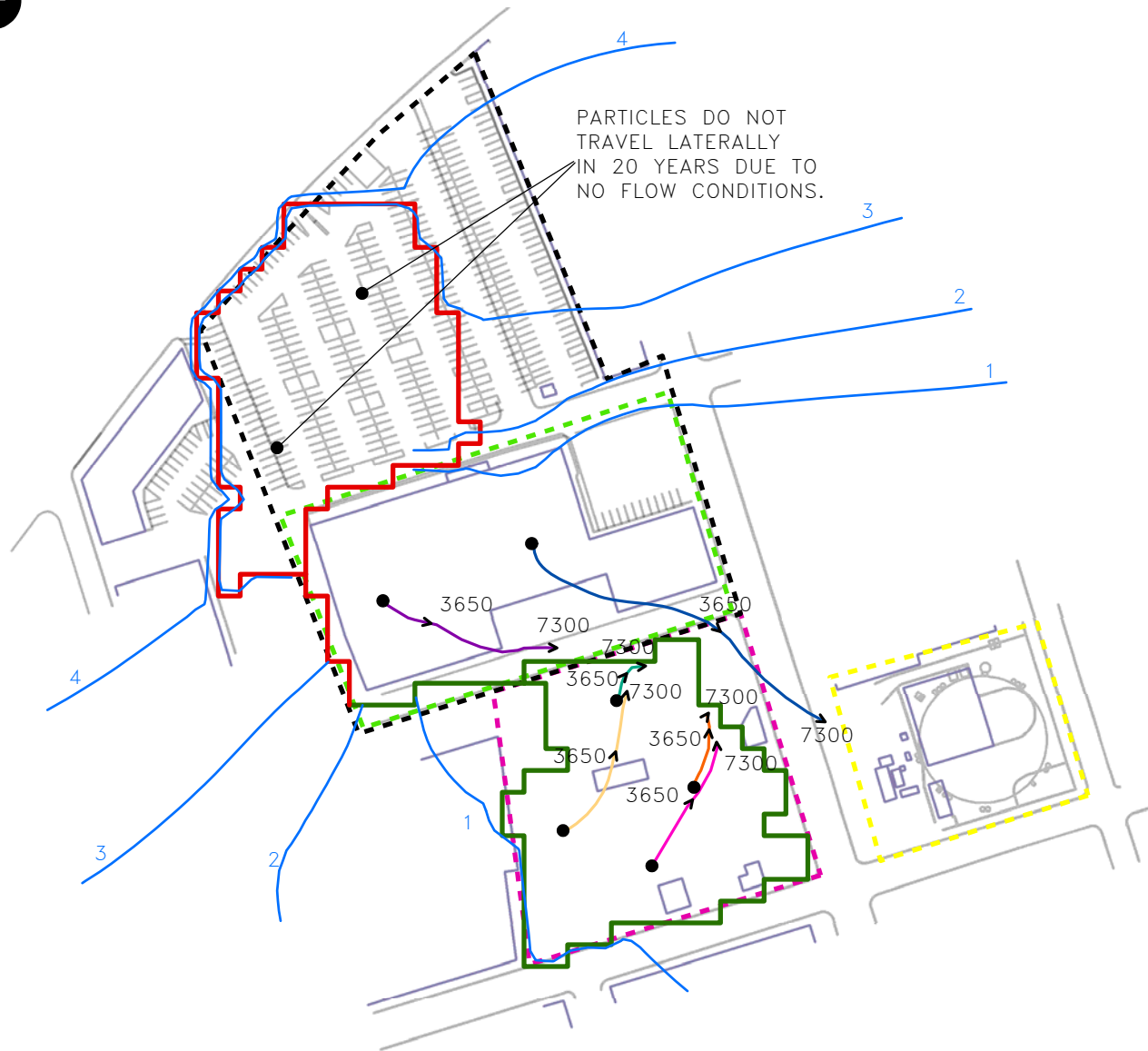
FIGURE 13

CON EDISON
SUPPLEMENTAL REMEDIAL INVESTIGATION
FORMER FARRINGTON STREET WORKS
NEW YORK, NEW YORK
GROUNDWATER MODEL
EXISTING CONDITIONS

PARSONS

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LEGEND:

- PARCEL 1
- PARCEL 2
- PARCEL 3
- MARKET AREA
- GROUNDWATER CONTOURS
- BARRIER WALL 18 FEET BGS
- BARRIER WALL 40 FEET BGS
- PARTICLE 1
- PARTICLE 2
- PARTICLE 3
- PARTICLE 4
- PARTICLE 5
- PARTICLE 6
- PARTICLE STARTING LOCATIONS

NOTES:

1. EACH ARROW REPRESENTS A TIME STAMP IN DAYS. PARTICLES END AT 20 YEARS
2. CONTOUR INTERVAL = 1 FOOT
3. ELEVATIONS IN FEET AMSL

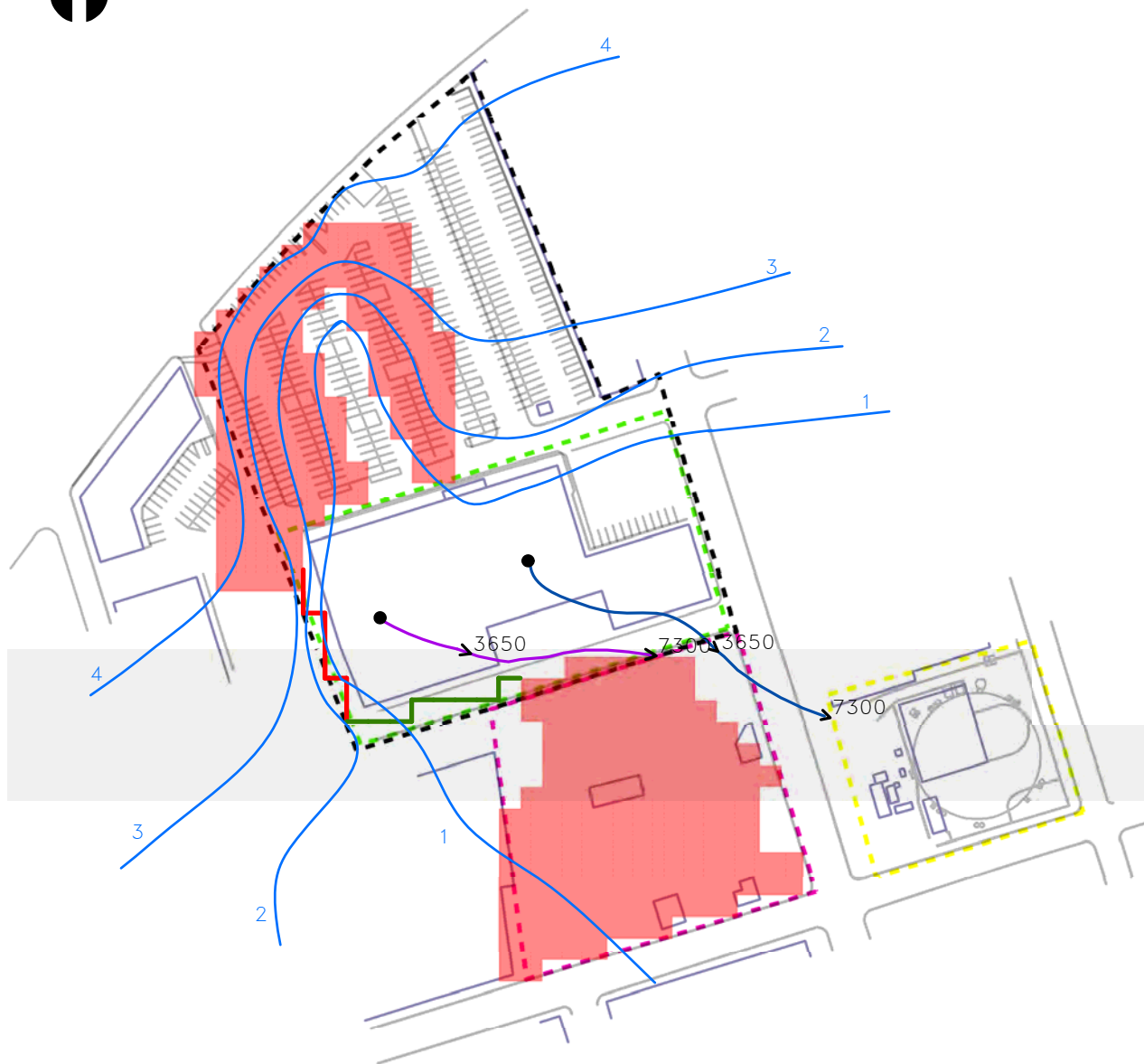
FIGURE 14

CON EDISON
SUPPLEMENTAL REMEDIAL INVESTIGATION
FORMER FARRINGTON STREET WORKS
NEW YORK, NEW YORK
GROUNDWATER MODEL
BARRIER WALL

PARSONS

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LEGEND:

- PARCEL 1
- PARCEL 2
- PARCEL 3
- MARKET AREA
- GROUNDWATER CONTOURS
- PARTICLE 1
- PARTICLE 2
- BARRIER WALL 40 FEET BGS
- BARRIER WALL 18 FEET BGS
- ISS
- PARTICLE STARTING LOCATIONS

NOTES:

1. EACH ARROW REPRESENTS A TIME STAMP IN DAYS. PARTICLES END AT 20 YEARS
2. CONTOUR INTERVAL = 1 FOOT
3. ELEVATIONS IN FEET AMSL

FIGURE 15

CON EDISON
SUPPLEMENTAL REMEDIAL INVESTIGATION
FORMER FARRINGTON STREET WORKS
NEW YORK, NEW YORK

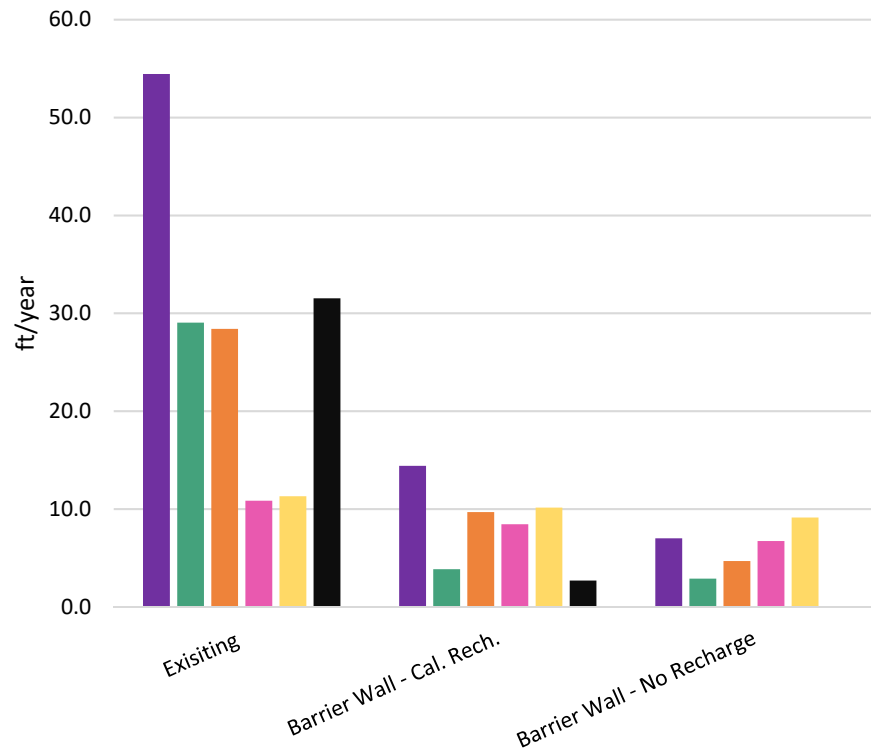
GROUNDWATER MODEL
ISS AND BARRIER WALL

PARSONS

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Average Linear Velocity - Existing Conditions
Compared with the Barrier Wall (with and without
recharge)



■ Market Parcel - West Particle
 ■ Parcel 2 North Particle
 ■ Parcel 2 East Particle
 ■ Parcel 2 South Particle
 ■ Parcel 2 West Particle
 ■ Parking Lot

Average Linear Velocity for the Market
Parcel Comparison

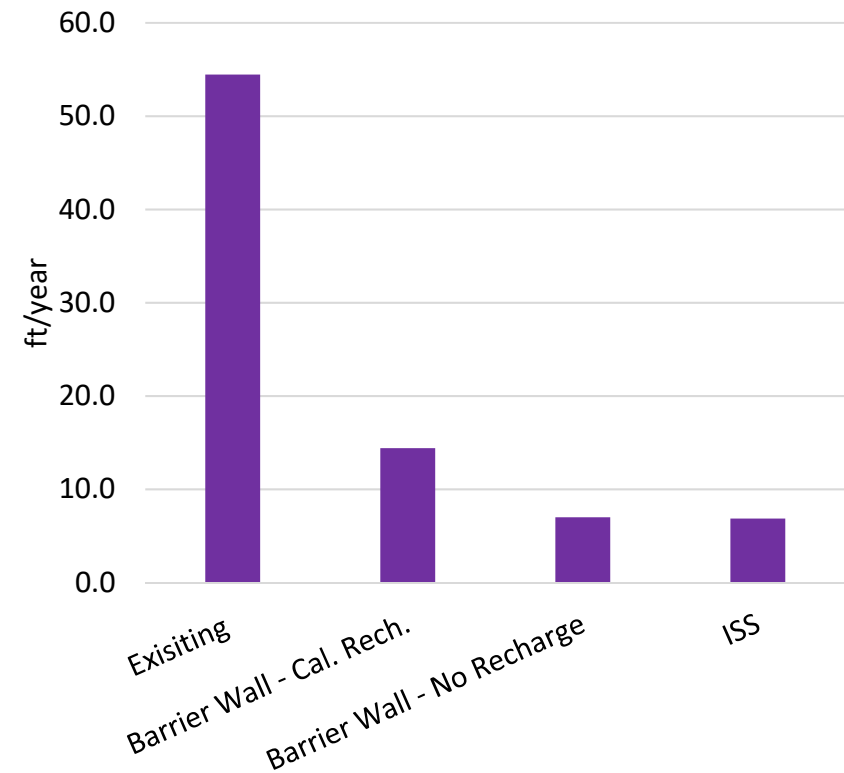


FIGURE 16

CON EDISON
FORMER FARRINGTON STREET WORKS
SUPPLEMENTAL INVESTIGATION
QUEENS, NEW YORK

COMPARISON OF GROUNDWATER
VELOCITIES FOR EACH SCENARIO

PARSONS

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