
SUPPLEMENTAL REMEDIAL INVESTIGATION REPORT FORMER CLEANER PRODUCTS SUPPLY SITE

Site Number 241123



Prepared For:

**New York State Department of Environmental Conservation
Division of Hazardous Waste Remediation**

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LIST OF ACRONYMS AND ABBREVIATIONS

AST	Above ground storage tank
bgs	Below ground surface
CVOC	Chlorinated volatile organic compound
DCE	Dichloroethene
DER	Department of Environmental Remediation
DUSR	Data Usability Summary Report
FCPS	Former Cleaners Supply Site
LIRR	Long Island Rail Road
mg/kg	milligrams per kilogram
NYCDEP	New York City Department of Environmental Protection
NYCRR	New York Codes, Rules and Regulations
NYSDEC	New York State Department of Environmental Conservation
GWQS	Environmental Conservation Groundwater Quality Standards
NYSDOH	New York State Department of Health
PCE	Tetrachloroethene
RI	Remedial Investigation
RIR	Remedial Investigation Report
TCE	Trichloroethene
µg/L	micrograms per liter
µg/m ³	micrograms per cubic liter
USEPA	United States Environmental Protection Agency
VOCs	Volatile organic compounds

SECTION 1

INTRODUCTION

This report presents data collected from field investigations performed by Parsons Environment & Infrastructure Group Inc. (Parsons) and completed in the vicinity of the Former Cleaner Products Supply (FCPS) building (the “Site”) (NYSDEC Site Number 241123). Sampling was conducted around the Site located at 50-45 Barnett Avenue, Queens, New York from August 2017 through March 2018. The supplemental investigations were performed to continue monitoring of chlorinated volatile organic compounds (CVOCs), particularly tetrachloroethene (PCE), and other related chlorinated by-products previously detected in groundwater in the surrounding 5-acres of the Site. Supplemental investigation activities described in this report were performed in accordance with the New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation (DER)-10 technical guidance.

Investigation efforts included three quarterly groundwater monitoring events (August 2017, January 2018 and July 2018) and one air sampling event (March 2018). Results of the sampling events are detailed within this submittal. The results provide supplemental information following the Remedial Investigation Report (RIR) submitted in March 2017.

SECTION 2

BACKGROUND

2.1 SITE AND SURROUNDING DEVELOPMENT

The Site is a 0.23-acre parcel located at 50-45 Barnett Avenue, Long Island City, Queens County, New York (**Figure 1**) and is currently occupied by Capitol Glass and Sash Company, Inc. A one-story building occupies a majority of the Site with a small fenced area to the north. To the west of the Site is the Queensboro parking lot, to the north Long Island Railroad (LIRR) tracks and Right of Way (ROW), and to the south are residential properties. To the east of FCPS are adjacent commercial buildings housed by JCP Cabinetry, Perma Iron, Paratransit Auto Parts, and AHRC Inc.

The Site was initially developed in 1952 when the building was constructed to house a dry-cleaning product supply business. Product storing operations reportedly occurred between 1952 and 2007. During operations, above ground storage tanks (ASTs) containing PCE, were believed to be stored near the center of the building.

Historical operations at the Site are believed to be responsible for detections of chlorinated CVOCs in soil above the New York Code Rules and Regulations (NYCRR) Protection to Groundwater and Commercial Clean-up Objectives (particularly PCE) in soil and soil vapor beneath the building footprint. Pathways for human exposure to impacted soils are limited given the impacted area is occupied in entirety by the building; however, due to the high levels of sub-slab soil vapors in the immediate vicinity of the Site, a soil vapor extraction system was installed.

2.2 SITE GEOLOGY AND HYDROLOGY

Site topography is generally flat with groundwater flowing northeast, in the direction of the East River and Flushing Bay but may vary seasonally. According to regional groundwater flow maps, this location appears to be at a groundwater divide suggesting that groundwater may flow radially away from the Site. Groundwater has been observed at approximately 15-20 feet below ground surface (bgs).

No water supply wells have been identified downgradient of the Site. According to New York City Department of Environmental Protection (NYCDEP) website, the Department acquired the privately-owned Jamaica Water Supply Company which serviced Queens from 1887 to 1996. The groundwater supply system consisted of 68 wells, 44 well stations and several water storage tanks. The system ceased operations more than a decade ago in the area of the Site. Water is supplied from the Catskill/Delaware watersheds.

No wetlands exist on or adjacent to the Site based on checking NY State and Federal wetland mapping. The 100-year floodplain, as delineated by the Federal Emergency Management Agency (FEMA), is not present in the vicinity of the Site (FEMA website).

SECTION 3

SUPPLEMENTAL INVESTIGATION ACTIVITIES

The objective of the supplemental investigation activities was to continue monitoring the nature and extent of contamination, particularly PCE, TCE, and other related by-products previously detected in soil, soil vapor, and groundwater on and near the Site. The applicable remediation standards for the Site include the 6-NYCRR Part 375 Commercial Clean-up Objectives for soil, the NYSDEC groundwater quality standard (GWQS). Guideline values are provided by NYSDOH for select indoor air parameters to assist in decision making.

3.1 GROUNDWATER INVESTIGATION

Groundwater investigation activities included sampling of existing monitoring wells associated with the Site. Prior to collection of groundwater samples, a synoptic round of depth-to-water readings and depth-to-bottom readings were collected from each well. The depth to water in each monitoring well was measured using an electronic water-level indicator attached to a graduated tape. The groundwater depth-to-water readings are presented in **Table 1** and groundwater elevation contours on **Figures 2, 3 and 4** for each quarterly sampling event, respectively.

August 2017 Investigation

Groundwater samples were collected from 13 monitoring wells (MW-1, MW-5, MW-6, MW-8, MW-9, MW-103S, MW-104S, MW-104D, MW-105S, MW-105D, MW-107D, MW-108D and MW-109S) between August 1 and August 2, 2017. The suite was sampled for TCL VOCs via USEPA SW846 8260C. Additionally, monitoring wells MW-5, MW-6, MW-103S, MW-107D, and MW-109S were sampled for 1,4-dioxane via USEPA SW846 8270D SIM and Perfluorinated Hydrocarbons (PFOAs) via USEPA SW846 537 (modified), with the exception of MW-109S. Groundwater samples from monitoring wells MW-5, MW-6, MW-8, MW-9, MW-103S, MW-104S, MW-104D, MW-107D and MW-109S contained detections of PCE above the NYSDEC GWQS of 5 micrograms per liter ($\mu\text{g/L}$). The highest concentration measured during the event was 1,800 $\mu\text{g/L}$ at MW-6, located off-site at the northwest corner of Barnett Avenue and Woodside Avenue. Concentrations of trichloroethylene (TCE) and cis-1,2-Dichloroethylene (cis-1,2-DCE) were noted above NYSDEC GWQS in monitoring wells MW-5, MW-6, MW-104S and MW-105D during this event.

Concentrations of 1,4-dioxane was non-detect in the wells sampled, except monitoring well MW-103S which contained a concentration of 0.24 $\mu\text{g/L}$. However, the result was flagged “J” with the result being less than the reporting limit (RL) but greater than or equal to the method detection limit (MDL), with an approximate concentration value.

Laboratory analytical results from the August 2017 groundwater investigation are summarized in **Table 2** and presented on **Figure 5**.

January 2018 Investigation

Groundwater samples were collected from 11 monitoring wells (MW-3, MW-5, MW-6, MW-9, MW-103S, MW-104S, MW-104D, MW-107D, MW-108D, and MW-109S) between January 23

and January 26, 2018. The suite was sampled for TCL VOCs. Additionally, monitoring wells MW-5, MW-6, MW-103S, MW-104S and MW-104D were sampled for dissolved gases via Method RSK-175 (Ethane, Ethene and Methane), metals (Iron and Manganese) via USEPA SW846 Method 6020A, Total Organic Carbon (TOC) via USEPA SW846 Method 5310B, Nitrogen as Nitrate via SM Method 4500 NO₃F, and Sulfate via ASTM Method D516-90,02. Groundwater samples from monitoring wells MW-3, MW-5, MW-6, MW-8, MW-9, MW-103S, MW-104S, MW-104D, MW-107D, and MW-109S contained detections of PCE above the NYSDEC GWQS of 5 µg/L. The highest concentration measured during the event was 660 µg/L at MW-104D, located off-site approximately 110 ft northeast of MW-6 (NWC of Barnett Avenue and Woodside Avenue). Concentrations of PCE decreased from the August 2017 event in monitoring wells MW-5, MW-6, and MW-8 and increased in monitoring wells MW-103S, MW-104S, MW-104D, MW-107D and MW-109S. Concentrations of cis-1,2-DCE were noted above NYSDEC GWQS (5 µg/L) in monitoring wells MW-5, MW-104S and MW-104D during this event. Concentrations of TCE were noted above NYSDEC GWQS (5 µg/L) in monitoring wells MW-5, MW-6, MW-104S, MW-104D, and MW-107D; with the highest concentration of 75 µg/L in MW-104D during this event.

Concentrations of iron were noted above NYSDEC GWQS (300 µg/L) in MW-5, MW-6, MW-103S, MW-104S and MW-104D, along with concentrations of manganese above NYSDEC GWQS (300 µg/L) in MW-104D. The highest concentration of Iron measured was 11,400 µg/L at MW-104D. Concentrations of nitrogen as nitrate was noted above NYDEC GWQS (10mg/l) at MW-103S (13.6 mg/l). Concentrations of dissolved gases (RSK-175) were non-detect in the monitoring wells sampled.

Laboratory analytical results from the January 2018 groundwater investigation are summarized in **Table 3** and presented on **Figure 5**.

July 2018 Investigation

Groundwater samples were collected from 15 monitoring wells (MW-1, MW-3, MW-5, MW-6, MW-7, MW-8, MW-9, MW-103S, MW-104S, MW-104D, MW-105S, MW-105D, MW-107D, MW-108D and MW-109S) between July 17 and July 20, 2018. The suite was sampled for TCL VOCs. Additionally, monitoring wells MW-5, MW-6, MW-103S, MW-104S, and MW-104D were sampled for dissolved gases RSK-175, metals (iron and manganese), TOC, nitrogen as nitrate, and sulfate. Groundwater samples from monitoring wells MW-5, MW-6, MW-103S, MW-104S, MW-104D, and MW-109S contained detections of PCE above the NYSDEC GWQS of 5 µg/L. The highest concentration measured during the event was 240 µg/L at MW-5, located off-site near the southeast intersection of Woodside Avenue and 37th Road. Concentrations of PCE were stable or decreasing from the August 2017 and January 2018 events in monitoring wells all the monitoring wells sampled. Concentrations of cis-1,2-DCE were noted above NYSDEC GWQS (5 µg/L) in monitoring wells MW-5, MW-6, MW-104S, and MW-104D during this event. Compared to the January 2018 event, concentrations of cis-1,2-DCE increased from 26 µg/L to 840 µg/L in MW-104S and from 17 µg/L to 39 µg/L in MW-104D. Concentrations of TCE were noted above NYSDEC GWQS (5 µg/L) in monitoring wells MW-1, MW-3, MW-5, MW-6, MW-104S, MW-104D, and MW-107D; with the highest concentration of 180 µg/L in MW-104S during this event. Concentrations of chloroform were noted above NYSDEC GWQS (7 µg/L) in MW-7 at 34 µg/L.

Concentrations of iron were noted above NYSDEC GWQS (300 µg/L) in monitoring wells MW-5, MW-6, MW-103S, MW-104S, and MW-104D, with the highest concentration of 13,200 µg/L in MW-104D, which increased from the January 2018 event. Monitoring well MW-104D also exhibited concentrations of manganese above NYSDEC GWQS (300 µg/L) at 2,600 µg/L.

Concentrations of dissolved gases (RSK-175), TOC, sulfate and nitrogen as nitrate were non-detect in the monitoring wells sampled.

Laboratory analytical results from the July 2018 groundwater investigation are summarized in **Table 4** and presented on **Figure 5**.

Groundwater PCE/TCE isopleths for the August 2017 results are depicted in **Figure 6**, **Figure 7** for January 2018 results, and **Figure 8** for July 2018 results. Laboratory analytical reports for each sampling event is presented in **Appendix A**. A complete listing of detected and non-detected compounds and results is included in the DUSRs for the above referenced groundwater investigation in **Appendix B**.

3.2 SOIL VAPOR INTRUSION INVESTIGATION

Soil vapor intrusion investigation analytical results were collected for indoor air and ambient air samples. The NYSDOH soil vapor intrusion guidance (revised 2015) matrix provides a guideline value of 100 micrograms per cubic meter (µg/m³) for indoor air samples.

March 2018

A total of five indoor and ambient air samples were collected on-site (50-45-Ambient, 50-45-ID Office, and 50-45-ID-Work Shop) and on the surrounding off-site properties located 52-07 Barnett Avenue (52-07-ID-Metal Shop and 52-07-ID-Office). There were no indoor air sample detections of PCE above the NYSDOH guidance level. Indoor air concentrations for ethanol ranged from 110 µg/m³ in sample 52-07-ID-Metal Shop to 2,000 µg/m³ in sample 50-45-ID-Office. Indoor air concentrations for butane ranged from 150 µg/m³ in sample 50-45-ID-Office to 2,000 µg/m³ in sample 50-45-ID Office. Indoor air concentrations for toluene ranged from 360 µg/m³ in sample 52-07-ID-Office to 4,200 µg/m³ in sample 52-07-ID-Metal Shop. Indoor air concentrations for acetone ranged from 260 µg/m³ in sample 52-07-ID-Office to 14,000 µg/m³ in sample 52-07-ID-Metal Shop; however, the result for 52-07-ID-Office was flagged “J” with the result being less RL but greater than or equal to the MDL. Sample 52-07-ID-Office exceeded guidance levels for cyclohexane at 110 µg/m³, xylenes at 190 µg/m³, m,p-xylenes at 150 µg/m³ and styrene at 110 µg/m³. Sample 52-07-ID-Metal Shop exceeded guidance levels for ethyl acetate at 310 µg/m³, methyl isobutyl ketone (4-methyl-2-pentanone) at 360 µg/m³ and n-heptane at 170 µg/m³.

Laboratory analytical results from the March 2018 soil vapor intrusion investigation activities are summarized in **Table 5** and presented on **Figure 9**. A complete listing of detected and non-detected compounds and analytical results is included in the DUSRs for the above referenced vapor intrusion investigation in **Appendix B**.

SECTION 4

CONCLUSIONS

4.1 EXPOSURE ASSESSMENT

The exposure assessment, findings and recommendations were provided in the March 2017 RIR. The supplemental field investigations confirm the original findings which are detailed as followed:

Soil Vapor

Results of soil vapor intrusion investigations conducted in association with the Site indicate no PCE concentrations above NYSDOH guidance values for indoor air samples within the FCPS and JCP Cabinetry buildings. The soil vapor extraction system acts as both a remedial system to address vapors in the vadose zone as well as a building mitigation system. Continued vapor intrusion monitoring is warranted in this area to confirm there is no exposure route to building inhabitants. As detailed in the March 2017 RIR, the adjacent buildings north of Barnett Avenue and residential/business properties south of Barnett Avenue indicated indoor air and corresponding sub-slab concentrations of PCE were below the NYSDOH guidance values and as such monitoring was not conducted during these events.

Groundwater

Detections of several CVOCs in groundwater associated with the Site are above the NYSDEC GWQS. Concentrations of PCE and TCE increased in MW-5 (PCE 92 µg/L to 260 µg/L and TCE 25 µg/L to 44 µg/L) and MW-104D (PCE 80 µg/L to 180 µg/L and TCE 27 µg/L to 56 µg/L) from 2015 to 2018, respectively. However; concentrations of PCE and TCE decreased in MW-6 (PCE 2,200 µg/L to 120 µg/L and TCE 150 µg/L to 10 µg/L), MW-104S (PCE 280 µg/L to 130 µg/L and TCE 490 µg/L to 180 µg/L), and MW-103S (PCE 1,500 µg/L to 12 µg/L) from 2015 to 2018, respectively.

Groundwater is not a potential exposure pathway for local residents as the public water supply comes from a public supply source. Given the depth to groundwater is at least 15 feet below ground surface, potential exposure to groundwater is not likely to occur during future construction or during future maintenance of deep underground utilities at the Site such as underground sewer or water lines. In addition, the nearest natural surface drainage way (Newtown Creek) is located approximately 1.83 mile south-southwest of the site and drains to the East River, which is located approximately 2.26 miles from the Site (see **Figure 1**). Neither Newtown Creek nor the East River are likely to be affected by site contamination based on the proximity of the creek and river from the Site.

4.2 FINDINGS AND RECOMMENDATIONS

- Continued vapor intrusion monitoring is warranted on-site and off-site to the east at the buildings occupied by Capitol Glass and Sash and JCP Cabinetry, respectively.

- Groundwater in the vicinity of the FCPS building is approximately 15' bgs and is impacted with PCE; which is the primary solvent used in dry cleaning operations. Following review of historical and current analytical data and investigation of potential preferential pathways the following information was determined:
 - o Monitoring well MW-6, located at the corner of Barnett Avenue and Woodside Avenue, has consistently exhibited high detections of PCE, with a reduction in concentrations from 2Q15 to 3Q18. Based on the analytical data gathered to date, a subsurface preferential pathway between monitoring well MW-6 and the FCPS building has neither been confirmed nor eliminated. There may be a correlation to PCE concentrations and groundwater elevation changes at this location. Continued groundwater sampling at this location for TCL VOCs is recommended to further identify a trend in PCE concentrations as well as a comparative analysis to groundwater elevations;
 - o Monitoring well MW-103S, located in the northeast corner of the FCPS building footprint, has continued to exhibit decreasing PCE detections from 260 µg/l in 2Q15 to 12 in 3Q18. Continued groundwater sampling at this location for TCL VOCs is recommended to further identify a trend in PCE concentrations as well as a comparative analysis to groundwater elevations based on potential trends identified in monitoring well MW-6;
 - o Monitoring wells MW-5, MW-6, MW-103S, MW-104S, and MW-104D have consistently detected PCE daughter products such as cis-1,2-DCE and trans-1,2-DCE during site investigation activities. Continued groundwater sampling at these locations is recommended to further monitor degradation of PCE in the vicinity of the FCPS site; and,
 - o Off-site monitoring wells MW-5, MW-6, MW-104S, MW-104D, and MW-107D, located southwest of the FCPS building, have consistently detected TCE above the NYSDEC GWQS. Continued groundwater sampling at these locations is recommended to further identify a trend in TCE locations.

SECTION 5

REFERENCES

- NYSDEC. Division of Water Technical and Operational Guidance Series (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998.
- NYSDEC. 6 NYCRR Part 375 Environmental Remediation Programs, New York State Department of Environmental Conservation, December 14, 2006.
- NYSDOH. New York State Department of Health (NYSDOH), 2006. Guidance for Evaluating Soil Vapor Intrusion in New York State. Public Comment Draft February 2005.
- USEPA. United States Environmental Protection Agency Contract Laboratory Program National Functional Guidelines for Organic Data Review, USEPA, October 1999.
- USEPA. United States Environmental Protection Agency Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review, USEPA, January 2010.
- U.S. Geological Survey. Subsurface Geology and Paleogeography of Queens County, Long Island, New York. February 1978.
- PARSONS. Remedial Investigation Report, Former Cleaner Products Supply Site No. 241123. March 2017.

Figures

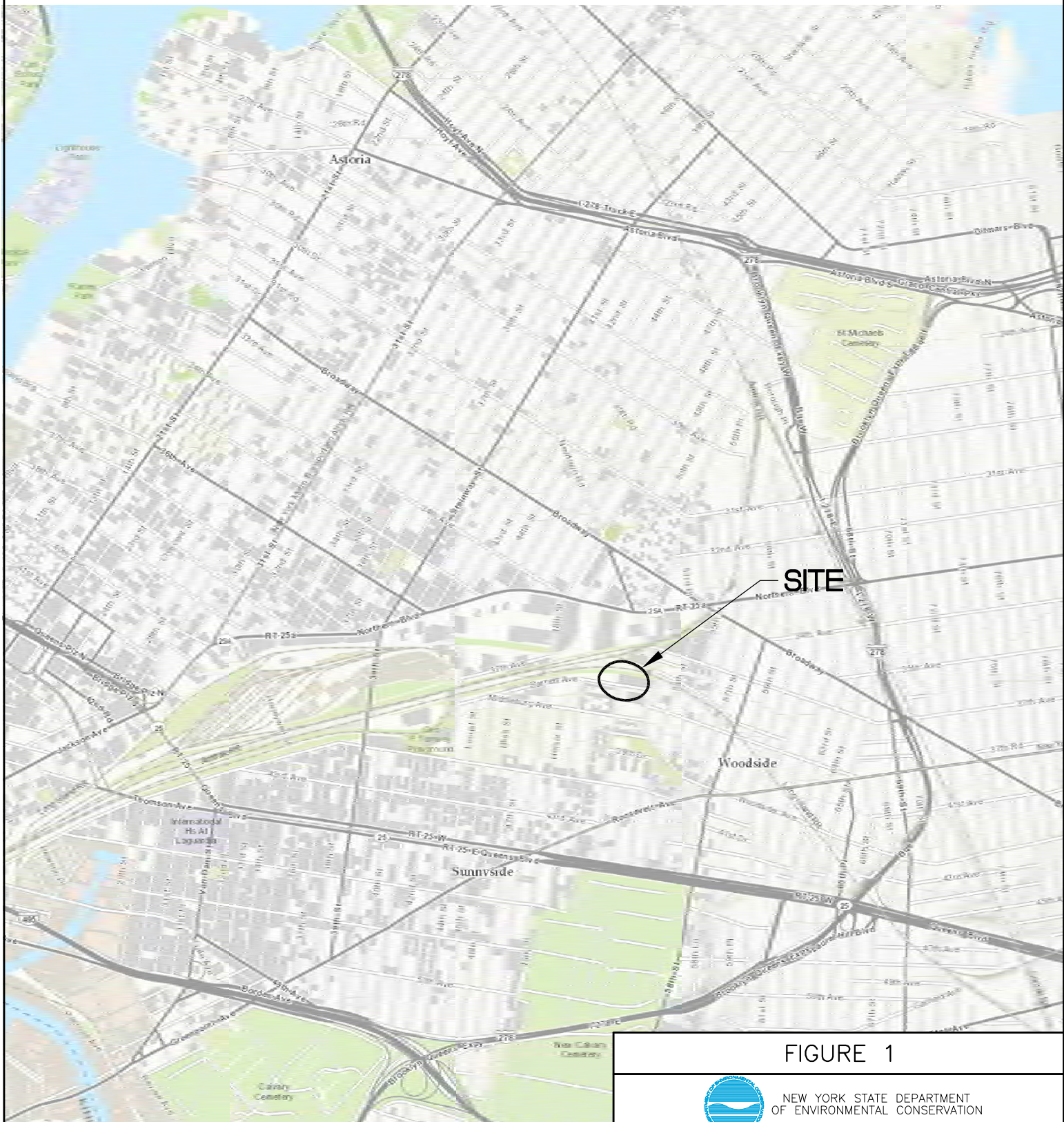


FIGURE 1



NEW YORK STATE DEPARTMENT
OF ENVIRONMENTAL CONSERVATION

FORMER CLEANER PRODUCTS SUPPLY
SITE LOCATION MAP

PARSONS

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

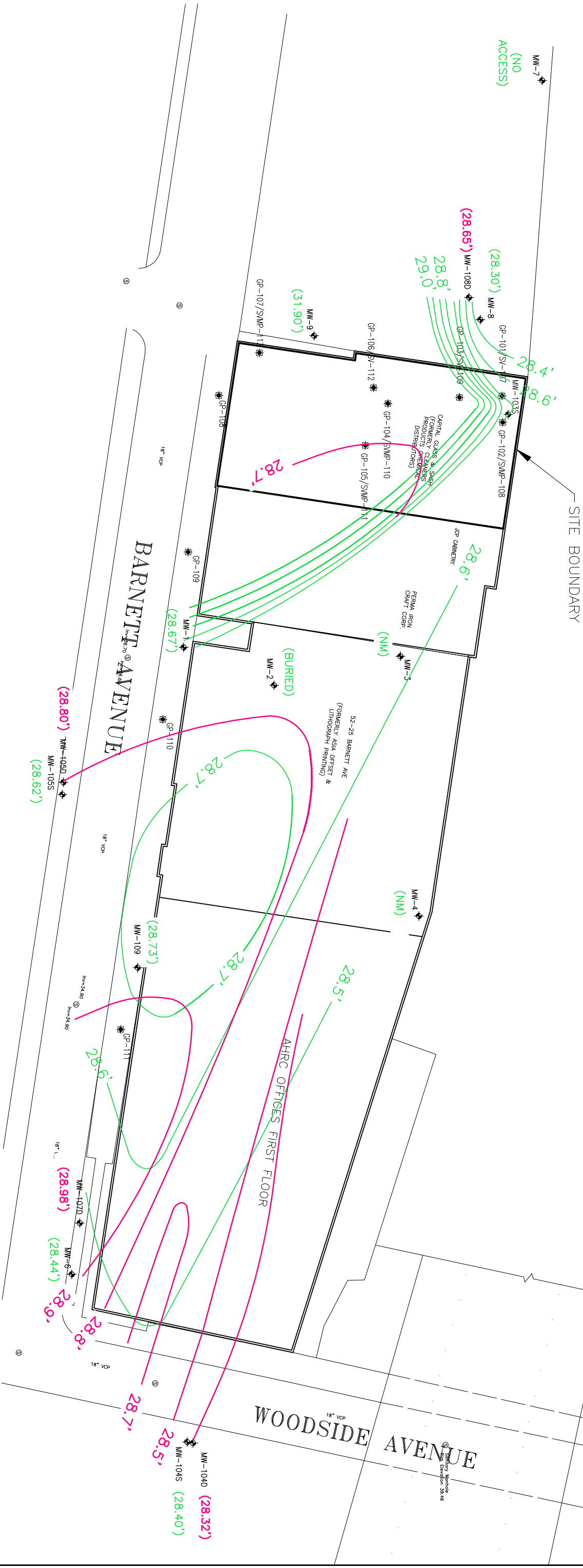
The base map was designed and developed by ESRI based on the topographic map templates that are available through the ArcGIS Resource Centers.



SCALE: 1"=2000'



LONG ISLAND RAILROAD



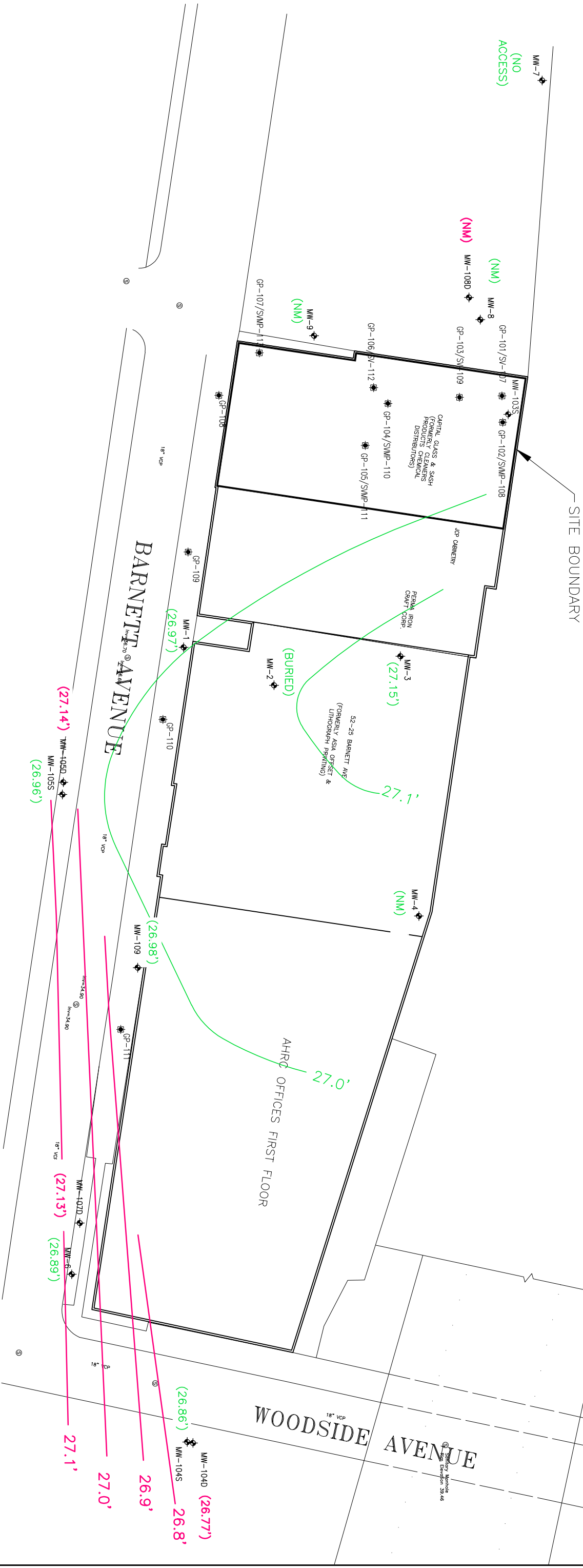
FORMER CLEANER PRODUCTS SUPPLY
GROUNDWATER ELEVATION CONTOURS
AUGUST 2017

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LONG ISLAND RAILROAD



LEGEND:

- SOIL VAPOR MONITORING POINT
- SOIL VAPOR INVESTIGATION POINT
- GEOPROBE BORING
- MONITORING WELL

GROUNDWATER CONTOUR ELEVATIONS

- SHALLOW ZONE
- DEEP ZONE



SCALE: 1"=50'



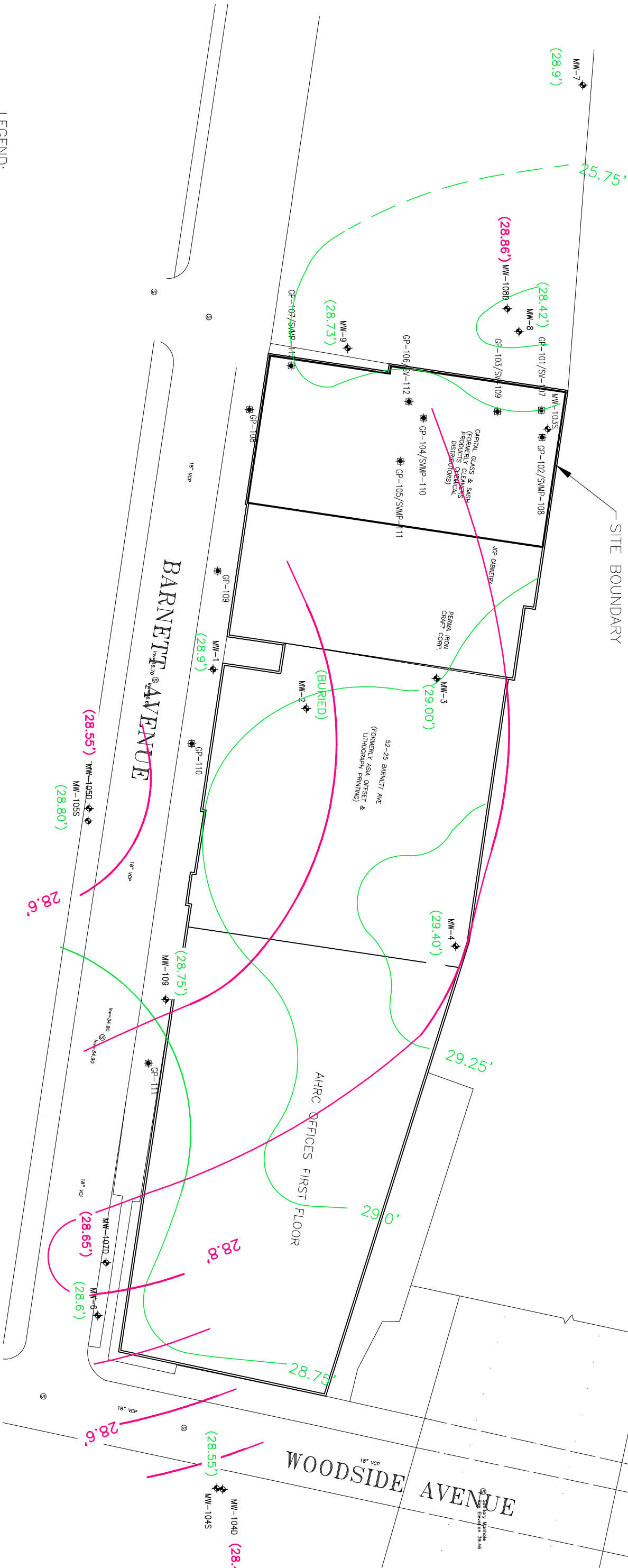
FORMER CLEANER PRODUCTS SUPPLY
GROUNDWATER ELEVATION CONTOURS
JANUARY 2018

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LONG ISLAND RAILROAD



LEGEND:

- SOIL VAPOR MONITORING POINT
- SOIL VAPOR INVESTIGATION POINT
- GEOPROBE BORING
- MONITORING WELL

GROUNDWATER CONTOUR ELEVATIONS

- SHALLOW ZONE
- DEEP ZONE



SCALE: 1"=50'

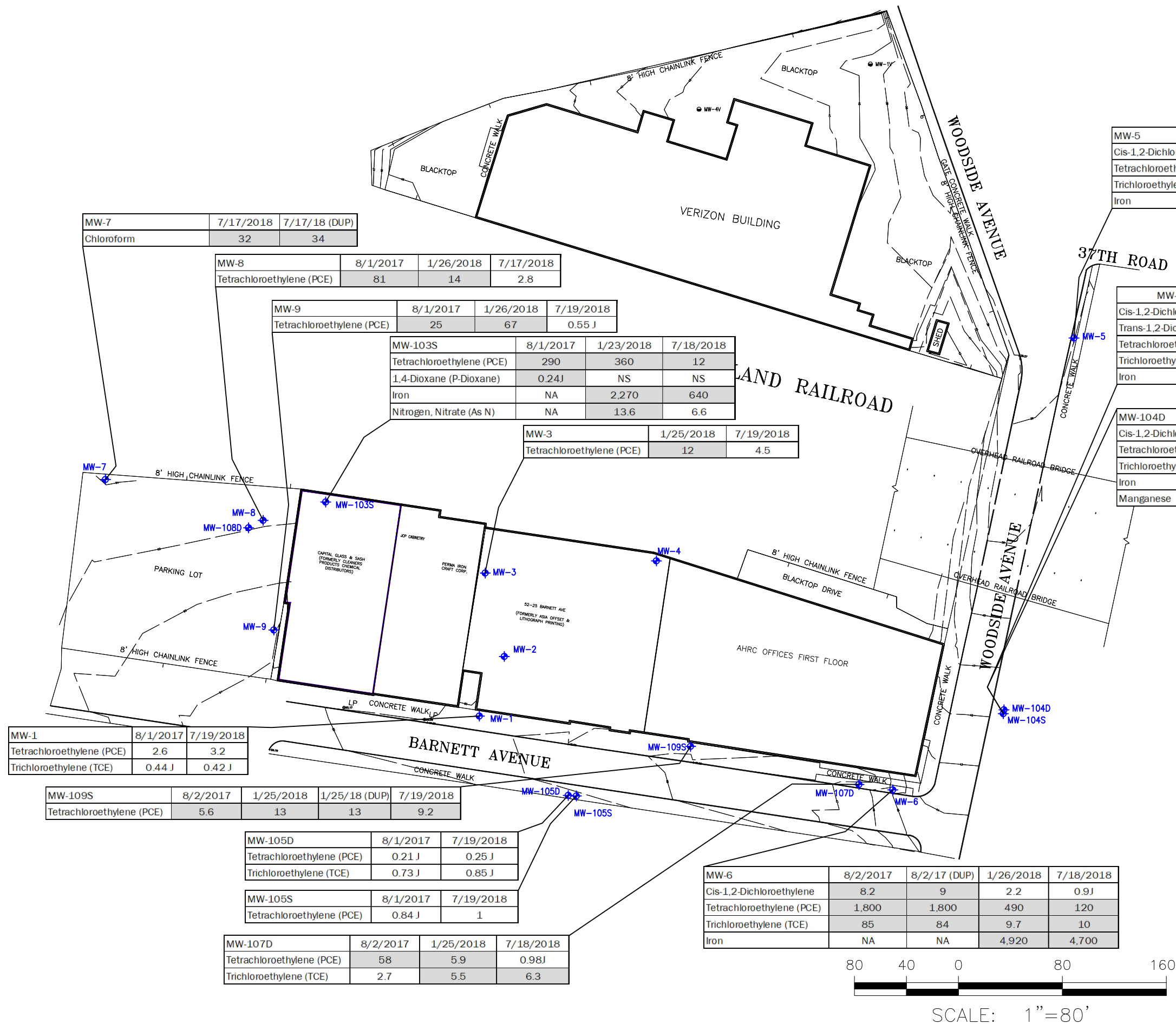
FIGURE 4

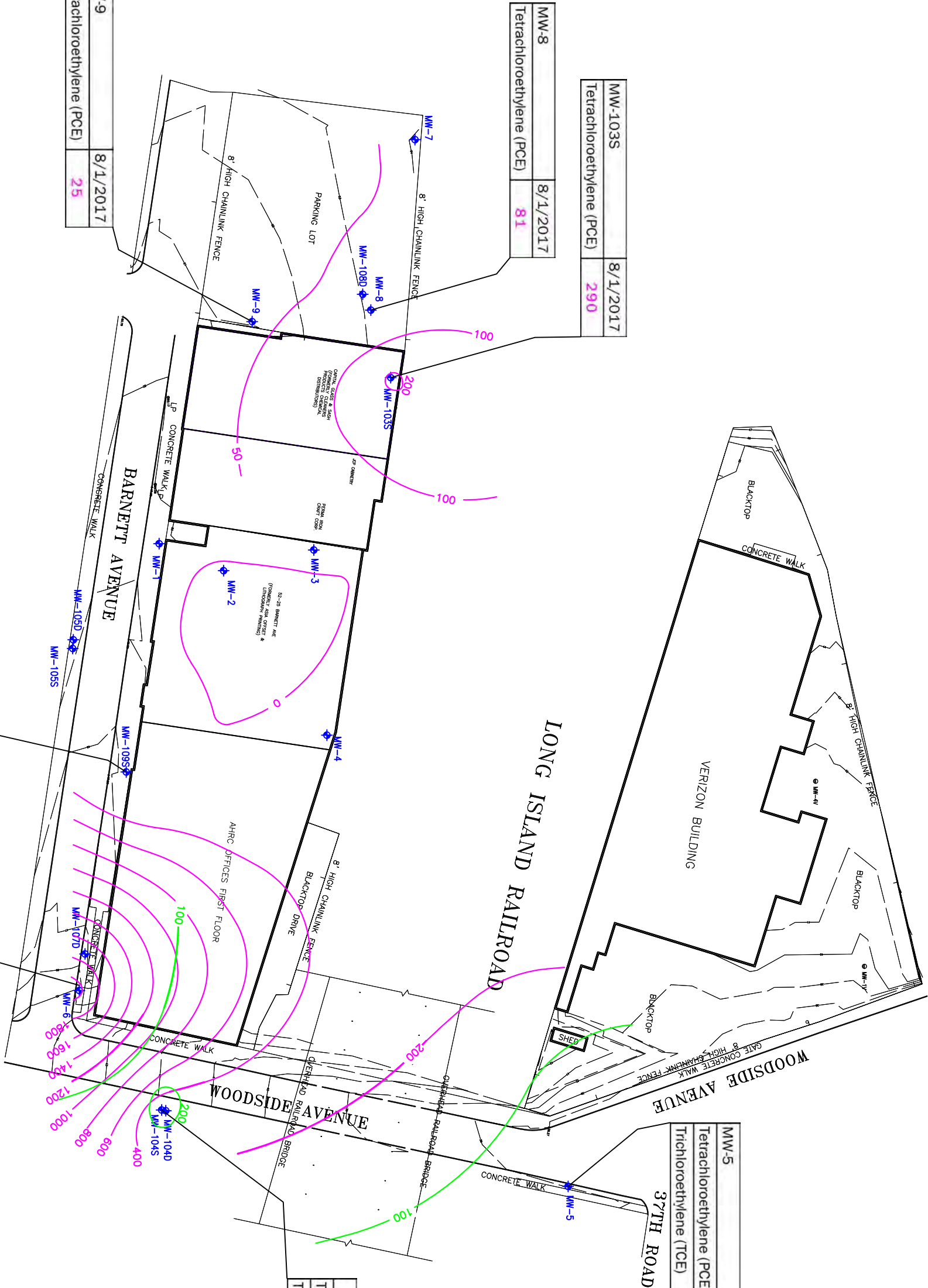


FORMER CLEANER PRODUCTS SUPPLY
GROUNDWATER ELEVATION CONTOURS
JULY 2018

PARSONS

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LEGEND:

- MONITORING WELL
- PCE CONCENTRATION CONTOURS (µg/L)
- TCE CONCENTRATION CONTOURS (µg/L)

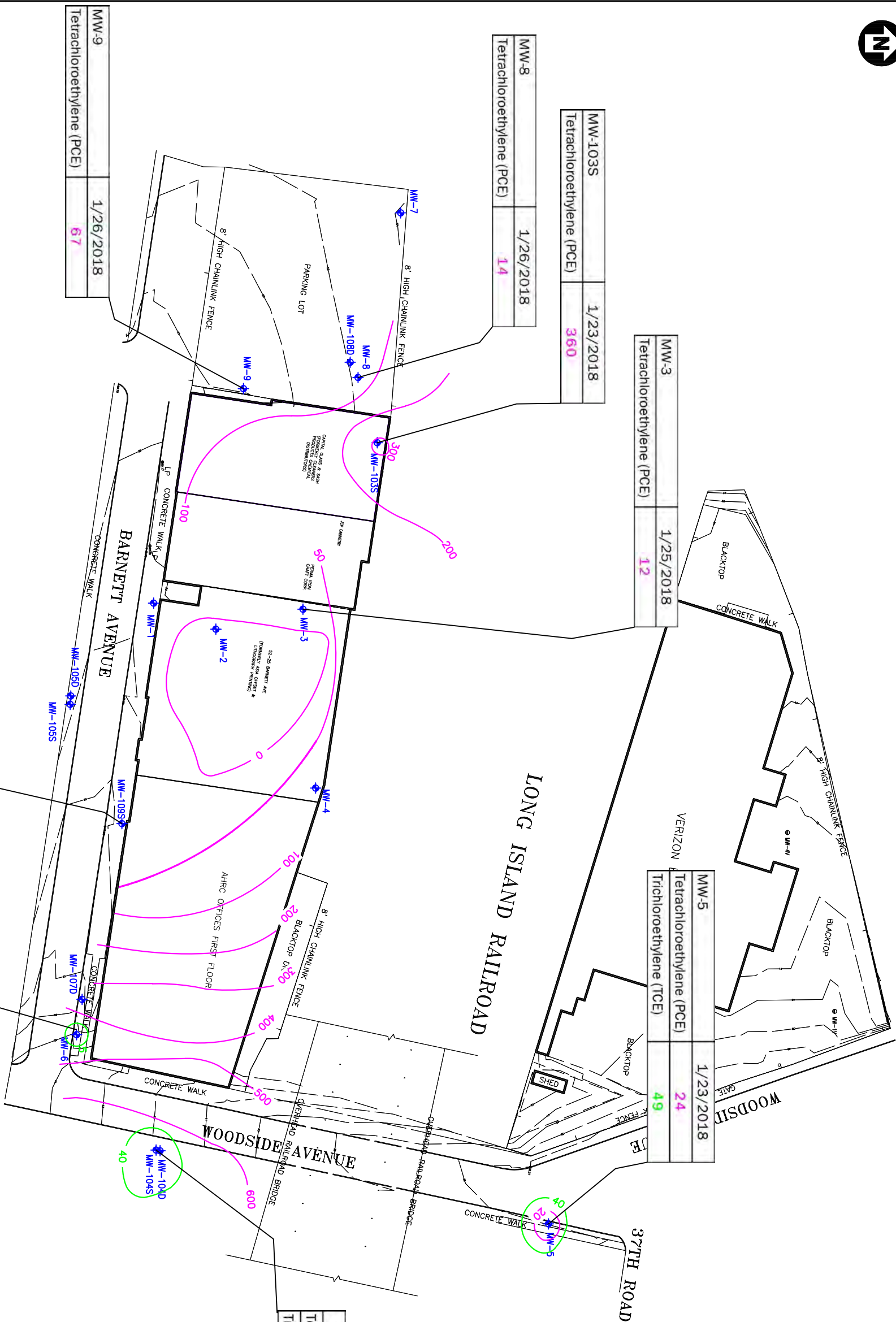
FIGURE 6



FORMER CLEANER PRODUCTS SUPPLY
GROUNDWATER PCE/TCE
ISOPLETH SHALLOW
AUGUST 2017



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MW-103S	1/23/2018
Tetrachloroethylene (PCE)	360
MW-8	1/26/2018
Tetrachloroethylene (PCE)	14

MW-3	1/25/2018
Tetrachloroethylene (PCE)	12

MW-5	1/23/2018
Tetrachloroethylene (PCE)	24
Trichloroethylene (TCE)	49

MW-109S	1/25/2018
Tetrachloroethylene (PCE)	13

MW-6	1/26/2018
Tetrachloroethylene (PCE)	490
Trichloroethylene (TCE)	9.7

MW-104S	1/25/2018
Tetrachloroethylene (PCE)	620
Trichloroethylene (TCE)	59

LEGEND:

- MONITORING WELL
- PCE CONCENTRATION CONTOURS (µg/L)
- TCE CONCENTRATION CONTOURS (µg/L)

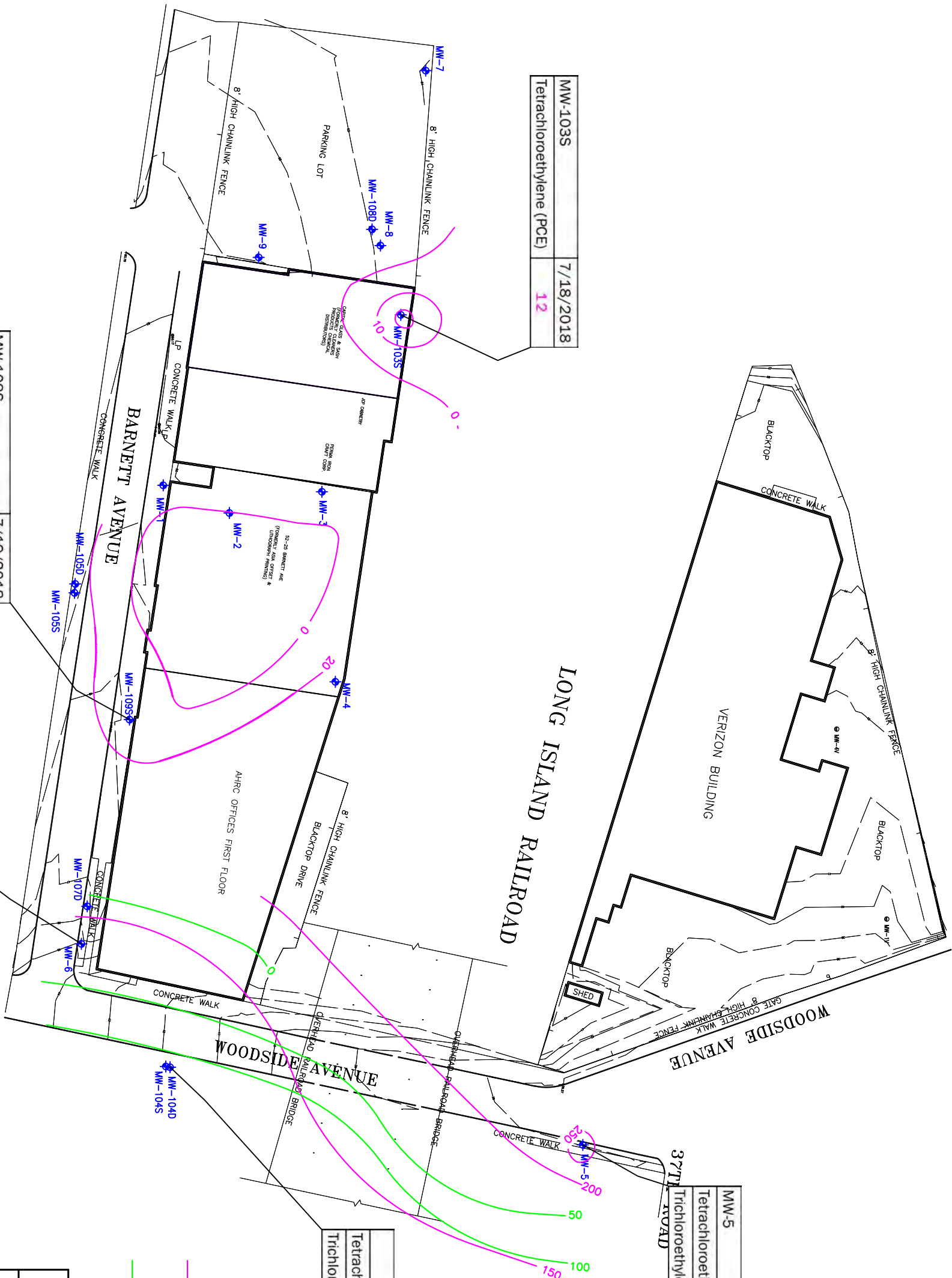
FIGURE 7



FORMER CLEANER PRODUCTS SUPPLY
GROUNDWATER PCE/TCE
ISOPLETH SHALLOW
JANUARY 2018

PARSONS

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MW-103S	7/18/2018
Tetrachloroethylene (PCE)	12

MW-109S	7/19/2018
Tetrachloroethylene (PCE)	9.2

MW-6	7/18/2018
Tetrachloroethylene (PCE)	120
Trichloroethylene (TCE)	10

MW-5	7/18/2018
Tetrachloroethylene (PCE)	260
Trichloroethylene (TCE)	44

MW-104S	7/18/2018
Tetrachloroethylene (PCE)	130
Trichloroethylene (TCE)	180

LEGEND:

- MONITORING WELL
- PCE CONCENTRATION CONTOURS (µg/L)
- TCE CONCENTRATION CONTOURS (µg/L)

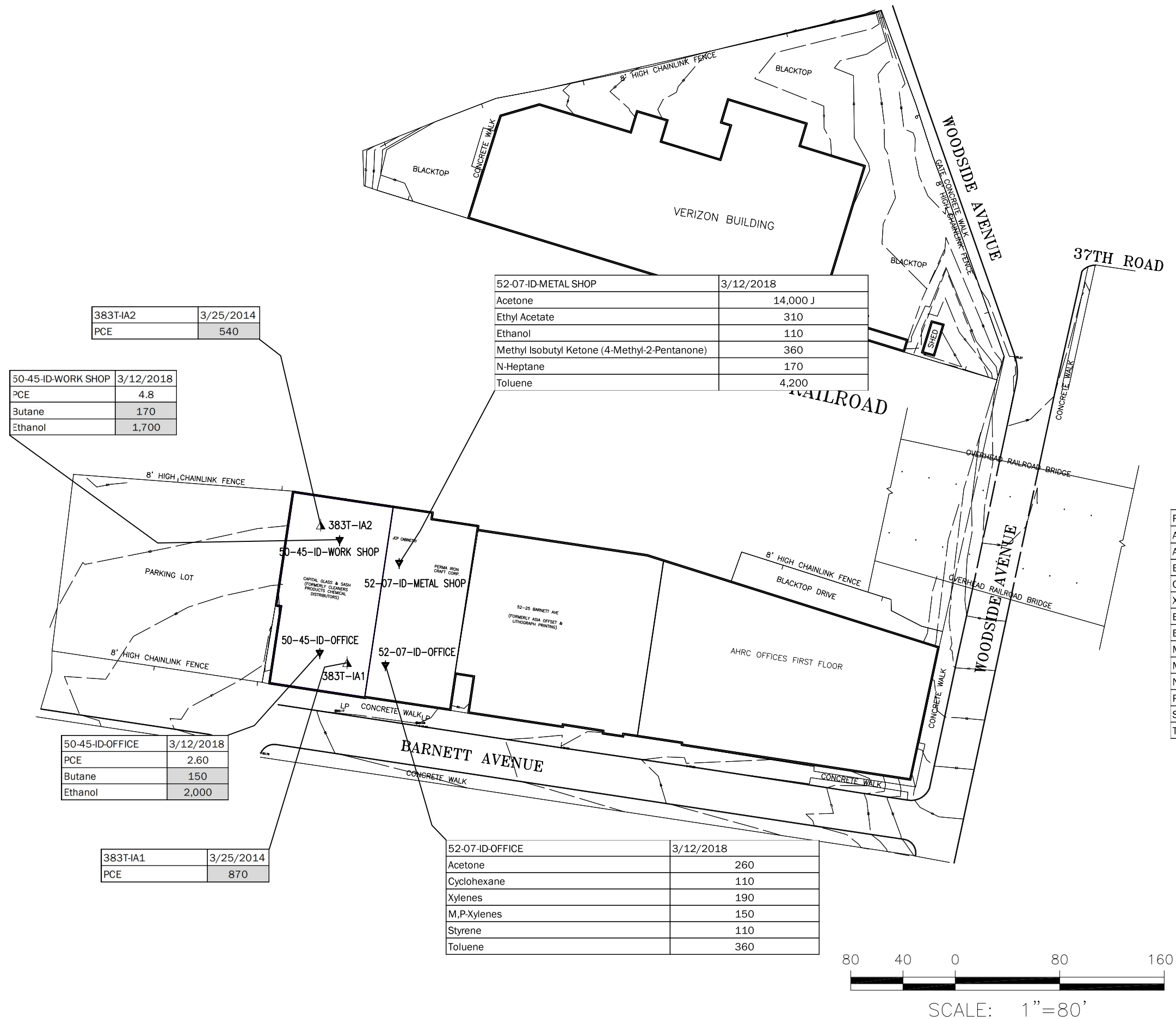
FIGURE 8



FORMER CLEANER PRODUCTS SUPPLY
GROUNDWATER PCE/TCE
ISOPLETH SHALLOW
JULY 2018

PARSONS

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Tables

Table 1
Groundwater Elevation Data

Former Cleaners Supply Site
50-25 Barnett Avenue
Long Island City, Queens County, New York

Well ID	Date	PID (ppm)	TOC Elevation (feet)	Depth to Bottom (feet)	Depth to NAPL (feet)	Depth to Groundwater (feet)	NAPL Thickness (feet)	Groundwater Elevation (feet)
MW-1	08/01/17	8.0	49.80	35.50	ND	21.13	0.00	28.67
	01/23/18	4.2	49.80	33.60	ND	22.83	0.00	26.97
	07/17/18	8.7	49.80	33.70	ND	20.90	0.00	28.90
MW-2	08/01/17	Not Located - tiled over in office						
	01/23/18	Not Located - tiled over in office						
	07/17/18	Not Located - tiled over in office						
MW-3	08/01/17	NM	49.80	NM	NM	NM	NM	NM
	01/23/18	0.3	49.80	31.95	ND	22.65	0.00	27.15
	07/17/18	0.0	49.80	30.20	ND	20.80	0.00	29.00
MW-4	08/01/17	No Access - Owners Not Present						
	01/23/18	No Access - Owners Not Present						
	07/17/18	0.0	49.80	27.00	ND	20.40	0.00	29.40
MW-5	08/01/17	0.4	37.90	25.20	ND	9.65	0.00	28.25
	01/23/18	0.7	37.90	25.20	ND	11.21	0.00	26.69
	07/17/18	0.6	37.90	25.20	ND	9.51	0.00	28.39
MW-6	08/01/17	3.2	45.80	30.15	ND	17.36	0.00	28.44
	01/23/18	2.9	45.80	30.15	ND	18.91	0.00	26.89
	07/17/18	3.1	45.80	30.15	ND	17.20	0.00	28.60
MW-7	08/01/17	No Access - Parsons Not Allowed On 3rd Party Property						
	01/23/18	No Access - Parsons Not Allowed On 3rd Party Property						
	07/17/18	214.5	53.80	40.05	ND	24.90	0.00	28.90
MW-8	08/01/17	1.0	53.00	39.00	ND	24.70	0.00	28.30
	01/23/18	No Access - Parsons Not Allowed On 3rd Party Property						
	07/17/18	71.1	53.00	38.50	ND	24.58	0.00	28.42
MW-9	08/01/17	1.1	51.20	22.67	ND	19.30	0.00	31.90
	01/23/18	No Access - Parsons Not Allowed On 3rd Party Property						
	07/17/18	0.5	51.20	49.30	ND	22.47	0.00	28.73
MW-103S	08/01/17	1.3	50.70	29.50	ND	22.05	0.00	28.65
	01/23/18	1.1	50.70	29.50	ND	23.80	0.00	26.90
	07/17/18	0.0	50.70	29.30	ND	21.87	0.00	28.83
MW-104S	08/01/17	0.6	42.50	34.40	ND	14.10	0.00	28.40
	01/23/18	0.8	42.50	34.40	ND	15.64	0.00	26.86
	07/17/18	0.2	42.50	34.00	ND	13.95	0.00	28.55
MW-104D	08/01/17	0.3	42.45	58.35	ND	14.13	0.00	28.32
	01/23/18	0.6	42.45	58.35	ND	15.68	0.00	26.77
	07/17/18	0.0	42.45	58.30	ND	14.00	0.00	28.45
MW-105S	08/01/17	0.8	49.00	30.41	ND	20.38	0.00	28.62
	01/23/18	1.0	49.00	30.40	ND	22.04	0.00	26.96
	07/17/18	0.0	49.00	30.30	ND	20.20	0.00	28.80
MW-105D	08/01/17	67.0	49.05	61.70	ND	20.25	0.00	28.80
	01/23/18	22.3	49.05	61.70	ND	21.91	0.00	27.14
	07/17/18	49.1	49.05	61.80	ND	20.50	0.00	28.55
MW-107D	08/01/17	1.8	47.25	63.05	ND	18.27	0.00	28.98
	01/23/18	2.5	47.25	63.05	ND	20.12	0.00	27.13
	07/17/18	0.7	47.25	63.05	ND	18.41	0.00	28.84
MW-108D	08/01/17	8.2	53.00	73.90	ND	24.35	0.00	28.65
	01/23/18	No Access - Parsons Not Allowed On 3rd Party Property						
	07/17/18	12.5	53.00	73.90	ND	24.14	0.00	28.86
MW-109S	08/01/17	1.5	47.95	34.30	ND	19.22	0.00	28.73
	01/23/18	1.2	47.95	34.30	ND	20.97	0.00	26.98
	07/17/18	6.1	47.95	34.10	ND	19.20	0.00	28.75

Notes:

TOC = Top of casing elevation

ND = Not Detected

NAPL = Non-Aqueous Phase Liquid

Table 2
Groundwater Detected Compound Summary
January 2017

												Field Duplicate	
NYSDEC-Former Cleaner Products 2017 Data Validated Water Analytical Data SDG: 2202125 Detected Compound Summary		NYSDEC Ambient Water Quality Standards/Guidance Criteria	Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	FC-MW-103S FC-MW-103S 2202125001 ALS 2202125 WATER 1/11/2017 13:40 4/7/2017	FC-MW-104D FC-MW-104D 2202125006 ALS 2202125 WATER 1/12/2017 14:50 4/7/2017	FC-MW-104S FC-MW-104S 2202125007 ALS 2202125 WATER 1/12/2017 16:05 4/7/2017	FC-MW-109S FC-MW-109S 2202125009 ALS 2202125 WATER 1/13/2017 10:30 4/7/2017	FC-MW-5 FC-MW-5 2202125002 ALS 2202125 WATER 1/11/2017 15:50 4/7/2017	FC-MW-6 FC-MW-6 2202125008 ALS 2202125 WATER 1/13/2017 8:50 4/7/2017	FC-MW-8 FC-MW-8 2202125005 ALS 2202125 WATER 1/12/2017 12:40 4/7/2017	FC-MW-9 FC-MW-9 2202125003 ALS 2202125 WATER 1/12/2017 10:55 4/7/2017	FC-MW-9 FC-MW-9-D 2202125004 ALS 2202125 WATER 1/12/2017 10:55 4/7/2017	FC-WC-GW3 FC-WC-GW3 2202125011 ALS 2202125 WATER 1/13/2017 12:00 4/7/2017
CAS NO.	COMPOUND		UNITS:										
	VOLATILES												
74-83-9	Bromomethane	5	ug/l	ND	ND	ND	0.41 J	ND	ND	ND	ND	ND	ND
67-66-3	Chloroform	7	ug/l	0.74 J	0.81 J	0.33 J	ND	ND	ND	0.7 J	0.7 J	0.7 J	ND
156-59-2	Cis-1,2-Dichloroethylene	5	ug/l	1.4	2.3	30.3	ND	13.8	2.7	ND	ND	ND	ND
127-18-4	Tetrachloroethylene (PCE)	5	ug/l	603	34.7	332	9.1	97.6	66.7	14.7	58.3	61.1	1.4
156-60-5	Trans-1,2-Dichloroethene	5	ug/l	ND	ND	3.6	ND	0.64 J	ND	ND	ND	ND	ND
79-01-6	Trichloroethylene (TCE)	5	ug/l	2.1	16.3	68.9	0.62 J	21.9	10.6	ND	ND	ND	ND
	SEMIVOLATILES												
	None Detected												
	PCBS												
	None Detected												
	INORGANICS												
7429-90-5	Aluminum	NS	ug/l										360
7440-39-3	Barium	1000	ug/l										22
7440-43-9	Cadmium	5	ug/l										1.3 J
7440-70-2	Calcium	NS	ug/l										72100
7440-47-3	Chromium, Total	50	ug/l										2.3 J
7440-50-8	Copper	200	ug/l										4.2 J
7439-89-6	Iron	300	ug/l										3600
7439-95-4	Magnesium	35000 (G)	ug/l										34500
7439-96-5	Manganese	300	ug/l										320
9/7/7440	Potassium	NS	ug/l										4100
7440-23-5	Sodium	20000	ug/l										120000
7440-66-6	Zinc	2000 (G)	ug/l										35

Table 3
Groundwater Investigation Detected Compound Summary
August 2017

NYSDEC-Former Cleaner Products 2017 RI Investigation Validated Groundwater Analytical Data August 2017 SDG: 460-138477 Detected Compound Summary		NYSDEC Ambient Water Quality Standards/Guidance Criteria	Location ID: Sample ID: Lab Sample ID: Source: SDG: Matrix: Sampled: Validated:	FC-MW-1	FC-MW-5	FC-MW-6	Duplicate of FC-MW-6-20170802	FC-MW-8
CAS NO.	COMPOUND			FC-MW-1-20170802 460-138477-11 TALED 4601384771 WATER 8/2/2017 10:35 10/26/2018	FC-MW-5-20170801 460-138477-3 TALED 4601384771 WATER 8/1/2017 11:05 10/26/2018	FC-MW-6-20170802 460-138477-12 TALED 4601384771 WATER 8/2/2017 11:30 10/26/2018	FC-MW-6 FC-MW-6-D-20170802 460-138477-15 TALED 4601384771 WATER 8/2/2017 11:30 10/26/2018	FC-MW-8-20170801 460-138477-5 TALED 4601384771 WATER 8/1/2017 13:50 10/26/2018
			UNITS:					
VOLATILES								
71-43-2	Benzene	1	ug/l	ND	0.16 J	ND	ND	ND
67-66-3	Chloroform	7	ug/l	1.8	ND	ND	ND	0.28 J
75-35-4	1,1-Dichloroethene	5	ug/l	ND	ND	ND	ND	ND
156-59-2	Cis-1,2-Dichloroethylene	5	ug/l	ND	23	8.2	9	ND
156-60-5	Trans-1,2-Dichloroethene	5	ug/l	ND	0.8 J	ND	ND	ND
75-09-2	Methylene Chloride	5	ug/l	ND	ND	ND	ND	ND
127-18-4	Tetrachloroethylene (PCE)	5	ug/l	2.6	340	1800	1800	81
79-01-6	Trichloroethylene (TCE)	5	ug/l	0.44 J	42	85	84	ND
75-01-4	Vinyl Chloride	2	ug/l	ND	ND	ND	ND	ND
SEMIVOLATILES								
123-91-1	1,4-Dioxane (P-Dioxane)	NS	ug/l		ND	ND	ND	
PFOA/PFOS								
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	NS	ng/l			6.8	7.4	
335-67-1	Perfluorooctanoic acid (PFOA)	NS	ng/l			220	230	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	NS	ng/l			11	11	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	NS	ng/l			8.2	8.2	
375-85-9	Perfluoroheptanoic acid (PFHpA)	NS	ng/l			30	28	
375-95-1	Perfluorononanoic acid (PFNA)	NS	ng/l			0.74 J	ND	

Table 3
Groundwater Investigation Detected Compound Summary
August 2017

NYSDEC-Former Cleaner Products 2017 RI Investigation Validated Groundwater Analytical Data August 2017 SDG: 460-138477 Detected Compound Summary		NYSDEC Ambient Water Quality Standards/Guidance Criteria	Location ID: Sample ID: Lab Sample Id:	FC-MW-9 FC-MW-9-20170801 460-138477-4	FC-MW-103S FC-MW-103S-20170801 460-138477-2	FC-MW-104D FC-MW-104D-20170801 460-138477-8	FC-MW-104S FC-MW-104S-20170801 460-138477-7	FC-MW-105D FC-MW-105D-20170802 460-138477-10
CAS NO.	COMPOUND		Source: SDG: Matrix: Sampled: Validated:	TALED 4601384771 WATER 8/1/2017 12:25 10/26/2018	TALED 4601384771 WATER 8/1/2017 9:47 10/26/2018	TALED 4601384771 WATER 8/1/2017 17:30 10/26/2018	TALED 4601384771 WATER 8/1/2017 16:40 10/26/2018	TALED 4601384771 WATER 8/2/2017 9:10 10/26/2018
	VOLATILES		UNITS:					
71-43-2	Benzene	1	ug/l	ND	ND	0.15 J	0.16 J	ND
67-66-3	Chloroform	7	ug/l	0.55 J	0.65 J	0.59 J	0.33 J	0.49 J
75-35-4	1,1-Dichloroethene	5	ug/l	ND	ND	ND	0.77 J	ND
156-59-2	Cis-1,2-Dichloroethylene	5	ug/l	ND	4.4	32	110	ND
156-60-5	Trans-1,2-Dichloroethene	5	ug/l	ND	0.29 J	0.67 J	5	ND
75-09-2	Methylene Chloride	5	ug/l	ND	0.5 J	ND	ND	ND
127-18-4	Tetrachloroethylene (PCE)	5	ug/l	25	290	430	260	0.21 J
79-01-6	Trichloroethylene (TCE)	5	ug/l	ND	2.6	150	160	0.73 J
75-01-4	Vinyl Chloride	2	ug/l	ND	ND	ND	0.26 J	ND
	SEMIVOLATILES							
123-91-1	1,4-Dioxane (P-Dioxane)	NS	ug/l		0.24 J			
	PFOA/PFOS							
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	NS	ng/l		41			
335-67-1	Perfluorooctanoic acid (PFOA)	NS	ng/l		90			
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	NS	ng/l		12			
375-73-5	Perfluorobutanesulfonic acid (PFBS)	NS	ng/l		12			
375-85-9	Perfluoroheptanoic acid (PFHpA)	NS	ng/l		21			
375-95-1	Perfluorononanoic acid (PFNA)	NS	ng/l		9.1			

Table 3
Groundwater Investigation Detected Compound Summary
August 2017

NYSDEC-Former Cleaner Products 2017 RI Investigation Validated Groundwater Analytical Data August 2017 SDG: 460-138477 Detected Compound Summary		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	FC-MW-105S FC-MW-105S-20170802 460-138477-9 TALED 4601384771 WATER 8/2/2017 7:55 10/26/2018	FC-MW-107D FC-MW-107D-20170802 460-138477-13 TALED 4601384771 WATER 8/2/2017 13:20 10/26/2018	FC-MW-108D FC-MW-108D-20170801 460-138477-6 TALED 4601384771 WATER 8/1/2017 15:05 10/26/2018	FC-MW-109S FC-MW-109S-20170802 460-138477-14 TALED 4601384771 WATER 8/2/2017 14:05 10/26/2018
CAS NO.	COMPOUND		UNITS:			
	VOLATILES					
71-43-2	Benzene	1	ug/l	ND	ND	ND
67-66-3	Chloroform	7	ug/l	ND	0.34 J	0.89 J
75-35-4	1,1-Dichloroethene	5	ug/l	ND	ND	ND
156-59-2	Cis-1,2-Dichloroethylene	5	ug/l	ND	0.41 J	ND
156-60-5	Trans-1,2-Dichloroethene	5	ug/l	ND	ND	ND
75-09-2	Methylene Chloride	5	ug/l	ND	ND	ND
127-18-4	Tetrachloroethylene (PCE)	5	ug/l	0.84 J	58	5.6
79-01-6	Trichloroethylene (TCE)	5	ug/l	ND	2.7	3.6
75-01-4	Vinyl Chloride	2	ug/l	ND	ND	ND
	SEMIVOLATILES					
123-91-1	1,4-Dioxane (P-Dioxane)	NS	ug/l		ND	ND
	PFOA/PFOS					
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	NS	ng/l		14	
335-67-1	Perfluorooctanoic acid (PFOA)	NS	ng/l		53	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	NS	ng/l		3.9	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	NS	ng/l		6	
375-85-9	Perfluoroheptanoic acid (PFHpA)	NS	ng/l		12	
375-95-1	Perfluorononanoic acid (PFNA)	NS	ng/l		2.1	

Table 4
Groundwater Investigation Detected Compound Summary
January 2018

NYSDEC-Former Cleaner Products 2018 RI Investigation Validated Groundwater Analytical Data January 2018 SDG: 460-148997 & 460-1489190		NYSDEC Ambient Water Quality Standards/Guidance Criteria	Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	FC-MW-3 FC-MW-3-20180125 460-149190-6 TALED 4601491901 WATER 1/25/2018 14:05 8/12/2018	FC-MW-5 FC-MW-5-20180123 460-148997-2 TALBUFF 4601489971 WATER 1/23/2018 14:55 8/12/2018	FC-MW-6 FC-MW-6-20180126 460-149190-12 TALBUFF 4601491901 WATER 1/26/2018 14:40 8/12/2018	FC-MW-8 FC-MW-8-20180126 460-149190-10 TALED 4601491901 WATER 1/26/2018 12:35 8/12/2018	FC-MW-9 FC-MW-9-20180126 460-149190-8 TALED 4601491901 WATER 1/26/2018 9:25 8/12/2018	FC-MW-103S FC-MW-103S-20180123 460-148997-1 TALBUFF 4601489971 WATER 1/23/2018 13:20 8/12/2018
CAS NO.	COMPOUND		UNITS:						
	VOLATILES								
71-43-2	Benzene	1	ug/l	ND	0.12 J	ND	ND	ND	ND
67-66-3	Chloroform	7	ug/l	2.1	0.31 J	ND	0.33 J	0.4 J	0.53 J
156-59-2	Cis-1,2-Dichloroethylene	5	ug/l	0.8 J	29	2.2	ND	ND	2.1
156-60-5	Trans-1,2-Dichloroethene	5	ug/l	ND	1.2	ND	ND	ND	ND
75-09-2	Methylene Chloride	5	ug/l	ND	ND	ND	ND	ND	0.53 J
127-18-4	Tetrachloroethylene (PCE)	5	ug/l	12	240	490	14	67	360
79-01-6	Trichloroethylene (TCE)	5	ug/l	1	49	9.7	0.23 J	ND	2.4
	RSK 175 VOLATILES								
	None Detected				ND	ND			ND
	INORGANICS								
7439-89-6	Iron	300	ug/l		364	4920			2270
7439-96-5	Manganese	300	ug/l		21.2	112			55.6
	OTHER								
14797-55-8	Nitrogen, Nitrate (As N)	10	mg/l		2.9	2.9			13.6
14808-79-8	Sulfate (As SO4)	250	mg/l		45.3	34.1 J			45.5
TOC	Total Organic Carbon	NS	mg/l		1.9	1.4			1.4

Table 4
Groundwater Investigation Detected Compound Summary
January 2018

January 2018									Dup of FC-MW-109S-20180125
NYSDEC-Former Cleaner Products 2018 RI Investigation Validated Groundwater Analytical Data January 2018 SDG: 460-148997 & 460-1489190		NYSDEC Ambient Water Quality Standards/Guidance Criteria	Location ID:	FC-MW-104S	FC-MW-104D	FC-MW-107D	FC-MW-108D	FC-MW-109S	FC-MW-109S
			Sample ID:	FC-MW-104S-20180125	FC-MW-104D-20180125	FC-MW-107D-20180125	FC-MW-108D-20180126	FC-MW-109S-20180125	FC-MW-109S-D-20180125
			Lab Sample ID:	460-149190-3	460-149190-1	460-149190-7	460-149190-9	460-149190-4	460-149190-5
			Source:	TALBUFF	TALBUFF	TALED	TALED	TALED	TALED
			SDG:	4601491901	4601491901	4601491901	4601491901	4601491901	4601491901
			Matrix:	WATER	WATER	WATER	WATER	WATER	WATER
			Sampled:	1/25/2018 10:35	1/25/2018 8:35	1/25/2018 15:25	1/26/2018 11:25	1/25/2018 12:10	1/25/2018 12:10
			Validated:	8/12/2018	8/12/2018	8/12/2018	8/12/2018	8/12/2018	8/12/2018
CAS NO.	COMPOUND		UNITS:						
	VOLATILES								
71-43-2	Benzene	1	ug/l	ND	ND	ND	ND	ND	ND
67-66-3	Chloroform	7	ug/l	2.5	0.82 J	0.62 J	1.4	ND	ND
156-59-2	Cis-1,2-Dichloroethylene	5	ug/l	26	17	ND	ND	ND	ND
156-60-5	Trans-1,2-Dichloroethene	5	ug/l	1.7 J	1.4 J	ND	ND	ND	ND
75-09-2	Methylene Chloride	5	ug/l	ND	ND	ND	ND	ND	ND
127-18-4	Tetrachloroethylene (PCE)	5	ug/l	620	660	5.9	0.58 J	13	13
79-01-6	Trichloroethylene (TCE)	5	ug/l	59	75	5.5	ND	0.71 J	0.66 J
	RSK 175 VOLATILES								
	None Detected			ND	ND				
	INORGANICS								
7439-89-6	Iron	300	ug/l	6640	11400				
7439-96-5	Manganese	300	ug/l	237	1880				
	OTHER								
14797-55-8	Nitrogen, Nitrate (As N)	10	mg/l	6.1	5.7				
14808-79-8	Sulfate (As SO4)	250	mg/l	33.7	51.9				
TOC	Total Organic Carbon	NS	mg/l	1	1.2				

Table 5
Groundwater Investigation Detected Compound Summary
July 2018

NYSDEC-Former Cleaner Products 2018 RI Investigation Validated Groundwater Analytical Data July 2018 SDG: 460-160904 & 460-160989		NYSDEC Ambient Water Quality Standards/Guidance Criteria	Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	FC-MW-1 FC-MW-1-20180719 460-160989-3 TALED 4601609891 WATER 7/19/2018 12:50 8/12/2018	FC-MW-3 FC-MW-3-20180720 460-160989-6 TALED 4601609891 WATER 7/20/2018 11:20 8/12/2018	FC-MW-5 FC-MW-5-20180718 460-160904-6 TALBUFF 4601609041 WATER 7/18/2018 13:00 8/12/2018	FC-MW-6 FC-MW-6-20180718 460-160904-10 TALBUFF 4601609041 WATER 7/18/2018 18:35 8/12/2018	FC-MW-7 FC-MW-7-20180717 460-160904-1 TALED 4601609041 WATER 7/17/2018 10:25 8/12/2018	FC-MW-7 FC-MW-7-D-20180717 460-160904-2 TALED 4601609041 WATER 7/17/2018 10:25 8/12/2018
CAS NO.	COMPOUND		UNITS:						
	VOLATILES								
67-64-1	Acetone	50 (G)	ug/l	ND	ND	ND	ND	ND	ND
75-27-4	Bromodichloromethane	50 (G)	ug/l	ND	ND	ND	ND	2.6	2.8
67-66-3	Chloroform	7	ug/l	1.2	0.67 J	0.57 J	0.47 J	32	34
156-59-2	Cis-1,2-Dichloroethylene	5	ug/l	ND	ND	20	0.9 J	ND	ND
156-60-5	Trans-1,2-Dichloroethene	5	ug/l	ND	ND	0.9 J	ND	ND	ND
75-35-4	1,1-Dichloroethene	5	ug/l	ND	ND	ND	ND	ND	ND
127-18-4	Tetrachloroethylene (PCE)	5	ug/l	3.2	4.5	260	120	ND	ND
79-01-6	Trichloroethylene (TCE)	5	ug/l	0.42 J	0.53 J	44	10	ND	ND
75-01-4	Vinyl Chloride	2	ug/l	ND	ND	ND	ND	ND	ND
	RSK 175 VOLATILES								
74-82-8	Methane	NS	ug/l			ND	ND		
	INORGANICS								
7439-89-6	Iron	300	ug/l			308	4680		
7439-96-5	Manganese	300	ug/l			12.4	96.3		
	OTHER								
14797-55-8	Nitrogen, Nitrate (As N)	10	mg/l			3.5	0.25		
14808-79-8	Sulfate (As SO4)	250	mg/l			36.6	13.4		
TOC	Total Organic Carbon	NS	mg/l			0.91 J	2.1		

Table 5
Groundwater Investigation Detected Compound Summary
July 2018

NYSDEC-Former Cleaner Products 2018 RI Investigation Validated Groundwater Analytical Data July 2018 SDG: 460-160904 & 460-160989		NYSDEC Ambient Water Quality Standards/Guidance Criteria	Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	FC-MW-8 FC-MW-8-20180717 460-160904-3 TALED 4601609041 WATER 7/17/2018 12:20 8/12/2018	FC-MW-9 FC-MW-9-20180720 460-160989-5 TALED 4601609891 WATER 7/20/2018 9:30 8/12/2018	FC-MW-103S FC-MW-103S-20180718 460-160904-5 TALBUFF 4601609041 WATER 7/18/2018 10:20 8/12/2018	FC-MW-104S FC-MW-104S-20180718 460-160904-7 TALBUFF 4601609041 WATER 7/18/2018 14:25 8/12/2018	FC-MW-104D FC-MW-104D-20180718 460-160904-8 TALBUFF 4601609041 WATER 7/18/2018 15:45 8/12/2018	FC-MW-105S FC-MW-105S-20180719 460-160989-2 TALED 4601609891 WATER 7/19/2018 11:25 8/12/2018
CAS NO.	COMPOUND			UNITS:					
	VOLATILES								
67-64-1	Acetone	50 (G)	ug/l	ND	ND	ND	ND	ND	ND
75-27-4	Bromodichloromethane	50 (G)	ug/l	ND	ND	ND	ND	ND	ND
67-66-3	Chloroform	7	ug/l	ND	0.49 J	0.4 J	0.8 J	0.76 J	ND
156-59-2	Cis-1,2-Dichloroethylene	5	ug/l	ND	ND	ND	840	39	ND
156-60-5	Trans-1,2-Dichloroethene	5	ug/l	ND	ND	ND	30	1.6	ND
75-35-4	1,1-Dichloroethene	5	ug/l	ND	ND	ND	2.3	ND	ND
127-18-4	Tetrachloroethylene (PCE)	5	ug/l	2.8	0.55 J	12	130	180	1
79-01-6	Trichloroethylene (TCE)	5	ug/l	ND	ND	ND	180	56	ND
75-01-4	Vinyl Chloride	2	ug/l	ND	ND	ND	0.63 J	ND	ND
	RSK 175 VOLATILES								
74-82-8	Methane	NS	ug/l			ND	320	ND	
	INORGANICS								
7439-89-6	Iron	300	ug/l			640	3950	13200	
7439-96-5	Manganese	300	ug/l			13.5	171	2600	
	OTHER								
14797-55-8	Nitrogen, Nitrate (As N)	10	mg/l			6.6	3.1	6.3	
14808-79-8	Sulfate (As SO4)	250	mg/l			52.7	21.5	59.6	
TOC	Total Organic Carbon	NS	mg/l			1.6	1.3	1.2	

Table 5
Groundwater Investigation Detected Compound Summary
July 2018

NYSDEC-Former Cleaner Products 2018 RI Investigation Validated Groundwater Analytical Data July 2018 SDG: 460-160904 & 460-160989		NYSDEC Ambient Water Quality Standards/Guidance Criteria	Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	FC-MW-105D FC-MW-105D-20180719 460-160989-1 TALED 4601609891 WATER 7/19/2018 9:50 8/12/2018	FC-MW-107D FC-MW-107D-20180718 460-160904-9 TALED 4601609041 WATER 7/18/2018 17:15 8/12/2018	FC-MW-108D FC-MW-108D-20180717 460-160904-4 TALED 4601609041 WATER 7/17/2018 14:10 8/12/2018	FC-MW-109S FC-MW-109S-20180719 460-160989-4 TALED 4601609891 WATER 7/19/2018 13:05 8/12/2018
CAS NO.	COMPOUND		UNITS:				
	VOLATILES						
67-64-1	Acetone	50 (G)	ug/l	ND	ND	ND	ND
75-27-4	Bromodichloromethane	50 (G)	ug/l	ND	ND	ND	ND
67-66-3	Chloroform	7	ug/l	0.47 J	0.57 J	ND	ND
156-59-2	Cis-1,2-Dichloroethylene	5	ug/l	ND	ND	ND	ND
156-60-5	Trans-1,2-Dichloroethene	5	ug/l	ND	ND	ND	ND
75-35-4	1,1-Dichloroethene	5	ug/l	ND	ND	ND	ND
127-18-4	Tetrachloroethylene (PCE)	5	ug/l	0.25 J	0.98 J	ND	9.2
79-01-6	Trichloroethylene (TCE)	5	ug/l	0.85 J	6.3	ND	2.4
75-01-4	Vinyl Chloride	2	ug/l	ND	ND	ND	ND
	RSK 175 VOLATILES						
74-82-8	Methane	NS	ug/l				
	INORGANICS						
7439-89-6	Iron	300	ug/l				
7439-96-5	Manganese	300	ug/l				
	OTHER						
14797-55-8	Nitrogen, Nitrate (As N)	10	mg/l				
14808-79-8	Sulfate (As SO4)	250	mg/l				
TOC	Total Organic Carbon	NS	mg/l				

Table 6
Soil Vapor Intrusion Detected Compound Summary
March 2018

NYSDEC-Former Cleaner Products 2018 RI Investigation Validated Air Analytical Data March 2018 SDG: 2302234		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	50-45-AMBIENT 50-45-AMBIENT 2302234003 ALS 2302234 AIR 3/12/2018 15:30 10/30/2018	50-45-ID-OFFICE 50-45-ID-OFFICE 2302234001 ALS 2302234 AIR 3/12/2018 16:41 10/30/2018	50-45-ID-WORK SHOP 50-45-ID-WORK SHOP 2302234002 ALS 2302234 AIR 3/12/2018 16:38 10/30/2018	52-07-ID-METAL SHOP 52-07-ID-METAL SHOP 2302234005 ALS 2302234 AIR 3/12/2018 14:02 10/30/2018	52-07-ID-OFFICE 52-07-ID-OFFICE 2302234004 ALS 2302234 AIR 3/12/2018 17:05 10/30/2018
CAS NO.	COMPOUND	UNITS:					
	VOLATILES						
526-73-8	1,2,3-Trimethyl Benzene	ug/m3	ND	ND	ND	1.1	2
95-63-6	1,2,4-Trimethylbenzene	ug/m3	ND	2	3.2	5.6	12
108-67-8	1,3,5-Trimethylbenzene (Mesitylene)	ug/m3	ND	ND	0.99	2.3	3.9
540-84-1	2,2,4-Trimethylpentane	ug/m3	ND	0.97	1.9	4.7	1.9
622-96-8	4-Ethyltoluene	ug/m3	ND	ND	ND	1.9	3.5
67-64-1	Acetone	ug/m3	10	22	21	14000 J	260
71-43-2	Benzene	ug/m3	1.2	2.4	3.5	3.5	2.5
106-97-8	Butane	ug/m3	2.9	150	170	29	41
74-87-3	Chloromethane	ug/m3	1.3	1.4	1.4	1.3	1.6
110-82-7	Cyclohexane	ug/m3	ND	0.79	1.1	1.5	110
75-71-8	Dichlorodifluoromethane	ug/m3	2.7	2.7	2.7	2.7	2.7
1330-20-7	Xylenes	ug/m3	ND	6.2	8.4	46	190
141-78-6	Ethyl Acetate	ug/m3	ND	4.7	19	310	8.7
64-17-5	Ethanol	ug/m3	11	2000	1700	110	80
100-41-4	Ethylbenzene	ug/m3	ND	1.4	1.9	8.1	36
67-63-0	Isopropanol	ug/m3	2.3	13	5.7	70	62
179601-23-1	M,P-Xylenes	ug/m3	ND	4.6	6.3	36	150
78-93-3	Methyl Ethyl Ketone (2-Butanone)	ug/m3	4.5	6.2	12	30	29
108-10-1	Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	ug/m3	ND	2.6	10	360	10
80-62-6	Methyl Methacrylate	ug/m3	ND	ND	ND	0.96	ND
75-09-2	Methylene Chloride	ug/m3	1.4	3.6	1.7	7.2	4.3
91-20-3	Naphthalene	ug/m3	ND	1.4 J	1.5 J	ND	1.3 J
142-82-5	N-Heptane	ug/m3	ND	2.8	11	170	4.6
110-54-3	N-Hexane	ug/m3	0.76	3.3	5.3	4.9	4.3
103-65-1	N-Propylbenzene	ug/m3	ND	ND	ND	1.1	2.1
95-47-6	O-Xylene (1,2-Dimethylbenzene)	ug/m3	ND	1.6	2.1	11	42
100-42-5	Styrene	ug/m3	ND	ND	1.1	8.8	110
75-65-0	Tert-Butyl Alcohol	ug/m3	ND	1.2	ND	0.74	21
127-18-4	Tetrachloroethylene (PCE)	ug/m3	3.8	2.6	4.8	ND	ND
108-88-3	Toluene	ug/m3	4.7	10	14	4200	360
75-69-4	Trichlorofluoromethane	ug/m3	1.5	1.5	1.5	1.5	1.5

Appendix A

March 26, 2018

Ms. Lorraine Weber
Parsons - Syracuse NY
301 Plainfield Road
Suite 350
Syracuse, NY 13212

Certificate of Analysis

Project Name: **TO-15 Air Testing**Workorder: **2302234**

Purchase Order:

Workorder ID: **NYSDEC-FCPS Site**

Dear Ms. Weber:

Enclosed are the analytical results for samples received by the laboratory on Wednesday, March 14, 2018.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Mrs. Vanessa N Badman (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Environmental.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Ms. Allyson Kriney

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.



Mrs. Vanessa N Badman
Project Coordinator

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SAMPLE SUMMARY

Workorder: 2302234 NYSDEC-FCPS Site

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2302234001	50-45-ID-Office	Air	3/12/2018 16:41	3/14/2018 17:50	Collected by Client
2302234002	50-45-ID-Work Shop	Air	3/12/2018 16:38	3/14/2018 17:50	Collected by Client
2302234003	50-45-Ambient	Air	3/12/2018 15:30	3/14/2018 17:50	Collected by Client
2302234004	52-07-ID-Office	Air	3/12/2018 17:05	3/14/2018 17:50	Collected by Client
2302234005	52-07-ID-Metal Shop	Air	3/12/2018 14:02	3/14/2018 17:50	Collected by Client

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SAMPLE SUMMARY

Workorder: 2302234 NYSDEC-FCPS Site

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

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ANALYTICAL RESULTS

Workorder: 2302234 NYSDEC-FCPS Site

Lab ID: **2302234001**
Sample ID: **50-45-ID-Office**

Date Collected: 3/12/2018 16:41 Matrix: Air
Date Received: 3/14/2018 17:50

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS @ STP										
Acetone	22		ug/m3	0.5	TO-15			3/19/18 19:50	CHS	A
Acrylonitrile	ND		ug/m3	0.4	TO-15			3/19/18 19:50	CHS	A
tert-Amyl methyl ether	ND		ug/m3	0.8	TO-15			3/19/18 19:50	CHS	A
Benzene	2.4		ug/m3	0.6	TO-15			3/19/18 19:50	CHS	A
Benzyl Chloride	ND		ug/m3	1	TO-15			3/19/18 19:50	CHS	A
Bromodichloromethane	ND		ug/m3	1	TO-15			3/19/18 19:50	CHS	A
Bromoform	ND		ug/m3	2	TO-15			3/19/18 19:50	CHS	A
Bromomethane	ND		ug/m3	0.8	TO-15			3/19/18 19:50	CHS	A
1,3-Butadiene	ND		ug/m3	0.4	TO-15			3/19/18 19:50	CHS	A
n-Butane	150		ug/m3	0.5	TO-15			3/19/18 19:50	CHS	A
2-Butanone	6.2		ug/m3	0.6	TO-15			3/19/18 19:50	CHS	A
tert-Butyl Alcohol	1.2		ug/m3	0.6	TO-15			3/19/18 19:50	CHS	A
Carbon Disulfide	ND		ug/m3	0.6	TO-15			3/19/18 19:50	CHS	A
Carbon Tetrachloride	ND		ug/m3	1	TO-15			3/19/18 19:50	CHS	A
Chlorobenzene	ND		ug/m3	0.9	TO-15			3/19/18 19:50	CHS	A
Chlorodibromomethane	ND		ug/m3	2	TO-15			3/19/18 19:50	CHS	A
Chloroethane	ND		ug/m3	0.5	TO-15			3/19/18 19:50	CHS	A
Chloroform	ND		ug/m3	1	TO-15			3/19/18 19:50	CHS	A
Chloromethane	1.4		ug/m3	0.4	TO-15			3/19/18 19:50	CHS	A
3-Chloro-1-propene	ND		ug/m3	0.6	TO-15			3/19/18 19:50	CHS	A
o-Chlorotoluene	ND		ug/m3	1	TO-15			3/19/18 19:50	CHS	A
Cyclohexane	0.79		ug/m3	0.7	TO-15			3/19/18 19:50	CHS	A
1,2-Dibromoethane	ND		ug/m3	2	TO-15			3/19/18 19:50	CHS	A
1,2-Dichlorobenzene	ND		ug/m3	1	TO-15			3/19/18 19:50	CHS	A
1,3-Dichlorobenzene	ND		ug/m3	1	TO-15			3/19/18 19:50	CHS	A
1,4-Dichlorobenzene	ND		ug/m3	1	TO-15			3/19/18 19:50	CHS	A
Dichlorodifluoromethane	2.7		ug/m3	1	TO-15			3/19/18 19:50	CHS	A
1,1-Dichloroethane	ND		ug/m3	0.8	TO-15			3/19/18 19:50	CHS	A
1,2-Dichloroethane	ND		ug/m3	0.8	TO-15			3/19/18 19:50	CHS	A
1,1-Dichloroethene	ND		ug/m3	0.8	TO-15			3/19/18 19:50	CHS	A
cis-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15			3/19/18 19:50	CHS	A
trans-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15			3/19/18 19:50	CHS	A
1,2-Dichloropropane	ND		ug/m3	0.9	TO-15			3/19/18 19:50	CHS	A
cis-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15			3/19/18 19:50	CHS	A
trans-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15			3/19/18 19:50	CHS	A
1,3-Dichloropropene, Total	ND		ug/m3	2	TO-15			3/19/18 19:50	CHS	A
Diisopropyl ether	ND		ug/m3	0.8	TO-15			3/19/18 19:50	CHS	A

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ANALYTICAL RESULTS

Workorder: 2302234 NYSDEC-FCPS Site

Lab ID: **2302234001**
Sample ID: **50-45-ID-Office**

Date Collected: 3/12/2018 16:41 Matrix: Air
Date Received: 3/14/2018 17:50

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
1,4-Dioxane	ND		ug/m3	0.7	TO-15			3/19/18 19:50	CHS	A
Ethanol	2000		ug/m3	0.4	TO-15			3/19/18 19:50	CHS	A
Ethyl Acetate	4.7		ug/m3	0.8	TO-15			3/19/18 19:50	CHS	A
Ethyl tert-butyl ether	ND		ug/m3	0.8	TO-15			3/19/18 19:50	CHS	A
Ethylbenzene	1.4		ug/m3	0.9	TO-15			3/19/18 19:50	CHS	A
4-Ethyltoluene	ND		ug/m3	1	TO-15			3/19/18 19:50	CHS	A
Freon 113	ND		ug/m3	2	TO-15			3/19/18 19:50	CHS	A
Freon-114	ND		ug/m3	1	TO-15			3/19/18 19:50	CHS	A
Heptane	2.8		ug/m3	0.8	TO-15			3/19/18 19:50	CHS	A
Hexachlorobutadiene	ND		ug/m3	2	TO-15			3/19/18 19:50	CHS	A
Hexane	3.3		ug/m3	0.7	TO-15			3/19/18 19:50	CHS	A
2-Hexanone	ND		ug/m3	0.8	TO-15			3/19/18 19:50	CHS	A
Isopropyl Alcohol	13		ug/m3	0.5	TO-15			3/19/18 19:50	CHS	A
Isopropylbenzene	ND		ug/m3	1	TO-15			3/19/18 19:50	CHS	A
p-Isopropyltoluene	ND		ug/m3	1	TO-15			3/19/18 19:50	CHS	A
Methyl Methacrylate	ND		ug/m3	0.8	TO-15			3/19/18 19:50	CHS	A
Methyl t-Butyl Ether	ND		ug/m3	0.7	TO-15			3/19/18 19:50	CHS	A
4-Methyl-2-Pentanone(MIBK)	2.6		ug/m3	0.8	TO-15			3/19/18 19:50	CHS	A
Methylene Chloride	3.6		ug/m3	0.7	TO-15			3/19/18 19:50	CHS	A
Naphthalene	1.4	2	ug/m3	1	TO-15			3/19/18 19:50	CHS	A
iso-Octane	0.97		ug/m3	0.9	TO-15			3/19/18 19:50	CHS	A
n-Propylbenzene	ND		ug/m3	1	TO-15			3/19/18 19:50	CHS	A
Propylene	ND		ug/m3	0.3	TO-15			3/19/18 19:50	CHS	A
Styrene	ND		ug/m3	0.8	TO-15			3/19/18 19:50	CHS	A
1,1,2,2-Tetrachloroethane	ND		ug/m3	1	TO-15			3/19/18 19:50	CHS	A
Tetrachloroethene	2.6		ug/m3	1	TO-15			3/19/18 19:50	CHS	A
Tetrahydrofuran	ND		ug/m3	0.6	TO-15			3/19/18 19:50	CHS	A
Toluene	10		ug/m3	0.8	TO-15			3/19/18 19:50	CHS	A
Total Xylenes	6.2		ug/m3	3	TO-15			3/19/18 19:50	CHS	A
1,2,4-Trichlorobenzene	ND		ug/m3	1	TO-15			3/19/18 19:50	CHS	A
1,1,1-Trichloroethane	ND		ug/m3	1	TO-15			3/19/18 19:50	CHS	A
1,1,2-Trichloroethane	ND		ug/m3	1	TO-15			3/19/18 19:50	CHS	A
Trichloroethene	ND		ug/m3	1	TO-15			3/19/18 19:50	CHS	A
Trichlorofluoromethane	1.5		ug/m3	1	TO-15			3/19/18 19:50	CHS	A
1,2,3-Trichloropropane	ND		ug/m3	1	TO-15			3/19/18 19:50	CHS	A
1,2,4-Trimethylbenzene	2.0		ug/m3	1	TO-15			3/19/18 19:50	CHS	A
1,3,5-Trimethylbenzene	ND		ug/m3	1	TO-15			3/19/18 19:50	CHS	A
1,2,3-Trimethylbenzene	ND		ug/m3	1	TO-15			3/19/18 19:50	CHS	A

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ANALYTICAL RESULTS

Workorder: 2302234 NYSDEC-FCPS Site

Lab ID: **2302234001**
Sample ID: **50-45-ID-Office**

Date Collected: 3/12/2018 16:41 Matrix: Air
Date Received: 3/14/2018 17:50

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Vinyl Acetate	ND		ug/m3	0.7	TO-15			3/19/18 19:50	CHS	A
Vinyl Bromide	ND		ug/m3	0.9	TO-15			3/19/18 19:50	CHS	A
Vinyl Chloride	ND		ug/m3	0.5	TO-15			3/19/18 19:50	CHS	A
o-Xylene	1.6		ug/m3	0.9	TO-15			3/19/18 19:50	CHS	A
mp-Xylene	4.6		ug/m3	2	TO-15			3/19/18 19:50	CHS	A
Acetone	9.1		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
Acrylonitrile	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
tert-Amyl methyl ether	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
Benzene	0.76		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
Benzyl Chloride	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
Bromodichloromethane	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
Bromoform	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
Bromomethane	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
1,3-Butadiene	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
n-Butane	64		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
2-Butanone	2.1		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
tert-Butyl Alcohol	0.41		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
Carbon Disulfide	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
Carbon Tetrachloride	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
Chlorobenzene	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
Chlorodibromomethane	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
Chloroethane	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
Chloroform	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
Chloromethane	0.66		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
3-Chloro-1-propene	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
o-Chlorotoluene	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
Cyclohexane	0.23		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
1,2-Dibromoethane	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
1,2-Dichlorobenzene	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
1,3-Dichlorobenzene	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
1,4-Dichlorobenzene	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
Dichlorodifluoromethane	0.55		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
1,1-Dichloroethane	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
1,2-Dichloroethane	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
1,1-Dichloroethene	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
cis-1,2-Dichloroethene	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
trans-1,2-Dichloroethene	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
1,2-Dichloropropane	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A

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ANALYTICAL RESULTS

Workorder: 2302234 NYSDEC-FCPS Site

Lab ID: **2302234001**
Sample ID: **50-45-ID-Office**

Date Collected: 3/12/2018 16:41 Matrix: Air
Date Received: 3/14/2018 17:50

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,3-Dichloropropene	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
trans-1,3-Dichloropropene	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
1,3-Dichloropropene, Total	ND		ppbv	0.40	TO-15			3/19/18 19:50	CHS	A
Diisopropyl ether	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
1,4-Dioxane	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
Ethanol	1100		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
Ethyl Acetate	1.3		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
Ethyl tert-butyl ether	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
Ethylbenzene	0.33		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
4-Ethyltoluene	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
Freon 113	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
Freon-114	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
Heptane	0.69		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
Hexachlorobutadiene	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
Hexane	0.94		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
2-Hexanone	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
Isopropyl Alcohol	5.3		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
Isopropylbenzene	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
p-Isopropyltoluene	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
Methyl methacrylate	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
Methyl t-Butyl Ether	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
4-Methyl-2-Pentanone(MIBK)	0.64		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
Methylene Chloride	1.0		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
Naphthalene	0.27	1	ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
iso-Octane	0.21		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
n-Propylbenzene	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
Propylene	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
Styrene	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
1,1,2,2-Tetrachloroethane	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
Tetrachloroethene	0.38		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
Tetrahydrofuran	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
Toluene	2.7		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
Total Xylenes	1.4		ppbv	0.60	TO-15			3/19/18 19:50	CHS	A
1,2,4-Trichlorobenzene	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
1,1,1-Trichloroethane	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
1,1,2-Trichloroethane	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
Trichloroethene	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
Trichlorofluoromethane	0.27		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A

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ANALYTICAL RESULTS

Workorder: 2302234 NYSDEC-FCPS Site

Lab ID: **2302234001**
Sample ID: **50-45-ID-Office**

Date Collected: 3/12/2018 16:41 Matrix: Air
Date Received: 3/14/2018 17:50

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
1,2,3-Trichloropropane	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
1,2,4-Trimethylbenzene	0.41		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
1,3,5-Trimethylbenzene	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
1,2,3-Trimethylbenzene	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
Vinyl Acetate	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
Vinyl Bromide	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
Vinyl Chloride	ND		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
o-Xylene	0.38		ppbv	0.20	TO-15			3/19/18 19:50	CHS	A
mp-Xylene	1.1		ppbv	0.40	TO-15			3/19/18 19:50	CHS	A
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>	<i>Method</i>	<i>Prepared</i>	<i>By</i>	<i>Analyzed</i>	<i>By</i>	<i>Cntr</i>
4-Bromofluorobenzene (S)	95		%	70 - 130	TO-15			3/19/18 19:50	CHS	A



Mrs. Vanessa N Badman
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2302234 NYSDEC-FCPS Site

Lab ID: **2302234002**

Date Collected: 3/12/2018 16:38

Matrix: Air

Sample ID: **50-45-ID-Work Shop**

Date Received: 3/14/2018 17:50

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS @ STP										
Acetone	21		ug/m3	0.5	TO-15			3/19/18 20:36	CHS	A
Acrylonitrile	ND		ug/m3	0.4	TO-15			3/19/18 20:36	CHS	A
tert-Amyl methyl ether	ND		ug/m3	0.8	TO-15			3/19/18 20:36	CHS	A
Benzene	3.5		ug/m3	0.6	TO-15			3/19/18 20:36	CHS	A
Benzyl Chloride	ND		ug/m3	1	TO-15			3/19/18 20:36	CHS	A
Bromodichloromethane	ND		ug/m3	1	TO-15			3/19/18 20:36	CHS	A
Bromoform	ND		ug/m3	2	TO-15			3/19/18 20:36	CHS	A
Bromomethane	ND		ug/m3	0.8	TO-15			3/19/18 20:36	CHS	A
1,3-Butadiene	ND		ug/m3	0.4	TO-15			3/19/18 20:36	CHS	A
n-Butane	170		ug/m3	0.5	TO-15			3/19/18 20:36	CHS	A
2-Butanone	12		ug/m3	0.6	TO-15			3/19/18 20:36	CHS	A
tert-Butyl Alcohol	ND		ug/m3	0.6	TO-15			3/19/18 20:36	CHS	A
Carbon Disulfide	ND		ug/m3	0.6	TO-15			3/19/18 20:36	CHS	A
Carbon Tetrachloride	ND		ug/m3	1	TO-15			3/19/18 20:36	CHS	A
Chlorobenzene	ND		ug/m3	0.9	TO-15			3/19/18 20:36	CHS	A
Chlorodibromomethane	ND		ug/m3	2	TO-15			3/19/18 20:36	CHS	A
Chloroethane	ND		ug/m3	0.5	TO-15			3/19/18 20:36	CHS	A
Chloroform	ND		ug/m3	1	TO-15			3/19/18 20:36	CHS	A
Chloromethane	1.4		ug/m3	0.4	TO-15			3/19/18 20:36	CHS	A
3-Chloro-1-propene	ND		ug/m3	0.6	TO-15			3/19/18 20:36	CHS	A
o-Chlorotoluene	ND		ug/m3	1	TO-15			3/19/18 20:36	CHS	A
Cyclohexane	1.1		ug/m3	0.7	TO-15			3/19/18 20:36	CHS	A
1,2-Dibromoethane	ND		ug/m3	2	TO-15			3/19/18 20:36	CHS	A
1,2-Dichlorobenzene	ND		ug/m3	1	TO-15			3/19/18 20:36	CHS	A
1,3-Dichlorobenzene	ND		ug/m3	1	TO-15			3/19/18 20:36	CHS	A
1,4-Dichlorobenzene	ND		ug/m3	1	TO-15			3/19/18 20:36	CHS	A
Dichlorodifluoromethane	2.7		ug/m3	1	TO-15			3/19/18 20:36	CHS	A
1,1-Dichloroethane	ND		ug/m3	0.8	TO-15			3/19/18 20:36	CHS	A
1,2-Dichloroethane	ND		ug/m3	0.8	TO-15			3/19/18 20:36	CHS	A
1,1-Dichloroethene	ND		ug/m3	0.8	TO-15			3/19/18 20:36	CHS	A
cis-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15			3/19/18 20:36	CHS	A
trans-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15			3/19/18 20:36	CHS	A
1,2-Dichloropropane	ND		ug/m3	0.9	TO-15			3/19/18 20:36	CHS	A
cis-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15			3/19/18 20:36	CHS	A
trans-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15			3/19/18 20:36	CHS	A
1,3-Dichloropropene, Total	ND		ug/m3	2	TO-15			3/19/18 20:36	CHS	A
Diisopropyl ether	ND		ug/m3	0.8	TO-15			3/19/18 20:36	CHS	A

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ANALYTICAL RESULTS

Workorder: 2302234 NYSDEC-FCPS Site

Lab ID: **2302234002**

Date Collected: 3/12/2018 16:38

Matrix: Air

Sample ID: **50-45-ID-Work Shop**

Date Received: 3/14/2018 17:50

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
1,4-Dioxane	ND		ug/m3	0.7	TO-15			3/19/18 20:36	CHS	A
Ethanol	1700		ug/m3	0.4	TO-15			3/19/18 20:36	CHS	A
Ethyl Acetate	19		ug/m3	0.8	TO-15			3/19/18 20:36	CHS	A
Ethyl tert-butyl ether	ND		ug/m3	0.8	TO-15			3/19/18 20:36	CHS	A
Ethylbenzene	1.9		ug/m3	0.9	TO-15			3/19/18 20:36	CHS	A
4-Ethyltoluene	ND		ug/m3	1	TO-15			3/19/18 20:36	CHS	A
Freon 113	ND		ug/m3	2	TO-15			3/19/18 20:36	CHS	A
Freon-114	ND		ug/m3	1	TO-15			3/19/18 20:36	CHS	A
Heptane	11		ug/m3	0.8	TO-15			3/19/18 20:36	CHS	A
Hexachlorobutadiene	ND		ug/m3	2	TO-15			3/19/18 20:36	CHS	A
Hexane	5.3		ug/m3	0.7	TO-15			3/19/18 20:36	CHS	A
2-Hexanone	ND		ug/m3	0.8	TO-15			3/19/18 20:36	CHS	A
Isopropyl Alcohol	5.7		ug/m3	0.5	TO-15			3/19/18 20:36	CHS	A
Isopropylbenzene	ND		ug/m3	1	TO-15			3/19/18 20:36	CHS	A
p-Isopropyltoluene	ND		ug/m3	1	TO-15			3/19/18 20:36	CHS	A
Methyl Methacrylate	ND		ug/m3	0.8	TO-15			3/19/18 20:36	CHS	A
Methyl t-Butyl Ether	ND		ug/m3	0.7	TO-15			3/19/18 20:36	CHS	A
4-Methyl-2-Pentanone(MIBK)	10		ug/m3	0.8	TO-15			3/19/18 20:36	CHS	A
Methylene Chloride	1.7		ug/m3	0.7	TO-15			3/19/18 20:36	CHS	A
Naphthalene	1.5	2	ug/m3	1	TO-15			3/19/18 20:36	CHS	A
iso-Octane	1.9		ug/m3	0.9	TO-15			3/19/18 20:36	CHS	A
n-Propylbenzene	ND		ug/m3	1	TO-15			3/19/18 20:36	CHS	A
Propylene	ND		ug/m3	0.3	TO-15			3/19/18 20:36	CHS	A
Styrene	1.1		ug/m3	0.8	TO-15			3/19/18 20:36	CHS	A
1,1,2,2-Tetrachloroethane	ND		ug/m3	1	TO-15			3/19/18 20:36	CHS	A
Tetrachloroethene	4.8		ug/m3	1	TO-15			3/19/18 20:36	CHS	A
Tetrahydrofuran	ND		ug/m3	0.6	TO-15			3/19/18 20:36	CHS	A
Toluene	14		ug/m3	0.8	TO-15			3/19/18 20:36	CHS	A
Total Xylenes	8.4		ug/m3	3	TO-15			3/19/18 20:36	CHS	A
1,2,4-Trichlorobenzene	ND		ug/m3	1	TO-15			3/19/18 20:36	CHS	A
1,1,1-Trichloroethane	ND		ug/m3	1	TO-15			3/19/18 20:36	CHS	A
1,1,2-Trichloroethane	ND		ug/m3	1	TO-15			3/19/18 20:36	CHS	A
Trichloroethene	ND		ug/m3	1	TO-15			3/19/18 20:36	CHS	A
Trichlorofluoromethane	1.5		ug/m3	1	TO-15			3/19/18 20:36	CHS	A
1,2,3-Trichloropropane	ND		ug/m3	1	TO-15			3/19/18 20:36	CHS	A
1,2,4-Trimethylbenzene	3.2		ug/m3	1	TO-15			3/19/18 20:36	CHS	A
1,3,5-Trimethylbenzene	0.99		ug/m3	1	TO-15			3/19/18 20:36	CHS	A
1,2,3-Trimethylbenzene	ND		ug/m3	1	TO-15			3/19/18 20:36	CHS	A

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ANALYTICAL RESULTS

Workorder: 2302234 NYSDEC-FCPS Site

Lab ID: **2302234002**

Date Collected: 3/12/2018 16:38

Matrix: Air

Sample ID: **50-45-ID-Work Shop**

Date Received: 3/14/2018 17:50

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Vinyl Acetate	ND		ug/m3	0.7	TO-15			3/19/18 20:36	CHS	A
Vinyl Bromide	ND		ug/m3	0.9	TO-15			3/19/18 20:36	CHS	A
Vinyl Chloride	ND		ug/m3	0.5	TO-15			3/19/18 20:36	CHS	A
o-Xylene	2.1		ug/m3	0.9	TO-15			3/19/18 20:36	CHS	A
mp-Xylene	6.3		ug/m3	2	TO-15			3/19/18 20:36	CHS	A
Acetone	9.0		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
Acrylonitrile	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
tert-Amyl methyl ether	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
Benzene	1.1		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
Benzyl Chloride	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
Bromodichloromethane	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
Bromoform	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
Bromomethane	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
1,3-Butadiene	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
n-Butane	70		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
2-Butanone	4.2		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
tert-Butyl Alcohol	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
Carbon Disulfide	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
Carbon Tetrachloride	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
Chlorobenzene	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
Chlorodibromomethane	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
Chloroethane	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
Chloroform	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
Chloromethane	0.66		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
3-Chloro-1-propene	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
o-Chlorotoluene	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
Cyclohexane	0.33		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
1,2-Dibromoethane	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
1,2-Dichlorobenzene	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
1,3-Dichlorobenzene	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
1,4-Dichlorobenzene	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
Dichlorodifluoromethane	0.55		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
1,1-Dichloroethane	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
1,2-Dichloroethane	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
1,1-Dichloroethene	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
cis-1,2-Dichloroethene	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
trans-1,2-Dichloroethene	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
1,2-Dichloropropane	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A

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ANALYTICAL RESULTS

Workorder: 2302234 NYSDEC-FCPS Site

Lab ID: **2302234002**

Date Collected: 3/12/2018 16:38

Matrix: Air

Sample ID: **50-45-ID-Work Shop**

Date Received: 3/14/2018 17:50

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,3-Dichloropropene	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
trans-1,3-Dichloropropene	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
1,3-Dichloropropene, Total	ND		ppbv	0.40	TO-15			3/19/18 20:36	CHS	A
Diisopropyl ether	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
1,4-Dioxane	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
Ethanol	910		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
Ethyl Acetate	5.2		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
Ethyl tert-butyl ether	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
Ethylbenzene	0.44		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
4-Ethyltoluene	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
Freon 113	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
Freon-114	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
Heptane	2.6		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
Hexachlorobutadiene	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
Hexane	1.5		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
2-Hexanone	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
Isopropyl Alcohol	2.3		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
Isopropylbenzene	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
p-Isopropyltoluene	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
Methyl methacrylate	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
Methyl t-Butyl Ether	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
4-Methyl-2-Pentanone(MIBK)	2.5		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
Methylene Chloride	0.50		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
Naphthalene	0.29	1	ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
iso-Octane	0.41		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
n-Propylbenzene	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
Propylene	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
Styrene	0.26		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
1,1,2,2-Tetrachloroethane	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
Tetrachloroethene	0.71		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
Tetrahydrofuran	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
Toluene	3.6		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
Total Xylenes	1.9		ppbv	0.60	TO-15			3/19/18 20:36	CHS	A
1,2,4-Trichlorobenzene	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
1,1,1-Trichloroethane	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
1,1,2-Trichloroethane	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
Trichloroethene	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
Trichlorofluoromethane	0.27		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A

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ANALYTICAL RESULTS

Workorder: 2302234 NYSDEC-FCPS Site

Lab ID: **2302234002**

Date Collected: 3/12/2018 16:38

Matrix: Air

Sample ID: **50-45-ID-Work Shop**

Date Received: 3/14/2018 17:50

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
1,2,3-Trichloropropane	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
1,2,4-Trimethylbenzene	0.65		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
1,3,5-Trimethylbenzene	0.20		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
1,2,3-Trimethylbenzene	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
Vinyl Acetate	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
Vinyl Bromide	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
Vinyl Chloride	ND		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
o-Xylene	0.48		ppbv	0.20	TO-15			3/19/18 20:36	CHS	A
mp-Xylene	1.4		ppbv	0.40	TO-15			3/19/18 20:36	CHS	A
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>	<i>Method</i>	<i>Prepared</i>	<i>By</i>	<i>Analyzed</i>	<i>By</i>	<i>Cntr</i>
4-Bromofluorobenzene (S)	95		%	70 - 130	TO-15			3/19/18 20:36	CHS	A



Mrs. Vanessa N Badman
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2302234 NYSDEC-FCPS Site

Lab ID: **2302234003**
Sample ID: **50-45-Ambient**

Date Collected: 3/12/2018 15:30 Matrix: Air
Date Received: 3/14/2018 17:50

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS @ STP										
Acetone	10		ug/m3	0.5	TO-15			3/19/18 21:23	CHS	A
Acrylonitrile	ND		ug/m3	0.4	TO-15			3/19/18 21:23	CHS	A
tert-Amyl methyl ether	ND		ug/m3	0.8	TO-15			3/19/18 21:23	CHS	A
Benzene	1.2		ug/m3	0.6	TO-15			3/19/18 21:23	CHS	A
Benzyl Chloride	ND		ug/m3	1	TO-15			3/19/18 21:23	CHS	A
Bromodichloromethane	ND		ug/m3	1	TO-15			3/19/18 21:23	CHS	A
Bromoform	ND		ug/m3	2	TO-15			3/19/18 21:23	CHS	A
Bromomethane	ND		ug/m3	0.8	TO-15			3/19/18 21:23	CHS	A
1,3-Butadiene	ND		ug/m3	0.4	TO-15			3/19/18 21:23	CHS	A
n-Butane	2.9		ug/m3	0.5	TO-15			3/19/18 21:23	CHS	A
2-Butanone	4.5		ug/m3	0.6	TO-15			3/19/18 21:23	CHS	A
tert-Butyl Alcohol	ND		ug/m3	0.6	TO-15			3/19/18 21:23	CHS	A
Carbon Disulfide	ND		ug/m3	0.6	TO-15			3/19/18 21:23	CHS	A
Carbon Tetrachloride	ND		ug/m3	1	TO-15			3/19/18 21:23	CHS	A
Chlorobenzene	ND		ug/m3	0.9	TO-15			3/19/18 21:23	CHS	A
Chlorodibromomethane	ND		ug/m3	2	TO-15			3/19/18 21:23	CHS	A
Chloroethane	ND		ug/m3	0.5	TO-15			3/19/18 21:23	CHS	A
Chloroform	ND		ug/m3	1	TO-15			3/19/18 21:23	CHS	A
Chloromethane	1.3		ug/m3	0.4	TO-15			3/19/18 21:23	CHS	A
3-Chloro-1-propene	ND		ug/m3	0.6	TO-15			3/19/18 21:23	CHS	A
o-Chlorotoluene	ND		ug/m3	1	TO-15			3/19/18 21:23	CHS	A
Cyclohexane	ND		ug/m3	0.7	TO-15			3/19/18 21:23	CHS	A
1,2-Dibromoethane	ND		ug/m3	2	TO-15			3/19/18 21:23	CHS	A
1,2-Dichlorobenzene	ND		ug/m3	1	TO-15			3/19/18 21:23	CHS	A
1,3-Dichlorobenzene	ND		ug/m3	1	TO-15			3/19/18 21:23	CHS	A
1,4-Dichlorobenzene	ND		ug/m3	1	TO-15			3/19/18 21:23	CHS	A
Dichlorodifluoromethane	2.7		ug/m3	1	TO-15			3/19/18 21:23	CHS	A
1,1-Dichloroethane	ND		ug/m3	0.8	TO-15			3/19/18 21:23	CHS	A
1,2-Dichloroethane	ND		ug/m3	0.8	TO-15			3/19/18 21:23	CHS	A
1,1-Dichloroethene	ND		ug/m3	0.8	TO-15			3/19/18 21:23	CHS	A
cis-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15			3/19/18 21:23	CHS	A
trans-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15			3/19/18 21:23	CHS	A
1,2-Dichloropropane	ND		ug/m3	0.9	TO-15			3/19/18 21:23	CHS	A
cis-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15			3/19/18 21:23	CHS	A
trans-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15			3/19/18 21:23	CHS	A
1,3-Dichloropropene, Total	ND		ug/m3	2	TO-15			3/19/18 21:23	CHS	A
Diisopropyl ether	ND		ug/m3	0.8	TO-15			3/19/18 21:23	CHS	A

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ANALYTICAL RESULTS

Workorder: 2302234 NYSDEC-FCPS Site

Lab ID: **2302234003**
Sample ID: **50-45-Ambient**

Date Collected: 3/12/2018 15:30 Matrix: Air
Date Received: 3/14/2018 17:50

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
1,4-Dioxane	ND		ug/m3	0.7	TO-15			3/19/18 21:23	CHS	A
Ethanol	11		ug/m3	0.4	TO-15			3/19/18 21:23	CHS	A
Ethyl Acetate	ND		ug/m3	0.8	TO-15			3/19/18 21:23	CHS	A
Ethyl tert-butyl ether	ND		ug/m3	0.8	TO-15			3/19/18 21:23	CHS	A
Ethylbenzene	ND		ug/m3	0.9	TO-15			3/19/18 21:23	CHS	A
4-Ethyltoluene	ND		ug/m3	1	TO-15			3/19/18 21:23	CHS	A
Freon 113	ND		ug/m3	2	TO-15			3/19/18 21:23	CHS	A
Freon-114	ND		ug/m3	1	TO-15			3/19/18 21:23	CHS	A
Heptane	ND		ug/m3	0.8	TO-15			3/19/18 21:23	CHS	A
Hexachlorobutadiene	ND		ug/m3	2	TO-15			3/19/18 21:23	CHS	A
Hexane	0.76		ug/m3	0.7	TO-15			3/19/18 21:23	CHS	A
2-Hexanone	ND		ug/m3	0.8	TO-15			3/19/18 21:23	CHS	A
Isopropyl Alcohol	2.3		ug/m3	0.5	TO-15			3/19/18 21:23	CHS	A
Isopropylbenzene	ND		ug/m3	1	TO-15			3/19/18 21:23	CHS	A
p-Isopropyltoluene	ND		ug/m3	1	TO-15			3/19/18 21:23	CHS	A
Methyl Methacrylate	ND		ug/m3	0.8	TO-15			3/19/18 21:23	CHS	A
Methyl t-Butyl Ether	ND		ug/m3	0.7	TO-15			3/19/18 21:23	CHS	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/m3	0.8	TO-15			3/19/18 21:23	CHS	A
Methylene Chloride	1.4		ug/m3	0.7	TO-15			3/19/18 21:23	CHS	A
Naphthalene	ND		ug/m3	1	TO-15			3/19/18 21:23	CHS	A
iso-Octane	ND		ug/m3	0.9	TO-15			3/19/18 21:23	CHS	A
n-Propylbenzene	ND		ug/m3	1	TO-15			3/19/18 21:23	CHS	A
Propylene	ND		ug/m3	0.3	TO-15			3/19/18 21:23	CHS	A
Styrene	ND		ug/m3	0.8	TO-15			3/19/18 21:23	CHS	A
1,1,2,2-Tetrachloroethane	ND		ug/m3	1	TO-15			3/19/18 21:23	CHS	A
Tetrachloroethene	3.8		ug/m3	1	TO-15			3/19/18 21:23	CHS	A
Tetrahydrofuran	ND		ug/m3	0.6	TO-15			3/19/18 21:23	CHS	A
Toluene	4.7		ug/m3	0.8	TO-15			3/19/18 21:23	CHS	A
Total Xylenes	ND		ug/m3	3	TO-15			3/19/18 21:23	CHS	A
1,2,4-Trichlorobenzene	ND		ug/m3	1	TO-15			3/19/18 21:23	CHS	A
1,1,1-Trichloroethane	ND		ug/m3	1	TO-15			3/19/18 21:23	CHS	A
1,1,2-Trichloroethane	ND		ug/m3	1	TO-15			3/19/18 21:23	CHS	A
Trichloroethene	ND		ug/m3	1	TO-15			3/19/18 21:23	CHS	A
Trichlorofluoromethane	1.5		ug/m3	1	TO-15			3/19/18 21:23	CHS	A
1,2,3-Trichloropropane	ND		ug/m3	1	TO-15			3/19/18 21:23	CHS	A
1,2,4-Trimethylbenzene	ND		ug/m3	1	TO-15			3/19/18 21:23	CHS	A
1,3,5-Trimethylbenzene	ND		ug/m3	1	TO-15			3/19/18 21:23	CHS	A
1,2,3-Trimethylbenzene	ND		ug/m3	1	TO-15			3/19/18 21:23	CHS	A

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ANALYTICAL RESULTS

Workorder: 2302234 NYSDEC-FCPS Site

Lab ID: **2302234003**
Sample ID: **50-45-Ambient**

Date Collected: 3/12/2018 15:30 Matrix: Air
Date Received: 3/14/2018 17:50

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Vinyl Acetate	ND		ug/m3	0.7	TO-15			3/19/18 21:23	CHS	A
Vinyl Bromide	ND		ug/m3	0.9	TO-15			3/19/18 21:23	CHS	A
Vinyl Chloride	ND		ug/m3	0.5	TO-15			3/19/18 21:23	CHS	A
o-Xylene	ND		ug/m3	0.9	TO-15			3/19/18 21:23	CHS	A
mp-Xylene	ND		ug/m3	2	TO-15			3/19/18 21:23	CHS	A
Acetone	4.2		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
Acrylonitrile	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
tert-Amyl methyl ether	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
Benzene	0.37		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
Benzyl Chloride	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
Bromodichloromethane	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
Bromoform	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
Bromomethane	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
1,3-Butadiene	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
n-Butane	1.2		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
2-Butanone	1.5		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
tert-Butyl Alcohol	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
Carbon Disulfide	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
Carbon Tetrachloride	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
Chlorobenzene	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
Chlorodibromomethane	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
Chloroethane	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
Chloroform	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
Chloromethane	0.61		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
3-Chloro-1-propene	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
o-Chlorotoluene	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
Cyclohexane	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
1,2-Dibromoethane	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
1,2-Dichlorobenzene	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
1,3-Dichlorobenzene	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
1,4-Dichlorobenzene	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
Dichlorodifluoromethane	0.55		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
1,1-Dichloroethane	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
1,2-Dichloroethane	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
1,1-Dichloroethene	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
cis-1,2-Dichloroethene	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
trans-1,2-Dichloroethene	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
1,2-Dichloropropane	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A

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ANALYTICAL RESULTS

Workorder: 2302234 NYSDEC-FCPS Site

Lab ID: **2302234003**
Sample ID: **50-45-Ambient**

Date Collected: 3/12/2018 15:30 Matrix: Air
Date Received: 3/14/2018 17:50

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,3-Dichloropropene	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
trans-1,3-Dichloropropene	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
1,3-Dichloropropene, Total	ND		ppbv	0.40	TO-15			3/19/18 21:23	CHS	A
Diisopropyl ether	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
1,4-Dioxane	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
Ethanol	5.6		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
Ethyl Acetate	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
Ethyl tert-butyl ether	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
Ethylbenzene	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
4-Ethyltoluene	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
Freon 113	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
Freon-114	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
Heptane	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
Hexachlorobutadiene	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
Hexane	0.22		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
2-Hexanone	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
Isopropyl Alcohol	0.95		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
Isopropylbenzene	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
p-Isopropyltoluene	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
Methyl methacrylate	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
Methyl t-Butyl Ether	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
4-Methyl-2-Pentanone(MIBK)	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
Methylene Chloride	0.39		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
Naphthalene	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
iso-Octane	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
n-Propylbenzene	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
Propylene	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
Styrene	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
1,1,2,2-Tetrachloroethane	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
Tetrachloroethene	0.56		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
Tetrahydrofuran	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
Toluene	1.2		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
Total Xylenes	ND		ppbv	0.60	TO-15			3/19/18 21:23	CHS	A
1,2,4-Trichlorobenzene	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
1,1,1-Trichloroethane	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
1,1,2-Trichloroethane	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
Trichloroethene	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
Trichlorofluoromethane	0.26		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A

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ANALYTICAL RESULTS

Workorder: 2302234 NYSDEC-FCPS Site

Lab ID: **2302234003**
Sample ID: **50-45-Ambient**

Date Collected: 3/12/2018 15:30 Matrix: Air
Date Received: 3/14/2018 17:50

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
1,2,3-Trichloropropane	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
1,2,4-Trimethylbenzene	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
1,3,5-Trimethylbenzene	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
1,2,3-Trimethylbenzene	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
Vinyl Acetate	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
Vinyl Bromide	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
Vinyl Chloride	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
o-Xylene	ND		ppbv	0.20	TO-15			3/19/18 21:23	CHS	A
mp-Xylene	ND		ppbv	0.40	TO-15			3/19/18 21:23	CHS	A
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>	<i>Method</i>	<i>Prepared</i>	<i>By</i>	<i>Analyzed</i>	<i>By</i>	<i>Cntr</i>
4-Bromofluorobenzene (S)	95		%	70 - 130	TO-15			3/19/18 21:23	CHS	A



Mrs. Vanessa N Badman
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2302234 NYSDEC-FCPS Site

Lab ID: **2302234004**
Sample ID: **52-07-ID-Office**

Date Collected: 3/12/2018 17:05 Matrix: Air
Date Received: 3/14/2018 17:50

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS @ STP										
Acetone	260		ug/m3	5	TO-15			3/20/18 12:35	CHS	A
Acrylonitrile	ND		ug/m3	0.4	TO-15			3/19/18 22:09	CHS	A
tert-Amyl methyl ether	ND		ug/m3	0.8	TO-15			3/19/18 22:09	CHS	A
Benzene	2.5		ug/m3	0.6	TO-15			3/19/18 22:09	CHS	A
Benzyl Chloride	ND		ug/m3	1	TO-15			3/19/18 22:09	CHS	A
Bromodichloromethane	ND		ug/m3	1	TO-15			3/19/18 22:09	CHS	A
Bromoform	ND		ug/m3	2	TO-15			3/19/18 22:09	CHS	A
Bromomethane	ND		ug/m3	0.8	TO-15			3/19/18 22:09	CHS	A
1,3-Butadiene	ND		ug/m3	0.4	TO-15			3/19/18 22:09	CHS	A
n-Butane	41		ug/m3	0.5	TO-15			3/19/18 22:09	CHS	A
2-Butanone	29		ug/m3	0.6	TO-15			3/19/18 22:09	CHS	A
tert-Butyl Alcohol	21		ug/m3	0.6	TO-15			3/19/18 22:09	CHS	A
Carbon Disulfide	ND		ug/m3	0.6	TO-15			3/19/18 22:09	CHS	A
Carbon Tetrachloride	ND		ug/m3	1	TO-15			3/19/18 22:09	CHS	A
Chlorobenzene	ND		ug/m3	0.9	TO-15			3/19/18 22:09	CHS	A
Chlorodibromomethane	ND		ug/m3	2	TO-15			3/19/18 22:09	CHS	A
Chloroethane	ND		ug/m3	0.5	TO-15			3/19/18 22:09	CHS	A
Chloroform	ND		ug/m3	1	TO-15			3/19/18 22:09	CHS	A
Chloromethane	1.6		ug/m3	0.4	TO-15			3/19/18 22:09	CHS	A
3-Chloro-1-propene	ND		ug/m3	0.6	TO-15			3/19/18 22:09	CHS	A
o-Chlorotoluene	ND		ug/m3	1	TO-15			3/19/18 22:09	CHS	A
Cyclohexane	110		ug/m3	0.7	TO-15			3/19/18 22:09	CHS	A
1,2-Dibromoethane	ND		ug/m3	2	TO-15			3/19/18 22:09	CHS	A
1,2-Dichlorobenzene	ND		ug/m3	1	TO-15			3/19/18 22:09	CHS	A
1,3-Dichlorobenzene	ND		ug/m3	1	TO-15			3/19/18 22:09	CHS	A
1,4-Dichlorobenzene	ND		ug/m3	1	TO-15			3/19/18 22:09	CHS	A
Dichlorodifluoromethane	2.7		ug/m3	1	TO-15			3/19/18 22:09	CHS	A
1,1-Dichloroethane	ND		ug/m3	0.8	TO-15			3/19/18 22:09	CHS	A
1,2-Dichloroethane	ND		ug/m3	0.8	TO-15			3/19/18 22:09	CHS	A
1,1-Dichloroethene	ND		ug/m3	0.8	TO-15			3/19/18 22:09	CHS	A
cis-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15			3/19/18 22:09	CHS	A
trans-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15			3/19/18 22:09	CHS	A
1,2-Dichloropropane	ND		ug/m3	0.9	TO-15			3/19/18 22:09	CHS	A
cis-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15			3/19/18 22:09	CHS	A
trans-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15			3/19/18 22:09	CHS	A
1,3-Dichloropropene, Total	ND		ug/m3	2	TO-15			3/19/18 22:09	CHS	A
Diisopropyl ether	ND		ug/m3	0.8	TO-15			3/19/18 22:09	CHS	A

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ANALYTICAL RESULTS

Workorder: 2302234 NYSDEC-FCPS Site

Lab ID: **2302234004**
Sample ID: **52-07-ID-Office**

Date Collected: 3/12/2018 17:05 Matrix: Air
Date Received: 3/14/2018 17:50

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
1,4-Dioxane	ND		ug/m3	0.7	TO-15			3/19/18 22:09	CHS	A
Ethanol	80		ug/m3	4	TO-15			3/20/18 12:35	CHS	A
Ethyl Acetate	8.7		ug/m3	0.8	TO-15			3/19/18 22:09	CHS	A
Ethyl tert-butyl ether	ND		ug/m3	0.8	TO-15			3/19/18 22:09	CHS	A
Ethylbenzene	36		ug/m3	0.9	TO-15			3/19/18 22:09	CHS	A
4-Ethyltoluene	3.5		ug/m3	1	TO-15			3/19/18 22:09	CHS	A
Freon 113	ND		ug/m3	2	TO-15			3/19/18 22:09	CHS	A
Freon-114	ND		ug/m3	1	TO-15			3/19/18 22:09	CHS	A
Heptane	4.6		ug/m3	0.8	TO-15			3/19/18 22:09	CHS	A
Hexachlorobutadiene	ND		ug/m3	2	TO-15			3/19/18 22:09	CHS	A
Hexane	4.3		ug/m3	0.7	TO-15			3/19/18 22:09	CHS	A
2-Hexanone	ND		ug/m3	0.8	TO-15			3/19/18 22:09	CHS	A
Isopropyl Alcohol	62		ug/m3	0.5	TO-15			3/19/18 22:09	CHS	A
Isopropylbenzene	ND		ug/m3	1	TO-15			3/19/18 22:09	CHS	A
p-Isopropyltoluene	ND		ug/m3	1	TO-15			3/19/18 22:09	CHS	A
Methyl Methacrylate	ND		ug/m3	0.8	TO-15			3/19/18 22:09	CHS	A
Methyl t-Butyl Ether	ND		ug/m3	0.7	TO-15			3/19/18 22:09	CHS	A
4-Methyl-2-Pentanone(MIBK)	10		ug/m3	0.8	TO-15			3/19/18 22:09	CHS	A
Methylene Chloride	4.3		ug/m3	0.7	TO-15			3/19/18 22:09	CHS	A
Naphthalene	1.3	2	ug/m3	1	TO-15			3/19/18 22:09	CHS	A
iso-Octane	1.9		ug/m3	0.9	TO-15			3/19/18 22:09	CHS	A
n-Propylbenzene	2.1		ug/m3	1	TO-15			3/19/18 22:09	CHS	A
Propylene	ND		ug/m3	0.3	TO-15			3/19/18 22:09	CHS	A
Styrene	110		ug/m3	0.8	TO-15			3/19/18 22:09	CHS	A
1,1,2,2-Tetrachloroethane	ND		ug/m3	1	TO-15			3/19/18 22:09	CHS	A
Tetrachloroethene	ND		ug/m3	1	TO-15			3/19/18 22:09	CHS	A
Tetrahydrofuran	ND		ug/m3	0.6	TO-15			3/19/18 22:09	CHS	A
Toluene	360		ug/m3	8	TO-15			3/20/18 12:35	CHS	A
Total Xylenes	190		ug/m3	3	TO-15			3/19/18 22:09	CHS	A
1,2,4-Trichlorobenzene	ND		ug/m3	1	TO-15			3/19/18 22:09	CHS	A
1,1,1-Trichloroethane	ND		ug/m3	1	TO-15			3/19/18 22:09	CHS	A
1,1,2-Trichloroethane	ND		ug/m3	1	TO-15			3/19/18 22:09	CHS	A
Trichloroethene	ND		ug/m3	1	TO-15			3/19/18 22:09	CHS	A
Trichlorofluoromethane	1.5		ug/m3	1	TO-15			3/19/18 22:09	CHS	A
1,2,3-Trichloropropane	ND		ug/m3	1	TO-15			3/19/18 22:09	CHS	A
1,2,4-Trimethylbenzene	12		ug/m3	1	TO-15			3/19/18 22:09	CHS	A
1,3,5-Trimethylbenzene	3.9		ug/m3	1	TO-15			3/19/18 22:09	CHS	A
1,2,3-Trimethylbenzene	2.0		ug/m3	1	TO-15			3/19/18 22:09	CHS	A

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ANALYTICAL RESULTS

Workorder: 2302234 NYSDEC-FCPS Site

Lab ID: **2302234004**
Sample ID: **52-07-ID-Office**

Date Collected: 3/12/2018 17:05 Matrix: Air
Date Received: 3/14/2018 17:50

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Vinyl Acetate	ND		ug/m3	0.7	TO-15			3/19/18 22:09	CHS	A
Vinyl Bromide	ND		ug/m3	0.9	TO-15			3/19/18 22:09	CHS	A
Vinyl Chloride	ND		ug/m3	0.5	TO-15			3/19/18 22:09	CHS	A
o-Xylene	42		ug/m3	0.9	TO-15			3/19/18 22:09	CHS	A
mp-Xylene	150		ug/m3	2	TO-15			3/19/18 22:09	CHS	A
Acetone	110		ppbv	2.0	TO-15			3/20/18 12:35	CHS	A
Acrylonitrile	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
tert-Amyl methyl ether	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
Benzene	0.78		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
Benzyl Chloride	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
Bromodichloromethane	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
Bromoform	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
Bromomethane	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
1,3-Butadiene	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
n-Butane	17		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
2-Butanone	9.9		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
tert-Butyl Alcohol	6.9		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
Carbon Disulfide	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
Carbon Tetrachloride	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
Chlorobenzene	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
Chlorodibromomethane	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
Chloroethane	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
Chloroform	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
Chloromethane	0.75		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
3-Chloro-1-propene	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
o-Chlorotoluene	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
Cyclohexane	31		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
1,2-Dibromoethane	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
1,2-Dichlorobenzene	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
1,3-Dichlorobenzene	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
1,4-Dichlorobenzene	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
Dichlorodifluoromethane	0.55		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
1,1-Dichloroethane	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
1,2-Dichloroethane	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
1,1-Dichloroethene	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
cis-1,2-Dichloroethene	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
trans-1,2-Dichloroethene	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
1,2-Dichloropropane	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A

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ANALYTICAL RESULTS

Workorder: 2302234 NYSDEC-FCPS Site

Lab ID: **2302234004**
Sample ID: **52-07-ID-Office**

Date Collected: 3/12/2018 17:05 Matrix: Air
Date Received: 3/14/2018 17:50

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,3-Dichloropropene	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
trans-1,3-Dichloropropene	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
1,3-Dichloropropene, Total	ND		ppbv	0.40	TO-15			3/19/18 22:09	CHS	A
Diisopropyl ether	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
1,4-Dioxane	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
Ethanol	42		ppbv	2.0	TO-15			3/20/18 12:35	CHS	A
Ethyl Acetate	2.4		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
Ethyl tert-butyl ether	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
Ethylbenzene	8.3		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
4-Ethyltoluene	0.72		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
Freon 113	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
Freon-114	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
Heptane	1.1		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
Hexachlorobutadiene	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
Hexane	1.2		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
2-Hexanone	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
Isopropyl Alcohol	25		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
Isopropylbenzene	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
p-Isopropyltoluene	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
Methyl methacrylate	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
Methyl t-Butyl Ether	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
4-Methyl-2-Pentanone(MIBK)	2.5		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
Methylene Chloride	1.2		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
Naphthalene	0.26	1	ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
iso-Octane	0.41		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
n-Propylbenzene	0.42		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
Propylene	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
Styrene	26		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
1,1,2,2-Tetrachloroethane	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
Tetrachloroethene	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
Tetrahydrofuran	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
Toluene	96		ppbv	2.0	TO-15			3/20/18 12:35	CHS	A
Total Xylenes	44		ppbv	0.60	TO-15			3/19/18 22:09	CHS	A
1,2,4-Trichlorobenzene	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
1,1,1-Trichloroethane	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
1,1,2-Trichloroethane	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
Trichloroethene	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
Trichlorofluoromethane	0.27		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A

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ANALYTICAL RESULTS

Workorder: 2302234 NYSDEC-FCPS Site

Lab ID: **2302234004**
Sample ID: **52-07-ID-Office**

Date Collected: 3/12/2018 17:05 Matrix: Air
Date Received: 3/14/2018 17:50

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
1,2,3-Trichloropropane	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
1,2,4-Trimethylbenzene	2.4		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
1,3,5-Trimethylbenzene	0.79		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
1,2,3-Trimethylbenzene	0.41		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
Vinyl Acetate	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
Vinyl Bromide	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
Vinyl Chloride	ND		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
o-Xylene	9.7		ppbv	0.20	TO-15			3/19/18 22:09	CHS	A
mp-Xylene	34		ppbv	0.40	TO-15			3/19/18 22:09	CHS	A
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>	<i>Method</i>	<i>Prepared</i>	<i>By</i>	<i>Analyzed</i>	<i>By</i>	<i>Cntr</i>
4-Bromofluorobenzene (S)	106		%	70 - 130	TO-15			3/19/18 22:09	CHS	A
4-Bromofluorobenzene (S)	97		%	70 - 130	TO-15			3/20/18 12:35	CHS	A



Mrs. Vanessa N Badman
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2302234 NYSDEC-FCPS Site

Lab ID: **2302234005**

Date Collected: 3/12/2018 14:02

Matrix: Air

Sample ID: **52-07-ID-Metal Shop**

Date Received: 3/14/2018 17:50

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS @ STP										
Acetone	14000	E	ug/m3	48	TO-15			3/20/18 13:19	CHS	A
Acrylonitrile	ND		ug/m3	0.4	TO-15			3/19/18 22:55	CHS	A
tert-Amyl methyl ether	ND		ug/m3	0.8	TO-15			3/19/18 22:55	CHS	A
Benzene	3.5		ug/m3	0.6	TO-15			3/19/18 22:55	CHS	A
Benzyl Chloride	ND		ug/m3	1	TO-15			3/19/18 22:55	CHS	A
Bromodichloromethane	ND		ug/m3	1	TO-15			3/19/18 22:55	CHS	A
Bromoform	ND		ug/m3	2	TO-15			3/19/18 22:55	CHS	A
Bromomethane	ND		ug/m3	0.8	TO-15			3/19/18 22:55	CHS	A
1,3-Butadiene	ND		ug/m3	0.4	TO-15			3/19/18 22:55	CHS	A
n-Butane	29		ug/m3	0.5	TO-15			3/19/18 22:55	CHS	A
2-Butanone	30		ug/m3	0.6	TO-15			3/19/18 22:55	CHS	A
tert-Butyl Alcohol	0.74		ug/m3	0.6	TO-15			3/19/18 22:55	CHS	A
Carbon Disulfide	ND		ug/m3	0.6	TO-15			3/19/18 22:55	CHS	A
Carbon Tetrachloride	ND		ug/m3	1	TO-15			3/19/18 22:55	CHS	A
Chlorobenzene	ND		ug/m3	0.9	TO-15			3/19/18 22:55	CHS	A
Chlorodibromomethane	ND		ug/m3	2	TO-15			3/19/18 22:55	CHS	A
Chloroethane	ND		ug/m3	0.5	TO-15			3/19/18 22:55	CHS	A
Chloroform	ND		ug/m3	1	TO-15			3/19/18 22:55	CHS	A
Chloromethane	1.3		ug/m3	0.4	TO-15			3/19/18 22:55	CHS	A
3-Chloro-1-propene	ND		ug/m3	0.6	TO-15			3/19/18 22:55	CHS	A
o-Chlorotoluene	ND		ug/m3	1	TO-15			3/19/18 22:55	CHS	A
Cyclohexane	1.5		ug/m3	0.7	TO-15			3/19/18 22:55	CHS	A
1,2-Dibromoethane	ND		ug/m3	2	TO-15			3/19/18 22:55	CHS	A
1,2-Dichlorobenzene	ND		ug/m3	1	TO-15			3/19/18 22:55	CHS	A
1,3-Dichlorobenzene	ND		ug/m3	1	TO-15			3/19/18 22:55	CHS	A
1,4-Dichlorobenzene	ND		ug/m3	1	TO-15			3/19/18 22:55	CHS	A
Dichlorodifluoromethane	2.7		ug/m3	1	TO-15			3/19/18 22:55	CHS	A
1,1-Dichloroethane	ND		ug/m3	0.8	TO-15			3/19/18 22:55	CHS	A
1,2-Dichloroethane	ND		ug/m3	0.8	TO-15			3/19/18 22:55	CHS	A
1,1-Dichloroethene	ND		ug/m3	0.8	TO-15			3/19/18 22:55	CHS	A
cis-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15			3/19/18 22:55	CHS	A
trans-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15			3/19/18 22:55	CHS	A
1,2-Dichloropropane	ND		ug/m3	0.9	TO-15			3/19/18 22:55	CHS	A
cis-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15			3/19/18 22:55	CHS	A
trans-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15			3/19/18 22:55	CHS	A
1,3-Dichloropropene, Total	ND		ug/m3	2	TO-15			3/19/18 22:55	CHS	A
Diisopropyl ether	ND		ug/m3	0.8	TO-15			3/19/18 22:55	CHS	A

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ANALYTICAL RESULTS

Workorder: 2302234 NYSDEC-FCPS Site

Lab ID: **2302234005**

Date Collected: 3/12/2018 14:02

Matrix: Air

Sample ID: **52-07-ID-Metal Shop**

Date Received: 3/14/2018 17:50

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
1,4-Dioxane	ND		ug/m3	0.7	TO-15			3/19/18 22:55	CHS	A
Ethanol	110		ug/m3	38	TO-15			3/20/18 13:19	CHS	A
Ethyl Acetate	310		ug/m3	75	TO-15			3/20/18 13:19	CHS	A
Ethyl tert-butyl ether	ND		ug/m3	0.8	TO-15			3/19/18 22:55	CHS	A
Ethylbenzene	8.1		ug/m3	0.9	TO-15			3/19/18 22:55	CHS	A
4-Ethyltoluene	1.9		ug/m3	1	TO-15			3/19/18 22:55	CHS	A
Freon 113	ND		ug/m3	2	TO-15			3/19/18 22:55	CHS	A
Freon-114	ND		ug/m3	1	TO-15			3/19/18 22:55	CHS	A
Heptane	170		ug/m3	82	TO-15			3/20/18 13:19	CHS	A
Hexachlorobutadiene	ND		ug/m3	2	TO-15			3/19/18 22:55	CHS	A
Hexane	4.9		ug/m3	0.7	TO-15			3/19/18 22:55	CHS	A
2-Hexanone	ND		ug/m3	0.8	TO-15			3/19/18 22:55	CHS	A
Isopropyl Alcohol	70		ug/m3	0.5	TO-15			3/19/18 22:55	CHS	A
Isopropylbenzene	ND		ug/m3	1	TO-15			3/19/18 22:55	CHS	A
p-Isopropyltoluene	ND		ug/m3	1	TO-15			3/19/18 22:55	CHS	A
Methyl Methacrylate	0.96		ug/m3	0.8	TO-15			3/19/18 22:55	CHS	A
Methyl t-Butyl Ether	ND		ug/m3	0.7	TO-15			3/19/18 22:55	CHS	A
4-Methyl-2-Pentanone(MIBK)	360		ug/m3	82	TO-15			3/20/18 13:19	CHS	A
Methylene Chloride	7.2		ug/m3	0.7	TO-15			3/19/18 22:55	CHS	A
Naphthalene	ND		ug/m3	1	TO-15			3/19/18 22:55	CHS	A
iso-Octane	4.7		ug/m3	0.9	TO-15			3/19/18 22:55	CHS	A
n-Propylbenzene	1.1		ug/m3	1	TO-15			3/19/18 22:55	CHS	A
Propylene	ND		ug/m3	0.3	TO-15			3/19/18 22:55	CHS	A
Styrene	8.8		ug/m3	0.8	TO-15			3/19/18 22:55	CHS	A
1,1,2,2-Tetrachloroethane	ND		ug/m3	1	TO-15			3/19/18 22:55	CHS	A
Tetrachloroethene	ND		ug/m3	1	TO-15			3/19/18 22:55	CHS	A
Tetrahydrofuran	ND		ug/m3	0.6	TO-15			3/19/18 22:55	CHS	A
Toluene	4200		ug/m3	75	TO-15			3/20/18 13:19	CHS	A
Total Xylenes	46		ug/m3	3	TO-15			3/19/18 22:55	CHS	A
1,2,4-Trichlorobenzene	ND		ug/m3	1	TO-15			3/19/18 22:55	CHS	A
1,1,1-Trichloroethane	ND		ug/m3	1	TO-15			3/19/18 22:55	CHS	A
1,1,2-Trichloroethane	ND		ug/m3	1	TO-15			3/19/18 22:55	CHS	A
Trichloroethene	ND		ug/m3	1	TO-15			3/19/18 22:55	CHS	A
Trichlorofluoromethane	1.5		ug/m3	1	TO-15			3/19/18 22:55	CHS	A
1,2,3-Trichloropropane	ND		ug/m3	1	TO-15			3/19/18 22:55	CHS	A
1,2,4-Trimethylbenzene	5.6		ug/m3	1	TO-15			3/19/18 22:55	CHS	A
1,3,5-Trimethylbenzene	2.3		ug/m3	1	TO-15			3/19/18 22:55	CHS	A
1,2,3-Trimethylbenzene	1.1		ug/m3	1	TO-15			3/19/18 22:55	CHS	A

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ANALYTICAL RESULTS

Workorder: 2302234 NYSDEC-FCPS Site

Lab ID: **2302234005**

Date Collected: 3/12/2018 14:02

Matrix: Air

Sample ID: **52-07-ID-Metal Shop**

Date Received: 3/14/2018 17:50

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Vinyl Acetate	ND		ug/m3	0.7	TO-15			3/19/18 22:55	CHS	A
Vinyl Bromide	ND		ug/m3	0.9	TO-15			3/19/18 22:55	CHS	A
Vinyl Chloride	ND		ug/m3	0.5	TO-15			3/19/18 22:55	CHS	A
o-Xylene	11		ug/m3	0.9	TO-15			3/19/18 22:55	CHS	A
mp-Xylene	36		ug/m3	2	TO-15			3/19/18 22:55	CHS	A
Acetone	6000	E	ppbv	20	TO-15			3/20/18 13:19	CHS	A
Acrylonitrile	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
tert-Amyl methyl ether	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
Benzene	1.1		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
Benzyl Chloride	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
Bromodichloromethane	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
Bromoform	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
Bromomethane	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
1,3-Butadiene	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
n-Butane	12		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
2-Butanone	10		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
tert-Butyl Alcohol	0.24		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
Carbon Disulfide	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
Carbon Tetrachloride	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
Chlorobenzene	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
Chlorodibromomethane	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
Chloroethane	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
Chloroform	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
Chloromethane	0.65		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
3-Chloro-1-propene	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
o-Chlorotoluene	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
Cyclohexane	0.44		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
1,2-Dibromoethane	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
1,2-Dichlorobenzene	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
1,3-Dichlorobenzene	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
1,4-Dichlorobenzene	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
Dichlorodifluoromethane	0.54		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
1,1-Dichloroethane	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
1,2-Dichloroethane	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
1,1-Dichloroethene	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
cis-1,2-Dichloroethene	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
trans-1,2-Dichloroethene	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
1,2-Dichloropropane	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A

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ANALYTICAL RESULTS

Workorder: 2302234 NYSDEC-FCPS Site

Lab ID: **2302234005**

Date Collected: 3/12/2018 14:02

Matrix: Air

Sample ID: **52-07-ID-Metal Shop**

Date Received: 3/14/2018 17:50

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,3-Dichloropropene	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
trans-1,3-Dichloropropene	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
1,3-Dichloropropene, Total	ND		ppbv	0.40	TO-15			3/19/18 22:55	CHS	A
Diisopropyl ether	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
1,4-Dioxane	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
Ethanol	61		ppbv	20	TO-15			3/20/18 13:19	CHS	A
Ethyl Acetate	85		ppbv	20	TO-15			3/20/18 13:19	CHS	A
Ethyl tert-butyl ether	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
Ethylbenzene	1.9		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
4-Ethyltoluene	0.38		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
Freon 113	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
Freon-114	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
Heptane	40		ppbv	20	TO-15			3/20/18 13:19	CHS	A
Hexachlorobutadiene	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
Hexane	1.4		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
2-Hexanone	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
Isopropyl Alcohol	29		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
Isopropylbenzene	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
p-Isopropyltoluene	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
Methyl methacrylate	0.23		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
Methyl t-Butyl Ether	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
4-Methyl-2-Pentanone(MIBK)	89		ppbv	20	TO-15			3/20/18 13:19	CHS	A
Methylene Chloride	2.1		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
Naphthalene	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
iso-Octane	1.0		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
n-Propylbenzene	0.23		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
Propylene	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
Styrene	2.1		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
1,1,2,2-Tetrachloroethane	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
Tetrachloroethene	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
Tetrahydrofuran	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
Toluene	1100		ppbv	20	TO-15			3/20/18 13:19	CHS	A
Total Xylenes	11		ppbv	0.60	TO-15			3/19/18 22:55	CHS	A
1,2,4-Trichlorobenzene	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
1,1,1-Trichloroethane	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
1,1,2-Trichloroethane	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
Trichloroethene	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
Trichlorofluoromethane	0.27		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A

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ANALYTICAL RESULTS

Workorder: 2302234 NYSDEC-FCPS Site

Lab ID: **2302234005**

Date Collected: 3/12/2018 14:02

Matrix: Air

Sample ID: **52-07-ID-Metal Shop**

Date Received: 3/14/2018 17:50

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
1,2,3-Trichloropropane	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
1,2,4-Trimethylbenzene	1.1		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
1,3,5-Trimethylbenzene	0.47		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
1,2,3-Trimethylbenzene	0.23		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
Vinyl Acetate	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
Vinyl Bromide	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
Vinyl Chloride	ND		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
o-Xylene	2.5		ppbv	0.20	TO-15			3/19/18 22:55	CHS	A
mp-Xylene	8.2		ppbv	0.40	TO-15			3/19/18 22:55	CHS	A
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>	<i>Method</i>	<i>Prepared</i>	<i>By</i>	<i>Analyzed</i>	<i>By</i>	<i>Cntr</i>
4-Bromofluorobenzene (S)	91		%	70 - 130	TO-15			3/20/18 13:19	CHS	A
4-Bromofluorobenzene (S)	99		%	70 - 130	TO-15			3/19/18 22:55	CHS	A



Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental Laboratory Locations Across North America

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Vancouver Waterloo · Winnipeg · Yellowknife **United States:** Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York **Mexico:** Monterrey

ANALYTICAL RESULTS

Workorder: 2302234 NYSDEC-FCPS Site

PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
2302234001	1	50-45-ID-Office	TO-15	Naphthalene
This compound was recovered above quality control criteria in the initial calibration verification standard associated with this sample. The % Recovery was reported as 143% and the control limits were 70% to 130%.				
2302234001	2	50-45-ID-Office	TO-15	Naphthalene
This compound was recovered above quality control criteria in the initial calibration verification standard associated with this sample. The % Recovery was reported as 143% and the control limits were 70% to 130%.				
2302234002	1	50-45-ID-Work Shop	TO-15	Naphthalene
This compound was recovered above quality control criteria in the initial calibration verification standard associated with this sample. The % Recovery was reported as 143% and the control limits were 70% to 130%.				
2302234002	2	50-45-ID-Work Shop	TO-15	Naphthalene
This compound was recovered above quality control criteria in the initial calibration verification standard associated with this sample. The % Recovery was reported as 143% and the control limits were 70% to 130%.				
2302234004	1	52-07-ID-Office	TO-15	Naphthalene
This compound was recovered above quality control criteria in the initial calibration verification standard associated with this sample. The % Recovery was reported as 143% and the control limits were 70% to 130%.				
2302234004	2	52-07-ID-Office	TO-15	Naphthalene
This compound was recovered above quality control criteria in the initial calibration verification standard associated with this sample. The % Recovery was reported as 143% and the control limits were 70% to 130%.				
2302234005	E	52-07-ID-Metal Shop	TO-15	Acetone
Result reported exceeds instrument calibration				
2302234005	E	52-07-ID-Metal Shop	TO-15	Acetone
Result reported exceeds instrument calibration				

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34 Dogwood Lane
Middletown, PA 17057
P. 717-944-5541
F. 717-944-1430

AIR ANALYSIS

CHAIN-OF-CUSTODY/FIELD TEST DATA SHEET

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT/SAMPLER.

Environmental

INSTRUCTIONS ON THE BACK.

1. CLIENT INFORMATION		2. ANALYSES/METHOD REQUESTED		3. LABORATORY	
Client Name/Address: <u>Allyson Krueger/Parsons</u>		LABORATORY CANISTER CERTIFIED BY:		RECEIVING INFORMATION:	
200 Catonsville Ln, Suite 200, NJ		GC/MS Analyst Signature: <u>[Signature]</u>		COC Complete/Accurate? <u>Y</u> Initial <u>OK</u>	
Contact: <u>Allyson Krueger</u>		CANISTERS PREPARED BY:		Labels Complete/Accurate? <u>Y</u>	
Phone#: <u>609 313 3282</u>		Name: <u>Alan H. Simmons</u>		Cont. In Good Cond? <u>Y</u>	
Project Name/ID: <u>MSDEL - ECRS Site</u>		Title: <u>ALH</u>		Custody Seals Present? <u>Y</u>	
Bill To: <u>SAME</u>		Custody Sealed Date/Time: <u>3/15/18 10:30</u>		(If present) Seals Intact? <u>Y</u>	
TAT ☒ Normal Standard TAT is 10-12 business days.		Date Shipped to Client: <u>3/15/18</u>		Returned In $\leq$ 15 days? <u>Y</u>	
Over Sampled ☐ Rush-TAT subject to ALS approval and surcharges.		Custody Seal #s: <u>2898</u>		Custody Seal #s: <u>2898, 2899</u>	
Email: <u>allyson.krueger@parsons.com</u>		Courier/Tracking #: <u>UPS 3458 198 9244</u>			
Fax: <u></u>					

SAMPLE INFORMATION FOR TO-15		TO-15 FIELD DATA				LABORATORY RECORD								
Sample Description/Location (as it will appear on the lab report)	Sample Date	Start Time	Stop Time	Temp Deg C	IL	6L	Canister No.	Flow Controller No.	Canister Pressure (Psi)	Canister Certification File	Canister Pressure (Psi)	Out In	Setpoint (mL/min)	Flow Controller
1 50-45 ID-Office	3/12/18 09:08	16:41	7:22	72			11926	AB195531-1	-9	21022786	-29.7	-8.2	10.5	
2 50-45 ID-Work Shop	3/12/18 09:13	16:38	7:0	70			11909	7280847	-11			-8.1	10.6	
3 50-45 - Ambient	3/12/18 09:31	15:30	3:7	37			11193	7910294	-23	4:25		-5.1	10.5	
4 52-07 ID-Office	3/12/18 09:52	17:08	3:7	37			9197	7300823	-30	21022206	-29.3	-6.5		
5 52-07 ID-Metal Shop	3/12/18 09:53	14:02	7:0	70			1076	7309966	-5			-4.9		
6														
7														
8														
9														
10														

5. SAMPLED BY (Please Print):		LOGGED BY (signature):		REVIEWED BY (signature):	
Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 <u>[Signature]</u>	3/12/18	09:00	2 <u>gmo</u>	3/14/18	17:30
3			4		
5			6		
7			8		
9			10		

6. PROJECT INFORMATION		State Samples Collected In	
Standard ☐	CLP-like ☐	NY ☐	
DOD ☐	TO-15 ☐	NJ ☐	
Other ☐		PA ☐	
EDDs- Type: ☐ Pickup ☐ Labor		NC ☐	
ALS Field Services: ☐ Labor		other ☐	

Phone: 1-717-944-5541 ALS ENVIRONMENTAL SHIPPING ADDRESS: 34 DOGWOOD LANE, MIDDLETOWN, PA 17057 Rev 03/2011

ALS-Middletown

TO-15 Sample Receipt Checklist

Client ID: Allyson Kriney/Parsons

Horizon WO#: _____

Sample Delivery Group ID: _____

Log In By/Date: _____

(signature) _____

Number of Shipping containers received: 2

Project Name/#: NYSDEC - FCPS Site

Date/Time received: 03-14-2018

Received By: Jasmine Stevenson

Project Manager Review (date) _____

(signature) _____

Courier: UPS J458 198 9244, J458 198 9253

Circle the response below as appropriate.

1. Did kit(s) come with a shipping slip (airbill, etc.)? YES NO NA

If YES, enter airbill numbers: _____

J458 198 9244, J458 198 9253

Shipping Container Information:

2. Were shipping containers received without signs of tampering? YES NO NA

Comments: _____

3. Were custody seals present and intact? YES NO NA

4. Were custody seals numbers present? YES NO NA

List Custody Seal Numbers: _____

2898, 2899

Sample Condition:

5. Were sample containers received intact without signs of tampering? YES NO NA

Comments: _____

Chain of Custody:

6. Did COC arrive with the samples? YES NO NA

7. Do sample ID/Sample Description(s) match samples submitted? YES NO NA

8. Is date and time of collection listed on the COC for all samples? YES NO NA

9. Is identification of sampler on COC? YES NO NA

10. Are requested test method(s) on COC? YES NO NA

11. Are necessary signatures on COC? YES NO NA

12. Was Internal COC initiated? (should always be YES) YES NO NA

Sample Integrity Usability:

13. Do sample containers match the COC? YES NO NA

14. Were sample canisters received within 15 days of shipment to client? YES NO NA

Anomalies or Non-Conformances: _____

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: 460-138477-1

Client Project/Site: FCPS

For:

Parsons Corporation

200 Cottontail Lane

Somerset, New Jersey 08873

Attn: Ms. Allyson Kriney



Authorized for release by:

8/22/2017 5:12:36 PM

Kristin DeGraw, Project Manager II

(732)593-2555

kristin.degraw@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.

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Definitions/Glossary

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-138477-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
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.
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.
*	LCS or LCSD is outside acceptance 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.

LCMS

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.
B	Compound was found in the blank and sample.
*	Isotope Dilution analyte is outside acceptance limits.
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.

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: FCPS

TestAmerica Job ID: 460-138477-1

Job ID: 460-138477-1

Laboratory: TestAmerica Edison

Narrative

CASE NARRATIVE

Client: Parsons Corporation

Project: FCPS

Report Number: 460-138477-1

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 8/2/2017 5:55 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 0.6° C and 1.2° C.

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 FC-EB-080117 (460-138477-1), FC-MW-103S (460-138477-2), FC-MW-5 (460-138477-3), FC-MW-9 (460-138477-4), FC-MW-8 (460-138477-5), FC-MW-108D (460-138477-6), FC-MW-104S (460-138477-7), FC-MW-104D (460-138477-8), FC-MW-105S (460-138477-9), FC-MW-105D (460-138477-10), FC-MW-1 (460-138477-11), FC-MW-6 (460-138477-12), FC-MW-107D (460-138477-13), FC-MW-109S (460-138477-14) and FC-MW-6-D (460-138477-15) were analyzed for Volatile organic compounds (GC-MS) in accordance with EPA SW-846 Methods 8260C. The samples were analyzed on 08/13/2017 and 08/14/2017.

The continuing calibration verification (CCV) analyzed in batch 460-456073 and batch 460-455924 was outside the method criteria for the following analytes: Chloroethane (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 analytes is considered estimated.

The laboratory control sample (LCS) for batch 456073 recovered outside control limits for the following analyte: Chloroethane. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Acetone was detected in method blank MB 460-455924/7 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Acetone was detected in method blank MB 460-456073/7 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

Tetrachloroethene failed the recovery criteria low for the MS/MSD of sample FC-MW-6MS/MSD (460-138477-12) in batch 460-455924.

Case Narrative

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-138477-1

Job ID: 460-138477-1 (Continued)

Laboratory: TestAmerica Edison (Continued)

Chloroethane 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 FC-MW-104D (460-138477-8)[5X], FC-MW-6 (460-138477-12)[5X] and FC-MW-6-D (460-138477-15)[5X] 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.

1,4 DIOXANE BY METHOD 8270 SIM

Samples FC-EB-080117 (460-138477-1), FC-MW-103S (460-138477-2), FC-MW-5 (460-138477-3), FC-MW-6 (460-138477-12), FC-MW-107D (460-138477-13), FC-MW-109S (460-138477-14) and FC-MW-6-D (460-138477-15) were analyzed for 1,4 Dioxane by Method 8270 SIM in accordance with EPA SW-846 Method 8270D SIM DKQP. The samples were prepared on 08/08/2017 and analyzed on 08/09/2017 and 08/14/2017.

No difficulties were encountered during the SVOC SIM DKQP analysis.

All quality control parameters were within the acceptance limits.

PERFLUORINATED HYDROCARBONS (PFC)

Samples FC-EB-080117 (460-138477-1), FC-MW-103S (460-138477-2), FC-MW-6 (460-138477-12), FC-MW-107D (460-138477-13) and FC-MW-6-D (460-138477-15) were analyzed for Perfluorinated Hydrocarbons (PFC) in accordance with PFC. The samples were prepared on 08/07/2017 and 08/10/2017 and analyzed on 08/10/2017 and 08/15/2017.

The following samples: 460-138477-2, 460-138477-12, 460-138477-12[MS], 460-138477-12[MSD], 460-138477-13 and 460-138477-15 were decanted prior to preparation due to excessive sediment.

The Isotope Dilution Analyte (IDA) recovery associated with the following sample is below the method recommended limit for 13C5 PFNA: 460-138477-12[MS]. Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, which is achieved for all IDA in the sample.

Perfluorooctanoic acid (PFOA) was detected in method blank MB 320-178144/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

No other difficulties were encountered during the Perfluorinated Hydrocarbons (PFC) analysis.

All other quality control parameters were within the acceptance limits.

Detection Summary

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-138477-1

Client Sample ID: FC-EB-080117

Lab Sample ID: 460-138477-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	5.6	B	5.0	1.1	ug/L	1		8260C	Total/NA
Ethylbenzene	0.40	J	1.0	0.30	ug/L	1		8260C	Total/NA
Xylenes, Total	1.0	J	2.0	0.28	ug/L	1		8260C	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.5	J	1.8	0.72	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	3.8	B	1.8	0.67	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS) - RE	0.94	J	1.8	0.80	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - RE	1.3	J	1.8	1.2	ng/L	1		537 (modified)	Total/NA

Client Sample ID: FC-MW-103S

Lab Sample ID: 460-138477-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	6.0	B	5.0	1.1	ug/L	1		8260C	Total/NA
Chloroform	0.65	J	1.0	0.22	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	4.4		1.0	0.26	ug/L	1		8260C	Total/NA
Methylene Chloride	0.50	J	1.0	0.21	ug/L	1		8260C	Total/NA
Tetrachloroethene	290		1.0	0.12	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	0.29	J	1.0	0.18	ug/L	1		8260C	Total/NA
Trichloroethene	2.6		1.0	0.22	ug/L	1		8260C	Total/NA
1,4-Dioxane	0.24	J	0.42	0.16	ug/L	1		8270D SIM	Total/NA
Perfluoroheptanoic acid (PFHpA)	21		2.0	0.81	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	90	B	2.0	0.76	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	9.1		2.0	0.66	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS) - RE	12		2.2	1.0	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS) - RE	12		2.2	0.96	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - RE	41		2.2	1.4	ng/L	1		537 (modified)	Total/NA

Client Sample ID: FC-MW-5

Lab Sample ID: 460-138477-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	4.2	J B	5.0	1.1	ug/L	1		8260C	Total/NA
Benzene	0.16	J	1.0	0.090	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	23		1.0	0.26	ug/L	1		8260C	Total/NA
Tetrachloroethene	340		1.0	0.12	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	0.80	J	1.0	0.18	ug/L	1		8260C	Total/NA
Trichloroethene	42		1.0	0.22	ug/L	1		8260C	Total/NA

Client Sample ID: FC-MW-9

Lab Sample ID: 460-138477-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	3.7	J B	5.0	1.1	ug/L	1		8260C	Total/NA
Chloroform	0.55	J	1.0	0.22	ug/L	1		8260C	Total/NA
Tetrachloroethene	25		1.0	0.12	ug/L	1		8260C	Total/NA

Client Sample ID: FC-MW-8

Lab Sample ID: 460-138477-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	3.8	J B	5.0	1.1	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Edison

Detection Summary

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-138477-1

Client Sample ID: FC-MW-8 (Continued)

Lab Sample ID: 460-138477-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloroform	0.28	J	1.0	0.22	ug/L	1			8260C	Total/NA
Tetrachloroethene	81		1.0	0.12	ug/L	1			8260C	Total/NA

Client Sample ID: FC-MW-108D

Lab Sample ID: 460-138477-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Acetone	5.5	B	5.0	1.1	ug/L	1			8260C	Total/NA
Chloroform	0.89	J	1.0	0.22	ug/L	1			8260C	Total/NA
Tetrachloroethene	1.1		1.0	0.12	ug/L	1			8260C	Total/NA

Client Sample ID: FC-MW-104S

Lab Sample ID: 460-138477-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
1,1-Dichloroethene	0.77	J	1.0	0.34	ug/L	1			8260C	Total/NA
Acetone	3.4	J B	5.0	1.1	ug/L	1			8260C	Total/NA
Benzene	0.16	J	1.0	0.090	ug/L	1			8260C	Total/NA
Chloroform	0.33	J	1.0	0.22	ug/L	1			8260C	Total/NA
cis-1,2-Dichloroethene	110		1.0	0.26	ug/L	1			8260C	Total/NA
Tetrachloroethene	260		1.0	0.12	ug/L	1			8260C	Total/NA
trans-1,2-Dichloroethene	5.0		1.0	0.18	ug/L	1			8260C	Total/NA
Trichloroethene	160		1.0	0.22	ug/L	1			8260C	Total/NA
Vinyl chloride	0.26	J	1.0	0.060	ug/L	1			8260C	Total/NA

Client Sample ID: FC-MW-104D

Lab Sample ID: 460-138477-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Benzene	0.15	J	1.0	0.090	ug/L	1			8260C	Total/NA
Chloroform	0.59	J	1.0	0.22	ug/L	1			8260C	Total/NA
cis-1,2-Dichloroethene	32		1.0	0.26	ug/L	1			8260C	Total/NA
trans-1,2-Dichloroethene	0.67	J	1.0	0.18	ug/L	1			8260C	Total/NA
Trichloroethene	150		1.0	0.22	ug/L	1			8260C	Total/NA
Tetrachloroethene - DL	430		5.0	0.60	ug/L	5			8260C	Total/NA

Client Sample ID: FC-MW-105S

Lab Sample ID: 460-138477-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Acetone	3.8	J B	5.0	1.1	ug/L	1			8260C	Total/NA
Tetrachloroethene	0.84	J	1.0	0.12	ug/L	1			8260C	Total/NA

Client Sample ID: FC-MW-105D

Lab Sample ID: 460-138477-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Acetone	4.4	J B	5.0	1.1	ug/L	1			8260C	Total/NA
Chloroform	0.49	J	1.0	0.22	ug/L	1			8260C	Total/NA
Tetrachloroethene	0.21	J	1.0	0.12	ug/L	1			8260C	Total/NA
Trichloroethene	0.73	J	1.0	0.22	ug/L	1			8260C	Total/NA

Client Sample ID: FC-MW-1

Lab Sample ID: 460-138477-11

This Detection Summary does not include radiochemical test results.

TestAmerica Edison

Detection Summary

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-138477-1

Client Sample ID: FC-MW-1 (Continued)

Lab Sample ID: 460-138477-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	4.2	J B	5.0	1.1	ug/L	1		8260C	Total/NA
Chloroform	1.8		1.0	0.22	ug/L	1		8260C	Total/NA
Tetrachloroethene	2.6		1.0	0.12	ug/L	1		8260C	Total/NA
Trichloroethene	0.44	J	1.0	0.22	ug/L	1		8260C	Total/NA

Client Sample ID: FC-MW-6

Lab Sample ID: 460-138477-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	8.2		5.0	1.3	ug/L	5		8260C	Total/NA
Tetrachloroethene	1800		5.0	0.60	ug/L	5		8260C	Total/NA
Trichloroethene	85		5.0	1.1	ug/L	5		8260C	Total/NA
Perfluoroheptanoic acid (PFHpA)	30		2.0	0.81	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	220	B	2.0	0.76	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.74	J	2.0	0.66	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS) - RE	8.2		1.9	0.89	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS) - RE	11		1.9	0.85	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - RE	6.8		1.9	1.2	ng/L	1		537 (modified)	Total/NA

Client Sample ID: FC-MW-107D

Lab Sample ID: 460-138477-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	3.5	J B	5.0	1.1	ug/L	1		8260C	Total/NA
Chloroform	0.34	J	1.0	0.22	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	0.41	J	1.0	0.26	ug/L	1		8260C	Total/NA
Tetrachloroethene	58		1.0	0.12	ug/L	1		8260C	Total/NA
Trichloroethene	2.7		1.0	0.22	ug/L	1		8260C	Total/NA
Perfluoroheptanoic acid (PFHpA)	12		2.0	0.81	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	53	B	2.0	0.76	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	2.1		2.0	0.66	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS) - RE	6.0		1.7	0.80	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS) - RE	3.9		1.7	0.76	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - RE	14		1.7	1.1	ng/L	1		537 (modified)	Total/NA

Client Sample ID: FC-MW-109S

Lab Sample ID: 460-138477-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	3.2	J B	5.0	1.1	ug/L	1		8260C	Total/NA
Tetrachloroethene	5.6		1.0	0.12	ug/L	1		8260C	Total/NA
Trichloroethene	3.6		1.0	0.22	ug/L	1		8260C	Total/NA

Client Sample ID: FC-MW-6-D

Lab Sample ID: 460-138477-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	9.0		5.0	1.3	ug/L	5		8260C	Total/NA
Tetrachloroethene	1800		5.0	0.60	ug/L	5		8260C	Total/NA
Trichloroethene	84		5.0	1.1	ug/L	5		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Edison

Detection Summary

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-138477-1

Client Sample ID: FC-MW-6-D (Continued)

Lab Sample ID: 460-138477-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Perfluoroheptanoic acid (PFHpA)	28		2.1	0.83	ng/L	1			537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	230	B	2.1	0.77	ng/L	1			537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS) - RE	8.2		1.8	0.82	ng/L	1			537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS) - RE	11		1.8	0.78	ng/L	1			537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - RE	7.4		1.8	1.1	ng/L	1			537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-138477-1

Client Sample ID: FC-EB-080117

Lab Sample ID: 460-138477-1

Date Collected: 08/01/17 17:45

Matrix: Water

Date Received: 08/02/17 17:55

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.28	ug/L			08/13/17 10:29	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			08/13/17 10:29	1
1,1,2-Trichloroethane	ND		1.0	0.080	ug/L			08/13/17 10:29	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			08/13/17 10:29	1
1,1-Dichloroethene	ND		1.0	0.34	ug/L			08/13/17 10:29	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/13/17 10:29	1
1,2-Dichloropropane	ND		1.0	0.18	ug/L			08/13/17 10:29	1
2-Butanone (MEK)	ND		5.0	2.2	ug/L			08/13/17 10:29	1
2-Hexanone	ND		5.0	0.72	ug/L			08/13/17 10:29	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.63	ug/L			08/13/17 10:29	1
Acetone	5.6	B	5.0	1.1	ug/L			08/13/17 10:29	1
Benzene	ND		1.0	0.090	ug/L			08/13/17 10:29	1
Bromoform	ND		1.0	0.18	ug/L			08/13/17 10:29	1
Bromomethane	ND		1.0	0.18	ug/L			08/13/17 10:29	1
Carbon disulfide	ND		1.0	0.22	ug/L			08/13/17 10:29	1
Carbon tetrachloride	ND		1.0	0.33	ug/L			08/13/17 10:29	1
Chlorobenzene	ND		1.0	0.24	ug/L			08/13/17 10:29	1
Chlorodibromomethane	ND		1.0	0.22	ug/L			08/13/17 10:29	1
Chloroethane	ND		1.0	0.37	ug/L			08/13/17 10:29	1
Chloroform	ND		1.0	0.22	ug/L			08/13/17 10:29	1
Chloromethane	ND		1.0	0.22	ug/L			08/13/17 10:29	1
cis-1,2-Dichloroethene	ND		1.0	0.26	ug/L			08/13/17 10:29	1
cis-1,3-Dichloropropene	ND		1.0	0.16	ug/L			08/13/17 10:29	1
Dichlorobromomethane	ND		1.0	0.15	ug/L			08/13/17 10:29	1
Ethylbenzene	0.40	J	1.0	0.30	ug/L			08/13/17 10:29	1
Methylene Chloride	ND		1.0	0.21	ug/L			08/13/17 10:29	1
Styrene	ND		1.0	0.17	ug/L			08/13/17 10:29	1
Tetrachloroethene	ND		1.0	0.12	ug/L			08/13/17 10:29	1
Toluene	ND		1.0	0.25	ug/L			08/13/17 10:29	1
trans-1,2-Dichloroethene	ND		1.0	0.18	ug/L			08/13/17 10:29	1
trans-1,3-Dichloropropene	ND		1.0	0.19	ug/L			08/13/17 10:29	1
Trichloroethene	ND		1.0	0.22	ug/L			08/13/17 10:29	1
Vinyl chloride	ND		1.0	0.060	ug/L			08/13/17 10:29	1
Xylenes, Total	1.0	J	2.0	0.28	ug/L			08/13/17 10:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		74 - 132		08/13/17 10:29	1
4-Bromofluorobenzene	100		77 - 124		08/13/17 10:29	1
Dibromofluoromethane (Surr)	102		72 - 131		08/13/17 10:29	1
Toluene-d8 (Surr)	104		80 - 120		08/13/17 10:29	1

Method: 8270D SIM - 1,4-Dioxane (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.42	0.16	ug/L		08/08/17 09:10	08/14/17 10:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	96		38 - 125	08/08/17 09:10	08/14/17 10:25	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-138477-1

Client Sample ID: FC-EB-080117

Lab Sample ID: 460-138477-1

Date Collected: 08/01/17 17:45

Matrix: Water

Date Received: 08/02/17 17:55

Method: 537 (modified) - Perfluorinated Hydrocarbons

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanoic acid (PFHpA)	1.5	J	1.8	0.72	ng/L		08/07/17 14:29	08/10/17 04:10	1
Perfluorooctanoic acid (PFOA)	3.8	B	1.8	0.67	ng/L		08/07/17 14:29	08/10/17 04:10	1
Perfluorononanoic acid (PFNA)	ND		1.8	0.59	ng/L		08/07/17 14:29	08/10/17 04:10	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	93		25 - 150				08/07/17 14:29	08/10/17 04:10	1
13C4-PFHxA	81		25 - 150				08/07/17 14:29	08/10/17 04:10	1
13C4 PFOA	74		25 - 150				08/07/17 14:29	08/10/17 04:10	1
13C4 PFOS	91		25 - 150				08/07/17 14:29	08/10/17 04:10	1
13C5 PFNA	54		25 - 150				08/07/17 14:29	08/10/17 04:10	1
13C3-PFBS	80		25 - 150				08/07/17 14:29	08/10/17 04:10	1

Method: 537 (modified) - Perfluorinated Hydrocarbons - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		1.8	0.85	ng/L		08/10/17 15:32	08/15/17 12:34	1
Perfluorohexanesulfonic acid (PFHxS)	0.94	J	1.8	0.80	ng/L		08/10/17 15:32	08/15/17 12:34	1
Perfluorooctanesulfonic acid (PFOS)	1.3	J	1.8	1.2	ng/L		08/10/17 15:32	08/15/17 12:34	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	102		25 - 150				08/10/17 15:32	08/15/17 12:34	1
13C4 PFOS	108		25 - 150				08/10/17 15:32	08/15/17 12:34	1
13C3-PFBS	94		25 - 150				08/10/17 15:32	08/15/17 12:34	1

Client Sample ID: FC-MW-103S

Lab Sample ID: 460-138477-2

Date Collected: 08/01/17 09:47

Matrix: Water

Date Received: 08/02/17 17:55

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.28	ug/L			08/13/17 18:05	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.19	ug/L			08/13/17 18:05	1
1,1,2-Trichloroethane	ND		1.0	0.080	ug/L			08/13/17 18:05	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			08/13/17 18:05	1
1,1-Dichloroethene	ND		1.0	0.34	ug/L			08/13/17 18:05	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/13/17 18:05	1
1,2-Dichloropropane	ND		1.0	0.18	ug/L			08/13/17 18:05	1
2-Butanone (MEK)	ND		5.0	2.2	ug/L			08/13/17 18:05	1
2-Hexanone	ND		5.0	0.72	ug/L			08/13/17 18:05	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.63	ug/L			08/13/17 18:05	1
Acetone	6.0	B	5.0	1.1	ug/L			08/13/17 18:05	1
Benzene	ND		1.0	0.090	ug/L			08/13/17 18:05	1
Bromoform	ND		1.0	0.18	ug/L			08/13/17 18:05	1
Bromomethane	ND		1.0	0.18	ug/L			08/13/17 18:05	1
Carbon disulfide	ND		1.0	0.22	ug/L			08/13/17 18:05	1
Carbon tetrachloride	ND		1.0	0.33	ug/L			08/13/17 18:05	1
Chlorobenzene	ND		1.0	0.24	ug/L			08/13/17 18:05	1
Chlorodibromomethane	ND		1.0	0.22	ug/L			08/13/17 18:05	1
Chloroethane	ND		1.0	0.37	ug/L			08/13/17 18:05	1
Chloroform	0.65	J	1.0	0.22	ug/L			08/13/17 18:05	1
Chloromethane	ND		1.0	0.22	ug/L			08/13/17 18:05	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-138477-1

Client Sample ID: FC-MW-103S

Lab Sample ID: 460-138477-2

Date Collected: 08/01/17 09:47

Matrix: Water

Date Received: 08/02/17 17:55

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	4.4		1.0	0.26	ug/L			08/13/17 18:05	1
cis-1,3-Dichloropropene	ND		1.0	0.16	ug/L			08/13/17 18:05	1
Dichlorobromomethane	ND		1.0	0.15	ug/L			08/13/17 18:05	1
Ethylbenzene	ND		1.0	0.30	ug/L			08/13/17 18:05	1
Methylene Chloride	0.50	J	1.0	0.21	ug/L			08/13/17 18:05	1
Styrene	ND		1.0	0.17	ug/L			08/13/17 18:05	1
Tetrachloroethene	290		1.0	0.12	ug/L			08/13/17 18:05	1
Toluene	ND		1.0	0.25	ug/L			08/13/17 18:05	1
trans-1,2-Dichloroethene	0.29	J	1.0	0.18	ug/L			08/13/17 18:05	1
trans-1,3-Dichloropropene	ND		1.0	0.19	ug/L			08/13/17 18:05	1
Trichloroethene	2.6		1.0	0.22	ug/L			08/13/17 18:05	1
Vinyl chloride	ND		1.0	0.060	ug/L			08/13/17 18:05	1
Xylenes, Total	ND		2.0	0.28	ug/L			08/13/17 18:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		74 - 132		08/13/17 18:05	1
4-Bromofluorobenzene	99		77 - 124		08/13/17 18:05	1
Dibromofluoromethane (Surr)	101		72 - 131		08/13/17 18:05	1
Toluene-d8 (Surr)	101		80 - 120		08/13/17 18:05	1

Method: 8270D SIM - 1,4-Dioxane (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.24	J	0.42	0.16	ug/L		08/08/17 09:10	08/14/17 10:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	86		38 - 125	08/08/17 09:10	08/14/17 10:48	1

Method: 537 (modified) - Perfluorinated Hydrocarbons

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanoic acid (PFHpA)	21		2.0	0.81	ng/L		08/07/17 14:29	08/10/17 04:17	1
Perfluorooctanoic acid (PFOA)	90	B	2.0	0.76	ng/L		08/07/17 14:29	08/10/17 04:17	1
Perfluorononanoic acid (PFNA)	9.1		2.0	0.66	ng/L		08/07/17 14:29	08/10/17 04:17	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	84		25 - 150	08/07/17 14:29	08/10/17 04:17	1
13C4-PFHxS	55		25 - 150	08/07/17 14:29	08/10/17 04:17	1
13C4 PFOA	37		25 - 150	08/07/17 14:29	08/10/17 04:17	1
13C4 PFOS	82		25 - 150	08/07/17 14:29	08/10/17 04:17	1
13C5 PFNA	29		25 - 150	08/07/17 14:29	08/10/17 04:17	1
13C3-PFBS	71		25 - 150	08/07/17 14:29	08/10/17 04:17	1

Method: 537 (modified) - Perfluorinated Hydrocarbons - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	12		2.2	1.0	ng/L		08/10/17 15:32	08/15/17 12:41	1
Perfluorohexanesulfonic acid (PFHxS)	12		2.2	0.96	ng/L		08/10/17 15:32	08/15/17 12:41	1
Perfluorooctanesulfonic acid (PFOS)	41		2.2	1.4	ng/L		08/10/17 15:32	08/15/17 12:41	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	103		25 - 150	08/10/17 15:32	08/15/17 12:41	1
13C4 PFOS	107		25 - 150	08/10/17 15:32	08/15/17 12:41	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-138477-1

Client Sample ID: FC-MW-103S

Date Collected: 08/01/17 09:47

Date Received: 08/02/17 17:55

Lab Sample ID: 460-138477-2

Matrix: Water

Method: 537 (modified) - Perfluorinated Hydrocarbons - RE (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3-PFBS	85		25 - 150	08/10/17 15:32	08/15/17 12:41	1

Client Sample ID: FC-MW-5

Date Collected: 08/01/17 11:05

Date Received: 08/02/17 17:55

Lab Sample ID: 460-138477-3

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	ND		1.0	0.28	ug/L			08/13/17 18:30	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			08/13/17 18:30	1
1,1,2-Trichloroethane	ND		1.0	0.080	ug/L			08/13/17 18:30	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			08/13/17 18:30	1
1,1-Dichloroethene	ND		1.0	0.34	ug/L			08/13/17 18:30	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/13/17 18:30	1
1,2-Dichloropropane	ND		1.0	0.18	ug/L			08/13/17 18:30	1
2-Butanone (MEK)	ND		5.0	2.2	ug/L			08/13/17 18:30	1
2-Hexanone	ND		5.0	0.72	ug/L			08/13/17 18:30	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.63	ug/L			08/13/17 18:30	1
Acetone	4.2	J B	5.0	1.1	ug/L			08/13/17 18:30	1
Benzene	0.16	J	1.0	0.090	ug/L			08/13/17 18:30	1
Bromoform	ND		1.0	0.18	ug/L			08/13/17 18:30	1
Bromomethane	ND		1.0	0.18	ug/L			08/13/17 18:30	1
Carbon disulfide	ND		1.0	0.22	ug/L			08/13/17 18:30	1
Carbon tetrachloride	ND		1.0	0.33	ug/L			08/13/17 18:30	1
Chlorobenzene	ND		1.0	0.24	ug/L			08/13/17 18:30	1
Chlorodibromomethane	ND		1.0	0.22	ug/L			08/13/17 18:30	1
Chloroethane	ND		1.0	0.37	ug/L			08/13/17 18:30	1
Chloroform	ND		1.0	0.22	ug/L			08/13/17 18:30	1
Chloromethane	ND		1.0	0.22	ug/L			08/13/17 18:30	1
cis-1,2-Dichloroethene	23		1.0	0.26	ug/L			08/13/17 18:30	1
cis-1,3-Dichloropropene	ND		1.0	0.16	ug/L			08/13/17 18:30	1
Dichlorobromomethane	ND		1.0	0.15	ug/L			08/13/17 18:30	1
Ethylbenzene	ND		1.0	0.30	ug/L			08/13/17 18:30	1
Methylene Chloride	ND		1.0	0.21	ug/L			08/13/17 18:30	1
Styrene	ND		1.0	0.17	ug/L			08/13/17 18:30	1
Tetrachloroethene	340		1.0	0.12	ug/L			08/13/17 18:30	1
Toluene	ND		1.0	0.25	ug/L			08/13/17 18:30	1
trans-1,2-Dichloroethene	0.80	J	1.0	0.18	ug/L			08/13/17 18:30	1
trans-1,3-Dichloropropene	ND		1.0	0.19	ug/L			08/13/17 18:30	1
Trichloroethene	42		1.0	0.22	ug/L			08/13/17 18:30	1
Vinyl chloride	ND		1.0	0.060	ug/L			08/13/17 18:30	1
Xylenes, Total	ND		2.0	0.28	ug/L			08/13/17 18:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	113		74 - 132		08/13/17 18:30	1
4-Bromofluorobenzene	103		77 - 124		08/13/17 18:30	1
Dibromofluoromethane (Surr)	106		72 - 131		08/13/17 18:30	1
Toluene-d8 (Surr)	105		80 - 120		08/13/17 18:30	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-138477-1

Client Sample ID: FC-MW-5

Date Collected: 08/01/17 11:05

Date Received: 08/02/17 17:55

Lab Sample ID: 460-138477-3

Matrix: Water

Method: 8270D SIM - 1,4-Dioxane (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.42	0.16	ug/L		08/08/17 09:10	08/14/17 11:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	80		38 - 125				08/08/17 09:10	08/14/17 11:10	1

Client Sample ID: FC-MW-9

Date Collected: 08/01/17 12:25

Date Received: 08/02/17 17:55

Lab Sample ID: 460-138477-4

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	ND		1.0	0.28	ug/L			08/13/17 16:49	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			08/13/17 16:49	1
1,1,2-Trichloroethane	ND		1.0	0.080	ug/L			08/13/17 16:49	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			08/13/17 16:49	1
1,1-Dichloroethene	ND		1.0	0.34	ug/L			08/13/17 16:49	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/13/17 16:49	1
1,2-Dichloropropane	ND		1.0	0.18	ug/L			08/13/17 16:49	1
2-Butanone (MEK)	ND		5.0	2.2	ug/L			08/13/17 16:49	1
2-Hexanone	ND		5.0	0.72	ug/L			08/13/17 16:49	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.63	ug/L			08/13/17 16:49	1
Acetone	3.7	J B	5.0	1.1	ug/L			08/13/17 16:49	1
Benzene	ND		1.0	0.090	ug/L			08/13/17 16:49	1
Bromoform	ND		1.0	0.18	ug/L			08/13/17 16:49	1
Bromomethane	ND		1.0	0.18	ug/L			08/13/17 16:49	1
Carbon disulfide	ND		1.0	0.22	ug/L			08/13/17 16:49	1
Carbon tetrachloride	ND		1.0	0.33	ug/L			08/13/17 16:49	1
Chlorobenzene	ND		1.0	0.24	ug/L			08/13/17 16:49	1
Chlorodibromomethane	ND		1.0	0.22	ug/L			08/13/17 16:49	1
Chloroethane	ND		1.0	0.37	ug/L			08/13/17 16:49	1
Chloroform	0.55	J	1.0	0.22	ug/L			08/13/17 16:49	1
Chloromethane	ND		1.0	0.22	ug/L			08/13/17 16:49	1
cis-1,2-Dichloroethene	ND		1.0	0.26	ug/L			08/13/17 16:49	1
cis-1,3-Dichloropropene	ND		1.0	0.16	ug/L			08/13/17 16:49	1
Dichlorobromomethane	ND		1.0	0.15	ug/L			08/13/17 16:49	1
Ethylbenzene	ND		1.0	0.30	ug/L			08/13/17 16:49	1
Methylene Chloride	ND		1.0	0.21	ug/L			08/13/17 16:49	1
Styrene	ND		1.0	0.17	ug/L			08/13/17 16:49	1
Tetrachloroethene	25		1.0	0.12	ug/L			08/13/17 16:49	1
Toluene	ND		1.0	0.25	ug/L			08/13/17 16:49	1
trans-1,2-Dichloroethene	ND		1.0	0.18	ug/L			08/13/17 16:49	1
trans-1,3-Dichloropropene	ND		1.0	0.19	ug/L			08/13/17 16:49	1
Trichloroethene	ND		1.0	0.22	ug/L			08/13/17 16:49	1
Vinyl chloride	ND		1.0	0.060	ug/L			08/13/17 16:49	1
Xylenes, Total	ND		2.0	0.28	ug/L			08/13/17 16:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		74 - 132					08/13/17 16:49	1
4-Bromofluorobenzene	101		77 - 124					08/13/17 16:49	1
Dibromofluoromethane (Surr)	104		72 - 131					08/13/17 16:49	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-138477-1

Client Sample ID: FC-MW-9

Date Collected: 08/01/17 12:25

Date Received: 08/02/17 17:55

Lab Sample ID: 460-138477-4

Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	104		80 - 120		08/13/17 16:49	1

Client Sample ID: FC-MW-8

Date Collected: 08/01/17 13:50

Date Received: 08/02/17 17:55

Lab Sample ID: 460-138477-5

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	ND		1.0	0.28	ug/L			08/13/17 17:14	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			08/13/17 17:14	1
1,1,2-Trichloroethane	ND		1.0	0.080	ug/L			08/13/17 17:14	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			08/13/17 17:14	1
1,1-Dichloroethene	ND		1.0	0.34	ug/L			08/13/17 17:14	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/13/17 17:14	1
1,2-Dichloropropane	ND		1.0	0.18	ug/L			08/13/17 17:14	1
2-Butanone (MEK)	ND		5.0	2.2	ug/L			08/13/17 17:14	1
2-Hexanone	ND		5.0	0.72	ug/L			08/13/17 17:14	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.63	ug/L			08/13/17 17:14	1
Acetone	3.8	J B	5.0	1.1	ug/L			08/13/17 17:14	1
Benzene	ND		1.0	0.090	ug/L			08/13/17 17:14	1
Bromoform	ND		1.0	0.18	ug/L			08/13/17 17:14	1
Bromomethane	ND		1.0	0.18	ug/L			08/13/17 17:14	1
Carbon disulfide	ND		1.0	0.22	ug/L			08/13/17 17:14	1
Carbon tetrachloride	ND		1.0	0.33	ug/L			08/13/17 17:14	1
Chlorobenzene	ND		1.0	0.24	ug/L			08/13/17 17:14	1
Chlorodibromomethane	ND		1.0	0.22	ug/L			08/13/17 17:14	1
Chloroethane	ND		1.0	0.37	ug/L			08/13/17 17:14	1
Chloroform	0.28	J	1.0	0.22	ug/L			08/13/17 17:14	1
Chloromethane	ND		1.0	0.22	ug/L			08/13/17 17:14	1
cis-1,2-Dichloroethene	ND		1.0	0.26	ug/L			08/13/17 17:14	1
cis-1,3-Dichloropropene	ND		1.0	0.16	ug/L			08/13/17 17:14	1
Dichlorobromomethane	ND		1.0	0.15	ug/L			08/13/17 17:14	1
Ethylbenzene	ND		1.0	0.30	ug/L			08/13/17 17:14	1
Methylene Chloride	ND		1.0	0.21	ug/L			08/13/17 17:14	1
Styrene	ND		1.0	0.17	ug/L			08/13/17 17:14	1
Tetrachloroethene	81		1.0	0.12	ug/L			08/13/17 17:14	1
Toluene	ND		1.0	0.25	ug/L			08/13/17 17:14	1
trans-1,2-Dichloroethene	ND		1.0	0.18	ug/L			08/13/17 17:14	1
trans-1,3-Dichloropropene	ND		1.0	0.19	ug/L			08/13/17 17:14	1
Trichloroethene	ND		1.0	0.22	ug/L			08/13/17 17:14	1
Vinyl chloride	ND		1.0	0.060	ug/L			08/13/17 17:14	1
Xylenes, Total	ND		2.0	0.28	ug/L			08/13/17 17:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		74 - 132		08/13/17 17:14	1
4-Bromofluorobenzene	101		77 - 124		08/13/17 17:14	1
Dibromofluoromethane (Surr)	104		72 - 131		08/13/17 17:14	1
Toluene-d8 (Surr)	104		80 - 120		08/13/17 17:14	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-138477-1

Client Sample ID: FC-MW-108D

Lab Sample ID: 460-138477-6

Date Collected: 08/01/17 15:05

Matrix: Water

Date Received: 08/02/17 17:55

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.28	ug/L			08/13/17 12:10	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			08/13/17 12:10	1
1,1,2-Trichloroethane	ND		1.0	0.080	ug/L			08/13/17 12:10	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			08/13/17 12:10	1
1,1-Dichloroethene	ND		1.0	0.34	ug/L			08/13/17 12:10	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/13/17 12:10	1
1,2-Dichloropropane	ND		1.0	0.18	ug/L			08/13/17 12:10	1
2-Butanone (MEK)	ND		5.0	2.2	ug/L			08/13/17 12:10	1
2-Hexanone	ND		5.0	0.72	ug/L			08/13/17 12:10	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.63	ug/L			08/13/17 12:10	1
Acetone	5.5	B	5.0	1.1	ug/L			08/13/17 12:10	1
Benzene	ND		1.0	0.090	ug/L			08/13/17 12:10	1
Bromoform	ND		1.0	0.18	ug/L			08/13/17 12:10	1
Bromomethane	ND		1.0	0.18	ug/L			08/13/17 12:10	1
Carbon disulfide	ND		1.0	0.22	ug/L			08/13/17 12:10	1
Carbon tetrachloride	ND		1.0	0.33	ug/L			08/13/17 12:10	1
Chlorobenzene	ND		1.0	0.24	ug/L			08/13/17 12:10	1
Chlorodibromomethane	ND		1.0	0.22	ug/L			08/13/17 12:10	1
Chloroethane	ND		1.0	0.37	ug/L			08/13/17 12:10	1
Chloroform	0.89	J	1.0	0.22	ug/L			08/13/17 12:10	1
Chloromethane	ND		1.0	0.22	ug/L			08/13/17 12:10	1
cis-1,2-Dichloroethene	ND		1.0	0.26	ug/L			08/13/17 12:10	1
cis-1,3-Dichloropropene	ND		1.0	0.16	ug/L			08/13/17 12:10	1
Dichlorobromomethane	ND		1.0	0.15	ug/L			08/13/17 12:10	1
Ethylbenzene	ND		1.0	0.30	ug/L			08/13/17 12:10	1
Methylene Chloride	ND		1.0	0.21	ug/L			08/13/17 12:10	1
Styrene	ND		1.0	0.17	ug/L			08/13/17 12:10	1
Tetrachloroethene	1.1		1.0	0.12	ug/L			08/13/17 12:10	1
Toluene	ND		1.0	0.25	ug/L			08/13/17 12:10	1
trans-1,2-Dichloroethene	ND		1.0	0.18	ug/L			08/13/17 12:10	1
trans-1,3-Dichloropropene	ND		1.0	0.19	ug/L			08/13/17 12:10	1
Trichloroethene	ND		1.0	0.22	ug/L			08/13/17 12:10	1
Vinyl chloride	ND		1.0	0.060	ug/L			08/13/17 12:10	1
Xylenes, Total	ND		2.0	0.28	ug/L			08/13/17 12:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	122		74 - 132		08/13/17 12:10	1
4-Bromofluorobenzene	113		77 - 124		08/13/17 12:10	1
Dibromofluoromethane (Surr)	115		72 - 131		08/13/17 12:10	1
Toluene-d8 (Surr)	115		80 - 120		08/13/17 12:10	1

Client Sample ID: FC-MW-104S

Lab Sample ID: 460-138477-7

Date Collected: 08/01/17 16:40

Matrix: Water

Date Received: 08/02/17 17:55

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.28	ug/L			08/13/17 18:55	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			08/13/17 18:55	1
1,1,2-Trichloroethane	ND		1.0	0.080	ug/L			08/13/17 18:55	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-138477-1

Client Sample ID: FC-MW-104S

Lab Sample ID: 460-138477-7

Date Collected: 08/01/17 16:40

Matrix: Water

Date Received: 08/02/17 17:55

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		1.0	0.24	ug/L			08/13/17 18:55	1
1,1-Dichloroethene	0.77	J	1.0	0.34	ug/L			08/13/17 18:55	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/13/17 18:55	1
1,2-Dichloropropane	ND		1.0	0.18	ug/L			08/13/17 18:55	1
2-Butanone (MEK)	ND		5.0	2.2	ug/L			08/13/17 18:55	1
2-Hexanone	ND		5.0	0.72	ug/L			08/13/17 18:55	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.63	ug/L			08/13/17 18:55	1
Acetone	3.4	J B	5.0	1.1	ug/L			08/13/17 18:55	1
Benzene	0.16	J	1.0	0.090	ug/L			08/13/17 18:55	1
Bromoform	ND		1.0	0.18	ug/L			08/13/17 18:55	1
Bromomethane	ND		1.0	0.18	ug/L			08/13/17 18:55	1
Carbon disulfide	ND		1.0	0.22	ug/L			08/13/17 18:55	1
Carbon tetrachloride	ND		1.0	0.33	ug/L			08/13/17 18:55	1
Chlorobenzene	ND		1.0	0.24	ug/L			08/13/17 18:55	1
Chlorodibromomethane	ND		1.0	0.22	ug/L			08/13/17 18:55	1
Chloroethane	ND		1.0	0.37	ug/L			08/13/17 18:55	1
Chloroform	0.33	J	1.0	0.22	ug/L			08/13/17 18:55	1
Chloromethane	ND		1.0	0.22	ug/L			08/13/17 18:55	1
cis-1,2-Dichloroethene	110		1.0	0.26	ug/L			08/13/17 18:55	1
cis-1,3-Dichloropropene	ND		1.0	0.16	ug/L			08/13/17 18:55	1
Dichlorobromomethane	ND		1.0	0.15	ug/L			08/13/17 18:55	1
Ethylbenzene	ND		1.0	0.30	ug/L			08/13/17 18:55	1
Methylene Chloride	ND		1.0	0.21	ug/L			08/13/17 18:55	1
Styrene	ND		1.0	0.17	ug/L			08/13/17 18:55	1
Tetrachloroethene	260		1.0	0.12	ug/L			08/13/17 18:55	1
Toluene	ND		1.0	0.25	ug/L			08/13/17 18:55	1
trans-1,2-Dichloroethene	5.0		1.0	0.18	ug/L			08/13/17 18:55	1
trans-1,3-Dichloropropene	ND		1.0	0.19	ug/L			08/13/17 18:55	1
Trichloroethene	160		1.0	0.22	ug/L			08/13/17 18:55	1
Vinyl chloride	0.26	J	1.0	0.060	ug/L			08/13/17 18:55	1
Xylenes, Total	ND		2.0	0.28	ug/L			08/13/17 18:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		74 - 132		08/13/17 18:55	1
4-Bromofluorobenzene	102		77 - 124		08/13/17 18:55	1
Dibromofluoromethane (Surr)	105		72 - 131		08/13/17 18:55	1
Toluene-d8 (Surr)	104		80 - 120		08/13/17 18:55	1

Client Sample ID: FC-MW-104D

Lab Sample ID: 460-138477-8

Date Collected: 08/01/17 17:30

Matrix: Water

Date Received: 08/02/17 17:55

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.28	ug/L			08/14/17 18:49	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			08/14/17 18:49	1
1,1,2-Trichloroethane	ND		1.0	0.080	ug/L			08/14/17 18:49	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			08/14/17 18:49	1
1,1-Dichloroethene	ND		1.0	0.34	ug/L			08/14/17 18:49	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/14/17 18:49	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-138477-1

Client Sample ID: FC-MW-104D

Lab Sample ID: 460-138477-8

Date Collected: 08/01/17 17:30

Matrix: Water

Date Received: 08/02/17 17:55

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	ND		1.0	0.18	ug/L			08/14/17 18:49	1
2-Butanone (MEK)	ND		5.0	2.2	ug/L			08/14/17 18:49	1
2-Hexanone	ND		5.0	0.72	ug/L			08/14/17 18:49	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.63	ug/L			08/14/17 18:49	1
Acetone	ND		5.0	1.1	ug/L			08/14/17 18:49	1
Benzene	0.15	J	1.0	0.090	ug/L			08/14/17 18:49	1
Bromoform	ND		1.0	0.18	ug/L			08/14/17 18:49	1
Bromomethane	ND		1.0	0.18	ug/L			08/14/17 18:49	1
Carbon disulfide	ND		1.0	0.22	ug/L			08/14/17 18:49	1
Carbon tetrachloride	ND		1.0	0.33	ug/L			08/14/17 18:49	1
Chlorobenzene	ND		1.0	0.24	ug/L			08/14/17 18:49	1
Chlorodibromomethane	ND		1.0	0.22	ug/L			08/14/17 18:49	1
Chloroethane	ND	*	1.0	0.37	ug/L			08/14/17 18:49	1
Chloroform	0.59	J	1.0	0.22	ug/L			08/14/17 18:49	1
Chloromethane	ND		1.0	0.22	ug/L			08/14/17 18:49	1
cis-1,2-Dichloroethene	32		1.0	0.26	ug/L			08/14/17 18:49	1
cis-1,3-Dichloropropene	ND		1.0	0.16	ug/L			08/14/17 18:49	1
Dichlorobromomethane	ND		1.0	0.15	ug/L			08/14/17 18:49	1
Ethylbenzene	ND		1.0	0.30	ug/L			08/14/17 18:49	1
Methylene Chloride	ND		1.0	0.21	ug/L			08/14/17 18:49	1
Styrene	ND		1.0	0.17	ug/L			08/14/17 18:49	1
Toluene	ND		1.0	0.25	ug/L			08/14/17 18:49	1
trans-1,2-Dichloroethene	0.67	J	1.0	0.18	ug/L			08/14/17 18:49	1
trans-1,3-Dichloropropene	ND		1.0	0.19	ug/L			08/14/17 18:49	1
Trichloroethene	150		1.0	0.22	ug/L			08/14/17 18:49	1
Vinyl chloride	ND		1.0	0.060	ug/L			08/14/17 18:49	1
Xylenes, Total	ND		2.0	0.28	ug/L			08/14/17 18:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	111		74 - 132		08/14/17 18:49	1
4-Bromofluorobenzene	96		77 - 124		08/14/17 18:49	1
Dibromofluoromethane (Surr)	101		72 - 131		08/14/17 18:49	1
Toluene-d8 (Surr)	105		80 - 120		08/14/17 18:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	430		5.0	0.60	ug/L			08/13/17 14:17	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		74 - 132		08/13/17 14:17	5
4-Bromofluorobenzene	101		77 - 124		08/13/17 14:17	5
Dibromofluoromethane (Surr)	102		72 - 131		08/13/17 14:17	5
Toluene-d8 (Surr)	102		80 - 120		08/13/17 14:17	5

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-138477-1

Client Sample ID: FC-MW-105S

Lab Sample ID: 460-138477-9

Date Collected: 08/02/17 07:55

Matrix: Water

Date Received: 08/02/17 17:55

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.28	ug/L			08/13/17 12:36	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			08/13/17 12:36	1
1,1,2-Trichloroethane	ND		1.0	0.080	ug/L			08/13/17 12:36	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			08/13/17 12:36	1
1,1-Dichloroethene	ND		1.0	0.34	ug/L			08/13/17 12:36	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/13/17 12:36	1
1,2-Dichloropropane	ND		1.0	0.18	ug/L			08/13/17 12:36	1
2-Butanone (MEK)	ND		5.0	2.2	ug/L			08/13/17 12:36	1
2-Hexanone	ND		5.0	0.72	ug/L			08/13/17 12:36	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.63	ug/L			08/13/17 12:36	1
Acetone	3.8	J B	5.0	1.1	ug/L			08/13/17 12:36	1
Benzene	ND		1.0	0.090	ug/L			08/13/17 12:36	1
Bromoform	ND		1.0	0.18	ug/L			08/13/17 12:36	1
Bromomethane	ND		1.0	0.18	ug/L			08/13/17 12:36	1
Carbon disulfide	ND		1.0	0.22	ug/L			08/13/17 12:36	1
Carbon tetrachloride	ND		1.0	0.33	ug/L			08/13/17 12:36	1
Chlorobenzene	ND		1.0	0.24	ug/L			08/13/17 12:36	1
Chlorodibromomethane	ND		1.0	0.22	ug/L			08/13/17 12:36	1
Chloroethane	ND		1.0	0.37	ug/L			08/13/17 12:36	1
Chloroform	ND		1.0	0.22	ug/L			08/13/17 12:36	1
Chloromethane	ND		1.0	0.22	ug/L			08/13/17 12:36	1
cis-1,2-Dichloroethene	ND		1.0	0.26	ug/L			08/13/17 12:36	1
cis-1,3-Dichloropropene	ND		1.0	0.16	ug/L			08/13/17 12:36	1
Dichlorobromomethane	ND		1.0	0.15	ug/L			08/13/17 12:36	1
Ethylbenzene	ND		1.0	0.30	ug/L			08/13/17 12:36	1
Methylene Chloride	ND		1.0	0.21	ug/L			08/13/17 12:36	1
Styrene	ND		1.0	0.17	ug/L			08/13/17 12:36	1
Tetrachloroethene	0.84	J	1.0	0.12	ug/L			08/13/17 12:36	1
Toluene	ND		1.0	0.25	ug/L			08/13/17 12:36	1
trans-1,2-Dichloroethene	ND		1.0	0.18	ug/L			08/13/17 12:36	1
trans-1,3-Dichloropropene	ND		1.0	0.19	ug/L			08/13/17 12:36	1
Trichloroethene	ND		1.0	0.22	ug/L			08/13/17 12:36	1
Vinyl chloride	ND		1.0	0.060	ug/L			08/13/17 12:36	1
Xylenes, Total	ND		2.0	0.28	ug/L			08/13/17 12:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		74 - 132		08/13/17 12:36	1
4-Bromofluorobenzene	101		77 - 124		08/13/17 12:36	1
Dibromofluoromethane (Surr)	103		72 - 131		08/13/17 12:36	1
Toluene-d8 (Surr)	104		80 - 120		08/13/17 12:36	1

Client Sample ID: FC-MW-105D

Lab Sample ID: 460-138477-10

Date Collected: 08/02/17 09:10

Matrix: Water

Date Received: 08/02/17 17:55

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.28	ug/L			08/13/17 13:02	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			08/13/17 13:02	1
1,1,2-Trichloroethane	ND		1.0	0.080	ug/L			08/13/17 13:02	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-138477-1

Client Sample ID: FC-MW-105D

Lab Sample ID: 460-138477-10

Date Collected: 08/02/17 09:10

Matrix: Water

Date Received: 08/02/17 17:55

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		1.0	0.24	ug/L			08/13/17 13:02	1
1,1-Dichloroethene	ND		1.0	0.34	ug/L			08/13/17 13:02	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/13/17 13:02	1
1,2-Dichloropropane	ND		1.0	0.18	ug/L			08/13/17 13:02	1
2-Butanone (MEK)	ND		5.0	2.2	ug/L			08/13/17 13:02	1
2-Hexanone	ND		5.0	0.72	ug/L			08/13/17 13:02	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.63	ug/L			08/13/17 13:02	1
Acetone	4.4	J B	5.0	1.1	ug/L			08/13/17 13:02	1
Benzene	ND		1.0	0.090	ug/L			08/13/17 13:02	1
Bromoform	ND		1.0	0.18	ug/L			08/13/17 13:02	1
Bromomethane	ND		1.0	0.18	ug/L			08/13/17 13:02	1
Carbon disulfide	ND		1.0	0.22	ug/L			08/13/17 13:02	1
Carbon tetrachloride	ND		1.0	0.33	ug/L			08/13/17 13:02	1
Chlorobenzene	ND		1.0	0.24	ug/L			08/13/17 13:02	1
Chlorodibromomethane	ND		1.0	0.22	ug/L			08/13/17 13:02	1
Chloroethane	ND		1.0	0.37	ug/L			08/13/17 13:02	1
Chloroform	0.49	J	1.0	0.22	ug/L			08/13/17 13:02	1
Chloromethane	ND		1.0	0.22	ug/L			08/13/17 13:02	1
cis-1,2-Dichloroethene	ND		1.0	0.26	ug/L			08/13/17 13:02	1
cis-1,3-Dichloropropene	ND		1.0	0.16	ug/L			08/13/17 13:02	1
Dichlorobromomethane	ND		1.0	0.15	ug/L			08/13/17 13:02	1
Ethylbenzene	ND		1.0	0.30	ug/L			08/13/17 13:02	1
Methylene Chloride	ND		1.0	0.21	ug/L			08/13/17 13:02	1
Styrene	ND		1.0	0.17	ug/L			08/13/17 13:02	1
Tetrachloroethene	0.21	J	1.0	0.12	ug/L			08/13/17 13:02	1
Toluene	ND		1.0	0.25	ug/L			08/13/17 13:02	1
trans-1,2-Dichloroethene	ND		1.0	0.18	ug/L			08/13/17 13:02	1
trans-1,3-Dichloropropene	ND		1.0	0.19	ug/L			08/13/17 13:02	1
Trichloroethene	0.73	J	1.0	0.22	ug/L			08/13/17 13:02	1
Vinyl chloride	ND		1.0	0.060	ug/L			08/13/17 13:02	1
Xylenes, Total	ND		2.0	0.28	ug/L			08/13/17 13:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		74 - 132		08/13/17 13:02	1
4-Bromofluorobenzene	101		77 - 124		08/13/17 13:02	1
Dibromofluoromethane (Surr)	104		72 - 131		08/13/17 13:02	1
Toluene-d8 (Surr)	104		80 - 120		08/13/17 13:02	1

Client Sample ID: FC-MW-1

Lab Sample ID: 460-138477-11

Date Collected: 08/02/17 10:35

Matrix: Water

Date Received: 08/02/17 17:55

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.28	ug/L			08/13/17 13:27	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			08/13/17 13:27	1
1,1,2-Trichloroethane	ND		1.0	0.080	ug/L			08/13/17 13:27	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			08/13/17 13:27	1
1,1-Dichloroethene	ND		1.0	0.34	ug/L			08/13/17 13:27	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/13/17 13:27	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-138477-1

Client Sample ID: FC-MW-1

Lab Sample ID: 460-138477-11

Date Collected: 08/02/17 10:35

Matrix: Water

Date Received: 08/02/17 17:55

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	ND		1.0	0.18	ug/L			08/13/17 13:27	1
2-Butanone (MEK)	ND		5.0	2.2	ug/L			08/13/17 13:27	1
2-Hexanone	ND		5.0	0.72	ug/L			08/13/17 13:27	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.63	ug/L			08/13/17 13:27	1
Acetone	4.2	J B	5.0	1.1	ug/L			08/13/17 13:27	1
Benzene	ND		1.0	0.090	ug/L			08/13/17 13:27	1
Bromoform	ND		1.0	0.18	ug/L			08/13/17 13:27	1
Bromomethane	ND		1.0	0.18	ug/L			08/13/17 13:27	1
Carbon disulfide	ND		1.0	0.22	ug/L			08/13/17 13:27	1
Carbon tetrachloride	ND		1.0	0.33	ug/L			08/13/17 13:27	1
Chlorobenzene	ND		1.0	0.24	ug/L			08/13/17 13:27	1
Chlorodibromomethane	ND		1.0	0.22	ug/L			08/13/17 13:27	1
Chloroethane	ND		1.0	0.37	ug/L			08/13/17 13:27	1
Chloroform	1.8		1.0	0.22	ug/L			08/13/17 13:27	1
Chloromethane	ND		1.0	0.22	ug/L			08/13/17 13:27	1
cis-1,2-Dichloroethene	ND		1.0	0.26	ug/L			08/13/17 13:27	1
cis-1,3-Dichloropropene	ND		1.0	0.16	ug/L			08/13/17 13:27	1
Dichlorobromomethane	ND		1.0	0.15	ug/L			08/13/17 13:27	1
Ethylbenzene	ND		1.0	0.30	ug/L			08/13/17 13:27	1
Methylene Chloride	ND		1.0	0.21	ug/L			08/13/17 13:27	1
Styrene	ND		1.0	0.17	ug/L			08/13/17 13:27	1
Tetrachloroethene	2.6		1.0	0.12	ug/L			08/13/17 13:27	1
Toluene	ND		1.0	0.25	ug/L			08/13/17 13:27	1
trans-1,2-Dichloroethene	ND		1.0	0.18	ug/L			08/13/17 13:27	1
trans-1,3-Dichloropropene	ND		1.0	0.19	ug/L			08/13/17 13:27	1
Trichloroethene	0.44	J	1.0	0.22	ug/L			08/13/17 13:27	1
Vinyl chloride	ND		1.0	0.060	ug/L			08/13/17 13:27	1
Xylenes, Total	ND		2.0	0.28	ug/L			08/13/17 13:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		74 - 132		08/13/17 13:27	1
4-Bromofluorobenzene	102		77 - 124		08/13/17 13:27	1
Dibromofluoromethane (Surr)	103		72 - 131		08/13/17 13:27	1
Toluene-d8 (Surr)	105		80 - 120		08/13/17 13:27	1

Client Sample ID: FC-MW-6

Lab Sample ID: 460-138477-12

Date Collected: 08/02/17 11:30

Matrix: Water

Date Received: 08/02/17 17:55

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	1.4	ug/L			08/13/17 13:52	5
1,1,2,2-Tetrachloroethane	ND		5.0	0.95	ug/L			08/13/17 13:52	5
1,1,2-Trichloroethane	ND		5.0	0.40	ug/L			08/13/17 13:52	5
1,1-Dichloroethane	ND		5.0	1.2	ug/L			08/13/17 13:52	5
1,1-Dichloroethene	ND		5.0	1.7	ug/L			08/13/17 13:52	5
1,2-Dichloroethane	ND		5.0	1.3	ug/L			08/13/17 13:52	5
1,2-Dichloropropane	ND		5.0	0.90	ug/L			08/13/17 13:52	5
2-Butanone (MEK)	ND		25	11	ug/L			08/13/17 13:52	5
2-Hexanone	ND		25	3.6	ug/L			08/13/17 13:52	5

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-138477-1

Client Sample ID: FC-MW-6

Lab Sample ID: 460-138477-12

Date Collected: 08/02/17 11:30

Matrix: Water

Date Received: 08/02/17 17:55

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone (MIBK)	ND		25	3.2	ug/L			08/13/17 13:52	5
Acetone	ND		25	5.4	ug/L			08/13/17 13:52	5
Benzene	ND		5.0	0.45	ug/L			08/13/17 13:52	5
Bromoform	ND		5.0	0.90	ug/L			08/13/17 13:52	5
Bromomethane	ND		5.0	0.90	ug/L			08/13/17 13:52	5
Carbon disulfide	ND		5.0	1.1	ug/L			08/13/17 13:52	5
Carbon tetrachloride	ND		5.0	1.7	ug/L			08/13/17 13:52	5
Chlorobenzene	ND		5.0	1.2	ug/L			08/13/17 13:52	5
Chlorodibromomethane	ND		5.0	1.1	ug/L			08/13/17 13:52	5
Chloroethane	ND	F1	5.0	1.9	ug/L			08/13/17 13:52	5
Chloroform	ND		5.0	1.1	ug/L			08/13/17 13:52	5
Chloromethane	ND		5.0	1.1	ug/L			08/13/17 13:52	5
cis-1,2-Dichloroethene	8.2		5.0	1.3	ug/L			08/13/17 13:52	5
cis-1,3-Dichloropropene	ND		5.0	0.80	ug/L			08/13/17 13:52	5
Dichlorobromomethane	ND		5.0	0.75	ug/L			08/13/17 13:52	5
Ethylbenzene	ND		5.0	1.5	ug/L			08/13/17 13:52	5
Methylene Chloride	ND		5.0	1.1	ug/L			08/13/17 13:52	5
Styrene	ND		5.0	0.85	ug/L			08/13/17 13:52	5
Tetrachloroethene	1800		5.0	0.60	ug/L			08/13/17 13:52	5
Toluene	ND		5.0	1.3	ug/L			08/13/17 13:52	5
trans-1,2-Dichloroethene	ND		5.0	0.90	ug/L			08/13/17 13:52	5
trans-1,3-Dichloropropene	ND		5.0	0.95	ug/L			08/13/17 13:52	5
Trichloroethene	85		5.0	1.1	ug/L			08/13/17 13:52	5
Vinyl chloride	ND		5.0	0.30	ug/L			08/13/17 13:52	5
Xylenes, Total	ND		10	1.4	ug/L			08/13/17 13:52	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		74 - 132		08/13/17 13:52	5
4-Bromofluorobenzene	101		77 - 124		08/13/17 13:52	5
Dibromofluoromethane (Surr)	102		72 - 131		08/13/17 13:52	5
Toluene-d8 (Surr)	105		80 - 120		08/13/17 13:52	5

Method: 8270D SIM - 1,4-Dioxane (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.42	0.16	ug/L		08/08/17 09:10	08/09/17 11:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	87		38 - 125	08/08/17 09:10	08/09/17 11:19	1

Method: 537 (modified) - Perfluorinated Hydrocarbons

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanoic acid (PFHpA)	30		2.0	0.81	ng/L		08/07/17 14:29	08/10/17 04:31	1
Perfluorooctanoic acid (PFOA)	220	B	2.0	0.76	ng/L		08/07/17 14:29	08/10/17 04:31	1
Perfluorononanoic acid (PFNA)	0.74	J	2.0	0.66	ng/L		08/07/17 14:29	08/10/17 04:31	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	115		25 - 150	08/07/17 14:29	08/10/17 04:31	1
13C4-PFHxPA	107		25 - 150	08/07/17 14:29	08/10/17 04:31	1
13C4 PFOA	97		25 - 150	08/07/17 14:29	08/10/17 04:31	1
13C4 PFOS	112		25 - 150	08/07/17 14:29	08/10/17 04:31	1
13C5 PFNA	79		25 - 150	08/07/17 14:29	08/10/17 04:31	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-138477-1

Client Sample ID: FC-MW-6

Date Collected: 08/02/17 11:30

Date Received: 08/02/17 17:55

Lab Sample ID: 460-138477-12

Matrix: Water

Method: 537 (modified) - Perfluorinated Hydrocarbons (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3-PFBS	105		25 - 150	08/07/17 14:29	08/10/17 04:31	1

Method: 537 (modified) - Perfluorinated Hydrocarbons - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	8.2		1.9	0.89	ng/L		08/10/17 15:32	08/15/17 12:48	1
Perfluorohexanesulfonic acid (PFHxS)	11		1.9	0.85	ng/L		08/10/17 15:32	08/15/17 12:48	1
Perfluorooctanesulfonic acid (PFOS)	6.8		1.9	1.2	ng/L		08/10/17 15:32	08/15/17 12:48	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	100		25 - 150				08/10/17 15:32	08/15/17 12:48	1
13C4 PFOS	105		25 - 150				08/10/17 15:32	08/15/17 12:48	1
13C3-PFBS	82		25 - 150				08/10/17 15:32	08/15/17 12:48	1

Client Sample ID: FC-MW-107D

Date Collected: 08/02/17 13:20

Date Received: 08/02/17 17:55

Lab Sample ID: 460-138477-13

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	ND		1.0	0.28	ug/L			08/13/17 17:39	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			08/13/17 17:39	1
1,1,2-Trichloroethane	ND		1.0	0.080	ug/L			08/13/17 17:39	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			08/13/17 17:39	1
1,1-Dichloroethene	ND		1.0	0.34	ug/L			08/13/17 17:39	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/13/17 17:39	1
1,2-Dichloropropane	ND		1.0	0.18	ug/L			08/13/17 17:39	1
2-Butanone (MEK)	ND		5.0	2.2	ug/L			08/13/17 17:39	1
2-Hexanone	ND		5.0	0.72	ug/L			08/13/17 17:39	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.63	ug/L			08/13/17 17:39	1
Acetone	3.5	J B	5.0	1.1	ug/L			08/13/17 17:39	1
Benzene	ND		1.0	0.090	ug/L			08/13/17 17:39	1
Bromoform	ND		1.0	0.18	ug/L			08/13/17 17:39	1
Bromomethane	ND		1.0	0.18	ug/L			08/13/17 17:39	1
Carbon disulfide	ND		1.0	0.22	ug/L			08/13/17 17:39	1
Carbon tetrachloride	ND		1.0	0.33	ug/L			08/13/17 17:39	1
Chlorobenzene	ND		1.0	0.24	ug/L			08/13/17 17:39	1
Chlorodibromomethane	ND		1.0	0.22	ug/L			08/13/17 17:39	1
Chloroethane	ND		1.0	0.37	ug/L			08/13/17 17:39	1
Chloroform	0.34	J	1.0	0.22	ug/L			08/13/17 17:39	1
Chloromethane	ND		1.0	0.22	ug/L			08/13/17 17:39	1
cis-1,2-Dichloroethene	0.41	J	1.0	0.26	ug/L			08/13/17 17:39	1
cis-1,3-Dichloropropene	ND		1.0	0.16	ug/L			08/13/17 17:39	1
Dichlorobromomethane	ND		1.0	0.15	ug/L			08/13/17 17:39	1
Ethylbenzene	ND		1.0	0.30	ug/L			08/13/17 17:39	1
Methylene Chloride	ND		1.0	0.21	ug/L			08/13/17 17:39	1
Styrene	ND		1.0	0.17	ug/L			08/13/17 17:39	1
Tetrachloroethene	58		1.0	0.12	ug/L			08/13/17 17:39	1
Toluene	ND		1.0	0.25	ug/L			08/13/17 17:39	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-138477-1

Client Sample ID: FC-MW-107D

Lab Sample ID: 460-138477-13

Date Collected: 08/02/17 13:20

Matrix: Water

Date Received: 08/02/17 17:55

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		1.0	0.18	ug/L			08/13/17 17:39	1
trans-1,3-Dichloropropene	ND		1.0	0.19	ug/L			08/13/17 17:39	1
Trichloroethene	2.7		1.0	0.22	ug/L			08/13/17 17:39	1
Vinyl chloride	ND		1.0	0.060	ug/L			08/13/17 17:39	1
Xylenes, Total	ND		2.0	0.28	ug/L			08/13/17 17:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	113		74 - 132		08/13/17 17:39	1
4-Bromofluorobenzene	104		77 - 124		08/13/17 17:39	1
Dibromofluoromethane (Surr)	107		72 - 131		08/13/17 17:39	1
Toluene-d8 (Surr)	107		80 - 120		08/13/17 17:39	1

Method: 8270D SIM - 1,4-Dioxane (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.42	0.16	ug/L		08/08/17 09:10	08/14/17 11:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	86		38 - 125				08/08/17 09:10	08/14/17 11:33	1

Method: 537 (modified) - Perfluorinated Hydrocarbons

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanoic acid (PFHpA)	12		2.0	0.81	ng/L		08/07/17 14:29	08/10/17 04:51	1
Perfluorooctanoic acid (PFOA)	53	B	2.0	0.76	ng/L		08/07/17 14:29	08/10/17 04:51	1
Perfluorononanoic acid (PFNA)	2.1		2.0	0.66	ng/L		08/07/17 14:29	08/10/17 04:51	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	119		25 - 150				08/07/17 14:29	08/10/17 04:51	1
13C4-PFHpa	133		25 - 150				08/07/17 14:29	08/10/17 04:51	1
13C4 PFOA	100		25 - 150				08/07/17 14:29	08/10/17 04:51	1
13C4 PFOS	120		25 - 150				08/07/17 14:29	08/10/17 04:51	1
13C5 PFNA	139		25 - 150				08/07/17 14:29	08/10/17 04:51	1
13C3-PFBS	100		25 - 150				08/07/17 14:29	08/10/17 04:51	1

Method: 537 (modified) - Perfluorinated Hydrocarbons - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	6.0		1.7	0.80	ng/L		08/10/17 15:32	08/15/17 13:09	1
Perfluorohexanesulfonic acid (PFHxS)	3.9		1.7	0.76	ng/L		08/10/17 15:32	08/15/17 13:09	1
Perfluorooctanesulfonic acid (PFOS)	14		1.7	1.1	ng/L		08/10/17 15:32	08/15/17 13:09	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	104		25 - 150				08/10/17 15:32	08/15/17 13:09	1
13C4 PFOS	107		25 - 150				08/10/17 15:32	08/15/17 13:09	1
13C3-PFBS	82		25 - 150				08/10/17 15:32	08/15/17 13:09	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-138477-1

Client Sample ID: FC-MW-109S

Lab Sample ID: 460-138477-14

Date Collected: 08/02/17 14:05

Matrix: Water

Date Received: 08/02/17 17:55

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.28	ug/L			08/13/17 16:24	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			08/13/17 16:24	1
1,1,2-Trichloroethane	ND		1.0	0.080	ug/L			08/13/17 16:24	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			08/13/17 16:24	1
1,1-Dichloroethene	ND		1.0	0.34	ug/L			08/13/17 16:24	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/13/17 16:24	1
1,2-Dichloropropane	ND		1.0	0.18	ug/L			08/13/17 16:24	1
2-Butanone (MEK)	ND		5.0	2.2	ug/L			08/13/17 16:24	1
2-Hexanone	ND		5.0	0.72	ug/L			08/13/17 16:24	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.63	ug/L			08/13/17 16:24	1
Acetone	3.2	J B	5.0	1.1	ug/L			08/13/17 16:24	1
Benzene	ND		1.0	0.090	ug/L			08/13/17 16:24	1
Bromoform	ND		1.0	0.18	ug/L			08/13/17 16:24	1
Bromomethane	ND		1.0	0.18	ug/L			08/13/17 16:24	1
Carbon disulfide	ND		1.0	0.22	ug/L			08/13/17 16:24	1
Carbon tetrachloride	ND		1.0	0.33	ug/L			08/13/17 16:24	1
Chlorobenzene	ND		1.0	0.24	ug/L			08/13/17 16:24	1
Chlorodibromomethane	ND		1.0	0.22	ug/L			08/13/17 16:24	1
Chloroethane	ND		1.0	0.37	ug/L			08/13/17 16:24	1
Chloroform	ND		1.0	0.22	ug/L			08/13/17 16:24	1
Chloromethane	ND		1.0	0.22	ug/L			08/13/17 16:24	1
cis-1,2-Dichloroethene	ND		1.0	0.26	ug/L			08/13/17 16:24	1
cis-1,3-Dichloropropene	ND		1.0	0.16	ug/L			08/13/17 16:24	1
Dichlorobromomethane	ND		1.0	0.15	ug/L			08/13/17 16:24	1
Ethylbenzene	ND		1.0	0.30	ug/L			08/13/17 16:24	1
Methylene Chloride	ND		1.0	0.21	ug/L			08/13/17 16:24	1
Styrene	ND		1.0	0.17	ug/L			08/13/17 16:24	1
Tetrachloroethene	5.6		1.0	0.12	ug/L			08/13/17 16:24	1
Toluene	ND		1.0	0.25	ug/L			08/13/17 16:24	1
trans-1,2-Dichloroethene	ND		1.0	0.18	ug/L			08/13/17 16:24	1
trans-1,3-Dichloropropene	ND		1.0	0.19	ug/L			08/13/17 16:24	1
Trichloroethene	3.6		1.0	0.22	ug/L			08/13/17 16:24	1
Vinyl chloride	ND		1.0	0.060	ug/L			08/13/17 16:24	1
Xylenes, Total	ND		2.0	0.28	ug/L			08/13/17 16:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	111		74 - 132		08/13/17 16:24	1
4-Bromofluorobenzene	100		77 - 124		08/13/17 16:24	1
Dibromofluoromethane (Surr)	104		72 - 131		08/13/17 16:24	1
Toluene-d8 (Surr)	102		80 - 120		08/13/17 16:24	1

Method: 8270D SIM - 1,4-Dioxane (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.42	0.16	ug/L		08/08/17 09:10	08/14/17 11:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	88		38 - 125	08/08/17 09:10	08/14/17 11:55	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-138477-1

Client Sample ID: FC-MW-6-D

Lab Sample ID: 460-138477-15

Date Collected: 08/02/17 11:30

Matrix: Water

Date Received: 08/02/17 17:55

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	1.4	ug/L			08/14/17 19:14	5
1,1,2,2-Tetrachloroethane	ND		5.0	0.95	ug/L			08/14/17 19:14	5
1,1,2-Trichloroethane	ND		5.0	0.40	ug/L			08/14/17 19:14	5
1,1-Dichloroethane	ND		5.0	1.2	ug/L			08/14/17 19:14	5
1,1-Dichloroethene	ND		5.0	1.7	ug/L			08/14/17 19:14	5
1,2-Dichloroethane	ND		5.0	1.3	ug/L			08/14/17 19:14	5
1,2-Dichloropropane	ND		5.0	0.90	ug/L			08/14/17 19:14	5
2-Butanone (MEK)	ND		25	11	ug/L			08/14/17 19:14	5
2-Hexanone	ND		25	3.6	ug/L			08/14/17 19:14	5
4-Methyl-2-pentanone (MIBK)	ND		25	3.2	ug/L			08/14/17 19:14	5
Acetone	ND		25	5.4	ug/L			08/14/17 19:14	5
Benzene	ND		5.0	0.45	ug/L			08/14/17 19:14	5
Bromoform	ND		5.0	0.90	ug/L			08/14/17 19:14	5
Bromomethane	ND		5.0	0.90	ug/L			08/14/17 19:14	5
Carbon disulfide	ND		5.0	1.1	ug/L			08/14/17 19:14	5
Carbon tetrachloride	ND		5.0	1.7	ug/L			08/14/17 19:14	5
Chlorobenzene	ND		5.0	1.2	ug/L			08/14/17 19:14	5
Chlorodibromomethane	ND		5.0	1.1	ug/L			08/14/17 19:14	5
Chloroethane	ND *		5.0	1.9	ug/L			08/14/17 19:14	5
Chloroform	ND		5.0	1.1	ug/L			08/14/17 19:14	5
Chloromethane	ND		5.0	1.1	ug/L			08/14/17 19:14	5
cis-1,2-Dichloroethene	9.0		5.0	1.3	ug/L			08/14/17 19:14	5
cis-1,3-Dichloropropene	ND		5.0	0.80	ug/L			08/14/17 19:14	5
Dichlorobromomethane	ND		5.0	0.75	ug/L			08/14/17 19:14	5
Ethylbenzene	ND		5.0	1.5	ug/L			08/14/17 19:14	5
Methylene Chloride	ND		5.0	1.1	ug/L			08/14/17 19:14	5
Styrene	ND		5.0	0.85	ug/L			08/14/17 19:14	5
Tetrachloroethene	1800		5.0	0.60	ug/L			08/14/17 19:14	5
Toluene	ND		5.0	1.3	ug/L			08/14/17 19:14	5
trans-1,2-Dichloroethene	ND		5.0	0.90	ug/L			08/14/17 19:14	5
trans-1,3-Dichloropropene	ND		5.0	0.95	ug/L			08/14/17 19:14	5
Trichloroethene	84		5.0	1.1	ug/L			08/14/17 19:14	5
Vinyl chloride	ND		5.0	0.30	ug/L			08/14/17 19:14	5
Xylenes, Total	ND		10	1.4	ug/L			08/14/17 19:14	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	120		74 - 132		08/14/17 19:14	5
4-Bromofluorobenzene	104		77 - 124		08/14/17 19:14	5
Dibromofluoromethane (Surr)	109		72 - 131		08/14/17 19:14	5
Toluene-d8 (Surr)	113		80 - 120		08/14/17 19:14	5

Method: 8270D SIM - 1,4-Dioxane (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.41	0.15	ug/L		08/08/17 09:10	08/14/17 12:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	89		38 - 125	08/08/17 09:10	08/14/17 12:18	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-138477-1

Client Sample ID: FC-MW-6-D

Lab Sample ID: 460-138477-15

Date Collected: 08/02/17 11:30

Matrix: Water

Date Received: 08/02/17 17:55

Method: 537 (modified) - Perfluorinated Hydrocarbons

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanoic acid (PFHpA)	28		2.1	0.83	ng/L		08/07/17 14:29	08/10/17 04:58	1
Perfluorooctanoic acid (PFOA)	230	B	2.1	0.77	ng/L		08/07/17 14:29	08/10/17 04:58	1
Perfluorononanoic acid (PFNA)	ND		2.1	0.68	ng/L		08/07/17 14:29	08/10/17 04:58	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	115		25 - 150				08/07/17 14:29	08/10/17 04:58	1
13C4-PFHpA	104		25 - 150				08/07/17 14:29	08/10/17 04:58	1
13C4 PFOA	62		25 - 150				08/07/17 14:29	08/10/17 04:58	1
13C4 PFOS	118		25 - 150				08/07/17 14:29	08/10/17 04:58	1
13C5 PFNA	32		25 - 150				08/07/17 14:29	08/10/17 04:58	1
13C3-PFBS	102		25 - 150				08/07/17 14:29	08/10/17 04:58	1

Method: 537 (modified) - Perfluorinated Hydrocarbons - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	8.2		1.8	0.82	ng/L		08/10/17 15:32	08/15/17 13:15	1
Perfluorohexanesulfonic acid (PFHxS)	11		1.8	0.78	ng/L		08/10/17 15:32	08/15/17 13:15	1
Perfluorooctanesulfonic acid (PFOS)	7.4		1.8	1.1	ng/L		08/10/17 15:32	08/15/17 13:15	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	90		25 - 150				08/10/17 15:32	08/15/17 13:15	1
13C4 PFOS	94		25 - 150				08/10/17 15:32	08/15/17 13:15	1
13C3-PFBS	73		25 - 150				08/10/17 15:32	08/15/17 13:15	1

TestAmerica Edison

Surrogate Summary

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-138477-1

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)			
		12DCE (74-132)	BFB (77-124)	DBFM (72-131)	TOL (80-120)
460-138477-1	FC-EB-080117	107	100	102	104
460-138477-2	FC-MW-103S	109	99	101	101
460-138477-3	FC-MW-5	113	103	106	105
460-138477-4	FC-MW-9	110	101	104	104
460-138477-5	FC-MW-8	109	101	104	104
460-138477-6	FC-MW-108D	122	113	115	115
460-138477-7	FC-MW-104S	110	102	105	104
460-138477-8 - DL	FC-MW-104D	109	101	102	102
460-138477-8	FC-MW-104D	111	96	101	105
460-138477-9	FC-MW-105S	108	101	103	104
460-138477-10	FC-MW-105D	109	101	104	104
460-138477-11	FC-MW-1	109	102	103	105
460-138477-12	FC-MW-6	108	101	102	105
460-138477-12 MS	FC-MW-6	107	105	102	103
460-138477-12 MSD	FC-MW-6	107	104	103	103
460-138477-13	FC-MW-107D	113	104	107	107
460-138477-14	FC-MW-109S	111	100	104	102
460-138477-15	FC-MW-6-D	120	104	109	113
LCS 460-455924/3	Lab Control Sample	109	103	103	104
LCS 460-456073/3	Lab Control Sample	110	105	104	104
LCSD 460-456073/4	Lab Control Sample Dup	108	104	101	103
MB 460-455924/7	Method Blank	110	102	102	104
MB 460-456073/7	Method Blank	108	101	102	103

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

Method: 8270D SIM - 1,4-Dioxane (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		NBZ (38-125)			
460-138477-1	FC-EB-080117	96			
460-138477-2	FC-MW-103S	86			
460-138477-3	FC-MW-5	80			
460-138477-12	FC-MW-6	87			
460-138477-12 MS	FC-MW-6	90			
460-138477-12 MSD	FC-MW-6	94			
460-138477-13	FC-MW-107D	86			
460-138477-14	FC-MW-109S	88			
460-138477-15	FC-MW-6-D	89			
LCS 460-454788/2-A	Lab Control Sample	92			
MB 460-454788/1-A	Method Blank	90			

Surrogate Legend

NBZ = Nitrobenzene-d5

TestAmerica Edison

Isotope Dilution Summary

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-138477-1

Method: 537 (modified) - Perfluorinated Hydrocarbons

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)					
		¹⁸ O ₂ PFHx (25-150)	¹³ C ₄ -PFHp (25-150)	¹³ C ₄ PFO (25-150)	¹³ C ₄ PFO (25-150)	¹³ C ₅ PFNA (25-150)	¹³ C ₃ -PFBS (25-150)
460-138477-1	FC-EB-080117	93	81	74	91	54	80
460-138477-1 - RE	FC-EB-080117	102			108		94
460-138477-2	FC-MW-103S	84	55	37	82	29	71
460-138477-2 - RE	FC-MW-103S	103			107		85
460-138477-12	FC-MW-6	115	107	97	112	79	105
460-138477-12 - RE	FC-MW-6	100			105		82
460-138477-12 MS	FC-MW-6		82	51		22 *	
460-138477-12 MS - RE	FC-MW-6	97			103		
460-138477-12 MSD	FC-MW-6		116	90		59	
460-138477-12 MSD - RE	FC-MW-6	119			135		
460-138477-13	FC-MW-107D	119	133	100	120	139	100
460-138477-13 - RE	FC-MW-107D	104			107		82
460-138477-15	FC-MW-6-D	115	104	62	118	32	102
460-138477-15 - RE	FC-MW-6-D	90			94		73
LCS 320-178144/2-A	Lab Control Sample		108	106		98	91
LCS 320-178850/2-A	Lab Control Sample	106			108		93
MB 320-178144/1-A	Method Blank		119	115		115	103
MB 320-178850/1-A	Method Blank	98			102		87

Surrogate Legend

¹⁸O₂ PFHxS = ¹⁸O₂ PFHxS
¹³C₄-PFHpA = ¹³C₄-PFHpA
¹³C₄ PFOA = ¹³C₄ PFOA
¹³C₄ PFOS = ¹³C₄ PFOS
¹³C₅ PFNA = ¹³C₅ PFNA
¹³C₃-PFBS = ¹³C₃-PFBS

QC Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-138477-1

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

Lab Sample ID: MB 460-455924/7

Matrix: Water

Analysis Batch: 455924

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	ND		1.0	0.28	ug/L			08/13/17 10:04	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			08/13/17 10:04	1
1,1,2-Trichloroethane	ND		1.0	0.080	ug/L			08/13/17 10:04	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			08/13/17 10:04	1
1,1-Dichloroethene	ND		1.0	0.34	ug/L			08/13/17 10:04	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/13/17 10:04	1
1,2-Dichloropropane	ND		1.0	0.18	ug/L			08/13/17 10:04	1
2-Butanone (MEK)	ND		5.0	2.2	ug/L			08/13/17 10:04	1
2-Hexanone	ND		5.0	0.72	ug/L			08/13/17 10:04	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.63	ug/L			08/13/17 10:04	1
Acetone	2.62	J	5.0	1.1	ug/L			08/13/17 10:04	1
Benzene	ND		1.0	0.090	ug/L			08/13/17 10:04	1
Bromoform	ND		1.0	0.18	ug/L			08/13/17 10:04	1
Bromomethane	ND		1.0	0.18	ug/L			08/13/17 10:04	1
Carbon disulfide	ND		1.0	0.22	ug/L			08/13/17 10:04	1
Carbon tetrachloride	ND		1.0	0.33	ug/L			08/13/17 10:04	1
Chlorobenzene	ND		1.0	0.24	ug/L			08/13/17 10:04	1
Chlorodibromomethane	ND		1.0	0.22	ug/L			08/13/17 10:04	1
Chloroethane	ND		1.0	0.37	ug/L			08/13/17 10:04	1
Chloroform	ND		1.0	0.22	ug/L			08/13/17 10:04	1
Chloromethane	ND		1.0	0.22	ug/L			08/13/17 10:04	1
cis-1,2-Dichloroethene	ND		1.0	0.26	ug/L			08/13/17 10:04	1
cis-1,3-Dichloropropene	ND		1.0	0.16	ug/L			08/13/17 10:04	1
Dichlorobromomethane	ND		1.0	0.15	ug/L			08/13/17 10:04	1
Ethylbenzene	ND		1.0	0.30	ug/L			08/13/17 10:04	1
Methylene Chloride	ND		1.0	0.21	ug/L			08/13/17 10:04	1
Styrene	ND		1.0	0.17	ug/L			08/13/17 10:04	1
Tetrachloroethene	ND		1.0	0.12	ug/L			08/13/17 10:04	1
Toluene	ND		1.0	0.25	ug/L			08/13/17 10:04	1
trans-1,2-Dichloroethene	ND		1.0	0.18	ug/L			08/13/17 10:04	1
trans-1,3-Dichloropropene	ND		1.0	0.19	ug/L			08/13/17 10:04	1
Trichloroethene	ND		1.0	0.22	ug/L			08/13/17 10:04	1
Vinyl chloride	ND		1.0	0.060	ug/L			08/13/17 10:04	1
Xylenes, Total	ND		2.0	0.28	ug/L			08/13/17 10:04	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		74 - 132		08/13/17 10:04	1
4-Bromofluorobenzene	102		77 - 124		08/13/17 10:04	1
Dibromofluoromethane (Surr)	102		72 - 131		08/13/17 10:04	1
Toluene-d8 (Surr)	104		80 - 120		08/13/17 10:04	1

Lab Sample ID: LCS 460-455924/3

Matrix: Water

Analysis Batch: 455924

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	19.5		ug/L		98	75 - 125
1,1,2,2-Tetrachloroethane	20.0	18.1		ug/L		91	74 - 120

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-138477-1

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

Lab Sample ID: LCS 460-455924/3

Matrix: Water

Analysis Batch: 455924

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	19.4		ug/L		97	78 - 120
1,1-Dichloroethane	20.0	19.9		ug/L		99	77 - 123
1,1-Dichloroethene	20.0	19.3		ug/L		97	74 - 123
1,2-Dichloroethane	20.0	21.6		ug/L		108	76 - 121
1,2-Dichloropropane	20.0	20.3		ug/L		101	77 - 123
2-Butanone (MEK)	100	89.4		ug/L		89	64 - 120
2-Hexanone	100	107		ug/L		107	71 - 125
4-Methyl-2-pentanone (MIBK)	100	102		ug/L		102	78 - 124
Acetone	100	104		ug/L		104	39 - 150
Benzene	20.0	19.9		ug/L		100	77 - 121
Bromoform	20.0	15.1		ug/L		76	53 - 120
Bromomethane	20.0	18.1		ug/L		91	10 - 150
Carbon disulfide	20.0	17.8		ug/L		89	69 - 133
Carbon tetrachloride	20.0	17.5		ug/L		88	70 - 132
Chlorobenzene	20.0	19.4		ug/L		97	80 - 120
Chlorodibromomethane	20.0	16.8		ug/L		84	73 - 120
Chloroethane	20.0	24.9		ug/L		124	52 - 150
Chloroform	20.0	19.5		ug/L		98	80 - 120
Chloromethane	20.0	22.3		ug/L		112	56 - 131
cis-1,2-Dichloroethene	20.0	19.4		ug/L		97	80 - 120
cis-1,3-Dichloropropene	20.0	18.1		ug/L		91	77 - 120
Dichlorobromomethane	20.0	17.6		ug/L		88	76 - 120
Ethylbenzene	20.0	20.0		ug/L		100	80 - 120
Methylene Chloride	20.0	19.7		ug/L		98	77 - 123
Styrene	20.0	20.2		ug/L		101	80 - 120
Tetrachloroethene	20.0	20.4		ug/L		102	78 - 122
Toluene	20.0	20.0		ug/L		100	80 - 120
trans-1,2-Dichloroethene	20.0	18.7		ug/L		93	79 - 120
trans-1,3-Dichloropropene	20.0	18.8		ug/L		94	76 - 120
Trichloroethene	20.0	19.8		ug/L		99	77 - 120
Vinyl chloride	20.0	21.1		ug/L		106	62 - 138
Xylenes, Total	40.0	39.2		ug/L		98	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	109		74 - 132
4-Bromofluorobenzene	103		77 - 124
Dibromofluoromethane (Surr)	103		72 - 131
Toluene-d8 (Surr)	104		80 - 120

Lab Sample ID: 460-138477-12 MS

Matrix: Water

Analysis Batch: 455924

Client Sample ID: FC-MW-6

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	ND		100	93.6		ug/L		94	75 - 125
1,1,2,2-Tetrachloroethane	ND		100	90.9		ug/L		91	74 - 120
1,1,2-Trichloroethane	ND		100	97.5		ug/L		98	78 - 120
1,1-Dichloroethane	ND		100	96.7		ug/L		97	77 - 123

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-138477-1

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

Lab Sample ID: 460-138477-12 MS

Matrix: Water

Analysis Batch: 455924

Client Sample ID: FC-MW-6

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	ND		100	89.0		ug/L		89	74 - 123
1,2-Dichloroethane	ND		100	107		ug/L		107	76 - 121
1,2-Dichloropropane	ND		100	96.8		ug/L		97	77 - 123
2-Butanone (MEK)	ND		500	444		ug/L		89	64 - 120
2-Hexanone	ND		500	527		ug/L		105	71 - 125
4-Methyl-2-pentanone (MIBK)	ND		500	521		ug/L		104	78 - 124
Acetone	ND		500	518		ug/L		104	39 - 150
Benzene	ND		100	96.7		ug/L		97	77 - 121
Bromoform	ND		100	76.8		ug/L		77	53 - 120
Bromomethane	ND		100	87.7		ug/L		88	10 - 150
Carbon disulfide	ND		100	83.6		ug/L		84	69 - 133
Carbon tetrachloride	ND		100	82.6		ug/L		83	70 - 132
Chlorobenzene	ND		100	95.2		ug/L		95	80 - 120
Chlorodibromomethane	ND		100	84.6		ug/L		85	73 - 120
Chloroethane	ND	F1	100	205	F1	ug/L		205	52 - 150
Chloroform	ND		100	96.0		ug/L		96	80 - 120
Chloromethane	ND		100	99.9		ug/L		100	56 - 131
cis-1,2-Dichloroethene	8.2		100	102		ug/L		93	80 - 120
cis-1,3-Dichloropropene	ND		100	88.2		ug/L		88	77 - 120
Dichlorobromomethane	ND		100	87.3		ug/L		87	76 - 120
Ethylbenzene	ND		100	97.7		ug/L		98	80 - 120
Methylene Chloride	ND		100	95.0		ug/L		95	77 - 123
Styrene	ND		100	97.9		ug/L		98	80 - 120
Tetrachloroethene	1800		100	1440	4	ug/L		-362	78 - 122
Toluene	ND		100	97.1		ug/L		97	80 - 120
trans-1,2-Dichloroethene	ND		100	89.7		ug/L		90	79 - 120
trans-1,3-Dichloropropene	ND		100	93.6		ug/L		94	76 - 120
Trichloroethene	85		100	165		ug/L		81	77 - 120
Vinyl chloride	ND		100	98.2		ug/L		98	62 - 138
Xylenes, Total	ND		200	193		ug/L		96	80 - 120

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	107		74 - 132
4-Bromofluorobenzene	105		77 - 124
Dibromofluoromethane (Surr)	102		72 - 131
Toluene-d8 (Surr)	103		80 - 120

Lab Sample ID: 460-138477-12 MSD

Matrix: Water

Analysis Batch: 455924

Client Sample ID: FC-MW-6

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	ND		100	95.1		ug/L		95	75 - 125	2	30
1,1,2,2-Tetrachloroethane	ND		100	95.4		ug/L		95	74 - 120	5	30
1,1,2-Trichloroethane	ND		100	101		ug/L		101	78 - 120	3	30
1,1-Dichloroethane	ND		100	98.0		ug/L		98	77 - 123	1	30
1,1-Dichloroethene	ND		100	91.6		ug/L		92	74 - 123	3	30
1,2-Dichloroethane	ND		100	111		ug/L		111	76 - 121	3	30

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-138477-1

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

Lab Sample ID: 460-138477-12 MSD

Matrix: Water

Analysis Batch: 455924

Client Sample ID: FC-MW-6

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichloropropane	ND		100	99.8		ug/L		100	77 - 123	3	30
2-Butanone (MEK)	ND		500	444		ug/L		89	64 - 120	0	30
2-Hexanone	ND		500	547		ug/L		109	71 - 125	4	30
4-Methyl-2-pentanone (MIBK)	ND		500	532		ug/L		106	78 - 124	2	30
Acetone	ND		500	522		ug/L		104	39 - 150	1	30
Benzene	ND		100	98.7		ug/L		99	77 - 121	2	30
Bromoform	ND		100	79.0		ug/L		79	53 - 120	3	30
Bromomethane	ND		100	99.0		ug/L		99	10 - 150	12	30
Carbon disulfide	ND		100	86.7		ug/L		87	69 - 133	4	30
Carbon tetrachloride	ND		100	85.9		ug/L		86	70 - 132	4	30
Chlorobenzene	ND		100	97.2		ug/L		97	80 - 120	2	30
Chlorodibromomethane	ND		100	85.8		ug/L		86	73 - 120	1	30
Chloroethane	ND	F1	100	215	F1	ug/L		215	52 - 150	5	30
Chloroform	ND		100	97.2		ug/L		97	80 - 120	1	30
Chloromethane	ND		100	104		ug/L		104	56 - 131	4	30
cis-1,2-Dichloroethene	8.2		100	104		ug/L		96	80 - 120	3	30
cis-1,3-Dichloropropene	ND		100	91.5		ug/L		91	77 - 120	4	30
Dichlorobromomethane	ND		100	90.6		ug/L		91	76 - 120	4	30
Ethylbenzene	ND		100	101		ug/L		101	80 - 120	3	30
Methylene Chloride	ND		100	98.0		ug/L		98	77 - 123	3	30
Styrene	ND		100	100		ug/L		100	80 - 120	2	30
Tetrachloroethene	1800		100	1440	4	ug/L		-368	78 - 122	0	30
Toluene	ND		100	98.9		ug/L		99	80 - 120	2	30
trans-1,2-Dichloroethene	ND		100	91.4		ug/L		91	79 - 120	2	30
trans-1,3-Dichloropropene	ND		100	96.6		ug/L		97	76 - 120	3	30
Trichloroethene	85		100	169		ug/L		84	77 - 120	2	30
Vinyl chloride	ND		100	101		ug/L		101	62 - 138	3	30
Xylenes, Total	ND		200	196		ug/L		98	80 - 120	2	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	107		74 - 132
4-Bromofluorobenzene	104		77 - 124
Dibromofluoromethane (Surr)	103		72 - 131
Toluene-d8 (Surr)	103		80 - 120

Lab Sample ID: MB 460-456073/7

Matrix: Water

Analysis Batch: 456073

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	ND		1.0	0.28	ug/L			08/14/17 10:49	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			08/14/17 10:49	1
1,1,2-Trichloroethane	ND		1.0	0.080	ug/L			08/14/17 10:49	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			08/14/17 10:49	1
1,1-Dichloroethene	ND		1.0	0.34	ug/L			08/14/17 10:49	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/14/17 10:49	1
1,2-Dichloropropane	ND		1.0	0.18	ug/L			08/14/17 10:49	1
2-Butanone (MEK)	ND		5.0	2.2	ug/L			08/14/17 10:49	1

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-138477-1

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

Lab Sample ID: MB 460-456073/7

Matrix: Water

Analysis Batch: 456073

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Hexanone	ND		5.0	0.72	ug/L			08/14/17 10:49	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.63	ug/L			08/14/17 10:49	1
Acetone	2.05	J	5.0	1.1	ug/L			08/14/17 10:49	1
Benzene	ND		1.0	0.090	ug/L			08/14/17 10:49	1
Bromoform	ND		1.0	0.18	ug/L			08/14/17 10:49	1
Bromomethane	ND		1.0	0.18	ug/L			08/14/17 10:49	1
Carbon disulfide	ND		1.0	0.22	ug/L			08/14/17 10:49	1
Carbon tetrachloride	ND		1.0	0.33	ug/L			08/14/17 10:49	1
Chlorobenzene	ND		1.0	0.24	ug/L			08/14/17 10:49	1
Chlorodibromomethane	ND		1.0	0.22	ug/L			08/14/17 10:49	1
Chloroethane	ND		1.0	0.37	ug/L			08/14/17 10:49	1
Chloroform	ND		1.0	0.22	ug/L			08/14/17 10:49	1
Chloromethane	ND		1.0	0.22	ug/L			08/14/17 10:49	1
cis-1,2-Dichloroethene	ND		1.0	0.26	ug/L			08/14/17 10:49	1
cis-1,3-Dichloropropene	ND		1.0	0.16	ug/L			08/14/17 10:49	1
Dichlorobromomethane	ND		1.0	0.15	ug/L			08/14/17 10:49	1
Ethylbenzene	ND		1.0	0.30	ug/L			08/14/17 10:49	1
Methylene Chloride	ND		1.0	0.21	ug/L			08/14/17 10:49	1
Styrene	ND		1.0	0.17	ug/L			08/14/17 10:49	1
Tetrachloroethene	ND		1.0	0.12	ug/L			08/14/17 10:49	1
Toluene	ND		1.0	0.25	ug/L			08/14/17 10:49	1
trans-1,2-Dichloroethene	ND		1.0	0.18	ug/L			08/14/17 10:49	1
trans-1,3-Dichloropropene	ND		1.0	0.19	ug/L			08/14/17 10:49	1
Trichloroethene	ND		1.0	0.22	ug/L			08/14/17 10:49	1
Vinyl chloride	ND		1.0	0.060	ug/L			08/14/17 10:49	1
Xylenes, Total	ND		2.0	0.28	ug/L			08/14/17 10:49	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		74 - 132		08/14/17 10:49	1
4-Bromofluorobenzene	101		77 - 124		08/14/17 10:49	1
Dibromofluoromethane (Surr)	102		72 - 131		08/14/17 10:49	1
Toluene-d8 (Surr)	103		80 - 120		08/14/17 10:49	1

Lab Sample ID: LCS 460-456073/3

Matrix: Water

Analysis Batch: 456073

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	19.8		ug/L		99	75 - 125
1,1,2,2-Tetrachloroethane	20.0	18.4		ug/L		92	74 - 120
1,1,2-Trichloroethane	20.0	19.6		ug/L		98	78 - 120
1,1-Dichloroethane	20.0	20.3		ug/L		102	77 - 123
1,1-Dichloroethene	20.0	19.8		ug/L		99	74 - 123
1,2-Dichloroethane	20.0	21.8		ug/L		109	76 - 121
1,2-Dichloropropane	20.0	20.7		ug/L		104	77 - 123
2-Butanone (MEK)	100	91.8		ug/L		92	64 - 120
2-Hexanone	100	107		ug/L		107	71 - 125
4-Methyl-2-pentanone (MIBK)	100	105		ug/L		105	78 - 124

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-138477-1

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

Lab Sample ID: LCS 460-456073/3

Matrix: Water

Analysis Batch: 456073

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	100	102		ug/L		102	39 - 150
Benzene	20.0	20.2		ug/L		101	77 - 121
Bromoform	20.0	15.7		ug/L		79	53 - 120
Bromomethane	20.0	19.2		ug/L		96	10 - 150
Carbon disulfide	20.0	18.2		ug/L		91	69 - 133
Carbon tetrachloride	20.0	18.4		ug/L		92	70 - 132
Chlorobenzene	20.0	20.2		ug/L		101	80 - 120
Chlorodibromomethane	20.0	17.3		ug/L		86	73 - 120
Chloroethane	20.0	33.8	*	ug/L		169	52 - 150
Chloroform	20.0	19.9		ug/L		100	80 - 120
Chloromethane	20.0	24.8		ug/L		124	56 - 131
cis-1,2-Dichloroethene	20.0	20.2		ug/L		101	80 - 120
cis-1,3-Dichloropropene	20.0	18.5		ug/L		93	77 - 120
Dichlorobromomethane	20.0	18.5		ug/L		93	76 - 120
Ethylbenzene	20.0	20.5		ug/L		103	80 - 120
Methylene Chloride	20.0	20.2		ug/L		101	77 - 123
Styrene	20.0	20.4		ug/L		102	80 - 120
Tetrachloroethene	20.0	21.5		ug/L		108	78 - 122
Toluene	20.0	20.2		ug/L		101	80 - 120
trans-1,2-Dichloroethene	20.0	18.7		ug/L		94	79 - 120
trans-1,3-Dichloropropene	20.0	19.5		ug/L		97	76 - 120
Trichloroethene	20.0	20.7		ug/L		103	77 - 120
Vinyl chloride	20.0	23.8		ug/L		119	62 - 138
Xylenes, Total	40.0	40.1		ug/L		100	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	110		74 - 132
4-Bromofluorobenzene	105		77 - 124
Dibromofluoromethane (Surr)	104		72 - 131
Toluene-d8 (Surr)	104		80 - 120

Lab Sample ID: LCSD 460-456073/4

Matrix: Water

Analysis Batch: 456073

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		94	75 - 125	6	30
1,1,2,2-Tetrachloroethane	20.0	18.1		ug/L		91	74 - 120	2	30
1,1,2-Trichloroethane	20.0	19.6		ug/L		98	78 - 120	0	30
1,1-Dichloroethane	20.0	19.0		ug/L		95	77 - 123	7	30
1,1-Dichloroethene	20.0	17.9		ug/L		90	74 - 123	10	30
1,2-Dichloroethane	20.0	21.3		ug/L		107	76 - 121	2	30
1,2-Dichloropropane	20.0	19.7		ug/L		98	77 - 123	5	30
2-Butanone (MEK)	100	89.0		ug/L		89	64 - 120	3	30
2-Hexanone	100	107		ug/L		107	71 - 125	0	30
4-Methyl-2-pentanone (MIBK)	100	103		ug/L		103	78 - 124	2	30
Acetone	100	99.4		ug/L		99	39 - 150	3	30
Benzene	20.0	19.3		ug/L		97	77 - 121	4	30

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-138477-1

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

Lab Sample ID: LCSD 460-456073/4

Matrix: Water

Analysis Batch: 456073

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
Bromoform	20.0	15.2		ug/L		76	53 - 120	4	30
Bromomethane	20.0	17.3		ug/L		87	10 - 150	10	30
Carbon disulfide	20.0	16.9		ug/L		85	69 - 133	7	30
Carbon tetrachloride	20.0	16.7		ug/L		84	70 - 132	10	30
Chlorobenzene	20.0	19.0		ug/L		95	80 - 120	6	30
Chlorodibromomethane	20.0	16.4		ug/L		82	73 - 120	5	30
Chloroethane	20.0	30.1		ug/L		150	52 - 150	12	30
Chloroform	20.0	18.9		ug/L		94	80 - 120	5	30
Chloromethane	20.0	22.9		ug/L		115	56 - 131	8	30
cis-1,2-Dichloroethene	20.0	18.9		ug/L		94	80 - 120	7	30
cis-1,3-Dichloropropene	20.0	17.8		ug/L		89	77 - 120	4	30
Dichlorobromomethane	20.0	17.6		ug/L		88	76 - 120	5	30
Ethylbenzene	20.0	19.7		ug/L		98	80 - 120	4	30
Methylene Chloride	20.0	19.2		ug/L		96	77 - 123	5	30
Styrene	20.0	19.8		ug/L		99	80 - 120	3	30
Tetrachloroethene	20.0	20.3		ug/L		102	78 - 122	6	30
Toluene	20.0	19.4		ug/L		97	80 - 120	4	30
trans-1,2-Dichloroethene	20.0	17.5		ug/L		87	79 - 120	7	30
trans-1,3-Dichloropropene	20.0	18.7		ug/L		94	76 - 120	4	30
Trichloroethene	20.0	19.2		ug/L		96	77 - 120	7	30
Vinyl chloride	20.0	21.5		ug/L		108	62 - 138	10	30
Xylenes, Total	40.0	38.8		ug/L		97	80 - 120	3	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	108		74 - 132
4-Bromofluorobenzene	104		77 - 124
Dibromofluoromethane (Surr)	101		72 - 131
Toluene-d8 (Surr)	103		80 - 120

Method: 8270D SIM - 1,4-Dioxane (GC/MS SIM)

Lab Sample ID: MB 460-454788/1-A

Matrix: Water

Analysis Batch: 454985

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 454788

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.40	0.15	ug/L	-	08/08/17 09:10	08/09/17 09:49	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	90		38 - 125				08/08/17 09:10	08/09/17 09:49	1

Lab Sample ID: LCS 460-454788/2-A

Matrix: Water

Analysis Batch: 454985

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 454788

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	0.800	0.257	J	ug/L		32	10 - 137

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-138477-1

Method: 8270D SIM - 1,4-Dioxane (GC/MS SIM) (Continued)

Lab Sample ID: LCS 460-454788/2-A
Matrix: Water
Analysis Batch: 454985

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 454788

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
Nitrobenzene-d5	92		38 - 125

Lab Sample ID: 460-138477-12 MS
Matrix: Water
Analysis Batch: 454985

Client Sample ID: FC-MW-6
Prep Type: Total/NA
Prep Batch: 454788

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
1,4-Dioxane	ND		0.833	0.392	J	ug/L		47	10 - 137
Surrogate	MS %Recovery	MS Qualifier	Limits						
Nitrobenzene-d5	90		38 - 125						

Lab Sample ID: 460-138477-12 MSD
Matrix: Water
Analysis Batch: 454985

Client Sample ID: FC-MW-6
Prep Type: Total/NA
Prep Batch: 454788

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1,4-Dioxane	ND		0.833	0.437		ug/L		52	10 - 137	11	30
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
Nitrobenzene-d5	94		38 - 125								

Method: 537 (modified) - Perfluorinated Hydrocarbons

Lab Sample ID: MB 320-178144/1-A
Matrix: Water
Analysis Batch: 178742

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 178144

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.80	ng/L		08/07/17 14:29	08/10/17 03:22	1
Perfluorooctanoic acid (PFOA)	1.55	J	2.0	0.75	ng/L		08/07/17 14:29	08/10/17 03:22	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.65	ng/L		08/07/17 14:29	08/10/17 03:22	1
Isotope Dilution	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4-PFHpA	119		25 - 150				08/07/17 14:29	08/10/17 03:22	1
13C4 PFOA	115		25 - 150				08/07/17 14:29	08/10/17 03:22	1
13C5 PFNA	115		25 - 150				08/07/17 14:29	08/10/17 03:22	1
13C3-PFBS	103		25 - 150				08/07/17 14:29	08/10/17 03:22	1

Lab Sample ID: LCS 320-178144/2-A
Matrix: Water
Analysis Batch: 178742

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 178144

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Perfluoroheptanoic acid (PFHpA)	40.0	43.7		ng/L		109	63 - 135
Perfluorooctanoic acid (PFOA)	40.0	38.4		ng/L		96	63 - 141
Perfluorononanoic acid (PFNA)	40.0	41.0		ng/L		103	71 - 140

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-138477-1

	LCS	LCS	
Isotope Dilution	%Recovery	Qualifier	Limits
13C4-PFHpA	108		25 - 150
13C4 PFOA	106		25 - 150
13C5 PFNA	98		25 - 150
13C3-PFBS	91		25 - 150

Lab Sample ID: 460-138477-12 MS

Matrix: Water

Analysis Batch: 178742

Client Sample ID: FC-MW-6

Prep Type: Total/NA

Prep Batch: 178144

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluoroheptanoic acid (PFHpA)	30		40.3	66.9		ng/L		91	63 - 135
Perfluorooctanoic acid (PFOA)	220	B	40.3	271	4	ng/L		137	63 - 141
Perfluorononanoic acid (PFNA)	0.74	J	40.3	37.9		ng/L		92	71 - 140
Isotope Dilution	%Recovery	Qualifier	Limits						
13C4-PFHpA	82		25 - 150						
13C4 PFOA	51		25 - 150						
13C5 PFNA	22	*	25 - 150						

Lab Sample ID: 460-138477-12 MSD

Matrix: Water

Analysis Batch: 178742

Client Sample ID: FC-MW-6

Prep Type: Total/NA

Prep Batch: 178144

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Perfluoroheptanoic acid (PFHpA)	30		40.1	69.2		ng/L		97	63 - 135	3	30
Perfluorooctanoic acid (PFOA)	220	B	40.1	251	4	ng/L		88	63 - 141	8	30
Perfluorononanoic acid (PFNA)	0.74	J	40.1	40.1		ng/L		98	71 - 140	6	30
Isotope Dilution	%Recovery	Qualifier	Limits								
13C4-PFHpA	116		25 - 150								
13C4 PFOA	90		25 - 150								
13C5 PFNA	59		25 - 150								

Lab Sample ID: MB 320-178850/1-A

Matrix: Water

Analysis Batch: 179538

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 178850

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.92	ng/L		08/10/17 15:32	08/15/17 11:18	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.87	ng/L		08/10/17 15:32	08/15/17 11:18	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	1.3	ng/L		08/10/17 15:32	08/15/17 11:18	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	98		25 - 150				08/10/17 15:32	08/15/17 11:18	1
13C4 PFOS	102		25 - 150				08/10/17 15:32	08/15/17 11:18	1
13C3-PFBS	87		25 - 150				08/10/17 15:32	08/15/17 11:18	1

Lab Sample ID: LCS 320-178850/2-A

Matrix: Water

Analysis Batch: 179538

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 178850

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanesulfonic acid (PFBS)	35.4	39.3		ng/L		111	55 - 147

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-138477-1

Method: 537 (modified) - Perfluorinated Hydrocarbons (Continued)

Lab Sample ID: LCS 320-178850/2-A

Matrix: Water

Analysis Batch: 179538

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 178850

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorohexanesulfonic acid (PFHxS)	36.4	40.8		ng/L		112	58 - 138
Perfluorooctanesulfonic acid (PFOS)	37.1	40.7		ng/L		110	47 - 162
Isotope Dilution	%Recovery	LCS Qualifier	Limits				
18O2 PFHxS	106		25 - 150				
13C4 PFOS	108		25 - 150				
13C3-PFBS	93		25 - 150				

Method: 537 (modified) - Perfluorinated Hydrocarbons - RE

Lab Sample ID: 460-138477-12 MS

Matrix: Water

Analysis Batch: 179538

Client Sample ID: FC-MW-6

Prep Type: Total/NA

Prep Batch: 178850

Top Data: Free										
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	
Perfluorobutanesulfonic acid (PFBS) - RE	8.2		39.4	52.8		ng/L		113	55 - 147	
Perfluorohexanesulfonic acid (PFHxS) - RE	11		40.6	54.3		ng/L		108	58 - 138	
Perfluorooctanesulfonic acid (PFOS) - RE	6.8		41.4	50.4		ng/L		105	47 - 162	
Isotope Dilution	MS %Recovery	MS Qualifier	Limits							
18O2 PFHxS - RE	97		25 - 150							
13C4 PFOS - RE	103		25 - 150							

Lab Sample ID: 460-138477-12 MSD

Matrix: Water

Analysis Batch: 179538

Client Sample ID: FC-MW-6

Prep Type: Total/NA

Prep Batch: 178850

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorobutanesulfonic acid (PFBS) - RE	8.2		32.6	43.7		ng/L		109	55 - 147	19	30
Perfluorohexanesulfonic acid (PFHxS) - RE	11		33.6	51.1		ng/L		121	58 - 138	6	30
Perfluorooctanesulfonic acid (PFOS) - RE	6.8		34.3	45.0		ng/L		111	47 - 162	11	30
Isotope Dilution	%Recovery	MSD Qualifier	Limits								
18O2 PFHxS - RE	119		25 - 150								
13C4 PFOS - RE	135		25 - 150								

TestAmerica Edison

QC Association Summary

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-138477-1

GC/MS VOA

Analysis Batch: 455924

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-138477-1	FC-EB-080117	Total/NA	Water	8260C	
460-138477-2	FC-MW-103S	Total/NA	Water	8260C	
460-138477-3	FC-MW-5	Total/NA	Water	8260C	
460-138477-4	FC-MW-9	Total/NA	Water	8260C	
460-138477-5	FC-MW-8	Total/NA	Water	8260C	
460-138477-6	FC-MW-108D	Total/NA	Water	8260C	
460-138477-7	FC-MW-104S	Total/NA	Water	8260C	
460-138477-8 - DL	FC-MW-104D	Total/NA	Water	8260C	
460-138477-9	FC-MW-105S	Total/NA	Water	8260C	
460-138477-10	FC-MW-105D	Total/NA	Water	8260C	
460-138477-11	FC-MW-1	Total/NA	Water	8260C	
460-138477-12	FC-MW-6	Total/NA	Water	8260C	
460-138477-13	FC-MW-107D	Total/NA	Water	8260C	
460-138477-14	FC-MW-109S	Total/NA	Water	8260C	
MB 460-455924/7	Method Blank	Total/NA	Water	8260C	
LCS 460-455924/3	Lab Control Sample	Total/NA	Water	8260C	
460-138477-12 MS	FC-MW-6	Total/NA	Water	8260C	
460-138477-12 MSD	FC-MW-6	Total/NA	Water	8260C	

Analysis Batch: 456073

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-138477-8	FC-MW-104D	Total/NA	Water	8260C	
460-138477-15	FC-MW-6-D	Total/NA	Water	8260C	
MB 460-456073/7	Method Blank	Total/NA	Water	8260C	
LCS 460-456073/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 460-456073/4	Lab Control Sample Dup	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 454788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-138477-1	FC-EB-080117	Total/NA	Water	3510C	
460-138477-2	FC-MW-103S	Total/NA	Water	3510C	
460-138477-3	FC-MW-5	Total/NA	Water	3510C	
460-138477-12	FC-MW-6	Total/NA	Water	3510C	
460-138477-13	FC-MW-107D	Total/NA	Water	3510C	
460-138477-14	FC-MW-109S	Total/NA	Water	3510C	
460-138477-15	FC-MW-6-D	Total/NA	Water	3510C	
MB 460-454788/1-A	Method Blank	Total/NA	Water	3510C	
LCS 460-454788/2-A	Lab Control Sample	Total/NA	Water	3510C	
460-138477-12 MS	FC-MW-6	Total/NA	Water	3510C	
460-138477-12 MSD	FC-MW-6	Total/NA	Water	3510C	

Analysis Batch: 454985

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-138477-12	FC-MW-6	Total/NA	Water	8270D SIM	454788
MB 460-454788/1-A	Method Blank	Total/NA	Water	8270D SIM	454788
LCS 460-454788/2-A	Lab Control Sample	Total/NA	Water	8270D SIM	454788
460-138477-12 MS	FC-MW-6	Total/NA	Water	8270D SIM	454788
460-138477-12 MSD	FC-MW-6	Total/NA	Water	8270D SIM	454788

TestAmerica Edison

QC Association Summary

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-138477-1

GC/MS Semi VOA (Continued)

Analysis Batch: 456054

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-138477-1	FC-EB-080117	Total/NA	Water	8270D SIM	454788
460-138477-2	FC-MW-103S	Total/NA	Water	8270D SIM	454788
460-138477-3	FC-MW-5	Total/NA	Water	8270D SIM	454788
460-138477-13	FC-MW-107D	Total/NA	Water	8270D SIM	454788
460-138477-14	FC-MW-109S	Total/NA	Water	8270D SIM	454788
460-138477-15	FC-MW-6-D	Total/NA	Water	8270D SIM	454788

LCMS

Prep Batch: 178144

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-138477-1	FC-EB-080117	Total/NA	Water	3535	
460-138477-2	FC-MW-103S	Total/NA	Water	3535	
460-138477-12	FC-MW-6	Total/NA	Water	3535	
460-138477-13	FC-MW-107D	Total/NA	Water	3535	
460-138477-15	FC-MW-6-D	Total/NA	Water	3535	
MB 320-178144/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-178144/2-A	Lab Control Sample	Total/NA	Water	3535	
460-138477-12 MS	FC-MW-6	Total/NA	Water	3535	
460-138477-12 MSD	FC-MW-6	Total/NA	Water	3535	

Analysis Batch: 178742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-138477-1	FC-EB-080117	Total/NA	Water	537 (modified)	178144
460-138477-2	FC-MW-103S	Total/NA	Water	537 (modified)	178144
460-138477-12	FC-MW-6	Total/NA	Water	537 (modified)	178144
460-138477-13	FC-MW-107D	Total/NA	Water	537 (modified)	178144
460-138477-15	FC-MW-6-D	Total/NA	Water	537 (modified)	178144
MB 320-178144/1-A	Method Blank	Total/NA	Water	537 (modified)	178144
LCS 320-178144/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	178144
460-138477-12 MS	FC-MW-6	Total/NA	Water	537 (modified)	178144
460-138477-12 MSD	FC-MW-6	Total/NA	Water	537 (modified)	178144

Prep Batch: 178850

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-138477-1 - RE	FC-EB-080117	Total/NA	Water	3535	
460-138477-2 - RE	FC-MW-103S	Total/NA	Water	3535	
460-138477-12 - RE	FC-MW-6	Total/NA	Water	3535	
460-138477-13 - RE	FC-MW-107D	Total/NA	Water	3535	
460-138477-15 - RE	FC-MW-6-D	Total/NA	Water	3535	
MB 320-178850/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-178850/2-A	Lab Control Sample	Total/NA	Water	3535	
460-138477-12 MS - RE	FC-MW-6	Total/NA	Water	3535	
460-138477-12 MSD - RE	FC-MW-6	Total/NA	Water	3535	

Analysis Batch: 179538

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-138477-1 - RE	FC-EB-080117	Total/NA	Water	537 (modified)	178850
460-138477-2 - RE	FC-MW-103S	Total/NA	Water	537 (modified)	178850
460-138477-12 - RE	FC-MW-6	Total/NA	Water	537 (modified)	178850

TestAmerica Edison

QC Association Summary

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-138477-1

LCMS (Continued)

Analysis Batch: 179538 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-138477-13 - RE	FC-MW-107D	Total/NA	Water	537 (modified)	178850
460-138477-15 - RE	FC-MW-6-D	Total/NA	Water	537 (modified)	178850
MB 320-178850/1-A	Method Blank	Total/NA	Water	537 (modified)	178850
LCS 320-178850/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	178850
460-138477-12 MS - RE	FC-MW-6	Total/NA	Water	537 (modified)	178850
460-138477-12 MSD - RE	FC-MW-6	Total/NA	Water	537 (modified)	178850

Lab Chronicle

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-138477-1

Client Sample ID: FC-EB-080117

Date Collected: 08/01/17 17:45

Date Received: 08/02/17 17:55

Lab Sample ID: 460-138477-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	455924	08/13/17 10:29	SZD	TAL EDI
Total/NA	Prep	3510C			454788	08/08/17 09:10	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	456054	08/14/17 10:25	MVA	TAL EDI
Total/NA	Prep	3535			178144	08/07/17 14:29	JER	TAL SAC
Total/NA	Analysis	537 (modified)		1	178742	08/10/17 04:10	CBW	TAL SAC
Total/NA	Prep	3535	RE		178850	08/10/17 15:32	TWL	TAL SAC
Total/NA	Analysis	537 (modified)	RE	1	179538	08/15/17 12:34	JRB	TAL SAC

Client Sample ID: FC-MW-103S

Date Collected: 08/01/17 09:47

Date Received: 08/02/17 17:55

Lab Sample ID: 460-138477-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	455924	08/13/17 18:05	SZD	TAL EDI
Total/NA	Prep	3510C			454788	08/08/17 09:10	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	456054	08/14/17 10:48	MVA	TAL EDI
Total/NA	Prep	3535			178144	08/07/17 14:29	JER	TAL SAC
Total/NA	Analysis	537 (modified)		1	178742	08/10/17 04:17	CBW	TAL SAC
Total/NA	Prep	3535	RE		178850	08/10/17 15:32	TWL	TAL SAC
Total/NA	Analysis	537 (modified)	RE	1	179538	08/15/17 12:41	JRB	TAL SAC

Client Sample ID: FC-MW-5

Date Collected: 08/01/17 11:05

Date Received: 08/02/17 17:55

Lab Sample ID: 460-138477-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	455924	08/13/17 18:30	SZD	TAL EDI
Total/NA	Prep	3510C			454788	08/08/17 09:10	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	456054	08/14/17 11:10	MVA	TAL EDI

Client Sample ID: FC-MW-9

Date Collected: 08/01/17 12:25

Date Received: 08/02/17 17:55

Lab Sample ID: 460-138477-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	455924	08/13/17 16:49	SZD	TAL EDI

TestAmerica Edison

Lab Chronicle

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-138477-1

Client Sample ID: FC-MW-8

Date Collected: 08/01/17 13:50

Date Received: 08/02/17 17:55

Lab Sample ID: 460-138477-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	455924	08/13/17 17:14	SZD	TAL EDI

Client Sample ID: FC-MW-108D

Date Collected: 08/01/17 15:05

Date Received: 08/02/17 17:55

Lab Sample ID: 460-138477-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	455924	08/13/17 12:10	SZD	TAL EDI

Client Sample ID: FC-MW-104S

Date Collected: 08/01/17 16:40

Date Received: 08/02/17 17:55

Lab Sample ID: 460-138477-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	455924	08/13/17 18:55	SZD	TAL EDI

Client Sample ID: FC-MW-104D

Date Collected: 08/01/17 17:30

Date Received: 08/02/17 17:55

Lab Sample ID: 460-138477-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C	DL	5	455924	08/13/17 14:17	SZD	TAL EDI
Total/NA	Analysis	8260C		1	456073	08/14/17 18:49	SZD	TAL EDI

Client Sample ID: FC-MW-105S

Date Collected: 08/02/17 07:55

Date Received: 08/02/17 17:55

Lab Sample ID: 460-138477-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	455924	08/13/17 12:36	SZD	TAL EDI

Client Sample ID: FC-MW-105D

Date Collected: 08/02/17 09:10

Date Received: 08/02/17 17:55

Lab Sample ID: 460-138477-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	455924	08/13/17 13:02	SZD	TAL EDI

TestAmerica Edison

Lab Chronicle

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-138477-1

Client Sample ID: FC-MW-1

Lab Sample ID: 460-138477-11

Date Collected: 08/02/17 10:35

Matrix: Water

Date Received: 08/02/17 17:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	455924	08/13/17 13:27	SZD	TAL EDI

Client Sample ID: FC-MW-6

Lab Sample ID: 460-138477-12

Date Collected: 08/02/17 11:30

Matrix: Water

Date Received: 08/02/17 17:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	455924	08/13/17 13:52	SZD	TAL EDI
Total/NA	Prep	3510C			454788	08/08/17 09:10	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	454985	08/09/17 11:19	SK	TAL EDI
Total/NA	Prep	3535			178144	08/07/17 14:29	JER	TAL SAC
Total/NA	Analysis	537 (modified)		1	178742	08/10/17 04:31	CBW	TAL SAC
Total/NA	Prep	3535	RE		178850	08/10/17 15:32	TWL	TAL SAC
Total/NA	Analysis	537 (modified)	RE	1	179538	08/15/17 12:48	JRB	TAL SAC

Client Sample ID: FC-MW-107D

Lab Sample ID: 460-138477-13

Date Collected: 08/02/17 13:20

Matrix: Water

Date Received: 08/02/17 17:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	455924	08/13/17 17:39	SZD	TAL EDI
Total/NA	Prep	3510C			454788	08/08/17 09:10	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	456054	08/14/17 11:33	MVA	TAL EDI
Total/NA	Prep	3535			178144	08/07/17 14:29	JER	TAL SAC
Total/NA	Analysis	537 (modified)		1	178742	08/10/17 04:51	CBW	TAL SAC
Total/NA	Prep	3535	RE		178850	08/10/17 15:32	TWL	TAL SAC
Total/NA	Analysis	537 (modified)	RE	1	179538	08/15/17 13:09	JRB	TAL SAC

Client Sample ID: FC-MW-109S

Lab Sample ID: 460-138477-14

Date Collected: 08/02/17 14:05

Matrix: Water

Date Received: 08/02/17 17:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	455924	08/13/17 16:24	SZD	TAL EDI
Total/NA	Prep	3510C			454788	08/08/17 09:10	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	456054	08/14/17 11:55	MVA	TAL EDI

TestAmerica Edison

Lab Chronicle

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-138477-1

Client Sample ID: FC-MW-6-D

Lab Sample ID: 460-138477-15

Date Collected: 08/02/17 11:30

Matrix: Water

Date Received: 08/02/17 17:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	456073	08/14/17 19:14	SZD	TAL EDI
Total/NA	Prep	3510C			454788	08/08/17 09:10	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	456054	08/14/17 12:18	MVA	TAL EDI
Total/NA	Prep	3535			178144	08/07/17 14:29	JER	TAL SAC
Total/NA	Analysis	537 (modified)		1	178742	08/10/17 04:58	CBW	TAL SAC
Total/NA	Prep	3535	RE		178850	08/10/17 15:32	TWL	TAL SAC
Total/NA	Analysis	537 (modified)	RE	1	179538	08/15/17 13:15	JRB	TAL SAC

Laboratory References:

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

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-138477-1

Laboratory: TestAmerica Edison

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	11452	04-01-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
8270D SIM	3510C	Water	1,4-Dioxane

Laboratory: TestAmerica Sacramento

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska (UST)	State Program	10	UST-055	12-18-17
Arizona	State Program	9	AZ0708	08-11-17 *
Arkansas DEQ	State Program	6	88-0691	06-17-18
California	State Program	9	2897	01-31-18
Colorado	State Program	8	CA00044	08-31-17
Connecticut	State Program	1	PH-0691	06-30-19
Florida	NELAP	4	E87570	06-30-18
Georgia	State Program	4	N/A	01-29-18
Hawaii	State Program	9	N/A	01-29-18
Illinois	NELAP	5	200060	03-17-18
Kansas	NELAP	7	E-10375	10-31-17
L-A-B	DoD ELAP		L2468	01-20-18
Louisiana	NELAP	6	30612	06-30-18
Maine	State Program	1	CA0004	04-18-18
Michigan	State Program	5	9947	01-31-18
Nevada	State Program	9	CA00044	07-31-18
New Hampshire	NELAP	1	2997	04-18-18
New Jersey	NELAP	2	CA005	06-30-18
New York	NELAP	2	11666	04-01-18
Oregon	NELAP	10	4040	01-28-18
Pennsylvania	NELAP	3	68-01272	03-31-18
Texas	NELAP	6	T104704399	05-31-18
US Fish & Wildlife	Federal		LE148388-0	10-31-17
USDA	Federal		P330-11-00436	12-30-17
USEPA UCMR	Federal	1	CA00044	11-06-18
Utah	NELAP	8	CA00044	02-28-18
Virginia	NELAP	3	460278	03-14-18
Washington	State Program	10	C581	05-05-18
West Virginia (DW)	State Program	3	9930C	12-31-17
Wyoming	State Program	8	8TMS-L	01-29-17 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Edison

Method Summary

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-138477-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
8270D SIM	1,4-Dioxane (GC/MS SIM)	SW846	TAL EDI
537 (modified)	Perfluorinated Hydrocarbons	EPA	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

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

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-138477-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-138477-1	FC-EB-080117	Water	08/01/17 17:45	08/02/17 17:55
460-138477-2	FC-MW-103S	Water	08/01/17 09:47	08/02/17 17:55
460-138477-3	FC-MW-5	Water	08/01/17 11:05	08/02/17 17:55
460-138477-4	FC-MW-9	Water	08/01/17 12:25	08/02/17 17:55
460-138477-5	FC-MW-8	Water	08/01/17 13:50	08/02/17 17:55
460-138477-6	FC-MW-108D	Water	08/01/17 15:05	08/02/17 17:55
460-138477-7	FC-MW-104S	Water	08/01/17 16:40	08/02/17 17:55
460-138477-8	FC-MW-104D	Water	08/01/17 17:30	08/02/17 17:55
460-138477-9	FC-MW-105S	Water	08/02/17 07:55	08/02/17 17:55
460-138477-10	FC-MW-105D	Water	08/02/17 09:10	08/02/17 17:55
460-138477-11	FC-MW-1	Water	08/02/17 10:35	08/02/17 17:55
460-138477-12	FC-MW-6	Water	08/02/17 11:30	08/02/17 17:55
460-138477-13	FC-MW-107D	Water	08/02/17 13:20	08/02/17 17:55
460-138477-14	FC-MW-109S	Water	08/02/17 14:05	08/02/17 17:55
460-138477-15	FC-MW-6-D	Water	08/02/17 11:30	08/02/17 17:55

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

Page 1 of 2

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

Name (for report and invoice) Allyson Kenney		Company Parscons		Samplers Name (Printed) Aaron Fishback-Murray		P.O. #		Site/Project Identification ECPS	
Address 200 Cottontail Lane		City Somerset State NJ		Analysis Turnaround Time Standard ☒ Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☐		Regulatory Program:		LAB USE ONLY Project No:	
Phone 609 713 3222 Fax allyson.kenney@parscons.com		Sample Identification		Date		Time		Matrix	
Sample Identification		Date		Time		Matrix		No. of Cont.	
FC-EG-080117		8/1/17		1745		W		7	
FC-MW-1035				0941		W		7	
FC-MW-5				1105		S		3	
FC-MW-9				1225		S		3	
FC-MW-8				1350		S		3	
FC-MW-108D				1505		S		3	
FC-MW-1045				1640		S		3	
FC-MW-104D				1730		S		3	
FC-MW-1055				1755		S		3	
FC-MW-105D				0910		S		3	
Preservation Used: 1 = ICE, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH		Soil:		Water:		1, 2		1	



460-138477 Chain of Custody

Special Instructions

Water Metals Filtered (Yes/No)?

Relinquished by	Company	Date / Time	Received by	Company
Relinquished by	Parscons	8/2/17 1755	Received by	TA Edison
Relinquished by			Received by	Company
Relinquished by			Received by	Company
Relinquished by			Received by	Company
Relinquished by			Received by	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132), Massachusetts (M-NJ312), North Carolina (No. 578)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

Page 2 of 2

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

Name (for report and invoice) Alyson Weir		Company Patterson		P.O. #		Samplers Name (Printed) AFM		Site/Project Identification FCB	
Address 200 Cottontail Lane		City Somers		State NJ		Analysis Turnaround Time Standard ☒ Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☐		LAB USE ONLY Project No:	
Phone 609 713 3222		Fax 609 713 3222		Analysis Requested (ENTER X BELOW TO INDICATE REQUEST)		Job No:		Sample Numbers	
Sample Identification		Date		Time		Matrix		No. of Cont.	
FC-MW-1		8/2/17		1035		W		3	
FC-MW-6				1130		1		7	
FC-MW-1070				1320		1		7	
FC-MW-1095				1405		1		5	
FC-MW-6-MS				1130		1		7	
FC-MW-6-MSD						1		7	
FC-MW-6-D						1		7	
Preservation Used: 1 = ICE, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH		Soil:		Water:		1, 2		1	

Special Instructions

Water Metals Filtered (Yes/No)?

Relinquished by	Company	Date / Time	Received by	Company
	Patterson	8/2/17		TA Edison
Relinquished by	Company	Date / Time	Received by	Company
Relinquished by	Company	Date / Time	Received by	Company
Relinquished by	Company	Date / Time	Received by	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132), Massachusetts (M-NJ312), North Carolina (No. 578)

Job Numbers:

132477

Number of Coolers:

2

IR Gun #

2

Cooler Temperatures

COOLING LOG		RAW	CONNECTED	
Cooler #1:	06°C	06°C	Cooler #7:	1°C
Cooler #2:	12°C	12°C	Cooler #8:	1°C
Cooler #3:	1°C	1°C	Cooler #9:	1°C

[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.

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING



Client Information (Sub Contract Lab)		Lab PM: DeGraw, Kristin B		Carrier Tracking No(s): 460-49083.1					
Client Contact: Shipping/Receiving		E-Mail: kristin.degraw@testamericainc.com		State of Origin: New York					
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 460-138477-1					
Address: 880 Riverside Parkway, West Sacramento, CA, 95605		Due Date Requested: 8/14/2017		Preservation Codes:					
City: West Sacramento		TAT Requested (days):		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Anichlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)					
Phone: 916-373-5600(Tel) 916-372-1059(Fax)		PO #:		Other:					
Email:		WO #:							
Project Name: FCPS		Project #: 46023970							
Site:		SSOW#:							
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Solid, On-site)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC, IDA/3535, PFC PFAS, UCMR List	Total Number of Containers	Special Instructions/Note:
FC-EB-080117 (460-138477-1)	8/1/17	17:45 Eastern		Water			X	2	
FC-MW-103S (460-138477-2)	8/1/17	09:47 Eastern		Water			X	2	
FC-MW-6 (460-138477-12)	8/2/17	11:30 Eastern		Water			X	2	
FC-MW-6 (460-138477-12MS)	8/2/17	11:30 Eastern	MS	Water			X	2	
FC-MW-6 (460-138477-12MSD)	8/2/17	11:30 Eastern	MSD	Water			X	2	
FC-MW-107D (460-138477-13)	8/2/17	13:20 Eastern		Water			X	2	
FC-MW-6-D (460-138477-15)	8/2/17	11:30 Eastern		Water			X	2	
Possible Hazard Identification Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months Special Instructions/QC Requirements:									
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:			
Relinquished by: <i>CC</i>		Date/Time: 8/14/17 1800		Company: TAE		Received by: <i>[Signature]</i>		Date/Time: 8/15/17 905	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Custody Seals Intact: ☐ Yes ☐ No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 1.8					

Login Sample Receipt Checklist

Client: Parsons Corporation

Job Number: 460-138477-1

Login Number: 138477

List Source: TestAmerica Edison

List Number: 1

Creator: Wisnewski, Kelly R

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.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	
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	1.2°, 0.6°C, IR#8
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	No analysis requiring residual chlorine check assigned.

Login Sample Receipt Checklist

Client: Parsons Corporation

Job Number: 460-138477-1

Login Number: 138477

List Number: 2

Creator: Aguayo, Alonso

List Source: TestAmerica Sacramento

List Creation: 08/05/17 02:36 PM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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?	N/A	
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.	N/A	
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	

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: 460-148997-1

Client Project/Site: FCPS

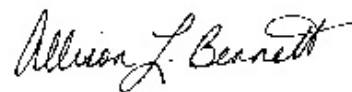
For:

Parsons Corporation

200 Cottontail Lane

Somerset, New Jersey 08873

Attn: Ms. Allyson Kriney



Authorized for release by:

8/20/2018 6:54:26 PM

Allison Bennett, Project Manager I

(732)549-3900

allison.bennett@testamericainc.com

LINKS

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results through

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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.

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Definitions/Glossary

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-148997-1

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 VOA

Qualifier	Qualifier Description
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.
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

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: FCPS

TestAmerica Job ID: 460-148997-1

Job ID: 460-148997-1

Laboratory: TestAmerica Edison

Narrative

CASE NARRATIVE

Client: Parsons Corporation

Project: FCPS

Report Number: 460-148997-1

Revision 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.

Revision 1 - Per client request, the data has been revised to report non-detected results to the RL vs. MDL.

RECEIPT

The samples were received on 1/24/2018 2:10 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.7° C.

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 FC-MW-103S (460-148997-1), FC-MW-5 (460-148997-2) and FC-TB012318 (460-148997-3) were analyzed for Volatile organic compounds (GC-MS) in accordance with EPA SW-846 Methods 8260C. The samples were analyzed on 01/27/2018.

No difficulties were encountered during the volatiles analysis.

All quality control parameters were within the acceptance limits.

DISSOLVED GASES

Samples FC-MW-103S (460-148997-1) and FC-MW-5 (460-148997-2) were analyzed for dissolved gases in accordance with RSK_175. The samples were analyzed on 01/26/2018.

The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 480-397402 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

Case Narrative

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-148997-1

Job ID: 460-148997-1 (Continued)

Laboratory: TestAmerica Edison (Continued)

spiking amount.

Refer to the QC report for details.

The following non-client QC samples were diluted to bring the concentration of target analytes within the calibration range: (460-148914-A-6), (460-148914-C-6 MS) and (460-148914-C-6 MSD). Elevated reporting limits (RLs) are provided.

No other difficulties were encountered during the dissolved gases analysis.

All other quality control parameters were within the acceptance limits.

TOTAL METALS (ICP/MS)

Samples FC-MW-103S (460-148997-1) and FC-MW-5 (460-148997-2) were analyzed for Total Metals (ICP/MS) in accordance with EPA SW-846 Method 6020A. The samples were prepared on 01/31/2018 and analyzed on 02/02/2018.

No difficulties were encountered during the Metals analysis.

All quality control parameters were within the acceptance limits.

SULFATE

Samples FC-MW-103S (460-148997-1) and FC-MW-5 (460-148997-2) were analyzed for sulfate in accordance with ASTM Method D516-90. The samples were analyzed on 02/02/2018.

Samples FC-MW-103S (460-148997-1)[2X] and FC-MW-5 (460-148997-2)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No difficulties were encountered during the sulfate analysis.

All quality control parameters were within the acceptance limits.

NITROGEN-NITRATE

Samples FC-MW-103S (460-148997-1) and FC-MW-5 (460-148997-2) were analyzed for Nitrogen-Nitrate in accordance with SM 4500 NO3 F. The samples were analyzed on 01/25/2018.

Nitrate as N failed the recovery criteria low for the MS/MSD of sample 460-149002-1 in batch 460-492548.

Refer to the QC report for details.

Samples FC-MW-103S (460-148997-1)[10X] and FC-MW-5 (460-148997-2)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the nitrate analysis.

All other quality control parameters were within the acceptance limits.

TOTAL ORGANIC CARBON

Samples FC-MW-103S (460-148997-1) and FC-MW-5 (460-148997-2) were analyzed for total organic carbon in accordance with SM 5310B. The samples were analyzed on 02/02/2018.

No difficulties were encountered during the TOC analysis.

All quality control parameters were within the acceptance limits.

Detection Summary

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-148997-1

Client Sample ID: FC-MW-103S

Lab Sample ID: 460-148997-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	2.4	J	5.0	1.1	ug/L	1		8260C	Total/NA
Chloroform	0.53	J	1.0	0.22	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	2.1		1.0	0.26	ug/L	1		8260C	Total/NA
Methylene Chloride	0.53	J	1.0	0.21	ug/L	1		8260C	Total/NA
Tetrachloroethene	360		1.0	0.12	ug/L	1		8260C	Total/NA
Trichloroethene	2.4		1.0	0.22	ug/L	1		8260C	Total/NA
Iron	2300		120	46	ug/L	2		6020A	Total/NA
Manganese	56		8.0	2.7	ug/L	2		6020A	Total/NA
Sulfate	46		10	2.7	mg/L	2		D516-90, 02	Total/NA
Nitrate as N	14		1.0	0.10	mg/L	10		SM 4500 NO3 F	Total/NA
Total Organic Carbon	1.4		1.0	0.22	mg/L	1		SM 5310B	Total/NA

Client Sample ID: FC-MW-5

Lab Sample ID: 460-148997-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.12	J	1.0	0.090	ug/L	1		8260C	Total/NA
Chloroform	0.31	J	1.0	0.22	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	29		1.0	0.26	ug/L	1		8260C	Total/NA
Tetrachloroethene	240		1.0	0.12	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	1.2		1.0	0.18	ug/L	1		8260C	Total/NA
Trichloroethene	49		1.0	0.22	ug/L	1		8260C	Total/NA
Iron	360		120	46	ug/L	2		6020A	Total/NA
Manganese	21		8.0	2.7	ug/L	2		6020A	Total/NA
Sulfate	45		10	2.7	mg/L	2		D516-90, 02	Total/NA
Nitrate as N	2.9		0.50	0.050	mg/L	5		SM 4500 NO3 F	Total/NA
Total Organic Carbon	1.9		1.0	0.22	mg/L	1		SM 5310B	Total/NA

Client Sample ID: FC-TB012318

Lab Sample ID: 460-148997-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	4.0	J	5.0	1.1	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: FCPS

TestAmerica Job ID: 460-148997-1

Client Sample ID: FC-MW-103S

Lab Sample ID: 460-148997-1

Date Collected: 01/23/18 13:20

Matrix: Water

Date Received: 01/24/18 14:10

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	0.28	ug/L			01/27/18 10:56	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.19	ug/L			01/27/18 10:56	1
1,1,2-Trichloroethane	1.0	U	1.0	0.080	ug/L			01/27/18 10:56	1
1,1-Dichloroethane	1.0	U	1.0	0.24	ug/L			01/27/18 10:56	1
1,1-Dichloroethene	1.0	U	1.0	0.34	ug/L			01/27/18 10:56	1
1,2-Dichloroethane	1.0	U	1.0	0.25	ug/L			01/27/18 10:56	1
1,2-Dichloropropane	1.0	U	1.0	0.18	ug/L			01/27/18 10:56	1
2-Butanone (MEK)	5.0	U	5.0	2.2	ug/L			01/27/18 10:56	1
2-Hexanone	5.0	U	5.0	0.72	ug/L			01/27/18 10:56	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.63	ug/L			01/27/18 10:56	1
Acetone	2.4	J	5.0	1.1	ug/L			01/27/18 10:56	1
Benzene	1.0	U	1.0	0.090	ug/L			01/27/18 10:56	1
Bromoform	1.0	U	1.0	0.18	ug/L			01/27/18 10:56	1
Bromomethane	1.0	U	1.0	0.18	ug/L			01/27/18 10:56	1
Carbon disulfide	1.0	U	1.0	0.22	ug/L			01/27/18 10:56	1
Carbon tetrachloride	1.0	U	1.0	0.33	ug/L			01/27/18 10:56	1
Chlorobenzene	1.0	U	1.0	0.24	ug/L			01/27/18 10:56	1
Chlorodibromomethane	1.0	U	1.0	0.22	ug/L			01/27/18 10:56	1
Chloroethane	1.0	U	1.0	0.37	ug/L			01/27/18 10:56	1
Chloroform	0.53	J	1.0	0.22	ug/L			01/27/18 10:56	1
Chloromethane	1.0	U	1.0	0.22	ug/L			01/27/18 10:56	1
cis-1,2-Dichloroethene	2.1		1.0	0.26	ug/L			01/27/18 10:56	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.16	ug/L			01/27/18 10:56	1
Dichlorobromomethane	1.0	U	1.0	0.15	ug/L			01/27/18 10:56	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			01/27/18 10:56	1
Methylene Chloride	0.53	J	1.0	0.21	ug/L			01/27/18 10:56	1
Styrene	1.0	U	1.0	0.17	ug/L			01/27/18 10:56	1
Tetrachloroethene	360		1.0	0.12	ug/L			01/27/18 10:56	1
Toluene	1.0	U	1.0	0.25	ug/L			01/27/18 10:56	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.18	ug/L			01/27/18 10:56	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			01/27/18 10:56	1
Trichloroethene	2.4		1.0	0.22	ug/L			01/27/18 10:56	1
Vinyl chloride	1.0	U	1.0	0.060	ug/L			01/27/18 10:56	1
Xylenes, Total	2.0	U	2.0	0.28	ug/L			01/27/18 10:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		74 - 132		01/27/18 10:56	1
4-Bromofluorobenzene	97		77 - 124		01/27/18 10:56	1
Dibromofluoromethane (Surr)	97		72 - 131		01/27/18 10:56	1
Toluene-d8 (Surr)	94		80 - 120		01/27/18 10:56	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	4.0	U	4.0	1.0	ug/L			01/26/18 12:16	1
Ethane	7.5	U	7.5	1.5	ug/L			01/26/18 12:16	1
Ethene	7.0	U	7.0	1.5	ug/L			01/26/18 12:16	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	2300		120	46	ug/L		01/31/18 09:52	02/02/18 01:12	2

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-148997-1

Client Sample ID: FC-MW-103S

Date Collected: 01/23/18 13:20

Date Received: 01/24/18 14:10

Lab Sample ID: 460-148997-1

Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	56		8.0	2.7	ug/L		01/31/18 09:52	02/02/18 01:12	2

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	46		10	2.7	mg/L			02/02/18 10:40	2
Nitrate as N	14		1.0	0.10	mg/L			01/25/18 01:48	10
Total Organic Carbon	1.4		1.0	0.22	mg/L			02/02/18 14:01	1

Client Sample ID: FC-MW-5

Date Collected: 01/23/18 14:55

Date Received: 01/24/18 14:10

Lab Sample ID: 460-148997-2

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	0.28	ug/L			01/27/18 11:24	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.19	ug/L			01/27/18 11:24	1
1,1,2-Trichloroethane	1.0	U	1.0	0.080	ug/L			01/27/18 11:24	1
1,1-Dichloroethane	1.0	U	1.0	0.24	ug/L			01/27/18 11:24	1
1,1-Dichloroethene	1.0	U	1.0	0.34	ug/L			01/27/18 11:24	1
1,2-Dichloroethane	1.0	U	1.0	0.25	ug/L			01/27/18 11:24	1
1,2-Dichloropropane	1.0	U	1.0	0.18	ug/L			01/27/18 11:24	1
2-Butanone (MEK)	5.0	U	5.0	2.2	ug/L			01/27/18 11:24	1
2-Hexanone	5.0	U	5.0	0.72	ug/L			01/27/18 11:24	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.63	ug/L			01/27/18 11:24	1
Acetone	5.0	U	5.0	1.1	ug/L			01/27/18 11:24	1
Benzene	0.12	J	1.0	0.090	ug/L			01/27/18 11:24	1
Bromoform	1.0	U	1.0	0.18	ug/L			01/27/18 11:24	1
Bromomethane	1.0	U	1.0	0.18	ug/L			01/27/18 11:24	1
Carbon disulfide	1.0	U	1.0	0.22	ug/L			01/27/18 11:24	1
Carbon tetrachloride	1.0	U	1.0	0.33	ug/L			01/27/18 11:24	1
Chlorobenzene	1.0	U	1.0	0.24	ug/L			01/27/18 11:24	1
Chlorodibromomethane	1.0	U	1.0	0.22	ug/L			01/27/18 11:24	1
Chloroethane	1.0	U	1.0	0.37	ug/L			01/27/18 11:24	1
Chloroform	0.31	J	1.0	0.22	ug/L			01/27/18 11:24	1
Chloromethane	1.0	U	1.0	0.22	ug/L			01/27/18 11:24	1
cis-1,2-Dichloroethene	29		1.0	0.26	ug/L			01/27/18 11:24	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.16	ug/L			01/27/18 11:24	1
Dichlorobromomethane	1.0	U	1.0	0.15	ug/L			01/27/18 11:24	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			01/27/18 11:24	1
Methylene Chloride	1.0	U	1.0	0.21	ug/L			01/27/18 11:24	1
Styrene	1.0	U	1.0	0.17	ug/L			01/27/18 11:24	1
Tetrachloroethene	240		1.0	0.12	ug/L			01/27/18 11:24	1
Toluene	1.0	U	1.0	0.25	ug/L			01/27/18 11:24	1
trans-1,2-Dichloroethene	1.2		1.0	0.18	ug/L			01/27/18 11:24	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			01/27/18 11:24	1
Trichloroethene	49		1.0	0.22	ug/L			01/27/18 11:24	1
Vinyl chloride	1.0	U	1.0	0.060	ug/L			01/27/18 11:24	1
Xylenes, Total	2.0	U	2.0	0.28	ug/L			01/27/18 11:24	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-148997-1

Client Sample ID: FC-MW-5

Date Collected: 01/23/18 14:55

Date Received: 01/24/18 14:10

Lab Sample ID: 460-148997-2

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		74 - 132		01/27/18 11:24	1
4-Bromofluorobenzene	95		77 - 124		01/27/18 11:24	1
Dibromofluoromethane (Surr)	98		72 - 131		01/27/18 11:24	1
Toluene-d8 (Surr)	94		80 - 120		01/27/18 11:24	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	4.0	U	4.0	1.0	ug/L			01/26/18 12:33	1
Ethane	7.5	U	7.5	1.5	ug/L			01/26/18 12:33	1
Ethene	7.0	U	7.0	1.5	ug/L			01/26/18 12:33	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	360		120	46	ug/L		01/31/18 09:52	02/02/18 01:15	2
Manganese	21		8.0	2.7	ug/L		01/31/18 09:52	02/02/18 01:15	2

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	45		10	2.7	mg/L			02/02/18 10:40	2
Nitrate as N	2.9		0.50	0.050	mg/L			01/25/18 01:43	5
Total Organic Carbon	1.9		1.0	0.22	mg/L			02/02/18 15:01	1

Client Sample ID: FC-TB012318

Date Collected: 01/23/18 13:20

Date Received: 01/24/18 14:10

Lab Sample ID: 460-148997-3

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	1.0	U	1.0	0.28	ug/L			01/27/18 15:05	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.19	ug/L			01/27/18 15:05	1
1,1,2-Trichloroethane	1.0	U	1.0	0.080	ug/L			01/27/18 15:05	1
1,1-Dichloroethane	1.0	U	1.0	0.24	ug/L			01/27/18 15:05	1
1,1-Dichloroethene	1.0	U	1.0	0.34	ug/L			01/27/18 15:05	1
1,2-Dichloroethane	1.0	U	1.0	0.25	ug/L			01/27/18 15:05	1
1,2-Dichloropropane	1.0	U	1.0	0.18	ug/L			01/27/18 15:05	1
2-Butanone (MEK)	5.0	U	5.0	2.2	ug/L			01/27/18 15:05	1
2-Hexanone	5.0	U	5.0	0.72	ug/L			01/27/18 15:05	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.63	ug/L			01/27/18 15:05	1
Acetone	4.0	J	5.0	1.1	ug/L			01/27/18 15:05	1
Benzene	1.0	U	1.0	0.090	ug/L			01/27/18 15:05	1
Bromoform	1.0	U	1.0	0.18	ug/L			01/27/18 15:05	1
Bromomethane	1.0	U	1.0	0.18	ug/L			01/27/18 15:05	1
Carbon disulfide	1.0	U	1.0	0.22	ug/L			01/27/18 15:05	1
Carbon tetrachloride	1.0	U	1.0	0.33	ug/L			01/27/18 15:05	1
Chlorobenzene	1.0	U	1.0	0.24	ug/L			01/27/18 15:05	1
Chlorodibromomethane	1.0	U	1.0	0.22	ug/L			01/27/18 15:05	1
Chloroethane	1.0	U	1.0	0.37	ug/L			01/27/18 15:05	1
Chloroform	1.0	U	1.0	0.22	ug/L			01/27/18 15:05	1
Chloromethane	1.0	U	1.0	0.22	ug/L			01/27/18 15:05	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			01/27/18 15:05	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.16	ug/L			01/27/18 15:05	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-148997-1

Client Sample ID: FC-TB012318

Lab Sample ID: 460-148997-3

Date Collected: 01/23/18 13:20

Matrix: Water

Date Received: 01/24/18 14:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	1.0	U	1.0	0.15	ug/L			01/27/18 15:05	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			01/27/18 15:05	1
Methylene Chloride	1.0	U	1.0	0.21	ug/L			01/27/18 15:05	1
Styrene	1.0	U	1.0	0.17	ug/L			01/27/18 15:05	1
Tetrachloroethene	1.0	U	1.0	0.12	ug/L			01/27/18 15:05	1
Toluene	1.0	U	1.0	0.25	ug/L			01/27/18 15:05	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.18	ug/L			01/27/18 15:05	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			01/27/18 15:05	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			01/27/18 15:05	1
Vinyl chloride	1.0	U	1.0	0.060	ug/L			01/27/18 15:05	1
Xylenes, Total	2.0	U	2.0	0.28	ug/L			01/27/18 15:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		74 - 132		01/27/18 15:05	1
4-Bromofluorobenzene	101		77 - 124		01/27/18 15:05	1
Dibromofluoromethane (Surr)	100		72 - 131		01/27/18 15:05	1
Toluene-d8 (Surr)	94		80 - 120		01/27/18 15:05	1

Surrogate Summary

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-148997-1

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCA (74-132)	BFB (77-124)	DBFM (72-131)	TOL (80-120)
460-148997-1	FC-MW-103S	96	97	97	94
460-148997-2	FC-MW-5	98	95	98	94
460-148997-3	FC-TB012318	97	101	100	94
LCS 460-493137/3	Lab Control Sample	93	101	102	95
LCSD 460-493137/4	Lab Control Sample Dup	92	102	100	93
MB 460-493137/8	Method Blank	95	101	98	94

Surrogate Legend

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

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

QC Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-148997-1

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

Lab Sample ID: MB 460-493137/8

Matrix: Water

Analysis Batch: 493137

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	0.28	ug/L			01/27/18 09:05	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.19	ug/L			01/27/18 09:05	1
1,1,2-Trichloroethane	1.0	U	1.0	0.080	ug/L			01/27/18 09:05	1
1,1-Dichloroethane	1.0	U	1.0	0.24	ug/L			01/27/18 09:05	1
1,1-Dichloroethene	1.0	U	1.0	0.34	ug/L			01/27/18 09:05	1
1,2-Dichloroethane	1.0	U	1.0	0.25	ug/L			01/27/18 09:05	1
1,2-Dichloropropane	1.0	U	1.0	0.18	ug/L			01/27/18 09:05	1
2-Butanone (MEK)	5.0	U	5.0	2.2	ug/L			01/27/18 09:05	1
2-Hexanone	5.0	U	5.0	0.72	ug/L			01/27/18 09:05	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.63	ug/L			01/27/18 09:05	1
Acetone	5.0	U	5.0	1.1	ug/L			01/27/18 09:05	1
Benzene	1.0	U	1.0	0.090	ug/L			01/27/18 09:05	1
Bromoform	1.0	U	1.0	0.18	ug/L			01/27/18 09:05	1
Bromomethane	1.0	U	1.0	0.18	ug/L			01/27/18 09:05	1
Carbon disulfide	1.0	U	1.0	0.22	ug/L			01/27/18 09:05	1
Carbon tetrachloride	1.0	U	1.0	0.33	ug/L			01/27/18 09:05	1
Chlorobenzene	1.0	U	1.0	0.24	ug/L			01/27/18 09:05	1
Chlorodibromomethane	1.0	U	1.0	0.22	ug/L			01/27/18 09:05	1
Chloroethane	1.0	U	1.0	0.37	ug/L			01/27/18 09:05	1
Chloroform	1.0	U	1.0	0.22	ug/L			01/27/18 09:05	1
Chloromethane	1.0	U	1.0	0.22	ug/L			01/27/18 09:05	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			01/27/18 09:05	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.16	ug/L			01/27/18 09:05	1
Dichlorobromomethane	1.0	U	1.0	0.15	ug/L			01/27/18 09:05	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			01/27/18 09:05	1
Methylene Chloride	1.0	U	1.0	0.21	ug/L			01/27/18 09:05	1
Styrene	1.0	U	1.0	0.17	ug/L			01/27/18 09:05	1
Tetrachloroethene	1.0	U	1.0	0.12	ug/L			01/27/18 09:05	1
Toluene	1.0	U	1.0	0.25	ug/L			01/27/18 09:05	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.18	ug/L			01/27/18 09:05	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			01/27/18 09:05	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			01/27/18 09:05	1
Vinyl chloride	1.0	U	1.0	0.060	ug/L			01/27/18 09:05	1
Xylenes, Total	2.0	U	2.0	0.28	ug/L			01/27/18 09:05	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		74 - 132		01/27/18 09:05	1
4-Bromofluorobenzene	101		77 - 124		01/27/18 09:05	1
Dibromofluoromethane (Surr)	98		72 - 131		01/27/18 09:05	1
Toluene-d8 (Surr)	94		80 - 120		01/27/18 09:05	1

Lab Sample ID: LCS 460-493137/3

Matrix: Water

Analysis Batch: 493137

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	20.9		ug/L		105	75 - 125
1,1,2,2-Tetrachloroethane	20.0	19.8		ug/L		99	74 - 120

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-148997-1

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

Lab Sample ID: LCS 460-493137/3

Matrix: Water

Analysis Batch: 493137

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	19.7		ug/L		98	78 - 120
1,1-Dichloroethane	20.0	19.9		ug/L		100	77 - 123
1,1-Dichloroethene	20.0	20.7		ug/L		103	74 - 123
1,2-Dichloroethane	20.0	19.4		ug/L		97	76 - 121
1,2-Dichloropropane	20.0	21.0		ug/L		105	77 - 123
2-Butanone (MEK)	100	106		ug/L		106	64 - 120
2-Hexanone	100	109		ug/L		109	71 - 125
4-Methyl-2-pentanone (MIBK)	100	110		ug/L		110	78 - 124
Acetone	100	88.5		ug/L		89	39 - 150
Benzene	20.0	19.9		ug/L		99	77 - 121
Bromoform	20.0	22.7		ug/L		113	53 - 120
Bromomethane	20.0	20.4		ug/L		102	10 - 150
Carbon disulfide	20.0	18.8		ug/L		94	69 - 133
Carbon tetrachloride	20.0	21.3		ug/L		107	70 - 132
Chlorobenzene	20.0	20.5		ug/L		102	80 - 120
Chlorodibromomethane	20.0	20.5		ug/L		102	73 - 120
Chloroethane	20.0	14.8		ug/L		74	52 - 150
Chloroform	20.0	20.8		ug/L		104	80 - 120
Chloromethane	20.0	17.4		ug/L		87	56 - 131
cis-1,2-Dichloroethene	20.0	21.4		ug/L		107	80 - 120
cis-1,3-Dichloropropene	20.0	20.5		ug/L		102	77 - 120
Dichlorobromomethane	20.0	21.2		ug/L		106	76 - 120
Ethylbenzene	20.0	19.8		ug/L		99	80 - 120
Methylene Chloride	20.0	20.0		ug/L		100	77 - 123
Styrene	20.0	21.1		ug/L		106	80 - 120
Tetrachloroethene	20.0	18.8		ug/L		94	78 - 122
Toluene	20.0	19.6		ug/L		98	80 - 120
trans-1,2-Dichloroethene	20.0	21.1		ug/L		106	79 - 120
trans-1,3-Dichloropropene	20.0	20.4		ug/L		102	76 - 120
Trichloroethene	20.0	20.8		ug/L		104	77 - 120
Vinyl chloride	20.0	18.9		ug/L		95	62 - 138
Xylenes, Total	40.0	40.4		ug/L		101	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	93		74 - 132
4-Bromofluorobenzene	101		77 - 124
Dibromofluoromethane (Surr)	102		72 - 131
Toluene-d8 (Surr)	95		80 - 120

Lab Sample ID: LCSD 460-493137/4

Matrix: Water

Analysis Batch: 493137

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		100	75 - 125	5	30
1,1,2,2-Tetrachloroethane	20.0	19.7		ug/L		98	74 - 120	1	30
1,1,2-Trichloroethane	20.0	19.3		ug/L		97	78 - 120	2	30
1,1-Dichloroethane	20.0	19.5		ug/L		97	77 - 123	3	30

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-148997-1

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

Lab Sample ID: LCSD 460-493137/4

Matrix: Water

Analysis Batch: 493137

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-Dichloroethene	20.0	20.2		ug/L		101	74 - 123	2	30
1,2-Dichloroethane	20.0	18.7		ug/L		94	76 - 121	3	30
1,2-Dichloropropane	20.0	20.5		ug/L		102	77 - 123	2	30
2-Butanone (MEK)	100	104		ug/L		104	64 - 120	2	30
2-Hexanone	100	108		ug/L		108	71 - 125	1	30
4-Methyl-2-pentanone (MIBK)	100	108		ug/L		108	78 - 124	2	30
Acetone	100	85.6		ug/L		86	39 - 150	3	30
Benzene	20.0	19.5		ug/L		97	77 - 121	2	30
Bromoform	20.0	22.6		ug/L		113	53 - 120	0	30
Bromomethane	20.0	19.3		ug/L		97	10 - 150	5	30
Carbon disulfide	20.0	18.5		ug/L		93	69 - 133	2	30
Carbon tetrachloride	20.0	20.5		ug/L		102	70 - 132	4	30
Chlorobenzene	20.0	19.8		ug/L		99	80 - 120	3	30
Chlorodibromomethane	20.0	20.0		ug/L		100	73 - 120	2	30
Chloroethane	20.0	14.6		ug/L		73	52 - 150	1	30
Chloroform	20.0	19.9		ug/L		100	80 - 120	4	30
Chloromethane	20.0	16.9		ug/L		84	56 - 131	3	30
cis-1,2-Dichloroethene	20.0	20.9		ug/L		104	80 - 120	3	30
cis-1,3-Dichloropropene	20.0	20.1		ug/L		100	77 - 120	2	30
Dichlorobromomethane	20.0	20.6		ug/L		103	76 - 120	3	30
Ethylbenzene	20.0	19.9		ug/L		99	80 - 120	0	30
Methylene Chloride	20.0	19.9		ug/L		99	77 - 123	0	30
Styrene	20.0	20.7		ug/L		104	80 - 120	2	30
Tetrachloroethene	20.0	18.5		ug/L		92	78 - 122	2	30
Toluene	20.0	19.0		ug/L		95	80 - 120	3	30
trans-1,2-Dichloroethene	20.0	19.8		ug/L		99	79 - 120	6	30
trans-1,3-Dichloropropene	20.0	20.0		ug/L		100	76 - 120	2	30
Trichloroethene	20.0	20.6		ug/L		103	77 - 120	1	30
Vinyl chloride	20.0	18.4		ug/L		92	62 - 138	3	30
Xylenes, Total	40.0	40.2		ug/L		100	80 - 120	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	92		74 - 132
4-Bromofluorobenzene	102		77 - 124
Dibromofluoromethane (Surr)	100		72 - 131
Toluene-d8 (Surr)	93		80 - 120

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 480-397402/3

Matrix: Water

Analysis Batch: 397402

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	4.0	U	4.0	1.0	ug/L			01/26/18 06:58	1
Ethane	7.5	U	7.5	1.5	ug/L			01/26/18 06:58	1
Ethene	7.0	U	7.0	1.5	ug/L			01/26/18 06:58	1

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-148997-1

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: LCS 480-397402/4

Matrix: Water

Analysis Batch: 397402

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methane	7.77	7.49		ug/L		96	85 - 120
Ethane	14.6	14.0		ug/L		96	79 - 120
Ethene	13.6	12.7		ug/L		93	85 - 120

Lab Sample ID: LCSD 480-397402/5

Matrix: Water

Analysis Batch: 397402

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
Methane	7.77	7.51		ug/L		97	85 - 120	0	50
Ethane	14.6	14.0		ug/L		96	79 - 120	0	50
Ethene	13.6	12.3		ug/L		91	85 - 120	3	50

Lab Sample ID: 460-148914-C-6 MS

Matrix: Water

Analysis Batch: 397402

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
Methane	2500		342	3680	4	ug/L		336	38 - 150
Ethane	330	U	641	682		ug/L		106	76 - 125
Ethene	310	U	598	606		ug/L		101	75 - 129

Lab Sample ID: 460-148914-C-6 MSD

Matrix: Water

Analysis Batch: 397402

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
Methane	2500		342	3160	4	ug/L		184	38 - 150	15	50
Ethane	330	U	641	615		ug/L		96	76 - 125	10	50
Ethene	310	U	598	517		ug/L		86	75 - 129	16	50

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 460-493949/1-A ^2

Matrix: Water

Analysis Batch: 494070

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 493949

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	120	U	120	46	ug/L		01/31/18 08:25	01/31/18 19:42	2
Manganese	8.0	U	8.0	2.7	ug/L		01/31/18 08:25	01/31/18 19:42	2

Lab Sample ID: LCS 460-493949/2-A ^2

Matrix: Water

Analysis Batch: 494070

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 493949

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	2500	2490		ug/L		99	80 - 120
Manganese	250	245		ug/L		98	80 - 120

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-148997-1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 460-148918-I-4-B MS ^2

Matrix: Water

Analysis Batch: 494070

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 493949

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	670		2500	3410		ug/L		109	75 - 125
Manganese	120		250	378		ug/L		104	75 - 125

Lab Sample ID: 460-148918-D-4-A DU ^2

Matrix: Water

Analysis Batch: 494070

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 493949

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Iron	670		734		ug/L		9	20
Manganese	120		122		ug/L		3	20

Method: D516-90, 02 - Sulfate

Lab Sample ID: MB 460-494589/12

Matrix: Water

Analysis Batch: 494589

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	5.0	U	5.0	1.4	mg/L			02/02/18 10:04	1

Lab Sample ID: LCSSRM 460-494589/13

Matrix: Water

Analysis Batch: 494589

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	19.8	20.1		mg/L		101.5	83.8 - 112.1

Lab Sample ID: 460-148997-1 MS

Matrix: Water

Analysis Batch: 494589

Client Sample ID: FC-MW-103S

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	46		100	153		mg/L		108	85 - 115

Lab Sample ID: 460-148997-1 MSD

Matrix: Water

Analysis Batch: 494589

Client Sample ID: FC-MW-103S

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	46		100	150		mg/L		105	85 - 115	2	13

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-148997-1

Method: SM 4500 NO3 F - Nitrogen, Nitrate

Lab Sample ID: MB 460-492548/11

Matrix: Water

Analysis Batch: 492548

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.10	U	0.10	0.010	mg/L	-		01/25/18 01:22	1

Lab Sample ID: LCSSRM 460-492548/12

Matrix: Water

Analysis Batch: 492548

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	1.81	1.64		mg/L	-	90.6	87.3 - 111.0

Lab Sample ID: 460-149002-D-1 MS

Matrix: Water

Analysis Batch: 492548

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
Nitrate as N	0.42	F1	0.500	0.751	F1	mg/L	-	66	85 - 115

Lab Sample ID: 460-149002-D-1 MSD

Matrix: Water

Analysis Batch: 492548

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
Nitrate as N	0.42	F1	0.500	0.731	F1	mg/L	-	62	85 - 115	3	17

Method: SM 5310B - Organic Carbon, Total (TOC)

Lab Sample ID: MB 460-494655/19

Matrix: Water

Analysis Batch: 494655

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	1.0	U	1.0	0.22	mg/L	-		02/02/18 13:21	1

Lab Sample ID: LCSSRM 460-494655/20

Matrix: Water

Analysis Batch: 494655

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	39.1	40.1		mg/L	-	102.6	83.9 - 115.0

Lab Sample ID: 460-148997-1 MS

Matrix: Water

Analysis Batch: 494655

Client Sample ID: FC-MW-103S

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	1.4		50.0	53.2		mg/L	-	104	85 - 115

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-148997-1

Method: SM 5310B - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: 460-148997-1 MSD

Matrix: Water

Analysis Batch: 494655

Client Sample ID: FC-MW-103S

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	1.4		50.0	53.2		mg/L	—	104	85 - 115	0	10

QC Association Summary

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-148997-1

GC/MS VOA

Analysis Batch: 493137

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-148997-1	FC-MW-103S	Total/NA	Water	8260C	
460-148997-2	FC-MW-5	Total/NA	Water	8260C	
460-148997-3	FC-TB012318	Total/NA	Water	8260C	
MB 460-493137/8	Method Blank	Total/NA	Water	8260C	
LCS 460-493137/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 460-493137/4	Lab Control Sample Dup	Total/NA	Water	8260C	

GC VOA

Analysis Batch: 397402

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-148997-1	FC-MW-103S	Total/NA	Water	RSK-175	
460-148997-2	FC-MW-5	Total/NA	Water	RSK-175	
MB 480-397402/3	Method Blank	Total/NA	Water	RSK-175	
LCS 480-397402/4	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 480-397402/5	Lab Control Sample Dup	Total/NA	Water	RSK-175	
460-148914-C-6 MS	Matrix Spike	Total/NA	Water	RSK-175	
460-148914-C-6 MSD	Matrix Spike Duplicate	Total/NA	Water	RSK-175	

Metals

Prep Batch: 493949

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-148997-1	FC-MW-103S	Total/NA	Water	3010A	
460-148997-2	FC-MW-5	Total/NA	Water	3010A	
MB 460-493949/1-A ^2	Method Blank	Total/NA	Water	3010A	
LCS 460-493949/2-A ^2	Lab Control Sample	Total/NA	Water	3010A	
460-148918-I-4-B MS ^2	Matrix Spike	Total/NA	Water	3010A	
460-148918-D-4-A DU ^2	Duplicate	Total/NA	Water	3010A	

Analysis Batch: 494070

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 460-493949/1-A ^2	Method Blank	Total/NA	Water	6020A	493949
LCS 460-493949/2-A ^2	Lab Control Sample	Total/NA	Water	6020A	493949
460-148918-I-4-B MS ^2	Matrix Spike	Total/NA	Water	6020A	493949
460-148918-D-4-A DU ^2	Duplicate	Total/NA	Water	6020A	493949

Analysis Batch: 494522

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-148997-1	FC-MW-103S	Total/NA	Water	6020A	493949
460-148997-2	FC-MW-5	Total/NA	Water	6020A	493949

General Chemistry

Analysis Batch: 492548

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-148997-1	FC-MW-103S	Total/NA	Water	SM 4500 NO3 F	
460-148997-2	FC-MW-5	Total/NA	Water	SM 4500 NO3 F	
MB 460-492548/11	Method Blank	Total/NA	Water	SM 4500 NO3 F	
LCSSRM 460-492548/12	Lab Control Sample	Total/NA	Water	SM 4500 NO3 F	

TestAmerica Edison

QC Association Summary

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-148997-1

General Chemistry (Continued)

Analysis Batch: 492548 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSSRM 460-492548/13	Lab Control Sample	Total/NA	Water	SM 4500 NO3 F	
460-149002-D-1 MS	Matrix Spike	Total/NA	Water	SM 4500 NO3 F	
460-149002-D-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 NO3 F	

Analysis Batch: 494589

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-148997-1	FC-MW-103S	Total/NA	Water	D516-90, 02	
460-148997-2	FC-MW-5	Total/NA	Water	D516-90, 02	
MB 460-494589/12	Method Blank	Total/NA	Water	D516-90, 02	
LCSSRM 460-494589/13	Lab Control Sample	Total/NA	Water	D516-90, 02	
460-148997-1 MS	FC-MW-103S	Total/NA	Water	D516-90, 02	
460-148997-1 MSD	FC-MW-103S	Total/NA	Water	D516-90, 02	

Analysis Batch: 494655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-148997-1	FC-MW-103S	Total/NA	Water	SM 5310B	
460-148997-2	FC-MW-5	Total/NA	Water	SM 5310B	
MB 460-494655/19	Method Blank	Total/NA	Water	SM 5310B	
LCSSRM 460-494655/20	Lab Control Sample	Total/NA	Water	SM 5310B	
460-148997-1 MS	FC-MW-103S	Total/NA	Water	SM 5310B	
460-148997-1 MSD	FC-MW-103S	Total/NA	Water	SM 5310B	

Lab Chronicle

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-148997-1

Client Sample ID: FC-MW-103S

Date Collected: 01/23/18 13:20

Date Received: 01/24/18 14:10

Lab Sample ID: 460-148997-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	493137	01/27/18 10:56	XXC	TAL EDI
Total/NA	Analysis	RSK-175		1	397402	01/26/18 12:16	TRG	TAL BUF
Total/NA	Prep	3010A			493949	01/31/18 09:52	QZY	TAL EDI
Total/NA	Analysis	6020A		2	494522	02/02/18 01:12	VAD	TAL EDI
Total/NA	Analysis	D516-90, 02		2	494589	02/02/18 10:40	RAK	TAL EDI
Total/NA	Analysis	SM 4500 NO3 F		10	492548	01/25/18 01:48	KYN	TAL EDI
Total/NA	Analysis	SM 5310B		1	494655	02/02/18 14:01	JXT	TAL EDI

Client Sample ID: FC-MW-5

Date Collected: 01/23/18 14:55

Date Received: 01/24/18 14:10

Lab Sample ID: 460-148997-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	493137	01/27/18 11:24	XXC	TAL EDI
Total/NA	Analysis	RSK-175		1	397402	01/26/18 12:33	TRG	TAL BUF
Total/NA	Prep	3010A			493949	01/31/18 09:52	QZY	TAL EDI
Total/NA	Analysis	6020A		2	494522	02/02/18 01:15	VAD	TAL EDI
Total/NA	Analysis	D516-90, 02		2	494589	02/02/18 10:40	RAK	TAL EDI
Total/NA	Analysis	SM 4500 NO3 F		5	492548	01/25/18 01:43	KYN	TAL EDI
Total/NA	Analysis	SM 5310B		1	494655	02/02/18 15:01	JXT	TAL EDI

Client Sample ID: FC-TB012318

Date Collected: 01/23/18 13:20

Date Received: 01/24/18 14:10

Lab Sample ID: 460-148997-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	493137	01/27/18 15:05	XXC	TAL EDI

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

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

TestAmerica Edison

Accreditation/Certification Summary

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-148997-1

Laboratory: TestAmerica Edison

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	11452	04-01-19
The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:				
Analysis Method	Prep Method	Matrix	Analyte	
6020A	3010A	Water	Iron	
6020A	3010A	Water	Manganese	

Laboratory: TestAmerica Buffalo

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	88-0686	07-06-19
California	State Program	9	2931	04-01-19
Connecticut	State Program	1	PH-0568	09-30-18 *
Florida	NELAP	4	E87672	06-30-19
Georgia	State Program	4	10026 (NY)	03-31-19
Illinois	NELAP	5	200003	09-30-18
Iowa	State Program	7	374	03-01-19
Kansas	NELAP	7	E-10187	01-31-19
Kentucky (DW)	State Program	4	90029	12-31-18
Kentucky (UST)	State Program	4	30	03-31-19
Kentucky (WW)	State Program	4	90029	12-31-18
Louisiana	NELAP	6	02031	06-30-19
Maine	State Program	1	NY00044	12-04-18
Maryland	State Program	3	294	03-31-19
Massachusetts	State Program	1	M-NY044	06-30-19
Michigan	State Program	5	9937	03-31-19
Minnesota	NELAP	5	036-999-337	12-31-18
New Hampshire	NELAP	1	2337	11-17-18
New Jersey	NELAP	2	NY455	06-30-19
New York	NELAP	2	10026	03-31-19
North Dakota	State Program	8	R-176	03-31-19
Oklahoma	State Program	6	9421	08-31-18 *
Oregon	NELAP	10	NY200003	06-09-19
Pennsylvania	NELAP	3	68-00281	07-31-19
Rhode Island	State Program	1	LAO00328	12-30-18
Tennessee	State Program	4	TN02970	03-31-19
Texas	NELAP	6	T104704412-15-6	07-31-19
USDA	Federal		P330-11-00386	02-06-21
Virginia	NELAP	3	460185	09-14-18 *
Washington	State Program	10	C784	02-10-19
Wisconsin	State Program	5	998310390	08-31-18 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Edison

Method Summary

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-148997-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
RSK-175	Dissolved Gases (GC)	RSK	TAL BUF
6020A	Metals (ICP/MS)	SW846	TAL EDI
D516-90, 02	Sulfate	ASTM	TAL EDI
SM 4500 NO3 F	Nitrogen, Nitrate	SM	TAL EDI
SM 5310B	Organic Carbon, Total (TOC)	SM	TAL EDI
3010A	Preparation, Total Metals	SW846	TAL EDI
5030C	Purge and Trap	SW846	TAL EDI

Protocol References:

ASTM = ASTM International

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

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

Sample Summary

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-148997-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-148997-1	FC-MW-103S	Water	01/23/18 13:20	01/24/18 14:10
460-148997-2	FC-MW-5	Water	01/23/18 14:55	01/24/18 14:10
460-148997-3	FC-TB012318	Water	01/23/18 13:20	01/24/18 14:10

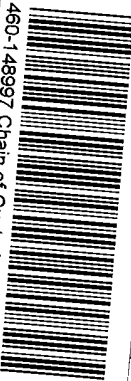
TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

Page 1 of 1

Name (for report and invoice) Allison Kiny		Samplers Name (Printed) Zachary		Site/Project Identification FCPS	
Company Parsons		P.O. #		State (Location of site): NJ: ☐ NY: ☒ Other: ☐	
Address 200 Colthartail Ln.		Analysis Turnaround Time Standard ☒ Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☐		Regulatory Program: ☐	
City Somerset		State NJ		LAB USE ONLY Project No:	
Phone 609 713 3222		Fax		Job No: 148997	
Sample Identification		Date	Time	Matrix	No. of Cont.
FC-MW-1035	1/23/18	1320	Ammonia	9	1
FC-MW-5	1/23/18	1455	1	9	2
FC-TS012318	1/23/18	1320	2	2	3
 460-148997 Chain of Custody					
Preservation Used: 1 = ICE, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH 6 = Other _____, 7 = Other _____					
Water: ☐ Soil: ☐					

**SHORT
HOLD**

Special Instructions

Water Metals Filtered (Yes/No)?

Relinquished by	Company	Date / Time	Received by	Company
[Signature]	Parsons	1/24/18 0945	[Signature]	TA EDI
Relinquished by	Company	Date / Time	Received by	Company
[Signature]	TA EDI	1/24/18 1410	[Signature]	TA EDI
Relinquished by	Company	Date / Time	Received by	Company
[Signature]	TA EDI	1/24/18 1410	[Signature]	TA EDI
Relinquished by	Company	Date / Time	Received by	Company
[Signature]	TA EDI	1/24/18 1410	[Signature]	TA EDI

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).
Massachusetts (M-NJ312), North Carolina (No. 578) NO CS IR # 11 2.70c

TAL-0016 (0715)

Job Number:

668h

Number of Coolers: 1		IR Gun # 1	
Cooler Temperatures			
RAW		RAW	
CORRECTED		CORRECTED	
Cooler #1: 27 °C	27 °C	Cooler #4: °C	°C
Cooler #2: °C	°C	Cooler #5: °C	°C
Cooler #3: °C	°C	Cooler #6: °C	°C
RAW		RAW	
CORRECTED		CORRECTED	
Cooler #7: °C	°C	Cooler #8: °C	°C
Cooler #9: °C	°C		

[illegible]

If pH adjustments are required record the information below:

Sample No(s). adjusted: _____

NA

Preservative Name/Conc.:

NA

Volume of Preservative used (ml):

MA

Lot # of Preservative(s): _____

MF

Expiration Date:

NA

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.

Phone (732) 549-3900 Fax (732) 549-3679

Chain of Custody Record



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

[illegible]

Login Sample Receipt Checklist

Client: Parsons Corporation

Job Number: 460-148997-1

Login Number: 148997

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	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	

Login Sample Receipt Checklist

Client: Parsons Corporation

Job Number: 460-148997-1

Login Number: 148997

List Number: 2

Creator: Hulbert, Michael J

List Source: TestAmerica Buffalo

List Creation: 01/26/18 11:34 AM

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is 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	2.1 #1
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 sample IDs on the containers 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	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	False	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual 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: 460-149190-1

Client Project/Site: FCPS

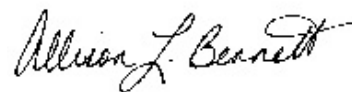
For:

Parsons Corporation

200 Cottontail Lane

Somerset, New Jersey 08873

Attn: Ms. Allyson Kriney



Authorized for release by:

8/20/2018 6:55:05 PM

Allison Bennett, Project Manager I

(732)549-3900

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LINKS

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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.

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Definitions/Glossary

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-149190-1

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.
*	LCS or LCSD is outside acceptance limits.
F1	MS and/or MSD Recovery is outside acceptance limits.

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

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.
□	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: FCPS

TestAmerica Job ID: 460-149190-1

Job ID: 460-149190-1

Laboratory: TestAmerica Edison

Narrative

CASE NARRATIVE

Client: Parsons Corporation

Project: FCPS

Report Number: 460-149190-1

Revision 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.

Revision 1 - Per client request, the data has been revised to report non-detected results to the RL vs. MDL.

RECEIPT

The samples were received on 1/26/2018 5:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.3° C.

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 FC-MW-104D (460-149190-1), FC-TB012518 (460-149190-2), FC-MW-104S (460-149190-3), FC-MW-109S (460-149190-4), FC-MW-109S-D (460-149190-5), FC-MW-3 (460-149190-6), FC-MW-107D (460-149190-7), FC-MW-9 (460-149190-8), FC-MW-108D (460-149190-9), FC-MW-8 (460-149190-10), FC-EB-012618 (460-149190-11) and FC-MW-6 (460-149190-12) were analyzed for Volatile organic compounds (GC-MS) in accordance with EPA SW-846 Methods 8260C. The samples were analyzed on 01/29/2018 and 01/30/2018.

The laboratory control sample (LCS) for analytical batch 460-493297 recovered outside control limits for the following analyte: Carbon disulfide. This analyte was not detected in the associated samples; therefore, the data have been reported.

Carbon disulfide failed the recovery criteria low for the Matrix Spike/Matrix Spike Duplicate (MS/MSD) of sample FC-MW-109SMS (460-149190-4) in batch 460-493297.

Refer to the QC report for details.

Samples FC-MW-104D (460-149190-1)[2X], FC-MW-104S (460-149190-3)[2X] and FC-MW-6 (460-149190-12)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Case Narrative

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-149190-1

Job ID: 460-149190-1 (Continued)

Laboratory: TestAmerica Edison (Continued)

No other difficulties were encountered during the volatiles analysis.

All other quality control parameters were within the acceptance limits.

DISSOLVED GASES

Samples FC-MW-104D (460-149190-1), FC-MW-104S (460-149190-3) and FC-MW-6 (460-149190-12) were analyzed for dissolved gases in accordance with RSK_175. The samples were analyzed on 01/31/2018.

No difficulties were encountered during the dissolved gases analysis.

All quality control parameters were within the acceptance limits.

TOTAL METALS (ICP/MS)

Samples FC-MW-104D (460-149190-1), FC-MW-104S (460-149190-3) and FC-MW-6 (460-149190-12) were analyzed for Total Metals (ICP/MS) in accordance with EPA SW-846 Method 6020A. The samples were prepared on 02/01/2018 and analyzed on 02/02/2018.

No difficulties were encountered during the Metals analysis.

All quality control parameters were within the acceptance limits.

SULFATE

Samples FC-MW-104D (460-149190-1), FC-MW-104S (460-149190-3) and FC-MW-6 (460-149190-12) were analyzed for sulfate in accordance with ASTM Method D516-90. The samples were analyzed on 02/06/2018.

Sulfate failed the recovery criteria high for the MS/MSD of sample FC-MW-6MS (460-149190-12) in batch 460-495320.

Refer to the QC report for details.

Sample FC-MW-104D (460-149190-1)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the sulfate analysis.

All other quality control parameters were within the acceptance limits.

NITROGEN-NITRATE

Samples FC-MW-104D (460-149190-1), FC-MW-104S (460-149190-3) and FC-MW-6 (460-149190-12) were analyzed for Nitrogen-Nitrate in accordance with SM 4500 NO3 F. The samples were analyzed on 01/27/2018.

Samples FC-MW-104D (460-149190-1)[10X], FC-MW-104S (460-149190-3)[10X] and FC-MW-6 (460-149190-12)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No difficulties were encountered during the nitrate analysis.

All quality control parameters were within the acceptance limits.

TOTAL ORGANIC CARBON

Samples FC-MW-104D (460-149190-1), FC-MW-104S (460-149190-3) and FC-MW-6 (460-149190-12) were analyzed for total organic carbon in accordance with SM 5310B. The samples were analyzed on 02/07/2018.

No difficulties were encountered during the TOC analysis.

All quality control parameters were within the acceptance limits.

Detection Summary

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-149190-1

Client Sample ID: FC-MW-104D

Lab Sample ID: 460-149190-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloroform	0.82	J	2.0	0.44	ug/L	2			8260C	Total/NA
cis-1,2-Dichloroethene	17		2.0	0.52	ug/L	2			8260C	Total/NA
Tetrachloroethene	660		2.0	0.24	ug/L	2			8260C	Total/NA
trans-1,2-Dichloroethene	1.4	J	2.0	0.36	ug/L	2			8260C	Total/NA
Trichloroethene	75		2.0	0.44	ug/L	2			8260C	Total/NA
Manganese	1900		8.0	2.7	ug/L	2			6020A	Total/NA
Iron	11000		120	46	ug/L	2			6020A	Total/NA
Sulfate	52		10	2.7	mg/L	2			D516-90, 02	Total/NA
Nitrate as N	5.7		1.0	0.10	mg/L	10			SM 4500 NO3 F	Total/NA
Total Organic Carbon	1.2		1.0	0.22	mg/L	1			SM 5310B	Total/NA

Client Sample ID: FC-TB012518

Lab Sample ID: 460-149190-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Methylene Chloride	0.23	J	1.0	0.21	ug/L	1			8260C	Total/NA

Client Sample ID: FC-MW-104S

Lab Sample ID: 460-149190-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloroform	2.5		2.0	0.44	ug/L	2			8260C	Total/NA
cis-1,2-Dichloroethene	26		2.0	0.52	ug/L	2			8260C	Total/NA
Tetrachloroethene	620		2.0	0.24	ug/L	2			8260C	Total/NA
trans-1,2-Dichloroethene	1.7	J	2.0	0.36	ug/L	2			8260C	Total/NA
Trichloroethene	59		2.0	0.44	ug/L	2			8260C	Total/NA
Manganese	240		8.0	2.7	ug/L	2			6020A	Total/NA
Iron	6600		120	46	ug/L	2			6020A	Total/NA
Sulfate	34		5.0	1.4	mg/L	1			D516-90, 02	Total/NA
Nitrate as N	6.1		1.0	0.10	mg/L	10			SM 4500 NO3 F	Total/NA
Total Organic Carbon	1.0		1.0	0.22	mg/L	1			SM 5310B	Total/NA

Client Sample ID: FC-MW-109S

Lab Sample ID: 460-149190-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Methylene Chloride	0.24	J	1.0	0.21	ug/L	1			8260C	Total/NA
Tetrachloroethene	13		1.0	0.12	ug/L	1			8260C	Total/NA
Trichloroethene	0.71	J	1.0	0.22	ug/L	1			8260C	Total/NA

Client Sample ID: FC-MW-109S-D

Lab Sample ID: 460-149190-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Tetrachloroethene	13		1.0	0.12	ug/L	1			8260C	Total/NA
Trichloroethene	0.66	J	1.0	0.22	ug/L	1			8260C	Total/NA

Client Sample ID: FC-MW-3

Lab Sample ID: 460-149190-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloroform	2.1		1.0	0.22	ug/L	1			8260C	Total/NA
cis-1,2-Dichloroethene	0.80	J	1.0	0.26	ug/L	1			8260C	Total/NA
Methylene Chloride	0.28	J	1.0	0.21	ug/L	1			8260C	Total/NA
Tetrachloroethene	12		1.0	0.12	ug/L	1			8260C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Edison

Detection Summary

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-149190-1

Client Sample ID: FC-MW-3 (Continued)

Lab Sample ID: 460-149190-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Trichloroethene	1.0		1.0	0.22	ug/L	1			8260C	Total/NA

Client Sample ID: FC-MW-107D

Lab Sample ID: 460-149190-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloroform	0.62	J	1.0	0.22	ug/L	1			8260C	Total/NA
Tetrachloroethene	5.9		1.0	0.12	ug/L	1			8260C	Total/NA
Trichloroethene	5.5		1.0	0.22	ug/L	1			8260C	Total/NA

Client Sample ID: FC-MW-9

Lab Sample ID: 460-149190-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloroform	0.40	J	1.0	0.22	ug/L	1			8260C	Total/NA
Tetrachloroethene	67		1.0	0.12	ug/L	1			8260C	Total/NA

Client Sample ID: FC-MW-108D

Lab Sample ID: 460-149190-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloroform	1.4		1.0	0.22	ug/L	1			8260C	Total/NA
Tetrachloroethene	0.58	J	1.0	0.12	ug/L	1			8260C	Total/NA

Client Sample ID: FC-MW-8

Lab Sample ID: 460-149190-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloroform	0.33	J	1.0	0.22	ug/L	1			8260C	Total/NA
Tetrachloroethene	14		1.0	0.12	ug/L	1			8260C	Total/NA
Trichloroethene	0.23	J	1.0	0.22	ug/L	1			8260C	Total/NA

Client Sample ID: FC-EB-012618

Lab Sample ID: 460-149190-11

No Detections.

Client Sample ID: FC-MW-6

Lab Sample ID: 460-149190-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	2.2		2.0	0.52	ug/L	2			8260C	Total/NA
Tetrachloroethene	490		2.0	0.24	ug/L	2			8260C	Total/NA
Trichloroethene	9.7		2.0	0.44	ug/L	2			8260C	Total/NA
Manganese	110		8.0	2.7	ug/L	2			6020A	Total/NA
Iron	4900		120	46	ug/L	2			6020A	Total/NA
Sulfate	34	F1	5.0	1.4	mg/L	1			D516-90, 02	Total/NA
Nitrate as N	2.9		0.50	0.050	mg/L	5			SM 4500 NO3 F	Total/NA
Total Organic Carbon	1.4		1.0	0.22	mg/L	1			SM 5310B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-149190-1

Client Sample ID: FC-MW-104D

Lab Sample ID: 460-149190-1

Date Collected: 01/25/18 08:35

Matrix: Water

Date Received: 01/26/18 17:06

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	0.56	ug/L			01/30/18 10:50	2
1,1,2,2-Tetrachloroethane	2.0	U	2.0	0.38	ug/L			01/30/18 10:50	2
1,1,2-Trichloroethane	2.0	U	2.0	0.16	ug/L			01/30/18 10:50	2
1,1-Dichloroethane	2.0	U	2.0	0.48	ug/L			01/30/18 10:50	2
1,1-Dichloroethene	2.0	U	2.0	0.68	ug/L			01/30/18 10:50	2
1,2-Dichloroethane	2.0	U	2.0	0.50	ug/L			01/30/18 10:50	2
1,2-Dichloropropane	2.0	U	2.0	0.36	ug/L			01/30/18 10:50	2
2-Butanone (MEK)	10	U	10	4.4	ug/L			01/30/18 10:50	2
2-Hexanone	10	U	10	1.4	ug/L			01/30/18 10:50	2
4-Methyl-2-pentanone (MIBK)	10	U	10	1.3	ug/L			01/30/18 10:50	2
Acetone	10	U	10	2.1	ug/L			01/30/18 10:50	2
Benzene	2.0	U	2.0	0.18	ug/L			01/30/18 10:50	2
Bromoform	2.0	U	2.0	0.36	ug/L			01/30/18 10:50	2
Bromomethane	2.0	U	2.0	0.36	ug/L			01/30/18 10:50	2
Carbon disulfide	2.0	U	2.0	0.44	ug/L			01/30/18 10:50	2
Carbon tetrachloride	2.0	U	2.0	0.66	ug/L			01/30/18 10:50	2
Chlorobenzene	2.0	U	2.0	0.48	ug/L			01/30/18 10:50	2
Chlorodibromomethane	2.0	U	2.0	0.44	ug/L			01/30/18 10:50	2
Chloroethane	2.0	U	2.0	0.74	ug/L			01/30/18 10:50	2
Chloroform	0.82	J	2.0	0.44	ug/L			01/30/18 10:50	2
Chloromethane	2.0	U	2.0	0.44	ug/L			01/30/18 10:50	2
cis-1,2-Dichloroethene	17		2.0	0.52	ug/L			01/30/18 10:50	2
cis-1,3-Dichloropropene	2.0	U	2.0	0.32	ug/L			01/30/18 10:50	2
Dichlorobromomethane	2.0	U	2.0	0.30	ug/L			01/30/18 10:50	2
Ethylbenzene	2.0	U	2.0	0.60	ug/L			01/30/18 10:50	2
Methylene Chloride	2.0	U	2.0	0.42	ug/L			01/30/18 10:50	2
Styrene	2.0	U	2.0	0.34	ug/L			01/30/18 10:50	2
Tetrachloroethene	660		2.0	0.24	ug/L			01/30/18 10:50	2
Toluene	2.0	U	2.0	0.50	ug/L			01/30/18 10:50	2
trans-1,2-Dichloroethene	1.4	J	2.0	0.36	ug/L			01/30/18 10:50	2
trans-1,3-Dichloropropene	2.0	U	2.0	0.38	ug/L			01/30/18 10:50	2
Trichloroethene	75		2.0	0.44	ug/L			01/30/18 10:50	2
Vinyl chloride	2.0	U	2.0	0.12	ug/L			01/30/18 10:50	2
Xylenes, Total	4.0	U	4.0	0.56	ug/L			01/30/18 10:50	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		74 - 132		01/30/18 10:50	2
4-Bromofluorobenzene	96		77 - 124		01/30/18 10:50	2
Dibromofluoromethane (Surr)	98		72 - 131		01/30/18 10:50	2
Toluene-d8 (Surr)	101		80 - 120		01/30/18 10:50	2

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	4.0	U	4.0	1.0	ug/L			01/31/18 09:19	1
Ethane	7.5	U	7.5	1.5	ug/L			01/31/18 09:19	1
Ethene	7.0	U	7.0	1.5	ug/L			01/31/18 09:19	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	1900		8.0	2.7	ug/L		02/01/18 09:32	02/02/18 12:44	2

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-149190-1

Client Sample ID: FC-MW-104D

Lab Sample ID: 460-149190-1

Date Collected: 01/25/18 08:35

Matrix: Water

Date Received: 01/26/18 17:06

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	11000		120	46	ug/L		02/01/18 09:32	02/02/18 12:44	2

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	52		10	2.7	mg/L			02/06/18 12:46	2
Nitrate as N	5.7		1.0	0.10	mg/L			01/27/18 02:22	10
Total Organic Carbon	1.2		1.0	0.22	mg/L			02/07/18 03:10	1

Client Sample ID: FC-TB012518

Lab Sample ID: 460-149190-2

Date Collected: 01/25/18 08:35

Matrix: Water

Date Received: 01/26/18 17:06

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	0.28	ug/L			01/29/18 14:34	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.19	ug/L			01/29/18 14:34	1
1,1,2-Trichloroethane	1.0	U	1.0	0.080	ug/L			01/29/18 14:34	1
1,1-Dichloroethane	1.0	U	1.0	0.24	ug/L			01/29/18 14:34	1
1,1-Dichloroethene	1.0	U	1.0	0.34	ug/L			01/29/18 14:34	1
1,2-Dichloroethane	1.0	U	1.0	0.25	ug/L			01/29/18 14:34	1
1,2-Dichloropropane	1.0	U	1.0	0.18	ug/L			01/29/18 14:34	1
2-Butanone (MEK)	5.0	U	5.0	2.2	ug/L			01/29/18 14:34	1
2-Hexanone	5.0	U	5.0	0.72	ug/L			01/29/18 14:34	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.63	ug/L			01/29/18 14:34	1
Acetone	5.0	U	5.0	1.1	ug/L			01/29/18 14:34	1
Benzene	1.0	U	1.0	0.090	ug/L			01/29/18 14:34	1
Bromoform	1.0	U	1.0	0.18	ug/L			01/29/18 14:34	1
Bromomethane	1.0	U	1.0	0.18	ug/L			01/29/18 14:34	1
Carbon disulfide	1.0	U *	1.0	0.22	ug/L			01/29/18 14:34	1
Carbon tetrachloride	1.0	U	1.0	0.33	ug/L			01/29/18 14:34	1
Chlorobenzene	1.0	U	1.0	0.24	ug/L			01/29/18 14:34	1
Chlorodibromomethane	1.0	U	1.0	0.22	ug/L			01/29/18 14:34	1
Chloroethane	1.0	U	1.0	0.37	ug/L			01/29/18 14:34	1
Chloroform	1.0	U	1.0	0.22	ug/L			01/29/18 14:34	1
Chloromethane	1.0	U	1.0	0.22	ug/L			01/29/18 14:34	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			01/29/18 14:34	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.16	ug/L			01/29/18 14:34	1
Dichlorobromomethane	1.0	U	1.0	0.15	ug/L			01/29/18 14:34	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			01/29/18 14:34	1
Methylene Chloride	0.23	J	1.0	0.21	ug/L			01/29/18 14:34	1
Styrene	1.0	U	1.0	0.17	ug/L			01/29/18 14:34	1
Tetrachloroethene	1.0	U	1.0	0.12	ug/L			01/29/18 14:34	1
Toluene	1.0	U	1.0	0.25	ug/L			01/29/18 14:34	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.18	ug/L			01/29/18 14:34	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			01/29/18 14:34	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			01/29/18 14:34	1
Vinyl chloride	1.0	U	1.0	0.060	ug/L			01/29/18 14:34	1
Xylenes, Total	2.0	U	2.0	0.28	ug/L			01/29/18 14:34	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-149190-1

Client Sample ID: FC-TB012518

Lab Sample ID: 460-149190-2

Date Collected: 01/25/18 08:35

Matrix: Water

Date Received: 01/26/18 17:06

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		74 - 132		01/29/18 14:34	1
4-Bromofluorobenzene	105		77 - 124		01/29/18 14:34	1
Dibromofluoromethane (Surr)	105		72 - 131		01/29/18 14:34	1
Toluene-d8 (Surr)	101		80 - 120		01/29/18 14:34	1

Client Sample ID: FC-MW-104S

Lab Sample ID: 460-149190-3

Date Collected: 01/25/18 10:35

Matrix: Water

Date Received: 01/26/18 17:06

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	0.56	ug/L			01/30/18 11:13	2
1,1,2,2-Tetrachloroethane	2.0	U	2.0	0.38	ug/L			01/30/18 11:13	2
1,1,2-Trichloroethane	2.0	U	2.0	0.16	ug/L			01/30/18 11:13	2
1,1-Dichloroethane	2.0	U	2.0	0.48	ug/L			01/30/18 11:13	2
1,1-Dichloroethene	2.0	U	2.0	0.68	ug/L			01/30/18 11:13	2
1,2-Dichloroethane	2.0	U	2.0	0.50	ug/L			01/30/18 11:13	2
1,2-Dichloropropane	2.0	U	2.0	0.36	ug/L			01/30/18 11:13	2
2-Butanone (MEK)	10	U	10	4.4	ug/L			01/30/18 11:13	2
2-Hexanone	10	U	10	1.4	ug/L			01/30/18 11:13	2
4-Methyl-2-pentanone (MIBK)	10	U	10	1.3	ug/L			01/30/18 11:13	2
Acetone	10	U	10	2.1	ug/L			01/30/18 11:13	2
Benzene	2.0	U	2.0	0.18	ug/L			01/30/18 11:13	2
Bromoform	2.0	U	2.0	0.36	ug/L			01/30/18 11:13	2
Bromomethane	2.0	U	2.0	0.36	ug/L			01/30/18 11:13	2
Carbon disulfide	2.0	U	2.0	0.44	ug/L			01/30/18 11:13	2
Carbon tetrachloride	2.0	U	2.0	0.66	ug/L			01/30/18 11:13	2
Chlorobenzene	2.0	U	2.0	0.48	ug/L			01/30/18 11:13	2
Chlorodibromomethane	2.0	U	2.0	0.44	ug/L			01/30/18 11:13	2
Chloroethane	2.0	U	2.0	0.74	ug/L			01/30/18 11:13	2
Chloroform	2.5		2.0	0.44	ug/L			01/30/18 11:13	2
Chloromethane	2.0	U	2.0	0.44	ug/L			01/30/18 11:13	2
cis-1,2-Dichloroethene	26		2.0	0.52	ug/L			01/30/18 11:13	2
cis-1,3-Dichloropropene	2.0	U	2.0	0.32	ug/L			01/30/18 11:13	2
Dichlorobromomethane	2.0	U	2.0	0.30	ug/L			01/30/18 11:13	2
Ethylbenzene	2.0	U	2.0	0.60	ug/L			01/30/18 11:13	2
Methylene Chloride	2.0	U	2.0	0.42	ug/L			01/30/18 11:13	2
Styrene	2.0	U	2.0	0.34	ug/L			01/30/18 11:13	2
Tetrachloroethene	620		2.0	0.24	ug/L			01/30/18 11:13	2
Toluene	2.0	U	2.0	0.50	ug/L			01/30/18 11:13	2
trans-1,2-Dichloroethene	1.7	J	2.0	0.36	ug/L			01/30/18 11:13	2
trans-1,3-Dichloropropene	2.0	U	2.0	0.38	ug/L			01/30/18 11:13	2
Trichloroethene	59		2.0	0.44	ug/L			01/30/18 11:13	2
Vinyl chloride	2.0	U	2.0	0.12	ug/L			01/30/18 11:13	2
Xylenes, Total	4.0	U	4.0	0.56	ug/L			01/30/18 11:13	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		74 - 132					01/30/18 11:13	2
4-Bromofluorobenzene	97		77 - 124					01/30/18 11:13	2
Dibromofluoromethane (Surr)	98		72 - 131					01/30/18 11:13	2

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-149190-1

Client Sample ID: FC-MW-104S

Date Collected: 01/25/18 10:35

Date Received: 01/26/18 17:06

Lab Sample ID: 460-149190-3

Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		80 - 120		01/30/18 11:13	2

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	4.0	U	4.0	1.0	ug/L			01/31/18 09:37	1
Ethane	7.5	U	7.5	1.5	ug/L			01/31/18 09:37	1
Ethene	7.0	U	7.0	1.5	ug/L			01/31/18 09:37	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	240		8.0	2.7	ug/L		02/01/18 09:40	02/02/18 12:47	2
Iron	6600		120	46	ug/L		02/01/18 09:40	02/02/18 12:47	2

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	34		5.0	1.4	mg/L			02/06/18 11:58	1
Nitrate as N	6.1		1.0	0.10	mg/L			01/27/18 02:23	10
Total Organic Carbon	1.0		1.0	0.22	mg/L			02/07/18 03:29	1

Client Sample ID: FC-MW-109S

Date Collected: 01/25/18 12:10

Date Received: 01/26/18 17:06

Lab Sample ID: 460-149190-4

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	1.0	U	1.0	0.28	ug/L			01/29/18 14:58	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.19	ug/L			01/29/18 14:58	1
1,1,2-Trichloroethane	1.0	U	1.0	0.080	ug/L			01/29/18 14:58	1
1,1-Dichloroethane	1.0	U	1.0	0.24	ug/L			01/29/18 14:58	1
1,1-Dichloroethene	1.0	U	1.0	0.34	ug/L			01/29/18 14:58	1
1,2-Dichloroethane	1.0	U	1.0	0.25	ug/L			01/29/18 14:58	1
1,2-Dichloropropane	1.0	U	1.0	0.18	ug/L			01/29/18 14:58	1
2-Butanone (MEK)	5.0	U	5.0	2.2	ug/L			01/29/18 14:58	1
2-Hexanone	5.0	U	5.0	0.72	ug/L			01/29/18 14:58	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.63	ug/L			01/29/18 14:58	1
Acetone	5.0	U	5.0	1.1	ug/L			01/29/18 14:58	1
Benzene	1.0	U	1.0	0.090	ug/L			01/29/18 14:58	1
Bromoform	1.0	U	1.0	0.18	ug/L			01/29/18 14:58	1
Bromomethane	1.0	U	1.0	0.18	ug/L			01/29/18 14:58	1
Carbon disulfide	1.0	U * F1	1.0	0.22	ug/L			01/29/18 14:58	1
Carbon tetrachloride	1.0	U	1.0	0.33	ug/L			01/29/18 14:58	1
Chlorobenzene	1.0	U	1.0	0.24	ug/L			01/29/18 14:58	1
Chlorodibromomethane	1.0	U	1.0	0.22	ug/L			01/29/18 14:58	1
Chloroethane	1.0	U	1.0	0.37	ug/L			01/29/18 14:58	1
Chloroform	1.0	U	1.0	0.22	ug/L			01/29/18 14:58	1
Chloromethane	1.0	U	1.0	0.22	ug/L			01/29/18 14:58	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			01/29/18 14:58	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.16	ug/L			01/29/18 14:58	1
Dichlorobromomethane	1.0	U	1.0	0.15	ug/L			01/29/18 14:58	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			01/29/18 14:58	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-149190-1

Client Sample ID: FC-MW-109S

Lab Sample ID: 460-149190-4

Date Collected: 01/25/18 12:10

Matrix: Water

Date Received: 01/26/18 17:06

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.24	J	1.0	0.21	ug/L			01/29/18 14:58	1
Styrene	1.0	U	1.0	0.17	ug/L			01/29/18 14:58	1
Tetrachloroethene	13		1.0	0.12	ug/L			01/29/18 14:58	1
Toluene	1.0	U	1.0	0.25	ug/L			01/29/18 14:58	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.18	ug/L			01/29/18 14:58	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			01/29/18 14:58	1
Trichloroethene	0.71	J	1.0	0.22	ug/L			01/29/18 14:58	1
Vinyl chloride	1.0	U	1.0	0.060	ug/L			01/29/18 14:58	1
Xylenes, Total	2.0	U	2.0	0.28	ug/L			01/29/18 14:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		74 - 132		01/29/18 14:58	1
4-Bromofluorobenzene	105		77 - 124		01/29/18 14:58	1
Dibromofluoromethane (Surr)	104		72 - 131		01/29/18 14:58	1
Toluene-d8 (Surr)	100		80 - 120		01/29/18 14:58	1

Client Sample ID: FC-MW-109S-D

Lab Sample ID: 460-149190-5

Date Collected: 01/25/18 12:10

Matrix: Water

Date Received: 01/26/18 17:06

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	0.28	ug/L			01/29/18 17:41	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.19	ug/L			01/29/18 17:41	1
1,1,2-Trichloroethane	1.0	U	1.0	0.080	ug/L			01/29/18 17:41	1
1,1-Dichloroethane	1.0	U	1.0	0.24	ug/L			01/29/18 17:41	1
1,1-Dichloroethene	1.0	U	1.0	0.34	ug/L			01/29/18 17:41	1
1,2-Dichloroethane	1.0	U	1.0	0.25	ug/L			01/29/18 17:41	1
1,2-Dichloropropane	1.0	U	1.0	0.18	ug/L			01/29/18 17:41	1
2-Butanone (MEK)	5.0	U	5.0	2.2	ug/L			01/29/18 17:41	1
2-Hexanone	5.0	U	5.0	0.72	ug/L			01/29/18 17:41	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.63	ug/L			01/29/18 17:41	1
Acetone	5.0	U	5.0	1.1	ug/L			01/29/18 17:41	1
Benzene	1.0	U	1.0	0.090	ug/L			01/29/18 17:41	1
Bromoform	1.0	U	1.0	0.18	ug/L			01/29/18 17:41	1
Bromomethane	1.0	U	1.0	0.18	ug/L			01/29/18 17:41	1
Carbon disulfide	1.0	U *	1.0	0.22	ug/L			01/29/18 17:41	1
Carbon tetrachloride	1.0	U	1.0	0.33	ug/L			01/29/18 17:41	1
Chlorobenzene	1.0	U	1.0	0.24	ug/L			01/29/18 17:41	1
Chlorodibromomethane	1.0	U	1.0	0.22	ug/L			01/29/18 17:41	1
Chloroethane	1.0	U	1.0	0.37	ug/L			01/29/18 17:41	1
Chloroform	1.0	U	1.0	0.22	ug/L			01/29/18 17:41	1
Chloromethane	1.0	U	1.0	0.22	ug/L			01/29/18 17:41	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			01/29/18 17:41	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.16	ug/L			01/29/18 17:41	1
Dichlorobromomethane	1.0	U	1.0	0.15	ug/L			01/29/18 17:41	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			01/29/18 17:41	1
Methylene Chloride	1.0	U	1.0	0.21	ug/L			01/29/18 17:41	1
Styrene	1.0	U	1.0	0.17	ug/L			01/29/18 17:41	1
Tetrachloroethene	13		1.0	0.12	ug/L			01/29/18 17:41	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-149190-1

Client Sample ID: FC-MW-109S-D

Lab Sample ID: 460-149190-5

Date Collected: 01/25/18 12:10

Matrix: Water

Date Received: 01/26/18 17:06

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	1.0	U	1.0	0.25	ug/L			01/29/18 17:41	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.18	ug/L			01/29/18 17:41	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			01/29/18 17:41	1
Trichloroethene	0.66	J	1.0	0.22	ug/L			01/29/18 17:41	1
Vinyl chloride	1.0	U	1.0	0.060	ug/L			01/29/18 17:41	1
Xylenes, Total	2.0	U	2.0	0.28	ug/L			01/29/18 17:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		74 - 132		01/29/18 17:41	1
4-Bromofluorobenzene	102		77 - 124		01/29/18 17:41	1
Dibromofluoromethane (Surr)	103		72 - 131		01/29/18 17:41	1
Toluene-d8 (Surr)	101		80 - 120		01/29/18 17:41	1

Client Sample ID: FC-MW-3

Lab Sample ID: 460-149190-6

Date Collected: 01/25/18 14:05

Matrix: Water

Date Received: 01/26/18 17:06

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	0.28	ug/L			01/29/18 18:04	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.19	ug/L			01/29/18 18:04	1
1,1,2-Trichloroethane	1.0	U	1.0	0.080	ug/L			01/29/18 18:04	1
1,1-Dichloroethane	1.0	U	1.0	0.24	ug/L			01/29/18 18:04	1
1,1-Dichloroethene	1.0	U	1.0	0.34	ug/L			01/29/18 18:04	1
1,2-Dichloroethane	1.0	U	1.0	0.25	ug/L			01/29/18 18:04	1
1,2-Dichloropropane	1.0	U	1.0	0.18	ug/L			01/29/18 18:04	1
2-Butanone (MEK)	5.0	U	5.0	2.2	ug/L			01/29/18 18:04	1
2-Hexanone	5.0	U	5.0	0.72	ug/L			01/29/18 18:04	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.63	ug/L			01/29/18 18:04	1
Acetone	5.0	U	5.0	1.1	ug/L			01/29/18 18:04	1
Benzene	1.0	U	1.0	0.090	ug/L			01/29/18 18:04	1
Bromoform	1.0	U	1.0	0.18	ug/L			01/29/18 18:04	1
Bromomethane	1.0	U	1.0	0.18	ug/L			01/29/18 18:04	1
Carbon disulfide	1.0	U *	1.0	0.22	ug/L			01/29/18 18:04	1
Carbon tetrachloride	1.0	U	1.0	0.33	ug/L			01/29/18 18:04	1
Chlorobenzene	1.0	U	1.0	0.24	ug/L			01/29/18 18:04	1
Chlorodibromomethane	1.0	U	1.0	0.22	ug/L			01/29/18 18:04	1
Chloroethane	1.0	U	1.0	0.37	ug/L			01/29/18 18:04	1
Chloroform	2.1		1.0	0.22	ug/L			01/29/18 18:04	1
Chloromethane	1.0	U	1.0	0.22	ug/L			01/29/18 18:04	1
cis-1,2-Dichloroethene	0.80	J	1.0	0.26	ug/L			01/29/18 18:04	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.16	ug/L			01/29/18 18:04	1
Dichlorobromomethane	1.0	U	1.0	0.15	ug/L			01/29/18 18:04	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			01/29/18 18:04	1
Methylene Chloride	0.28	J	1.0	0.21	ug/L			01/29/18 18:04	1
Styrene	1.0	U	1.0	0.17	ug/L			01/29/18 18:04	1
Tetrachloroethene	12		1.0	0.12	ug/L			01/29/18 18:04	1
Toluene	1.0	U	1.0	0.25	ug/L			01/29/18 18:04	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.18	ug/L			01/29/18 18:04	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			01/29/18 18:04	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-149190-1

Client Sample ID: FC-MW-3

Date Collected: 01/25/18 14:05

Date Received: 01/26/18 17:06

Lab Sample ID: 460-149190-6

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	1.0		1.0	0.22	ug/L			01/29/18 18:04	1
Vinyl chloride	1.0	U	1.0	0.060	ug/L			01/29/18 18:04	1
Xylenes, Total	2.0	U	2.0	0.28	ug/L			01/29/18 18:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		74 - 132					01/29/18 18:04	1
4-Bromofluorobenzene	104		77 - 124					01/29/18 18:04	1
Dibromofluoromethane (Surr)	104		72 - 131					01/29/18 18:04	1
Toluene-d8 (Surr)	100		80 - 120					01/29/18 18:04	1

Client Sample ID: FC-MW-107D

Date Collected: 01/25/18 15:25

Date Received: 01/26/18 17:06

Lab Sample ID: 460-149190-7

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	0.28	ug/L			01/29/18 16:08	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.19	ug/L			01/29/18 16:08	1
1,1,2-Trichloroethane	1.0	U	1.0	0.080	ug/L			01/29/18 16:08	1
1,1-Dichloroethane	1.0	U	1.0	0.24	ug/L			01/29/18 16:08	1
1,1-Dichloroethene	1.0	U	1.0	0.34	ug/L			01/29/18 16:08	1
1,2-Dichloroethane	1.0	U	1.0	0.25	ug/L			01/29/18 16:08	1
1,2-Dichloropropane	1.0	U	1.0	0.18	ug/L			01/29/18 16:08	1
2-Butanone (MEK)	5.0	U	5.0	2.2	ug/L			01/29/18 16:08	1
2-Hexanone	5.0	U	5.0	0.72	ug/L			01/29/18 16:08	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.63	ug/L			01/29/18 16:08	1
Acetone	5.0	U	5.0	1.1	ug/L			01/29/18 16:08	1
Benzene	1.0	U	1.0	0.090	ug/L			01/29/18 16:08	1
Bromoform	1.0	U	1.0	0.18	ug/L			01/29/18 16:08	1
Bromomethane	1.0	U	1.0	0.18	ug/L			01/29/18 16:08	1
Carbon disulfide	1.0	U *	1.0	0.22	ug/L			01/29/18 16:08	1
Carbon tetrachloride	1.0	U	1.0	0.33	ug/L			01/29/18 16:08	1
Chlorobenzene	1.0	U	1.0	0.24	ug/L			01/29/18 16:08	1
Chlorodibromomethane	1.0	U	1.0	0.22	ug/L			01/29/18 16:08	1
Chloroethane	1.0	U	1.0	0.37	ug/L			01/29/18 16:08	1
Chloroform	0.62	J	1.0	0.22	ug/L			01/29/18 16:08	1
Chloromethane	1.0	U	1.0	0.22	ug/L			01/29/18 16:08	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			01/29/18 16:08	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.16	ug/L			01/29/18 16:08	1
Dichlorobromomethane	1.0	U	1.0	0.15	ug/L			01/29/18 16:08	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			01/29/18 16:08	1
Methylene Chloride	1.0	U	1.0	0.21	ug/L			01/29/18 16:08	1
Styrene	1.0	U	1.0	0.17	ug/L			01/29/18 16:08	1
Tetrachloroethene	5.9		1.0	0.12	ug/L			01/29/18 16:08	1
Toluene	1.0	U	1.0	0.25	ug/L			01/29/18 16:08	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.18	ug/L			01/29/18 16:08	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			01/29/18 16:08	1
Trichloroethene	5.5		1.0	0.22	ug/L			01/29/18 16:08	1
Vinyl chloride	1.0	U	1.0	0.060	ug/L			01/29/18 16:08	1
Xylenes, Total	2.0	U	2.0	0.28	ug/L			01/29/18 16:08	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-149190-1

Client Sample ID: FC-MW-107D

Lab Sample ID: 460-149190-7

Date Collected: 01/25/18 15:25

Matrix: Water

Date Received: 01/26/18 17:06

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		74 - 132		01/29/18 16:08	1
4-Bromofluorobenzene	98		77 - 124		01/29/18 16:08	1
Dibromofluoromethane (Surr)	100		72 - 131		01/29/18 16:08	1
Toluene-d8 (Surr)	99		80 - 120		01/29/18 16:08	1

Client Sample ID: FC-MW-9

Lab Sample ID: 460-149190-8

Date Collected: 01/26/18 09:25

Matrix: Water

Date Received: 01/26/18 17:06

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	0.28	ug/L			01/29/18 16:31	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.19	ug/L			01/29/18 16:31	1
1,1,2-Trichloroethane	1.0	U	1.0	0.080	ug/L			01/29/18 16:31	1
1,1-Dichloroethane	1.0	U	1.0	0.24	ug/L			01/29/18 16:31	1
1,1-Dichloroethene	1.0	U	1.0	0.34	ug/L			01/29/18 16:31	1
1,2-Dichloroethane	1.0	U	1.0	0.25	ug/L			01/29/18 16:31	1
1,2-Dichloropropane	1.0	U	1.0	0.18	ug/L			01/29/18 16:31	1
2-Butanone (MEK)	5.0	U	5.0	2.2	ug/L			01/29/18 16:31	1
2-Hexanone	5.0	U	5.0	0.72	ug/L			01/29/18 16:31	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.63	ug/L			01/29/18 16:31	1
Acetone	5.0	U	5.0	1.1	ug/L			01/29/18 16:31	1
Benzene	1.0	U	1.0	0.090	ug/L			01/29/18 16:31	1
Bromoform	1.0	U	1.0	0.18	ug/L			01/29/18 16:31	1
Bromomethane	1.0	U	1.0	0.18	ug/L			01/29/18 16:31	1
Carbon disulfide	1.0	U *	1.0	0.22	ug/L			01/29/18 16:31	1
Carbon tetrachloride	1.0	U	1.0	0.33	ug/L			01/29/18 16:31	1
Chlorobenzene	1.0	U	1.0	0.24	ug/L			01/29/18 16:31	1
Chlorodibromomethane	1.0	U	1.0	0.22	ug/L			01/29/18 16:31	1
Chloroethane	1.0	U	1.0	0.37	ug/L			01/29/18 16:31	1
Chloroform	0.40	J	1.0	0.22	ug/L			01/29/18 16:31	1
Chloromethane	1.0	U	1.0	0.22	ug/L			01/29/18 16:31	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			01/29/18 16:31	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.16	ug/L			01/29/18 16:31	1
Dichlorobromomethane	1.0	U	1.0	0.15	ug/L			01/29/18 16:31	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			01/29/18 16:31	1
Methylene Chloride	1.0	U	1.0	0.21	ug/L			01/29/18 16:31	1
Styrene	1.0	U	1.0	0.17	ug/L			01/29/18 16:31	1
Tetrachloroethene	67		1.0	0.12	ug/L			01/29/18 16:31	1
Toluene	1.0	U	1.0	0.25	ug/L			01/29/18 16:31	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.18	ug/L			01/29/18 16:31	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			01/29/18 16:31	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			01/29/18 16:31	1
Vinyl chloride	1.0	U	1.0	0.060	ug/L			01/29/18 16:31	1
Xylenes, Total	2.0	U	2.0	0.28	ug/L			01/29/18 16:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		74 - 132					01/29/18 16:31	1
4-Bromofluorobenzene	105		77 - 124					01/29/18 16:31	1
Dibromofluoromethane (Surr)	104		72 - 131					01/29/18 16:31	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-149190-1

Client Sample ID: FC-MW-9

Date Collected: 01/26/18 09:25

Date Received: 01/26/18 17:06

Lab Sample ID: 460-149190-8

Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		80 - 120		01/29/18 16:31	1

Client Sample ID: FC-MW-108D

Date Collected: 01/26/18 11:25

Date Received: 01/26/18 17:06

Lab Sample ID: 460-149190-9

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	0.28	ug/L			01/30/18 10:02	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.19	ug/L			01/30/18 10:02	1
1,1,2-Trichloroethane	1.0	U	1.0	0.080	ug/L			01/30/18 10:02	1
1,1-Dichloroethane	1.0	U	1.0	0.24	ug/L			01/30/18 10:02	1
1,1-Dichloroethene	1.0	U	1.0	0.34	ug/L			01/30/18 10:02	1
1,2-Dichloroethane	1.0	U	1.0	0.25	ug/L			01/30/18 10:02	1
1,2-Dichloropropane	1.0	U	1.0	0.18	ug/L			01/30/18 10:02	1
2-Butanone (MEK)	5.0	U	5.0	2.2	ug/L			01/30/18 10:02	1
2-Hexanone	5.0	U	5.0	0.72	ug/L			01/30/18 10:02	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.63	ug/L			01/30/18 10:02	1
Acetone	5.0	U	5.0	1.1	ug/L			01/30/18 10:02	1
Benzene	1.0	U	1.0	0.090	ug/L			01/30/18 10:02	1
Bromoform	1.0	U	1.0	0.18	ug/L			01/30/18 10:02	1
Bromomethane	1.0	U	1.0	0.18	ug/L			01/30/18 10:02	1
Carbon disulfide	1.0	U	1.0	0.22	ug/L			01/30/18 10:02	1
Carbon tetrachloride	1.0	U	1.0	0.33	ug/L			01/30/18 10:02	1
Chlorobenzene	1.0	U	1.0	0.24	ug/L			01/30/18 10:02	1
Chlorodibromomethane	1.0	U	1.0	0.22	ug/L			01/30/18 10:02	1
Chloroethane	1.0	U	1.0	0.37	ug/L			01/30/18 10:02	1
Chloroform	1.4		1.0	0.22	ug/L			01/30/18 10:02	1
Chloromethane	1.0	U	1.0	0.22	ug/L			01/30/18 10:02	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			01/30/18 10:02	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.16	ug/L			01/30/18 10:02	1
Dichlorobromomethane	1.0	U	1.0	0.15	ug/L			01/30/18 10:02	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			01/30/18 10:02	1
Methylene Chloride	1.0	U	1.0	0.21	ug/L			01/30/18 10:02	1
Styrene	1.0	U	1.0	0.17	ug/L			01/30/18 10:02	1
Tetrachloroethene	0.58	J	1.0	0.12	ug/L			01/30/18 10:02	1
Toluene	1.0	U	1.0	0.25	ug/L			01/30/18 10:02	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.18	ug/L			01/30/18 10:02	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			01/30/18 10:02	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			01/30/18 10:02	1
Vinyl chloride	1.0	U	1.0	0.060	ug/L			01/30/18 10:02	1
Xylenes, Total	2.0	U	2.0	0.28	ug/L			01/30/18 10:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		74 - 132		01/30/18 10:02	1
4-Bromofluorobenzene	100		77 - 124		01/30/18 10:02	1
Dibromofluoromethane (Surr)	99		72 - 131		01/30/18 10:02	1
Toluene-d8 (Surr)	104		80 - 120		01/30/18 10:02	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-149190-1

Client Sample ID: FC-MW-8

Lab Sample ID: 460-149190-10

Date Collected: 01/26/18 12:35

Matrix: Water

Date Received: 01/26/18 17:06

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	0.28	ug/L			01/29/18 17:17	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.19	ug/L			01/29/18 17:17	1
1,1,2-Trichloroethane	1.0	U	1.0	0.080	ug/L			01/29/18 17:17	1
1,1-Dichloroethane	1.0	U	1.0	0.24	ug/L			01/29/18 17:17	1
1,1-Dichloroethene	1.0	U	1.0	0.34	ug/L			01/29/18 17:17	1
1,2-Dichloroethane	1.0	U	1.0	0.25	ug/L			01/29/18 17:17	1
1,2-Dichloropropane	1.0	U	1.0	0.18	ug/L			01/29/18 17:17	1
2-Butanone (MEK)	5.0	U	5.0	2.2	ug/L			01/29/18 17:17	1
2-Hexanone	5.0	U	5.0	0.72	ug/L			01/29/18 17:17	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.63	ug/L			01/29/18 17:17	1
Acetone	5.0	U	5.0	1.1	ug/L			01/29/18 17:17	1
Benzene	1.0	U	1.0	0.090	ug/L			01/29/18 17:17	1
Bromoform	1.0	U	1.0	0.18	ug/L			01/29/18 17:17	1
Bromomethane	1.0	U	1.0	0.18	ug/L			01/29/18 17:17	1
Carbon disulfide	1.0	U *	1.0	0.22	ug/L			01/29/18 17:17	1
Carbon tetrachloride	1.0	U	1.0	0.33	ug/L			01/29/18 17:17	1
Chlorobenzene	1.0	U	1.0	0.24	ug/L			01/29/18 17:17	1
Chlorodibromomethane	1.0	U	1.0	0.22	ug/L			01/29/18 17:17	1
Chloroethane	1.0	U	1.0	0.37	ug/L			01/29/18 17:17	1
Chloroform	0.33	J	1.0	0.22	ug/L			01/29/18 17:17	1
Chloromethane	1.0	U	1.0	0.22	ug/L			01/29/18 17:17	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			01/29/18 17:17	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.16	ug/L			01/29/18 17:17	1
Dichlorobromomethane	1.0	U	1.0	0.15	ug/L			01/29/18 17:17	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			01/29/18 17:17	1
Methylene Chloride	1.0	U	1.0	0.21	ug/L			01/29/18 17:17	1
Styrene	1.0	U	1.0	0.17	ug/L			01/29/18 17:17	1
Tetrachloroethene	14		1.0	0.12	ug/L			01/29/18 17:17	1
Toluene	1.0	U	1.0	0.25	ug/L			01/29/18 17:17	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.18	ug/L			01/29/18 17:17	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			01/29/18 17:17	1
Trichloroethene	0.23	J	1.0	0.22	ug/L			01/29/18 17:17	1
Vinyl chloride	1.0	U	1.0	0.060	ug/L			01/29/18 17:17	1
Xylenes, Total	2.0	U	2.0	0.28	ug/L			01/29/18 17:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		74 - 132		01/29/18 17:17	1
4-Bromofluorobenzene	104		77 - 124		01/29/18 17:17	1
Dibromofluoromethane (Surr)	105		72 - 131		01/29/18 17:17	1
Toluene-d8 (Surr)	99		80 - 120		01/29/18 17:17	1

Client Sample ID: FC-EB-012618

Lab Sample ID: 460-149190-11

Date Collected: 01/26/18 13:25

Matrix: Water

Date Received: 01/26/18 17:06

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	0.28	ug/L			01/29/18 15:21	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.19	ug/L			01/29/18 15:21	1
1,1,2-Trichloroethane	1.0	U	1.0	0.080	ug/L			01/29/18 15:21	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-149190-1

Client Sample ID: FC-EB-012618

Lab Sample ID: 460-149190-11

Date Collected: 01/26/18 13:25

Matrix: Water

Date Received: 01/26/18 17:06

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	1.0	U	1.0	0.24	ug/L			01/29/18 15:21	1
1,1-Dichloroethene	1.0	U	1.0	0.34	ug/L			01/29/18 15:21	1
1,2-Dichloroethane	1.0	U	1.0	0.25	ug/L			01/29/18 15:21	1
1,2-Dichloropropane	1.0	U	1.0	0.18	ug/L			01/29/18 15:21	1
2-Butanone (MEK)	5.0	U	5.0	2.2	ug/L			01/29/18 15:21	1
2-Hexanone	5.0	U	5.0	0.72	ug/L			01/29/18 15:21	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.63	ug/L			01/29/18 15:21	1
Acetone	5.0	U	5.0	1.1	ug/L			01/29/18 15:21	1
Benzene	1.0	U	1.0	0.090	ug/L			01/29/18 15:21	1
Bromoform	1.0	U	1.0	0.18	ug/L			01/29/18 15:21	1
Bromomethane	1.0	U	1.0	0.18	ug/L			01/29/18 15:21	1
Carbon disulfide	1.0	U *	1.0	0.22	ug/L			01/29/18 15:21	1
Carbon tetrachloride	1.0	U	1.0	0.33	ug/L			01/29/18 15:21	1
Chlorobenzene	1.0	U	1.0	0.24	ug/L			01/29/18 15:21	1
Chlorodibromomethane	1.0	U	1.0	0.22	ug/L			01/29/18 15:21	1
Chloroethane	1.0	U	1.0	0.37	ug/L			01/29/18 15:21	1
Chloroform	1.0	U	1.0	0.22	ug/L			01/29/18 15:21	1
Chloromethane	1.0	U	1.0	0.22	ug/L			01/29/18 15:21	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			01/29/18 15:21	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.16	ug/L			01/29/18 15:21	1
Dichlorobromomethane	1.0	U	1.0	0.15	ug/L			01/29/18 15:21	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			01/29/18 15:21	1
Methylene Chloride	1.0	U	1.0	0.21	ug/L			01/29/18 15:21	1
Styrene	1.0	U	1.0	0.17	ug/L			01/29/18 15:21	1
Tetrachloroethene	1.0	U	1.0	0.12	ug/L			01/29/18 15:21	1
Toluene	1.0	U	1.0	0.25	ug/L			01/29/18 15:21	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.18	ug/L			01/29/18 15:21	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			01/29/18 15:21	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			01/29/18 15:21	1
Vinyl chloride	1.0	U	1.0	0.060	ug/L			01/29/18 15:21	1
Xylenes, Total	2.0	U	2.0	0.28	ug/L			01/29/18 15:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		74 - 132		01/29/18 15:21	1
4-Bromofluorobenzene	102		77 - 124		01/29/18 15:21	1
Dibromofluoromethane (Surr)	103		72 - 131		01/29/18 15:21	1
Toluene-d8 (Surr)	100		80 - 120		01/29/18 15:21	1

Client Sample ID: FC-MW-6

Lab Sample ID: 460-149190-12

Date Collected: 01/26/18 14:40

Matrix: Water

Date Received: 01/26/18 17:06

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	0.56	ug/L			01/30/18 10:27	2
1,1,2,2-Tetrachloroethane	2.0	U	2.0	0.38	ug/L			01/30/18 10:27	2
1,1,2-Trichloroethane	2.0	U	2.0	0.16	ug/L			01/30/18 10:27	2
1,1-Dichloroethane	2.0	U	2.0	0.48	ug/L			01/30/18 10:27	2
1,1-Dichloroethene	2.0	U	2.0	0.68	ug/L			01/30/18 10:27	2
1,2-Dichloroethane	2.0	U	2.0	0.50	ug/L			01/30/18 10:27	2

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-149190-1

Client Sample ID: FC-MW-6

Lab Sample ID: 460-149190-12

Date Collected: 01/26/18 14:40

Matrix: Water

Date Received: 01/26/18 17:06

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	2.0	U	2.0	0.36	ug/L			01/30/18 10:27	2
2-Butanone (MEK)	10	U	10	4.4	ug/L			01/30/18 10:27	2
2-Hexanone	10	U	10	1.4	ug/L			01/30/18 10:27	2
4-Methyl-2-pentanone (MIBK)	10	U	10	1.3	ug/L			01/30/18 10:27	2
Acetone	10	U	10	2.1	ug/L			01/30/18 10:27	2
Benzene	2.0	U	2.0	0.18	ug/L			01/30/18 10:27	2
Bromoform	2.0	U	2.0	0.36	ug/L			01/30/18 10:27	2
Bromomethane	2.0	U	2.0	0.36	ug/L			01/30/18 10:27	2
Carbon disulfide	2.0	U	2.0	0.44	ug/L			01/30/18 10:27	2
Carbon tetrachloride	2.0	U	2.0	0.66	ug/L			01/30/18 10:27	2
Chlorobenzene	2.0	U	2.0	0.48	ug/L			01/30/18 10:27	2
Chlorodibromomethane	2.0	U	2.0	0.44	ug/L			01/30/18 10:27	2
Chloroethane	2.0	U	2.0	0.74	ug/L			01/30/18 10:27	2
Chloroform	2.0	U	2.0	0.44	ug/L			01/30/18 10:27	2
Chloromethane	2.0	U	2.0	0.44	ug/L			01/30/18 10:27	2
cis-1,2-Dichloroethene	2.2		2.0	0.52	ug/L			01/30/18 10:27	2
cis-1,3-Dichloropropene	2.0	U	2.0	0.32	ug/L			01/30/18 10:27	2
Dichlorobromomethane	2.0	U	2.0	0.30	ug/L			01/30/18 10:27	2
Ethylbenzene	2.0	U	2.0	0.60	ug/L			01/30/18 10:27	2
Methylene Chloride	2.0	U	2.0	0.42	ug/L			01/30/18 10:27	2
Styrene	2.0	U	2.0	0.34	ug/L			01/30/18 10:27	2
Tetrachloroethene	490		2.0	0.24	ug/L			01/30/18 10:27	2
Toluene	2.0	U	2.0	0.50	ug/L			01/30/18 10:27	2
trans-1,2-Dichloroethene	2.0	U	2.0	0.36	ug/L			01/30/18 10:27	2
trans-1,3-Dichloropropene	2.0	U	2.0	0.38	ug/L			01/30/18 10:27	2
Trichloroethene	9.7		2.0	0.44	ug/L			01/30/18 10:27	2
Vinyl chloride	2.0	U	2.0	0.12	ug/L			01/30/18 10:27	2
Xylenes, Total	4.0	U	4.0	0.56	ug/L			01/30/18 10:27	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		74 - 132		01/30/18 10:27	2
4-Bromofluorobenzene	99		77 - 124		01/30/18 10:27	2
Dibromofluoromethane (Surr)	101		72 - 131		01/30/18 10:27	2
Toluene-d8 (Surr)	105		80 - 120		01/30/18 10:27	2

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	4.0	U	4.0	1.0	ug/L			01/31/18 09:54	1
Ethane	7.5	U	7.5	1.5	ug/L			01/31/18 09:54	1
Ethene	7.0	U	7.0	1.5	ug/L			01/31/18 09:54	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	110		8.0	2.7	ug/L		02/01/18 09:40	02/02/18 12:50	2
Iron	4900		120	46	ug/L		02/01/18 09:40	02/02/18 12:50	2

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	34	F1	5.0	1.4	mg/L			02/06/18 12:44	1
Nitrate as N	2.9		0.50	0.050	mg/L			01/27/18 02:26	5

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-149190-1

Client Sample ID: FC-MW-6

Lab Sample ID: 460-149190-12

Date Collected: 01/26/18 14:40

Matrix: Water

Date Received: 01/26/18 17:06

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	1.4		1.0	0.22	mg/L			02/07/18 03:47	1

Surrogate Summary

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-149190-1

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)
460-149190-1	FC-MW-104D	95	96	98	101
460-149190-2	FC-TB012518	98	105	105	101
460-149190-3	FC-MW-104S	97	97	98	101
460-149190-4	FC-MW-109S	98	105	104	100
460-149190-4 MS	FC-MW-109S	95	104	101	99
460-149190-4 MSD	FC-MW-109S	97	103	106	99
460-149190-5	FC-MW-109S-D	100	102	103	101
460-149190-6	FC-MW-3	99	104	104	100
460-149190-7	FC-MW-107D	97	98	100	99
460-149190-8	FC-MW-9	100	105	104	101
460-149190-9	FC-MW-108D	98	100	99	104
460-149190-10	FC-MW-8	96	104	105	99
460-149190-11	FC-EB-012618	98	102	103	100
460-149190-12	FC-MW-6	100	99	101	105
LCS 460-493297/5	Lab Control Sample	95	104	103	99
LCS 460-493603/5	Lab Control Sample	98	101	101	107
LCSD 460-493603/6	Lab Control Sample Dup	94	99	100	102
MB 460-493297/9	Method Blank	100	105	105	101
MB 460-493603/9	Method Blank	96	100	103	102

Surrogate Legend

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

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

QC Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-149190-1

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

Lab Sample ID: MB 460-493297/9

Matrix: Water

Analysis Batch: 493297

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	0.28	ug/L			01/29/18 10:15	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.19	ug/L			01/29/18 10:15	1
1,1,2-Trichloroethane	1.0	U	1.0	0.080	ug/L			01/29/18 10:15	1
1,1-Dichloroethane	1.0	U	1.0	0.24	ug/L			01/29/18 10:15	1
1,1-Dichloroethene	1.0	U	1.0	0.34	ug/L			01/29/18 10:15	1
1,2-Dichloroethane	1.0	U	1.0	0.25	ug/L			01/29/18 10:15	1
1,2-Dichloropropane	1.0	U	1.0	0.18	ug/L			01/29/18 10:15	1
2-Butanone (MEK)	5.0	U	5.0	2.2	ug/L			01/29/18 10:15	1
2-Hexanone	5.0	U	5.0	0.72	ug/L			01/29/18 10:15	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.63	ug/L			01/29/18 10:15	1
Acetone	5.0	U	5.0	1.1	ug/L			01/29/18 10:15	1
Benzene	1.0	U	1.0	0.090	ug/L			01/29/18 10:15	1
Bromoform	1.0	U	1.0	0.18	ug/L			01/29/18 10:15	1
Bromomethane	1.0	U	1.0	0.18	ug/L			01/29/18 10:15	1
Carbon disulfide	1.0	U	1.0	0.22	ug/L			01/29/18 10:15	1
Carbon tetrachloride	1.0	U	1.0	0.33	ug/L			01/29/18 10:15	1
Chlorobenzene	1.0	U	1.0	0.24	ug/L			01/29/18 10:15	1
Chlorodibromomethane	1.0	U	1.0	0.22	ug/L			01/29/18 10:15	1
Chloroethane	1.0	U	1.0	0.37	ug/L			01/29/18 10:15	1
Chloroform	1.0	U	1.0	0.22	ug/L			01/29/18 10:15	1
Chloromethane	1.0	U	1.0	0.22	ug/L			01/29/18 10:15	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			01/29/18 10:15	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.16	ug/L			01/29/18 10:15	1
Dichlorobromomethane	1.0	U	1.0	0.15	ug/L			01/29/18 10:15	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			01/29/18 10:15	1
Methylene Chloride	1.0	U	1.0	0.21	ug/L			01/29/18 10:15	1
Styrene	1.0	U	1.0	0.17	ug/L			01/29/18 10:15	1
Tetrachloroethene	1.0	U	1.0	0.12	ug/L			01/29/18 10:15	1
Toluene	1.0	U	1.0	0.25	ug/L			01/29/18 10:15	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.18	ug/L			01/29/18 10:15	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			01/29/18 10:15	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			01/29/18 10:15	1
Vinyl chloride	1.0	U	1.0	0.060	ug/L			01/29/18 10:15	1
Xylenes, Total	2.0	U	2.0	0.28	ug/L			01/29/18 10:15	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		74 - 132		01/29/18 10:15	1
4-Bromofluorobenzene	105		77 - 124		01/29/18 10:15	1
Dibromofluoromethane (Surr)	105		72 - 131		01/29/18 10:15	1
Toluene-d8 (Surr)	101		80 - 120		01/29/18 10:15	1

Lab Sample ID: LCS 460-493297/5

Matrix: Water

Analysis Batch: 493297

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	17.9		ug/L		89	75 - 125
1,1,1,2-Tetrachloroethane	20.0	18.7		ug/L		93	74 - 120

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-149190-1

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

Lab Sample ID: LCS 460-493297/5

Matrix: Water

Analysis Batch: 493297

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	19.2		ug/L		96	78 - 120
1,1-Dichloroethane	20.0	18.7		ug/L		94	77 - 123
1,1-Dichloroethene	20.0	16.0		ug/L		80	74 - 123
1,2-Dichloroethane	20.0	17.5		ug/L		88	76 - 121
1,2-Dichloropropane	20.0	19.8		ug/L		99	77 - 123
2-Butanone (MEK)	100	102		ug/L		102	64 - 120
2-Hexanone	100	94.5		ug/L		95	71 - 125
4-Methyl-2-pentanone (MIBK)	100	90.1		ug/L		90	78 - 124
Acetone	100	88.6		ug/L		89	39 - 150
Benzene	20.0	17.8		ug/L		89	77 - 121
Bromoform	20.0	18.3		ug/L		92	53 - 120
Bromomethane	20.0	15.4		ug/L		77	10 - 150
Carbon disulfide	20.0	11.8	*	ug/L		59	69 - 133
Carbon tetrachloride	20.0	18.2		ug/L		91	70 - 132
Chlorobenzene	20.0	20.8		ug/L		104	80 - 120
Chlorodibromomethane	20.0	19.1		ug/L		96	73 - 120
Chloroethane	20.0	17.0		ug/L		85	52 - 150
Chloroform	20.0	18.3		ug/L		91	80 - 120
Chloromethane	20.0	17.1		ug/L		86	56 - 131
cis-1,2-Dichloroethene	20.0	19.6		ug/L		98	80 - 120
cis-1,3-Dichloropropene	20.0	18.2		ug/L		91	77 - 120
Dichlorobromomethane	20.0	17.6		ug/L		88	76 - 120
Ethylbenzene	20.0	19.5		ug/L		97	80 - 120
Methylene Chloride	20.0	19.2		ug/L		96	77 - 123
Styrene	20.0	19.2		ug/L		96	80 - 120
Tetrachloroethene	20.0	22.5		ug/L		113	78 - 122
Toluene	20.0	18.2		ug/L		91	80 - 120
trans-1,2-Dichloroethene	20.0	18.6		ug/L		93	79 - 120
trans-1,3-Dichloropropene	20.0	17.7		ug/L		89	76 - 120
Trichloroethene	20.0	19.3		ug/L		96	77 - 120
Vinyl chloride	20.0	18.3		ug/L		91	62 - 138
Xylenes, Total	40.0	39.9		ug/L		100	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	95		74 - 132
4-Bromofluorobenzene	104		77 - 124
Dibromofluoromethane (Surr)	103		72 - 131
Toluene-d8 (Surr)	99		80 - 120

Lab Sample ID: 460-149190-4 MS

Matrix: Water

Analysis Batch: 493297

Client Sample ID: FC-MW-109S

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	17.1		ug/L		85	75 - 125
1,1,2,2-Tetrachloroethane	1.0	U	20.0	18.5		ug/L		92	74 - 120
1,1,2-Trichloroethane	1.0	U	20.0	19.9		ug/L		100	78 - 120
1,1-Dichloroethane	1.0	U	20.0	18.8		ug/L		94	77 - 123

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-149190-1

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

Lab Sample ID: 460-149190-4 MS

Matrix: Water

Analysis Batch: 493297

Client Sample ID: FC-MW-109S

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	1.0	U	20.0	16.3		ug/L		82	74 - 123
1,2-Dichloroethane	1.0	U	20.0	17.7		ug/L		89	76 - 121
1,2-Dichloropropane	1.0	U	20.0	19.5		ug/L		97	77 - 123
2-Butanone (MEK)	5.0	U	100	98.0		ug/L		98	64 - 120
2-Hexanone	5.0	U	100	97.1		ug/L		97	71 - 125
4-Methyl-2-pentanone (MIBK)	5.0	U	100	93.0		ug/L		93	78 - 124
Acetone	5.0	U	100	83.2		ug/L		83	39 - 150
Benzene	1.0	U	20.0	17.8		ug/L		89	77 - 121
Bromoform	1.0	U	20.0	16.9		ug/L		84	53 - 120
Bromomethane	1.0	U	20.0	14.4		ug/L		72	10 - 150
Carbon disulfide	1.0	U * F1	20.0	9.54	F1	ug/L		48	69 - 133
Carbon tetrachloride	1.0	U	20.0	18.1		ug/L		91	70 - 132
Chlorobenzene	1.0	U	20.0	20.9		ug/L		105	80 - 120
Chlorodibromomethane	1.0	U	20.0	17.7		ug/L		89	73 - 120
Chloroethane	1.0	U	20.0	15.8		ug/L		79	52 - 150
Chloroform	1.0	U	20.0	18.4		ug/L		92	80 - 120
Chloromethane	1.0	U	20.0	16.0		ug/L		80	56 - 131
cis-1,2-Dichloroethene	1.0	U	20.0	19.5		ug/L		97	80 - 120
cis-1,3-Dichloropropene	1.0	U	20.0	17.3		ug/L		87	77 - 120
Dichlorobromomethane	1.0	U	20.0	16.9		ug/L		85	76 - 120
Ethylbenzene	1.0	U	20.0	19.8		ug/L		99	80 - 120
Methylene Chloride	0.24	J	20.0	19.1		ug/L		95	77 - 123
Styrene	1.0	U	20.0	19.1		ug/L		96	80 - 120
Tetrachloroethene	13		20.0	33.8		ug/L		103	78 - 122
Toluene	1.0	U	20.0	18.4		ug/L		92	80 - 120
trans-1,2-Dichloroethene	1.0	U	20.0	18.3		ug/L		92	79 - 120
trans-1,3-Dichloropropene	1.0	U	20.0	17.1		ug/L		85	76 - 120
Trichloroethene	0.71	J	20.0	19.5		ug/L		94	77 - 120
Vinyl chloride	1.0	U	20.0	17.5		ug/L		87	62 - 138
Xylenes, Total	2.0	U	40.0	39.6		ug/L		99	80 - 120

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	95		74 - 132
4-Bromofluorobenzene	104		77 - 124
Dibromofluoromethane (Surr)	101		72 - 131
Toluene-d8 (Surr)	99		80 - 120

Lab Sample ID: 460-149190-4 MSD

Matrix: Water

Analysis Batch: 493297

Client Sample ID: FC-MW-109S

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	17.6		ug/L		88	75 - 125	3	30
1,1,1,2-Tetrachloroethane	1.0	U	20.0	18.5		ug/L		92	74 - 120	0	30
1,1,2-Trichloroethane	1.0	U	20.0	19.2		ug/L		96	78 - 120	4	30
1,1-Dichloroethane	1.0	U	20.0	19.3		ug/L		97	77 - 123	3	30
1,1-Dichloroethene	1.0	U	20.0	16.2		ug/L		81	74 - 123	1	30
1,2-Dichloroethane	1.0	U	20.0	17.8		ug/L		89	76 - 121	0	30

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-149190-1

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

Lab Sample ID: 460-149190-4 MSD

Matrix: Water

Analysis Batch: 493297

Client Sample ID: FC-MW-109S

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichloropropane	1.0	U	20.0	19.1		ug/L		96	77 - 123	2	30
2-Butanone (MEK)	5.0	U	100	97.7		ug/L		98	64 - 120	0	30
2-Hexanone	5.0	U	100	97.6		ug/L		98	71 - 125	0	30
4-Methyl-2-pentanone (MIBK)	5.0	U	100	92.4		ug/L		92	78 - 124	1	30
Acetone	5.0	U	100	82.1		ug/L		82	39 - 150	1	30
Benzene	1.0	U	20.0	18.8		ug/L		94	77 - 121	6	30
Bromoform	1.0	U	20.0	16.2		ug/L		81	53 - 120	4	30
Bromomethane	1.0	U	20.0	14.7		ug/L		73	10 - 150	2	30
Carbon disulfide	1.0	U * F1	20.0	9.48	F1	ug/L		47	69 - 133	1	30
Carbon tetrachloride	1.0	U	20.0	17.8		ug/L		89	70 - 132	2	30
Chlorobenzene	1.0	U	20.0	20.6		ug/L		103	80 - 120	2	30
Chlorodibromomethane	1.0	U	20.0	17.5		ug/L		88	73 - 120	1	30
Chloroethane	1.0	U	20.0	16.4		ug/L		82	52 - 150	4	30
Chloroform	1.0	U	20.0	19.1		ug/L		95	80 - 120	3	30
Chloromethane	1.0	U	20.0	16.9		ug/L		85	56 - 131	5	30
cis-1,2-Dichloroethene	1.0	U	20.0	19.7		ug/L		99	80 - 120	1	30
cis-1,3-Dichloropropene	1.0	U	20.0	17.2		ug/L		86	77 - 120	1	30
Dichlorobromomethane	1.0	U	20.0	17.0		ug/L		85	76 - 120	0	30
Ethylbenzene	1.0	U	20.0	19.9		ug/L		100	80 - 120	1	30
Methylene Chloride	0.24	J	20.0	19.4		ug/L		96	77 - 123	1	30
Styrene	1.0	U	20.0	18.8		ug/L		94	80 - 120	2	30
Tetrachloroethene	13		20.0	33.7		ug/L		102	78 - 122	0	30
Toluene	1.0	U	20.0	18.3		ug/L		91	80 - 120	1	30
trans-1,2-Dichloroethene	1.0	U	20.0	18.9		ug/L		95	79 - 120	3	30
trans-1,3-Dichloropropene	1.0	U	20.0	16.9		ug/L		85	76 - 120	1	30
Trichloroethene	0.71	J	20.0	19.7		ug/L		95	77 - 120	1	30
Vinyl chloride	1.0	U	20.0	17.9		ug/L		90	62 - 138	3	30
Xylenes, Total	2.0	U	40.0	39.7		ug/L		99	80 - 120	0	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		74 - 132
4-Bromofluorobenzene	103		77 - 124
Dibromofluoromethane (Surr)	106		72 - 131
Toluene-d8 (Surr)	99		80 - 120

Lab Sample ID: MB 460-493603/9

Matrix: Water

Analysis Batch: 493603

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	0.28	ug/L			01/30/18 09:39	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.19	ug/L			01/30/18 09:39	1
1,1,2-Trichloroethane	1.0	U	1.0	0.080	ug/L			01/30/18 09:39	1
1,1-Dichloroethane	1.0	U	1.0	0.24	ug/L			01/30/18 09:39	1
1,1-Dichloroethene	1.0	U	1.0	0.34	ug/L			01/30/18 09:39	1
1,2-Dichloroethane	1.0	U	1.0	0.25	ug/L			01/30/18 09:39	1
1,2-Dichloropropane	1.0	U	1.0	0.18	ug/L			01/30/18 09:39	1
2-Butanone (MEK)	5.0	U	5.0	2.2	ug/L			01/30/18 09:39	1

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-149190-1

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

Lab Sample ID: MB 460-493603/9

Matrix: Water

Analysis Batch: 493603

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Hexanone	5.0	U	5.0	0.72	ug/L			01/30/18 09:39	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.63	ug/L			01/30/18 09:39	1
Acetone	5.0	U	5.0	1.1	ug/L			01/30/18 09:39	1
Benzene	1.0	U	1.0	0.090	ug/L			01/30/18 09:39	1
Bromoform	1.0	U	1.0	0.18	ug/L			01/30/18 09:39	1
Bromomethane	1.0	U	1.0	0.18	ug/L			01/30/18 09:39	1
Carbon disulfide	1.0	U	1.0	0.22	ug/L			01/30/18 09:39	1
Carbon tetrachloride	1.0	U	1.0	0.33	ug/L			01/30/18 09:39	1
Chlorobenzene	1.0	U	1.0	0.24	ug/L			01/30/18 09:39	1
Chlorodibromomethane	1.0	U	1.0	0.22	ug/L			01/30/18 09:39	1
Chloroethane	1.0	U	1.0	0.37	ug/L			01/30/18 09:39	1
Chloroform	1.0	U	1.0	0.22	ug/L			01/30/18 09:39	1
Chloromethane	1.0	U	1.0	0.22	ug/L			01/30/18 09:39	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	ug/L			01/30/18 09:39	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.16	ug/L			01/30/18 09:39	1
Dichlorobromomethane	1.0	U	1.0	0.15	ug/L			01/30/18 09:39	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			01/30/18 09:39	1
Methylene Chloride	1.0	U	1.0	0.21	ug/L			01/30/18 09:39	1
Styrene	1.0	U	1.0	0.17	ug/L			01/30/18 09:39	1
Tetrachloroethene	1.0	U	1.0	0.12	ug/L			01/30/18 09:39	1
Toluene	1.0	U	1.0	0.25	ug/L			01/30/18 09:39	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.18	ug/L			01/30/18 09:39	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			01/30/18 09:39	1
Trichloroethene	1.0	U	1.0	0.22	ug/L			01/30/18 09:39	1
Vinyl chloride	1.0	U	1.0	0.060	ug/L			01/30/18 09:39	1
Xylenes, Total	2.0	U	2.0	0.28	ug/L			01/30/18 09:39	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		74 - 132		01/30/18 09:39	1
4-Bromofluorobenzene	100		77 - 124		01/30/18 09:39	1
Dibromofluoromethane (Surr)	103		72 - 131		01/30/18 09:39	1
Toluene-d8 (Surr)	102		80 - 120		01/30/18 09:39	1

Lab Sample ID: LCS 460-493603/5

Matrix: Water

Analysis Batch: 493603

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	18.2		ug/L		91	75 - 125
1,1,2,2-Tetrachloroethane	20.0	20.5		ug/L		102	74 - 120
1,1,2-Trichloroethane	20.0	21.5		ug/L		107	78 - 120
1,1-Dichloroethane	20.0	21.4		ug/L		107	77 - 123
1,1-Dichloroethene	20.0	20.0		ug/L		100	74 - 123
1,2-Dichloroethane	20.0	18.9		ug/L		94	76 - 121
1,2-Dichloropropane	20.0	21.2		ug/L		106	77 - 123
2-Butanone (MEK)	100	105		ug/L		105	64 - 120
2-Hexanone	100	96.3		ug/L		96	71 - 125
4-Methyl-2-pentanone (MIBK)	100	90.7		ug/L		91	78 - 124

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-149190-1

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

Lab Sample ID: LCS 460-493603/5

Matrix: Water

Analysis Batch: 493603

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	100	96.0		ug/L		96	39 - 150
Benzene	20.0	21.6		ug/L		108	77 - 121
Bromoform	20.0	17.7		ug/L		88	53 - 120
Bromomethane	20.0	14.5		ug/L		72	10 - 150
Carbon disulfide	20.0	20.7		ug/L		104	69 - 133
Carbon tetrachloride	20.0	18.4		ug/L		92	70 - 132
Chlorobenzene	20.0	21.8		ug/L		109	80 - 120
Chlorodibromomethane	20.0	19.2		ug/L		96	73 - 120
Chloroethane	20.0	15.8		ug/L		79	52 - 150
Chloroform	20.0	19.5		ug/L		97	80 - 120
Chloromethane	20.0	19.6		ug/L		98	56 - 131
cis-1,2-Dichloroethene	20.0	21.2		ug/L		106	80 - 120
cis-1,3-Dichloropropene	20.0	21.2		ug/L		106	77 - 120
Dichlorobromomethane	20.0	17.8		ug/L		89	76 - 120
Ethylbenzene	20.0	21.1		ug/L		105	80 - 120
Methylene Chloride	20.0	22.0		ug/L		110	77 - 123
Styrene	20.0	20.2		ug/L		101	80 - 120
Tetrachloroethene	20.0	23.6		ug/L		118	78 - 122
Toluene	20.0	20.8		ug/L		104	80 - 120
trans-1,2-Dichloroethene	20.0	22.2		ug/L		111	79 - 120
trans-1,3-Dichloropropene	20.0	20.3		ug/L		101	76 - 120
Trichloroethene	20.0	20.6		ug/L		103	77 - 120
Vinyl chloride	20.0	20.0		ug/L		100	62 - 138
Xylenes, Total	40.0	41.6		ug/L		104	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		74 - 132
4-Bromofluorobenzene	101		77 - 124
Dibromofluoromethane (Surr)	101		72 - 131
Toluene-d8 (Surr)	107		80 - 120

Lab Sample ID: LCSD 460-493603/6

Matrix: Water

Analysis Batch: 493603

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	18.4		ug/L		92	75 - 125	1	30
1,1,2,2-Tetrachloroethane	20.0	19.8		ug/L		99	74 - 120	3	30
1,1,2-Trichloroethane	20.0	20.4		ug/L		102	78 - 120	5	30
1,1-Dichloroethane	20.0	21.2		ug/L		106	77 - 123	1	30
1,1-Dichloroethene	20.0	19.4		ug/L		97	74 - 123	3	30
1,2-Dichloroethane	20.0	18.4		ug/L		92	76 - 121	3	30
1,2-Dichloropropane	20.0	20.4		ug/L		102	77 - 123	4	30
2-Butanone (MEK)	100	101		ug/L		101	64 - 120	3	30
2-Hexanone	100	96.8		ug/L		97	71 - 125	0	30
4-Methyl-2-pentanone (MIBK)	100	93.6		ug/L		94	78 - 124	3	30
Acetone	100	99.2		ug/L		99	39 - 150	3	30
Benzene	20.0	21.1		ug/L		106	77 - 121	2	30

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-149190-1

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

Lab Sample ID: LCSD 460-493603/6

Matrix: Water

Analysis Batch: 493603

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
Bromoform	20.0	17.2		ug/L		86	53 - 120	3	30
Bromomethane	20.0	15.1		ug/L		76	10 - 150	4	30
Carbon disulfide	20.0	20.7		ug/L		103	69 - 133	0	30
Carbon tetrachloride	20.0	18.5		ug/L		92	70 - 132	0	30
Chlorobenzene	20.0	21.1		ug/L		106	80 - 120	3	30
Chlorodibromomethane	20.0	18.4		ug/L		92	73 - 120	4	30
Chloroethane	20.0	15.8		ug/L		79	52 - 150	0	30
Chloroform	20.0	19.2		ug/L		96	80 - 120	1	30
Chloromethane	20.0	19.8		ug/L		99	56 - 131	1	30
cis-1,2-Dichloroethene	20.0	21.2		ug/L		106	80 - 120	0	30
cis-1,3-Dichloropropene	20.0	19.3		ug/L		97	77 - 120	9	30
Dichlorobromomethane	20.0	17.3		ug/L		87	76 - 120	3	30
Ethylbenzene	20.0	20.7		ug/L		104	80 - 120	2	30
Methylene Chloride	20.0	22.1		ug/L		111	77 - 123	1	30
Styrene	20.0	20.0		ug/L		100	80 - 120	1	30
Tetrachloroethene	20.0	22.2		ug/L		111	78 - 122	6	30
Toluene	20.0	19.8		ug/L		99	80 - 120	5	30
trans-1,2-Dichloroethene	20.0	21.5		ug/L		107	79 - 120	3	30
trans-1,3-Dichloropropene	20.0	18.3		ug/L		92	76 - 120	10	30
Trichloroethene	20.0	20.0		ug/L		100	77 - 120	3	30
Vinyl chloride	20.0	20.5		ug/L		103	62 - 138	2	30
Xylenes, Total	40.0	41.5		ug/L		104	80 - 120	0	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD 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

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 480-398035/3

Matrix: Water

Analysis Batch: 398035

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	4.0	U	4.0	1.0	ug/L			01/31/18 07:14	1
Ethane	7.5	U	7.5	1.5	ug/L			01/31/18 07:14	1
Ethene	7.0	U	7.0	1.5	ug/L			01/31/18 07:14	1

Lab Sample ID: LCS 480-398035/4

Matrix: Water

Analysis Batch: 398035

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methane	7.77	8.42		ug/L		108	85 - 120
Ethane	14.6	15.5		ug/L		107	79 - 120
Ethene	13.6	13.8		ug/L		102	85 - 120

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-149190-1

Lab Sample ID: LCSD 480-398035/5
Matrix: Water
Analysis Batch: 398035

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
Methane	7.77	8.41		ug/L		108	85 - 120	0	50
Ethane	14.6	15.4		ug/L		106	79 - 120	1	50
Ethene	13.6	13.6		ug/L		100	85 - 120	2	50

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 460-494253/1-A ^2
Matrix: Water
Analysis Batch: 494522

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 494253

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	8.0	U	8.0	2.7	ug/L		02/01/18 09:32	02/02/18 04:49	2
Iron	120	U	120	46	ug/L		02/01/18 09:32	02/02/18 04:49	2

Lab Sample ID: LCS 460-494253/2-A ^2
Matrix: Water
Analysis Batch: 494522

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 494253

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Manganese	250	232		ug/L		93	80 - 120
Iron	2500	2300		ug/L		92	80 - 120

Lab Sample ID: 460-149013-F-3-C MS ^2
Matrix: Water
Analysis Batch: 494522

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 494253

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Manganese	33		250	264		ug/L		93	75 - 125
Iron	280		2500	2560		ug/L		91	75 - 125

Lab Sample ID: 460-149013-F-3-B DU ^2
Matrix: Water
Analysis Batch: 494522

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 494253

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Manganese	33		31.6		ug/L		3	20
Iron	280		263		ug/L		7	20

Method: D516-90, 02 - Sulfate

Lab Sample ID: MB 460-495320/23
Matrix: Water
Analysis Batch: 495320

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	5.0	U	5.0	1.4	mg/L			02/06/18 12:44	1

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-149190-1

Method: D516-90, 02 - Sulfate (Continued)

Lab Sample ID: MB 460-495320/3

Matrix: Water

Analysis Batch: 495320

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	5.0	U	5.0	1.4	mg/L			02/06/18 11:14	1

Lab Sample ID: LCSSRM 460-495320/24

Matrix: Water

Analysis Batch: 495320

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	19.8	20.4		mg/L		102.8	83.8 - 112.1

Lab Sample ID: LCSSRM 460-495320/4

Matrix: Water

Analysis Batch: 495320

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	19.8	20.4		mg/L		102.8	83.8 - 112.1

Lab Sample ID: 460-149190-12 MS

Matrix: Water

Analysis Batch: 495320

Client Sample ID: FC-MW-6

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	34	F1	100	158	F1	mg/L		124	85 - 115

Lab Sample ID: 460-149190-12 MSD

Matrix: Water

Analysis Batch: 495320

Client Sample ID: FC-MW-6

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	34	F1	100	151	F1	mg/L		117	85 - 115	5	13

Method: SM 4500 NO3 F - Nitrogen, Nitrate

Lab Sample ID: MB 460-493130/11

Matrix: Water

Analysis Batch: 493130

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.10	U	0.10	0.010	mg/L			01/27/18 02:11	1

Lab Sample ID: 460-149152-J-3 MS

Matrix: Water

Analysis Batch: 493130

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
Nitrate as N	0.010	J	0.500	0.537		mg/L		105	85 - 115

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-149190-1

Method: SM 4500 NO3 F - Nitrogen, Nitrate (Continued)

Lab Sample ID: 460-149152-J-3 MSD

Matrix: Water

Analysis Batch: 493130

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
Nitrate as N	0.010	J	0.500	0.538		mg/L		106	85 - 115	0	17

Method: SM 5310B - Organic Carbon, Total (TOC)

Lab Sample ID: MB 460-495526/19

Matrix: Water

Analysis Batch: 495526

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	1.0	U	1.0	0.22	mg/L			02/06/18 23:12	1

Lab Sample ID: LCSSRM 460-495526/20

Matrix: Water

Analysis Batch: 495526

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	39.1	39.7		mg/L		101.5	83.9 - 115.0

Lab Sample ID: 460-149273-A-1 MS

Matrix: Water

Analysis Batch: 495526

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
Total Organic Carbon	0.61	J	50.0	53.2		mg/L		105	85 - 115

Lab Sample ID: 460-149273-A-1 MSD

Matrix: Water

Analysis Batch: 495526

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
Total Organic Carbon	0.61	J	50.0	53.3		mg/L		105	85 - 115	0	10

TestAmerica Edison

QC Association Summary

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-149190-1

GC/MS VOA

Analysis Batch: 493297

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-149190-2	FC-TB012518	Total/NA	Water	8260C	
460-149190-4	FC-MW-109S	Total/NA	Water	8260C	
460-149190-5	FC-MW-109S-D	Total/NA	Water	8260C	
460-149190-6	FC-MW-3	Total/NA	Water	8260C	
460-149190-7	FC-MW-107D	Total/NA	Water	8260C	
460-149190-8	FC-MW-9	Total/NA	Water	8260C	
460-149190-10	FC-MW-8	Total/NA	Water	8260C	
460-149190-11	FC-EB-012618	Total/NA	Water	8260C	
MB 460-493297/9	Method Blank	Total/NA	Water	8260C	
LCS 460-493297/5	Lab Control Sample	Total/NA	Water	8260C	
460-149190-4 MS	FC-MW-109S	Total/NA	Water	8260C	
460-149190-4 MSD	FC-MW-109S	Total/NA	Water	8260C	

Analysis Batch: 493603

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-149190-1	FC-MW-104D	Total/NA	Water	8260C	
460-149190-3	FC-MW-104S	Total/NA	Water	8260C	
460-149190-9	FC-MW-108D	Total/NA	Water	8260C	
460-149190-12	FC-MW-6	Total/NA	Water	8260C	
MB 460-493603/9	Method Blank	Total/NA	Water	8260C	
LCS 460-493603/5	Lab Control Sample	Total/NA	Water	8260C	
LCSD 460-493603/6	Lab Control Sample Dup	Total/NA	Water	8260C	

GC VOA

Analysis Batch: 398035

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-149190-1	FC-MW-104D	Total/NA	Water	RSK-175	
460-149190-3	FC-MW-104S	Total/NA	Water	RSK-175	
460-149190-12	FC-MW-6	Total/NA	Water	RSK-175	
MB 480-398035/3	Method Blank	Total/NA	Water	RSK-175	
LCS 480-398035/4	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 480-398035/5	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Metals

Prep Batch: 494253

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-149190-1	FC-MW-104D	Total/NA	Water	3010A	
460-149190-3	FC-MW-104S	Total/NA	Water	3010A	
460-149190-12	FC-MW-6	Total/NA	Water	3010A	
MB 460-494253/1-A ^2	Method Blank	Total/NA	Water	3010A	
LCS 460-494253/2-A ^2	Lab Control Sample	Total/NA	Water	3010A	
460-149013-F-3-C MS ^2	Matrix Spike	Total/NA	Water	3010A	
460-149013-F-3-B DU ^2	Duplicate	Total/NA	Water	3010A	

Analysis Batch: 494522

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 460-494253/1-A ^2	Method Blank	Total/NA	Water	6020A	494253
LCS 460-494253/2-A ^2	Lab Control Sample	Total/NA	Water	6020A	494253

TestAmerica Edison

QC Association Summary

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-149190-1

Metals (Continued)

Analysis Batch: 494522 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-149013-F-3-C MS ^2	Matrix Spike	Total/NA	Water	6020A	494253
460-149013-F-3-B DU ^2	Duplicate	Total/NA	Water	6020A	494253

Analysis Batch: 494597

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-149190-1	FC-MW-104D	Total/NA	Water	6020A	494253
460-149190-3	FC-MW-104S	Total/NA	Water	6020A	494253
460-149190-12	FC-MW-6	Total/NA	Water	6020A	494253

General Chemistry

Analysis Batch: 493130

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-149190-1	FC-MW-104D	Total/NA	Water	SM 4500 NO3 F	
460-149190-3	FC-MW-104S	Total/NA	Water	SM 4500 NO3 F	
460-149190-12	FC-MW-6	Total/NA	Water	SM 4500 NO3 F	
MB 460-493130/11	Method Blank	Total/NA	Water	SM 4500 NO3 F	
LCSSRM 460-493130/13	Lab Control Sample	Total/NA	Water	SM 4500 NO3 F	
460-149152-J-3 MS	Matrix Spike	Total/NA	Water	SM 4500 NO3 F	
460-149152-J-3 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 NO3 F	

Analysis Batch: 495320

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-149190-1	FC-MW-104D	Total/NA	Water	D516-90, 02	
460-149190-3	FC-MW-104S	Total/NA	Water	D516-90, 02	
460-149190-12	FC-MW-6	Total/NA	Water	D516-90, 02	
MB 460-495320/23	Method Blank	Total/NA	Water	D516-90, 02	
MB 460-495320/3	Method Blank	Total/NA	Water	D516-90, 02	
LCSSRM 460-495320/24	Lab Control Sample	Total/NA	Water	D516-90, 02	
LCSSRM 460-495320/4	Lab Control Sample	Total/NA	Water	D516-90, 02	
460-149190-12 MS	FC-MW-6	Total/NA	Water	D516-90, 02	
460-149190-12 MSD	FC-MW-6	Total/NA	Water	D516-90, 02	

Analysis Batch: 495526

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-149190-1	FC-MW-104D	Total/NA	Water	SM 5310B	
460-149190-3	FC-MW-104S	Total/NA	Water	SM 5310B	
460-149190-12	FC-MW-6	Total/NA	Water	SM 5310B	
MB 460-495526/19	Method Blank	Total/NA	Water	SM 5310B	
LCSSRM 460-495526/20	Lab Control Sample	Total/NA	Water	SM 5310B	
460-149273-A-1 MS	Matrix Spike	Total/NA	Water	SM 5310B	
460-149273-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5310B	

TestAmerica Edison

Lab Chronicle

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-149190-1

Client Sample ID: FC-MW-104D

Date Collected: 01/25/18 08:35

Date Received: 01/26/18 17:06

Lab Sample ID: 460-149190-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2	493603	01/30/18 10:50	CJM	TAL EDI
Total/NA	Analysis	RSK-175		1	398035	01/31/18 09:19	TRG	TAL BUF
Total/NA	Prep	3010A			494253	02/01/18 09:32	QZY	TAL EDI
Total/NA	Analysis	6020A		2	494597	02/02/18 12:44	MDC	TAL EDI
Total/NA	Analysis	D516-90, 02		2	495320	02/06/18 12:46	RAK	TAL EDI
Total/NA	Analysis	SM 4500 NO3 F		10	493130	01/27/18 02:22	KYN	TAL EDI
Total/NA	Analysis	SM 5310B		1	495526	02/07/18 03:10	JXT	TAL EDI

Client Sample ID: FC-TB012518

Date Collected: 01/25/18 08:35

Date Received: 01/26/18 17:06

Lab Sample ID: 460-149190-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	493297	01/29/18 14:34	CJM	TAL EDI

Client Sample ID: FC-MW-104S

Date Collected: 01/25/18 10:35

Date Received: 01/26/18 17:06

Lab Sample ID: 460-149190-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2	493603	01/30/18 11:13	CJM	TAL EDI
Total/NA	Analysis	RSK-175		1	398035	01/31/18 09:37	TRG	TAL BUF
Total/NA	Prep	3010A			494253	02/01/18 09:40	QZY	TAL EDI
Total/NA	Analysis	6020A		2	494597	02/02/18 12:47	MDC	TAL EDI
Total/NA	Analysis	D516-90, 02		1	495320	02/06/18 11:58	RAK	TAL EDI
Total/NA	Analysis	SM 4500 NO3 F		10	493130	01/27/18 02:23	KYN	TAL EDI
Total/NA	Analysis	SM 5310B		1	495526	02/07/18 03:29	JXT	TAL EDI

Client Sample ID: FC-MW-109S

Date Collected: 01/25/18 12:10

Date Received: 01/26/18 17:06

Lab Sample ID: 460-149190-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	493297	01/29/18 14:58	CJM	TAL EDI

Client Sample ID: FC-MW-109S-D

Date Collected: 01/25/18 12:10

Date Received: 01/26/18 17:06

Lab Sample ID: 460-149190-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	493297	01/29/18 17:41	CJM	TAL EDI

TestAmerica Edison

Lab Chronicle

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-149190-1

Client Sample ID: FC-MW-3

Date Collected: 01/25/18 14:05

Date Received: 01/26/18 17:06

Lab Sample ID: 460-149190-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	493297	01/29/18 18:04	CJM	TAL EDI

Client Sample ID: FC-MW-107D

Date Collected: 01/25/18 15:25

Date Received: 01/26/18 17:06

Lab Sample ID: 460-149190-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	493297	01/29/18 16:08	CJM	TAL EDI

Client Sample ID: FC-MW-9

Date Collected: 01/26/18 09:25

Date Received: 01/26/18 17:06

Lab Sample ID: 460-149190-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	493297	01/29/18 16:31	CJM	TAL EDI

Client Sample ID: FC-MW-108D

Date Collected: 01/26/18 11:25

Date Received: 01/26/18 17:06

Lab Sample ID: 460-149190-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	493603	01/30/18 10:02	CJM	TAL EDI

Client Sample ID: FC-MW-8

Date Collected: 01/26/18 12:35

Date Received: 01/26/18 17:06

Lab Sample ID: 460-149190-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	493297	01/29/18 17:17	CJM	TAL EDI

Client Sample ID: FC-EB-012618

Date Collected: 01/26/18 13:25

Date Received: 01/26/18 17:06

Lab Sample ID: 460-149190-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	493297	01/29/18 15:21	CJM	TAL EDI

TestAmerica Edison

Lab Chronicle

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-149190-1

Client Sample ID: FC-MW-6

Lab Sample ID: 460-149190-12

Date Collected: 01/26/18 14:40

Matrix: Water

Date Received: 01/26/18 17:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2	493603	01/30/18 10:27	CJM	TAL EDI
Total/NA	Analysis	RSK-175		1	398035	01/31/18 09:54	TRG	TAL BUF
Total/NA	Prep	3010A			494253	02/01/18 09:40	QZY	TAL EDI
Total/NA	Analysis	6020A		2	494597	02/02/18 12:50	MDC	TAL EDI
Total/NA	Analysis	D516-90, 02		1	495320	02/06/18 12:44	RAK	TAL EDI
Total/NA	Analysis	SM 4500 NO3 F		5	493130	01/27/18 02:26	KYN	TAL EDI
Total/NA	Analysis	SM 5310B		1	495526	02/07/18 03:47	JXT	TAL EDI

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

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

Accreditation/Certification Summary

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-149190-1

Laboratory: TestAmerica Edison

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

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

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Water	Iron
6020A	3010A	Water	Manganese

Laboratory: TestAmerica Buffalo

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	88-0686	07-06-19
California	State Program	9	2931	04-01-19
Connecticut	State Program	1	PH-0568	09-30-18 *
Florida	NELAP	4	E87672	06-30-19
Georgia	State Program	4	10026 (NY)	03-31-19
Illinois	NELAP	5	200003	09-30-18
Iowa	State Program	7	374	03-01-19
Kansas	NELAP	7	E-10187	01-31-19
Kentucky (DW)	State Program	4	90029	12-31-18
Kentucky (UST)	State Program	4	30	03-31-19
Kentucky (WW)	State Program	4	90029	12-31-18
Louisiana	NELAP	6	02031	06-30-19
Maine	State Program	1	NY00044	12-04-18
Maryland	State Program	3	294	03-31-19
Massachusetts	State Program	1	M-NY044	06-30-19
Michigan	State Program	5	9937	03-31-19
Minnesota	NELAP	5	036-999-337	12-31-18
New Hampshire	NELAP	1	2337	11-17-18
New Jersey	NELAP	2	NY455	06-30-19
New York	NELAP	2	10026	03-31-19
North Dakota	State Program	8	R-176	03-31-19
Oklahoma	State Program	6	9421	08-31-18 *
Oregon	NELAP	10	NY200003	06-09-19
Pennsylvania	NELAP	3	68-00281	07-31-19
Rhode Island	State Program	1	LAO00328	12-30-18
Tennessee	State Program	4	TN02970	03-31-19
Texas	NELAP	6	T104704412-15-6	07-31-19
USDA	Federal		P330-11-00386	02-06-21
Virginia	NELAP	3	460185	09-14-18 *
Washington	State Program	10	C784	02-10-19
Wisconsin	State Program	5	998310390	08-31-18 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Edison

Method Summary

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-149190-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
RSK-175	Dissolved Gases (GC)	RSK	TAL BUF
6020A	Metals (ICP/MS)	SW846	TAL EDI
D516-90, 02	Sulfate	ASTM	TAL EDI
SM 4500 NO3 F	Nitrogen, Nitrate	SM	TAL EDI
SM 5310B	Organic Carbon, Total (TOC)	SM	TAL EDI
3010A	Preparation, Total Metals	SW846	TAL EDI
5030C	Purge and Trap	SW846	TAL EDI

Protocol References:

ASTM = ASTM International

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

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

Sample Summary

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-149190-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-149190-1	FC-MW-104D	Water	01/25/18 08:35	01/26/18 17:06
460-149190-2	FC-TB012518	Water	01/25/18 08:35	01/26/18 17:06
460-149190-3	FC-MW-104S	Water	01/25/18 10:35	01/26/18 17:06
460-149190-4	FC-MW-109S	Water	01/25/18 12:10	01/26/18 17:06
460-149190-5	FC-MW-109S-D	Water	01/25/18 12:10	01/26/18 17:06
460-149190-6	FC-MW-3	Water	01/25/18 14:05	01/26/18 17:06
460-149190-7	FC-MW-107D	Water	01/25/18 15:25	01/26/18 17:06
460-149190-8	FC-MW-9	Water	01/26/18 09:25	01/26/18 17:06
460-149190-9	FC-MW-108D	Water	01/26/18 11:25	01/26/18 17:06
460-149190-10	FC-MW-8	Water	01/26/18 12:35	01/26/18 17:06
460-149190-11	FC-EB-012618	Water	01/26/18 13:25	01/26/18 17:06
460-149190-12	FC-MW-6	Water	01/26/18 14:40	01/26/18 17:06

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

Page 1 of 2

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

Name (for report and invoice) <i>Allyson Kinney</i>		Samplers Name (Printed) <i>Zahar Larry</i>		Site/Project Identification <i>FCPS</i>	
Company <i>Parsons</i>		P.O. #		State (Location of site): NJ: ☐ NY: ☒ Other: ☐	
Address <i>200 Catantail Ln.</i>		Analysis Turnaround Time Standard ☒ Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☐		Regulatory Program:	
City <i>Somerset</i>		State <i>NJ</i>		LAB USE ONLY Project No:	
Phone <i>609 713 3222</i>		Fax		Job No: <i>149190</i>	
Sample Identification		Date	Time	Matrix	No. of Cont.
<i>FC-MW-1040</i>	<i>1/25/18</i>	<i>0835</i>	<i>Hydro</i>	<i>9</i>	<i>1</i>
<i>FC-TPB012518</i>	<i>1/25/18</i>	<i>0835</i>		<i>2</i>	<i>2</i>
<i>FC-MW-1045</i>	<i>1/25/18</i>	<i>1035</i>		<i>9</i>	<i>3</i>
<i>FC-MW-1095</i>	<i>1/25/18</i>	<i>1210</i>		<i>3</i>	<i>4</i>
<i>FC-MW-1095-MS</i>	<i>1/25/18</i>	<i>1210</i>		<i>3</i>	<i>4</i>
<i>FC-MW-1095-MSD</i>	<i>1/25/18</i>	<i>1210</i>		<i>3</i>	<i>4</i>
<i>FC-MW-1095-D</i>	<i>1/25/18</i>	<i>1210</i>		<i>3</i>	<i>5</i>
<i>FC-MW-1-3</i>	<i>1/25/18</i>	<i>1405</i>		<i>3</i>	<i>6</i>
<i>FC-MW-1070</i>	<i>1/25/18</i>	<i>1525</i>		<i>3</i>	<i>7</i>
<i>FC-MW-9</i>	<i>1/26/18</i>	<i>0925</i>	<i>X</i>	<i>3</i>	<i>8</i>

Preservation Used: 1 = ICE, 2 = HCl, 3 = H₂SO₄, 4 = HNO₃, 5 = NaOH
Soil: ☐ Water: ☐

6 = Other ☐ 7 = Other ☐



460-149190 Chain of Custody

Special Instructions

Water Metals Filtered (Yes/No)?

Relinquished by <i>[Signature]</i>	Company <i>Parsons</i>	Date / Time <i>1/26/18 1700</i>	Received by <i>[Signature]</i>	Company <i>TAEL</i>	1/26/18 17:00
Relinquished by	Company	Date / Time	Received by	Company	
Relinquished by	Company	Date / Time	Received by	Company	
Relinquished by	Company	Date / Time	Received by	Company	

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).

TAL - 0016 (0715)

Massachusetts (M-NJ312), North Carolina (No. 578)

5.3 °C IR #11 NCCS

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

Page 2 of 2

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

Name (for report and invoice) <i>Allyson Krney</i>		Samplers Name (Printed) <i>Zachary Lary</i>		Site/Project Identification <i>FLPS</i>	
Company <i>Pursons</i>		P. O. #		State (Location of site): NJ: ☐ NY: ☒ Other: ☐	
Address <i>200 Catantail Ln.</i>		Analysis Turnaround Time Standard ☒ Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☐		Regulatory Program: ☐ DKQP: ☐	
City <i>Somerset</i>		Fax <i>609 713 3222</i>		LAB USE ONLY Job No: <i>149140</i> Project No:	
Sample Identification		Date	Time	Matrix	No. of Cont.
<i>FL-MW-1080</i>	<i>1/26/18</i>	<i>12:25</i>	<i>4pm</i>	<i>3</i>	<i>9</i>
<i>FL-MW-8</i>	<i>1/26/18</i>	<i>12:35</i>	<i>1</i>	<i>3</i>	<i>10</i>
<i>FL-EG-012618</i>	<i>1/26/18</i>	<i>13:25</i>	<i>1</i>	<i>2</i>	<i>11</i>
<i>FL-MW-6</i>	<i>1/26/18</i>	<i>14:40</i>	<i>1</i>	<i>9</i>	<i>12</i>
Preservation Used: 1 = ICE, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH Soil: ☐ Water: ☐					

Special Instructions

Water Metals Filtered (Yes/No)?

Relinquished by <i>[Signature]</i>	Company <i>Pursons</i>	Date / Time <i>1/26/18 1:00</i>	Received by <i>1) Paul Swail</i>	Company <i>RAE</i>	Date / Time <i>1/26/18</i>
Relinquished by	Company	Date / Time	Received by <i>2)</i>	Company	Date / Time
Relinquished by	Company	Date / Time	Received by <i>3)</i>	Company	Date / Time
Relinquished by	Company	Date / Time	Received by <i>4)</i>	Company	Date / Time

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)

Login Sample Receipt Checklist

Client: Parsons Corporation

Job Number: 460-149190-1

Login Number: 149190

List Source: TestAmerica Edison

List Number: 1

Creator: Infante, Warleny M

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	

Login Sample Receipt Checklist

Client: Parsons Corporation

Job Number: 460-149190-1

Login Number: 149190

List Number: 2

Creator: Kolb, Chris M

List Source: TestAmerica Buffalo

List Creation: 01/30/18 11:57 AM

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is 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	2.0 IR GUN #1 ICE
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 sample IDs on the containers 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	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	N/A	
Samples received within 48 hours of sampling.	False	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Edison

777 New Durham Road

Edison, NJ 08817

Tel: (732)549-3900

TestAmerica Job ID: 460-160904-1

Client Project/Site: Former Cleaner Project - Woodside, NY

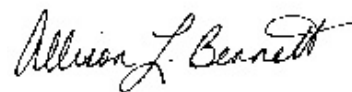
For:

Parsons Corporation

200 Cottontail Lane

Somerset, New Jersey 08873

Attn: Ms. Allyson Kriney



Authorized for release by:

8/20/2018 6:59:18 PM

Allison Bennett, Project Manager I

(732)549-3900

allison.bennett@testamericainc.com

LINKS

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results through

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www.testamericainc.com

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.

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Definitions/Glossary

Client: Parsons Corporation
Project/Site: Former Cleaner Project - Woodside, NY

TestAmerica Job ID: 460-160904-1

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 VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

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.
H	Sample was prepped or analyzed beyond the specified holding time

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)
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: Former Cleaner Project - Woodside, NY

TestAmerica Job ID: 460-160904-1

Job ID: 460-160904-1

Laboratory: TestAmerica Edison

Narrative

CASE NARRATIVE

Client: Parsons Corporation

Project: Former Cleaner Project - Woodside, NY

Report Number: 460-160904-1

Revision 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.

Revision 1 - Per client request, the data has been revised to report non-detected results to the RL vs. MDL.

RECEIPT

The samples were received on 7/20/2018 9:25 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.3° C.

Receipt Exceptions

The following sample(s) was received with less than 2 days remaining on the holding time or less than one shift (8 hours) remaining on a test with a holding time of 48 hours or less. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: sample #6 for Nitrate.

One or more containers for the following sample(s) was received broken: one vial from sample #2 and one vial from sample #4.

The following samples were approved for the continuation of the nitrate analysis out of hold time by the client on July 23, 2018: FC-MW-103S (460-160904-5), FC-MW-5 (460-160904-6), FC-MW-104S (460-160904-7), FC-MW-104D (460-160904-8), FC-MW-6 (460-160904-10) and FC-EB-071718 (460-160904-12).

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 FC-MW-7 (460-160904-1), FC-MW-7-D (460-160904-2), FC-MW-8 (460-160904-3), FC-MW-108D (460-160904-4), FC-MW-103S (460-160904-5), FC-MW-5 (460-160904-6), FC-MW-104S (460-160904-7), FC-MW-104D (460-160904-8), FC-MW-107D (460-160904-9), FC-MW-6 (460-160904-10), FC-TB071718 (460-160904-11) and FC-EB-071718 (460-160904-12) were analyzed for Volatile organic compounds (GC-MS) in accordance with EPA SW-846 Methods 8260C. The samples were analyzed on 07/27/2018 and 07/28/2018.

Case Narrative

Client: Parsons Corporation
Project/Site: Former Cleaner Project - Woodside, NY

TestAmerica Job ID: 460-160904-1

Job ID: 460-160904-1 (Continued)

Laboratory: TestAmerica Edison (Continued)

Sample FC-MW-104S (460-160904-7)[2X] required dilution prior to analysis to bring the concentration of target analytes within the calibration range. The reporting limits have been adjusted accordingly.

No difficulties were encountered during the volatiles analysis.

All quality control parameters were within the acceptance limits.

DISSOLVED GASES

Samples FC-MW-103S (460-160904-5), FC-MW-5 (460-160904-6), FC-MW-104S (460-160904-7), FC-MW-104D (460-160904-8), FC-MW-6 (460-160904-10) and FC-EB-071718 (460-160904-12) were analyzed for dissolved gases in accordance with RSK_175. The samples were analyzed on 07/24/2018.

No difficulties were encountered during the dissolved gases analysis.

All quality control parameters were within the acceptance limits.

METALS

Samples FC-MW-103S (460-160904-5), FC-MW-5 (460-160904-6), FC-MW-104S (460-160904-7), FC-MW-104D (460-160904-8), FC-MW-6 (460-160904-10) and FC-EB-071718 (460-160904-12) were analyzed for Metals in accordance with 6020B. The samples were prepared and analyzed on 07/24/2018.

No difficulties were encountered during the Metals analysis.

All quality control parameters were within the acceptance limits.

SULFATE

Samples FC-MW-103S (460-160904-5), FC-MW-5 (460-160904-6), FC-MW-104S (460-160904-7), FC-MW-104D (460-160904-8), FC-MW-6 (460-160904-10) and FC-EB-071718 (460-160904-12) were analyzed for sulfate in accordance with ASTM Method D516-90. The samples were analyzed on 07/24/2018.

Samples FC-MW-103S (460-160904-5)[5X] and FC-MW-104D (460-160904-8)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No difficulties were encountered during the sulfate analysis.

All quality control parameters were within the acceptance limits.

NITROGEN-NITRATE

Samples FC-MW-103S (460-160904-5), FC-MW-5 (460-160904-6), FC-MW-104S (460-160904-7), FC-MW-104D (460-160904-8), FC-MW-6 (460-160904-10) and FC-EB-071718 (460-160904-12) were analyzed for Nitrogen-Nitrate in accordance with SM 4500 NO3 F. The samples were analyzed on 07/20/2018.

The following sample(s) was received with less than 2 days remaining on the holding time or less than one shift (8 hours) remaining on a test with a holding time of 48 hours or less. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: sample #6 for Nitrate.

Samples FC-MW-103S (460-160904-5)[10X], FC-MW-5 (460-160904-6)[5X], FC-MW-104S (460-160904-7)[5X] and FC-MW-104D (460-160904-8)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No difficulties were encountered during the nitrate analysis.

All quality control parameters were within the acceptance limits.

TOTAL ORGANIC CARBON

Case Narrative

Client: Parsons Corporation
Project/Site: Former Cleaner Project - Woodside, NY

TestAmerica Job ID: 460-160904-1

Job ID: 460-160904-1 (Continued)

Laboratory: TestAmerica Edison (Continued)

Samples FC-MW-103S (460-160904-5), FC-MW-5 (460-160904-6), FC-MW-104S (460-160904-7), FC-MW-104D (460-160904-8), FC-MW-6 (460-160904-10) and FC-EB-071718 (460-160904-12) were analyzed for total organic carbon in accordance with SM 5310B. The samples were analyzed on 07/27/2018.

No difficulties were encountered during the TOC analysis.

All quality control parameters were within the acceptance limits.

Detection Summary

Client: Parsons Corporation
Project/Site: Former Cleaner Project - Woodside, NY

TestAmerica Job ID: 460-160904-1

Client Sample ID: FC-MW-7

Lab Sample ID: 460-160904-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	9.5		5.0	5.0	ug/L	1		8260C	Total/NA
Chloroform	32		1.0	0.33	ug/L	1		8260C	Total/NA
Dichlorobromomethane	2.6		1.0	0.34	ug/L	1		8260C	Total/NA

Client Sample ID: FC-MW-7-D

Lab Sample ID: 460-160904-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	13		5.0	5.0	ug/L	1		8260C	Total/NA
Chloroform	34		1.0	0.33	ug/L	1		8260C	Total/NA
Dichlorobromomethane	2.8		1.0	0.34	ug/L	1		8260C	Total/NA

Client Sample ID: FC-MW-8

Lab Sample ID: 460-160904-3

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

Client Sample ID: FC-MW-108D

Lab Sample ID: 460-160904-4

No Detections.

Client Sample ID: FC-MW-103S

Lab Sample ID: 460-160904-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.40	J	1.0	0.33	ug/L	1		8260C	Total/NA
Tetrachloroethene	12		1.0	0.25	ug/L	1		8260C	Total/NA
Manganese	14		8.0	2.7	ug/L	2		6020B	Total/NA
Iron	640		120	46	ug/L	2		6020B	Total/NA
Sulfate	53		25	6.8	mg/L	5		D516-90, 02	Total/NA
Nitrate as N	6.6	H	1.0	0.10	mg/L	10		SM 4500 NO3 F	Total/NA
Total Organic Carbon	1.6		1.0	0.22	mg/L	1		SM 5310B	Total/NA

Client Sample ID: FC-MW-5

Lab Sample ID: 460-160904-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.57	J	1.0	0.33	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	20		1.0	0.22	ug/L	1		8260C	Total/NA
Tetrachloroethene	260		1.0	0.25	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	0.90	J	1.0	0.24	ug/L	1		8260C	Total/NA
Trichloroethene	44		1.0	0.31	ug/L	1		8260C	Total/NA
Manganese	12		8.0	2.7	ug/L	2		6020B	Total/NA
Iron	310		120	46	ug/L	2		6020B	Total/NA
Sulfate	37		5.0	1.4	mg/L	1		D516-90, 02	Total/NA
Nitrate as N	3.5	H	0.50	0.050	mg/L	5		SM 4500 NO3 F	Total/NA
Total Organic Carbon	0.91	J	1.0	0.22	mg/L	1		SM 5310B	Total/NA

Client Sample ID: FC-MW-104S

Lab Sample ID: 460-160904-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	2.3		2.0	0.23	ug/L	2		8260C	Total/NA
Chloroform	0.80	J	2.0	0.65	ug/L	2		8260C	Total/NA
cis-1,2-Dichloroethene	840		2.0	0.44	ug/L	2		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Edison

Detection Summary

Client: Parsons Corporation
Project/Site: Former Cleaner Project - Woodside, NY

TestAmerica Job ID: 460-160904-1

Client Sample ID: FC-MW-104S (Continued)

Lab Sample ID: 460-160904-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Tetrachloroethene	130		2.0	0.50	ug/L	2			8260C	Total/NA
trans-1,2-Dichloroethene	30		2.0	0.47	ug/L	2			8260C	Total/NA
Trichloroethene	180		2.0	0.63	ug/L	2			8260C	Total/NA
Vinyl chloride	0.63	J	2.0	0.34	ug/L	2			8260C	Total/NA
Methane	320		4.0	1.0	ug/L	1			RSK-175	Total/NA
Manganese	170		8.0	2.7	ug/L	2			6020B	Total/NA
Iron	3900		120	46	ug/L	2			6020B	Total/NA
Sulfate	22		5.0	1.4	mg/L	1			D516-90, 02	Total/NA
Nitrate as N	3.1		0.50	0.050	mg/L	5			SM 4500 NO3 F	Total/NA
Total Organic Carbon	1.3		1.0	0.22	mg/L	1			SM 5310B	Total/NA

Client Sample ID: FC-MW-104D

Lab Sample ID: 460-160904-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloroform	0.76	J	1.0	0.33	ug/L	1			8260C	Total/NA
cis-1,2-Dichloroethene	39		1.0	0.22	ug/L	1			8260C	Total/NA
Tetrachloroethene	180		1.0	0.25	ug/L	1			8260C	Total/NA
trans-1,2-Dichloroethene	1.6		1.0	0.24	ug/L	1			8260C	Total/NA
Trichloroethene	56		1.0	0.31	ug/L	1			8260C	Total/NA
Manganese	2600		8.0	2.7	ug/L	2			6020B	Total/NA
Iron	13000		120	46	ug/L	2			6020B	Total/NA
Sulfate	60		25	6.8	mg/L	5			D516-90, 02	Total/NA
Nitrate as N	6.3		1.0	0.10	mg/L	10			SM 4500 NO3 F	Total/NA
Total Organic Carbon	1.2		1.0	0.22	mg/L	1			SM 5310B	Total/NA

Client Sample ID: FC-MW-107D

Lab Sample ID: 460-160904-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloroform	0.57	J	1.0	0.33	ug/L	1			8260C	Total/NA
Tetrachloroethene	0.98	J	1.0	0.25	ug/L	1			8260C	Total/NA
Trichloroethene	6.3		1.0	0.31	ug/L	1			8260C	Total/NA

Client Sample ID: FC-MW-6

Lab Sample ID: 460-160904-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloroform	0.47	J	1.0	0.33	ug/L	1			8260C	Total/NA
cis-1,2-Dichloroethene	0.90	J	1.0	0.22	ug/L	1			8260C	Total/NA
Tetrachloroethene	120		1.0	0.25	ug/L	1			8260C	Total/NA
Trichloroethene	10		1.0	0.31	ug/L	1			8260C	Total/NA
Manganese	96		8.0	2.7	ug/L	2			6020B	Total/NA
Iron	4700		120	46	ug/L	2			6020B	Total/NA
Sulfate	13		5.0	1.4	mg/L	1			D516-90, 02	Total/NA
Nitrate as N	0.25		0.10	0.010	mg/L	1			SM 4500 NO3 F	Total/NA
Total Organic Carbon	2.1		1.0	0.22	mg/L	1			SM 5310B	Total/NA

Client Sample ID: FC-TB071718

Lab Sample ID: 460-160904-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Methylene Chloride	4.3		1.0	0.32	ug/L	1			8260C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Edison

Detection Summary

Client: Parsons Corporation
Project/Site: Former Cleaner Project - Woodside, NY

TestAmerica Job ID: 460-160904-1

Client Sample ID: FC-EB-071718

Lab Sample ID: 460-160904-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	5.6		5.0	5.0	ug/L	1		8260C	Total/NA
Methylene Chloride	4.3		1.0	0.32	ug/L	1		8260C	Total/NA
Total Organic Carbon	0.43	J	1.0	0.22	mg/L	1		SM 5310B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Former Cleaner Project - Woodside, NY

TestAmerica Job ID: 460-160904-1

Client Sample ID: FC-MW-7

Date Collected: 07/17/18 10:25

Date Received: 07/20/18 09:25

Lab Sample ID: 460-160904-1

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			07/28/18 00:29	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			07/28/18 00:29	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			07/28/18 00:29	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			07/28/18 00:29	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			07/28/18 00:29	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			07/28/18 00:29	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			07/28/18 00:29	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			07/28/18 00:29	1
2-Hexanone	5.0	U	5.0	2.9	ug/L			07/28/18 00:29	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.7	ug/L			07/28/18 00:29	1
Acetone	9.5		5.0	5.0	ug/L			07/28/18 00:29	1
Benzene	1.0	U	1.0	0.43	ug/L			07/28/18 00:29	1
Bromoform	1.0	U	1.0	0.54	ug/L			07/28/18 00:29	1
Bromomethane	1.0	U	1.0	1.0	ug/L			07/28/18 00:29	1
Carbon disulfide	1.0	U	1.0	0.16	ug/L			07/28/18 00:29	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			07/28/18 00:29	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			07/28/18 00:29	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			07/28/18 00:29	1
Chloroethane	1.0	U	1.0	0.32	ug/L			07/28/18 00:29	1
Chloroform	32		1.0	0.33	ug/L			07/28/18 00:29	1
Chloromethane	1.0	U	1.0	0.14	ug/L			07/28/18 00:29	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			07/28/18 00:29	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			07/28/18 00:29	1
Dichlorobromomethane	2.6		1.0	0.34	ug/L			07/28/18 00:29	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			07/28/18 00:29	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			07/28/18 00:29	1
Styrene	1.0	U	1.0	0.42	ug/L			07/28/18 00:29	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			07/28/18 00:29	1
Toluene	1.0	U	1.0	0.38	ug/L			07/28/18 00:29	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			07/28/18 00:29	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			07/28/18 00:29	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			07/28/18 00:29	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			07/28/18 00:29	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			07/28/18 00:29	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Isopropyl alcohol	33		ug/L		3.00	67-63-0		07/28/18 00:29	1
Tentatively Identified Compound	None		ug/L					07/28/18 00:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		74 - 132		07/28/18 00:29	1
4-Bromofluorobenzene	101		77 - 124		07/28/18 00:29	1
Dibromofluoromethane (Surr)	98		72 - 131		07/28/18 00:29	1
Toluene-d8 (Surr)	100		80 - 120		07/28/18 00:29	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Former Cleaner Project - Woodside, NY

TestAmerica Job ID: 460-160904-1

Client Sample ID: FC-MW-7-D

Lab Sample ID: 460-160904-2

Date Collected: 07/17/18 10:25

Matrix: Water

Date Received: 07/20/18 09:25

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			07/28/18 00:07	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			07/28/18 00:07	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			07/28/18 00:07	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			07/28/18 00:07	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			07/28/18 00:07	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			07/28/18 00:07	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			07/28/18 00:07	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			07/28/18 00:07	1
2-Hexanone	5.0	U	5.0	2.9	ug/L			07/28/18 00:07	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.7	ug/L			07/28/18 00:07	1
Acetone	13		5.0	5.0	ug/L			07/28/18 00:07	1
Benzene	1.0	U	1.0	0.43	ug/L			07/28/18 00:07	1
Bromoform	1.0	U	1.0	0.54	ug/L			07/28/18 00:07	1
Bromomethane	1.0	U	1.0	1.0	ug/L			07/28/18 00:07	1
Carbon disulfide	1.0	U	1.0	0.16	ug/L			07/28/18 00:07	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			07/28/18 00:07	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			07/28/18 00:07	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			07/28/18 00:07	1
Chloroethane	1.0	U	1.0	0.32	ug/L			07/28/18 00:07	1
Chloroform	34		1.0	0.33	ug/L			07/28/18 00:07	1
Chloromethane	1.0	U	1.0	0.14	ug/L			07/28/18 00:07	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			07/28/18 00:07	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			07/28/18 00:07	1
Dichlorobromomethane	2.8		1.0	0.34	ug/L			07/28/18 00:07	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			07/28/18 00:07	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			07/28/18 00:07	1
Styrene	1.0	U	1.0	0.42	ug/L			07/28/18 00:07	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			07/28/18 00:07	1
Toluene	1.0	U	1.0	0.38	ug/L			07/28/18 00:07	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			07/28/18 00:07	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			07/28/18 00:07	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			07/28/18 00:07	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			07/28/18 00:07	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			07/28/18 00:07	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					07/28/18 00:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		74 - 132		07/28/18 00:07	1
4-Bromofluorobenzene	101		77 - 124		07/28/18 00:07	1
Dibromofluoromethane (Surr)	103		72 - 131		07/28/18 00:07	1
Toluene-d8 (Surr)	104		80 - 120		07/28/18 00:07	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Former Cleaner Project - Woodside, NY

TestAmerica Job ID: 460-160904-1

Client Sample ID: FC-MW-8

Lab Sample ID: 460-160904-3

Date Collected: 07/17/18 12:20

Matrix: Water

Date Received: 07/20/18 09:25

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			07/28/18 01:14	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			07/28/18 01:14	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			07/28/18 01:14	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			07/28/18 01:14	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			07/28/18 01:14	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			07/28/18 01:14	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			07/28/18 01:14	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			07/28/18 01:14	1
2-Hexanone	5.0	U	5.0	2.9	ug/L			07/28/18 01:14	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.7	ug/L			07/28/18 01:14	1
Acetone	5.0	U	5.0	5.0	ug/L			07/28/18 01:14	1
Benzene	1.0	U	1.0	0.43	ug/L			07/28/18 01:14	1
Bromoform	1.0	U	1.0	0.54	ug/L			07/28/18 01:14	1
Bromomethane	1.0	U	1.0	1.0	ug/L			07/28/18 01:14	1
Carbon disulfide	1.0	U	1.0	0.16	ug/L			07/28/18 01:14	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			07/28/18 01:14	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			07/28/18 01:14	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			07/28/18 01:14	1
Chloroethane	1.0	U	1.0	0.32	ug/L			07/28/18 01:14	1
Chloroform	1.0	U	1.0	0.33	ug/L			07/28/18 01:14	1
Chloromethane	1.0	U	1.0	0.14	ug/L			07/28/18 01:14	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			07/28/18 01:14	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			07/28/18 01:14	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			07/28/18 01:14	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			07/28/18 01:14	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			07/28/18 01:14	1
Styrene	1.0	U	1.0	0.42	ug/L			07/28/18 01:14	1
Tetrachloroethene	2.8		1.0	0.25	ug/L			07/28/18 01:14	1
Toluene	1.0	U	1.0	0.38	ug/L			07/28/18 01:14	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			07/28/18 01:14	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			07/28/18 01:14	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			07/28/18 01:14	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			07/28/18 01:14	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			07/28/18 01:14	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					07/28/18 01:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		74 - 132		07/28/18 01:14	1
4-Bromofluorobenzene	99		77 - 124		07/28/18 01:14	1
Dibromofluoromethane (Surr)	99		72 - 131		07/28/18 01:14	1
Toluene-d8 (Surr)	101		80 - 120		07/28/18 01:14	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Former Cleaner Project - Woodside, NY

TestAmerica Job ID: 460-160904-1

Client Sample ID: FC-MW-108D

Lab Sample ID: 460-160904-4

Date Collected: 07/17/18 14:10

Matrix: Water

Date Received: 07/20/18 09:25

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			07/28/18 01:36	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			07/28/18 01:36	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			07/28/18 01:36	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			07/28/18 01:36	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			07/28/18 01:36	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			07/28/18 01:36	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			07/28/18 01:36	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			07/28/18 01:36	1
2-Hexanone	5.0	U	5.0	2.9	ug/L			07/28/18 01:36	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.7	ug/L			07/28/18 01:36	1
Acetone	5.0	U	5.0	5.0	ug/L			07/28/18 01:36	1
Benzene	1.0	U	1.0	0.43	ug/L			07/28/18 01:36	1
Bromoform	1.0	U	1.0	0.54	ug/L			07/28/18 01:36	1
Bromomethane	1.0	U	1.0	1.0	ug/L			07/28/18 01:36	1
Carbon disulfide	1.0	U	1.0	0.16	ug/L			07/28/18 01:36	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			07/28/18 01:36	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			07/28/18 01:36	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			07/28/18 01:36	1
Chloroethane	1.0	U	1.0	0.32	ug/L			07/28/18 01:36	1
Chloroform	1.0	U	1.0	0.33	ug/L			07/28/18 01:36	1
Chloromethane	1.0	U	1.0	0.14	ug/L			07/28/18 01:36	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			07/28/18 01:36	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			07/28/18 01:36	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			07/28/18 01:36	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			07/28/18 01:36	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			07/28/18 01:36	1
Styrene	1.0	U	1.0	0.42	ug/L			07/28/18 01:36	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			07/28/18 01:36	1
Toluene	1.0	U	1.0	0.38	ug/L			07/28/18 01:36	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			07/28/18 01:36	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			07/28/18 01:36	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			07/28/18 01:36	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			07/28/18 01:36	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			07/28/18 01:36	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					07/28/18 01:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		74 - 132		07/28/18 01:36	1
4-Bromofluorobenzene	93		77 - 124		07/28/18 01:36	1
Dibromofluoromethane (Surr)	93		72 - 131		07/28/18 01:36	1
Toluene-d8 (Surr)	95		80 - 120		07/28/18 01:36	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Former Cleaner Project - Woodside, NY

TestAmerica Job ID: 460-160904-1

Client Sample ID: FC-MW-103S

Lab Sample ID: 460-160904-5

Date Collected: 07/18/18 10:20

Matrix: Water

Date Received: 07/20/18 09:25

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			07/28/18 01:58	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			07/28/18 01:58	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			07/28/18 01:58	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			07/28/18 01:58	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			07/28/18 01:58	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			07/28/18 01:58	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			07/28/18 01:58	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			07/28/18 01:58	1
2-Hexanone	5.0	U	5.0	2.9	ug/L			07/28/18 01:58	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.7	ug/L			07/28/18 01:58	1
Acetone	5.0	U	5.0	5.0	ug/L			07/28/18 01:58	1
Benzene	1.0	U	1.0	0.43	ug/L			07/28/18 01:58	1
Bromoform	1.0	U	1.0	0.54	ug/L			07/28/18 01:58	1
Bromomethane	1.0	U	1.0	1.0	ug/L			07/28/18 01:58	1
Carbon disulfide	1.0	U	1.0	0.16	ug/L			07/28/18 01:58	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			07/28/18 01:58	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			07/28/18 01:58	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			07/28/18 01:58	1
Chloroethane	1.0	U	1.0	0.32	ug/L			07/28/18 01:58	1
Chloroform	0.40	J	1.0	0.33	ug/L			07/28/18 01:58	1
Chloromethane	1.0	U	1.0	0.14	ug/L			07/28/18 01:58	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			07/28/18 01:58	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			07/28/18 01:58	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			07/28/18 01:58	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			07/28/18 01:58	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			07/28/18 01:58	1
Styrene	1.0	U	1.0	0.42	ug/L			07/28/18 01:58	1
Tetrachloroethene	12		1.0	0.25	ug/L			07/28/18 01:58	1
Toluene	1.0	U	1.0	0.38	ug/L			07/28/18 01:58	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			07/28/18 01:58	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			07/28/18 01:58	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			07/28/18 01:58	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			07/28/18 01:58	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			07/28/18 01:58	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					07/28/18 01:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		74 - 132		07/28/18 01:58	1
4-Bromofluorobenzene	99		77 - 124		07/28/18 01:58	1
Dibromofluoromethane (Surr)	99		72 - 131		07/28/18 01:58	1
Toluene-d8 (Surr)	99		80 - 120		07/28/18 01:58	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	4.0	U	4.0	1.0	ug/L			07/24/18 16:02	1
Ethane	7.5	U	7.5	1.5	ug/L			07/24/18 16:02	1
Ethene	7.0	U	7.0	1.5	ug/L			07/24/18 16:02	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Former Cleaner Project - Woodside, NY

TestAmerica Job ID: 460-160904-1

Client Sample ID: FC-MW-103S

Lab Sample ID: 460-160904-5

Date Collected: 07/18/18 10:20

Matrix: Water

Date Received: 07/20/18 09:25

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	14		8.0	2.7	ug/L		07/24/18 09:55	07/24/18 18:59	2
Iron	640		120	46	ug/L		07/24/18 09:55	07/24/18 18:59	2

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	53		25	6.8	mg/L			07/24/18 16:33	5
Nitrate as N	6.6	H	1.0	0.10	mg/L			07/20/18 13:26	10
Total Organic Carbon	1.6		1.0	0.22	mg/L			07/27/18 17:00	1

Client Sample ID: FC-MW-5

Lab Sample ID: 460-160904-6

Date Collected: 07/18/18 13:00

Matrix: Water

Date Received: 07/20/18 09:25

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			07/28/18 02:20	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			07/28/18 02:20	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			07/28/18 02:20	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			07/28/18 02:20	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			07/28/18 02:20	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			07/28/18 02:20	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			07/28/18 02:20	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			07/28/18 02:20	1
2-Hexanone	5.0	U	5.0	2.9	ug/L			07/28/18 02:20	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.7	ug/L			07/28/18 02:20	1
Acetone	5.0	U	5.0	5.0	ug/L			07/28/18 02:20	1
Benzene	1.0	U	1.0	0.43	ug/L			07/28/18 02:20	1
Bromoform	1.0	U	1.0	0.54	ug/L			07/28/18 02:20	1
Bromomethane	1.0	U	1.0	1.0	ug/L			07/28/18 02:20	1
Carbon disulfide	1.0	U	1.0	0.16	ug/L			07/28/18 02:20	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			07/28/18 02:20	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			07/28/18 02:20	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			07/28/18 02:20	1
Chloroethane	1.0	U	1.0	0.32	ug/L			07/28/18 02:20	1
Chloroform	0.57	J	1.0	0.33	ug/L			07/28/18 02:20	1
Chloromethane	1.0	U	1.0	0.14	ug/L			07/28/18 02:20	1
cis-1,2-Dichloroethene	20		1.0	0.22	ug/L			07/28/18 02:20	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			07/28/18 02:20	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			07/28/18 02:20	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			07/28/18 02:20	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			07/28/18 02:20	1
Styrene	1.0	U	1.0	0.42	ug/L			07/28/18 02:20	1
Tetrachloroethene	260		1.0	0.25	ug/L			07/28/18 02:20	1
Toluene	1.0	U	1.0	0.38	ug/L			07/28/18 02:20	1
trans-1,2-Dichloroethene	0.90	J	1.0	0.24	ug/L			07/28/18 02:20	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			07/28/18 02:20	1
Trichloroethene	44		1.0	0.31	ug/L			07/28/18 02:20	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			07/28/18 02:20	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			07/28/18 02:20	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Former Cleaner Project - Woodside, NY

TestAmerica Job ID: 460-160904-1

Client Sample ID: FC-MW-5

Date Collected: 07/18/18 13:00

Date Received: 07/20/18 09:25

Lab Sample ID: 460-160904-6

Matrix: Water

<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Tentatively Identified Compound</i>	<i>None</i>		<i>ug/L</i>					<i>07/28/18 02:20</i>	<i>1</i>
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	94		74 - 132					07/28/18 02:20	1
4-Bromofluorobenzene	95		77 - 124					07/28/18 02:20	1
Dibromofluoromethane (Surr)	97		72 - 131					07/28/18 02:20	1
Toluene-d8 (Surr)	98		80 - 120					07/28/18 02:20	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	4.0	U	4.0	1.0	ug/L			07/24/18 13:07	1
Ethane	7.5	U	7.5	1.5	ug/L			07/24/18 13:07	1
Ethene	7.0	U	7.0	1.5	ug/L			07/24/18 13:07	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	12		8.0	2.7	ug/L		07/24/18 11:14	07/24/18 19:12	2
Iron	310		120	46	ug/L		07/24/18 11:14	07/24/18 19:12	2

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	37		5.0	1.4	mg/L			07/24/18 16:08	1
Nitrate as N	3.5	H	0.50	0.050	mg/L			07/20/18 13:24	5
Total Organic Carbon	0.91	J	1.0	0.22	mg/L			07/27/18 17:56	1

Client Sample ID: FC-MW-104S

Date Collected: 07/18/18 14:25

Date Received: 07/20/18 09:25

Lab Sample ID: 460-160904-7

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			07/28/18 03:05	2
1,1,2,2-Tetrachloroethane	2.0	U	2.0	0.73	ug/L			07/28/18 03:05	2
1,1,2-Trichloroethane	2.0	U	2.0	0.87	ug/L			07/28/18 03:05	2
1,1-Dichloroethane	2.0	U	2.0	0.53	ug/L			07/28/18 03:05	2
1,1-Dichloroethene	2.3		2.0	0.23	ug/L			07/28/18 03:05	2
1,2-Dichloroethane	2.0	U	2.0	0.86	ug/L			07/28/18 03:05	2
1,2-Dichloropropane	2.0	U	2.0	0.71	ug/L			07/28/18 03:05	2
2-Butanone (MEK)	10	U	10	3.7	ug/L			07/28/18 03:05	2
2-Hexanone	10	U	10	5.8	ug/L			07/28/18 03:05	2
4-Methyl-2-pentanone (MIBK)	10	U	10	5.5	ug/L			07/28/18 03:05	2
Acetone	10	U	10	10	ug/L			07/28/18 03:05	2
Benzene	2.0	U	2.0	0.86	ug/L			07/28/18 03:05	2
Bromoform	2.0	U	2.0	1.1	ug/L			07/28/18 03:05	2
Bromomethane	2.0	U	2.0	2.0	ug/L			07/28/18 03:05	2
Carbon disulfide	2.0	U	2.0	0.31	ug/L			07/28/18 03:05	2
Carbon tetrachloride	2.0	U	2.0	0.42	ug/L			07/28/18 03:05	2
Chlorobenzene	2.0	U	2.0	0.75	ug/L			07/28/18 03:05	2
Chlorodibromomethane	2.0	U	2.0	0.56	ug/L			07/28/18 03:05	2
Chloroethane	2.0	U	2.0	0.64	ug/L			07/28/18 03:05	2
Chloroform	0.80	J	2.0	0.65	ug/L			07/28/18 03:05	2

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Former Cleaner Project - Woodside, NY

TestAmerica Job ID: 460-160904-1

Client Sample ID: FC-MW-104S

Lab Sample ID: 460-160904-7

Date Collected: 07/18/18 14:25

Matrix: Water

Date Received: 07/20/18 09:25

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	2.0	U	2.0	0.29	ug/L			07/28/18 03:05	2
cis-1,2-Dichloroethene	840		2.0	0.44	ug/L			07/28/18 03:05	2
cis-1,3-Dichloropropene	2.0	U	2.0	0.91	ug/L			07/28/18 03:05	2
Dichlorobromomethane	2.0	U	2.0	0.69	ug/L			07/28/18 03:05	2
Ethylbenzene	2.0	U	2.0	0.60	ug/L			07/28/18 03:05	2
Methylene Chloride	2.0	U	2.0	0.63	ug/L			07/28/18 03:05	2
Styrene	2.0	U	2.0	0.83	ug/L			07/28/18 03:05	2
Tetrachloroethene	130		2.0	0.50	ug/L			07/28/18 03:05	2
Toluene	2.0	U	2.0	0.76	ug/L			07/28/18 03:05	2
trans-1,2-Dichloroethene	30		2.0	0.47	ug/L			07/28/18 03:05	2
trans-1,3-Dichloropropene	2.0	U	2.0	0.97	ug/L			07/28/18 03:05	2
Trichloroethene	180		2.0	0.63	ug/L			07/28/18 03:05	2
Vinyl chloride	0.63 J		2.0	0.34	ug/L			07/28/18 03:05	2
Xylenes, Total	4.0	U	4.0	1.3	ug/L			07/28/18 03:05	2

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					07/28/18 03:05	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		74 - 132		07/28/18 03:05	2
4-Bromofluorobenzene	98		77 - 124		07/28/18 03:05	2
Dibromofluoromethane (Surr)	96		72 - 131		07/28/18 03:05	2
Toluene-d8 (Surr)	100		80 - 120		07/28/18 03:05	2

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	320		4.0	1.0	ug/L			07/24/18 13:24	1
Ethane	7.5	U	7.5	1.5	ug/L			07/24/18 13:24	1
Ethene	7.0	U	7.0	1.5	ug/L			07/24/18 13:24	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	170		8.0	2.7	ug/L		07/24/18 11:14	07/24/18 19:15	2
Iron	3900		120	46	ug/L		07/24/18 11:14	07/24/18 19:15	2

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	22		5.0	1.4	mg/L			07/24/18 16:08	1
Nitrate as N	3.1		0.50	0.050	mg/L			07/20/18 13:23	5
Total Organic Carbon	1.3		1.0	0.22	mg/L			07/27/18 18:14	1

Client Sample ID: FC-MW-104D

Lab Sample ID: 460-160904-8

Date Collected: 07/18/18 15:45

Matrix: Water

Date Received: 07/20/18 09:25

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			07/28/18 21:19	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			07/28/18 21:19	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			07/28/18 21:19	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			07/28/18 21:19	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Former Cleaner Project - Woodside, NY

TestAmerica Job ID: 460-160904-1

Client Sample ID: FC-MW-104D

Lab Sample ID: 460-160904-8

Date Collected: 07/18/18 15:45

Matrix: Water

Date Received: 07/20/18 09:25

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			07/28/18 21:19	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			07/28/18 21:19	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			07/28/18 21:19	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			07/28/18 21:19	1
2-Hexanone	5.0	U	5.0	2.9	ug/L			07/28/18 21:19	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.7	ug/L			07/28/18 21:19	1
Acetone	5.0	U	5.0	5.0	ug/L			07/28/18 21:19	1
Benzene	1.0	U	1.0	0.43	ug/L			07/28/18 21:19	1
Bromoform	1.0	U	1.0	0.54	ug/L			07/28/18 21:19	1
Bromomethane	1.0	U	1.0	1.0	ug/L			07/28/18 21:19	1
Carbon disulfide	1.0	U	1.0	0.16	ug/L			07/28/18 21:19	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			07/28/18 21:19	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			07/28/18 21:19	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			07/28/18 21:19	1
Chloroethane	1.0	U	1.0	0.32	ug/L			07/28/18 21:19	1
Chloroform	0.76	J	1.0	0.33	ug/L			07/28/18 21:19	1
Chloromethane	1.0	U	1.0	0.14	ug/L			07/28/18 21:19	1
cis-1,2-Dichloroethene	39		1.0	0.22	ug/L			07/28/18 21:19	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			07/28/18 21:19	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			07/28/18 21:19	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			07/28/18 21:19	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			07/28/18 21:19	1
Styrene	1.0	U	1.0	0.42	ug/L			07/28/18 21:19	1
Tetrachloroethene	180		1.0	0.25	ug/L			07/28/18 21:19	1
Toluene	1.0	U	1.0	0.38	ug/L			07/28/18 21:19	1
trans-1,2-Dichloroethene	1.6		1.0	0.24	ug/L			07/28/18 21:19	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			07/28/18 21:19	1
Trichloroethene	56		1.0	0.31	ug/L			07/28/18 21:19	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			07/28/18 21:19	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			07/28/18 21:19	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					07/28/18 21:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		74 - 132		07/28/18 21:19	1
4-Bromofluorobenzene	94		77 - 124		07/28/18 21:19	1
Dibromofluoromethane (Surr)	96		72 - 131		07/28/18 21:19	1
Toluene-d8 (Surr)	101		80 - 120		07/28/18 21:19	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	4.0	U	4.0	1.0	ug/L			07/24/18 13:42	1
Ethane	7.5	U	7.5	1.5	ug/L			07/24/18 13:42	1
Ethene	7.0	U	7.0	1.5	ug/L			07/24/18 13:42	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	2600		8.0	2.7	ug/L		07/24/18 11:14	07/24/18 19:17	2
Iron	13000		120	46	ug/L		07/24/18 11:14	07/24/18 19:17	2

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Former Cleaner Project - Woodside, NY

TestAmerica Job ID: 460-160904-1

Client Sample ID: FC-MW-104D

Lab Sample ID: 460-160904-8

Date Collected: 07/18/18 15:45

Matrix: Water

Date Received: 07/20/18 09:25

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	60		25	6.8	mg/L			07/24/18 16:33	5
Nitrate as N	6.3		1.0	0.10	mg/L			07/20/18 13:22	10
Total Organic Carbon	1.2		1.0	0.22	mg/L			07/27/18 18:32	1

Client Sample ID: FC-MW-107D

Lab Sample ID: 460-160904-9

Date Collected: 07/18/18 17:15

Matrix: Water

Date Received: 07/20/18 09:25

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			07/28/18 20:35	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			07/28/18 20:35	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			07/28/18 20:35	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			07/28/18 20:35	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			07/28/18 20:35	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			07/28/18 20:35	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			07/28/18 20:35	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			07/28/18 20:35	1
2-Hexanone	5.0	U	5.0	2.9	ug/L			07/28/18 20:35	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.7	ug/L			07/28/18 20:35	1
Acetone	5.0	U	5.0	5.0	ug/L			07/28/18 20:35	1
Benzene	1.0	U	1.0	0.43	ug/L			07/28/18 20:35	1
Bromoform	1.0	U	1.0	0.54	ug/L			07/28/18 20:35	1
Bromomethane	1.0	U	1.0	1.0	ug/L			07/28/18 20:35	1
Carbon disulfide	1.0	U	1.0	0.16	ug/L			07/28/18 20:35	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			07/28/18 20:35	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			07/28/18 20:35	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			07/28/18 20:35	1
Chloroethane	1.0	U	1.0	0.32	ug/L			07/28/18 20:35	1
Chloroform	0.57	J	1.0	0.33	ug/L			07/28/18 20:35	1
Chloromethane	1.0	U	1.0	0.14	ug/L			07/28/18 20:35	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			07/28/18 20:35	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			07/28/18 20:35	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			07/28/18 20:35	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			07/28/18 20:35	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			07/28/18 20:35	1
Styrene	1.0	U	1.0	0.42	ug/L			07/28/18 20:35	1
Tetrachloroethene	0.98	J	1.0	0.25	ug/L			07/28/18 20:35	1
Toluene	1.0	U	1.0	0.38	ug/L			07/28/18 20:35	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			07/28/18 20:35	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			07/28/18 20:35	1
Trichloroethene	6.3		1.0	0.31	ug/L			07/28/18 20:35	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			07/28/18 20:35	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			07/28/18 20:35	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					07/28/18 20:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		74 - 132		07/28/18 20:35	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Former Cleaner Project - Woodside, NY

TestAmerica Job ID: 460-160904-1

Client Sample ID: FC-MW-107D

Lab Sample ID: 460-160904-9

Date Collected: 07/18/18 17:15

Matrix: Water

Date Received: 07/20/18 09:25

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	96		77 - 124		07/28/18 20:35	1
Dibromofluoromethane (Surr)	97		72 - 131		07/28/18 20:35	1
Toluene-d8 (Surr)	102		80 - 120		07/28/18 20:35	1

Client Sample ID: FC-MW-6

Lab Sample ID: 460-160904-10

Date Collected: 07/18/18 18:35

Matrix: Water

Date Received: 07/20/18 09:25

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			07/28/18 21:42	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			07/28/18 21:42	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			07/28/18 21:42	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			07/28/18 21:42	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			07/28/18 21:42	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			07/28/18 21:42	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			07/28/18 21:42	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			07/28/18 21:42	1
2-Hexanone	5.0	U	5.0	2.9	ug/L			07/28/18 21:42	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.7	ug/L			07/28/18 21:42	1
Acetone	5.0	U	5.0	5.0	ug/L			07/28/18 21:42	1
Benzene	1.0	U	1.0	0.43	ug/L			07/28/18 21:42	1
Bromoform	1.0	U	1.0	0.54	ug/L			07/28/18 21:42	1
Bromomethane	1.0	U	1.0	1.0	ug/L			07/28/18 21:42	1
Carbon disulfide	1.0	U	1.0	0.16	ug/L			07/28/18 21:42	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			07/28/18 21:42	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			07/28/18 21:42	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			07/28/18 21:42	1
Chloroethane	1.0	U	1.0	0.32	ug/L			07/28/18 21:42	1
Chloroform	0.47	J	1.0	0.33	ug/L			07/28/18 21:42	1
Chloromethane	1.0	U	1.0	0.14	ug/L			07/28/18 21:42	1
cis-1,2-Dichloroethene	0.90	J	1.0	0.22	ug/L			07/28/18 21:42	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			07/28/18 21:42	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			07/28/18 21:42	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			07/28/18 21:42	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			07/28/18 21:42	1
Styrene	1.0	U	1.0	0.42	ug/L			07/28/18 21:42	1
Tetrachloroethene	120		1.0	0.25	ug/L			07/28/18 21:42	1
Toluene	1.0	U	1.0	0.38	ug/L			07/28/18 21:42	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			07/28/18 21:42	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			07/28/18 21:42	1
Trichloroethene	10		1.0	0.31	ug/L			07/28/18 21:42	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			07/28/18 21:42	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			07/28/18 21:42	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					07/28/18 21:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		74 - 132		07/28/18 21:42	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Former Cleaner Project - Woodside, NY

TestAmerica Job ID: 460-160904-1

Client Sample ID: FC-MW-6

Date Collected: 07/18/18 18:35

Date Received: 07/20/18 09:25

Lab Sample ID: 460-160904-10

Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	96		77 - 124		07/28/18 21:42	1
Dibromofluoromethane (Surr)	99		72 - 131		07/28/18 21:42	1
Toluene-d8 (Surr)	101		80 - 120		07/28/18 21:42	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	4.0	U	4.0	1.0	ug/L			07/24/18 13:59	1
Ethane	7.5	U	7.5	1.5	ug/L			07/24/18 13:59	1
Ethene	7.0	U	7.0	1.5	ug/L			07/24/18 13:59	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	96		8.0	2.7	ug/L		07/24/18 11:14	07/24/18 19:20	2
Iron	4700		120	46	ug/L		07/24/18 11:14	07/24/18 19:20	2

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	13		5.0	1.4	mg/L			07/24/18 16:08	1
Nitrate as N	0.25		0.10	0.010	mg/L			07/20/18 13:14	1
Total Organic Carbon	2.1		1.0	0.22	mg/L			07/27/18 18:50	1

Client Sample ID: FC-TB071718

Date Collected: 07/18/18 00:00

Date Received: 07/20/18 09:25

Lab Sample ID: 460-160904-11

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			07/27/18 23:44	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			07/27/18 23:44	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			07/27/18 23:44	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			07/27/18 23:44	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			07/27/18 23:44	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			07/27/18 23:44	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			07/27/18 23:44	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			07/27/18 23:44	1
2-Hexanone	5.0	U	5.0	2.9	ug/L			07/27/18 23:44	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.7	ug/L			07/27/18 23:44	1
Acetone	5.0	U	5.0	5.0	ug/L			07/27/18 23:44	1
Benzene	1.0	U	1.0	0.43	ug/L			07/27/18 23:44	1
Bromoform	1.0	U	1.0	0.54	ug/L			07/27/18 23:44	1
Bromomethane	1.0	U	1.0	1.0	ug/L			07/27/18 23:44	1
Carbon disulfide	1.0	U	1.0	0.16	ug/L			07/27/18 23:44	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			07/27/18 23:44	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			07/27/18 23:44	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			07/27/18 23:44	1
Chloroethane	1.0	U	1.0	0.32	ug/L			07/27/18 23:44	1
Chloroform	1.0	U	1.0	0.33	ug/L			07/27/18 23:44	1
Chloromethane	1.0	U	1.0	0.14	ug/L			07/27/18 23:44	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			07/27/18 23:44	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			07/27/18 23:44	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Former Cleaner Project - Woodside, NY

TestAmerica Job ID: 460-160904-1

Client Sample ID: FC-TB071718

Lab Sample ID: 460-160904-11

Date Collected: 07/18/18 00:00

Matrix: Water

Date Received: 07/20/18 09:25

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			07/27/18 23:44	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			07/27/18 23:44	1
Methylene Chloride	4.3		1.0	0.32	ug/L			07/27/18 23:44	1
Styrene	1.0	U	1.0	0.42	ug/L			07/27/18 23:44	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			07/27/18 23:44	1
Toluene	1.0	U	1.0	0.38	ug/L			07/27/18 23:44	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			07/27/18 23:44	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			07/27/18 23:44	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			07/27/18 23:44	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			07/27/18 23:44	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			07/27/18 23:44	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					07/27/18 23:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		74 - 132		07/27/18 23:44	1
4-Bromofluorobenzene	98		77 - 124		07/27/18 23:44	1
Dibromofluoromethane (Surr)	97		72 - 131		07/27/18 23:44	1
Toluene-d8 (Surr)	101		80 - 120		07/27/18 23:44	1

Client Sample ID: FC-EB-071718

Lab Sample ID: 460-160904-12

Date Collected: 07/18/18 15:00

Matrix: Water

Date Received: 07/20/18 09:25

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			07/28/18 00:51	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			07/28/18 00:51	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			07/28/18 00:51	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			07/28/18 00:51	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			07/28/18 00:51	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			07/28/18 00:51	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			07/28/18 00:51	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			07/28/18 00:51	1
2-Hexanone	5.0	U	5.0	2.9	ug/L			07/28/18 00:51	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.7	ug/L			07/28/18 00:51	1
Acetone	5.6		5.0	5.0	ug/L			07/28/18 00:51	1
Benzene	1.0	U	1.0	0.43	ug/L			07/28/18 00:51	1
Bromoform	1.0	U	1.0	0.54	ug/L			07/28/18 00:51	1
Bromomethane	1.0	U	1.0	1.0	ug/L			07/28/18 00:51	1
Carbon disulfide	1.0	U	1.0	0.16	ug/L			07/28/18 00:51	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			07/28/18 00:51	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			07/28/18 00:51	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			07/28/18 00:51	1
Chloroethane	1.0	U	1.0	0.32	ug/L			07/28/18 00:51	1
Chloroform	1.0	U	1.0	0.33	ug/L			07/28/18 00:51	1
Chloromethane	1.0	U	1.0	0.14	ug/L			07/28/18 00:51	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			07/28/18 00:51	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			07/28/18 00:51	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: Former Cleaner Project - Woodside, NY

TestAmerica Job ID: 460-160904-1

Client Sample ID: FC-EB-071718

Lab Sample ID: 460-160904-12

Date Collected: 07/18/18 15:00

Matrix: Water

Date Received: 07/20/18 09:25

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			07/28/18 00:51	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			07/28/18 00:51	1
Methylene Chloride	4.3		1.0	0.32	ug/L			07/28/18 00:51	1
Styrene	1.0	U	1.0	0.42	ug/L			07/28/18 00:51	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			07/28/18 00:51	1
Toluene	1.0	U	1.0	0.38	ug/L			07/28/18 00:51	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			07/28/18 00:51	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			07/28/18 00:51	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			07/28/18 00:51	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			07/28/18 00:51	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			07/28/18 00:51	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					07/28/18 00:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		74 - 132		07/28/18 00:51	1
4-Bromofluorobenzene	97		77 - 124		07/28/18 00:51	1
Dibromofluoromethane (Surr)	99		72 - 131		07/28/18 00:51	1
Toluene-d8 (Surr)	98		80 - 120		07/28/18 00:51	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	4.0	U	4.0	1.0	ug/L			07/24/18 14:17	1
Ethane	7.5	U	7.5	1.5	ug/L			07/24/18 14:17	1
Ethene	7.0	U	7.0	1.5	ug/L			07/24/18 14:17	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	8.0	U	8.0	2.7	ug/L		07/24/18 11:14	07/24/18 19:09	2
Iron	120	U	120	46	ug/L		07/24/18 11:14	07/24/18 19:09	2

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	5.0	U	5.0	1.4	mg/L			07/24/18 16:08	1
Nitrate as N	0.10	U	0.10	0.010	mg/L			07/20/18 13:22	1
Total Organic Carbon	0.43	J	1.0	0.22	mg/L			07/27/18 19:08	1

TestAmerica Edison

Surrogate Summary

Client: Parsons Corporation
Project/Site: Former Cleaner Project - Woodside, NY

TestAmerica Job ID: 460-160904-1

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)
460-160904-1	FC-MW-7	100	101	98	100
460-160904-1 MS	FC-MW-7	92	100	99	100
460-160904-1 MSD	FC-MW-7	92	101	99	100
460-160904-2	FC-MW-7-D	106	101	103	104
460-160904-3	FC-MW-8	98	99	99	101
460-160904-4	FC-MW-108D	93	93	93	95
460-160904-5	FC-MW-103S	100	99	99	99
460-160904-6	FC-MW-5	94	95	97	98
460-160904-7	FC-MW-104S	94	98	96	100
460-160904-8	FC-MW-104D	93	94	96	101
460-160904-9	FC-MW-107D	95	96	97	102
460-160904-10	FC-MW-6	95	96	99	101
460-160904-11	FC-TB071718	97	98	97	101
460-160904-12	FC-EB-071718	99	97	99	98
LCS 460-540278/4	Lab Control Sample	90	102	97	102
LCS 460-540446/4	Lab Control Sample	90	100	96	102
LCSD 460-540446/5	Lab Control Sample Dup	91	99	98	105
MB 460-540278/8	Method Blank	96	99	96	100
MB 460-540446/8	Method Blank	93	95	96	102

Surrogate Legend

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

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

QC Sample Results

Client: Parsons Corporation
Project/Site: Former Cleaner Project - Woodside, NY

TestAmerica Job ID: 460-160904-1

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

Lab Sample ID: MB 460-540278/8

Matrix: Water

Analysis Batch: 540278

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			07/27/18 19:59	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			07/27/18 19:59	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			07/27/18 19:59	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			07/27/18 19:59	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			07/27/18 19:59	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			07/27/18 19:59	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			07/27/18 19:59	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			07/27/18 19:59	1
2-Hexanone	5.0	U	5.0	2.9	ug/L			07/27/18 19:59	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.7	ug/L			07/27/18 19:59	1
Acetone	5.0	U	5.0	5.0	ug/L			07/27/18 19:59	1
Benzene	1.0	U	1.0	0.43	ug/L			07/27/18 19:59	1
Bromoform	1.0	U	1.0	0.54	ug/L			07/27/18 19:59	1
Bromomethane	1.0	U	1.0	1.0	ug/L			07/27/18 19:59	1
Carbon disulfide	1.0	U	1.0	0.16	ug/L			07/27/18 19:59	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			07/27/18 19:59	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			07/27/18 19:59	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			07/27/18 19:59	1
Chloroethane	1.0	U	1.0	0.32	ug/L			07/27/18 19:59	1
Chloroform	1.0	U	1.0	0.33	ug/L			07/27/18 19:59	1
Chloromethane	1.0	U	1.0	0.14	ug/L			07/27/18 19:59	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			07/27/18 19:59	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			07/27/18 19:59	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			07/27/18 19:59	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			07/27/18 19:59	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			07/27/18 19:59	1
Styrene	1.0	U	1.0	0.42	ug/L			07/27/18 19:59	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			07/27/18 19:59	1
Toluene	1.0	U	1.0	0.38	ug/L			07/27/18 19:59	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			07/27/18 19:59	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			07/27/18 19:59	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			07/27/18 19:59	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			07/27/18 19:59	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			07/27/18 19:59	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		74 - 132		07/27/18 19:59	1
4-Bromofluorobenzene	99		77 - 124		07/27/18 19:59	1
Dibromofluoromethane (Surr)	96		72 - 131		07/27/18 19:59	1
Toluene-d8 (Surr)	100		80 - 120		07/27/18 19:59	1

Lab Sample ID: LCS 460-540278/4

Matrix: Water

Analysis Batch: 540278

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	19.7		ug/L		99	75 - 125
1,1,2,2-Tetrachloroethane	20.0	18.0		ug/L		90	74 - 120

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Former Cleaner Project - Woodside, NY

TestAmerica Job ID: 460-160904-1

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

Lab Sample ID: LCS 460-540278/4

Matrix: Water

Analysis Batch: 540278

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	17.4		ug/L		87	78 - 120
1,1-Dichloroethane	20.0	18.4		ug/L		92	77 - 123
1,1-Dichloroethene	20.0	19.0		ug/L		95	74 - 123
1,2-Dichloroethane	20.0	16.8		ug/L		84	76 - 121
1,2-Dichloropropane	20.0	18.8		ug/L		94	77 - 123
2-Butanone (MEK)	100	101		ug/L		101	64 - 120
2-Hexanone	100	100		ug/L		100	71 - 125
4-Methyl-2-pentanone (MIBK)	100	97.9		ug/L		98	78 - 124
Acetone	100	89.9		ug/L		90	39 - 150
Benzene	20.0	19.1		ug/L		96	77 - 121
Bromoform	20.0	17.2		ug/L		86	53 - 120
Bromomethane	20.0	17.6		ug/L		88	10 - 150
Carbon disulfide	20.0	17.5		ug/L		87	69 - 133
Carbon tetrachloride	20.0	19.9		ug/L		100	70 - 132
Chlorobenzene	20.0	19.7		ug/L		99	80 - 120
Chlorodibromomethane	20.0	19.4		ug/L		97	73 - 120
Chloroethane	20.0	17.5		ug/L		87	52 - 150
Chloroform	20.0	19.6		ug/L		98	80 - 120
Chloromethane	20.0	20.8		ug/L		104	56 - 131
cis-1,2-Dichloroethene	20.0	18.7		ug/L		93	80 - 120
cis-1,3-Dichloropropene	20.0	18.1		ug/L		91	77 - 120
Dichlorobromomethane	20.0	18.9		ug/L		95	76 - 120
Ethylbenzene	20.0	20.5		ug/L		103	80 - 120
Methylene Chloride	20.0	17.9		ug/L		90	77 - 123
Styrene	20.0	20.0		ug/L		100	80 - 120
Tetrachloroethene	20.0	20.5		ug/L		102	78 - 122
Toluene	20.0	19.9		ug/L		100	80 - 120
trans-1,2-Dichloroethene	20.0	19.5		ug/L		97	79 - 120
trans-1,3-Dichloropropene	20.0	17.8		ug/L		89	76 - 120
Trichloroethene	20.0	19.7		ug/L		99	77 - 120
Vinyl chloride	20.0	17.4		ug/L		87	62 - 138
Xylenes, Total	40.0	41.1		ug/L		103	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	90		74 - 132
4-Bromofluorobenzene	102		77 - 124
Dibromofluoromethane (Surr)	97		72 - 131
Toluene-d8 (Surr)	102		80 - 120

Lab Sample ID: 460-160904-1 MS

Matrix: Water

Analysis Batch: 540278

Client Sample ID: FC-MW-7

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	19.2		ug/L		96	75 - 125
1,1,1,2-Tetrachloroethane	1.0	U	20.0	19.0		ug/L		95	74 - 120
1,1,2-Trichloroethane	1.0	U	20.0	18.7		ug/L		93	78 - 120
1,1-Dichloroethane	1.0	U	20.0	18.2		ug/L		91	77 - 123

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Former Cleaner Project - Woodside, NY

TestAmerica Job ID: 460-160904-1

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

Lab Sample ID: 460-160904-1 MS

Matrix: Water

Analysis Batch: 540278

Client Sample ID: FC-MW-7

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	1.0	U	20.0	19.4		ug/L		97	74 - 123
1,2-Dichloroethane	1.0	U	20.0	16.9		ug/L		85	76 - 121
1,2-Dichloropropane	1.0	U	20.0	18.8		ug/L		94	77 - 123
2-Butanone (MEK)	5.0	U	100	96.1		ug/L		96	64 - 120
2-Hexanone	5.0	U	100	94.8		ug/L		95	71 - 125
4-Methyl-2-pentanone (MIBK)	5.0	U	100	96.3		ug/L		96	78 - 124
Acetone	9.5		100	94.9		ug/L		85	39 - 150
Benzene	1.0	U	20.0	18.6		ug/L		93	77 - 121
Bromoform	1.0	U	20.0	18.5		ug/L		93	53 - 120
Bromomethane	1.0	U	20.0	17.9		ug/L		89	10 - 150
Carbon disulfide	1.0	U	20.0	17.6		ug/L		88	69 - 133
Carbon tetrachloride	1.0	U	20.0	19.6		ug/L		98	70 - 132
Chlorobenzene	1.0	U	20.0	19.3		ug/L		96	80 - 120
Chlorodibromomethane	1.0	U	20.0	20.2		ug/L		101	73 - 120
Chloroethane	1.0	U	20.0	18.1		ug/L		90	52 - 150
Chloroform	32		20.0	48.8		ug/L		83	80 - 120
Chloromethane	1.0	U	20.0	19.3		ug/L		97	56 - 131
cis-1,2-Dichloroethene	1.0	U	20.0	18.3		ug/L		91	80 - 120
cis-1,3-Dichloropropene	1.0	U	20.0	17.8		ug/L		89	77 - 120
Dichlorobromomethane	2.6		20.0	21.4		ug/L		94	76 - 120
Ethylbenzene	1.0	U	20.0	19.9		ug/L		99	80 - 120
Methylene Chloride	1.0	U	20.0	18.8		ug/L		94	77 - 123
Styrene	1.0	U	20.0	19.0		ug/L		95	80 - 120
Tetrachloroethene	1.0	U	20.0	19.7		ug/L		98	78 - 122
Toluene	1.0	U	20.0	19.4		ug/L		97	80 - 120
trans-1,2-Dichloroethene	1.0	U	20.0	19.5		ug/L		97	79 - 120
trans-1,3-Dichloropropene	1.0	U	20.0	17.6		ug/L		88	76 - 120
Trichloroethene	1.0	U	20.0	18.7		ug/L		94	77 - 120
Vinyl chloride	1.0	U	20.0	17.3		ug/L		87	62 - 138
Xylenes, Total	2.0	U	40.0	39.7		ug/L		99	80 - 120

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	92		74 - 132
4-Bromofluorobenzene	100		77 - 124
Dibromofluoromethane (Surr)	99		72 - 131
Toluene-d8 (Surr)	100		80 - 120

Lab Sample ID: 460-160904-1 MSD

Matrix: Water

Analysis Batch: 540278

Client Sample ID: FC-MW-7

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	19.2		ug/L		96	75 - 125	0	30
1,1,2,2-Tetrachloroethane	1.0	U	20.0	19.1		ug/L		96	74 - 120	0	30
1,1,2-Trichloroethane	1.0	U	20.0	18.1		ug/L		90	78 - 120	3	30
1,1-Dichloroethane	1.0	U	20.0	18.3		ug/L		91	77 - 123	0	30
1,1-Dichloroethene	1.0	U	20.0	18.6		ug/L		93	74 - 123	4	30
1,2-Dichloroethane	1.0	U	20.0	16.8		ug/L		84	76 - 121	1	30

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Former Cleaner Project - Woodside, NY

TestAmerica Job ID: 460-160904-1

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

Lab Sample ID: 460-160904-1 MSD

Matrix: Water

Analysis Batch: 540278

Client Sample ID: FC-MW-7

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichloropropane	1.0	U	20.0	18.3		ug/L		92	77 - 123	2	30
2-Butanone (MEK)	5.0	U	100	100		ug/L		100	64 - 120	4	30
2-Hexanone	5.0	U	100	96.8		ug/L		97	71 - 125	2	30
4-Methyl-2-pentanone (MIBK)	5.0	U	100	96.1		ug/L		96	78 - 124	0	30
Acetone	9.5		100	92.1		ug/L		83	39 - 150	3	30
Benzene	1.0	U	20.0	18.7		ug/L		93	77 - 121	0	30
Bromoform	1.0	U	20.0	18.9		ug/L		94	53 - 120	2	30
Bromomethane	1.0	U	20.0	17.2		ug/L		86	10 - 150	4	30
Carbon disulfide	1.0	U	20.0	17.8		ug/L		89	69 - 133	1	30
Carbon tetrachloride	1.0	U	20.0	20.3		ug/L		101	70 - 132	3	30
Chlorobenzene	1.0	U	20.0	19.5		ug/L		97	80 - 120	1	30
Chlorodibromomethane	1.0	U	20.0	20.1		ug/L		100	73 - 120	1	30
Chloroethane	1.0	U	20.0	17.4		ug/L		87	52 - 150	4	30
Chloroform	32		20.0	49.5		ug/L		86	80 - 120	1	30
Chloromethane	1.0	U	20.0	19.0		ug/L		95	56 - 131	2	30
cis-1,2-Dichloroethene	1.0	U	20.0	18.6		ug/L		93	80 - 120	2	30
cis-1,3-Dichloropropene	1.0	U	20.0	18.1		ug/L		91	77 - 120	2	30
Dichlorobromomethane	2.6		20.0	21.5		ug/L		94	76 - 120	1	30
Ethylbenzene	1.0	U	20.0	19.7		ug/L		99	80 - 120	1	30
Methylene Chloride	1.0	U	20.0	18.7		ug/L		93	77 - 123	1	30
Styrene	1.0	U	20.0	19.1		ug/L		96	80 - 120	1	30
Tetrachloroethene	1.0	U	20.0	20.0		ug/L		100	78 - 122	2	30
Toluene	1.0	U	20.0	19.4		ug/L		97	80 - 120	0	30
trans-1,2-Dichloroethene	1.0	U	20.0	19.5		ug/L		97	79 - 120	0	30
trans-1,3-Dichloropropene	1.0	U	20.0	17.7		ug/L		89	76 - 120	1	30
Trichloroethene	1.0	U	20.0	19.3		ug/L		97	77 - 120	3	30
Vinyl chloride	1.0	U	20.0	17.3		ug/L		86	62 - 138	0	30
Xylenes, Total	2.0	U	40.0	39.7		ug/L		99	80 - 120	0	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	92		74 - 132
4-Bromofluorobenzene	101		77 - 124
Dibromofluoromethane (Surr)	99		72 - 131
Toluene-d8 (Surr)	100		80 - 120

Lab Sample ID: MB 460-540446/8

Matrix: Water

Analysis Batch: 540446

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			07/28/18 19:06	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			07/28/18 19:06	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			07/28/18 19:06	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			07/28/18 19:06	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			07/28/18 19:06	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			07/28/18 19:06	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			07/28/18 19:06	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			07/28/18 19:06	1

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Former Cleaner Project - Woodside, NY

TestAmerica Job ID: 460-160904-1

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

Lab Sample ID: MB 460-540446/8

Matrix: Water

Analysis Batch: 540446

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Hexanone	5.0	U	5.0	2.9	ug/L			07/28/18 19:06	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.7	ug/L			07/28/18 19:06	1
Acetone	5.0	U	5.0	5.0	ug/L			07/28/18 19:06	1
Benzene	1.0	U	1.0	0.43	ug/L			07/28/18 19:06	1
Bromoform	1.0	U	1.0	0.54	ug/L			07/28/18 19:06	1
Bromomethane	1.0	U	1.0	1.0	ug/L			07/28/18 19:06	1
Carbon disulfide	1.0	U	1.0	0.16	ug/L			07/28/18 19:06	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			07/28/18 19:06	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			07/28/18 19:06	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			07/28/18 19:06	1
Chloroethane	1.0	U	1.0	0.32	ug/L			07/28/18 19:06	1
Chloroform	1.0	U	1.0	0.33	ug/L			07/28/18 19:06	1
Chloromethane	1.0	U	1.0	0.14	ug/L			07/28/18 19:06	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			07/28/18 19:06	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			07/28/18 19:06	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			07/28/18 19:06	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			07/28/18 19:06	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			07/28/18 19:06	1
Styrene	1.0	U	1.0	0.42	ug/L			07/28/18 19:06	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			07/28/18 19:06	1
Toluene	1.0	U	1.0	0.38	ug/L			07/28/18 19:06	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			07/28/18 19:06	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			07/28/18 19:06	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			07/28/18 19:06	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			07/28/18 19:06	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			07/28/18 19:06	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					07/28/18 19:06	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		74 - 132		07/28/18 19:06	1
4-Bromofluorobenzene	95		77 - 124		07/28/18 19:06	1
Dibromofluoromethane (Surr)	96		72 - 131		07/28/18 19:06	1
Toluene-d8 (Surr)	102		80 - 120		07/28/18 19:06	1

Lab Sample ID: LCS 460-540446/4

Matrix: Water

Analysis Batch: 540446

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	18.9		ug/L		95	75 - 125
1,1,2,2-Tetrachloroethane	20.0	18.6		ug/L		93	74 - 120
1,1,2-Trichloroethane	20.0	17.1		ug/L		86	78 - 120
1,1-Dichloroethane	20.0	18.7		ug/L		93	77 - 123
1,1-Dichloroethene	20.0	19.2		ug/L		96	74 - 123
1,2-Dichloroethane	20.0	17.2		ug/L		86	76 - 121

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Former Cleaner Project - Woodside, NY

TestAmerica Job ID: 460-160904-1

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

Lab Sample ID: LCS 460-540446/4

Matrix: Water

Analysis Batch: 540446

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloropropane	20.0	19.0		ug/L		95	77 - 123
2-Butanone (MEK)	100	104		ug/L		104	64 - 120
2-Hexanone	100	94.4		ug/L		94	71 - 125
4-Methyl-2-pentanone (MIBK)	100	96.7		ug/L		97	78 - 124
Acetone	100	94.8		ug/L		95	39 - 150
Benzene	20.0	19.2		ug/L		96	77 - 121
Bromoform	20.0	19.1		ug/L		95	53 - 120
Bromomethane	20.0	16.6		ug/L		83	10 - 150
Carbon disulfide	20.0	18.1		ug/L		90	69 - 133
Carbon tetrachloride	20.0	20.2		ug/L		101	70 - 132
Chlorobenzene	20.0	19.8		ug/L		99	80 - 120
Chlorodibromomethane	20.0	21.3		ug/L		106	73 - 120
Chloroethane	20.0	16.9		ug/L		84	52 - 150
Chloroform	20.0	18.8		ug/L		94	80 - 120
Chloromethane	20.0	20.5		ug/L		102	56 - 131
cis-1,2-Dichloroethene	20.0	18.2		ug/L		91	80 - 120
cis-1,3-Dichloropropene	20.0	19.0		ug/L		95	77 - 120
Dichlorobromomethane	20.0	20.0		ug/L		100	76 - 120
Ethylbenzene	20.0	20.0		ug/L		100	80 - 120
Methylene Chloride	20.0	18.7		ug/L		94	77 - 123
Styrene	20.0	19.3		ug/L		96	80 - 120
Tetrachloroethene	20.0	20.5		ug/L		103	78 - 122
Toluene	20.0	19.7		ug/L		99	80 - 120
trans-1,2-Dichloroethene	20.0	19.1		ug/L		96	79 - 120
trans-1,3-Dichloropropene	20.0	18.1		ug/L		90	76 - 120
Trichloroethene	20.0	19.1		ug/L		96	77 - 120
Vinyl chloride	20.0	16.0		ug/L		80	62 - 138
Xylenes, Total	40.0	39.1		ug/L		98	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	90		74 - 132
4-Bromofluorobenzene	100		77 - 124
Dibromofluoromethane (Surr)	96		72 - 131
Toluene-d8 (Surr)	102		80 - 120

Lab Sample ID: LCSD 460-540446/5

Matrix: Water

Analysis Batch: 540446

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		94	75 - 125	1	30
1,1,1,2-Tetrachloroethane	20.0	18.8		ug/L		94	74 - 120	1	30
1,1,2-Trichloroethane	20.0	18.0		ug/L		90	78 - 120	5	30
1,1-Dichloroethane	20.0	18.7		ug/L		93	77 - 123	0	30
1,1-Dichloroethene	20.0	19.0		ug/L		95	74 - 123	1	30
1,2-Dichloroethane	20.0	17.0		ug/L		85	76 - 121	1	30
1,2-Dichloropropane	20.0	18.8		ug/L		94	77 - 123	1	30
2-Butanone (MEK)	100	102		ug/L		102	64 - 120	2	30

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Former Cleaner Project - Woodside, NY

TestAmerica Job ID: 460-160904-1

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

Lab Sample ID: LCSD 460-540446/5

Matrix: Water

Analysis Batch: 540446

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
2-Hexanone	100	94.3		ug/L		94	71 - 125	0	30
4-Methyl-2-pentanone (MIBK)	100	96.9		ug/L		97	78 - 124	0	30
Acetone	100	98.7		ug/L		99	39 - 150	4	30
Benzene	20.0	19.2		ug/L		96	77 - 121	0	30
Bromoform	20.0	20.4		ug/L		102	53 - 120	7	30
Bromomethane	20.0	17.6		ug/L		88	10 - 150	6	30
Carbon disulfide	20.0	18.0		ug/L		90	69 - 133	1	30
Carbon tetrachloride	20.0	19.6		ug/L		98	70 - 132	3	30
Chlorobenzene	20.0	19.8		ug/L		99	80 - 120	0	30
Chlorodibromomethane	20.0	20.9		ug/L		104	73 - 120	2	30
Chloroethane	20.0	17.5		ug/L		87	52 - 150	3	30
Chloroform	20.0	19.1		ug/L		95	80 - 120	2	30
Chloromethane	20.0	18.9		ug/L		95	56 - 131	8	30
cis-1,2-Dichloroethene	20.0	18.6		ug/L		93	80 - 120	2	30
cis-1,3-Dichloropropene	20.0	18.3		ug/L		92	77 - 120	4	30
Dichlorobromomethane	20.0	19.4		ug/L		97	76 - 120	3	30
Ethylbenzene	20.0	20.2		ug/L		101	80 - 120	1	30
Methylene Chloride	20.0	18.9		ug/L		95	77 - 123	1	30
Styrene	20.0	19.3		ug/L		96	80 - 120	0	30
Tetrachloroethene	20.0	20.0		ug/L		100	78 - 122	3	30
Toluene	20.0	19.5		ug/L		98	80 - 120	1	30
trans-1,2-Dichloroethene	20.0	19.2		ug/L		96	79 - 120	0	30
trans-1,3-Dichloropropene	20.0	17.7		ug/L		88	76 - 120	2	30
Trichloroethene	20.0	18.8		ug/L		94	77 - 120	2	30
Vinyl chloride	20.0	16.2		ug/L		81	62 - 138	1	30
Xylenes, Total	40.0	39.4		ug/L		98	80 - 120	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	91		74 - 132
4-Bromofluorobenzene	99		77 - 124
Dibromofluoromethane (Surr)	98		72 - 131
Toluene-d8 (Surr)	105		80 - 120

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 480-426008/4

Matrix: Water

Analysis Batch: 426008

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	4.0	U	4.0	1.0	ug/L			07/24/18 10:19	1
Ethane	7.5	U	7.5	1.5	ug/L			07/24/18 10:19	1
Ethene	7.0	U	7.0	1.5	ug/L			07/24/18 10:19	1

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Former Cleaner Project - Woodside, NY

TestAmerica Job ID: 460-160904-1

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: LCS 480-426008/5

Matrix: Water

Analysis Batch: 426008

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methane	7.77	8.30		ug/L		107	85 - 120
Ethane	14.6	15.5		ug/L		106	79 - 120
Ethene	13.6	14.3		ug/L		105	85 - 120

Lab Sample ID: LCSD 480-426008/6

Matrix: Water

Analysis Batch: 426008

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
Methane	7.77	7.61		ug/L		98	85 - 120	9	50
Ethane	14.6	14.2		ug/L		98	79 - 120	9	50
Ethene	13.6	13.4		ug/L		98	85 - 120	6	50

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 460-539223/1-A ^2

Matrix: Water

Analysis Batch: 539344

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 539223

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	8.0	U	8.0	2.7	ug/L		07/24/18 09:55	07/24/18 18:07	2
Iron	120	U	120	46	ug/L		07/24/18 09:55	07/24/18 18:07	2

Lab Sample ID: LCS 460-539223/2-A ^2

Matrix: Water

Analysis Batch: 539344

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 539223

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Manganese	250	249		ug/L		100	80 - 120
Iron	2500	2510		ug/L		100	80 - 120

Lab Sample ID: 460-160911-E-1-C MS ^2

Matrix: Water

Analysis Batch: 539344

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 539223

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Manganese	8.0	U	250	256		ug/L		102	75 - 125
Iron	120	U	2500	2550		ug/L		102	75 - 125

Lab Sample ID: 460-160911-E-1-B DU ^2

Matrix: Water

Analysis Batch: 539344

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 539223

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Manganese	8.0	U	8.0	U	ug/L		NC	20
Iron	120	U	120	U	ug/L		NC	20

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Former Cleaner Project - Woodside, NY

TestAmerica Job ID: 460-160904-1

Method: D516-90, 02 - Sulfate

Lab Sample ID: MB 460-539309/3

Matrix: Water

Analysis Batch: 539309

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	5.0	U	5.0	1.4	mg/L	-		07/24/18 16:08	1

Lab Sample ID: LCSSRM 460-539309/4

Matrix: Water

Analysis Batch: 539309

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	19.8	19.7		mg/L	-	99.7	83.8 - 112.1

Lab Sample ID: 460-160518-D-9 MS

Matrix: Water

Analysis Batch: 539309

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
Sulfate	20		100	120		mg/L	-	100	85 - 115

Lab Sample ID: 460-160518-D-9 MSD

Matrix: Water

Analysis Batch: 539309

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
Sulfate	20		100	121		mg/L	-	101	85 - 115	1	13

Method: SM 4500 NO3 F - Nitrogen, Nitrate

Lab Sample ID: MB 460-538251/11

Matrix: Water

Analysis Batch: 538251

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.10	U	0.10	0.010	mg/L	-		07/20/18 13:10	1

Lab Sample ID: LCSSRM 460-538251/12

Matrix: Water

Analysis Batch: 538251

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	1.09	1.16		mg/L	-	106.8	88.1 - 111.0

Lab Sample ID: 460-160904-10 MS

Matrix: Water

Analysis Batch: 538251

Client Sample ID: FC-MW-6

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	0.25		0.500	0.758		mg/L	-	101	85 - 115

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: Former Cleaner Project - Woodside, NY

TestAmerica Job ID: 460-160904-1

Method: SM 4500 NO3 F - Nitrogen, Nitrate (Continued)

Lab Sample ID: 460-160904-10 MSD

Matrix: Water

Analysis Batch: 538251

Client Sample ID: FC-MW-6

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	0.25		0.500	0.752		mg/L		100	85 - 115	1	17

Method: SM 5310B - Organic Carbon, Total (TOC)

Lab Sample ID: MB 460-540712/19

Matrix: Water

Analysis Batch: 540712

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	1.0	U	1.0	0.22	mg/L			07/27/18 15:25	1

Lab Sample ID: LCSSRM 460-540712/20

Matrix: Water

Analysis Batch: 540712

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	45.4	50.2		mg/L		110.6	84.0 - 114.7

Lab Sample ID: 460-160826-A-14 MS

Matrix: Water

Analysis Batch: 540712

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
Total Organic Carbon	2.3		50.0	53.2		mg/L		102	85 - 115

Lab Sample ID: 460-160826-A-14 MSD

Matrix: Water

Analysis Batch: 540712

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
Total Organic Carbon	2.3		50.0	53.4		mg/L		102	85 - 115	0	10

TestAmerica Edison

QC Association Summary

Client: Parsons Corporation
Project/Site: Former Cleaner Project - Woodside, NY

TestAmerica Job ID: 460-160904-1

GC/MS VOA

Analysis Batch: 540278

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-160904-1	FC-MW-7	Total/NA	Water	8260C	
460-160904-2	FC-MW-7-D	Total/NA	Water	8260C	
460-160904-3	FC-MW-8	Total/NA	Water	8260C	
460-160904-4	FC-MW-108D	Total/NA	Water	8260C	
460-160904-5	FC-MW-103S	Total/NA	Water	8260C	
460-160904-6	FC-MW-5	Total/NA	Water	8260C	
460-160904-7	FC-MW-104S	Total/NA	Water	8260C	
460-160904-11	FC-TB071718	Total/NA	Water	8260C	
460-160904-12	FC-EB-071718	Total/NA	Water	8260C	
MB 460-540278/8	Method Blank	Total/NA	Water	8260C	
LCS 460-540278/4	Lab Control Sample	Total/NA	Water	8260C	
460-160904-1 MS	FC-MW-7	Total/NA	Water	8260C	
460-160904-1 MSD	FC-MW-7	Total/NA	Water	8260C	

Analysis Batch: 540446

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-160904-8	FC-MW-104D	Total/NA	Water	8260C	
460-160904-9	FC-MW-107D	Total/NA	Water	8260C	
460-160904-10	FC-MW-6	Total/NA	Water	8260C	
MB 460-540446/8	Method Blank	Total/NA	Water	8260C	
LCS 460-540446/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 460-540446/5	Lab Control Sample Dup	Total/NA	Water	8260C	

GC VOA

Analysis Batch: 426008

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-160904-5	FC-MW-103S	Total/NA	Water	RSK-175	
460-160904-6	FC-MW-5	Total/NA	Water	RSK-175	
460-160904-7	FC-MW-104S	Total/NA	Water	RSK-175	
460-160904-8	FC-MW-104D	Total/NA	Water	RSK-175	
460-160904-10	FC-MW-6	Total/NA	Water	RSK-175	
460-160904-12	FC-EB-071718	Total/NA	Water	RSK-175	
MB 480-426008/4	Method Blank	Total/NA	Water	RSK-175	
LCS 480-426008/5	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 480-426008/6	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Metals

Prep Batch: 539223

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-160904-5	FC-MW-103S	Total/NA	Water	3010A	
460-160904-6	FC-MW-5	Total/NA	Water	3010A	
460-160904-7	FC-MW-104S	Total/NA	Water	3010A	
460-160904-8	FC-MW-104D	Total/NA	Water	3010A	
460-160904-10	FC-MW-6	Total/NA	Water	3010A	
460-160904-12	FC-EB-071718	Total/NA	Water	3010A	
MB 460-539223/1-A ^2	Method Blank	Total/NA	Water	3010A	
LCS 460-539223/2-A ^2	Lab Control Sample	Total/NA	Water	3010A	
460-160911-E-1-C MS ^2	Matrix Spike	Total/NA	Water	3010A	

TestAmerica Edison

QC Association Summary

Client: Parsons Corporation
Project/Site: Former Cleaner Project - Woodside, NY

TestAmerica Job ID: 460-160904-1

Metals (Continued)

Prep Batch: 539223 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-160911-E-1-B DU ^2	Duplicate	Total/NA	Water	3010A	

Analysis Batch: 539344

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-160904-5	FC-MW-103S	Total/NA	Water	6020B	539223
460-160904-6	FC-MW-5	Total/NA	Water	6020B	539223
460-160904-7	FC-MW-104S	Total/NA	Water	6020B	539223
460-160904-8	FC-MW-104D	Total/NA	Water	6020B	539223
460-160904-10	FC-MW-6	Total/NA	Water	6020B	539223
460-160904-12	FC-EB-071718	Total/NA	Water	6020B	539223
MB 460-539223/1-A ^2	Method Blank	Total/NA	Water	6020B	539223
LCS 460-539223/2-A ^2	Lab Control Sample	Total/NA	Water	6020B	539223
460-160911-E-1-C MS ^2	Matrix Spike	Total/NA	Water	6020B	539223
460-160911-E-1-B DU ^2	Duplicate	Total/NA	Water	6020B	539223

General Chemistry

Analysis Batch: 538251

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-160904-5	FC-MW-103S	Total/NA	Water	SM 4500 NO3 F	
460-160904-6	FC-MW-5	Total/NA	Water	SM 4500 NO3 F	
460-160904-7	FC-MW-104S	Total/NA	Water	SM 4500 NO3 F	
460-160904-8	FC-MW-104D	Total/NA	Water	SM 4500 NO3 F	
460-160904-10	FC-MW-6	Total/NA	Water	SM 4500 NO3 F	
460-160904-12	FC-EB-071718	Total/NA	Water	SM 4500 NO3 F	
MB 460-538251/11	Method Blank	Total/NA	Water	SM 4500 NO3 F	
LCSSRM 460-538251/12	Lab Control Sample	Total/NA	Water	SM 4500 NO3 F	
LCSSRM 460-538251/13	Lab Control Sample	Total/NA	Water	SM 4500 NO3 F	
460-160904-10 MS	FC-MW-6	Total/NA	Water	SM 4500 NO3 F	
460-160904-10 MSD	FC-MW-6	Total/NA	Water	SM 4500 NO3 F	

Analysis Batch: 539309

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-160904-5	FC-MW-103S	Total/NA	Water	D516-90, 02	
460-160904-6	FC-MW-5	Total/NA	Water	D516-90, 02	
460-160904-7	FC-MW-104S	Total/NA	Water	D516-90, 02	
460-160904-8	FC-MW-104D	Total/NA	Water	D516-90, 02	
460-160904-10	FC-MW-6	Total/NA	Water	D516-90, 02	
460-160904-12	FC-EB-071718	Total/NA	Water	D516-90, 02	
MB 460-539309/3	Method Blank	Total/NA	Water	D516-90, 02	
LCSSRM 460-539309/4	Lab Control Sample	Total/NA	Water	D516-90, 02	
460-160518-D-9 MS	Matrix Spike	Total/NA	Water	D516-90, 02	
460-160518-D-9 MSD	Matrix Spike Duplicate	Total/NA	Water	D516-90, 02	

Analysis Batch: 540712

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-160904-5	FC-MW-103S	Total/NA	Water	SM 5310B	
460-160904-6	FC-MW-5	Total/NA	Water	SM 5310B	
460-160904-7	FC-MW-104S	Total/NA	Water	SM 5310B	
460-160904-8	FC-MW-104D	Total/NA	Water	SM 5310B	

TestAmerica Edison

QC Association Summary

Client: Parsons Corporation
Project/Site: Former Cleaner Project - Woodside, NY

TestAmerica Job ID: 460-160904-1

General Chemistry (Continued)

Analysis Batch: 540712 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-160904-10	FC-MW-6	Total/NA	Water	SM 5310B	
460-160904-12	FC-EB-071718	Total/NA	Water	SM 5310B	
MB 460-540712/19	Method Blank	Total/NA	Water	SM 5310B	
LCSSRM 460-540712/20	Lab Control Sample	Total/NA	Water	SM 5310B	
460-160826-A-14 MS	Matrix Spike	Total/NA	Water	SM 5310B	
460-160826-A-14 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5310B	

Lab Chronicle

Client: Parsons Corporation
Project/Site: Former Cleaner Project - Woodside, NY

TestAmerica Job ID: 460-160904-1

Client Sample ID: FC-MW-7

Date Collected: 07/17/18 10:25

Date Received: 07/20/18 09:25

Lab Sample ID: 460-160904-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	540278	07/28/18 00:29	AAT	TAL EDI

Client Sample ID: FC-MW-7-D

Date Collected: 07/17/18 10:25

Date Received: 07/20/18 09:25

Lab Sample ID: 460-160904-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	540278	07/28/18 00:07	AAT	TAL EDI

Client Sample ID: FC-MW-8

Date Collected: 07/17/18 12:20

Date Received: 07/20/18 09:25

Lab Sample ID: 460-160904-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	540278	07/28/18 01:14	AAT	TAL EDI

Client Sample ID: FC-MW-108D

Date Collected: 07/17/18 14:10

Date Received: 07/20/18 09:25

Lab Sample ID: 460-160904-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	540278	07/28/18 01:36	AAT	TAL EDI

Client Sample ID: FC-MW-103S

Date Collected: 07/18/18 10:20

Date Received: 07/20/18 09:25

Lab Sample ID: 460-160904-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	540278	07/28/18 01:58	AAT	TAL EDI
Total/NA	Analysis	RSK-175		1	426008	07/24/18 16:02	DSC	TAL BUF
Total/NA	Prep	3010A			539223	07/24/18 09:55	QZY	TAL EDI
Total/NA	Analysis	6020B		2	539344	07/24/18 18:59	PHP	TAL EDI
Total/NA	Analysis	D516-90, 02		5	539309	07/24/18 16:33	HTV	TAL EDI
Total/NA	Analysis	SM 4500 NO3 F		10	538251	07/20/18 13:26	AXR	TAL EDI
Total/NA	Analysis	SM 5310B		1	540712	07/27/18 17:00	JXT	TAL EDI

TestAmerica Edison

Lab Chronicle

Client: Parsons Corporation
Project/Site: Former Cleaner Project - Woodside, NY

TestAmerica Job ID: 460-160904-1

Client Sample ID: FC-MW-5

Lab Sample ID: 460-160904-6

Date Collected: 07/18/18 13:00

Matrix: Water

Date Received: 07/20/18 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	540278	07/28/18 02:20	AAT	TAL EDI
Total/NA	Analysis	RSK-175		1	426008	07/24/18 13:07	DSC	TAL BUF
Total/NA	Prep	3010A			539223	07/24/18 11:14	QZY	TAL EDI
Total/NA	Analysis	6020B		2	539344	07/24/18 19:12	PHP	TAL EDI
Total/NA	Analysis	D516-90, 02		1	539309	07/24/18 16:08	HTV	TAL EDI
Total/NA	Analysis	SM 4500 NO3 F		5	538251	07/20/18 13:24	AXR	TAL EDI
Total/NA	Analysis	SM 5310B		1	540712	07/27/18 17:56	JXT	TAL EDI

Client Sample ID: FC-MW-104S

Lab Sample ID: 460-160904-7

Date Collected: 07/18/18 14:25

Matrix: Water

Date Received: 07/20/18 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2	540278	07/28/18 03:05	AAT	TAL EDI
Total/NA	Analysis	RSK-175		1	426008	07/24/18 13:24	DSC	TAL BUF
Total/NA	Prep	3010A			539223	07/24/18 11:14	QZY	TAL EDI
Total/NA	Analysis	6020B		2	539344	07/24/18 19:15	PHP	TAL EDI
Total/NA	Analysis	D516-90, 02		1	539309	07/24/18 16:08	HTV	TAL EDI
Total/NA	Analysis	SM 4500 NO3 F		5	538251	07/20/18 13:23	AXR	TAL EDI
Total/NA	Analysis	SM 5310B		1	540712	07/27/18 18:14	JXT	TAL EDI

Client Sample ID: FC-MW-104D

Lab Sample ID: 460-160904-8

Date Collected: 07/18/18 15:45

Matrix: Water

Date Received: 07/20/18 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	540446	07/28/18 21:19	AAT	TAL EDI
Total/NA	Analysis	RSK-175		1	426008	07/24/18 13:42	DSC	TAL BUF
Total/NA	Prep	3010A			539223	07/24/18 11:14	QZY	TAL EDI
Total/NA	Analysis	6020B		2	539344	07/24/18 19:17	PHP	TAL EDI
Total/NA	Analysis	D516-90, 02		5	539309	07/24/18 16:33	HTV	TAL EDI
Total/NA	Analysis	SM 4500 NO3 F		10	538251	07/20/18 13:22	AXR	TAL EDI
Total/NA	Analysis	SM 5310B		1	540712	07/27/18 18:32	JXT	TAL EDI

Client Sample ID: FC-MW-107D

Lab Sample ID: 460-160904-9

Date Collected: 07/18/18 17:15

Matrix: Water

Date Received: 07/20/18 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	540446	07/28/18 20:35	AAT	TAL EDI

TestAmerica Edison

Lab Chronicle

Client: Parsons Corporation
Project/Site: Former Cleaner Project - Woodside, NY

TestAmerica Job ID: 460-160904-1

Client Sample ID: FC-MW-6

Date Collected: 07/18/18 18:35

Date Received: 07/20/18 09:25

Lab Sample ID: 460-160904-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	540446	07/28/18 21:42	AAT	TAL EDI
Total/NA	Analysis	RSK-175		1	426008	07/24/18 13:59	DSC	TAL BUF
Total/NA	Prep	3010A			539223	07/24/18 11:14	QZY	TAL EDI
Total/NA	Analysis	6020B		2	539344	07/24/18 19:20	PHP	TAL EDI
Total/NA	Analysis	D516-90, 02		1	539309	07/24/18 16:08	HTV	TAL EDI
Total/NA	Analysis	SM 4500 NO3 F		1	538251	07/20/18 13:14	AXR	TAL EDI
Total/NA	Analysis	SM 5310B		1	540712	07/27/18 18:50	JXT	TAL EDI

Client Sample ID: FC-TB071718

Date Collected: 07/18/18 00:00

Date Received: 07/20/18 09:25

Lab Sample ID: 460-160904-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	540278	07/27/18 23:44	AAT	TAL EDI

Client Sample ID: FC-EB-071718

Date Collected: 07/18/18 15:00

Date Received: 07/20/18 09:25

Lab Sample ID: 460-160904-12

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	540278	07/28/18 00:51	AAT	TAL EDI
Total/NA	Analysis	RSK-175		1	426008	07/24/18 14:17	DSC	TAL BUF
Total/NA	Prep	3010A			539223	07/24/18 11:14	QZY	TAL EDI
Total/NA	Analysis	6020B		2	539344	07/24/18 19:09	PHP	TAL EDI
Total/NA	Analysis	D516-90, 02		1	539309	07/24/18 16:08	HTV	TAL EDI
Total/NA	Analysis	SM 4500 NO3 F		1	538251	07/20/18 13:22	AXR	TAL EDI
Total/NA	Analysis	SM 5310B		1	540712	07/27/18 19:08	JXT	TAL EDI

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

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

TestAmerica Edison

Accreditation/Certification Summary

Client: Parsons Corporation
Project/Site: Former Cleaner Project - Woodside, NY

TestAmerica Job ID: 460-160904-1

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

Laboratory: TestAmerica Buffalo

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	88-0686	07-06-19
California	State Program	9	2931	04-01-19
Connecticut	State Program	1	PH-0568	09-30-18 *
Florida	NELAP	4	E87672	06-30-19
Georgia	State Program	4	10026 (NY)	03-31-19
Illinois	NELAP	5	200003	09-30-18
Iowa	State Program	7	374	03-01-19
Kansas	NELAP	7	E-10187	01-31-19
Kentucky (DW)	State Program	4	90029	12-31-18
Kentucky (UST)	State Program	4	30	03-31-19
Kentucky (WW)	State Program	4	90029	12-31-18
Louisiana	NELAP	6	02031	06-30-19
Maine	State Program	1	NY00044	12-04-18
Maryland	State Program	3	294	03-31-19
Massachusetts	State Program	1	M-NY044	06-30-19
Michigan	State Program	5	9937	03-31-19
Minnesota	NELAP	5	036-999-337	12-31-18
New Hampshire	NELAP	1	2337	11-17-18
New Jersey	NELAP	2	NY455	06-30-19
New York	NELAP	2	10026	03-31-19
North Dakota	State Program	8	R-176	03-31-19
Oklahoma	State Program	6	9421	08-31-18 *
Oregon	NELAP	10	NY200003	06-09-19
Pennsylvania	NELAP	3	68-00281	07-31-19
Rhode Island	State Program	1	LAO00328	12-30-18
Tennessee	State Program	4	TN02970	03-31-19
Texas	NELAP	6	T104704412-15-6	07-31-19
USDA	Federal		P330-11-00386	02-06-21
Virginia	NELAP	3	460185	09-14-18 *
Washington	State Program	10	C784	02-10-19
Wisconsin	State Program	5	998310390	08-31-18 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Edison

Method Summary

Client: Parsons Corporation
Project/Site: Former Cleaner Project - Woodside, NY

TestAmerica Job ID: 460-160904-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
RSK-175	Dissolved Gases (GC)	RSK	TAL BUF
6020B	Metals (ICP/MS)	SW846	TAL EDI
D516-90, 02	Sulfate	ASTM	TAL EDI
SM 4500 NO3 F	Nitrogen, Nitrate	SM	TAL EDI
SM 5310B	Organic Carbon, Total (TOC)	SM	TAL EDI
3010A	Preparation, Total Metals	SW846	TAL EDI
5030C	Purge and Trap	SW846	TAL EDI

Protocol References:

ASTM = ASTM International

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

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

Sample Summary

Client: Parsons Corporation
Project/Site: Former Cleaner Project - Woodside, NY

TestAmerica Job ID: 460-160904-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-160904-1	FC-MW-7	Water	07/17/18 10:25	07/20/18 09:25
460-160904-2	FC-MW-7-D	Water	07/17/18 10:25	07/20/18 09:25
460-160904-3	FC-MW-8	Water	07/17/18 12:20	07/20/18 09:25
460-160904-4	FC-MW-108D	Water	07/17/18 14:10	07/20/18 09:25
460-160904-5	FC-MW-103S	Water	07/18/18 10:20	07/20/18 09:25
460-160904-6	FC-MW-5	Water	07/18/18 13:00	07/20/18 09:25
460-160904-7	FC-MW-104S	Water	07/18/18 14:25	07/20/18 09:25
460-160904-8	FC-MW-104D	Water	07/18/18 15:45	07/20/18 09:25
460-160904-9	FC-MW-107D	Water	07/18/18 17:15	07/20/18 09:25
460-160904-10	FC-MW-6	Water	07/18/18 18:35	07/20/18 09:25
460-160904-11	FC-TB071718	Water	07/18/18 00:00	07/20/18 09:25
460-160904-12	FC-EB-071718	Water	07/18/18 15:00	07/20/18 09:25

3.3°C IR11 10 CS

SHORT estAmerica
HOLD

CHAIN OF CUSTODY / ANALYSIS REQUEST

Page 1 of 2

Name (for report and invoice) Allyson Kinney		Samplers Name (Printed) Aaron Fesback-Mermy		Site/Project Identification FCPS	
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 ☐		Regulatory Program: ☐ DKQP: ☐	
City Somerset		State NJ		LAB USE ONLY Project No: 160904	
Phone 609 713 3222		Fax		Job No: 160904	
Sample Identification		Date	Time	Matrix	No. of Cont.
FC-MW-7	7/17/18	1025	W	3	1
FC-MW-7-D	↓	↓	↓	3	2
FC-MW-7-MS	↓	↓	↓	3	1
FC-MW-7-MSD	↓	↓	↓	3	1
FC-MW-8	↓	↓	↓	3	3
FC-MW-108D	↓	↓	↓	3	4
FC-MW-103S	7/18/18	1020	↓	9	5
FC-MW-5	↓	↓	↓	9	10
FC-MW-104S	↓	↓	↓	9	7
FC-MW-104D	↓	↓	↓	9	8
Preservation Used: 1 = ICE, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH 6 = Other, 7 = Other		Soil:		Water:	
				1,2 1,2 1,3 1,4 1	

Special Instructions		Water Metals Filtered (Yes/No)?	
Relinquished by [Signature]	Company Parsons	Date / Time 7/18/18 1030	Received by [Signature]
Relinquished by	Company	Date / Time	Received by
2) Relinquished by	Company	Date	Received by
3) Relinquished by	Company	Date	Received by
4) Relinquished by	Company	Date	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)

Job Number:

60904

Number of Coolers:

IR Gun

Cooler Temperatures

	CORRECTED				RAW		CORRECTED			RAW		CORRECTED
	RAW	°C					°C					°C
Cooler #1:	33	°C	33	°C			°C					°C
Cooler #2:		°C		°C			°C					°C
Cooler #3:		°C		°C			°C					°C
Cooler #4:							°C					°C
Cooler #5:							°C					°C
Cooler #6:							°C					°C
Cooler #7:							°C					°C
Cooler #8:							°C					°C
Cooler #9:							°C					°C

[illegible]

If pH adjustments are required record the information below:

Sample No(s). adjusted:

Preservative Name/Conc.:

Lot # of Preservative(s):

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:

EDS-WI-038, Rev 4, 06/09/2014

Login Sample Receipt Checklist

Client: Parsons Corporation

Job Number: 460-160904-1

Login Number: 160904

List Source: TestAmerica Edison

List Number: 1

Creator: Lysy, Susan

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.	N/A	
Sample custody seals, if present, are intact.	N/A	
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)	False	Refer to Job Narrative for details.
Sample containers have legible labels.	True	
Containers are not broken or leaking.	False	Refer to Job Narrative for details.
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.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Parsons Corporation

Job Number: 460-160904-1

Login Number: 160904

List Number: 2

Creator: Kinecki, Kenneth P

List Source: TestAmerica Buffalo

List Creation: 07/23/18 10:39 PM

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is 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	3.4 C
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 sample IDs on the containers 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	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual 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: 460-160989-1

Client Project/Site: FCPS

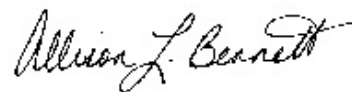
For:

Parsons Corporation

200 Cottontail Lane

Somerset, New Jersey 08873

Attn: Ms. Allyson Kriney



Authorized for release by:

8/20/2018 6:58:29 PM

Allison Bennett, Project Manager I

(732)549-3900

allison.bennett@testamericainc.com

LINKS

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results through

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www.testamericainc.com

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.

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Definitions/Glossary

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-160989-1

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.

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: FCPS

TestAmerica Job ID: 460-160989-1

Job ID: 460-160989-1

Laboratory: TestAmerica Edison

Narrative

CASE NARRATIVE

Client: Parsons Corporation

Project: FCPS

Report Number: 460-160989-1

Revision 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.

Revision 1 - Per client request, the data has been revised to report non-detected results to the RL vs. MDL.

RECEIPT

The samples were received on 7/20/2018 6:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.9° C.

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 FC-MW-105D (460-160989-1), FC-MW-105S (460-160989-2), FC-MW-1 (460-160989-3), FC-MW-109S (460-160989-4), FC-MW-9 (460-160989-5), FC-MW-3 (460-160989-6) and FC-TB072018 (460-160989-7) were analyzed for Volatile organic compounds (GC-MS) in accordance with EPA SW-846 Methods 8260C. The samples were analyzed on 07/28/2018.

No difficulties were encountered during the volatiles analysis.

All quality control parameters were within the acceptance limits.

Detection Summary

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-160989-1

Client Sample ID: FC-MW-105D

Lab Sample ID: 460-160989-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloroform	0.47	J	1.0	0.33	ug/L	1			8260C	Total/NA
Tetrachloroethene	0.25	J	1.0	0.25	ug/L	1			8260C	Total/NA
Trichloroethene	0.85	J	1.0	0.31	ug/L	1			8260C	Total/NA

Client Sample ID: FC-MW-105S

Lab Sample ID: 460-160989-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Tetrachloroethene	1.0		1.0	0.25	ug/L	1			8260C	Total/NA

Client Sample ID: FC-MW-1

Lab Sample ID: 460-160989-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloroform	1.2		1.0	0.33	ug/L	1			8260C	Total/NA
Tetrachloroethene	3.2		1.0	0.25	ug/L	1			8260C	Total/NA
Trichloroethene	0.42	J	1.0	0.31	ug/L	1			8260C	Total/NA

Client Sample ID: FC-MW-109S

Lab Sample ID: 460-160989-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Tetrachloroethene	9.2		1.0	0.25	ug/L	1			8260C	Total/NA
Trichloroethene	2.4		1.0	0.31	ug/L	1			8260C	Total/NA

Client Sample ID: FC-MW-9

Lab Sample ID: 460-160989-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloroform	0.49	J	1.0	0.33	ug/L	1			8260C	Total/NA
Tetrachloroethene	0.55	J	1.0	0.25	ug/L	1			8260C	Total/NA

Client Sample ID: FC-MW-3

Lab Sample ID: 460-160989-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloroform	0.67	J	1.0	0.33	ug/L	1			8260C	Total/NA
Tetrachloroethene	4.5		1.0	0.25	ug/L	1			8260C	Total/NA
Trichloroethene	0.53	J	1.0	0.31	ug/L	1			8260C	Total/NA

Client Sample ID: FC-TB072018

Lab Sample ID: 460-160989-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Acetone	5.4		5.0	5.0	ug/L	1			8260C	Total/NA
Methylene Chloride	5.7		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: FCPS

TestAmerica Job ID: 460-160989-1

Client Sample ID: FC-MW-105D

Lab Sample ID: 460-160989-1

Date Collected: 07/19/18 09:50

Matrix: Water

Date Received: 07/20/18 18:00

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			07/28/18 02:43	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			07/28/18 02:43	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			07/28/18 02:43	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			07/28/18 02:43	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			07/28/18 02:43	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			07/28/18 02:43	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			07/28/18 02:43	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			07/28/18 02:43	1
2-Hexanone	5.0	U	5.0	2.9	ug/L			07/28/18 02:43	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.7	ug/L			07/28/18 02:43	1
Acetone	5.0	U	5.0	5.0	ug/L			07/28/18 02:43	1
Benzene	1.0	U	1.0	0.43	ug/L			07/28/18 02:43	1
Bromoform	1.0	U	1.0	0.54	ug/L			07/28/18 02:43	1
Bromomethane	1.0	U	1.0	1.0	ug/L			07/28/18 02:43	1
Carbon disulfide	1.0	U	1.0	0.16	ug/L			07/28/18 02:43	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			07/28/18 02:43	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			07/28/18 02:43	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			07/28/18 02:43	1
Chloroethane	1.0	U	1.0	0.32	ug/L			07/28/18 02:43	1
Chloroform	0.47	J	1.0	0.33	ug/L			07/28/18 02:43	1
Chloromethane	1.0	U	1.0	0.14	ug/L			07/28/18 02:43	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			07/28/18 02:43	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			07/28/18 02:43	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			07/28/18 02:43	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			07/28/18 02:43	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			07/28/18 02:43	1
Styrene	1.0	U	1.0	0.42	ug/L			07/28/18 02:43	1
Tetrachloroethene	0.25	J	1.0	0.25	ug/L			07/28/18 02:43	1
Toluene	1.0	U	1.0	0.38	ug/L			07/28/18 02:43	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			07/28/18 02:43	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			07/28/18 02:43	1
Trichloroethene	0.85	J	1.0	0.31	ug/L			07/28/18 02:43	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			07/28/18 02:43	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			07/28/18 02:43	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					07/28/18 02:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		74 - 132		07/28/18 02:43	1
4-Bromofluorobenzene	103		77 - 124		07/28/18 02:43	1
Dibromofluoromethane (Surr)	99		72 - 131		07/28/18 02:43	1
Toluene-d8 (Surr)	94		80 - 120		07/28/18 02:43	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-160989-1

Client Sample ID: FC-MW-105S

Lab Sample ID: 460-160989-2

Date Collected: 07/19/18 11:25

Matrix: Water

Date Received: 07/20/18 18:00

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			07/28/18 03:10	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			07/28/18 03:10	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			07/28/18 03:10	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			07/28/18 03:10	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			07/28/18 03:10	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			07/28/18 03:10	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			07/28/18 03:10	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			07/28/18 03:10	1
2-Hexanone	5.0	U	5.0	2.9	ug/L			07/28/18 03:10	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.7	ug/L			07/28/18 03:10	1
Acetone	5.0	U	5.0	5.0	ug/L			07/28/18 03:10	1
Benzene	1.0	U	1.0	0.43	ug/L			07/28/18 03:10	1
Bromoform	1.0	U	1.0	0.54	ug/L			07/28/18 03:10	1
Bromomethane	1.0	U	1.0	1.0	ug/L			07/28/18 03:10	1
Carbon disulfide	1.0	U	1.0	0.16	ug/L			07/28/18 03:10	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			07/28/18 03:10	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			07/28/18 03:10	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			07/28/18 03:10	1
Chloroethane	1.0	U	1.0	0.32	ug/L			07/28/18 03:10	1
Chloroform	1.0	U	1.0	0.33	ug/L			07/28/18 03:10	1
Chloromethane	1.0	U	1.0	0.14	ug/L			07/28/18 03:10	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			07/28/18 03:10	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			07/28/18 03:10	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			07/28/18 03:10	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			07/28/18 03:10	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			07/28/18 03:10	1
Styrene	1.0	U	1.0	0.42	ug/L			07/28/18 03:10	1
Tetrachloroethene	1.0		1.0	0.25	ug/L			07/28/18 03:10	1
Toluene	1.0	U	1.0	0.38	ug/L			07/28/18 03:10	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			07/28/18 03:10	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			07/28/18 03:10	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			07/28/18 03:10	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			07/28/18 03:10	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			07/28/18 03:10	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					07/28/18 03:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		74 - 132		07/28/18 03:10	1
4-Bromofluorobenzene	102		77 - 124		07/28/18 03:10	1
Dibromofluoromethane (Surr)	98		72 - 131		07/28/18 03:10	1
Toluene-d8 (Surr)	94		80 - 120		07/28/18 03:10	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-160989-1

Client Sample ID: FC-MW-1

Lab Sample ID: 460-160989-3

Date Collected: 07/19/18 12:50

Matrix: Water

Date Received: 07/20/18 18:00

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			07/28/18 03:37	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			07/28/18 03:37	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			07/28/18 03:37	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			07/28/18 03:37	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			07/28/18 03:37	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			07/28/18 03:37	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			07/28/18 03:37	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			07/28/18 03:37	1
2-Hexanone	5.0	U	5.0	2.9	ug/L			07/28/18 03:37	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.7	ug/L			07/28/18 03:37	1
Acetone	5.0	U	5.0	5.0	ug/L			07/28/18 03:37	1
Benzene	1.0	U	1.0	0.43	ug/L			07/28/18 03:37	1
Bromoform	1.0	U	1.0	0.54	ug/L			07/28/18 03:37	1
Bromomethane	1.0	U	1.0	1.0	ug/L			07/28/18 03:37	1
Carbon disulfide	1.0	U	1.0	0.16	ug/L			07/28/18 03:37	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			07/28/18 03:37	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			07/28/18 03:37	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			07/28/18 03:37	1
Chloroethane	1.0	U	1.0	0.32	ug/L			07/28/18 03:37	1
Chloroform	1.2		1.0	0.33	ug/L			07/28/18 03:37	1
Chloromethane	1.0	U	1.0	0.14	ug/L			07/28/18 03:37	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			07/28/18 03:37	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			07/28/18 03:37	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			07/28/18 03:37	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			07/28/18 03:37	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			07/28/18 03:37	1
Styrene	1.0	U	1.0	0.42	ug/L			07/28/18 03:37	1
Tetrachloroethene	3.2		1.0	0.25	ug/L			07/28/18 03:37	1
Toluene	1.0	U	1.0	0.38	ug/L			07/28/18 03:37	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			07/28/18 03:37	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			07/28/18 03:37	1
Trichloroethene	0.42 J		1.0	0.31	ug/L			07/28/18 03:37	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			07/28/18 03:37	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			07/28/18 03:37	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					07/28/18 03:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		74 - 132		07/28/18 03:37	1
4-Bromofluorobenzene	100		77 - 124		07/28/18 03:37	1
Dibromofluoromethane (Surr)	97		72 - 131		07/28/18 03:37	1
Toluene-d8 (Surr)	95		80 - 120		07/28/18 03:37	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-160989-1

Client Sample ID: FC-MW-109S

Lab Sample ID: 460-160989-4

Date Collected: 07/19/18 13:05

Matrix: Water

Date Received: 07/20/18 18:00

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			07/28/18 04:03	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			07/28/18 04:03	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			07/28/18 04:03	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			07/28/18 04:03	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			07/28/18 04:03	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			07/28/18 04:03	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			07/28/18 04:03	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			07/28/18 04:03	1
2-Hexanone	5.0	U	5.0	2.9	ug/L			07/28/18 04:03	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.7	ug/L			07/28/18 04:03	1
Acetone	5.0	U	5.0	5.0	ug/L			07/28/18 04:03	1
Benzene	1.0	U	1.0	0.43	ug/L			07/28/18 04:03	1
Bromoform	1.0	U	1.0	0.54	ug/L			07/28/18 04:03	1
Bromomethane	1.0	U	1.0	1.0	ug/L			07/28/18 04:03	1
Carbon disulfide	1.0	U	1.0	0.16	ug/L			07/28/18 04:03	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			07/28/18 04:03	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			07/28/18 04:03	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			07/28/18 04:03	1
Chloroethane	1.0	U	1.0	0.32	ug/L			07/28/18 04:03	1
Chloroform	1.0	U	1.0	0.33	ug/L			07/28/18 04:03	1
Chloromethane	1.0	U	1.0	0.14	ug/L			07/28/18 04:03	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			07/28/18 04:03	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			07/28/18 04:03	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			07/28/18 04:03	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			07/28/18 04:03	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			07/28/18 04:03	1
Styrene	1.0	U	1.0	0.42	ug/L			07/28/18 04:03	1
Tetrachloroethene	9.2		1.0	0.25	ug/L			07/28/18 04:03	1
Toluene	1.0	U	1.0	0.38	ug/L			07/28/18 04:03	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			07/28/18 04:03	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			07/28/18 04:03	1
Trichloroethene	2.4		1.0	0.31	ug/L			07/28/18 04:03	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			07/28/18 04:03	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			07/28/18 04:03	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					07/28/18 04:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		74 - 132		07/28/18 04:03	1
4-Bromofluorobenzene	101		77 - 124		07/28/18 04:03	1
Dibromofluoromethane (Surr)	97		72 - 131		07/28/18 04:03	1
Toluene-d8 (Surr)	93		80 - 120		07/28/18 04:03	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-160989-1

Client Sample ID: FC-MW-9

Lab Sample ID: 460-160989-5

Date Collected: 07/20/18 09:30

Matrix: Water

Date Received: 07/20/18 18:00

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			07/28/18 04:30	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			07/28/18 04:30	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			07/28/18 04:30	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			07/28/18 04:30	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			07/28/18 04:30	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			07/28/18 04:30	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			07/28/18 04:30	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			07/28/18 04:30	1
2-Hexanone	5.0	U	5.0	2.9	ug/L			07/28/18 04:30	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.7	ug/L			07/28/18 04:30	1
Acetone	5.0	U	5.0	5.0	ug/L			07/28/18 04:30	1
Benzene	1.0	U	1.0	0.43	ug/L			07/28/18 04:30	1
Bromoform	1.0	U	1.0	0.54	ug/L			07/28/18 04:30	1
Bromomethane	1.0	U	1.0	1.0	ug/L			07/28/18 04:30	1
Carbon disulfide	1.0	U	1.0	0.16	ug/L			07/28/18 04:30	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			07/28/18 04:30	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			07/28/18 04:30	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			07/28/18 04:30	1
Chloroethane	1.0	U	1.0	0.32	ug/L			07/28/18 04:30	1
Chloroform	0.49	J	1.0	0.33	ug/L			07/28/18 04:30	1
Chloromethane	1.0	U	1.0	0.14	ug/L			07/28/18 04:30	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			07/28/18 04:30	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			07/28/18 04:30	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			07/28/18 04:30	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			07/28/18 04:30	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			07/28/18 04:30	1
Styrene	1.0	U	1.0	0.42	ug/L			07/28/18 04:30	1
Tetrachloroethene	0.55	J	1.0	0.25	ug/L			07/28/18 04:30	1
Toluene	1.0	U	1.0	0.38	ug/L			07/28/18 04:30	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			07/28/18 04:30	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			07/28/18 04:30	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			07/28/18 04:30	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			07/28/18 04:30	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			07/28/18 04:30	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					07/28/18 04:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		74 - 132		07/28/18 04:30	1
4-Bromofluorobenzene	108		77 - 124		07/28/18 04:30	1
Dibromofluoromethane (Surr)	106		72 - 131		07/28/18 04:30	1
Toluene-d8 (Surr)	100		80 - 120		07/28/18 04:30	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-160989-1

Client Sample ID: FC-MW-3

Lab Sample ID: 460-160989-6

Date Collected: 07/20/18 11:20

Matrix: Water

Date Received: 07/20/18 18:00

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			07/28/18 04:57	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			07/28/18 04:57	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			07/28/18 04:57	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			07/28/18 04:57	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			07/28/18 04:57	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			07/28/18 04:57	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			07/28/18 04:57	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			07/28/18 04:57	1
2-Hexanone	5.0	U	5.0	2.9	ug/L			07/28/18 04:57	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.7	ug/L			07/28/18 04:57	1
Acetone	5.0	U	5.0	5.0	ug/L			07/28/18 04:57	1
Benzene	1.0	U	1.0	0.43	ug/L			07/28/18 04:57	1
Bromoform	1.0	U	1.0	0.54	ug/L			07/28/18 04:57	1
Bromomethane	1.0	U	1.0	1.0	ug/L			07/28/18 04:57	1
Carbon disulfide	1.0	U	1.0	0.16	ug/L			07/28/18 04:57	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			07/28/18 04:57	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			07/28/18 04:57	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			07/28/18 04:57	1
Chloroethane	1.0	U	1.0	0.32	ug/L			07/28/18 04:57	1
Chloroform	0.67	J	1.0	0.33	ug/L			07/28/18 04:57	1
Chloromethane	1.0	U	1.0	0.14	ug/L			07/28/18 04:57	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			07/28/18 04:57	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			07/28/18 04:57	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			07/28/18 04:57	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			07/28/18 04:57	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			07/28/18 04:57	1
Styrene	1.0	U	1.0	0.42	ug/L			07/28/18 04:57	1
Tetrachloroethene	4.5		1.0	0.25	ug/L			07/28/18 04:57	1
Toluene	1.0	U	1.0	0.38	ug/L			07/28/18 04:57	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			07/28/18 04:57	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			07/28/18 04:57	1
Trichloroethene	0.53	J	1.0	0.31	ug/L			07/28/18 04:57	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			07/28/18 04:57	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			07/28/18 04:57	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					07/28/18 04:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		74 - 132		07/28/18 04:57	1
4-Bromofluorobenzene	102		77 - 124		07/28/18 04:57	1
Dibromofluoromethane (Surr)	100		72 - 131		07/28/18 04:57	1
Toluene-d8 (Surr)	98		80 - 120		07/28/18 04:57	1

TestAmerica Edison

Client Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-160989-1

Client Sample ID: FC-TB072018

Lab Sample ID: 460-160989-7

Date Collected: 07/20/18 00:00

Matrix: Water

Date Received: 07/20/18 18:00

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			07/28/18 00:57	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			07/28/18 00:57	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			07/28/18 00:57	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			07/28/18 00:57	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			07/28/18 00:57	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			07/28/18 00:57	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			07/28/18 00:57	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			07/28/18 00:57	1
2-Hexanone	5.0	U	5.0	2.9	ug/L			07/28/18 00:57	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.7	ug/L			07/28/18 00:57	1
Acetone	5.4		5.0	5.0	ug/L			07/28/18 00:57	1
Benzene	1.0	U	1.0	0.43	ug/L			07/28/18 00:57	1
Bromoform	1.0	U	1.0	0.54	ug/L			07/28/18 00:57	1
Bromomethane	1.0	U	1.0	1.0	ug/L			07/28/18 00:57	1
Carbon disulfide	1.0	U	1.0	0.16	ug/L			07/28/18 00:57	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			07/28/18 00:57	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			07/28/18 00:57	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			07/28/18 00:57	1
Chloroethane	1.0	U	1.0	0.32	ug/L			07/28/18 00:57	1
Chloroform	1.0	U	1.0	0.33	ug/L			07/28/18 00:57	1
Chloromethane	1.0	U	1.0	0.14	ug/L			07/28/18 00:57	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			07/28/18 00:57	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			07/28/18 00:57	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			07/28/18 00:57	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			07/28/18 00:57	1
Methylene Chloride	5.7		1.0	0.32	ug/L			07/28/18 00:57	1
Styrene	1.0	U	1.0	0.42	ug/L			07/28/18 00:57	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			07/28/18 00:57	1
Toluene	1.0	U	1.0	0.38	ug/L			07/28/18 00:57	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			07/28/18 00:57	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			07/28/18 00:57	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			07/28/18 00:57	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			07/28/18 00:57	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			07/28/18 00:57	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					07/28/18 00:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		74 - 132		07/28/18 00:57	1
4-Bromofluorobenzene	104		77 - 124		07/28/18 00:57	1
Dibromofluoromethane (Surr)	100		72 - 131		07/28/18 00:57	1
Toluene-d8 (Surr)	98		80 - 120		07/28/18 00:57	1

TestAmerica Edison

Surrogate Summary

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-160989-1

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	DCA (74-132)	BFB (77-124)	DBFM (72-131)	TOL (80-120)
460-160987-A-3 MS	Matrix Spike	96	107	99	97
460-160987-A-3 MSD	Matrix Spike Duplicate	96	105	100	96
460-160989-1	FC-MW-105D	96	103	99	94
460-160989-2	FC-MW-105S	97	102	98	94
460-160989-3	FC-MW-1	95	100	97	95
460-160989-4	FC-MW-109S	95	101	97	93
460-160989-5	FC-MW-9	100	108	106	100
460-160989-6	FC-MW-3	97	102	100	98
460-160989-7	FC-TB072018	98	104	100	98
LCS 460-540328/3	Lab Control Sample	96	107	100	96
MB 460-540328/7	Method Blank	97	103	99	96

Surrogate Legend

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

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

QC Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-160989-1

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

Lab Sample ID: MB 460-540328/7

Matrix: Water

Analysis Batch: 540328

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			07/28/18 00:03	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			07/28/18 00:03	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			07/28/18 00:03	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			07/28/18 00:03	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			07/28/18 00:03	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			07/28/18 00:03	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			07/28/18 00:03	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			07/28/18 00:03	1
2-Hexanone	5.0	U	5.0	2.9	ug/L			07/28/18 00:03	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.7	ug/L			07/28/18 00:03	1
Acetone	5.0	U	5.0	5.0	ug/L			07/28/18 00:03	1
Benzene	1.0	U	1.0	0.43	ug/L			07/28/18 00:03	1
Bromoform	1.0	U	1.0	0.54	ug/L			07/28/18 00:03	1
Bromomethane	1.0	U	1.0	1.0	ug/L			07/28/18 00:03	1
Carbon disulfide	1.0	U	1.0	0.16	ug/L			07/28/18 00:03	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			07/28/18 00:03	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			07/28/18 00:03	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			07/28/18 00:03	1
Chloroethane	1.0	U	1.0	0.32	ug/L			07/28/18 00:03	1
Chloroform	1.0	U	1.0	0.33	ug/L			07/28/18 00:03	1
Chloromethane	1.0	U	1.0	0.14	ug/L			07/28/18 00:03	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			07/28/18 00:03	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			07/28/18 00:03	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			07/28/18 00:03	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			07/28/18 00:03	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			07/28/18 00:03	1
Styrene	1.0	U	1.0	0.42	ug/L			07/28/18 00:03	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			07/28/18 00:03	1
Toluene	1.0	U	1.0	0.38	ug/L			07/28/18 00:03	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			07/28/18 00:03	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			07/28/18 00:03	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			07/28/18 00:03	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			07/28/18 00:03	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			07/28/18 00:03	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					07/28/18 00:03	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		74 - 132		07/28/18 00:03	1
4-Bromofluorobenzene	103		77 - 124		07/28/18 00:03	1
Dibromofluoromethane (Surr)	99		72 - 131		07/28/18 00:03	1
Toluene-d8 (Surr)	96		80 - 120		07/28/18 00:03	1

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-160989-1

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

Lab Sample ID: LCS 460-540328/3

Matrix: Water

Analysis Batch: 540328

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	20.1		ug/L		100	75 - 125
1,1,2,2-Tetrachloroethane	20.0	18.9		ug/L		94	74 - 120
1,1,2-Trichloroethane	20.0	19.3		ug/L		96	78 - 120
1,1-Dichloroethane	20.0	20.1		ug/L		100	77 - 123
1,1-Dichloroethene	20.0	19.9		ug/L		99	74 - 123
1,2-Dichloroethane	20.0	20.1		ug/L		101	76 - 121
1,2-Dichloropropane	20.0	20.5		ug/L		102	77 - 123
2-Butanone (MEK)	100	101		ug/L		101	64 - 120
2-Hexanone	100	104		ug/L		104	71 - 125
4-Methyl-2-pentanone (MIBK)	100	104		ug/L		104	78 - 124
Acetone	100	99.0		ug/L		99	39 - 150
Benzene	20.0	20.1		ug/L		101	77 - 121
Bromoform	20.0	20.5		ug/L		102	53 - 120
Bromomethane	20.0	19.6		ug/L		98	10 - 150
Carbon disulfide	20.0	18.8		ug/L		94	69 - 133
Carbon tetrachloride	20.0	20.0		ug/L		100	70 - 132
Chlorobenzene	20.0	20.9		ug/L		104	80 - 120
Chlorodibromomethane	20.0	19.2		ug/L		96	73 - 120
Chloroethane	20.0	20.2		ug/L		101	52 - 150
Chloroform	20.0	20.2		ug/L		101	80 - 120
Chloromethane	20.0	19.4		ug/L		97	56 - 131
cis-1,2-Dichloroethene	20.0	19.4		ug/L		97	80 - 120
cis-1,3-Dichloropropene	20.0	19.8		ug/L		99	77 - 120
Dichlorobromomethane	20.0	19.7		ug/L		98	76 - 120
Ethylbenzene	20.0	20.3		ug/L		101	80 - 120
Methylene Chloride	20.0	19.2		ug/L		96	77 - 123
Styrene	20.0	20.3		ug/L		102	80 - 120
Tetrachloroethene	20.0	20.8		ug/L		104	78 - 122
Toluene	20.0	19.4		ug/L		97	80 - 120
trans-1,2-Dichloroethene	20.0	18.9		ug/L		94	79 - 120
trans-1,3-Dichloropropene	20.0	19.5		ug/L		97	76 - 120
Trichloroethene	20.0	19.1		ug/L		96	77 - 120
Vinyl chloride	20.0	19.3		ug/L		96	62 - 138
Xylenes, Total	40.0	40.6		ug/L		102	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	96		74 - 132
4-Bromofluorobenzene	107		77 - 124
Dibromofluoromethane (Surr)	100		72 - 131
Toluene-d8 (Surr)	96		80 - 120

Lab Sample ID: 460-160987-A-3 MS

Matrix: Water

Analysis Batch: 540328

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	100	95.4		ug/L		95	75 - 125
1,1,2,2-Tetrachloroethane	1.0	U	100	91.7		ug/L		92	74 - 120

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-160989-1

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

Lab Sample ID: 460-160987-A-3 MS

Matrix: Water

Analysis Batch: 540328

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
1,1,2-Trichloroethane	1.0	U	100	94.1		ug/L		94	78 - 120
1,1-Dichloroethane	1.0	U	100	98.9		ug/L		99	77 - 123
1,1-Dichloroethene	1.0	U	100	97.2		ug/L		97	74 - 123
1,2-Dichloroethane	1.0	U	100	93.7		ug/L		94	76 - 121
1,2-Dichloropropane	1.0	U	100	96.3		ug/L		96	77 - 123
2-Butanone (MEK)	5.0	U	500	476		ug/L		95	64 - 120
2-Hexanone	5.0	U	500	489		ug/L		98	71 - 125
4-Methyl-2-pentanone (MIBK)	5.0	U	500	487		ug/L		97	78 - 124
Acetone	5.0	U	500	497		ug/L		99	39 - 150
Benzene	1.0	U	100	96.7		ug/L		97	77 - 121
Bromoform	1.0	U	100	88.7		ug/L		89	53 - 120
Bromomethane	1.0	U	100	99.3		ug/L		99	10 - 150
Carbon disulfide	1.0	U	100	90.8		ug/L		91	69 - 133
Carbon tetrachloride	1.0	U	100	92.9		ug/L		93	70 - 132
Chlorobenzene	1.0	U	100	98.1		ug/L		98	80 - 120
Chlorodibromomethane	1.0	U	100	89.8		ug/L		90	73 - 120
Chloroethane	1.0	U	100	98.8		ug/L		99	52 - 150
Chloroform	4.2		100	101		ug/L		97	80 - 120
Chloromethane	1.0	U	100	107		ug/L		107	56 - 131
cis-1,2-Dichloroethene	1.0	U	100	93.5		ug/L		93	80 - 120
cis-1,3-Dichloropropene	1.0	U	100	92.9		ug/L		93	77 - 120
Dichlorobromomethane	0.43	J	100	93.0		ug/L		93	76 - 120
Ethylbenzene	1.0	U	100	94.3		ug/L		94	80 - 120
Methylene Chloride	1.0	U	100	95.2		ug/L		95	77 - 123
Styrene	1.0	U	100	93.3		ug/L		93	80 - 120
Tetrachloroethene	1.0	U	100	99.5		ug/L		100	78 - 122
Toluene	1.0	U	100	91.3		ug/L		91	80 - 120
trans-1,2-Dichloroethene	1.0	U	100	92.9		ug/L		93	79 - 120
trans-1,3-Dichloropropene	1.0	U	100	92.0		ug/L		92	76 - 120
Trichloroethene	1.0	U	100	91.6		ug/L		92	77 - 120
Vinyl chloride	1.0	U	100	107		ug/L		107	62 - 138
Xylenes, Total	2.0	U	200	194		ug/L		97	80 - 120

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	96		74 - 132
4-Bromofluorobenzene	107		77 - 124
Dibromofluoromethane (Surr)	99		72 - 131
Toluene-d8 (Surr)	97		80 - 120

Lab Sample ID: 460-160987-A-3 MSD

Matrix: Water

Analysis Batch: 540328

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	100	98.6		ug/L		99	75 - 125	3	30
1,1,2,2-Tetrachloroethane	1.0	U	100	93.2		ug/L		93	74 - 120	2	30
1,1,2-Trichloroethane	1.0	U	100	95.9		ug/L		96	78 - 120	2	30
1,1-Dichloroethane	1.0	U	100	98.2		ug/L		98	77 - 123	1	30

TestAmerica Edison

QC Sample Results

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-160989-1

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

Lab Sample ID: 460-160987-A-3 MSD

Matrix: Water

Analysis Batch: 540328

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-Dichloroethene	1.0	U	100	98.2		ug/L		98	74 - 123	1	30
1,2-Dichloroethane	1.0	U	100	95.5		ug/L		96	76 - 121	2	30
1,2-Dichloropropane	1.0	U	100	96.8		ug/L		97	77 - 123	1	30
2-Butanone (MEK)	5.0	U	500	490		ug/L		98	64 - 120	3	30
2-Hexanone	5.0	U	500	504		ug/L		101	71 - 125	3	30
4-Methyl-2-pentanone (MIBK)	5.0	U	500	502		ug/L		100	78 - 124	3	30
Acetone	5.0	U	500	522		ug/L		104	39 - 150	5	30
Benzene	1.0	U	100	98.0		ug/L		98	77 - 121	1	30
Bromoform	1.0	U	100	93.1		ug/L		93	53 - 120	5	30
Bromomethane	1.0	U	100	105		ug/L		105	10 - 150	5	30
Carbon disulfide	1.0	U	100	93.7		ug/L		94	69 - 133	3	30
Carbon tetrachloride	1.0	U	100	96.6		ug/L		97	70 - 132	4	30
Chlorobenzene	1.0	U	100	101		ug/L		101	80 - 120	3	30
Chlorodibromomethane	1.0	U	100	92.9		ug/L		93	73 - 120	3	30
Chloroethane	1.0	U	100	116		ug/L		116	52 - 150	16	30
Chloroform	4.2		100	102		ug/L		97	80 - 120	1	30
Chloromethane	1.0	U	100	110		ug/L		110	56 - 131	2	30
cis-1,2-Dichloroethene	1.0	U	100	96.5		ug/L		96	80 - 120	3	30
cis-1,3-Dichloropropene	1.0	U	100	94.6		ug/L		95	77 - 120	2	30
Dichlorobromomethane	0.43	J	100	97.4		ug/L		97	76 - 120	5	30
Ethylbenzene	1.0	U	100	98.1		ug/L		98	80 - 120	4	30
Methylene Chloride	1.0	U	100	95.7		ug/L		96	77 - 123	0	30
Styrene	1.0	U	100	96.1		ug/L		96	80 - 120	3	30
Tetrachloroethene	1.0	U	100	102		ug/L		102	78 - 122	2	30
Toluene	1.0	U	100	93.9		ug/L		94	80 - 120	3	30
trans-1,2-Dichloroethene	1.0	U	100	96.5		ug/L		96	79 - 120	4	30
trans-1,3-Dichloropropene	1.0	U	100	92.9		ug/L		93	76 - 120	1	30
Trichloroethene	1.0	U	100	94.6		ug/L		95	77 - 120	3	30
Vinyl chloride	1.0	U	100	110		ug/L		110	62 - 138	2	30
Xylenes, Total	2.0	U	200	197		ug/L		99	80 - 120	2	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	96		74 - 132
4-Bromofluorobenzene	105		77 - 124
Dibromofluoromethane (Surr)	100		72 - 131
Toluene-d8 (Surr)	96		80 - 120

TestAmerica Edison

QC Association Summary

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-160989-1

GC/MS VOA

Analysis Batch: 540328

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-160989-1	FC-MW-105D	Total/NA	Water	8260C	
460-160989-2	FC-MW-105S	Total/NA	Water	8260C	
460-160989-3	FC-MW-1	Total/NA	Water	8260C	
460-160989-4	FC-MW-109S	Total/NA	Water	8260C	
460-160989-5	FC-MW-9	Total/NA	Water	8260C	
460-160989-6	FC-MW-3	Total/NA	Water	8260C	
460-160989-7	FC-TB072018	Total/NA	Water	8260C	
MB 460-540328/7	Method Blank	Total/NA	Water	8260C	
LCS 460-540328/3	Lab Control Sample	Total/NA	Water	8260C	
460-160987-A-3 MS	Matrix Spike	Total/NA	Water	8260C	
460-160987-A-3 MSD	Matrix Spike Duplicate	Total/NA	Water	8260C	

Lab Chronicle

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-160989-1

Client Sample ID: FC-MW-105D

Date Collected: 07/19/18 09:50

Date Received: 07/20/18 18:00

Lab Sample ID: 460-160989-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	540328	07/28/18 02:43	DAS	TAL EDI

Client Sample ID: FC-MW-105S

Date Collected: 07/19/18 11:25

Date Received: 07/20/18 18:00

Lab Sample ID: 460-160989-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	540328	07/28/18 03:10	DAS	TAL EDI

Client Sample ID: FC-MW-1

Date Collected: 07/19/18 12:50

Date Received: 07/20/18 18:00

Lab Sample ID: 460-160989-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	540328	07/28/18 03:37	DAS	TAL EDI

Client Sample ID: FC-MW-109S

Date Collected: 07/19/18 13:05

Date Received: 07/20/18 18:00

Lab Sample ID: 460-160989-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	540328	07/28/18 04:03	DAS	TAL EDI

Client Sample ID: FC-MW-9

Date Collected: 07/20/18 09:30

Date Received: 07/20/18 18:00

Lab Sample ID: 460-160989-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	540328	07/28/18 04:30	DAS	TAL EDI

Client Sample ID: FC-MW-3

Date Collected: 07/20/18 11:20

Date Received: 07/20/18 18:00

Lab Sample ID: 460-160989-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	540328	07/28/18 04:57	DAS	TAL EDI

TestAmerica Edison

Lab Chronicle

Client: Parsons Corporation
Project/Site: FCPS

TestAmerica Job ID: 460-160989-1

Client Sample ID: FC-TB072018

Lab Sample ID: 460-160989-7

Date Collected: 07/20/18 00:00

Matrix: Water

Date Received: 07/20/18 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	540328	07/28/18 00:57	DAS	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: FCPS

TestAmerica Job ID: 460-160989-1

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: FCPS

TestAmerica Job ID: 460-160989-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
5030C	Purge and Trap	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: FCPS

TestAmerica Job ID: 460-160989-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-160989-1	FC-MW-105D	Water	07/19/18 09:50	07/20/18 18:00
460-160989-2	FC-MW-105S	Water	07/19/18 11:25	07/20/18 18:00
460-160989-3	FC-MW-1	Water	07/19/18 12:50	07/20/18 18:00
460-160989-4	FC-MW-109S	Water	07/19/18 13:05	07/20/18 18:00
460-160989-5	FC-MW-9	Water	07/20/18 09:30	07/20/18 18:00
460-160989-6	FC-MW-3	Water	07/20/18 11:20	07/20/18 18:00
460-160989-7	FC-TB072018	Water	07/20/18 00:00	07/20/18 18:00

TestAmerica

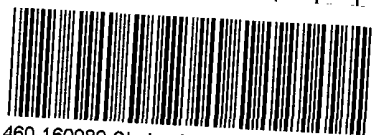
THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

Page 1 of 1

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

Name (for report and invoice) Allyson Krivy		Samplers Name (Printed) Aaron Fedback-Mattingly		Site/Project Identification FCEs	
Company Parsens		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 ☐		Regulatory Program:	
City Somerset		State NJ		DKCP: ☐	
Phone 609 713 3222		Fax		LAB USE ONLY Project No:	
Sample Identification		Date	Time	Matrix	No. of Cont.
FC-MW-105D	7/19/18	0950	W	3	X
FC-MW-105S	7/19/18	1125	1	3	X
FC-MW-1	7/20/18	1250	1	3	X
FC-MW-109S	7/20/18	1305	1	3	X
FC-MW-9	7/20/18	0930	1	3	X
FC-MW-3	7/20/18	1120	1	3	X
FC-MW-4	7/20/18	1315	1	3	X
FC-TB072018	7/20/18	1	1	3	X
Preservation Used: 1 = ICE, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH 6 = Other _____, 7 = Other _____					
Soil: _____ Water: 1, 2					



460-160989 Chain of Custody

Special Instructions

Water Metals Filtered (Yes/No)?

Relinquished by 	Company Parsens	Date / Time 7/20/18 1800	Received by R. F. F.	Company TA605
Relinquished by	Company	Date / Time	Received by	Company
Relinquished by	Company	Date / Time	Received by	Company
Relinquished by	Company	Date / Time	Received by	Company

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 (07/15)

Job Number: 160989

[illegible]

Date: 7-20-18

Login Sample Receipt Checklist

Client: Parsons Corporation

Job Number: 460-160989-1

Login Number: 160989

List Source: TestAmerica Edison

List Number: 1

Creator: Villanueva, Angelica P

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.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	
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").	False	Refer to Job Narrative for details.
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Appendix B

DATA USABILITY SUMMARY REPORT

MARCH 2018 SOIL VAPOR SAMPLING

FORMER CLEANERS PRODUCTS SUPPLY

Prepared For:



New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway, 12th Floor
Albany, NY 12233-7012

Prepared By:

PARSONS

301 Plainfield Road, Suite 350
Syracuse, NY 13212
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NOVEMBER 2018

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1.3 LABORATORY ANALYTICAL METHODS	1-1
1.3.1 Volatile Organic Analysis	1-2
SECTION 2 DATA VALIDATION REPORT	2-1
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LIST OF ATTACHMENTS

ATTACHMENT A VALIDATED LABORATORY DATA

SECTION 1

DATA USABILITY SUMMARY

Air samples were collected from the Former Cleaners Products Supply site in Sunnyside, New York on March 12, 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) for organic and inorganic data review.

The analytical laboratory for this project was ALS Environmental (ALS) in Middletown, Pennsylvania. This laboratory is certified to perform project analyses through 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 231 days for the project samples. The data packages received from ALS 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 ALS within two days of sampling. All samples were received intact and in good condition at the laboratory.

1.3 LABORATORY ANALYTICAL METHODS

The project samples that were collected from the site were analyzed for volatile organic compounds (VOCs) including naphthalene. Summaries of issues concerning these laboratory analyses are presented in Subsection 1.3.1. 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 by media 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

The project samples were analyzed for VOCs including naphthalene using the USEPA TO-15 analytical method. Certain reported results for these samples were qualified as estimated based upon instrument calibrations. The reported VOC analytical results were 100% complete (i.e., usable) for the project data. PARCCS requirements were met.

SECTION 2

DATA VALIDATION REPORT

2.1 AIR

Data review has been completed for data packages generated by ALS containing air samples collected from the site. Analytical results from these samples were contained within sample delivery group (SDG) 2302234. All of these samples were properly preserved, shipped under a COC record, and received intact by the analytical laboratory. The validated laboratory data are presented in Attachment A.

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

2.1.1 Volatiles (Including Naphthalene)

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 duplicate precision
- Laboratory method blank contamination
- GC/MS instrument performance
- Initial and continuing calibrations
- Internal standard area counts and retention times
- Summa canister certifications
- 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 initial calibrations as discussed below.

Initial Calibrations

All initial calibration compounds were compliant with a minimum average RRF of 0.05 and a maximum percent relative standard deviation (%RSD) within 30%. It was noted that initial calibration verification standard recoveries exceeded the 70-130%R QC limit for naphthalene (146%R) and 1,2,4-trichlorobenzene (141%R, 143%R) associated with the project samples. Therefore, the sample results for these compounds were considered estimated with positive results qualified “J” for the affected samples.

It was noted that acetone exceeded the instrument calibration range in sample 52-07-ID-Metal Shop. Therefore, this result was considered estimated and qualified “J” for this sample.

Usability

All volatile air 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 air data presented by ALS were 100% complete (i.e., usable). The validated volatile laboratory data are tabulated and presented in Attachment A.

ATTACHMENT A

VALIDATED LABORATORY DATA

NYSDC-Former Cleaner Products 2018 RI Investigation Validated Air Analytical Data March 2018 SDG: 2302234		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	50-45-AMBIENT 50-45-AMBIENT 2302234003 ALS 2302234 AIR 3/12/2018 15:30 10/30/2018	50-45-ID-OFFICE 50-45-ID-OFFICE 2302234001 ALS 2302234 AIR 3/12/2018 16:41 10/30/2018	50-45-ID-WORK SHOP 50-45-ID-WORK SHOP 2302234002 ALS 2302234 AIR 3/12/2018 16:38 10/30/2018	52-07-ID-METAL SHOP 52-07-ID-METAL SHOP 2302234005 ALS 2302234 AIR 3/12/2018 14:02 10/30/2018	52-07-ID-OFFICE 52-07-ID-OFFICE 2302234004 ALS 2302234 AIR 3/12/2018 17:05 10/30/2018
CAS NO.	COMPOUND	UNITS:					
	VOLATILES						
526-73-8	1,2,3-Trimethyl Benzene	ug/m3	1 U	1 U	1 U	1.1	2
71-55-6	1,1,1-Trichloroethane	ug/m3	1 U	1 U	1 U	1 U	1 U
79-34-5	1,1,2,2-Tetrachloroethane	ug/m3	1 U	1 U	1 U	1 U	1 U
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/m3	2 U	2 U	2 U	2 U	2 U
79-00-5	1,1,2-Trichloroethane	ug/m3	1 U	1 U	1 U	1 U	1 U
75-34-3	1,1-Dichloroethane	ug/m3	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
75-35-4	1,1-Dichloroethene	ug/m3	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
96-18-4	1,2,3-Trichloropropane	ug/m3	1 U	1 U	1 U	1 U	1 U
120-82-1	1,2,4-Trichlorobenzene	ug/m3	1 U	1 U	1 U	1 U	1 U
95-63-6	1,2,4-Trimethylbenzene	ug/m3	1 U	2	3.2	5.6	12
106-93-4	1,2-Dibromoethane (Ethylene Dibromide)	ug/m3	2 U	2 U	2 U	2 U	2 U
95-50-1	1,2-Dichlorobenzene	ug/m3	1 U	1 U	1 U	1 U	1 U
107-06-2	1,2-Dichloroethane	ug/m3	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
78-87-5	1,2-Dichloropropane	ug/m3	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U
108-67-8	1,3,5-Trimethylbenzene (Mesitylene)	ug/m3	1 U	1 U	0.99	2.3	3.9
76-14-2	1,2-Dichlorotetrafluoroethane	ug/m3	1 U	1 U	1 U	1 U	1 U
106-99-0	1,3-Butadiene	ug/m3	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
541-73-1	1,3-Dichlorobenzene	ug/m3	1 U	1 U	1 U	1 U	1 U
106-46-7	1,4-Dichlorobenzene	ug/m3	1 U	1 U	1 U	1 U	1 U
123-91-1	1,4-Dioxane (P-Dioxane)	ug/m3	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
540-84-1	2,2,4-Trimethylpentane	ug/m3	0.9 U	0.97	1.9	4.7	1.9
95-49-8	2-Chlorotoluene	ug/m3	1 U	1 U	1 U	1 U	1 U
591-78-6	2-Hexanone	ug/m3	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
622-96-8	4-Ethyltoluene	ug/m3	1 U	1 U	1 U	1.9	3.5
67-64-1	Acetone	ug/m3	10	22	21	14000 J	260
107-13-1	Acrylonitrile	ug/m3	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
107-05-1	Allyl Chloride (3-Chloropropene)	ug/m3	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
71-43-2	Benzene	ug/m3	1.2	2.4	3.5	3.5	2.5
100-44-7	Benzyl Chloride	ug/m3	1 U	1 U	1 U	1 U	1 U
75-27-4	Bromodichloromethane	ug/m3	1 U	1 U	1 U	1 U	1 U
75-25-2	Bromoform	ug/m3	2 U	2 U	2 U	2 U	2 U
74-83-9	Bromomethane	ug/m3	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
106-97-8	Butane	ug/m3	2.9	150	170	29	41
75-15-0	Carbon Disulfide	ug/m3	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
994-05-8	Butane, 2-Methoxy-2-Methyl	ug/m3	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
56-23-5	Carbon Tetrachloride	ug/m3	1 U	1 U	1 U	1 U	1 U
108-90-7	Chlorobenzene	ug/m3	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U
75-00-3	Chloroethane	ug/m3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
67-66-3	Chloroform	ug/m3	1 U	1 U	1 U	1 U	1 U
74-87-3	Chloromethane	ug/m3	1.3	1.4	1.4	1.3	1.6

NYSDDEC-Former Cleaner Products 2018 RI Investigation Validated Air Analytical Data March 2018 SDG: 2302234		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	50-45-AMBIENT 50-45-AMBIENT 2302234003 ALS 2302234 AIR 3/12/2018 15:30 10/30/2018	50-45-ID-OFFICE 50-45-ID-OFFICE 2302234001 ALS 2302234 AIR 3/12/2018 16:41 10/30/2018	50-45-ID-WORK SHOP 50-45-ID-WORK SHOP 2302234002 ALS 2302234 AIR 3/12/2018 16:38 10/30/2018	52-07-ID-METAL SHOP 52-07-ID-METAL SHOP 2302234005 ALS 2302234 AIR 3/12/2018 14:02 10/30/2018	52-07-ID-OFFICE 52-07-ID-OFFICE 2302234004 ALS 2302234 AIR 3/12/2018 17:05 10/30/2018
CAS NO.	COMPOUND	UNITS:					
156-59-2	Cis-1,2-Dichloroethylene	ug/m3	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
10061-01-5	Cis-1,3-Dichloropropene	ug/m3	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U
110-82-7	Cyclohexane	ug/m3	0.7 U	0.79	1.1	1.5	110
99-87-6	Cymene	ug/m3	1 U	1 U	1 U	1 U	1 U
124-48-1	Dibromochloromethane	ug/m3	2 U	2 U	2 U	2 U	2 U
75-71-8	Dichlorodifluoromethane	ug/m3	2.7	2.7	2.7	2.7	2.7
1330-20-7	Xylenes	ug/m3	3 U	6.2	8.4	46	190
141-78-6	Ethyl Acetate	ug/m3	0.8 U	4.7	19	310	8.7
637-92-3	Ethyl Tert-Butyl Ether	ug/m3	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
64-17-5	Ethanol	ug/m3	11	2000	1700	110	80
100-41-4	Ethylbenzene	ug/m3	0.9 U	1.4	1.9	8.1	36
87-68-3	Hexachlorobutadiene	ug/m3	2 U	2 U	2 U	2 U	2 U
67-63-0	Isopropanol	ug/m3	2.3	13	5.7	70	62
108-20-3	Isopropyl Ether	ug/m3	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
98-82-8	Isopropylbenzene (Cumene)	ug/m3	1 U	1 U	1 U	1 U	1 U
179601-23-1	M,P-Xylenes	ug/m3	2 U	4.6	6.3	36	150
78-93-3	Methyl Ethyl Ketone (2-Butanone)	ug/m3	4.5	6.2	12	30	29
108-10-1	Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	ug/m3	0.8 U	2.6	10	360	10
80-62-6	Methyl Methacrylate	ug/m3	0.8 U	0.8 U	0.8 U	0.96	0.8 U
75-09-2	Methylene Chloride	ug/m3	1.4	3.6	1.7	7.2	4.3
91-20-3	Naphthalene	ug/m3	1 U	1.4 J	1.5 J	1 U	1.3 J
142-82-5	N-Heptane	ug/m3	0.8 U	2.8	11	170	4.6
110-54-3	N-Hexane	ug/m3	0.76	3.3	5.3	4.9	4.3
103-65-1	N-Propylbenzene	ug/m3	1 U	1 U	1 U	1.1	2.1
95-47-6	O-Xylene (1,2-Dimethylbenzene)	ug/m3	0.9 U	1.6	2.1	11	42
115-07-1	Propylene	ug/m3	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
100-42-5	Styrene	ug/m3	0.8 U	0.8 U	1.1	8.8	110
75-65-0	Tert-Butyl Alcohol	ug/m3	0.6 U	1.2	0.6 U	0.74	21
1634-04-4	Tert-Butyl Methyl Ether	ug/m3	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
109-99-9	Tetrahydrofuran	ug/m3	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
127-18-4	Tetrachloroethylene (PCE)	ug/m3	3.8	2.6	4.8	1 U	1 U
108-88-3	Toluene	ug/m3	4.7	10	14	4200	360
542-75-6	Total, 1,3-Dichloropropene (Cis And Trans)	ug/m3	2 U	2 U	2 U	2 U	2 U
156-60-5	Trans-1,2-Dichloroethene	ug/m3	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
10061-02-6	Trans-1,3-Dichloropropene	ug/m3	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U
79-01-6	Trichloroethylene (TCE)	ug/m3	1 U	1 U	1 U	1 U	1 U
75-69-4	Trichlorofluoromethane	ug/m3	1.5	1.5	1.5	1.5	1.5
108-05-4	Vinyl Acetate	ug/m3	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
593-60-2	Vinyl Bromide	ug/m3	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U
75-01-4	Vinyl Chloride	ug/m3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

DATA USABILITY SUMMARY REPORT JANUARY AND JULY 2018 GROUNDWATER SAMPLING

FORMER CLEANERS PRODUCTS SUPPLY

Prepared For:



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LIST OF ATTACHMENTS

ATTACHMENT A VALIDATED LABORATORY DATA

SECTION 1

DATA USABILITY SUMMARY

Groundwater samples were collected from the Former Cleaners Products Supply site in Sunnyside, New York on January 23, 2018 through January 26, 2018 and July 17, 2018 through July 20, 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) for organic and inorganic data review.

The analytical laboratory for this project was Test America Laboratories (TAL) in Edison, New Jersey and Buffalo, New York. This laboratory is certified to perform project analyses through 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 10-12 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 day of sampling. All samples were received intact and in good condition at the laboratory.

1.3 LABORATORY ANALYTICAL METHODS

Groundwater samples that were collected from the site were analyzed for volatile organic compounds (VOCs) including methane, ethane, and ethene; iron; manganese; nitrate; sulfate; and total organic carbon (TOC). 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 in Section 2. The laboratory data were reviewed and may be qualified with the following validation flags:

"U" - not detected at the value given,

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- "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

The project samples were analyzed for VOCs including methane, ethane, and ethene using the USEPA SW-846 8260C and USEPA approved RSK-175 analytical methods. Certain reported results for these samples were qualified as estimated based upon laboratory control sample recoveries, matrix spike/matrix spike duplicate (MS/MSD) recoveries, and instrument calibrations; and qualified as nondetected based upon trip blank and equipment blank contamination. The reported VOC analytical results were 100% complete (i.e., usable) for the project data presented by TAL. PARCCS requirements were met.

1.3.2 Metals Analysis

The project samples were analyzed for iron and manganese using the USEPA SW-846 6020B analytical method. The reported results for the metals samples did not require qualification resulting from data validation. The reported metals analytical results were considered 100% complete (i.e., usable) for the project data presented by TAL. PARCCS requirements were met.

1.3.3 Wet Chemistry Analysis

The project samples were analyzed for nitrate, sulfate, and TOC using the SM4500, ASTM D516-90, and SM5310B analytical methods, respectively. Certain reported results for these samples were qualified as estimated based upon MS/MSD recoveries. The reported wet chemistry analytical results were considered 100% complete (i.e., usable) for the project data presented by TAL. PARCCS requirements were met.

SECTION 2

DATA VALIDATION REPORT

2.1 GROUNDWATER

Data review has been completed for data packages generated by TAL containing groundwater samples collected from the site. Analytical results from these samples were contained within sample delivery groups (SDGs) 460-148997-1, 460-149190-1, 460-160904-1, and 460-160989-1. All of these samples were properly preserved, shipped under a COC record, and received intact by the analytical laboratory. The validated laboratory data are presented in Attachment A.

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

2.1.1 Volatiles (Including Methane, Ethane, and Ethene)

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 low MS/MSD accuracy results for carbon disulfide (48%R/47%R; QC limit 69-133%R) during the spiked analyses of sample FC-MW-109S (1/25/2018). Therefore, the nondetected carbon disulfide result was considered estimated and qualified “UJ” for the affected parent sample.

LCS Recoveries

All LCS recoveries were considered acceptable and within QC limits with the exception of the low LCS recovery for carbon disulfide (59%R; QC limit 69-133%R) associated with the samples collected on 1/25/2018 and 1/26/2018. Therefore, the carbon disulfide results which were nondetects were considered estimated and qualified “UJ” for the affected samples.

Blank Contamination

The trip blank associated with samples collected on 1/23/2018 contained acetone below the reporting limit at a concentration of 4 µg/L; the trip blank associated with samples collected on 1/25/2018 and 1/26/2018 contained methylene chloride below the reporting limit at a concentration of 0.23 µg/L; the trip blank associated with samples collected on 7/17/2018 and 7/18/2018 contained methylene chloride at a concentration of 4.3 µg/L; the equipment blank associated with samples collected on 7/17/2018 and 7/18/2018 contained acetone and methylene chloride at concentrations of 5.6 and 4.3 µg/L, respectively; and the trip blank associated with samples collected on 7/19/2018 and 7/20/2018 contained acetone and methylene chloride at concentrations of 5.4 and 5.7 µg/L, respectively. Therefore, results for these compounds less than the validation action concentrations were considered not detected and qualified “U” 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 maximum percent difference (%D) within ±20% (±40% for poor performers) with the exception of carbon disulfide (-42.1%D, -51.5%D) and bromomethane (-23.2%D, -28.8%D) in the continuing calibrations associated with samples collected on 1/25/2018 and 1/26/2018; and 1,1-dichloroethene (-25.6%D) in the continuing calibration associated with samples with lab IDs 460-149190-1, -3, -9, and -12. Therefore, the sample results for these noncompliant 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 data

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presented by TAL were 100% complete (i.e., usable). The validated volatile laboratory data are tabulated and presented in Attachment A.

2.1.2 Metals

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

- Custody documentation
- Holding times
- Initial and continuing calibration verifications
- Initial and continuing calibration, laboratory preparation blank, and equipment blank contamination
- Interference check sample (ICS) recoveries
- Matrix spike (MS) recoveries
- Laboratory duplicate precision
- LCS recoveries
- ICP serial dilution
- 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.

Usability

All metals 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 metals data presented by TAL were 100% complete (i.e., usable). The validated metals laboratory data are tabulated and presented in Attachment A.

2.1.3 Wet Chemistry

The following items were reviewed for compliancy in the wet chemistry analysis:

- Custody documentation
- Holding times
- Initial and continuing calibration verifications

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- Initial and continuing calibration, laboratory preparation blank, and equipment blank contamination
- Matrix spike (MS) recoveries
- Laboratory duplicate precision
- LCS recoveries
- 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 blank contamination and matrix spike recoveries as discussed below.

Blank Contamination

The field QC equipment blank associated with samples collected on 7/17/2018 and 7/18/2018 contained TOC below the reporting limit at a concentration of 0.43 mg/L. Validation qualification of these samples was not required.

Matrix Spike Recoveries

All matrix spike recoveries were considered acceptable and within QC limits with the exception of the high matrix spike recoveries for sulfate (124%R, 117%R; QC limit 85-115%R) associated with sample FC-MW-6 (1/26/2018). Therefore, the positive sulfate result was considered estimated and qualified “J” for the affected parent sample.

Usability

All wet chemistry 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 wet chemistry groundwater data presented by TAL were 100% complete (i.e., usable). The validated wet chemistry laboratory data are tabulated and presented in Attachment A.

ATTACHMENT A

VALIDATED LABORATORY DATA

NYSDEC-Former Cleaner Products 2018 RI Investigation Validated Groundwater Analytical Data January 2018 SDG: 460-148997 & 460-1489190		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	FC-MW-3 FC-MW-3-20180125 460-149190-6 TALED 4601491901 WATER 1/25/2018 14:05 8/12/2018	FC-MW-5 FC-MW-5-20180123 460-148997-2 TALBUFF 4601489971 WATER 1/23/2018 14:55 8/12/2018	FC-MW-6 FC-MW-6-20180126 460-149190-12 TALBUFF 4601491901 WATER 1/26/2018 14:40 8/12/2018	FC-MW-8 FC-MW-8-20180126 460-149190-10 TALED 4601491901 WATER 1/26/2018 12:35 8/12/2018	FC-MW-9 FC-MW-9-20180126 460-149190-8 TALED 4601491901 WATER 1/26/2018 9:25 8/12/2018	FC-MW-103S FC-MW-103S-20180123 460-148997-1 TALBUFF 4601489971 WATER 1/23/2018 13:20 8/12/2018
CAS NO.	COMPOUND	UNITS:						
	VOLATILES							
71-55-6	1,1,1-Trichloroethane	ug/l	1 U	1 U	2 U	1 U	1 U	1 U
79-34-5	1,1,2,2-Tetrachloroethane	ug/l	1 U	1 U	2 U	1 U	1 U	1 U
79-00-5	1,1,2-Trichloroethane	ug/l	1 U	1 U	2 U	1 U	1 U	1 U
75-34-3	1,1-Dichloroethane	ug/l	1 U	1 U	2 U	1 U	1 U	1 U
75-35-4	1,1-Dichloroethene	ug/l	1 U	1 U	2 UJ	1 U	1 U	1 U
107-06-2	1,2-Dichloroethane	ug/l	1 U	1 U	2 U	1 U	1 U	1 U
78-87-5	1,2-Dichloropropane	ug/l	1 U	1 U	2 U	1 U	1 U	1 U
591-78-6	2-Hexanone	ug/l	5 U	5 U	10 U	5 U	5 U	5 U
67-64-1	Acetone	ug/l	5 U	5 U	10 U	5 U	5 U	5 U
71-43-2	Benzene	ug/l	1 U	0.12 J	2 U	1 U	1 U	1 U
75-27-4	Bromodichloromethane	ug/l	1 U	1 U	2 U	1 U	1 U	1 U
75-25-2	Bromoform	ug/l	1 U	1 U	2 U	1 U	1 U	1 U
74-83-9	Bromomethane	ug/l	1 UJ	1 U	2 UJ	1 UJ	1 UJ	1 U
75-15-0	Carbon Disulfide	ug/l	1 UJ	1 U	2 UJ	1 UJ	1 UJ	1 U
56-23-5	Carbon Tetrachloride	ug/l	1 U	1 U	2 U	1 U	1 U	1 U
108-90-7	Chlorobenzene	ug/l	1 U	1 U	2 U	1 U	1 U	1 U
75-00-3	Chloroethane	ug/l	1 U	1 U	2 U	1 U	1 U	1 U
67-66-3	Chloroform	ug/l	2.1	0.31 J	2 U	0.33 J	0.4 J	0.53 J
74-87-3	Chloromethane	ug/l	1 U	1 U	2 U	1 U	1 U	1 U
156-59-2	Cis-1,2-Dichloroethylene	ug/l	0.8 J	29	2.2	1 U	1 U	2.1
10061-01-5	Cis-1,3-Dichloropropene	ug/l	1 U	1 U	2 U	1 U	1 U	1 U
124-48-1	Dibromochloromethane	ug/l	1 U	1 U	2 U	1 U	1 U	1 U
100-41-4	Ethylbenzene	ug/l	1 U	1 U	2 U	1 U	1 U	1 U
78-93-3	Methyl Ethyl Ketone (2-Butanone)	ug/l	5 U	5 U	10 U	5 U	5 U	5 U
108-10-1	Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	ug/l	5 U	5 U	10 U	5 U	5 U	5 U
75-09-2	Methylene Chloride	ug/l	1 U	1 U	2 U	1 U	1 U	0.53 J
100-42-5	Styrene	ug/l	1 U	1 U	2 U	1 U	1 U	1 U
127-18-4	Tetrachloroethylene (PCE)	ug/l	12	240	490	14	67	360
108-88-3	Toluene	ug/l	1 U	1 U	2 U	1 U	1 U	1 U
156-60-5	Trans-1,2-Dichloroethene	ug/l	1 U	1.2	2 U	1 U	1 U	1 U
10061-02-6	Trans-1,3-Dichloropropene	ug/l	1 U	1 U	2 U	1 U	1 U	1 U
79-01-6	Trichloroethylene (TCE)	ug/l	1	49	9.7	0.23 J	1 U	2.4
75-01-4	Vinyl Chloride	ug/l	1 U	1 U	2 U	1 U	1 U	1 U
XYLENES	Xylenes, Total	ug/l	2 U	2 U	4 U	2 U	2 U	2 U
	RSK 175 VOLATILES							
74-84-0	Ethane	ug/l		7.5 U	7.5 U			7.5 U
74-85-1	Ethene	ug/l		7 U	7 U			7 U
74-82-8	Methane	ug/l		4 U	4 U			4 U
	INORGANICS							
7439-89-6	Iron	ug/l		364	4920			2270
7439-96-5	Manganese	ug/l		21.2	112			55.6
	OTHER							
14797-55-8	Nitrogen, Nitrate (As N)	mg/l		2.9	2.9			13.6
14808-79-8	Sulfate (As SO4)	mg/l		45.3	34.1 J			45.5
TOC	Total Organic Carbon	mg/l		1.9	1.4			1.4

								Dup of FC-MW-109S-20180125
NYSDEC-Former Cleaner Products 2018 RI Investigation Validated Groundwater Analytical Data January 2018 SDG: 460-148997 & 460-1489190		Location ID:	FC-MW-104S	FC-MW-104D	FC-MW-107D	FC-MW-108D	FC-MW-109S	FC-MW-109S
		Sample ID:	FC-MW-104S-20180125	FC-MW-104D-20180125	FC-MW-107D-20180125	FC-MW-108D-20180126	FC-MW-109S-20180125	FC-MW-109S-D-20180125
		Lab Sample Id:	460-149190-3	460-149190-1	460-149190-7	460-149190-9	460-149190-4	460-149190-5
		Source:	TALBUFF	TALBUFF	TALED	TALED	TALED	TALED
		SDG:	4601491901	4601491901	4601491901	4601491901	4601491901	4601491901
		Matrix:	WATER	WATER	WATER	WATER	WATER	WATER
		Sampled:	1/25/2018 10:35	1/25/2018 8:35	1/25/2018 15:25	1/26/2018 11:25	1/25/2018 12:10	1/25/2018 12:10
		Validated:	8/12/2018	8/12/2018	8/12/2018	8/12/2018	8/12/2018	8/12/2018
CAS NO.	COMPOUND	UNITS:						
	VOLATILES							
71-55-6	1,1,1-Trichloroethane	ug/l	2 U	2 U	1 U	1 U	1 U	1 U
79-34-5	1,1,2,2-Tetrachloroethane	ug/l	2 U	2 U	1 U	1 U	1 U	1 U
79-00-5	1,1,2-Trichloroethane	ug/l	2 U	2 U	1 U	1 U	1 U	1 U
75-34-3	1,1-Dichloroethane	ug/l	2 U	2 U	1 U	1 U	1 U	1 U
75-35-4	1,1-Dichloroethene	ug/l	2 UJ	2 UJ	1 U	1 UJ	1 U	1 U
107-06-2	1,2-Dichloroethane	ug/l	2 U	2 U	1 U	1 U	1 U	1 U
78-87-5	1,2-Dichloropropane	ug/l	2 U	2 U	1 U	1 U	1 U	1 U
591-78-6	2-Hexanone	ug/l	10 U	10 U	5 U	5 U	5 U	5 U
67-64-1	Acetone	ug/l	10 U	10 U	5 U	5 U	5 U	5 U
71-43-2	Benzene	ug/l	2 U	2 U	1 U	1 U	1 U	1 U
75-27-4	Bromodichloromethane	ug/l	2 U	2 U	1 U	1 U	1 U	1 U
75-25-2	Bromoform	ug/l	2 U	2 U	1 U	1 U	1 U	1 U
74-83-9	Bromomethane	ug/l	2 UJ	2 UJ	1 UJ	1 UJ	1 UJ	1 UJ
75-15-0	Carbon Disulfide	ug/l	2 UJ	2 UJ	1 UJ	1 UJ	1 UJ	1 UJ
56-23-5	Carbon Tetrachloride	ug/l	2 U	2 U	1 U	1 U	1 U	1 U
108-90-7	Chlorobenzene	ug/l	2 U	2 U	1 U	1 U	1 U	1 U
75-00-3	Chloroethane	ug/l	2 U	2 U	1 U	1 U	1 U	1 U
67-66-3	Chloroform	ug/l	2.5	0.82 J	0.62 J	1.4	1 U	1 U
74-87-3	Chloromethane	ug/l	2 U	2 U	1 U	1 U	1 U	1 U
156-59-2	Cis-1,2-Dichloroethylene	ug/l	26	17	1 U	1 U	1 U	1 U
10061-01-5	Cis-1,3-Dichloropropene	ug/l	2 U	2 U	1 U	1 U	1 U	1 U
124-48-1	Dibromochloromethane	ug/l	2 U	2 U	1 U	1 U	1 U	1 U
100-41-4	Ethylbenzene	ug/l	2 U	2 U	1 U	1 U	1 U	1 U
78-93-3	Methyl Ethyl Ketone (2-Butanone)	ug/l	10 U	10 U	5 U	5 U	5 U	5 U
108-10-1	Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	ug/l	10 U	10 U	5 U	5 U	5 U	5 U
75-09-2	Methylene Chloride	ug/l	2 U	2 U	1 U	1 U	1 U	1 U
100-42-5	Styrene	ug/l	2 U	2 U	1 U	1 U	1 U	1 U
127-18-4	Tetrachloroethylene (PCE)	ug/l	620	660	5.9	0.58 J	13	13
108-88-3	Toluene	ug/l	2 U	2 U	1 U	1 U	1 U	1 U
156-60-5	Trans-1,2-Dichloroethene	ug/l	1.7 J	1.4 J	1 U	1 U	1 U	1 U
10061-02-6	Trans-1,3-Dichloropropene	ug/l	2 U	2 U	1 U	1 U	1 U	1 U
79-01-6	Trichloroethylene (TCE)	ug/l	59	75	5.5	1 U	0.71 J	0.66 J
75-01-4	Vinyl Chloride	ug/l	2 U	2 U	1 U	1 U	1 U	1 U
XYLENES	Xylenes, Total	ug/l	4 U	4 U	2 U	2 U	2 U	2 U
	RSK 175 VOLATILES							
74-84-0	Ethane	ug/l	7.5 U	7.5 U				
74-85-1	Ethene	ug/l	7 U	7 U				
74-82-8	Methane	ug/l	4 U	4 U				
	INORGANICS							
7439-89-6	Iron	ug/l	6640	11400				
7439-96-5	Manganese	ug/l	237	1880				
	OTHER							
14797-55-8	Nitrogen, Nitrate (As N)	mg/l	6.1	5.7				
14808-79-8	Sulfate (As SO4)	mg/l	33.7	51.9				
TOC	Total Organic Carbon	mg/l	1	1.2				

NYSDEC-Former Cleaner Products 2018 RI Investigation Validated Groundwater Analytical Data January 2018 SDG: 460-148997 & 460-1489190		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	FIELDQC FC-TB012318-20180123 460-148997-3 TALED 4601489971 WATER 1/23/2018 13:20 8/12/2018	FIELDQC FC-TB012518-20180125 460-149190-2 TALED 4601491901 WATER 1/25/2018 8:35 8/12/2018
CAS NO.	COMPOUND	UNITS:		
	VOLATILES			
71-55-6	1,1,1-Trichloroethane	ug/l	1 U	1 U
79-34-5	1,1,2,2-Tetrachloroethane	ug/l	1 U	1 U
79-00-5	1,1,2-Trichloroethane	ug/l	1 U	1 U
75-34-3	1,1-Dichloroethane	ug/l	1 U	1 U
75-35-4	1,1-Dichloroethene	ug/l	1 U	1 U
107-06-2	1,2-Dichloroethane	ug/l	1 U	1 U
78-87-5	1,2-Dichloropropane	ug/l	1 U	1 U
591-78-6	2-Hexanone	ug/l	5 U	5 U
67-64-1	Acetone	ug/l	4 J	5 U
71-43-2	Benzene	ug/l	1 U	1 U
75-27-4	Bromodichloromethane	ug/l	1 U	1 U
75-25-2	Bromoform	ug/l	1 U	1 U
74-83-9	Bromomethane	ug/l	1 U	1 UJ
75-15-0	Carbon Disulfide	ug/l	1 U	1 UJ
56-23-5	Carbon Tetrachloride	ug/l	1 U	1 U
108-90-7	Chlorobenzene	ug/l	1 U	1 U
75-00-3	Chloroethane	ug/l	1 U	1 U
67-66-3	Chloroform	ug/l	1 U	1 U
74-87-3	Chloromethane	ug/l	1 U	1 U
156-59-2	Cis-1,2-Dichloroethylene	ug/l	1 U	1 U
10061-01-5	Cis-1,3-Dichloropropene	ug/l	1 U	1 U
124-48-1	Dibromochloromethane	ug/l	1 U	1 U
100-41-4	Ethylbenzene	ug/l	1 U	1 U
78-93-3	Methyl Ethyl Ketone (2-Butanone)	ug/l	5 U	5 U
108-10-1	Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	ug/l	5 U	5 U
75-09-2	Methylene Chloride	ug/l	1 U	0.23 J
100-42-5	Styrene	ug/l	1 U	1 U
127-18-4	Tetrachloroethylene (PCE)	ug/l	1 U	1 U
108-88-3	Toluene	ug/l	1 U	1 U
156-60-5	Trans-1,2-Dichloroethene	ug/l	1 U	1 U
10061-02-6	Trans-1,3-Dichloropropene	ug/l	1 U	1 U
79-01-6	Trichloroethylene (TCE)	ug/l	1 U	1 U
75-01-4	Vinyl Chloride	ug/l	1 U	1 U
XYLENES	Xylenes, Total	ug/l	2 U	2 U
	RSK 175 VOLATILES			
74-84-0	Ethane	ug/l		
74-85-1	Ethene	ug/l		
74-82-8	Methane	ug/l		
	INORGANICS			
7439-89-6	Iron	ug/l		
7439-96-5	Manganese	ug/l		
	OTHER			
14797-55-8	Nitrogen, Nitrate (As N)	mg/l		
14808-79-8	Sulfate (As SO4)	mg/l		
TOC	Total Organic Carbon	mg/l		

								Dup of FC-MW-7-20180717
NYSDEC-Former Cleaner Products 2018 RI Investigation Validated Groundwater Analytical Data July 2018 SDG: 460-160904 & 460-160989		Location ID:	FC-MW-1	FC-MW-3	FC-MW-5	FC-MW-6	FC-MW-7	FC-MW-7
		Sample ID:	FC-MW-1-20180719	FC-MW-3-20180720	FC-MW-5-20180718	FC-MW-6-20180718	FC-MW-7-20180717	FC-MW-7-D-20180717
		Lab Sample Id:	460-160989-3	460-160989-6	460-160904-6	460-160904-10	460-160904-1	460-160904-2
		Source:	TALED	TALED	TALBUFF	TALBUFF	TALED	TALED
		SDG:	4601609891	4601609891	4601609041	4601609041	4601609041	4601609041
		Matrix:	WATER	WATER	WATER	WATER	WATER	WATER
		Sampled:	7/19/2018 12:50	7/20/2018 11:20	7/18/2018 13:00	7/18/2018 18:35	7/17/2018 10:25	7/17/2018 10:25
		Validated:	8/12/2018	8/12/2018	8/12/2018	8/12/2018	8/12/2018	8/12/2018
CAS NO.	COMPOUND	UNITS:						
	VOLATILES							
71-55-6	1,1,1-Trichloroethane	ug/l	1 U	1 U	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	1 U	1 U
79-00-5	1,1,2-Trichloroethane	ug/l	1 U	1 U	1 U	1 U	1 U	1 U
75-34-3	1,1-Dichloroethane	ug/l	1 U	1 U	1 U	1 U	1 U	1 U
75-35-4	1,1-Dichloroethene	ug/l	1 U	1 U	1 U	1 U	1 U	1 U
107-06-2	1,2-Dichloroethane	ug/l	1 U	1 U	1 U	1 U	1 U	1 U
78-87-5	1,2-Dichloropropane	ug/l	1 U	1 U	1 U	1 U	1 U	1 U
591-78-6	2-Hexanone	ug/l	5 U	5 U	5 U	5 U	5 U	5 U
67-64-1	Acetone	ug/l	5 U	5 U	5 U	5 U	9.5 U	13 U
71-43-2	Benzene	ug/l	1 U	1 U	1 U	1 U	1 U	1 U
75-27-4	Bromodichloromethane	ug/l	1 U	1 U	1 U	1 U	2.6	2.8
75-25-2	Bromoform	ug/l	1 U	1 U	1 U	1 U	1 U	1 U
74-83-9	Bromomethane	ug/l	1 U	1 U	1 U	1 U	1 U	1 U
75-15-0	Carbon Disulfide	ug/l	1 U	1 U	1 U	1 U	1 U	1 U
56-23-5	Carbon Tetrachloride	ug/l	1 U	1 U	1 U	1 U	1 U	1 U
108-90-7	Chlorobenzene	ug/l	1 U	1 U	1 U	1 U	1 U	1 U
75-00-3	Chloroethane	ug/l	1 U	1 U	1 U	1 U	1 U	1 U
67-66-3	Chloroform	ug/l	1.2	0.67 J	0.57 J	0.47 J	32	34
74-87-3	Chloromethane	ug/l	1 U	1 U	1 U	1 U	1 U	1 U
156-59-2	Cis-1,2-Dichloroethylene	ug/l	1 U	1 U	20	0.9 J	1 U	1 U
10061-01-5	Cis-1,3-Dichloropropene	ug/l	1 U	1 U	1 U	1 U	1 U	1 U
124-48-1	Dibromochloromethane	ug/l	1 U	1 U	1 U	1 U	1 U	1 U
100-41-4	Ethylbenzene	ug/l	1 U	1 U	1 U	1 U	1 U	1 U
78-93-3	Methyl Ethyl Ketone (2-Butanone)	ug/l	5 U	5 U	5 U	5 U	5 U	5 U
108-10-1	Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	ug/l	5 U	5 U	5 U	5 U	5 U	5 U
75-09-2	Methylene Chloride	ug/l	1 U	1 U	1 U	1 U	1 U	1 U
100-42-5	Styrene	ug/l	1 U	1 U	1 U	1 U	1 U	1 U
127-18-4	Tetrachloroethylene (PCE)	ug/l	3.2	4.5	260	120	1 U	1 U
108-88-3	Toluene	ug/l	1 U	1 U	1 U	1 U	1 U	1 U
156-60-5	Trans-1,2-Dichloroethene	ug/l	1 U	1 U	0.9 J	1 U	1 U	1 U
10061-02-6	Trans-1,3-Dichloropropene	ug/l	1 U	1 U	1 U	1 U	1 U	1 U
79-01-6	Trichloroethylene (TCE)	ug/l	0.42 J	0.53 J	44	10	1 U	1 U
75-01-4	Vinyl Chloride	ug/l	1 U	1 U	1 U	1 U	1 U	1 U
XYLENES	Xylenes, Total	ug/l	2 U	2 U	2 U	2 U	2 U	2 U
	RSK 175 VOLATILES							
74-84-0	Ethane	ug/l			7.5 U	7.5 U		
74-85-1	Ethene	ug/l			7 U	7 U		
74-82-8	Methane	ug/l			4 U	4 U		
	INORGANICS							
7439-89-6	Iron	ug/l			308	4680		
7439-96-5	Manganese	ug/l			12.4	96.3		
	OTHER							
14797-55-8	Nitrogen, Nitrate (As N)	mg/l			3.5	0.25		
14808-79-8	Sulfate (As SO4)	mg/l			36.6	13.4		
TOC	Total Organic Carbon	mg/l			0.91 J	2.1		

NYSDEC-Former Cleaner Products 2018 RI Investigation Validated Groundwater Analytical Data July 2018 SDG: 460-160904 & 460-160989		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	FC-MW-8 FC-MW-8-20180717 460-160904-3 TALED 4601609041 WATER 7/17/2018 12:20 8/12/2018	FC-MW-9 FC-MW-9-20180720 460-160989-5 TALED 4601609891 WATER 7/20/2018 9:30 8/12/2018	FC-MW-103S FC-MW-103S-20180718 460-160904-5 TALBUFF 4601609041 WATER 7/18/2018 10:20 8/12/2018	FC-MW-104S FC-MW-104S-20180718 460-160904-7 TALBUFF 4601609041 WATER 7/18/2018 14:25 8/12/2018	FC-MW-104D FC-MW-104D-20180718 460-160904-8 TALBUFF 4601609041 WATER 7/18/2018 15:45 8/12/2018	FC-MW-105S FC-MW-105S-20180719 460-160989-2 TALED 4601609891 WATER 7/19/2018 11:25 8/12/2018
CAS NO.	COMPOUND	UNITS:						
	VOLATILES							
71-55-6	1,1,1-Trichloroethane	ug/l	1 U	1 U	1 U	2 U	1 U	1 U
79-34-5	1,1,2,2-Tetrachloroethane	ug/l	1 U	1 U	1 U	2 U	1 U	1 U
79-00-5	1,1,2-Trichloroethane	ug/l	1 U	1 U	1 U	2 U	1 U	1 U
75-34-3	1,1-Dichloroethane	ug/l	1 U	1 U	1 U	2 U	1 U	1 U
75-35-4	1,1-Dichloroethene	ug/l	1 U	1 U	1 U	2.3	1 U	1 U
107-06-2	1,2-Dichloroethane	ug/l	1 U	1 U	1 U	2 U	1 U	1 U
78-87-5	1,2-Dichloropropane	ug/l	1 U	1 U	1 U	2 U	1 U	1 U
591-78-6	2-Hexanone	ug/l	5 U	5 U	5 U	10 U	5 U	5 U
67-64-1	Acetone	ug/l	5 U	5 U	5 U	10 U	5 U	5 U
71-43-2	Benzene	ug/l	1 U	1 U	1 U	2 U	1 U	1 U
75-27-4	Bromodichloromethane	ug/l	1 U	1 U	1 U	2 U	1 U	1 U
75-25-2	Bromoform	ug/l	1 U	1 U	1 U	2 U	1 U	1 U
74-83-9	Bromomethane	ug/l	1 U	1 U	1 U	2 U	1 U	1 U
75-15-0	Carbon Disulfide	ug/l	1 U	1 U	1 U	2 U	1 U	1 U
56-23-5	Carbon Tetrachloride	ug/l	1 U	1 U	1 U	2 U	1 U	1 U
108-90-7	Chlorobenzene	ug/l	1 U	1 U	1 U	2 U	1 U	1 U
75-00-3	Chloroethane	ug/l	1 U	1 U	1 U	2 U	1 U	1 U
67-66-3	Chloroform	ug/l	1 U	0.49 J	0.4 J	0.8 J	0.76 J	1 U
74-87-3	Chloromethane	ug/l	1 U	1 U	1 U	2 U	1 U	1 U
156-59-2	Cis-1,2-Dichloroethylene	ug/l	1 U	1 U	1 U	840	39	1 U
10061-01-5	Cis-1,3-Dichloropropene	ug/l	1 U	1 U	1 U	2 U	1 U	1 U
124-48-1	Dibromochloromethane	ug/l	1 U	1 U	1 U	2 U	1 U	1 U
100-41-4	Ethylbenzene	ug/l	1 U	1 U	1 U	2 U	1 U	1 U
78-93-3	Methyl Ethyl Ketone (2-Butanone)	ug/l	5 U	5 U	5 U	10 U	5 U	5 U
108-10-1	Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	ug/l	5 U	5 U	5 U	10 U	5 U	5 U
75-09-2	Methylene Chloride	ug/l	1 U	1 U	1 U	2 U	1 U	1 U
100-42-5	Styrene	ug/l	1 U	1 U	1 U	2 U	1 U	1 U
127-18-4	Tetrachloroethylene (PCE)	ug/l	2.8	0.55 J	12	130	180	1
108-88-3	Toluene	ug/l	1 U	1 U	1 U	2 U	1 U	1 U
156-60-5	Trans-1,2-Dichloroethene	ug/l	1 U	1 U	1 U	30	1.6	1 U
10061-02-6	Trans-1,3-Dichloropropene	ug/l	1 U	1 U	1 U	2 U	1 U	1 U
79-01-6	Trichloroethylene (TCE)	ug/l	1 U	1 U	1 U	180	56	1 U
75-01-4	Vinyl Chloride	ug/l	1 U	1 U	1 U	0.63 J	1 U	1 U
XYLENES	Xylenes, Total	ug/l	2 U	2 U	2 U	4 U	2 U	2 U
	RSK 175 VOLATILES							
74-84-0	Ethane	ug/l			7.5 U	7.5 U	7.5 U	
74-85-1	Ethene	ug/l			7 U	7 U	7 U	
74-82-8	Methane	ug/l			4 U	320	4 U	
	INORGANICS							
7439-89-6	Iron	ug/l			640	3950	13200	
7439-96-5	Manganese	ug/l			13.5	171	2600	
	OTHER							
14797-55-8	Nitrogen, Nitrate (As N)	mg/l			6.6	3.1	6.3	
14808-79-8	Sulfate (As SO4)	mg/l			52.7	21.5	59.6	
TOC	Total Organic Carbon	mg/l			1.6	1.3	1.2	

NYSDEC-Former Cleaner Products 2018 RI Investigation Validated Groundwater Analytical Data July 2018 SDG: 460-160904 & 460-160989		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	FC-MW-105D FC-MW-105D-20180719 460-160989-1 TALED 4601609891 WATER 7/19/2018 9:50 8/12/2018	FC-MW-107D FC-MW-107D-20180718 460-160904-9 TALED 4601609041 WATER 7/18/2018 17:15 8/12/2018	FC-MW-108D FC-MW-108D-20180717 460-160904-4 TALED 4601609041 WATER 7/17/2018 14:10 8/12/2018	FC-MW-109S FC-MW-109S-20180719 460-160989-4 TALED 4601609891 WATER 7/19/2018 13:05 8/12/2018	FIELDQC FC-TB071718-20180718 460-160904-11 TALED 4601609041 WATER 7/18/2018 0:00 8/12/2018	FIELDQC FC-TB072018-20180720 460-160989-7 TALED 4601609891 WATER 7/20/2018 0:00 8/12/2018
CAS NO.	COMPOUND	UNITS:						
	VOLATILES							
71-55-6	1,1,1-Trichloroethane	ug/l	1 U	1 U	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	1 U	1 U
79-00-5	1,1,2-Trichloroethane	ug/l	1 U	1 U	1 U	1 U	1 U	1 U
75-34-3	1,1-Dichloroethane	ug/l	1 U	1 U	1 U	1 U	1 U	1 U
75-35-4	1,1-Dichloroethene	ug/l	1 U	1 U	1 U	1 U	1 U	1 U
107-06-2	1,2-Dichloroethane	ug/l	1 U	1 U	1 U	1 U	1 U	1 U
78-87-5	1,2-Dichloropropane	ug/l	1 U	1 U	1 U	1 U	1 U	1 U
591-78-6	2-Hexanone	ug/l	5 U	5 U	5 U	5 U	5 U	5 U
67-64-1	Acetone	ug/l	5 U	5 U	5 U	5 U	5 U	5.4
71-43-2	Benzene	ug/l	1 U	1 U	1 U	1 U	1 U	1 U
75-27-4	Bromodichloromethane	ug/l	1 U	1 U	1 U	1 U	1 U	1 U
75-25-2	Bromoform	ug/l	1 U	1 U	1 U	1 U	1 U	1 U
74-83-9	Bromomethane	ug/l	1 U	1 U	1 U	1 U	1 U	1 U
75-15-0	Carbon Disulfide	ug/l	1 U	1 U	1 U	1 U	1 U	1 U
56-23-5	Carbon Tetrachloride	ug/l	1 U	1 U	1 U	1 U	1 U	1 U
108-90-7	Chlorobenzene	ug/l	1 U	1 U	1 U	1 U	1 U	1 U
75-00-3	Chloroethane	ug/l	1 U	1 U	1 U	1 U	1 U	1 U
67-66-3	Chloroform	ug/l	0.47 J	0.57 J	1 U	1 U	1 U	1 U
74-87-3	Chloromethane	ug/l	1 U	1 U	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	1 U	1 U
10061-01-5	Cis-1,3-Dichloropropene	ug/l	1 U	1 U	1 U	1 U	1 U	1 U
124-48-1	Dibromochloromethane	ug/l	1 U	1 U	1 U	1 U	1 U	1 U
100-41-4	Ethylbenzene	ug/l	1 U	1 U	1 U	1 U	1 U	1 U
78-93-3	Methyl Ethyl Ketone (2-Butanone)	ug/l	5 U	5 U	5 U	5 U	5 U	5 U
108-10-1	Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	ug/l	5 U	5 U	5 U	5 U	5 U	5 U
75-09-2	Methylene Chloride	ug/l	1 U	1 U	1 U	1 U	4.3	5.7
100-42-5	Styrene	ug/l	1 U	1 U	1 U	1 U	1 U	1 U
127-18-4	Tetrachloroethylene (PCE)	ug/l	0.25 J	0.98 J	1 U	9.2	1 U	1 U
108-88-3	Toluene	ug/l	1 U	1 U	1 U	1 U	1 U	1 U
156-60-5	Trans-1,2-Dichloroethene	ug/l	1 U	1 U	1 U	1 U	1 U	1 U
10061-02-6	Trans-1,3-Dichloropropene	ug/l	1 U	1 U	1 U	1 U	1 U	1 U
79-01-6	Trichloroethylene (TCE)	ug/l	0.85 J	6.3	1 U	2.4	1 U	1 U
75-01-4	Vinyl Chloride	ug/l	1 U	1 U	1 U	1 U	1 U	1 U
XYLENES	Xylenes, Total	ug/l	2 U	2 U	2 U	2 U	2 U	2 U
	RSK 175 VOLATILES							
74-84-0	Ethane	ug/l						
74-85-1	Ethene	ug/l						
74-82-8	Methane	ug/l						
	INORGANICS							
7439-89-6	Iron	ug/l						
7439-96-5	Manganese	ug/l						
	OTHER							
14797-55-8	Nitrogen, Nitrate (As N)	mg/l						
14808-79-8	Sulfate (As SO4)	mg/l						
TOC	Total Organic Carbon	mg/l						

DATA USABILITY SUMMARY REPORT

AUGUST 2017 GROUNDWATER SAMPLING

FORMER CLEANERS PRODUCTS SUPPLY

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NOVEMBER 2018

SECTION 1

DATA USABILITY SUMMARY

Groundwater samples were collected from the Former Cleaners Products Supply site in Sunnyside, New York on August 1, 2018 through August 2, 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) for organic and inorganic data review.

The analytical laboratory for this project was Test America Laboratories (TAL) in Edison, New Jersey and West Sacramento, California. This laboratory is certified to perform project analyses through 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 21 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 day of sampling. All samples were received intact and in good condition at the laboratory.

1.3 LABORATORY ANALYTICAL METHODS

Groundwater samples that were collected from the site were analyzed for volatile organic compounds (VOCs), 1,4-dioxane, and per- and poly-fluorinated alkyl substances (PFAS). 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 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,

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- "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

The project samples were analyzed for VOCs using the USEPA SW-846 8260C analytical method. Certain reported results for these samples were qualified as estimated based upon instrument calibrations; and qualified as nondetected based upon laboratory method blank and equipment blank contamination. The reported VOC analytical results were 100% complete (i.e., usable) for the project data presented by TAL. PARCCS requirements were met.

1.3.2 1,4-Dioxane Organic Analysis

The project samples were analyzed for 1,4-dioxane using the USEPA SW-846 8270D analytical method. The reported results for these samples did not require qualification resulting from data validation. The reported 1,4-dioxane analytical results were considered 100% complete (i.e., usable) for the project data presented by TAL. PARCCS requirements were met.

1.3.3 PFAS Organic Analysis

The project samples were analyzed for PFAS using the modified USEPA 537.1 analytical method. The reported results for these samples did not require qualification resulting from data validation. The reported PFAS analytical results were considered 100% complete (i.e., usable) for the project data presented by TAL. PARCCS requirements were met.

SECTION 2

DATA VALIDATION REPORT

2.1 GROUNDWATER

Data review has been completed for data packages generated by TAL containing groundwater samples collected from the site. Analytical results from these samples were contained within sample delivery group (SDG) 460-138477-1. All of these samples were properly preserved, shipped under a COC record, and received intact by the analytical laboratory. The validated laboratory data are presented in Attachment A.

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

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 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 high MS/MSD accuracy results for chloroethane (205%R/215%R; QC limit 52-150%R) during the spiked analyses of sample FC-MW-6. Validation qualification was not required for the affected parent sample.

LCS Recoveries

All LCS recoveries were considered acceptable and within QC limits with the exception of the high LCS recovery for chloroethane (169%R; QC limit 52-150%R) associated with all samples. Since chloroethane was not detected, validation qualification was not required for the affected samples.

Blank Contamination

The laboratory method blanks associated with the project samples contained acetone below the reporting limit at concentrations of 2.05 and 2.62 µg/L; and the equipment blank associated with the project samples contained acetone, ethylbenzene, and total xylenes at concentrations of 5.6, 0.4, and 1.0 µg/L, respectively. Therefore, results for these compounds less than the validation action concentrations were considered not detected and qualified “U” 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 maximum percent difference (%D) within ±20% (±40% for poor performers) with the exception of chloroethane (82.5%D, 70.0%D) and bromoform (-24.8%D, -20.9%D) in the continuing calibrations associated with all samples. Therefore, the sample results for these noncompliant compounds were considered estimated with positive results qualified “J” and nondetected results 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 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 1,4-Dioxane

The following items were reviewed for compliancy in the 1,4-dioxane 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 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.

Usability

All 1,4-dioxane 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 1,4-dioxane data presented by TAL were 100% complete (i.e., usable). The validated 1,4-dioxane laboratory data are tabulated and presented in Attachment A.

2.1.3 PFAS

The following items were reviewed for compliancy in the PFAS 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 equipment blank contamination
- Instrument performance
- Initial and continuing calibrations

- 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 blank contamination as discussed below.

Blank Contamination

The laboratory method blank associated with the project samples contained PFOA below the reporting limit at a concentration of 1.55 ng/L; and the field QC equipment blank associated with the project samples contained PFHpA, PFOA, PFHxS, and PFOS at concentrations of 1.5, 3.8, 0.94, and 1.3 ng/L, respectively. Validation qualification of these samples was not required.

Usability

All PFAS 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 PFAS groundwater data presented by TAL were 100% complete (i.e., usable). The validated PFAS laboratory data are tabulated and presented in Attachment A.

ATTACHMENT A

VALIDATED LABORATORY DATA

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