Mr. Michael MacCabe
New York State Department of Environmental Conservation
Bureau of Eastern Remedial Action
Division of Environmental Remediation
Remedial Bureau B
625 Broadway
Albany, New York 12233

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160 Chapel Road
Suite 201
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Tel 860 645 1084
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ENVIRONMENT

Subject:
Site Status Update Report
Mobil Branded Service Station
Former Mobil #10954 (17-HMB)
138-50 Hillside Avenue
Jamaica, New York
NYSDEC Case No. 01-01410
PBS No. 2-157228

Date:
February 7, 2019

Contact:
Jerome Oertling

Phone:
860.533.9953

Email:
jerome.oertling
@arcadis.com

Our ref:
B0085850.0954

Dear Mr. MacCabe:

Arcadis of New York, Inc. (Arcadis) was retained by Alliance Energy LLC (Alliance) to submit the attached semi-annual Site Status Update Report (SSUR) for the above-referenced site. This SSUR summarizes the activities completed at the site from July through December 2018. Please contact me with any questions regarding this site.

Sincerely,

Arcadis of New York, Inc.

Jerome Oertling
AFS Project Manager

ARCADIS Design & Consultancy for natural and built assets

Alliance Energy LLC

SITE STATUS UPDATE REPORT

Mobil Branded Service Station
Former Mobil #10954 (17-HMB)
138-50 Hillside Avenue
Jamaica, New York
NYSDEC Spill No. 01-01410
PBS No. 2-157228

February 2019

SITE STATUS UPDATE REPORT

Mobil Branded Service Station
Former Mobil #10954 (17-HMB)
138-50 Hillside Avenue
Jamaica, New York
NYSDEC Case No. 01-01410
PBS No. 2-157228

Nicholas (Klaus) Beyrle, PG
Staff Geologist

Jerome Oertling
AFS Project Manager

Prepared for:

Alliance Energy LLC

Prepared by:

Arcadis U.S., Inc.
160 Chapel Road
Suite 201
Manchester
Connecticut 06042-1625

Tel 860 645 1084
Fax 860 645 1090

Our Ref.:

B0085850.0954

Date:

February 2019

WORK PERFORMED

- On July 31, 2018 and August 23, 2018, Arcadis of New York, Inc. (Arcadis) gauged and sampled one monitoring well (MW-8) and two injection points (IP-2 and IP-3).
- On October 31, 2018, Arcadis gauged and sampled eleven monitoring wells and five injection points (IPs). IP-1 and IP-7 were not sampled due to insufficient water. MW-C was not sampled as immobile cars were parked on it.
- Operations, monitoring, and maintenance (OM&M) on the air sparge/soil vapor extraction (AS/SVE) system were conducted on July 11, August 20, September 24, October 25, November 14 and December 4, 2018 during this reporting period.

GROUNDWATER MONITORING (OCTOBER 31, 2018)

- Number of wells: Twelve groundwater monitoring wells, six AS wells, two SVE wells, one SVE observation well, and seven IPs are associated with the site (Figure 2).
- Gauging Frequency: Semi-annually
- Liquid Phase Hydrocarbons (LPH): None detected.
- Sampling Frequency: Semi-annually
- Reporting Frequency: Semi-annually
- Groundwater Depth: 36.27 feet (ft) below top of casing at IP-6 to 39.30 ft below casing at MW-B.
- Benzene, Toluene, Ethylbenzene and Total Xylenes (BTEX) Concentrations: Below laboratory reporting limit (BRL) (MW-1, MW-2, MW-3, MW-4, MW-6, MW-7, MW-9, MW-B, IP-2, IP-3, and IP-4) to 18,780 micrograms per liter (µg/L) (MW-8).
- Methyl Tertiary Butyl Ether (MTBE) Concentrations: BRL (MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, MW-9, MW-10, IP-2, IP-3, IP-4, IP-5, and IP-6) to 0.2 J µg/L (MW-B).
- Groundwater Flow (Direction Inferred): North Northwest at a gradient of 0.01 feet per foot (ft/ft) (Figure 3).

SITE SPECIFIC GEOLOGY/HYDROGEOLOGY

- Overburden material consists of dark yellow-brown fine to coarse sand with trace to some coarse gravel, cobbles and silt.
- Bedrock was not encountered during previous investigations.

POTENTIAL SENSITIVE RECEPTORS

- Commercial and residential buildings containing basements are located adjacent to the site.

- Subsurface utilities and a subway are located adjacent to the site.
- There is one private non-potable well located approximately 780 ft south of the property (potentially down gradient) and one public supply well (PSW) (Jamaica Water Supply Company Well Q322 [ID#7011735-026]) located approximately 0.5 miles northwest (upgradient) of the site.

HISTORIC INVESTIGATION ACTIVITIES

- In December 2008, a Phase I Environmental Site Assessment (ESA) was conducted.
- In April 2010, a Phase II Environmental Assessment Report was conducted. Seven soil borings were installed, two of which were completed as monitoring wells.
- In November 2010, a Phase I ESA Update was prepared.

HISTORIC REMEDIAL ACTIVITIES

- In September 2009, On-Contact® Process injections of approximately 500 gallons of On-Contact® catalyst and 1,430 gallons of 6% hydrogen peroxide oxidizer were introduced to the subsurface via gravity through injection point IP-2.
- In November 2010, On-Contact® Process injections of approximately 6,000 gallons of On-Contact® catalyst and 11,000 gallons of On-Contact® oxidizer were introduced to the subsurface via gravity through IPs IP-1 through IP-7.
- A Work Plan (WP) for pilot testing and installation of an AS/SVE system was approved by the New York State Department of Environmental Conservation (NYSDEC) on March 28, 2012.
- On October 23, 2012, Arcadis submitted a permit application package to the NY City Transit Authority (NYCTA), as required for intrusive work within 200 ft of subway infrastructure. On November 30, 2012, Arcadis was notified, in writing, that the NYCTA issued a “No Impact” determination with respect to the proposed AS/SVE system installation.
- In April 2013, two AS/SVE pilot test wells were installed. Pilot test activities were conducted in May 2013. Results of the pilot test were reported in the *Pilot Test Summary Report* dated January 2014.
- In February and March 2014, six AS wells and two SVE wells were installed. The wells were developed in May 2014.
- AS/SVE trenching and piping installation was completed in January and February 2015, as per the approved Remedial Action Plan (RAP).
- In June 2015, Alliance Energy LLC (Alliance) purchased the site and requested that the location of the proposed remedial system be changed and placed south of the existing station building. This location was eventually rejected in favor of the location outlined in the approved RAP.

RECENT MONITORING ACTIVITIES

- On July 31, 2018 and August 23, 2018, one groundwater monitoring well was gauged and sampled, two IPs were gauged and sampled for dissolved-phase concentrations of BTEX and MTBE.
- On October 31, 2018, eleven groundwater monitoring wells were gauged and sampled, and five IPs were gauged and sampled for dissolved-phase concentrations of BTEX and MTBE.
- LPH was not detected in any of the monitoring wells gauged.
- Groundwater analytical results are summarized on Table 1 and provided on Figure 4. The laboratory analytical reports for these sampling events are located in Appendix A.
- Total BTEX concentrations were below NYSDEC Technical and Operational Guidance Series (TOGS) standards and guidance values at fourteen wells (MW-1, MW-2, MW-3, MW-4, MW-6, MW-7, MW-9, MW-10, MW-B, IP-2, IP-3, IP-4, and IP-6). Total BTEX concentrations remain elevated at MW-8. Results were generally in-line with historic site trends, except for a decrease in BTEX concentrations in MW-8 in July and August 2018. Hydrographs for selected wells are provided in Appendix C.

RECENT REMEDIAL ACTIVITIES

- OM&M of the AS/SVE system was conducted on July 11, August 20, September 24, October 25, November 14 and December 4, 2018 during this reporting period.
- OM&M has been conducted on a monthly basis since the AS/SVE system came online on February 16, 2017, except for the period from September 7, 2017 to February 15, 2018 when the Cat Ox unit was being sourced and installed.
- OM&M and mass recovery information are summarized on Table 2. Total BTEX recovered as of December 2018 is 107.9 pounds (lbs). The total petroleum hydrocarbon (TPH) mass recovered as of December 2018 is 1,510 lbs. Effluent sampling continues to show compliance with benzene discharge limits. See Table 3.

DISCUSSION

- Non-routine sampling of MW-8 in July and August 2018 indicated a sharp reduction in dissolved phase BTEX. The cause of this anomaly could not be determined. The October 2018 semi-annual sampling indicated an increase back in-line with stable historic trends. IP-2 and IP-3 have also shown sharp decreases without rebound over the past year. These wells will continue to be monitored more frequently and the AS/SVE system will continue to be optimized to focus on this area.

UPCOMING ACTIVITIES

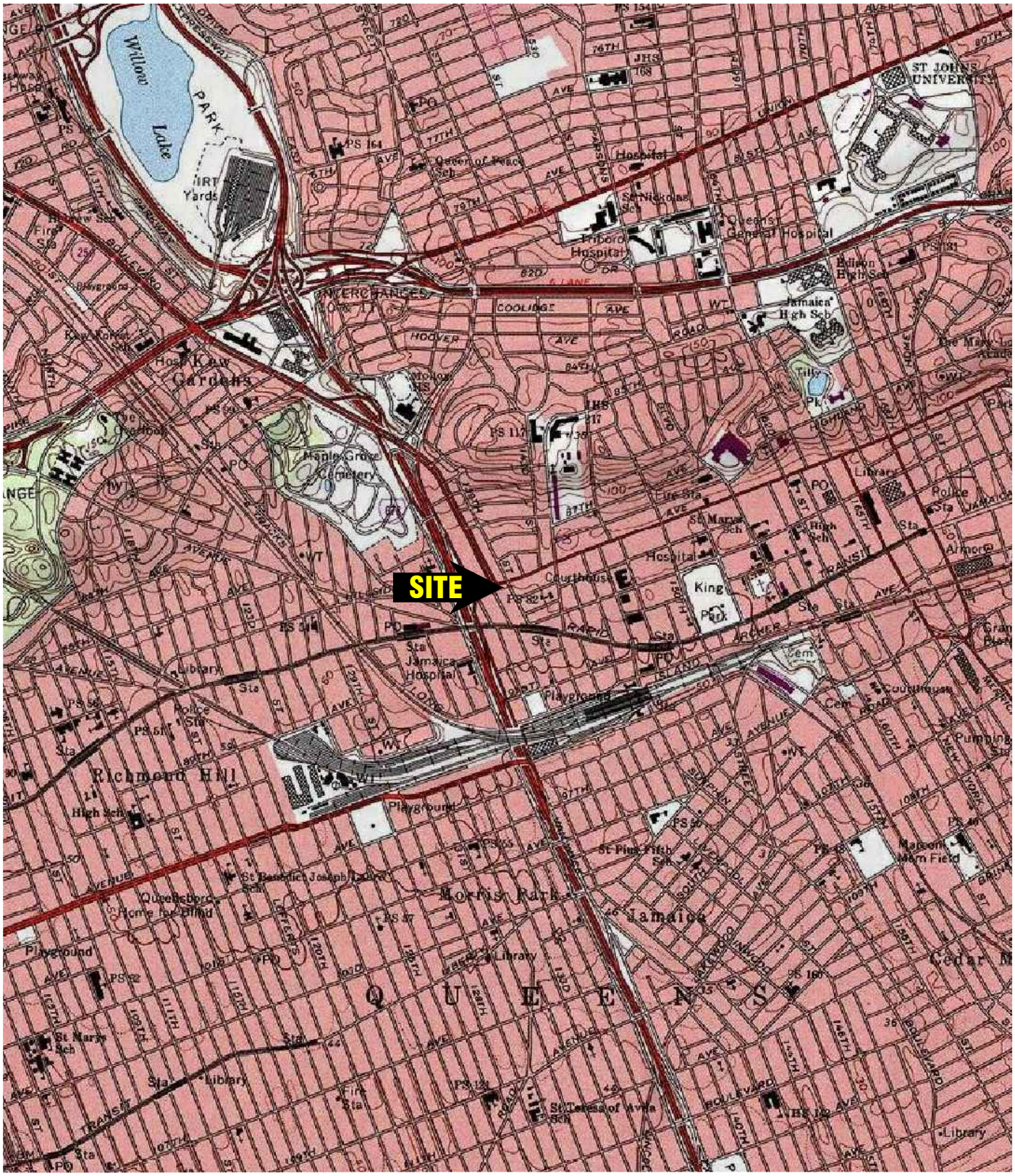
- The next semi-annual groundwater gauging and sampling event will be conducted in April 2019. Data will be summarized in the next semi-annual Site Status Update Report (SSUR).

- System OM&M will continue on a monthly basis or more frequently as needed.

ATTACHMENTS:

Figure 1: Site Location Map
Figure 2: Site Plan
Figure 3: Groundwater Contour Map – October 31, 2018
Figure 4: Groundwater Analytical Map – July-October 2018
Table 1: Monitoring Well Gauging and Groundwater Analytical Data
Table 2: AS/SVE Influent Analytical Data
Table 3: AS/SVE Effluent Vapor Analytical Data
Appendix A: Groundwater Laboratory Analytical Reports
Appendix B: AS/SVE Vapor Analytical Reports
Appendix C: Hydrographs

FIGURES



REFERENCE: TOPO□ USGS 7.5 MINUTE
QUAD: JAMAICA, NEW YORK
DATED: 2010

0 2000' 4000'

GRAPHIC SCALE

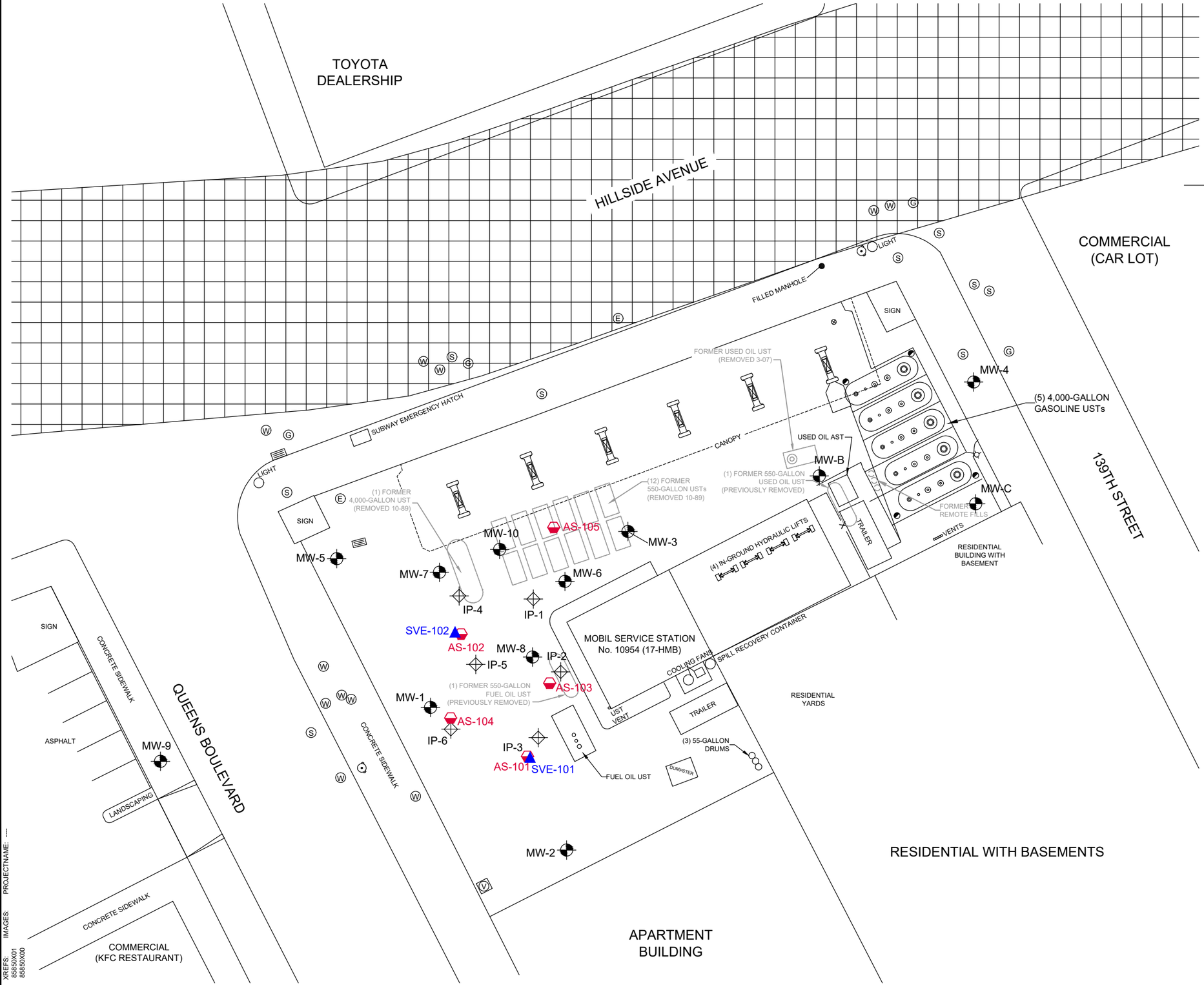
MOBIL BRANDED SERVICE STATION
FORMER MOBIL #10954 (17-HMB)
138-50 HILLSIDE AVENUE
JAMAICA, NEW YORK

SITE LOCATION MAP

ARCADIS Design & Consultancy for natural and built assets

FIGURE
1

CITY: MANCHESTER, CT DIV/GROUP: ENVCAD DB: B. SMALL PM: E.CHOQUETTE
G:\ENVCAD\Manc_ester\ACT\B00858500\0954\B00858500954-APR11.dwg LAYOUT: FIGURE 1 SAVED: 12/6/2011 5:12 PM ACADVER: 18.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ---- PLOTTED: 12/14/2011 4:49 PM BY: SMALL, BRIAN



LEGEND:

- FENCE LINE
- MONITORING WELL
- TANK FIELD WELL
- INJECTION WELL
- CLEAN-OUT
- FIRE HYDRANT
- VACUUM
- SUBWAY (UNDERGROUND)
- CATCH BASIN
- ELECTRIC VAULT
- SEWER VAULT
- WATER SUPPLY VAULT
- NATURAL GAS VAULT
- UST — UNDERGROUND STORAGE TANK
- AST — ABOVE GROUND STORAGE TANK
- APPROXIMATE LOCATION OF SOIL VAPOR EXTRACTION WELL (SVE)
- APPROXIMATE LOCATION OF AIR SPARGE WELL (AS)

NOTE:

1. THIS DRAWING IS REFERENCED FROM THE FOLLOWING:

   A. "GROUNDWATER ELEVATION CONTOUR AND HYDROCARBON DISTRIBUTION MAP", BY: KLEINFELDER, DATED: 10/25/10, SCALE: 1"=30'.

2. LOCATIONS FOR AIR SPARGE (AS) AND SOIL VAPOR EXTRACTION (SVE) WELLS ARE APPROXIMATE.

0 30' 60'

GRAPHIC SCALE

MOBIL BRANDED SERVICE STATION
FORMER MOBIL #10954 (17-HMB)
138-50 HILLSIDE AVENUE
JAMAICA, NEW YORK

SITE PLAN

ARCADIS Design & Consultancy for natural and built assets

FIGURE 2

CITY: BANGALORE; INDIA DIV/GROUP: ENVCAD DB: Y. NIMBARGIKAR LD: PIC: S. DAVIES PM: N.FRASCA TM: G. CUTSHALL LYR: ON=*; OFF=*REF*
K:\Environ...ent - Arcadis\ARCADIS USA\ PROJECTS\1. EXXON MOBIL\NY\UB001767 - 10954 - East River 10954\UB001767-01E-Drawings\85850X01\85850G01.dwg LAYOUT: 2
PLOTTED: 12/8/2015 11:01 AM BY: YOGINATH NIMBARGIKAR
XREFS: IMAGES: PROJECTNAME: ----
85850X01
85850X00
SAVED: 12/8/2015 11:01 AM ACADVER: 19.1S (LMS TECH) PAGESETUP: C-LB-PDF PLOTSTYLETABLE: PLTFULL.CTB

TOYOTA DEALERSHIP

HILLSIDE AVENUE

COMMERCIAL (CAR LOT)

FILLED MANHOLE

SIGN

LIGHT

SUBWAY EMERGENCY HATCH

CANOPY

USED OIL AST

MW-B (NM)

MW-4 (63.05)

(5) 4,000-GALLON GASOLINE USTs

MW-C (NM)

139TH STREET

AS-105

IP-7 (Dry)

MW-3 (62.85)*

MW-6 (62.97)

MW-10 (62.97)

MW-7 (62.90)

MW-5 (62.96)

TRAILER

VENTS

RESIDENTIAL BUILDING WITH BASEMENT

(4) IN-GROUND HYDRAULIC LIFTS

AS-106

IP-1 (Dry)

IP-4 (62.96)

SVE-102

AS-102

MW-8 (63.05)

IP-5 (63.04)

MOBIL SERVICE STATION No. 10954 (17-HMB)

SPILL RECOVERY CONTAINER

COOLING FANS

IP-2 (63.48)

AS-103

MW-1 (62.98)*

UST VENT

TRAILER

RESIDENTIAL YARDS

AS-104

IP-3 (62.98)*

SVE-101

AS-101

FUEL OIL UST

(3) 55-GALLON DRUMS

DUMPSTER

IP-6 (63.53)

63.10

62.90

63.30

63.50

QUEENS BOULEVARD

CONCRETE SIDEWALK

ASPHALT

MW-9 (62.93)

LANDSCAPING

MW-2 (63.10)*

RESIDENTIAL WITH BASEMENTS

APARTMENT BUILDING

CONCRETE SIDEWALK

COMMERCIAL (KFC RESTAURANT)

LEGEND:

- FENCE LINE
- MONITORING WELL
- TANK FIELD WELL
- CLEAN-OUT
- FIRE HYDRANT
- VACUUM
- SUBWAY (UNDERGROUND)
- CATCH BASIN
- ELECTRIC VAULT
- SEWER VAULT
- WATER SUPPLY VAULT
- NATURAL GAS VAULT
- UST — UNDERGROUND STORAGE TANK
- AST — ABOVE GROUND STORAGE TANK
- SOIL VAPOR EXTRACTION WELL (SVE)
- AIR SPARGE WELL (AS)
- OBSERVATION WELL
- (63.53) — GROUNDWATER ELEVATION
- 63.50 — GROUNDWATER CONTOUR LINE
- GROUNDWATER FLOW DIRECTION
- (NM) — NOT MONITORED
- * — ANOMALOUS DATA NOT USED IN CONTOURING

NOTES:

1. THIS DRAWING IS REFERENCED FROM THE FOLLOWINC

   A. "GROUNDWATER ELEVATION CONTOUR AND HYDROCARBON DISTRIBUTION MAP", BY: KLEINFELDER, DATED: 10/25/10, SCALE: 1"=30'.

2. LOCATIONS FOR AIR SPARGE (AS) AND SOIL VAPOR EXTRACTION (SVE) WELLS ARE APPROXIMATE.

0 30' 60'

GRAPHIC SCALE

MOBIL BRANDED SERVICE STATION
FORMER MOBIL #10954 (17-HMB)
138-50 HILLSIDE AVENUE
JAMAICA, NEW YORK

GROUNDWATER CONTOUR MAP OCTOBER 31, 2018

ARCADIS Design & Consultancy for natural and built assets

FIGURE 3

CITY: BANGALORE, INDIA DIV/GROUP: ENVCAD DB: Y. NIMBARGIKAR LD: PIC: S. DAVIES PM: N. FRASCA TM: G. CUTSHALL LYR: ON=*; OFF=*REF*
C:\Users\nadigerc8191\OneDrive - ARCADIS\BIM 360 Docs\EXXONMOBIL\10945 - 138-50 Hillside\2018\B0085850.0945\01-DWG\10954 Fig 3 GWECM.dwg LAYOUT: 3 SAVED: 12/17/2018 7:15 PM ACADVER: 21.0S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ARCADIS.CTB PLOTTED: 12/18/2018 3:54 PM BY: NADIGERA, CHIDAMBARA
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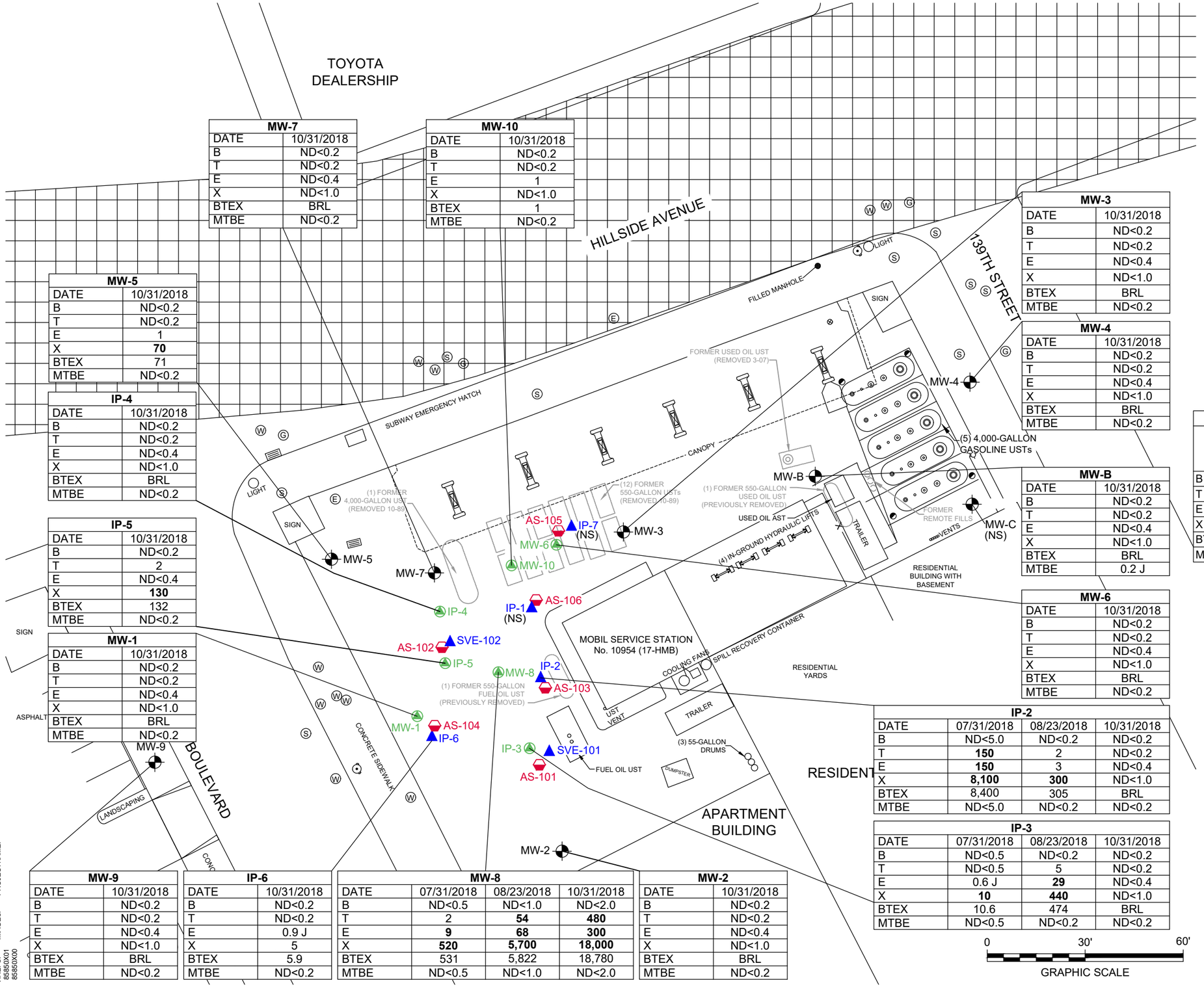
85850X00



MW-7	
DATE	10/31/2018
B	ND<0.2
T	ND<0.2
E	ND<0.4
X	ND<1.0
BTEX	BRL
MTBE	ND<0.2

MW-10	
DATE	10/31/2018
B	ND<0.2
T	ND<0.2
E	1
X	ND<1.0
BTEX	1
MTBE	ND<0.2

MW-3	
DATE	10/31/2018
B	ND<0.2
T	ND<0.2
E	ND<0.4
X	ND<1.0
BTEX	BRL
MTBE	ND<0.2

MW-5	
DATE	10/31/2018
B	ND<0.2
T	ND<0.2
E	1
X	**70**
BTEX	71
MTBE	ND<0.2

MW-4	
DATE	10/31/2018
B	ND<0.2
T	ND<0.2
E	ND<0.4
X	ND<1.0
BTEX	BRL
MTBE	ND<0.2

IP-4	
DATE	10/31/2018
B	ND<0.2
T	ND<0.2
E	ND<0.4
X	ND<1.0
BTEX	BRL
MTBE	ND<0.2

MW-B	
DATE	10/31/2018
B	ND<0.2
T	ND<0.2
E	ND<0.4
X	ND<1.0
BTEX	BRL
MTBE	0.2 J

IP-5	
DATE	10/31/2018
B	ND<0.2
T	2
E	ND<0.4
X	**130**
BTEX	132
MTBE	ND<0.2

MW-6	
DATE	10/31/2018
B	ND<0.2
T	ND<0.2
E	ND<0.4
X	ND<1.0
BTEX	BRL
MTBE	ND<0.2

MW-1	
DATE	10/31/2018
B	ND<0.2
T	ND<0.2
E	ND<0.4
X	ND<1.0
BTEX	BRL
MTBE	ND<0.2

IP-2			
DATE	07/31/2018	08/23/2018	10/31/2018
B	ND<5.0	ND<0.2	ND<0.2
T	**150**	2	ND<0.2
E	**150**	3	ND<0.4
X	**8,100**	**300**	ND<1.0
BTEX	8,400	305	BRL
MTBE	ND<5.0	ND<0.2	ND<0.2

IP-3			
DATE	07/31/2018	08/23/2018	10/31/2018
B	ND<0.5	ND<0.2	ND<0.2
T	ND<0.5	5	ND<0.2
E	0.6 J	**29**	ND<0.4
X	**10**	**440**	ND<1.0
BTEX	10.6	474	BRL
MTBE	ND<0.5	ND<0.2	ND<0.2

MW-9	
DATE	10/31/2018
B	ND<0.2
T	ND<0.2
E	ND<0.4
X	ND<1.0
BTEX	BRL
MTBE	ND<0.2

IP-6	
DATE	10/31/2018
B	ND<0.2
T	ND<0.2
E	0.9 J
X	5
BTEX	5.9
MTBE	ND<0.2

MW-8			
DATE	07/31/2018	08/23/2018	10/31/2018
B	ND<0.5	ND<1.0	ND<2.0
T	2	**54**	**480**
E	**9**	**68**	**300**
X	**520**	**5,700**	**18,000**
BTEX	531	5,822	18,780
MTBE	ND<0.5	ND<1.0	ND<2.0

MW-2	
DATE	10/31/2018
B	ND<0.2
T	ND<0.2
E	ND<0.4
X	ND<1.0
BTEX	BRL
MTBE	ND<0.2

LEGEND:

- FENCE LINE
- MONITORING WELL
- TANK FIELD WELL
- CLEAN-OUT
- FIRE HYDRANT
- VACUUM
- SUBWAY (UNDERGROUND)
- CATCH BASIN
- ELECTRIC VAULT
- SEWER VAULT
- WATER SUPPLY VAULT
- NATURAL GAS VAULT
- UST UNDERGROUND STORAGE TANK
- AST ABOVE GROUND STORAGE TANK
- SOIL VAPOR EXTRACTION WELL (SVE)
- AIR SPARGE WELL (AS)
- OBSERVATION WELL

WELL IDENTIFICATION	
CONSTITUENT	GROUNDWATER STANDARDS AND GUIDANCE VALUES
B = BENZENE	1
T = TOLUENE	5
E = ETHYLBENZENE	5
X = TOTAL XYLENES	5
BTEX = TOTAL BTEX	--
MTBE = METHYL TERTIARY BUTYL ETHER	10

<	CONSTITUENT NOT DETECTED AT OR BELOW THE INDICATED REPORTING LIMIT
ND	NOT DETECTED
J	ESTIMATED VALUE
BRL	BELOW LABORATORY REPORTING LIMIT
(NS)	NOT SAMPLED

NOTES:

1. THIS DRAWING IS REFERENCED FROM THE FOLLOWING:
   A. "GROUNDWATER ELEVATION CONTOUR AND HYDROCARBON DISTRIBUTION MAP", BY: KLEINFELDER, DATED: 10/25/10, SCALE: 1"=30'.
2. ALL UNITS REPORTED IN MICROGRAMS PER LITER (µg/L).
3. BOLDED VALUE INDICIATES RESULT ABOVE NYSDEC STANDARDS AND GUIDANCE VALUES.
4. LOCATIONS FOR AIR SPARGE (AS) AND SOIL VAPOR EXTRACTION (SVE) WELLS ARE APPROXIMATE.

0 30' 60'

GRAPHIC SCALE

MOBIL BRANDED SERVICE STATION
FORMER MOBIL #10954 (17-HMB)
138-50 HILLSIDE AVENUE
JAMAICA, NEW YORK

GROUNDWATER ANALYTICAL MAP JULY - OCTOBER 2018

ARCADIS Design & Consultancy for natural and built assets

FIGURE 4

CITY: BANGALORE, INDIA DN/GROUP: ENVCAD DB: Y. NIMBARGIKAR LD: PIC: S. DAVIES PM: N. FRASCA TM: G. CUTSHALL LYR: ON=*; OFF=*REF*
C:\Users\nadigerc8191\OneDrive - ARCADIS\BIM 360 Docs\EXXONMOBIL\10945 - 138-50 Hillside\2018\B0085850.0945\01-DWG\10954 Fig 4 GWARM.dwg LAYOUT: 4
10:01 AM BY: NADIGERA, CHIDAMBARA SAVED: 12/18/2018 9:58 AM ACADVER: 21.0S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 12/18/2018
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TABLES

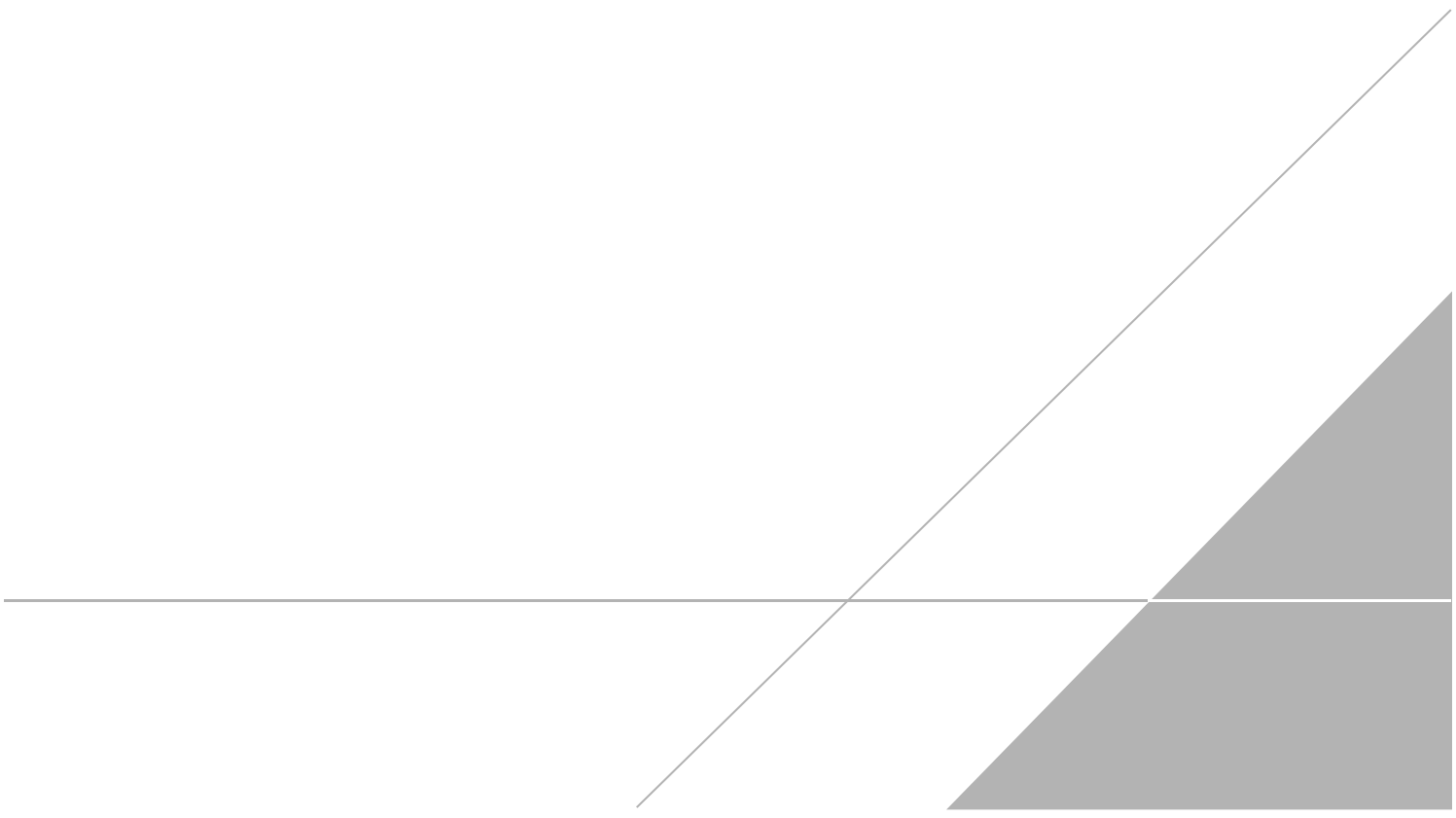

Table 1
Monitoring Well Gauging And Groundwater Analytical Data
February 6, 2006 Through October 31, 2018

Mobil Branded Service Station
Former Mobil #10954 (17-HMB)
138-50 Hillside Avenue
Jamaica, New York

		Gauging Data					Analytical Data								
Sample ID	Date	Top of Casing Elevation	Depth to Water (feet)	Depth to Hydro-carbon (feet)	Hydro-carbon Thickness (feet)	Corrected GW Elevation (feet)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	MTBE (µg/L)	Ethyl Alcohol (µg/L)	Dissolved Oxygen (mg/L)	Comments
NYSDEC Standards		**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**1**	**5**	**5**	**5**	**~**	**~**	**~**	**~**	
NYSDEC Guidance Values		**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**~**	**~**	**~**	**~**	**~**	**10**	**~**	**~**	
MW-1	2/6/2006	99.70	36.22	ND	ND	63.48	**390**	**7,220**	**2,990**	**12,800**	23,400	ND<10	ND<1,000	NA	
	5/9/2006	99.70	36.42	ND	ND	63.28	**330**	**9,070**	**2,960**	**15,100**	27,460	ND<20	ND<2,000	NA	
	7/14/2006	99.70	35.89	ND	ND	63.81	**223**	**5,480**	**1,280**	**7,530**	14,513	1.4	ND<200	NA	
	10/4/2006	99.70	36.02	ND	ND	63.68	**95.5**	**5,660**	**1,860**	**9,400**	17,016	ND<25	ND<2,500	NA	
	1/10/2007	99.70	36.15	ND	ND	63.55	**67.7**	**6,760**	**2,120**	**11,300**	20,248	ND<50	ND<5,000	NA	
	4/23/2007	99.70	35.98	ND	ND	63.72	**23.1**	**4,920**	**1,910**	**8,880**	15,733	ND<20	ND<2,000	NA	
	7/18/2007	99.70	35.70	ND	ND	64.00	ND<50	**9,330**	**3,550**	**17,200**	30,080	ND<50	ND<5,000	NA	
	10/9/2007	99.70	36.91	ND	ND	62.79	**6.8 J**	**4,460**	**2,230**	**9,250**	15,947	ND<10	ND<100	NA	
	1/11/2008	99.70	36.32	ND	ND	63.38	ND<25	**3,400**	**1,600**	**7,880**	12,880	ND<25	ND<100	NA	
	4/30/2008	99.70	36.57	ND	ND	63.13	ND<50	**5,430**	**3,480**	**14,400**	23,310	ND<50	ND<100	NA	
	7/2/2008	99.70	36.61	ND	ND	63.09	ND<10	**3,930**	**1,640**	**8,630**	14,200	ND<10	ND<100	NA	
	10/15/2008	99.70	36.95	ND	ND	62.75	**6.9 J**	**3,060**	**2,670**	**13,900**	19,637	ND<20	ND<100	NA	
	1/21/2009	99.70	36.75	ND	ND	62.95	ND<25	**4,850**	**3,740**	**19,200**	27,790	ND<25	ND<100	NA	
	4/8/2009	99.70	37.11	ND	ND	62.59	ND<20	**3,320**	**3,330**	**15,700**	22,350	ND<20	ND<100	NA	
	7/7/2009	99.70	36.62	ND	ND	63.08	ND<20	**3,030**	**2,850**	**11,700**	17,580	ND<20	ND<100	0.74	
	10/28/2009	99.70	36.71	ND	ND	62.99	ND<20	**1,720**	**3,000**	**9,530**	14,250	ND<20	ND<100	1.48	
	1/19/2010	99.70	36.61	ND	ND	63.09	ND<20	**1,540**	**2,450**	**8,350**	12,340	ND<20	ND<100	1.19	
	4/26/2010	99.70	35.14	ND	ND	64.56	ND<10	**1,500**	**2,100**	**8,130**	11,730	ND<10	ND<100	1.15	
	7/14/2010	99.70	35.75	ND	ND	63.95	ND<25	**1,140**	**1,850**	**7,980**	10,970	ND<25	ND<100	2.79	
	10/1/2010	99.70	36.44	ND	ND	63.26	ND<20	**665**	**1,610**	**7,020**	9,295	ND<20	ND<100	1.95	
	1/24/2011	99.70	37.12	ND	ND	62.58	ND<3.0	**640**	**2,500**	**10,000**	13,140	3.0 J	ND<200	0.79	
	4/17/2011	99.70	36.34	ND	ND	63.36	1 J	**330**	**1,900**	**5,900**	8,131	1 J	ND<200	2.46	
	7/8/2011	99.70	36.34	ND	ND	63.36	ND<3.0	**360**	**2,100**	**7,800**	10,260	ND<3.0	ND<200	NA	
	10/25/2011	99.70	35.18	ND	ND	64.52	ND<3.0	**210**	**1,100**	**4,100**	5,410	ND<3.0	NA	NA	
	4/19/2012	99.70	36.51	ND	ND	63.19	ND<3.0	**270**	**1,600**	**8,000**	9,870	ND<3.0	NA	NA	
	10/3/2012	99.70	36.65	ND	ND	63.05	ND<3.0	**260**	**2,600**	**13,000**	15,860	ND<3.0	NA	NA	
	4/11/2013	99.70	37.15	ND	ND	62.55	ND<5.0	**110**	**1,600**	**7,800**	9,510	ND<5.0	NA	NA	
	10/17/2013	99.70	37.28	ND	ND	62.42	**11**	**87**	**1,800**	**8,200**	10,098	**21**	NA	NA	
	4/22/2014	99.70	37.24	ND	ND	62.46	ND<10	**69**	**2,300**	**11,000**	13,369	ND<10	NA	NA	
	10/23/2014	99.70	37.04	ND	ND	62.66	ND<13	**60**	**2,600**	**13,000**	15,660	ND<13	NA	NA	
	4/6/2015	99.70	36.40	ND	ND	63.30	ND<3.0	**22**	**980**	**5,800**	6,802	ND<3.0	NA	NA	
	10/1/2015	99.70	37.13	ND	ND	62.57	ND<0.5	4	**490**	**1,200**	1,694	1	NA	NA	
	4/7/2016	99.70	37.37	ND	ND	62.33	ND<5.0	**10**	**1,600**	**7,600**	9,210	ND<5.0	NA	NA	
	10/31/2016	99.70	38.19	ND	ND	61.51	ND<3.0	4 J	**900**	**3,200**	4,104 J	ND<3.0	NA	NA	
	4/18/2017	99.70	37.55	ND	ND	62.15	ND<1.0	4	**1,100**	**3,400**	4,504	ND<1.0	NA	NA	
	10/6/2017	99.70	37.01	ND	ND	62.69	ND<0.5	2	**190**	**220**	412	ND<0.5	NA	NA	
	4/6/2018	99.70	36.82	ND	ND	62.88	ND<0.5	0.7 J	**26**	**1,000**	1027 J	ND<0.5	NA	NA	
	10/31/2018	99.70	36.72	ND	ND	62.98	ND<0.2	ND<0.2	ND<0.4	ND<1.0	BRL	ND<0.2	NA	NA	
MW-2	2/6/2006	99.82	36.25	ND	ND	63.57	**23.7**	**31.7**	**106**	**1,120**	1,281	**11.1**	ND<100	NA	
	5/9/2006	99.82	36.45	ND	ND	63.37	**31.6**	**79.6**	**309**	**978**	1,398	6.9	ND<100	NA	
	7/14/2006	99.82	35.90	ND	ND	63.92	**46.2**	**290**	**1,140**	**3,700**	5,176	2.6	ND<200	NA	
	10/4/2006	99.82	36.05	ND	ND	63.77	**44.6**	**250**	**559**	**1,710**	2,564	2.6	ND<200	NA	
	1/10/2007	99.82	36.18	ND	ND	63.64	**86.0**	**426**	**892**	**2,580**	3,984	2.5	ND<250	NA	
	4/23/2007	99.82	36.00	ND	ND	63.82	**13.4**	**14.1**	**195**	**443**	666	**15.7**	ND<100	NA	
	7/18/2007	99.82	35.75	ND	ND	64.07	**22.8**	**20.2**	**46.9**	**231**	321	7.1	ND<100	NA	
	10/9/2007	99.82	35.45	ND	ND	64.37	**6.3**	1.5	**11.3**	**24.2**	43.3	7.0	ND<100	NA	
	1/11/2008	99.82	36.38	ND	ND	63.44	**14.6**	**12.0**	**273**	**499**	799	ND<2.5	ND<100	NA	

Table 1
Monitoring Well Gauging And Groundwater Analytical Data
February 6, 2006 Through October 31, 2018

Mobil Branded Service Station
Former Mobil #10954 (17-HMB)
138-50 Hillside Avenue
Jamaica, New York

		Gauging Data					Analytical Data								
Sample ID	Date	Top of Casing Elevation	Depth to Water (feet)	Depth to Hydro-carbon (feet)	Hydro-carbon Thickness (feet)	Corrected GW Elevation (feet)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	MTBE (µg/L)	Ethyl Alcohol (µg/L)	Dissolved Oxygen (mg/L)	Comments
NYSDEC Standards		**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**1**	**5**	**5**	**5**	**~**	**~**	**~**	**~**	
NYSDEC Guidance Values		**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**~**	**~**	**~**	**~**	**~**	**10**	**~**	**~**	
MW-2 (continued)	4/30/2008	99.82	36.60	ND	ND	63.22	**3.9**	**21.0**	**331**	**624**	980	2.8	ND<100	NA	
	7/2/2008	99.82	36.62	ND	ND	63.20	**1.2**	1.5	**32.4**	**20.8**	55.9	**10.5**	ND<100	NA	
	10/15/2008	99.82	36.92	ND	ND	62.90	**1.8**	**44.2**	**463**	**1,570**	2,079	8.8	ND<100	NA	
	1/21/2009	99.82	36.75	ND	ND	63.07	0.86 J	**19.3**	**400**	**316**	736	**32.1**	ND<100	NA	
	4/8/2009	99.82	37.11	ND	ND	62.71	**1.5 J**	**17.4**	**324**	**259**	602	**20.7**	ND<100	NA	
	7/7/2009	99.82	36.63	ND	ND	63.19	1.0	1.5	**28.1**	**50.2**	80.8	**29.6**	ND<100	1.22	
	10/28/2009	99.82	36.72	ND	ND	63.10	0.83 J	**19.1**	**455**	**763**	1,238	0.31 J	ND<100	1.56	
	1/19/2010	99.82	36.61	ND	ND	63.21	0.95 J	**13.0**	**304**	**238**	556	3.1	ND<100	1.27	
	4/26/2010	99.82	35.16	ND	ND	64.66	0.68 J	**11.8**	**357**	**288**	657	0.71 J	ND<100	1.14	
	7/14/2010	99.82	35.75	ND	ND	64.07	**1.1**	2.2	**21.5**	**31.1**	55.9	2.6	ND<100	2.14	
	10/1/2010	99.82	36.45	ND	ND	63.37	ND<5.0	**32.7**	**548**	**1,050**	1,631	ND<5.0	ND<100	3.02	
	1/24/2011	Unable to locate well under snow					NS	NS	NS	NS	NS	NS	NS	NS	Unable to locate.
	4/17/2011	99.82	36.34	ND	ND	63.48	0.7 J	**13**	**270**	**280**	563.7	ND<0.5	ND<200	1.98	
	7/8/2011	99.82	36.36	ND	ND	63.46	1.0	0.9 J	**21**	**11**	33.9	1 J	ND<200	NA	
	10/25/2011	99.82	35.19	ND	ND	64.63	0.6 J	**11**	**140**	**290**	442	ND<0.5	NA	NA	
	4/19/2012	99.82	36.50	ND	ND	63.32	0.7 J	1	**38**	**8**	47.7	0.8 J	NA	NA	
	10/3/2012	99.82	36.64	ND	ND	63.18	1 J	**6**	**220**	**360**	587	1 J	NA	NA	
	4/11/2013	99.82	37.16	ND	ND	62.66	**2**	**8**	**210**	**340**	560	1	NA	NA	
	10/17/2013	99.82	37.32	ND	ND	62.50	0.7 J	0.9 J	0.9 J	2	4.5	0.9 J	NA	NA	
	4/22/2014	99.82	37.28	ND	ND	62.54	ND<0.5	0.6 J	0.9 J	16	17.5	1 J	NA	NA	
	10/23/2014	99.82	37.04	ND	ND	62.78	ND<0.5	ND<0.5	ND<0.5	1	1	ND<0.5	NA	NA	
	4/6/2015	99.82	36.44	ND	ND	63.38	ND<0.5	ND<0.5	1	0.9 J	1.9 J	ND<0.5	NA	NA	
	10/1/2015	99.82	37.11	ND	ND	62.71	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	4/7/2016	99.82	37.41	ND	ND	62.41	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	10/31/2016	99.82	38.15	ND	ND	61.67	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	4/18/2017	99.82	38.84	ND	ND	60.98	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	10/6/2017	99.82	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	Car parked on top of well.
	4/6/2018	99.82	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	Car parked on top of well.
	10/31/2018	99.82	36.72	ND	ND	63.10	ND<0.2	ND<0.2	ND<0.4	ND<1.0	BRL	ND<0.2	NA	NA	
MW-3	2/6/2006	101.72	38.22	ND	ND	63.50	0.64 J	**8.0**	**29.0**	**165**	203	2.9	ND<100	NA	
	5/9/2006	101.72	38.42	ND	ND	63.30	0.46 J	0.57 J	2.5	**12.9**	16.4	4.2	ND<100	NA	
	7/14/2006	101.72	37.88	ND	ND	63.84	ND<0.50	ND<1.0	ND<1.0	ND<1.0	BRL	1.6	ND<200	NA	
	10/4/2006	101.72	38.00	ND	ND	63.72	ND<1.0	ND<1.0	ND<1.0	ND<1.0	BRL	1.0	ND<100	NA	
	1/10/2007	101.72	38.15	ND	ND	63.57	0.44 J	ND<1.0	ND<1.0	0.48 J	0.9	2.1	ND<100	NA	
	4/23/2007	101.72	38.00	ND	ND	63.72	0.36 J	ND<1.0	0.23 J	0.57 J	1.16	1.3	ND<100	NA	
	7/18/2007	101.72	37.73	ND	ND	63.99	ND<1.0	ND<1.0	ND<1.0	ND<1.0	BRL	0.40 J	ND<100	NA	
	10/9/2007	101.72	38.90	ND	ND	62.82	ND<1.0	ND<1.0	ND<1.0	ND<1.0	BRL	ND<1.0	ND<100	NA	
	1/11/2008	101.72	38.31	ND	ND	63.41	ND<1.0	ND<1.0	ND<1.0	0.58 J	0.5	ND<1.0	ND<100	NA	
	4/30/2008	101.72	38.59	ND	ND	63.13	ND<1.0	0.33 J	0.39 J	1.8	2.5	ND<1.0	ND<100	NA	
	7/2/2008	101.72	38.61	ND	ND	63.11	ND<1.0	ND<1.0	ND<1.0	ND<1.0	BRL	ND<1.0	ND<100	NA	
	10/15/2008	101.83	38.98	ND	ND	62.85	ND<1.0	ND<1.0	ND<1.0	ND<1.0	BRL	ND<1.0	ND<100	NA	
	1/21/2009	101.83	38.76	ND	ND	63.07	ND<1.0	ND<1.0	ND<1.0	ND<1.0	BRL	ND<1.0	ND<100	NA	
	4/8/2009	101.83	39.11	ND	ND	62.72	ND<1.0	ND<1.0	ND<1.0	ND<1.0	BRL	ND<1.0	ND<100	NA	
	7/7/2009	101.83	38.64	ND	ND	63.19	ND<1.0	ND<1.0	ND<1.0	ND<1.0	BRL	ND<1.0	ND<100	1.01	
	10/28/2009	101.83	38.69	ND	ND	63.14	ND<1.0	ND<1.0	ND<1.0	ND<1.0	BRL	ND<1.0	ND<100	1.74	
	1/19/2010	101.83	38.60	ND	ND	63.23	ND<1.0	ND<1.0	ND<1.0	0.33 J	0.33	ND<1.0	ND<100	2.56	
	4/26/2010	101.83	37.14	ND	ND	64.69	ND<1.0	0.39 J	ND<1.0	ND<1.0	0.39	ND<1.0	ND<100	1.70	

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		Gauging Data					Analytical Data								
Sample ID	Date	Top of Casing Elevation	Depth to Water (feet)	Depth to Hydro-carbon (feet)	Hydro-carbon Thickness (feet)	Corrected GW Elevation (feet)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	MTBE (µg/L)	Ethyl Alcohol (µg/L)	Dissolved Oxygen (mg/L)	Comments
NYSDEC Standards		**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**1**	**5**	**5**	**5**	**~**	**~**	**~**	**~**	
NYSDEC Guidance Values		**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**~**	**~**	**~**	**~**	**~**	**10**	**~**	**~**	
MW-3 (continued)	7/14/2010	101.83	37.74	ND	ND	64.09	ND<1.0	ND<1.0	ND<1.0	ND<1.0	BRL	ND<1.0	ND<100	2.71	
	10/1/2010	101.83	38.42	ND	ND	63.41	ND<1.0	ND<1.0	ND<1.0	ND<1.0	BRL	ND<1.0	ND<100	0.68	
	1/24/2011	101.83	39.04	ND	ND	62.79	ND<0.5	ND<0.5	ND<0.5	3.0	3.0	ND<0.5	ND<200	0.69	
	4/17/2011	101.83	38.35	ND	ND	63.48	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	ND<200	1.12	
	7/8/2011	101.83	38.35	ND	ND	63.48	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	ND<200	NA	
	10/25/2011	101.83	37.14	ND	ND	64.69	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	4/19/2012	101.83	38.49	ND	ND	63.34	ND<0.5	ND<0.5	ND<0.5	0.9 J	0.9	ND<0.5	NA	NA	
	10/3/2012	101.83	38.64	ND	ND	63.19	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	4/11/2013	101.83	39.15	ND	ND	62.68	ND<0.5	ND<0.5	ND<0.5	1	1	ND<0.5	NA	NA	
	10/17/2013	101.83	39.25	ND	ND	62.58	ND<0.5	ND<0.5	ND<0.5	0.5 J	0.5	ND<0.5	NA	NA	
	4/22/2014	101.83	39.24	ND	ND	62.59	ND<0.5	ND<0.5	ND<0.5	3	3	ND<0.5	NA	NA	
	10/23/2014	101.83	39.04	ND	ND	62.79	ND<0.5	ND<0.5	ND<0.5	0.9 J	0.9	ND<0.5	NA	NA	
	4/6/2015	101.83	38.39	ND	ND	63.44	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	10/1/2015	101.83	39.13	ND	ND	62.70	ND<3.0	ND<3.0	ND<3.0	ND<3.0	BRL	ND<3.0	NA	NA	
	4/7/2016	101.83	39.36	ND	ND	62.47	ND<0.5	ND<0.5	1	8	9	ND<0.5	NA	NA	
	10/31/2016	101.83	40.22	ND	ND	61.61	ND<0.5	ND<0.5	ND<0.5	0.8 J	0.8 J	ND<0.5	NA	NA	
	4/18/2017	101.83	39.55	ND	ND	62.28	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	10/6/2017	101.83	39.01	ND	ND	62.82	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	4/6/2018	101.83	39.84	ND	ND	61.99	ND<0.5	ND<0.5	ND<0.5	4	4	ND<0.5	NA	NA	
	10/31/2018	101.83	38.98	ND	ND	62.85	ND<0.2	ND<0.2	ND<0.4	ND<1.0	BRL	ND<0.2	NA	NA	
MW-4	2/6/2006	101.29	37.65	ND	ND	63.64	0.25 J	ND<1.0	ND<1.0	0.41 J	0.66	3.2	ND<100	NA	
	5/9/2006	101.29	37.83	ND	ND	63.46	ND<1.0	ND<1.0	ND<1.0	ND<1.0	BRL	0.36 J	ND<100	NA	
	7/14/2006	101.29	37.31	ND	ND	63.98	ND<0.5	ND<1.0	ND<1.0	ND<1.0	BRL	2.6	ND<200	NA	
	10/4/2006	101.29	37.41	ND	ND	63.88	**2.4**	ND<1.0	ND<1.0	ND<1.0	2.4	4.5	ND<100	NA	
	1/10/2007	101.29	37.55	ND	ND	63.74	**12.4**	ND<1.0	ND<1.0	ND<1.0	12.4	8.0	ND<100	NA	
	4/23/2007	101.29	37.37	ND	ND	63.92	ND<1.0	ND<1.0	ND<1.0	ND<1.0	BRL	1.5	ND<100	NA	
	7/18/2007	101.29	37.10	ND	ND	64.19	0.40 J	ND<1.0	ND<1.0	ND<1.0	0.40	6.0	ND<100	NA	
	10/9/2007	101.29	36.82	ND	ND	64.47	ND<1.0	ND<1.0	ND<1.0	ND<1.0	BRL	2.8	ND<100	NA	
	1/11/2008	101.29	37.71	ND	ND	63.58	ND<1.0	ND<1.0	ND<1.0	ND<1.0	BRL	0.41 J	ND<100	NA	
	4/30/2008	101.29	37.96	ND	ND	63.33	ND<1.0	ND<1.0	ND<1.0	1.2	1.2	ND<1.0	ND<100	NA	
	7/2/2008	101.29	38.00	ND	ND	63.29	ND<1.0	ND<1.0	ND<1.0	ND<1.0	BRL	2.1	ND<100	NA	
	10/15/2008	101.29	38.31	ND	ND	62.98	ND<1.0	ND<1.0	ND<1.0	ND<1.0	BRL	1.5	ND<100	NA	
	1/21/2009	101.29	38.04	ND	ND	63.25	ND<1.0	ND<1.0	ND<1.0	ND<1.0	BRL	2.2	ND<100	NA	
	4/8/2009	101.29	38.45	ND	ND	62.84	ND<1.0	ND<1.0	ND<1.0	ND<1.0	BRL	3.0	ND<100	NA	
	7/7/2009	101.29	38.02	ND	ND	63.27	ND<1.0	ND<1.0	ND<1.0	ND<1.0	BRL	1.7	ND<100	1.20	
	10/28/2009	101.29	38.09	ND	ND	63.20	ND<1.0	ND<1.0	ND<1.0	ND<1.0	BRL	1.9	ND<100	1.90	
	1/19/2010	101.29	37.90	ND	ND	63.39	ND<1.0	ND<1.0	ND<1.0	ND<1.0	BRL	ND<1.0	ND<100	2.21	
	4/26/2010	101.29	36.50	ND	ND	64.79	ND<1.0	ND<1.0	ND<1.0	ND<1.0	BRL	0.61 J	ND<100	5.27	
	7/14/2010	101.29	37.14	ND	ND	64.15	ND<1.0	ND<1.0	ND<1.0	ND<1.0	BRL	ND<1.0	ND<100	5.19	
	10/1/2010	101.29	37.82	ND	ND	63.47	ND<1.0	ND<1.0	ND<1.0	ND<1.0	BRL	1.5	ND<100	2.64	
	1/24/2011	101.29	38.52	ND	ND	62.77	ND<0.5	ND<0.5	ND<0.5	0.7 J	0.7	ND<0.5	ND<200	4.40	
	4/17/2011	101.29	37.72	ND	ND	63.57	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	0.8 J	ND<200	3.25	
	7/8/2011	101.29	37.74	ND	ND	63.55	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	0.7 J	ND<200	NA	
	10/25/2011	101.29	36.58	ND	ND	64.71	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	4/19/2012	101.29	37.87	ND	ND	63.42	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	3	NA	NA	
	10/3/2012	101.29	38.04	ND	ND	63.25	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	4/11/2013	101.29	38.52	ND	ND	62.77	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	

Table 1
Monitoring Well Gauging And Groundwater Analytical Data
February 6, 2006 Through October 31, 2018

Mobil Branded Service Station
Former Mobil #10954 (17-HMB)
138-50 Hillside Avenue
Jamaica, New York

		Gauging Data					Analytical Data								
Sample ID	Date	Top of Casing Elevation	Depth to Water (feet)	Depth to Hydro-carbon (feet)	Hydro-carbon Thickness (feet)	Corrected GW Elevation (feet)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	MTBE (µg/L)	Ethyl Alcohol (µg/L)	Dissolved Oxygen (mg/L)	Comments
NYSDEC Standards		**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**1**	**5**	**5**	**5**	**~**	**~**	**~**	**~**	
NYSDEC Guidance Values		**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**~**	**~**	**~**	**~**	**~**	**10**	**~**	**~**	
MW-4 (continued)	10/17/2013	101.29	38.65	ND	ND	62.64	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	4/22/2014	101.29	38.63	ND	ND	62.66	ND<0.5	ND<0.5	ND<0.5	0.6 J	0.6	ND<0.5	NA	NA	
	10/23/2014	101.29	38.42	ND	ND	62.87	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	4/6/2015	101.29	37.79	ND	ND	63.50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	10/1/2015	101.29	38.52	ND	ND	62.77	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	4/7/2016	101.29	38.75	ND	ND	62.54	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	10/31/2016	101.29	39.59	ND	ND	61.70	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	4/18/2017	101.29	39.05	ND	ND	62.24	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	10/6/2017	101.29	38.30	ND	ND	62.99	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	4/6/2018	101.29	38.28	ND	ND	63.01	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	10/31/2018	101.29	38.24	ND	ND	63.05	ND<0.2	ND<0.2	ND<0.4	ND<1.0	BRL	ND<0.2	NA	NA	
MW-5	7/14/2006	99.30	35.71	ND	ND	63.59	ND<0.50	ND<1.0	ND<1.0	ND<1.0	BRL	ND<1.0	ND<200	NA	
	10/4/2006	99.30	35.94	ND	ND	63.36	ND<1.0	ND<1.0	ND<1.0	ND<1.0	BRL	ND<1.0	ND<100	NA	
	1/10/2007	99.30	35.96	ND	ND	63.34	ND<1.0	ND<1.0	ND<1.0	ND<1.0	BRL	ND<1.0	ND<100	NA	
	4/23/2007	99.30	35.82	ND	ND	63.48	ND<1.0	ND<1.0	ND<1.0	ND<1.0	BRL	ND<1.0	ND<100	NA	
	7/18/2007	99.30	35.55	ND	ND	63.75	ND<1.0	ND<1.0	ND<1.0	ND<1.0	BRL	ND<1.0	ND<100	NA	
	10/9/2007	99.30	35.25	ND	ND	64.05	ND<1.0	ND<1.0	ND<1.0	ND<1.0	BRL	ND<1.0	ND<100	NA	
	1/11/2008	99.30	36.16	ND	ND	63.14	ND<1.0	ND<1.0	ND<1.0	ND<1.0	BRL	ND<1.0	ND<100	NA	
	4/30/2008	99.30	36.40	ND	ND	62.90	ND<1.0	0.61 J	0.55 J	3.6	4.8	ND<1.0	ND<100	NA	
	7/2/2008	99.30	36.46	ND	ND	62.84	ND<1.0	ND<1.0	ND<1.0	ND<1.0	BRL	ND<1.0	ND<100	NA	
	10/15/2008	99.59	36.79	ND	ND	62.80	ND<1.0	ND<1.0	0.28 J	0.76 J	1.04	ND<1.0	ND<100	NA	
	1/21/2009	99.59	36.61	ND	ND	62.98	0.31 J	ND<1.0	ND<1.0	ND<1.0	0.31	ND<1.0	ND<100	NA	
	4/8/2009	99.59	36.96	ND	ND	62.63	0.31 J	ND<1.0	ND<1.0	ND<1.0	0.31	ND<1.0	ND<100	NA	
	7/7/2009	99.59	36.46	ND	ND	63.13	0.39 J	ND<1.0	ND<1.0	ND<1.0	0.39	ND<1.0	ND<100	1.05	
	10/28/2009	99.59	36.53	ND	ND	63.06	0.25 J	ND<1.0	ND<1.0	ND<1.0	0.25	ND<1.0	ND<100	3.42	
	1/19/2010	99.59	36.45	ND	ND	63.14	ND<1.0	ND<1.0	ND<1.0	ND<1.0	BRL	ND<1.0	ND<100	1.74	
	4/26/2010	99.59	34.96	ND	ND	64.63	0.23 J	ND<1.0	ND<1.0	ND<1.0	0.23	ND<1.0	ND<100	1.93	
	7/14/2010	99.59	35.56	ND	ND	64.03	ND<1.0	ND<1.0	ND<1.0	ND<1.0	BRL	ND<1.0	ND<100	4.64	
	10/1/2010	99.59	36.26	ND	ND	63.33	ND<1.0	ND<1.0	ND<1.0	ND<1.0	BRL	ND<1.0	ND<100	0.98	
	1/24/2011	99.59	37.01	ND	ND	62.58	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	ND<200	1.31	
	4/17/2011	99.59	36.16	ND	ND	63.43	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	ND<200	1.88	
	7/8/2011	99.59	36.17	ND	ND	63.42	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	ND<200	NA	
	10/25/2011	99.59	35.02	ND	ND	64.57	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	4/19/2012	99.59	36.34	ND	ND	63.25	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	10/3/2012	99.59	36.48	ND	ND	63.11	ND<0.5	ND<0.5	ND<0.5	0.6 J	0.6	ND<0.5	NA	NA	
	4/11/2013	99.59	37.01	ND	ND	62.58	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	10/17/2013	99.59	37.10	ND	ND	62.49	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	4/22/2014	99.59	37.10	ND	ND	62.49	ND<0.5	ND<0.5	ND<0.5	1	1	ND<0.5	NA	NA	
	10/23/2014	99.59	36.86	ND	ND	62.73	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	4/6/2015	99.59	36.24	ND	ND	63.35	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	10/1/2015	99.59	36.96	ND	ND	62.63	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	4/7/2016	99.59	37.21	ND	ND	62.38	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	10/31/2016	99.59	38.05	ND	ND	61.54	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	4/18/2017	99.59	37.42	ND	ND	62.17	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	10/6/2017	99.59	37.85	ND	ND	61.74	ND<0.5	ND<0.5	ND<0.5	2	2	0.7 J	NA	NA	
	4/6/2018	99.59	36.66	ND	ND	62.93	ND<0.5	ND<0.5	**47**	**440**	487	ND<0.5	NA	NA	
	10/31/2018	99.59	36.63	ND	ND	62.96	ND<0.2	ND<0.2	1	**70**	71	ND<0.2	NA	NA	

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February 6, 2006 Through October 31, 2018

Mobil Branded Service Station
Former Mobil #10954 (17-HMB)
138-50 Hillside Avenue
Jamaica, New York

		Gauging Data					Analytical Data								
Sample ID	Date	Top of Casing Elevation	Depth to Water (feet)	Depth to Hydro-carbon (feet)	Hydro-carbon Thickness (feet)	Corrected GW Elevation (feet)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	MTBE (µg/L)	Ethyl Alcohol (µg/L)	Dissolved Oxygen (mg/L)	Comments
NYSDEC Standards		**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**1**	**5**	**5**	**5**	**~**	**~**	**~**	**~**	
NYSDEC Guidance Values		**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**~**	**~**	**~**	**~**	**~**	**10**	**~**	**~**	
MW-6	4/30/2008	100.91	37.99	ND	ND	62.92	**9.9 J**	**1,760**	**4,220**	**25,300**	31,290	ND<25	ND<100	NA	
	7/2/2008	100.91	38.02	ND	ND	62.89	ND<50	**1,160**	**2,830**	**14,600**	18,590	ND<50	ND<100	NA	
	10/15/2008	101.27	38.35	ND	ND	62.92	ND<50	**745**	**2,450**	**14,900**	18,095	ND<50	ND<100	NA	
	1/21/2009	101.27	38.17	ND	ND	63.10	**7.6 J**	**1,260**	**2,350**	**16,100**	19,718	6.6 J	ND<100	NA	
	4/8/2009	101.27	38.50	ND	ND	62.77	ND<50	**1,530**	**2,390**	**15,800**	19,720	ND<50	ND<100	NA	
	7/7/2009	101.27	38.03	ND	ND	63.24	**5.0**	**731**	**1,230**	**8,790**	10,756	4.4 J	ND<100	1.34	
	10/28/2009	101.27	38.08	ND	ND	63.19	ND<20	**932**	**1,680**	**9,500**	12,112	ND<20	ND<100	1.33	
	1/19/2010	101.27	38.01	ND	ND	63.26	ND<20	**858**	**1,550**	**8,110**	10,518	ND<20	ND<100	1.35	
	4/26/2010	101.27	36.55	ND	ND	64.72	**3.7 J**	**740**	**1,530**	**7,830**	10,104	ND<10	ND<100	2.36	
	7/14/2010	101.27	37.15	ND	ND	64.12	ND<20	**744**	**1,340**	**7,650**	9,734	ND<20	ND<100	3.28	
	10/1/2010	101.27	37.81	ND	ND	63.46	**2.5 J**	**415**	**962**	**5,300**	6,680	ND<10	ND<100	0.65	
	1/24/2011	101.27	38.55	ND	ND	62.72	**8.0**	**2,000**	**2,500**	**19,000**	23,508	3.0 J	ND<200	0.79	
	4/17/2011	101.27	37.75	ND	ND	63.52	**5**	**970**	**1,800**	**13,000**	15,775	3 J	ND<200	1.22	
	7/8/2011	101.27	37.74	ND	ND	63.53	**2**	**400**	**910**	**6,000**	7,312	ND<1.0	ND<200	NA	
	10/25/2011	101.27	36.56	ND	ND	64.71	ND<3.0	**370**	**930**	**6,400**	7,700	ND<3.0	NA	NA	
	4/19/2012	101.27	37.90	ND	ND	63.37	**2**	**340**	**1,100**	**8,300**	9,742	1	NA	NA	
	10/3/2012	101.27	38.04	ND	ND	63.23	ND<3.0	**350**	**910**	**6,100**	7,360	ND<3.0	NA	NA	
	4/11/2013	101.27	38.57	ND	ND	62.70	ND<3.0	**86**	**660**	**4,300**	5,046	ND<3.0	NA	NA	
	10/17/2013	101.27	38.66	ND	ND	62.61	ND<3.0	**120**	**650**	**4,400**	5,170	ND<3.0	NA	NA	
	4/22/2014	101.27	38.66	ND	ND	62.61	ND<3.0	**160**	**640**	**7,000**	7,800	ND<3.0	NA	NA	
	10/23/2014	101.27	38.43	ND	ND	62.84	1 J	**180**	**1,200**	**9,700**	11,081	1 J	NA	NA	
	4/6/2015	101.27	37.78	ND	ND	63.49	ND<5.0	**45**	**1,400**	**11,000**	12,445	ND<5.0	NA	NA	
	10/1/2015	101.27	38.53	ND	ND	62.74	ND<5.0	**34**	**540**	**3,600**	4,174	ND<5.0	NA	NA	
	4/7/2016	101.27	38.77	ND	ND	62.50	ND<3.0	26	300	1,700	2,026	ND<3.0	NA	NA	
	10/31/2016	101.27	39.60	ND	ND	61.67	ND<10	**230**	**580**	**10,000**	10,810	ND<10	NA	NA	
	4/18/2017	101.27	38.97	ND	ND	62.30	ND<0.5	1	**190**	**220**	411	ND<0.5	NA	NA	
	10/6/2017	101.27	38.41	ND	ND	62.86	ND<0.5	2	**34**	**530**	566	ND<0.5	NA	NA	
	4/6/2018	101.27	38.30	ND	ND	62.97	ND<0.5	**220**	**180**	**4,300**	4,700	ND<0.5	NA	NA	
	10/31/2018	101.27	38.30	ND	ND	62.97	ND<0.2	ND<0.2	ND<0.4	ND<1.0	BRL	ND<0.2	NA	NA	
MW-7	4/30/2008	99.95	37.15	ND	ND	62.80	ND<5.0	**13.2**	**837**	**5,110**	5,960	2.1 J	ND<100	NA	
	7/2/2008	99.95	37.19	ND	ND	62.76	ND<5.0	4.9 J	**584**	**2,480**	3,069	ND<5.0	ND<100	NA	
	10/15/2008	100.28	37.54	ND	ND	62.74	ND<5.0	ND<5.0	**414**	**1,430**	1,844	ND<5.0	ND<100	NA	
	1/21/2009	100.28	37.35	ND	ND	62.93	ND<10	ND<10	**679**	**2,750**	3,429	ND<10	ND<100	NA	
	4/8/2009	100.28	37.70	ND	ND	62.58	ND<5.0	ND<5.0	**563**	**2,030**	2,593	ND<5.0	ND<100	NA	
	7/7/2009	100.28	37.20	ND	ND	63.08	ND<2.5	ND<2.5	**334**	**1,450**	1,784	ND<2.5	ND<100	1.20	
	10/28/2009	100.28	37.27	ND	ND	63.01	ND<5.0	ND<5.0	**612**	**2,480**	3,092	ND<5.0	ND<100	1.36	
	1/19/2010	100.28	37.18	ND	ND	63.10	ND<5.0	ND<5.0	**464**	**1,620**	2,084	ND<5.0	ND<100	1.25	
	4/26/2010	100.28	35.70	ND	ND	64.58	ND<2.5	1.7 J	**598**	**2,230**	2,830	ND<2.5	ND<100	1.50	
	7/14/2010	100.28	36.31	ND	ND	63.97	ND<2.5	ND<2.5	**359**	**1,100**	1,459	ND<2.5	ND<100	3.56	
	10/1/2010	100.28	37.02	ND	ND	63.26	ND<5.0	ND<5.0	**455**	**1,720**	2,175	ND<5.0	ND<100	1.02	
	1/24/2011	100.28	37.74	ND	ND	62.54	ND<0.5	ND<0.5	**180**	**580**	760	ND<0.5	ND<200	0.82	
	4/17/2011	100.28	36.92	ND	ND	63.36	ND<0.5	ND<0.5	**21**	**56**	77	ND<0.5	ND<200	1.54	
	7/8/2011	100.28	36.15	ND	ND	64.13	ND<0.5	ND<0.5	**250**	**500**	750	ND<0.5	ND<200	NA	
	10/25/2011	100.28	35.75	ND	ND	64.53	ND<1.0	ND<1.0	**300**	**1,300**	1,600	ND<1.0	NA	NA	
	4/19/2012	100.28	37.08	ND	ND	63.20	ND<0.5	ND<0.5	**32**	**130**	162	ND<0.5	NA	NA	
	10/3/2012	100.28	37.22	ND	ND	63.06	ND<0.5	ND<0.5	**6**	**13**	19	ND<0.5	NA	NA	
	4/11/2013	100.28	37.75	ND	ND	62.53	ND<0.5	ND<0.5	**140**	**540**	680	ND<0.5	NA	NA	

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138-50 Hillside Avenue
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		Gauging Data					Analytical Data								
Sample ID	Date	Top of Casing Elevation	Depth to Water (feet)	Depth to Hydro-carbon (feet)	Hydro-carbon Thickness (feet)	Corrected GW Elevation (feet)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	MTBE (µg/L)	Ethyl Alcohol (µg/L)	Dissolved Oxygen (mg/L)	Comments
NYSDEC Standards		**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**1**	**5**	**5**	**5**	**~**	**~**	**~**	**~**	
NYSDEC Guidance Values		**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**~**	**~**	**~**	**~**	**~**	**10**	**~**	**~**	
MW-7 (continued)	10/17/2013	100.28	37.85	ND	ND	62.43	ND<0.5	ND<0.5	ND<0.5	0.8 J	0.8	ND<0.5	NA	NA	
	4/22/2014	100.28	37.84	ND	ND	62.44	ND<0.5	ND<0.5	0.7 J	1	1.7	ND<0.5	NA	NA	
	10/23/2014	100.28	37.62	ND	ND	62.66	ND<0.5	ND<0.5	0.9 J	5	5.9	ND<0.5	NA	NA	pad is sunken/cracked
	4/6/2015	100.28	36.96	ND	ND	63.32	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	10/1/2015	100.28	37.69	ND	ND	62.59	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	4/7/2016	100.28	38.94	ND	ND	61.34	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	10/31/2016	100.28	38.78	ND	ND	61.50	ND<0.5	ND<0.5	3	**14**	17	ND<0.5	NA	NA	
	4/18/2017	100.28	38.14	ND	ND	62.14	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	10/6/2017	100.28	36.70	ND	ND	63.58	ND<0.5	ND<0.5	ND<0.5	2	2	ND<0.5	NA	NA	
	4/6/2018	100.28	37.45	ND	ND	62.83	ND<0.5	ND<0.5	ND<0.5	**9**	9	ND<0.5	NA	NA	
	10/31/2018	100.28	37.38	ND	ND	62.90	ND<0.2	ND<0.2	ND<0.4	ND<1.0	BRL	ND<0.2	NA	NA	
MW-8	4/30/2008	100.74	37.89	ND	ND	62.85	**89.2**	**14,600**	**5,130**	**23,700**	43,519	ND<50	ND<100	NA	
	7/2/2008	100.74	37.90	ND	ND	62.84	**53.2**	**10,800**	**3,270**	**16,800**	30,923	ND<50	ND<100	NA	
	10/15/2008	101.08	38.27	ND	ND	62.81	**41.2**	**8,630**	**2,520**	**10,400**	21,591	ND<20	ND<100	NA	
	1/21/2009	101.08	38.07	ND	ND	63.01	**34.6 J**	**15,200**	**5,540**	**32,200**	52,975	ND<100	ND<100	NA	
	4/8/2009	101.08	38.41	ND	ND	62.67	ND<100	**13,000**	**5,280**	**31,100**	49,380	ND<100	ND<100	NA	
	7/7/2009	101.08	37.94	ND	ND	63.14	**18.2 J**	**9,820**	**4,340**	**23,900**	38,078	ND<25	ND<100	0.64	
	10/28/2009	101.08	38.01	ND	ND	63.07	ND<50	**9,510**	**4,010**	**20,500**	34,020	ND<50	ND<100	1.24	
	1/19/2010	101.08	37.90	ND	ND	63.18	ND<50	**7,240**	**3,570**	**17,600**	28,410	ND<50	ND<100	0.77	
	4/26/2010	101.08	36.45	ND	ND	64.63	**8.0 J**	**6,100**	**3,420**	**14,700**	24,228	ND<25	ND<100	2.65	
	7/14/2010	101.08	37.05	ND	ND	64.03	ND<50	**6,960**	**3,390**	**18,000**	28,350	ND<50	ND<100	2.80	
	10/1/2010	101.08	37.73	ND	ND	63.35	ND<50	**4,800**	**3,530**	**18,000**	26,330	ND<50	ND<100	3.14	
	1/24/2011	101.08	38.48	ND	ND	62.60	**7.0 J**	**6,500**	**3,700**	**21,000**	31,207	ND<5.0	ND<200	0.52	
	4/17/2011	101.08	37.65	ND	ND	63.43	ND<5.0	**5,400**	**3,400**	**17,000**	25,800	ND<5.0	ND<200	0.86	
	7/8/2011	101.08	37.64	ND	ND	63.44	ND<10	**5,700**	**3,700**	**19,000**	28,400	ND<10	ND<200	NA	
	10/25/2011	101.08	36.49	ND	ND	64.59	**14**	**4,500**	**3,500**	**18,000**	26,014	ND<5.0	NA	NA	
	4/19/2012	101.08	37.82	ND	ND	63.26	ND<13	**3,200**	**3,200**	**16,000**	22,400	ND<13	NA	NA	
	10/3/2012	101.08	37.97	ND	ND	63.11	ND<5.0	**3,300**	**3,300**	**17,000**	23,600	ND<5.0	NA	NA	
	4/11/2013	101.08	38.47	ND	ND	62.61	ND<5.0	**3,400**	**3,900**	**19,000**	26,300	ND<5.0	NA	NA	
	10/17/2013	101.08	38.57	ND	ND	62.51	ND<5.0	**3,700**	**3,500**	**17,000**	24,200	ND<5.0	NA	NA	
	4/22/2014	101.08	38.57	ND	ND	62.51	ND<5.0	**3,200**	**3,400**	**15,000**	21,600	ND<5.0	NA	NA	
	10/23/2014	101.08	38.34	ND	ND	62.74	ND<5.0	**3,700**	**3,200**	**16,000**	22,900	ND<5.0	NA	NA	
	4/6/2015	101.08	37.72	ND	ND	63.36	ND<5.0	**2,600**	**2,900**	**14,000**	19,500	ND<5.0	NA	NA	
	10/1/2015	101.08	38.42	ND	ND	62.66	ND<5.0	**2,700**	**3,500**	**17,000**	23,200	ND<5.0	NA	NA	
	4/7/2016	101.08	38.70	ND	ND	62.38	ND<5.0	**2,800**	**3,300**	**14,000**	20,100	ND<5.0	NA	NA	
	10/31/2016	101.08	39.53	ND	ND	61.55	ND<10	**2,900**	**3,500**	**18,000**	24,400	ND<10	NA	NA	
	4/18/2017	101.08	38.87	ND	ND	62.21	ND<5.0	**2,900**	**3,600**	**15,000**	21,500	ND<5.0	NA	NA	
	10/6/2017	101.08	38.34	ND	ND	62.74	ND<10	**1,800**	**1,000**	**21,000**	23,800	ND<10	NA	NA	
	4/6/2018	101.08	38.57	ND	ND	62.51	ND<5.0	**1,200**	**1,200**	**19,000**	21,400	ND<5.0	NA	NA	
	7/31/2018	101.08		ND	ND		ND<0.5	2	**9**	**520**	531	ND<0.5	NA	NA	
	8/23/2018	101.08	38.79	ND	ND	62.29	ND<1.0	**54**	**68**	**5,700**	5,822	ND<1.0	NA	NA	
	10/31/2018	101.08	38.03	ND	ND	63.05	ND<2.0	**480**	**300**	**18,000**	18,780	ND<2.0	NA	NA	
MW-9	4/30/2008	99.17	36.38	ND	ND	62.79	ND<1.0	0.51 J	0.36 J	2.6	3.5	ND<1.0	ND<100	NA	
	7/2/2008	99.17	36.43	ND	ND	62.74	ND<1.0	ND<1.0	ND<1.0	0.81 J	0.81	ND<1.0	ND<100	NA	
	10/15/2008	99.46	36.36	ND	ND	63.10	ND<1.0	ND<1.0	ND<1.0	ND<1.0	BRL	ND<1.0	ND<100	NA	
	1/21/2009	99.46	36.57	ND	ND	62.89	ND<1.0	ND<1.0	ND<1.0	ND<1.0	BRL	ND<1.0	ND<100	NA	
	4/8/2009	99.46	36.91	ND	ND	62.55	ND<1.0	ND<1.0	ND<1.0	ND<1.0	BRL	ND<1.0	ND<100	NA	

Table 1
Monitoring Well Gauging And Groundwater Analytical Data
February 6, 2006 Through October 31, 2018

Mobil Branded Service Station
Former Mobil #10954 (17-HMB)
138-50 Hillside Avenue
Jamaica, New York

		Gauging Data					Analytical Data								
Sample ID	Date	Top of Casing Elevation	Depth to Water (feet)	Depth to Hydro-carbon (feet)	Hydro-carbon Thickness (feet)	Corrected GW Elevation (feet)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	MTBE (µg/L)	Ethyl Alcohol (µg/L)	Dissolved Oxygen (mg/L)	Comments
NYSDEC Standards		**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**1**	**5**	**5**	**5**	**~**	**~**	**~**	**~**	
NYSDEC Guidance Values		**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**~**	**~**	**~**	**~**	**~**	**10**	**~**	**~**	
MW-9 (continued)	7/7/2009	99.46	36.42	ND	ND	63.04	ND<1.0	ND<1.0	ND<1.0	0.33 J	0.33	ND<1.0	ND<100	0.88	
	10/28/2009	99.46	36.50	ND	ND	62.96	0.23 J	ND<1.0	ND<1.0	0.37 J	0.60	ND<1.0	ND<100	1.91	
	1/19/2010	99.46	36.40	ND	ND	63.06	ND<1.0	ND<1.0	ND<1.0	0.52 J	0.52	ND<1.0	ND<100	1.42	
	4/26/2010	99.46	34.95	ND	ND	64.51	0.23 J	ND<1.0	ND<1.0	ND<1.0	0.23	ND<1.0	ND<100	2.14	
	7/14/2010	99.46	35.35	ND	ND	64.11	ND<1.0	ND<1.0	ND<1.0	ND<1.0	BRL	ND<1.0	ND<100	3.34	
	10/1/2010	99.46	36.23	ND	ND	63.23	0.24 J	ND<1.0	ND<1.0	ND<1.0	0.24	ND<1.0	ND<100	2.92	
	1/24/2011	99.46	36.97	ND	ND	62.49	ND<0.5	ND<0.5	ND<0.5	0.6 J	0.6	ND<0.5	ND<200	1.01	
	4/17/2011	99.46	36.15	ND	ND	63.31	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	ND<200	1.30	
	7/8/2011	99.46	36.16	ND	ND	63.30	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	ND<200	NA	
	10/25/2011	99.46	34.98	ND	ND	64.48	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	4/19/2012	99.46	36.26	ND	ND	63.20	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	10/3/2012	99.46	36.45	ND	ND	63.01	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	4/11/2013	99.46	36.95	ND	ND	62.51	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	10/17/2013	99.46	37.05	ND	ND	62.41	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	4/22/2014	99.46	37.04	ND	ND	62.42	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	10/23/2014	99.46	36.83	ND	ND	62.63	ND<0.5	ND<0.5	ND<0.5	2	2	ND<0.5	NA	NA	
	4/6/2015	99.46	36.19	ND	ND	63.27	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	10/1/2015	99.46	36.94	ND	ND	62.52	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	4/7/2016	99.46	37.18	ND	ND	62.28	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	10/31/2016	99.46	13.79	ND	ND	85.67	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	4/18/2017	99.46	37.41	ND	ND	62.05	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	10/6/2017	99.46	36.80	ND	ND	62.66	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	4/6/2018	99.46	36.57	ND	ND	62.89	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	10/31/2018	99.46	36.53	ND	ND	62.93	ND<0.2	ND<0.2	ND<0.4	ND<1.0	BRL	ND<0.2	NA	NA	
MW-10	4/8/2009	101.02	38.31	ND	ND	62.71	**17.6**	**1,090**	**4,870**	**26,200**	32,178	**11.1**	ND<100	NA	
	7/7/2009	101.02	37.83	ND	ND	63.19	**6.9 J**	**429**	**2,620**	**12,300**	15,356	ND<10	ND<100	0.85	
	10/28/2009	101.02	37.90	ND	ND	63.12	ND<20	**314**	**1,420**	**6,750**	8,484	ND<20	ND<100	1.16	
	1/19/2010	101.02	37.80	ND	ND	63.22	ND<20	**197**	**1,580**	**5,950**	7,727	ND<20	ND<100	2.55	
	4/26/2010	101.02	36.35	ND	ND	64.67	**1.4 J**	**61.6**	**960**	**3,310**	4,333	ND<5.0	ND<100	1.00	
	7/14/2010	101.02	36.96	ND	ND	64.06	ND<25	**53.7**	**1,530**	**6,630**	8,214	ND<25	ND<100	3.21	
	10/1/2010	101.02	37.60	ND	ND	63.42	ND<25	**56.1**	**1,620**	**6,140**	7,816	ND<25	ND<100	1.27	
	1/24/2011	101.02	38.36	ND	ND	62.66	ND<5.0	**220**	**3,500**	**17,000**	20,720	ND<5.0	ND<200	0.56	
	4/17/2011	101.02	37.56	ND	ND	63.46	**3**	**130**	**1,700**	**6,000**	7,833	1	ND<200	1.54	
	7/8/2011	101.02	37.55	ND	ND	63.47	ND<1.0	**25**	**450**	**1,400**	1,875	ND<1	ND<200	NA	
	10/25/2011	101.02	36.36	ND	ND	64.66	ND<1.0	**8**	**1,000**	**3,600**	4,608	ND<1	NA	NA	
	4/19/2012	101.02	37.70	ND	ND	63.32	0.5 J	**10**	**300**	**760**	1,071	ND<0.5	NA	NA	
	10/3/2012	101.02	37.85	ND	ND	63.17	0.9 J	**15**	**93**	**330**	438	ND<0.5	NA	NA	
	4/11/2013	101.02	38.37	ND	ND	62.65	0.6 J	5	**530**	**1,700**	2,236	ND<0.5	NA	NA	
	10/17/2013	101.02	38.50	ND	ND	62.52	**2**	**13**	**360**	**410**	785	ND<0.5	NA	NA	
	4/22/2014	101.02	38.47	ND	ND	62.55	1	**23**	**580**	**950**	1,554	ND<0.5	NA	NA	
	10/23/2014	101.02	38.24	ND	ND	62.78	ND<0.5	4	**100**	**240**	344	ND<0.5	NA	NA	pad is cracked
	4/6/2015	101.02	37.61	ND	ND	63.41	ND<0.5	ND<0.5	**170**	**150**	320	ND<0.5	NA	NA	
	10/1/2015	101.02	38.33	ND	ND	62.69	ND<0.5	1 J	**140**	**120**	261	ND<0.5	NA	NA	
	4/7/2016	101.02	38.58	ND	ND	62.44	ND<5.0	5 J	**1100**	**3300**	4,405	ND<5.0	NA	NA	
	10/31/2016	101.02	39.43	ND	ND	61.59	ND<0.5	4	**41**	**150**	195	ND<0.5	NA	NA	

Table 1
Monitoring Well Gauging And Groundwater Analytical Data
February 6, 2006 Through October 31, 2018

Mobil Branded Service Station
Former Mobil #10954 (17-HMB)
138-50 Hillside Avenue
Jamaica, New York

		Gauging Data					Analytical Data								
Sample ID	Date	Top of Casing Elevation	Depth to Water (feet)	Depth to Hydro-carbon (feet)	Hydro-carbon Thickness (feet)	Corrected GW Elevation (feet)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	MTBE (µg/L)	Ethyl Alcohol (µg/L)	Dissolved Oxygen (mg/L)	Comments
NYSDEC Standards		**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**1**	**5**	**5**	**5**	**~**	**~**	**~**	**~**	
NYSDEC Guidance Values		**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**~**	**~**	**~**	**~**	**~**	**10**	**~**	**~**	
MW-10 (continued)	4/18/2017	101.02	38.76	ND	ND	62.26	ND<0.5	2	**46**	**150**	198	ND<0.5	NA	NA	
	10/6/2017	101.02	38.21	ND	ND	62.81	ND<0.5	ND<0.5	**86**	**220**	306	ND<0.5	NA	NA	
	4/6/2018	101.02	36.90	ND	ND	64.12	ND<0.5	ND<0.5	**7**	**360**	367	ND<0.5	NA	NA	
	10/31/2018	101.02	38.05	ND	ND	62.97	ND<0.2	ND<0.2	1	ND<1.0	1	ND<0.2	NA	NA	
MW-B	4/19/2012	NM	38.92	ND	ND	NM	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	0.5 J	NA	NA	
	10/3/2012	NM	39.10	ND	ND	NM	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	4/11/2013	NM	39.60	ND	ND	NM	ND<0.5	ND<0.5	ND<0.5	1	1	ND<0.5	NA	NA	
	10/17/2013	NM	39.74	ND	ND	NM	ND<0.5	ND<0.5	ND<0.5	0.9 J	0.9	0.6 J	NA	NA	
	4/22/2014	NM	39.76	ND	ND	NM	ND<0.5	ND<0.5	ND<0.5	1	1	ND<0.5	NA	NA	
	10/23/2014	NM	39.49	ND	ND	NM	ND<0.5	ND<0.5	ND<0.5	0.9 J	0.9	2	NA	NA	
	4/6/2015	NM	38.85	ND	ND	NM	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	10/1/2015	NM	39.58	ND	ND	NM	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	4/7/2016	NM	39.83	ND	ND	NM	ND<0.5	ND<0.5	ND<0.5	1	1	0.7 J	NA	NA	
	10/31/2016	NM	40.66	ND	ND	NM	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	0.9 J	NA	NA	
	4/18/2017	NM	40.00	ND	ND	NM	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	0.6 J	NA	NA	
	10/6/2017	NM	39.45	ND	ND	NM	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	0.6 J	NA	NA	
	4/6/2018	NM	39.40	ND	ND	NM	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	10/31/2018	NM	39.30	ND	ND	NM	ND<0.2	ND<0.2	ND<0.4	ND<1.0	BRL	0.2 J	NA	NA	
MW-C	4/19/2012	NM	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	Car parked on top of well.
	10/3/2012	NM	38.63	ND	ND	NM	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	0.6 J	NA	NA	
	4/11/2013	NM	39.14	ND	ND	NM	ND<0.5	ND<0.5	ND<0.5	1	1	2	NA	NA	
	10/17/2013	NM	39.26	ND	ND	NM	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	2	NA	NA	
	4/22/2014	NM	39.22	ND	ND	NM	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	3	NA	NA	
	10/23/2014	NM	39.02	ND	ND	NM	ND<0.5	ND<0.5	ND<0.5	0.5 J	0.5	ND<0.5	NA	NA	
	4/6/2015	NM	38.41	ND	ND	NM	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	10/1/2015	NM	39.12	ND	ND	NM	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	2	NA	NA	
	4/7/2016	NM	39.40	ND	ND	NM	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	10/31/2016	NM	18.09	ND	ND	NM	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	4/18/2017	NM	41.54	ND	ND	NM	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	10/6/2017	NM	39.00	ND	ND	NM	ND<0.5	ND<0.5	ND<0.5	ND<0.5	BRL	ND<0.5	NA	NA	
	4/6/2018	NM	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	Car parked on top of well.
	10/31/2018	NM	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	Car parked on top of well.
IP-1	4/8/2009	101.71	39.04	ND	ND	62.67	ND<100	**1,920**	**9,070**	**46,900**	57,890	ND<100	NA	NA	
	10/28/2009	101.71	38.65	ND	ND	63.06	ND<50	**959**	**7,790**	**44,000**	52,749	ND<50	NA	1.24	
	1/19/2010	101.71	38.51	ND	ND	63.20	ND<100	**981**	**8,280**	**44,700**	53,961	ND<100	ND<100	1.11	
	4/26/2010	101.71	37.05	ND	ND	64.66	ND<50	**468**	**4,940**	**24,000**	29,408	ND<50	ND<100	3.25	
	7/14/2010	101.71	37.68	ND	ND	64.03	ND<100	**396**	**5,980**	**34,000**	40,376	ND<100	ND<100	2.30	
	10/1/2010	101.71	38.33	ND	ND	63.38	ND<100	**426**	**6,600**	**39,800**	46,826	ND<100	ND<100	1.20	
	1/24/2011	101.71	39.10	ND	ND	62.61	NS	NS	NS	NS	NS	NS	NS	NS	Insufficient water.
	4/17/2011	101.71	38.28	ND	ND	63.45	**6**	**240**	**6,300**	**33,000**	39,546	ND<3.0	ND<200	0.69	
	7/8/2011	101.71	38.27	ND	ND	63.44	**8 J**	**180**	**6,800**	**46,000**	52,988	ND<5.0	ND<200	NA	Sheen.
	10/25/2011	101.71	37.11	ND	ND	64.60	ND<25	**160**	**4,800**	**31,000**	35,960	ND<25	NA	NA	
	4/19/2012	101.71	38.43	ND	ND	63.28	NS	NS	NS	NS	NS	NS	NS	NS	Insufficient water.
	10/3/2012	101.71	38.55	ND	ND	63.16	**6**	**320**	**4,600**	**30,000**	34,926	ND<3	NA	NA	
	4/11/2013	101.71	39.10	ND	ND	62.61	NS	NS	NS	NS	NS	NS	NS	NS	Insufficient water.
	10/17/2013	101.71	39.19	ND	ND	62.52	NS	NS	NS	NS	NS	NS	NS	NS	Insufficient water.
	4/22/2014	101.71	39.19	ND	ND	62.52	NS	NS	NS	NS	NS	NS	NS	NS	Insufficient water.
	10/23/2014	101.71	38.96	ND	ND	62.75	NS	NS	NS	NS	NS	NS	NS	NS	Insufficient water.

Table 1
Monitoring Well Gauging And Groundwater Analytical Data
February 6, 2006 Through October 31, 2018

Mobil Branded Service Station
Former Mobil #10954 (17-HMB)
138-50 Hillside Avenue
Jamaica, New York

		Gauging Data					Analytical Data								
Sample ID	Date	Top of Casing Elevation	Depth to Water (feet)	Depth to Hydro-carbon (feet)	Hydro-carbon Thickness (feet)	Corrected GW Elevation (feet)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	MTBE (µg/L)	Ethyl Alcohol (µg/L)	Dissolved Oxygen (mg/L)	Comments
NYSDEC Standards		**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**1**	**5**	**5**	**5**	**~**	**~**	**~**	**~**	
NYSDEC Guidance Values		**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**~**	**~**	**~**	**~**	**~**	**10**	**~**	**~**	
IP-1 (continued)	4/6/2015	101.71	37.99	ND	ND	63.72	ND<3.0	**100**	**3,100**	**19,000**	22,200	ND<3.0	NA	NA	
	10/1/2015	101.71	38.70	ND	ND	63.01	NS	NS	NS	NS	NS	NS	NS	NS	
	4/7/2016	101.71	38.98	ND	ND	62.73	NS	NS	NS	NS	NS	NS	NS	NS	Insufficient water.
	10/31/2016	101.71	39.02	ND	ND	62.69	NS	NS	NS	NS	NS	NS	NS	NS	Insufficient water.
	4/18/2017	101.71	38.90	ND	ND	62.81	NS	NS	NS	NS	NS	NS	NS	NS	Insufficient water.
	10/6/2017	101.71	36.60	ND	ND	65.11	NS	NS	NS	NS	NS	NS	NS	NS	
	4/6/2018	101.71	37.65	ND	ND	64.06	NS	NS	NS	NS	NS	NS	NS	NS	Insufficient water.
	10/31/2018	101.71	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	Dry
IP-2	4/8/2009	101.67	39.00	ND	ND	62.67	ND<25	**2,830**	**4,280**	**25,800**	32,910	ND<25	NA	NA	
	10/28/2009	101.67	38.60	ND	ND	63.07	ND<20	**461**	**1,500**	**7,630**	9,591	ND<20	NA	0.49	
	1/19/2010	101.67	38.46	ND	ND	63.21	ND<50	**822**	**3,700**	**20,500**	25,022	ND<50	ND<100	2.20	
	4/26/2010	101.67	37.04	ND	ND	64.63	ND<20	**685**	**3,230**	**12,600**	16,515	ND<20	ND<100	2.42	
	7/14/2010	101.67	37.63	ND	ND	64.04	ND<50	**639**	**3,170**	**16,500**	20,309	ND<50	ND<100	3.95	
	10/1/2010	101.67	38.30	ND	ND	63.37	ND<25	**590**	**2,860**	**16,300**	19,750	ND<25	ND<100	2.01	
	1/24/2011	101.67	39.04	ND	ND	62.63	ND<3.0	**200**	**2,800**	**16,000**	19,000	ND<3.0	ND<200	0.73	
	4/17/2011	101.67	38.23	ND	ND	63.44	ND<5.0	**120**	**3,200**	**15,000**	18,320	ND<5.0	ND<200	2.37	
	7/8/2011	101.67	38.22	ND	ND	63.45	ND<3.0	**110**	**3,600**	**20,000**	23,710	ND<3.0	ND<200	NA	
	10/25/2011	101.67	37.06	ND	ND	64.61	ND<3.0	**110**	**2,200**	**11,000**	13,310	ND<3.0	NA	NA	
	4/19/2012	101.67	38.39	ND	ND	63.28	ND<3.0	**120**	**3,000**	**16,000**	19,120	ND<3.0	NA	NA	
	10/3/2012	101.67	38.52	ND	ND	63.15	ND<3.0	**89**	**3,400**	**18,000**	21,489	ND<3.0	NA	NA	
	4/11/2013	101.67	39.02	ND	ND	62.65	ND<5.0	**44**	**3,000**	**15,000**	18,044	ND<5.0	NA	NA	
	10/17/2013	101.67	39.14	ND	ND	62.53	ND<5.0	**59**	**4,300**	**23,000**	27,359	ND<5.0	NA	NA	
	4/22/2014	101.67	39.13	ND	ND	62.54	ND<5.0	**35**	**3,800**	**19,000**	22,835	ND<5.0	NA	NA	
	10/23/2014	101.67	38.93	ND	ND	62.74	ND<13	**35**	**2,900**	**17,000**	19,935	ND<13	NA	NA	
	4/6/2015	101.67	37.86	ND	ND	63.81	ND<5	**31**	**2,800**	**16,000**	18,831	ND<5	NA	NA	
	10/1/2015	101.67	38.58	ND	ND	63.09	ND<10	**32**	**2,800**	**18,000**	20,832	ND<10	NA	NA	
	4/7/2016	101.67	38.85	ND	ND	62.82	ND<5.0	**24**	**2,900**	**15,000**	17,924	ND<5.0	NA	NA	
	10/31/2016	101.67	39.69	ND	ND	61.98	ND<10	**12 J**	**2,600**	**15,000**	17,612 J	ND<10	NA	NA	
	4/18/2017	101.67	39.00	ND	ND	62.67	ND<3.0	**12**	**2,700**	**15,000**	17,712	ND<3.0	NA	NA	
	10/6/2017	101.67	38.47	ND	ND	63.20	0.5 J	**45**	**430**	**4,300**	4,775.5 J	ND<0.5	NA	NA	
	4/6/2018	101.67	38.21	ND	ND	63.46	ND<0.5	**17**	**120**	**1,400**	1,537	ND<0.5	NA	NA	
	7/31/2018	101.67		ND	ND		ND<5.0	**150**	**150**	**8,100**	8,400	ND<5.0	NA	NA	
	8/23/2018	101.67	38.21	ND	ND	63.46	ND<0.2	2	3	**300**	305	ND<0.2	NA	NA	
	10/31/2018	101.67	38.19	ND	ND	63.48	ND<0.2	ND<0.2	ND<0.4	ND<1.0	BRL	ND<0.2	NA	NA	
IP-3	4/8/2009	100.58	38.00	ND	ND	62.58	**113**	**15,000**	**3,970**	**22,000**	41,083	ND<50	NA	NA	
	10/28/2009	100.58	37.61	ND	ND	62.97	**33.4 J**	**7,790**	**4,120**	**21,700**	33,643	ND<50	NA	0.84	
	1/19/2010	100.58	37.50	ND	ND	63.08	**27.5 J**	**9,120**	**3,920**	**21,900**	34,968	ND<50	ND<100	0.24	
	4/26/2010	100.58	36.01	ND	ND	64.57	**27.7**	**5,840**	**3,100**	**13,600**	22,568	ND<20	ND<100	2.65	
	7/14/2010	100.58	36.63	ND	ND	63.95	ND<50	**6,590**	**3,080**	**17,700**	27,370	ND<50	ND<100	2.02	
	10/1/2010	100.58	37.33	ND	ND	63.25	ND<50	**5,660**	**3,070**	**14,500**	23,230	ND<50	ND<100	2.07	
	1/24/2011	100.58	38.07	ND	ND	62.51	**5.0**	**2,400**	**2,400**	**15,000**	19,805	3.0 J	ND<200	1.22	
	4/17/2011	100.58	37.23	ND	ND	63.35	ND<10	**7,700**	**2,600**	**16,000**	26,300	ND<10	ND<200	2.06	
	7/8/2011	100.58	37.22	ND	ND	63.36	**4 J**	**7,800**	**3,300**	**20,000**	31,104	ND<3.0	ND<200	NA	
	10/25/2011	100.58	36.05	ND	ND	64.53	ND<5.0	**6,200**	**2,700**	**16,000**	24,900	ND<5.0	NA	NA	
	4/19/2012	100.58	37.40	ND	ND	63.18	ND<5.0	**5,000**	**2,500**	**14,000**	21,500	ND<5.0	NA	NA	
	10/3/2012	100.58	37.53	ND	ND	63.05	**6 J**	**1,500**	**2,400**	**12,000**	15,906	ND<5.0	NA	NA	
	4/11/2013	100.58	38.04	ND	ND	62.54	**7 J**	**1,900**	**2,000**	**11,000**	14,907	ND<5.0	NA	NA	

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February 6, 2006 Through October 31, 2018

Mobil Branded Service Station
Former Mobil #10954 (17-HMB)
138-50 Hillside Avenue
Jamaica, New York

		Gauging Data					Analytical Data								
Sample ID	Date	Top of Casing Elevation	Depth to Water (feet)	Depth to Hydro-carbon (feet)	Hydro-carbon Thickness (feet)	Corrected GW Elevation (feet)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	MTBE (µg/L)	Ethyl Alcohol (µg/L)	Dissolved Oxygen (mg/L)	Comments
NYSDEC Standards		**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**1**	**5**	**5**	**5**	**~**	**~**	**~**	**~**	
NYSDEC Guidance Values		**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**~**	**~**	**~**	**~**	**~**	**10**	**~**	**~**	
IP-3 (continued)	10/17/2013	100.58	38.19	ND	ND	62.39	ND<5.0	**2,900**	**3,200**	**15,000**	21,100	ND<5.0	NA	NA	
	4/22/2014	100.58	38.13	ND	ND	62.45	ND<5.0	**2,700**	**2,900**	**15,000**	20,600	ND<5.0	NA	NA	
	10/23/2014	100.58	37.94	ND	ND	62.64	ND<13	**2,900**	**2,900**	**15,000**	20,800	ND<13	NA	NA	
	4/6/2015	100.58	37.31	ND	ND	63.27	ND<5.0	**1,800**	**2,400**	**13,000**	17,200	ND<5.0	NA	NA	
	10/1/2015	100.58	38.02	ND	ND	62.56	ND<5.0	**140**	**2,500**	**8,900**	11,540	ND<5.0	NA	NA	
	4/7/2016	100.58	38.28	ND	ND	62.30	ND<3.0	**900**	**1,600**	**8,300**	10,800	ND<3.0	NA	NA	
	10/31/2016	100.58	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	Dry
	4/18/2017	100.58	38.40	NM	NM	62.18	ND<3.0	**1,100**	**2,300**	**13,000**	16,400	ND<3.0	NA	NA	
	10/6/2017	100.58	37.91	NM	NM	62.67	**3**	**520**	**1,300**	**8,100**	9,920	ND<1.0	NA	NA	
	4/6/2018	100.58	37.72	NM	NM	62.86	ND<0.5	**41**	2	**1,800**	1,843	ND<0.5	NA	NA	
	7/31/2018	100.58		ND	ND		ND<0.5	ND<0.5	0.6 J	**10**	10.6	ND<0.5	NA	NA	
	8/23/2018	100.58	36.91	ND	ND	63.67	ND<0.2	5	**29**	**440**	474	ND<0.2	NA	NA	
	10/31/2018	100.58	37.60	ND	ND	62.98	ND<0.2	ND<0.2	ND<0.4	ND<1.0	BRL	ND<0.2	NA	NA	
IP-4	4/8/2009	100.40	37.72	ND	ND	62.68	ND<50	**69.5**	**3,280**	**16,900**	20,250	ND<50	NA	NA	
	10/28/2009	100.40	37.33	ND	ND	63.07	ND<25	**23.1 J**	**2,020**	**8,720**	10,763	ND<25	NA	1.16	
	1/19/2010	100.40	37.21	ND	ND	63.19	ND<10	**11.6**	**1,610**	**6,900**	8,522	ND<10	ND<100	1.41	
	4/26/2010	100.40	35.75	ND	ND	64.65	ND<5.0	**8.6**	**986**	**2,910**	3,905	ND<5.0	ND<100	1.33	
	7/14/2010	100.40	36.25	ND	ND	64.15	ND<10	**6.5 J**	**1,130**	**4,580**	5,717	ND<10	ND<100	3.24	
	10/1/2010	100.40	37.01	ND	ND	63.39	ND<10	3.2 J	**860**	**3,120**	3,983	ND<10	ND<100	0.74	
	1/24/2011	100.40	37.76	ND	ND	62.64	ND<3.0	ND<3.0	**690**	**4,200**	4,890	ND<3.0	ND<200	1.53	
	4/17/2011	100.40	36.95	ND	ND	63.45	ND<3.0	ND<3.0	**710**	**3,700**	4,410	ND<3.0	ND<200	1.52	
	7/8/2011	100.40	36.95	ND	ND	63.45	ND<1.0	ND<1.0	**710**	**2,600**	3,310	ND<1.0	ND<200	NA	
	10/25/2011	100.40	35.78	ND	ND	64.62	ND<3.0	ND<3.0	**700**	**1,500**	2,200	ND<3.0	NA	NA	
	4/19/2012	100.40	37.10	ND	ND	63.30	ND<0.5	ND<0.5	**490**	**880**	1,370	2.0	NA	NA	
	10/3/2012	100.40	37.23	ND	ND	63.17	ND<0.5	ND<0.5	**430**	**850**	1,280	0.6 J	NA	NA	
	4/11/2013	100.40	37.77	ND	ND	62.63	ND<1.0	ND<1.0	**350**	**1,100**	1,450	ND<1.0	NA	NA	
	10/17/2013	100.40	37.90	ND	ND	62.50	ND<3.0	ND<3.0	**320**	**790**	1,110	ND<3.0	NA	NA	
	4/22/2014	100.40	37.83	ND	ND	62.57	ND<3.0	ND<3.0	**210**	**650**	860	ND<3.0	NA	NA	
	10/23/2014	100.40	37.67	ND	ND	62.73	ND<0.5	ND<0.5	**130**	**330**	460	ND<0.5	NA	NA	
	4/6/2015	100.40	37.01	ND	ND	63.39	ND<0.5	ND<0.5	1	1	2	ND<0.5	NA	NA	
	10/1/2015	100.40	37.71	ND	ND	62.69	ND<0.5	ND<0.5	**32**	**42**	74	ND<0.5	NA	NA	
	4/7/2016	100.40	37.98	ND	ND	62.42	ND<0.5	ND<0.5	**52**	**140**	192	ND<0.5	NA	NA	
	10/31/2016	100.40	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	No access; Under car that could not be moved.
	4/18/2017	100.40	38.18	NM	NM	62.22	ND<0.5	ND<0.5	2	3	5	ND<0.5	NA	NA	
	10/6/2017	100.40	37.60	NM	NM	62.80	ND<0.5	ND<0.5	1	**12**	13	ND<0.5	NA	NA	
	4/6/2018	100.40	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	Car parked on top of well.
	10/31/2018	100.40	37.44	ND	ND	62.96	ND<0.2	ND<0.2	ND<0.4	ND<1.0	BRL	ND<0.2	NA	NA	
IP-5	4/8/2009	100.17	37.51	ND	ND	62.66	ND<50	**1,020**	**3,300**	**15,300**	19,620	ND<50	NA	NA	
	10/28/2009	100.17	37.13	ND	ND	63.04	ND<25	**369**	**2,110**	**8,870**	11,349	ND<25	NA	7.49	
	1/19/2010	100.17	37.00	ND	ND	63.17	ND<20	**331**	**3,080**	**10,400**	13,811	ND<20	ND<100	0.84	
	4/26/2010	100.17	35.55	ND	ND	64.62	ND<10	**363**	**2,680**	**9,950**	12,993	ND<10	ND<100	3.01	
	7/14/2010	100.17	36.14	ND	ND	64.03	ND<25	**355**	**2,510**	**9,760**	12,625	ND<25	ND<100	2.78	
	10/1/2010	100.17	36.79	ND	ND	63.38	ND<50	**368**	**3,290**	**12,800**	16,458	ND<50	ND<100	1.70	
	1/24/2011	100.17	37.54	ND	ND	62.63	ND<3.0	**180**	**2,300**	**13,000**	15,480	ND<3.0	ND<200	0.71	
	4/17/2011	100.17	36.75	ND	ND	63.42	ND<3.0	**70**	**2,300**	**10,000**	12,370	ND<3.0	ND<200	2.23	
	7/8/2011	100.17	36.75	ND	ND	63.42	ND<3.0	**45**	**1,900**	**7,700**	9,645	ND<3.0	ND<200	NA	
	10/25/2011	100.17	35.58	ND	ND	64.59	ND<3.0	**36**	**1,800**	**6,600**	8,436	ND<3.0	NA	NA	

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February 6, 2006 Through October 31, 2018

Mobil Branded Service Station
Former Mobil #10954 (17-HMB)
138-50 Hillside Avenue
Jamaica, New York

		Gauging Data					Analytical Data								
Sample ID	Date	Top of Casing Elevation	Depth to Water (feet)	Depth to Hydro-carbon (feet)	Hydro-carbon Thickness (feet)	Corrected GW Elevation (feet)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	MTBE (µg/L)	Ethyl Alcohol (µg/L)	Dissolved Oxygen (mg/L)	Comments
NYSDEC Standards		**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**1**	**5**	**5**	**5**	**~**	**~**	**~**	**~**	
NYSDEC Guidance Values		**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**~**	**~**	**~**	**~**	**~**	**10**	**~**	**~**	
IP-5 (continued)	4/19/2012	100.17	36.91	ND	ND	63.26	ND<3.0	**16**	**2,100**	**8,900**	11,016	ND<3.0	NA	NA	
	10/3/2012	100.17	37.04	ND	ND	63.13	ND<5.0	ND<5.0	**1,600**	**7,600**	9,200	ND<5.0	NA	NA	
	4/11/2013	100.17	37.60	ND	ND	62.57	ND<5.0	ND<5.0	**1,800**	**9,500**	11,300	ND<5.0	NA	NA	
	10/17/2013	100.17	37.64	ND	ND	62.53	ND<5.0	ND<5.0	**1,900**	**8,800**	10,700	ND<5.0	NA	NA	
	4/22/2014	100.17	37.66	ND	ND	62.51	ND<5.0	ND<5.0	**1,500**	**5,800**	7,300	ND<5.0	NA	NA	
	10/23/2014	100.17	37.45	ND	ND	62.72	ND<3.0	ND<3.0	**1,100**	**4,800**	5,900	ND<3.0	NA	NA	
	4/6/2015	100.17	36.82	ND	ND	63.35	ND<3.0	ND<3.0	**610**	**2,200**	2,810	ND<3.0	NA	NA	
	10/1/2015	100.17	37.52	ND	ND	62.65	ND<5.0	ND<5.0	**950**	**3,600**	4,550	ND<5.0	NA	NA	
	4/7/2016	100.17	37.80	ND	ND	62.37	ND<5.0	ND<5.0	**1,000**	**3,500**	4,500	ND<5.0	NA	NA	
	10/31/2016	100.17	37.83	ND	ND	62.34	ND<5.0	ND<5.0	**470**	**990**	1,460	ND<5.0	NA	NA	
	4/18/2017	100.17	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	Car parked on top of well.
	10/6/2017	100.17	37.41	NM	NM	62.76	ND<0.5	2	**150**	**1,100**	1,252	ND<0.5	ND	ND	
	4/6/2018	100.17	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	Car parked on top of well.
	10/31/2018	100.17	37.13	ND	ND	63.04	ND<0.2	2	ND<0.4	**130**	132	ND<0.2	NA	NA	
IP-6	4/8/2009	99.80	37.13	ND	ND	62.67	**78.1**	**9,760**	**3,840**	**15,200**	28,878	ND<50	NA	NA	
	10/28/2009	99.80	36.75	ND	ND	63.05	**43.4 J**	**9,010**	**2,970**	**12,600**	24,623	ND<50	NA	0.60	
	1/19/2010	99.80	36.61	ND	ND	63.19	**28.3**	**10,100**	**2,560**	**11,400**	24,088	ND<25	ND<100	1.29	
	4/26/2010	99.80	35.30	ND	ND	64.50	**9.3 J**	**4,820**	**1,760**	**7,060**	13,649	ND<10	ND<100	1.25	
	7/14/2010	99.80	35.76	ND	ND	64.04	ND<50	**6,960**	**2,250**	**10,400**	19,610	ND<50	ND<100	3.07	
	10/1/2010	99.80	36.47	ND	ND	63.33	ND<25	**3,670**	**1,780**	**8,570**	14,020	ND<25	ND<100	1.81	
	1/24/2011	99.80	37.16	ND	ND	62.64	**99.0**	**2,700**	**2,900**	**12,000**	17,699	**17.0**	ND<200	0.95	
	4/17/2011	99.80	36.35	ND	ND	63.45	ND<10	**6,700**	**2,200**	**7,800**	16,700	ND<10	ND<200	2.01	
	7/8/2011	99.80	36.56	ND	ND	63.24	ND<3.0	**3,900**	**3,100**	**8,100**	15,100	ND<3.0	ND<200	NA	
	10/25/2011	99.80	35.20	ND	ND	64.60	ND<5.0	**2,900**	**1,800**	**6,000**	10,700	ND<5.0	NA	NA	
	4/19/2012	99.80	36.53	ND	ND	63.27	ND<3.0	**2,900**	**1,800**	**8,000**	12,700	ND<3.0	NA	NA	
	10/3/2012	99.80	36.64	ND	ND	63.16	1 J	**33**	**1,500**	**2,700**	4,234	ND<1.0	NA	NA	
	4/11/2013	99.80	37.19	ND	ND	62.61	**56**	**4,300**	**3,300**	**15,000**	22,656	7 J	NA	NA	
	10/17/2013	99.80	37.30	ND	ND	62.50	**4**	**160**	**680**	**1,500**	2,344	ND<1.0	NA	NA	
	4/22/2014	99.80	37.27	ND	ND	62.53	ND<3.0	**100**	**1,100**	**3,500**	4,700	ND<3.0	NA	NA	
	10/23/2014	99.80	37.06	ND	ND	62.74	ND<3.0	**310**	**1,900**	**7,000**	9,210	ND<3.0	NA	NA	
	4/6/2015	99.80	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	No access; under car.
	10/1/2015	99.80	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	Abandoned, Dry at 1.30 feet
	4/7/2016	99.80	37.94	ND	ND	61.86	ND<0.5	**18**	**320**	**1,200**	1,538	1	NA	NA	
	10/31/2016	99.80	37.82	ND	ND	61.98	ND<0.5	ND<0.5	1	0.9 J	1.9 J	ND<0.5	NA	NA	
	4/18/2017	99.80	37.19	ND	ND	62.61	ND<0.5	ND<0.5	2	2	4	ND<0.5	NA	NA	
	10/6/2017	99.80	36.60	ND	ND	63.20	ND<0.5	0.9 J	**10**	**120**	130.9 J	ND<0.5	NA	NA	
	4/6/2018	99.80	36.45	ND	ND	63.35	ND<0.5	4	**6**	**140**	150	ND<0.5	NA	NA	
	10/31/2018	99.80	36.27	ND	ND	63.53	ND<0.2	ND<0.2	0.9 J	5	5.9	ND<0.2	NA	NA	
IP-7	10/1/2010	101.35	38.00	ND	ND	63.35	**28.1 J**	**4,580**	**5,750**	**40,000**	50,358	ND<100	ND<100	2.14	
	4/17/2011	101.35	37.89	ND	ND	63.46	NS	NS	NS	NS	NS	NS	NS	0.76	
	7/8/2011	101.35	37.93	ND	ND	63.42	**28**	**4,800**	**5,600**	**28,000**	38,428	ND<5.0	ND<200	NA	
	10/25/2011	101.35	36.72	ND	ND	64.63	**38**	**3,100**	**5,500**	**25,000**	33,638	6 J	NA	NA	
	4/19/2012	101.35	38.07	ND	ND	63.28	**73**	**1,100**	**4,700**	**25,000**	30,873	10	NA	NA	
	10/3/2012	101.35	38.20	ND	ND	63.15	**17**	**1,700**	**5,700**	**35,000**	42,417	3 J	NA	NA	
	4/11/2013	101.35	38.76	ND	ND	62.59	**11**	**960**	**4,800**	**28,000**	33,771	ND<5.0	NA	NA	
	10/17/2013	101.35	38.85	ND	ND	62.50	**59**	**1,600**	**6,000**	**36,000**	43,659	8 J	NA	NA	
	4/22/2014	101.35	38.81	ND	ND	62.54	NS	NS	NS	NS	NS	NS	NS	NS	Insufficient water.

Table 1
Monitoring Well Gauging And Groundwater Analytical Data
February 6, 2006 Through October 31, 2018

Mobil Branded Service Station
Former Mobil #10954 (17-HMB)
138-50 Hillside Avenue
Jamaica, New York

		Gauging Data					Analytical Data								
Sample ID	Date	Top of Casing Elevation	Depth to Water (feet)	Depth to Hydro-carbon (feet)	Hydro-carbon Thickness (feet)	Corrected GW Elevation (feet)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	MTBE (µg/L)	Ethyl Alcohol (µg/L)	Dissolved Oxygen (mg/L)	Comments
NYSDEC Standards		**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**1**	**5**	**5**	**5**	**~**	**~**	**~**	**~**	
NYSDEC Guidance Values		**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**~**	**~**	**~**	**~**	**~**	**10**	**~**	**~**	
IP-7 (continued)	10/23/2014	101.35	38.60	ND	ND	62.75	NS	NS	NS	NS	NS	NS	NS	NS	Insufficient water.
	4/6/2015	101.35	37.74	ND	ND	63.61	**12**	**1,500**	**3,600**	**26,000**	31,112	8 J	NA	NA	
	10/1/2015	101.35	38.46	ND	ND	62.89	NS	NS	NS	NS	NS	NS	NS	NS	
	4/7/2016	101.35	38.71	ND	ND	62.64	NS	NS	NS	NS	NS	NS	NS	NS	Insufficient water.
	10/31/2016	101.35	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	No access; Bolt Struck
	4/18/2017	101.35	38.70	NM	NM	62.65	NS	NS	NS	NS	NS	NS	NS	NS	Insufficient water.
	10/6/2017	101.35	38.31	NM	NM	63.04	NS	NS	NS	NS	NS	NS	NS	NS	
	4/6/2018	101.35	38.44	NM	NM	62.91	NS	NS	NS	NS	NS	NS	NS	NS	Insufficient water.
	10/31/2018	101.35	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	Dry

Notes:

~ - no standard or guidance value exists
ND<1.0 - Not detected at or above the laboratory reporting limit shown
µg/L - micrograms per liter
BRL - Below laboratory reporting limits
BTEX - Benzene, toluene, ethylbenzene, and total xylenes
Corrected GW elevation - calculated with following formula:
(top of casing - depth to water) + (hydrocarbon thickness * (hydrocarbon specific gravity))
Depth to Water - measured in feet below land surface from top of casing
GW - Groundwater
Hydrocarbon - liquid-phase hydrocarbon (LPH)
J - Indicates an estimated value
mg/L - milligram per liter
MTBE - methyl tertiary-butyl ether
N/A - Not applicable 440+29+5
NA - Not analyzed
ND - Not detected
NM - Not monitored
NS - Not sampled
NSVD - Not surveyed to vertical datum
NYSDEC Standards and Guidance Values - New York State Department of Environmental Conservation Technical and Operational Guidance Series (TOGS) 1.1.1, Ambient Water Quality Standards and Guidance Values, June 1998 and Addendum April 2000
Bold Items - Reported concentration detected above the applicable standard(s) or guidance value(s)
Total Xylenes - summation of o-xylene and m & p-xylenes

Table 2
AS/SVE Influent Analytical Data
March 16, 2017 through December 4, 2018

Former Mobil #10954
138-50 Hillside Avenue
Jamaica, New York

DATE	HOUR METER READING	DAYS IN MONITORING PERIOD	ACTUAL RUN TIME	PERCENT RUN TIME	AIR FLOW	AIR SPARGE	BTEX				MTBE				TPH			
							CONCENT-RATION	MASS RECOVERY RATE	MASS RECOVERED OVER PERIOD	TOTAL MASS RECOVERED	CONCENT-RATION	MASS RECOVERY RATE	MASS RECOVERED OVER PERIOD	TOTAL MASS RECOVERED	CONCENT-RATION	MASS RECOVERY RATE	MASS RECOVERED OVER PERIOD	TOTAL MASS RECOVERED
	(hr)	(days)		(%)	(scfm)	(Y/N)	(mg/m^3)	(lb/day)	(lb)	(lb)	(mg/m^3)	(lb/day)	(lb)	(lb)	(mg/m^3)	(lb/day)	(lb)	(lb)
2/16/2017	38,702	NA	NA	NA	240	N	27	0.6	NA	NA	0.07	0.002	NA	NA	220	4.7	NA	NA
3/1/2017	39,008	13	13	98%	240	N	43	0.9	11.9	11.9	0.07	0.002	0.02	0.02	164	3.5	45	45
4/25/2017	40,088	55	45	82%	280	N	18	0.4	20.0	31.9	0.07	0.002	0.08	0.10	40	1.0	45	90
5/17/2017	40,470	22	16	71%	280	N	12	0.3	4.9	36.8	0.07	0.002	0.03	0.13	450	11.3	180	271
8/3/2017	40,804	NA	NA	NA	205	Y	71	1.3	NA	36.8	0.07	0.001	NA	0.13	2010	37.0	NA	271
9/7/2017	41,643	35	35	100%	200	Y	49	0.9	30.9	67.7	0.07	0.001	0.04	0.17	310	5.6	195	466
3/14/2018	42,312	NA	NA	NA	213	Y	24	0.5	NA	67.7	0.04	0.001	NA	0.17	530	10.1	NA	466
4/11/2018	42,984	28	28	100%	152	Y	49	0.7	18.9	86.6	0.04	0.000	0.01	0.18	540	7.4	207	672
5/2/2018	43,488	21	21	100%	148	Y	18	0.2	5.1	91.7	0.04	0.000	0.01	0.19	260	3.5	73	745
6/21/2018	44,517	50	43	86%	230	N	4	0.1	3.6	95.3	0.00	0.000	0.00	0.20	40	0.8	35	780
7/11/2018	44,994	20	20	100%	210	Y	5	0.1	1.8	97.1	0.00	0.000	0.00	0.20	30	0.6	11	792
8/20/2018	45,954	40	40	100%	175	Y	3	0.1	2.2	99.3	0.00	0.000	0.00	0.20	16	0.3	10	802
9/24/2018	46,800	35	35	100%	250	N	3	0.1	2.0	101.3	0.01	0.000	0.01	0.21	327	7.3	259	1061
10/25/2018	47,538	31	31	100%	215	Y	8	0.2	5.0	106.4	0.01	0.000	0.00	0.21	530	10.2	315	1376
11/14/2018	47,684	20	6	30%	215	N	0	0.0	0.0	106.4	0.01	0.000	0.00	0.21	180	3.5	21	1397
12/4/2018	48,071	20	16	81%	185	Y	5	0.1	1.5	107.9	0.01	0.000	0.00	0.21	420	7.0	112	1510

Notes:

BTEX - Benzene, toluene, ethylbenzene and xylene
MTBE - Methyl tertiary butyl ether
TPH - Total petroleum hydrocarbons (C1-C10)
NA - Not applicable
NM - Not measured
scfm - Standard cubic feet per minute
mg/m^3 - Milligrams per cubic meter
lb - Pounds
MDL - Method detection limit

Calculations:

Release Rate (lb/hr) = Flow Rate (scfm) x Concentration (mg/m^3)

$$\frac{ft^3}{min} \times \frac{mg}{m^3} \times \frac{m^3}{35.31\ ft^3} \times \frac{lb}{453592\ mg} \times \frac{60\ min}{hr}$$

For mass calculations, half of the MDL is used for samples which are below the MDL.

Table 3
AS/SVE Effluent Analytical Data
March 16, 2017 through December 4, 2018

Former Mobil #10954
138-50 Hillside Avenue
Jamaica, New York

EFFLUENT SAMPLE DATE	AIR FLOW RATE	BENZENE		TOLUENE		ETHYLBENZENE		TOTAL XYLENES		MTBE		TPH	
	scfm	mg/m^3	lb/hr	mg/m^3	lb/hr	mg/m^3	lb/hr	mg/m^3	lb/hr	mg/m^3	lb/hr	mg/m^3	lb/hr
2/16/2017	240	0.003	2.88E-06	0.03	2.70E-05	0.03	2.34E-05	0.07	6.38E-05	0.004	3.24E-06	30	0.03
3/1/2017	240	0.032	2.88E-05	3.20	2.88E-03	0.57	5.12E-04	0.52	4.68E-04	0.036	3.24E-05	230	0.21
4/25/2017	280	0.007	6.92E-06	0.02	2.52E-05	0.02	1.68E-05	0.10	1.01E-04	0.002	2.31E-06	20	0.02
5/17/2017	280	0.002	1.68E-06	0.01	1.26E-05	0.00	4.30E-06	0.03	2.90E-05	0.000	3.78E-07	20	0.02
8/3/2017	205	0.001	9.98E-07	0.02	1.31E-05	0.00	1.15E-06	0.01	5.53E-06	0.000	2.76E-07	220	0.17
9/7/2017	200	0.065	4.87E-05	7.00	5.24E-03	0.34	2.55E-04	0.17	1.27E-04	0.070	5.24E-05	430	0.32
3/14/2018	213	0.007	5.19E-06	0.08	5.98E-05	0.01	6.78E-06	0.02	1.36E-05	0.007	5.59E-06	20	0.02
4/11/2018	152	0.001	6.26E-07	0.00	2.14E-06	0.00	6.26E-07	0.01	7.00E-06	0.000	2.05E-07	20	0.01
5/2/2018	148	0.001	6.65E-07	0.04	2.33E-05	0.01	4.77E-06	0.01	5.49E-06	0.000	2.00E-07	20	0.01
6/21/2018	230	0.003	2.33E-06	0.02	1.38E-05	0.00	9.48E-07	0.01	4.48E-06	0.000	3.10E-07	20	0.02
7/11/2018	210	0.001	8.65E-07	0.03	2.05E-05	0.00	1.89E-06	0.01	1.14E-05	0.000	2.83E-07	20	0.02
8/20/2018	175	0.001	4.65E-07	0.01	6.56E-06	0.00	7.21E-07	0.01	7.80E-06	0.000	2.36E-07	3	0.00
9/24/2018	250	0.001	1.12E-06	0.03	3.09E-05	0.00	1.12E-06	0.01	7.40E-06	0.000	3.37E-07	50	0.05
10/25/2018	215	0.007	5.32E-06	0.04	2.90E-05	0.01	8.05E-06	0.03	2.46E-05	0.001	5.64E-07	75	0.06
11/14/2018	215	0.003	2.58E-06	0.02	1.21E-05	0.01	8.05E-06	0.03	2.46E-05	0.007	5.64E-06	20	0.02
12/4/2018	185	0.003	2.22E-06	0.02	1.32E-05	0.01	6.93E-06	0.09	6.51E-05	0.007	4.85E-06	40	0.03
Discharge Limits (lb/hr)	NA	NA	4.94E-03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

BTEX - Benzene, toluene, ethylbenzene and xylene
MTBE - Methyl tertiary butyl ether
TPH - Total petroleum hydrocarbons (C1-C10)
NA - Not applicable
scfm - Standard cubic feet per minute
mg/m^3 - Milligrams per cubic meter
lb - Pounds
MDL - Method detection limit

Calculations:

Release Rate (lb/hr) = Flow Rate (scfm) x Concentration (mg/m^3)

$$\frac{ft^3}{min} \times \frac{mg}{m^3} \times \frac{m^3}{35.31\ ft^3} \times \frac{lb}{453592\ mg} \times \frac{60\ min}{hr}$$

For mass calculations, half of the MDL is used for samples which are below the MDL

APPENDIX A

Groundwater Laboratory Analytical Reports

eurofins | Lancaster Laboratories Environmental

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

ARCADIS
Suite 600
630 Plaza Drive
Highlands Ranch CO 80129

Report Date: August 15, 2018 16:19

Project: 10954

Account #: 13045
Group Number: 1972464
PO Number: B0085850.0954
Release Number: PM: OERTLING
State of Sample Origin: NY

Electronic Copy To	ARCADIS	Attn: Richard Hatch
Electronic Copy To	ARCADIS	Attn: Chad Colwell
Electronic Copy To	ARCADIS	Attn: Nicholas Beyrle

Respectfully Submitted,

Hannah L. Cottman
Project Manager

(717) 556-7383

To view our laboratory's current scopes of accreditation please go to http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/ . Historical copies may be requested through your project manager.

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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
MW-8 Water	07/31/2018 13:45	9734880
IP-2 Water	07/31/2018 14:10	9734881
IP-3 Water	07/31/2018 14:30	9734882

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Sample Description: **MW-8 Water**
10954
138-50 Hillside Ave - Jamaica, NY

Project Name: **10954**

Submittal Date/Time: 08/02/2018 10:10
Collection Date/Time: 07/31/2018 13:45

ARCADIS
ELLE Sample #: WW 9734880
ELLE Group #: 1972464
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	< 0.5	0.5	1	1
13130	Ethylbenzene	100-41-4	9	0.5	1	1
13130	Methyl Tertiary Butyl Ether	1634-04-4	< 0.5	0.5	1	1
13130	Toluene	108-88-3	2	0.5	1	1
13130	Xylene (Total)	1330-20-7	520	5	10	10

Sample Comments

State of New York Certification No. 10670
Trip blank vials were not received by the laboratory for this sample group.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX/MTBE	SW-846 8260C	1	Z182172AA	08/06/2018 03:10	Hu Yang	1
13130	BTEX/MTBE	SW-846 8260C	1	Z182251AA	08/13/2018 21:39	Hu Yang	10
01163	GC/MS VOA Water Prep	SW-846 5030C	1	Z182172AA	08/06/2018 03:10	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030C	2	Z182251AA	08/13/2018 21:39	Hu Yang	10

*=This limit was used in the evaluation of the final result

Sample Description: **IP-2 Water**
10954
138-50 Hillside Ave - Jamaica, NY

Project Name: **10954**

Submittal Date/Time: 08/02/2018 10:10
Collection Date/Time: 07/31/2018 14:10

ARCADIS
ELLE Sample #: WW 9734881
ELLE Group #: 1972464
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	< 5	5	10	10
13130	Ethylbenzene	100-41-4	150	5	10	10
13130	Methyl Tertiary Butyl Ether	1634-04-4	< 5	5	10	10
13130	Toluene	108-88-3	150	5	10	10
13130	Xylene (Total)	1330-20-7	8,100	50	100	100

Sample Comments

State of New York Certification No. 10670
Trip blank vials were not received by the laboratory for this sample group.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX/MTBE	SW-846 8260C	1	Z182172AA	08/06/2018 04:24	Hu Yang	10
13130	BTEX/MTBE	SW-846 8260C	1	Z182172AA	08/06/2018 04:48	Hu Yang	100
01163	GC/MS VOA Water Prep	SW-846 5030C	1	Z182172AA	08/06/2018 04:24	Hu Yang	10
01163	GC/MS VOA Water Prep	SW-846 5030C	2	Z182172AA	08/06/2018 04:48	Hu Yang	100

*=This limit was used in the evaluation of the final result

Sample Description: **IP-3 Water**
10954
138-50 Hillside Ave - Jamaica, NY

Project Name: **10954**

Submittal Date/Time: 08/02/2018 10:10
Collection Date/Time: 07/31/2018 14:30

ARCADIS
ELLE Sample #: WW 9734882
ELLE Group #: 1972464
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	< 0.5	0.5	1	1
13130	Ethylbenzene	100-41-4	0.6 J	0.5	1	1
13130	Methyl Tertiary Butyl Ether	1634-04-4	< 0.5	0.5	1	1
13130	Toluene	108-88-3	< 0.5	0.5	1	1
13130	Xylene (Total)	1330-20-7	10	0.5	1	1

Sample Comments

State of New York Certification No. 10670
Trip blank vials were not received by the laboratory for this sample group.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX/MTBE	SW-846 8260C	1	Z182172AA	08/06/2018 03:35	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	Z182172AA	08/06/2018 03:35	Hu Yang	1

*=This limit was used in the evaluation of the final result

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Quality Control Summary

Client Name: ARCADIS
Reported: 08/15/2018 16:19

Group Number: 1972464

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL**	LOQ
	ug/l	ug/l	ug/l
Batch number: Z182172AA	Sample number(s): 9734880-9734882		
Benzene	< 0.5	0.5	1
Ethylbenzene	< 0.5	0.5	1
Methyl Tertiary Butyl Ether	< 0.5	0.5	1
Toluene	< 0.5	0.5	1
Xylene (Total)	< 0.5	0.5	1
Batch number: Z182251AA	Sample number(s): 9734880		
Xylene (Total)	< 0.5	0.5	1

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: Z182172AA	Sample number(s): 9734880-9734882								
Benzene	20	20.76			104		80-120		
Ethylbenzene	20	19.59			98		80-120		
Methyl Tertiary Butyl Ether	20	20.04			100		75-120		
Toluene	20	20.75			104		80-120		
Xylene (Total)	60	58.1			97		80-120		
Batch number: Z182251AA	Sample number(s): 9734880								
Xylene (Total)	60	61.6			103		80-120		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: ARCADIS
Reported: 08/15/2018 16:19

Group Number: 1972464

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX/MTBE
Batch number: Z182172AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
9734880	104	99	101	101
9734881	101	99	101	97
9734882	102	99	101	96
Blank	103	101	104	96
LCS	101	101	102	98
Limits:	80-120	80-120	80-120	80-120

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

A.13045 G.1972464 S.9734000-82

Arcadis/Exxon

Req Due Date (mm/dd/yy): ASAP- Standard **Rush TAT:** Yes ___ No x

Lab Work Order Number:

Lab Name:	Lancaster	Site Number:	10954	Consultant/Contractor:	EnviroTrac Ltd.
Lab Address:	2425 New Holland Pike	Facility Address:	138-50 Hillside Ave	Consultant/Contractor Project No:	
Lab PM:	Hannah Cottman	City, State, ZIP Code:	Jamaica, NY	Address:	5 Old Dock Road, Yaphank, New York 11980
Lab Phone:	(717) 656-2300 ext 1815	Lead Regulatory Agency:	NYSDEC	Consultant/Contractor PM:	Donna Amoscato
Lab Shipping Accnt:		Invoice to:	****BILL ARCADIS****	Phone:	631-924-3001
Lab Bottle Order No:				Email EDD To:	andrew.korik@arcadis-us.com
Other Info:					

Arcadis PM:	Andrew Korik
PM Phone:	
PM Email:	Andrew.Korik@arcadis-us.com

Lab No.	Sample Description	Date	Time	Matrix: Soil / Solid	Matrix: Water / Liquid	Matrix: Air / Vapor	Matrix:	No. Containers / Preservative: Total Number of Containers	Unpreserved	H_2SO_4	HNO_3	HCl	Methanol	Requested Analyses: BTEX/MTBE 8260	Ethanol via 8015	Report Type & QC Level
	MW-8	7/31/2018	1:45		X			3				X		X		Standard x
	IP-2	7/31/2018	2:10		X			3				X		X		Full Data Package ___
	IP-3	7/31/2018	2:30		X			3				X		X		Comments: Note: If sample not collected, indicate "No Sample" in comments and single-strike out and initial any preprinted sample description.

Sampler's Name:	Donna Amoscato	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Company:	EnviroTrac LTd	Donna Amoscato/ETNY	7/31/18	4:35pm			
Shipment Method:	Fedex Ship Date: 8/1/2018						
Shipment Tracking No:	801301877289					8.2.18	10:10

Special Instructions:

THIS LINE - LAB USE ONLY: Custody Seals In Place (Yes) / No | Temp Blank: (Yes) / No | Cooler Temp on Receipt: 1.7 °F/C | Trip Blank: Yes (No) | MS/MSD Sample Submitted: Yes (No)

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Sample Administration Receipt Documentation Log

Doc Log ID: 223132

Group Number(s): 1972464

Client: Arcadis

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	08/02/2018 10:10
Number of Packages:	1	Number of Projects:	1
State/Province of Origin:	NY		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	VOA Vial Headspace ≥ 6mm:	No
Samples Chilled:	Yes	Total Trip Blank Qty:	0
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Wanita Curry (14057) at 15:49 on 08/02/2018

Samples Chilled Details

Thermometer Types: *DT = Digital (Temp. Bottle)* *IR = Infrared (Surface Temp)* *All Temperatures in °C.*

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT146	1.7	DT	Wet	Y	Bagged	N

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report
R	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

ARCADIS
Suite 600
630 Plaza Drive
Highlands Ranch CO 80129

Report Date: September 05, 2018 13:46

Project: 10954

Account #: 13045
Group Number: 1980480
PO Number: B0085850.0954
Release Number: PM: OERTLING
State of Sample Origin: NY

Electronic Copy To	ARCADIS	Attn: Richard Hatch
Electronic Copy To	ARCADIS	Attn: Nicholas Beyrle
Electronic Copy To	ARCADIS	Attn: Chad Colwell

Respectfully Submitted,

Hannah L. Cottman
Project Manager

(717) 556-7383

To view our laboratory's current scopes of accreditation please go to http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/ . Historical copies may be requested through your project manager.

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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
MW-8 Water	08/23/2018 12:21	9772765
IP-2 Water	08/23/2018 12:30	9772766
IP-3 Water	08/23/2018 12:39	9772767

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Sample Description: **MW-8 Water**
10954
138-50 Hillside Ave- Jamaica, NY

Project Name: **10954**

Submittal Date/Time: 08/25/2018 10:05
Collection Date/Time: 08/23/2018 12:21

ARCADIS
ELLE Sample #: WW 9772765
ELLE Group #: 1980480
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	< 1	1	5	5
13130	Ethylbenzene	100-41-4	68	2	5	5
13130	Methyl Tertiary Butyl Ether	1634-04-4	< 1	1	5	5
13130	Toluene	108-88-3	54	1	5	5
13130	Xylene (Total)	1330-20-7	5,700	50	250	50

Sample Comments

State of New York Certification No. 10670
Trip blank vials were not received by the laboratory for this sample group.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX/MTBE	SW-846 8260C	1	Z182463AA	09/03/2018 19:46	Kevin A Sposito	5
13130	BTEX/MTBE	SW-846 8260C	1	Z182463AA	09/03/2018 20:10	Kevin A Sposito	50
01163	GC/MS VOA Water Prep	SW-846 5030C	1	Z182463AA	09/03/2018 19:46	Kevin A Sposito	5
01163	GC/MS VOA Water Prep	SW-846 5030C	2	Z182463AA	09/03/2018 20:10	Kevin A Sposito	50

*=This limit was used in the evaluation of the final result

Sample Description: **IP-2 Water**
10954
138-50 Hillside Ave- Jamaica, NY

Project Name: **10954**

Submittal Date/Time: 08/25/2018 10:05
Collection Date/Time: 08/23/2018 12:30

ARCADIS
ELLE Sample #: WW 9772766
ELLE Group #: 1980480
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	< 0.2	0.2	1	1
13130	Ethylbenzene	100-41-4	3	0.4	1	1
13130	Methyl Tertiary Butyl Ether	1634-04-4	< 0.2	0.2	1	1
13130	Toluene	108-88-3	2	0.2	1	1
13130	Xylene (Total)	1330-20-7	300	1	5	1

Sample Comments

State of New York Certification No. 10670
Trip blank vials were not received by the laboratory for this sample group.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX/MTBE	SW-846 8260C	1	Z182422AA	08/31/2018 02:23	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	Z182422AA	08/31/2018 02:23	Hu Yang	1

*=This limit was used in the evaluation of the final result

Sample Description: **IP-3 Water**
10954
138-50 Hillside Ave- Jamaica, NY

Project Name: **10954**

Submittal Date/Time: 08/25/2018 10:05
Collection Date/Time: 08/23/2018 12:39

ARCADIS
ELLE Sample #: WW 9772767
ELLE Group #: 1980480
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	< 0.2	0.2	1	1
13130	Ethylbenzene	100-41-4	29	0.4	1	1
13130	Methyl Tertiary Butyl Ether	1634-04-4	< 0.2	0.2	1	1
13130	Toluene	108-88-3	5	0.2	1	1
13130	Xylene (Total)	1330-20-7	440	10	50	10

Sample Comments

State of New York Certification No. 10670
Trip blank vials were not received by the laboratory for this sample group.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX/MTBE	SW-846 8260C	1	Z182422AA	08/31/2018 02:47	Hu Yang	1
13130	BTEX/MTBE	SW-846 8260C	1	Z182463AA	09/03/2018 14:29	Kevin A Sposito	10
01163	GC/MS VOA Water Prep	SW-846 5030C	1	Z182422AA	08/31/2018 02:47	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030C	2	Z182463AA	09/03/2018 14:29	Kevin A Sposito	10

*=This limit was used in the evaluation of the final result

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Quality Control Summary

Client Name: ARCADIS
Reported: 09/05/2018 13:46

Group Number: 1980480

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL**	LOQ
	ug/l	ug/l	ug/l
Batch number: Z182422AA	Sample number(s): 9772766-9772767		
Benzene	< 0.2	0.2	1
Ethylbenzene	< 0.4	0.4	1
Methyl Tertiary Butyl Ether	< 0.2	0.2	1
Toluene	< 0.2	0.2	1
Xylene (Total)	< 1	1	5
Batch number: Z182463AA	Sample number(s): 9772765,9772767		
Benzene	< 0.2	0.2	1
Ethylbenzene	< 0.4	0.4	1
Methyl Tertiary Butyl Ether	< 0.2	0.2	1
Toluene	< 0.2	0.2	1
Xylene (Total)	< 1	1	5

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: Z182422AA	Sample number(s): 9772766-9772767								
Benzene	20	19.94			100		80-120		
Ethylbenzene	20	19.66			98		80-120		
Methyl Tertiary Butyl Ether	20	19.43			97		69-122		
Toluene	20	21			105		80-120		
Xylene (Total)	60	59.91			100		80-120		
Batch number: Z182463AA	Sample number(s): 9772765,9772767								
Benzene	20	20.08	20	20.68	100	103	80-120	3	30
Ethylbenzene	20	19.09	20	19.66	95	98	80-120	3	30
Methyl Tertiary Butyl Ether	20	19.85	20	20.05	99	100	69-122	1	30
Toluene	20	20.68	20	21.36	103	107	80-120	3	30
Xylene (Total)	60	58.48	60	59.61	97	99	80-120	2	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: ARCADIS
Reported: 09/05/2018 13:46

Group Number: 1980480

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX/MTBE
Batch number: Z182422AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
9772766	103	100	102	99
9772767	101	103	103	99
Blank	100	102	104	95
LCS	99	102	103	99
Limits:	80-120	80-120	80-120	80-120

Analysis Name: BTEX/MTBE
Batch number: Z182463AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
9772765	98	103	104	101
Blank	102	102	103	94
LCS	99	102	103	100
LCSD	100	103	104	99
Limits:	80-120	80-120	80-120	80-120

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

A-13045
S-9772765-67
G-1980480

Arcadis/Exxon

Req Due Date (mm/dd/yy): ASAP- Standard Rush TAT: Yes ____ No x

Lab Work Order Number:

Lab Name:	Lancaster	Site Number:	10954	Consultant/Contractor:	EnviroTrac Ltd.
Lab Address:	2425 New Holland Pike	Facility Address:	138-50 Hillside Ave	Consultant/Contractor Project No:	
Lab PM:	Hannah Cottman	City, State, ZIP Code:	Jamaica, NY	Address:	5 Old Dock Road, Yaphank, New York 11980
Lab Phone:	(717) 656-2300 ext 1815	Lead Regulatory Agency:	NYSDEC	Consultant/Contractor PM:	Donna Amoscato
Lab Shipping Accnt:		Invoice to:	****BILL ARCADIS****	Phone:	631-924-3001
Lab Bottle Order No:				Email EDD To:	andrew.korik@arcadis-us.com
Other Info:					

Arcadis PM:	Andrew Korik
PM Phone:	
PM Email:	Andrew.Korik@arcadis-us.com

Report Type & QC Level: Standard x; Full Data Package ____

Lab No.	Sample Description	Date	Time	Matrix: Soil / Solid	Water / Liquid	Air / Vapor		No. Containers / Preservative: Total Number of Containers	Unpreserved	H_2SO_4	HNO_3	HCl	Methanol		Requested Analyses: BTEX/MTBE 8260	Ethanol via 8015									
	MW-8	8/23/18	12:21		X			3				X			X										
	IP-2	8/23/18	12:30		X			3				X			X										
	IP-3	8/23/18	12:39		X			3				X			X										

Comments

Note: If sample not collected, indicate "No Sample" in comments and single-strike out and initial any preprinted sample description.

		Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Name:	Josh Lamy						
Sampler's Company:	EnviroTrac LTD.	(JL) / EnviroTrac LTD.	8/23/18	15:30	/ ETNY	8/23/18	4:00pm
Shipment Method:	FedEx Ship Date: 08/24/18	/ ETNY	8/24/18	2:30pm			
Shipment Tracking No:	8096 9949 9692				ECLE	8/25/18	1005

Special Instructions:

THIS LINE - LAB USE ONLY: Custody Seals In Place: (Yes) / No | Temp Blank: (Yes) / No | Cooler Temp on Receipt: 5.2 °F/C | Trip Blank: Yes / (No) | MS/MSD Sample Submitted: Yes / (No)

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Sample Administration Receipt Documentation Log

Doc Log ID: 225265

Group Number(s): 1980480

Client: Arcadis/Exxon

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	08/25/2018 10:05
Number of Packages:	1	Number of Projects:	1

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	VOA Vial Headspace ≥ 6mm:	No
Samples Chilled:	Yes	Total Trip Blank Qty:	0
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Nicole Reiff (25684) at 13:06 on 08/25/2018

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT131	5.2	DT	Wet	Y	Bagged	N

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

ARCADIS
Suite 600
630 Plaza Drive
Highlands Ranch CO 80129

Report Date: November 14, 2018 18:14

Project: 10954

Account #: 13045
Group Number: 2005297
PO Number: B0085850.0954
Release Number: PM: OERTLING
State of Sample Origin: NY

Electronic Copy To	ARCADIS	Attn: Richard Hatch
Electronic Copy To	ARCADIS	Attn: Nicholas Beyrle
Electronic Copy To	ARCADIS	Attn: Chad Colwell
Electronic Copy To	ARCADIS	Attn: Jerome Oertling

Respectfully Submitted,

Hannah L. Cottman
Project Manager

(717) 556-7383

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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
MW-1 Water	10/31/2018 11:38	9881501
MW-2 Water	10/31/2018 12:23	9881502
MW-3 Water	10/31/2018 10:12	9881503
MW-4 Water	10/31/2018 09:40	9881504
MW-5 Water	10/31/2018 10:50	9881505
MW-6 Water	10/31/2018 10:20	9881506
MW-7 Water	10/31/2018 10:41	9881507
MW-8 Water	10/31/2018 11:13	9881508
MW-9 Water	10/31/2018 12:34	9881509
MW-10 Water	10/31/2018 10:28	9881510
IP-2 Water	10/31/2018 11:06	9881511
IP-3 Water	10/31/2018 12:05	9881512
IP-4 Water	10/31/2018 10:34	9881513
IP-5 Water	10/31/2018 11:24	9881514
IP-6 Water	10/31/2018 11:51	9881515
MW-B Water	10/31/2018 09:58	9881516
Trip Blank TB18269 Water	09/28/2018	9881517

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Sample Description: **MW-1 Water**
10954
138-50 Hillside Ave - Jamaica, NY

Project Name: **10954**

Submittal Date/Time: 11/02/2018 10:10
Collection Date/Time: 10/31/2018 11:38

ARCADIS
ELLE Sample #: WW 9881501
ELLE Group #: 2005297
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	< 0.2	0.2	1	1
13130	Ethylbenzene	100-41-4	< 0.4	0.4	1	1
13130	Methyl Tertiary Butyl Ether	1634-04-4	< 0.2	0.2	1	1
13130	Toluene	108-88-3	< 0.2	0.2	1	1
13130	Xylene (Total)	1330-20-7	< 1	1	5	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX/MTBE	SW-846 8260C	1	Z183112AA	11/07/2018 13:07	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	Z183112AA	11/07/2018 13:07	Alexander D Sechrist	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-2 Water**
10954
138-50 Hillside Ave - Jamaica, NY

Project Name: **10954**

Submittal Date/Time: 11/02/2018 10:10
Collection Date/Time: 10/31/2018 12:23

ARCADIS
ELLE Sample #: WW 9881502
ELLE Group #: 2005297
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	< 0.2	0.2	1	1
13130	Ethylbenzene	100-41-4	< 0.4	0.4	1	1
13130	Methyl Tertiary Butyl Ether	1634-04-4	< 0.2	0.2	1	1
13130	Toluene	108-88-3	< 0.2	0.2	1	1
13130	Xylene (Total)	1330-20-7	< 1	1	5	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX/MTBE	SW-846 8260C	1	Z183112AA	11/07/2018 13:31	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	Z183112AA	11/07/2018 13:31	Alexander D Sechrist	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-3 Water**
10954
138-50 Hillside Ave - Jamaica, NY

Project Name: **10954**

Submittal Date/Time: 11/02/2018 10:10
Collection Date/Time: 10/31/2018 10:12

ARCADIS
ELLE Sample #: WW 9881503
ELLE Group #: 2005297
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	< 0.2	0.2	1	1
13130	Ethylbenzene	100-41-4	< 0.4	0.4	1	1
13130	Methyl Tertiary Butyl Ether	1634-04-4	< 0.2	0.2	1	1
13130	Toluene	108-88-3	< 0.2	0.2	1	1
13130	Xylene (Total)	1330-20-7	< 1	1	5	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX/MTBE	SW-846 8260C	1	Z183112AA	11/07/2018 13:56	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	Z183112AA	11/07/2018 13:56	Alexander D Sechrist	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-4 Water**
10954
138-50 Hillside Ave - Jamaica, NY

Project Name: **10954**

Submittal Date/Time: 11/02/2018 10:10
Collection Date/Time: 10/31/2018 09:40

ARCADIS
ELLE Sample #: WW 9881504
ELLE Group #: 2005297
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	< 0.2	0.2	1	1
13130	Ethylbenzene	100-41-4	< 0.4	0.4	1	1
13130	Methyl Tertiary Butyl Ether	1634-04-4	< 0.2	0.2	1	1
13130	Toluene	108-88-3	< 0.2	0.2	1	1
13130	Xylene (Total)	1330-20-7	< 1	1	5	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX/MTBE	SW-846 8260C	1	Z183112AA	11/07/2018 14:20	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	Z183112AA	11/07/2018 14:20	Alexander D Sechrist	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-5 Water**
10954
138-50 Hillside Ave - Jamaica, NY

Project Name: **10954**

Submittal Date/Time: 11/02/2018 10:10
Collection Date/Time: 10/31/2018 10:50

ARCADIS
ELLE Sample #: WW 9881505
ELLE Group #: 2005297
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	< 0.2	0.2	1	1
13130	Ethylbenzene	100-41-4	1	0.4	1	1
13130	Methyl Tertiary Butyl Ether	1634-04-4	< 0.2	0.2	1	1
13130	Toluene	108-88-3	< 0.2	0.2	1	1
13130	Xylene (Total)	1330-20-7	70	1	5	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX/MTBE	SW-846 8260C	1	Z183112AA	11/07/2018 14:44	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	Z183112AA	11/07/2018 14:44	Alexander D Sechrist	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-6 Water**
10954
138-50 Hillside Ave - Jamaica, NY

Project Name: **10954**

Submittal Date/Time: 11/02/2018 10:10
Collection Date/Time: 10/31/2018 10:20

ARCADIS
ELLE Sample #: WW 9881506
ELLE Group #: 2005297
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	< 0.2	0.2	1	1
13130	Ethylbenzene	100-41-4	< 0.4	0.4	1	1
13130	Methyl Tertiary Butyl Ether	1634-04-4	< 0.2	0.2	1	1
13130	Toluene	108-88-3	< 0.2	0.2	1	1
13130	Xylene (Total)	1330-20-7	< 1	1	5	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX/MTBE	SW-846 8260C	1	Z183112AA	11/07/2018 15:09	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	Z183112AA	11/07/2018 15:09	Alexander D Sechrist	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-7 Water**
10954
138-50 Hillside Ave - Jamaica, NY

Project Name: **10954**

Submittal Date/Time: 11/02/2018 10:10
Collection Date/Time: 10/31/2018 10:41

ARCADIS
ELLE Sample #: WW 9881507
ELLE Group #: 2005297
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	< 0.2	0.2	1	1
13130	Ethylbenzene	100-41-4	< 0.4	0.4	1	1
13130	Methyl Tertiary Butyl Ether	1634-04-4	< 0.2	0.2	1	1
13130	Toluene	108-88-3	< 0.2	0.2	1	1
13130	Xylene (Total)	1330-20-7	< 1	1	5	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX/MTBE	SW-846 8260C	1	Z183112AA	11/07/2018 15:33	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	Z183112AA	11/07/2018 15:33	Alexander D Sechrist	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-8 Water**
10954
138-50 Hillside Ave - Jamaica, NY

Project Name: **10954**

Submittal Date/Time: 11/02/2018 10:10
Collection Date/Time: 10/31/2018 11:13

ARCADIS
ELLE Sample #: WW 9881508
ELLE Group #: 2005297
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	< 2	2	10	10
13130	Ethylbenzene	100-41-4	300	4	10	10
13130	Methyl Tertiary Butyl Ether	1634-04-4	< 2	2	10	10
13130	Toluene	108-88-3	480	2	10	10
13130	Xylene (Total)	1330-20-7	18,000	100	500	100

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX/MTBE	SW-846 8260C	1	Z183152AA	11/12/2018 04:58	Hu Yang	10
13130	BTEX/MTBE	SW-846 8260C	1	Z183162AA	11/12/2018 20:36	Alexander D Sechrist	100
01163	GC/MS VOA Water Prep	SW-846 5030C	1	Z183152AA	11/12/2018 04:58	Hu Yang	10
01163	GC/MS VOA Water Prep	SW-846 5030C	2	Z183162AA	11/12/2018 20:36	Alexander D Sechrist	100

*=This limit was used in the evaluation of the final result

Sample Description: **MW-9 Water**
10954
138-50 Hillside Ave - Jamaica, NY

Project Name: **10954**

Submittal Date/Time: 11/02/2018 10:10
Collection Date/Time: 10/31/2018 12:34

ARCADIS
ELLE Sample #: WW 9881509
ELLE Group #: 2005297
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	< 0.2	0.2	1	1
13130	Ethylbenzene	100-41-4	< 0.4	0.4	1	1
13130	Methyl Tertiary Butyl Ether	1634-04-4	< 0.2	0.2	1	1
13130	Toluene	108-88-3	< 0.2	0.2	1	1
13130	Xylene (Total)	1330-20-7	< 1	1	5	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX/MTBE	SW-846 8260C	1	Z183112AA	11/07/2018 15:58	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	Z183112AA	11/07/2018 15:58	Alexander D Sechrist	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-10 Water**
10954
138-50 Hillside Ave - Jamaica, NY

Project Name: **10954**

Submittal Date/Time: 11/02/2018 10:10
Collection Date/Time: 10/31/2018 10:28

ARCADIS
ELLE Sample #: WW 9881510
ELLE Group #: 2005297
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	< 0.2	0.2	1	1
13130	Ethylbenzene	100-41-4	1	0.4	1	1
13130	Methyl Tertiary Butyl Ether	1634-04-4	< 0.2	0.2	1	1
13130	Toluene	108-88-3	< 0.2	0.2	1	1
13130	Xylene (Total)	1330-20-7	< 1	1	5	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX/MTBE	SW-846 8260C	1	Z183152AA	11/12/2018 02:57	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	Z183152AA	11/12/2018 02:57	Hu Yang	1

*=This limit was used in the evaluation of the final result

Sample Description: **IP-2 Water**
10954
138-50 Hillside Ave - Jamaica, NY

Project Name: **10954**

Submittal Date/Time: 11/02/2018 10:10
Collection Date/Time: 10/31/2018 11:06

ARCADIS
ELLE Sample #: WW 9881511
ELLE Group #: 2005297
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	< 0.2	0.2	1	1
13130	Ethylbenzene	100-41-4	< 0.4	0.4	1	1
13130	Methyl Tertiary Butyl Ether	1634-04-4	< 0.2	0.2	1	1
13130	Toluene	108-88-3	< 0.2	0.2	1	1
13130	Xylene (Total)	1330-20-7	< 1	1	5	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX/MTBE	SW-846 8260C	1	Z183112AA	11/07/2018 16:47	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	Z183112AA	11/07/2018 16:47	Alexander D Sechrist	1

*=This limit was used in the evaluation of the final result

Sample Description: **IP-3 Water**
10954
138-50 Hillside Ave - Jamaica, NY

Project Name: **10954**

Submittal Date/Time: 11/02/2018 10:10
Collection Date/Time: 10/31/2018 12:05

ARCADIS
ELLE Sample #: WW 9881512
ELLE Group #: 2005297
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	< 0.2	0.2	1	1
13130	Ethylbenzene	100-41-4	< 0.4	0.4	1	1
13130	Methyl Tertiary Butyl Ether	1634-04-4	< 0.2	0.2	1	1
13130	Toluene	108-88-3	< 0.2	0.2	1	1
13130	Xylene (Total)	1330-20-7	< 1	1	5	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX/MTBE	SW-846 8260C	1	Z183112AA	11/07/2018 17:11	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	Z183112AA	11/07/2018 17:11	Alexander D Sechrist	1

*=This limit was used in the evaluation of the final result

Sample Description: **IP-4 Water**
10954
138-50 Hillside Ave - Jamaica, NY

Project Name: **10954**

Submittal Date/Time: 11/02/2018 10:10
Collection Date/Time: 10/31/2018 10:34

ARCADIS
ELLE Sample #: WW 9881513
ELLE Group #: 2005297
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	< 0.2	0.2	1	1
13130	Ethylbenzene	100-41-4	< 0.4	0.4	1	1
13130	Methyl Tertiary Butyl Ether	1634-04-4	< 0.2	0.2	1	1
13130	Toluene	108-88-3	< 0.2	0.2	1	1
13130	Xylene (Total)	1330-20-7	< 1	1	5	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX/MTBE	SW-846 8260C	1	Z183112AA	11/07/2018 17:36	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	Z183112AA	11/07/2018 17:36	Alexander D Sechrist	1

*=This limit was used in the evaluation of the final result

Sample Description: **IP-5 Water**
10954
138-50 Hillside Ave - Jamaica, NY

Project Name: **10954**

Submittal Date/Time: 11/02/2018 10:10
Collection Date/Time: 10/31/2018 11:24

ARCADIS
ELLE Sample #: WW 9881514
ELLE Group #: 2005297
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	< 0.2	0.2	1	1
13130	Ethylbenzene	100-41-4	< 0.4	0.4	1	1
13130	Methyl Tertiary Butyl Ether	1634-04-4	< 0.2	0.2	1	1
13130	Toluene	108-88-3	2	0.2	1	1
13130	Xylene (Total)	1330-20-7	130	1	5	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX/MTBE	SW-846 8260C	1	Z183112AA	11/07/2018 18:00	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	Z183112AA	11/07/2018 18:00	Alexander D Sechrist	1

*=This limit was used in the evaluation of the final result

Sample Description: **IP-6 Water**
10954
138-50 Hillside Ave - Jamaica, NY

Project Name: **10954**

Submittal Date/Time: 11/02/2018 10:10
Collection Date/Time: 10/31/2018 11:51

ARCADIS
ELLE Sample #: WW 9881515
ELLE Group #: 2005297
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	< 0.2	0.2	1	1
13130	Ethylbenzene	100-41-4	0.9 J	0.4	1	1
13130	Methyl Tertiary Butyl Ether	1634-04-4	< 0.2	0.2	1	1
13130	Toluene	108-88-3	< 0.2	0.2	1	1
13130	Xylene (Total)	1330-20-7	5	1	5	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX/MTBE	SW-846 8260C	1	Z183112AA	11/07/2018 18:24	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	Z183112AA	11/07/2018 18:24	Alexander D Sechrist	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-B Water**
10954
138-50 Hillside Ave - Jamaica, NY

Project Name: **10954**

Submittal Date/Time: 11/02/2018 10:10
Collection Date/Time: 10/31/2018 09:58

ARCADIS
ELLE Sample #: WW 9881516
ELLE Group #: 2005297
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	< 0.2	0.2	1	1
13130	Ethylbenzene	100-41-4	< 0.4	0.4	1	1
13130	Methyl Tertiary Butyl Ether	1634-04-4	0.2 J	0.2	1	1
13130	Toluene	108-88-3	< 0.2	0.2	1	1
13130	Xylene (Total)	1330-20-7	< 1	1	5	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX/MTBE	SW-846 8260C	1	Z183112AA	11/07/2018 18:49	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	Z183112AA	11/07/2018 18:49	Alexander D Sechrist	1

*=This limit was used in the evaluation of the final result

Sample Description: **Trip Blank TB18269 Water**
10954
138-50 Hillside Ave - Jamaica, NY

Project Name: **10954**

Submittal Date/Time: 11/02/2018 10:10
Collection Date/Time: 09/28/2018

ARCADIS
ELLE Sample #: WW 9881517
ELLE Group #: 2005297
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	< 0.2	0.2	1	1
13130	Ethylbenzene	100-41-4	< 0.4	0.4	1	1
13130	Methyl Tertiary Butyl Ether	1634-04-4	< 0.2	0.2	1	1
13130	Toluene	108-88-3	< 0.2	0.2	1	1
13130	Xylene (Total)	1330-20-7	< 1	1	5	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX/MTBE	SW-846 8260C	1	Z183112AA	11/07/2018 19:13	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	Z183112AA	11/07/2018 19:13	Alexander D Sechrist	1

*=This limit was used in the evaluation of the final result

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Quality Control Summary

Client Name: ARCADIS
Reported: 11/14/2018 18:14

Group Number: 2005297

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL**	LOQ
	ug/l	ug/l	ug/l
Batch number: Z183112AA	Sample number(s): 9881501-9881507,9881509,9881511-9881517		
Benzene	< 0.2	0.2	1
Ethylbenzene	< 0.4	0.4	1
Methyl Tertiary Butyl Ether	< 0.2	0.2	1
Toluene	< 0.2	0.2	1
Xylene (Total)	< 1	1	5
Batch number: Z183152AA	Sample number(s): 9881508,9881510		
Benzene	< 0.2	0.2	1
Ethylbenzene	< 0.4	0.4	1
Methyl Tertiary Butyl Ether	< 0.2	0.2	1
Toluene	< 0.2	0.2	1
Xylene (Total)	< 1	1	5
Batch number: Z183162AA	Sample number(s): 9881508		
Xylene (Total)	< 1	1	5

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: Z183112AA	Sample number(s): 9881501-9881507,9881509,9881511-9881517								
Benzene	20	21.64	20	22.21	108	111	80-120	3	30
Ethylbenzene	20	20.72	20	20.73	104	104	80-120	0	30
Methyl Tertiary Butyl Ether	20	22.47	20	20.49	112	102	69-122	9	30
Toluene	20	21.47	20	21.89	107	109	80-120	2	30
Xylene (Total)	60	63.04	60	63.55	105	106	80-120	1	30
Batch number: Z183152AA	Sample number(s): 9881508,9881510								
Benzene	20	22.17			111		80-120		
Ethylbenzene	20	20.81			104		80-120		
Methyl Tertiary Butyl Ether	20	17.93			90		69-122		
Toluene	20	22.95			115		80-120		
Xylene (Total)	60	60.19			100		80-120		
Batch number: Z183162AA	Sample number(s): 9881508								
Xylene (Total)	60	61.32			102		80-120		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ARCADIS
Reported: 11/14/2018 18:14

Group Number: 2005297

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX/MTBE
Batch number: Z183112AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
9881501	109	103	100	94
9881502	124*	118	100	92
9881503	109	102	99	91
9881504	111	104	101	91
9881505	114	104	95	96
9881506	106	101	97	86
9881507	111	104	100	92
9881509	122*	110	97	93
9881511	110	105	99	92
9881512	106	101	100	92
9881513	110	103	101	92
9881514	118	104	99	91
9881515	110	104	101	95
9881516	110	105	101	90
9881517	111	105	101	89
Blank	100	102	99	91
LCS	108	105	100	95
LCSD	102	105	98	91
Limits:	80-120	80-120	80-120	80-120

Analysis Name: BTEX/MTBE
Batch number: Z183152AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
9881508	101	103	102	97
9881510	102	103	101	93
Blank	91	94	101	92
LCS	91	104	105	89
Limits:	80-120	80-120	80-120	80-120

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Arcadis/Exxon

13045 / 2005297 / 9881501-17

Req Due Date (mm/dd/yy): ASAP- Standard Rush TAT: Yes ___ No x

Lab Work Order Number:

Lab Name:	Lancaster	Site Number:	10954	Consultant/Contractor:	EnviroTrac Ltd.
Lab Address:	2425 New Holland Pike	Facility Address:	138-50 Hillside Ave	Consultant/Contractor Project No:	
Lab PM:	Hannah Cottman	City, State, ZIP Code:	Jamaica, NY	Address:	5 Old Dock Road, Yaphank, New York 11980
Lab Phone:	(717) 656-2300 ext 1815	Lead Regulatory Agency:	NYSDEC	Consultant/Contractor PM:	Donna Amoscato
Lab Shipping Accnt:		Invoice to:	****BILL ARCADIS****	Phone:	631-924-3001
Lab Bottle Order No:				Email EDD To:	andrew.korik@arcadis-us.com
Other Info:					

Arcadis PM:	Andrew Korik
PM Phone:	
PM Email:	Andrew.Korik@arcadis-us.com

Report Type & QC Level: Standard x; Full Data Package ___

Lab No.	Sample Description	Date	Time	Matrix: Soil / Solid	Matrix: Water / Liquid	Matrix: Air / Vapor	Matrix:	No. Containers / Preservative: Total Number of Containers	Unpreserved	H_2SO_4	HNO_3	HCl	Methanol		Requested Analyses: BTEX/MTBE 8260	Ethanol via 8015									Comments
	MW-1	10/31/18	1138		X			3				X			X										
	MW-2	10/31/18	1223		X			3				X			X										
	MW-3	10/31/18	1012		X			3				X			X										
	MW-4	10/31/18	0940		X			3				X			X										
	MW-5	10/31/18	1050		X			3				X			X										
	MW-6	10/31/18	1020		X			3				X			X										
	MW-7	10/31/18	1041		X			3				X			X										
	MW-8	10/31/18	1113		X			3				X			X										
	MW-9	10/31/18	1234		X			3				X			X										
	MW-10	10/31/18	1028		X			3				X			X										

Note: If sample not collected, indicate "No Sample" in comments and single-strike out and initial any preprinted sample description.

	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Name: Matthew Mirabile						
Sampler's Company: Envirotrac Ltd	Matthew Mirabile / ETNY	10/31/18		Envirotrac Fridge	10/31/18	
Shipment Method: FedEx Ship Date: 11/1/18	~~Envirotrac Fridge~~	~~11/1/18~~				
Shipment Tracking No: 008392223	Dan Ruff — ETNY	11/1/18	16:30		11-2-18	1010

Special Instructions: 6 bags of ice

THIS LINE - LAB USE ONLY: Custody Seals In Place: Yes / No | Temp Blank: Yes / No | Cooler Temp on Receipt: 1.7 °F/C | Trip Blank: Yes / No | MS/MSD Sample Submitted: Yes / No

Arcadis/Exxon

13045 | 2005297 | 9881301-17

Req Due Date (mm/dd/yy): ASAP- Standard Rush TAT: Yes ___ No x

Lab Work Order Number:

Laboratory Work Order Number:

Lab Name:	Lancaster	Site Number:	10954	Consultant/Contractor:	EnviroTrac Ltd.
Lab Address:	2425 New Holland Pike	Facility Address:	138-50 Hillside Ave	Consultant/Contractor Project No:	
Lab PM:	Kaitlin Plasterer	City, State, ZIP Code:	Jamaica, NY	Address:	5 Old Dock Road, Yaphank, New York 11980
Lab Phone:	(717) 656-2300 ext 1815	Lead Regulatory Agency:	NYSDEC	Consultant/Contractor PM:	Sue Russo
Lab Shipping Accnt:		Invoice to:	****BILL ARCADIS****	Phone:	631-924-3001
Lab Bottle Order No:				Email EDD To:	andrew.korik@arcadis-us.com
Other Info:					

Arcadis PM:	Andrew Korik
PM Phone:	
PM Email:	Andrew.Korik@arcadis-us.com

Lab No.	Sample Description	Date	Time	Matrix: Soil / Solid	Matrix: Water / Liquid	Matrix: Air / Vapor	Matrix:	No. Containers / Preservative: Total Number of Containers	Unpreserved	H_2SO_4	HNO_3	HCl	Methanol		Requested Analyses: BTEX/MTBE 8260	Ethanol via 8015								Comments
	~~IP-1~~	~~10/31/~~			~~X~~			~~3~~				~~X~~			~~X~~									
	IP-2	10/31/18	1106		X			3				X			X									
	IP-3	10/31/18	1205		X			3				X			X									
	IP-4	10/31/18	1034		X			3				X			X									
	IP-5	10/31/18	1124		X			3				X			X									
	IP-6	10/31/18	1151		X			3				X			X									
	~~IP-7~~				~~X~~			~~3~~				~~X~~			~~X~~									
	MW-B	10/31/18	0958		x			3				x			x									
	~~MW-C~~				~~x~~			~~3~~				~~x~~			~~x~~									
	Trip Blank TB18269	9/28/18			x			2				x			x									

Report Type & QC Level: Standard x; Full Data Package ___

Sampler's Name:	Matthew Mirabile	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Company:	Envirotrac Ltd.	Matthew Mirabile / ETNY	10/31/18		Envirotrac Fridge	10/31/18	
Shipment Method:	Fed Ex Ship Date: 11/1/18	~~Envirotrac Fridge~~					
Shipment Tracking No:	008397223	Dan Ruff ETNY	11/1/18	16:30		11-2-18	1010

Special Instructions:

THIS LINE - LAB USE ONLY: Custody Seals In Place: Yes / No | Temp Blank: Yes / No | Cooler Temp. for Receipt: 1.7 °F/C | Trip Blank: Yes / No | MS/MSD Sample Submitted: Yes / No

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Sample Administration Receipt Documentation Log

Doc Log ID: 231979

Group Number(s): 2005297

Client: EnviroTrac

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	11/02/2018 10:10
Number of Packages:	1	Number of Projects:	1
State/Province of Origin:	NY		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	VOA Vial Headspace ≥ 6mm:	No
Samples Chilled:	Yes	Total Trip Blank Qty:	2
Paperwork Enclosed:	Yes	Trip Blank Type:	HCl
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Cory Jeremiah (10469) at 20:06 on 11/02/2018

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT42-03	1.7	DT	Wet	Y	Bagged	N

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Lancaster, PA 17605-2425
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www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

APPENDIX B

AS/SVE Vapor Laboratory Analytical Reports

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

ARCADIS
Suite 600
630 Plaza Drive
Highlands Ranch CO 80129

Report Date: July 20, 2018 14:16

Project: 10954

Account #: 13045
Group Number: 1964740
PO Number: B0085850.0954
Release Number: PM: OERTLING
State of Sample Origin: NY

To view our laboratory's current scopes of accreditation please go to http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/ . Historical copies may be requested through your project manager.

Electronic Copy To	ARCADIS	Attn: Jerome Oertling
Electronic Copy To	ARCADIS	Attn: Chad Colwell
Electronic Copy To	ARCADIS	Attn: Nicholas Beyrle
Electronic Copy To	ARCADIS	Attn: Richard Hatch

Respectfully Submitted,

Hannah L. Cottman
Project Manager

(717) 556-7383

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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
CATOX INF Grab Air	07/11/2018 07:55	9698878
CATOX EFF Grab Air	07/11/2018 07:50	9698879

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

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Analysis Report

Sample Description: **CATOX INF Grab Air**
10954
138-50 Hillside Ave. - Jamaica, NY

ARCADIS
ELLE Sample #: AQ 9698878
ELLE Group #: 1964740
Matrix: Air

Project Name: **10954**

Submittal Date/Time: 07/12/2018 09:50
Collection Date/Time: 07/11/2018 07:55

CAT No.	Analysis Name	CAS Number	Final Result	MDL	Final Result	MDL	DF
Volatiles in Air	**EPA 18 mod/EPA 25 mod**		**mg/m3**	**mg/m3**	**ppm(v)**	**ppm(v)**	
07090	C1-C4 Hydrocarbons as hexane	n.a.	< 20	20	< 5	5	1
07090	>C4-C10 Hydrocarbons hexane	n.a.	20 J	20	6 J	5	1
Volatiles in Air	**EPA TO-15 modified**		**mg/m3**	**mg/m3**	**ppm(v)**	**ppm(v)**	
05265	Benzene	71-43-2	< 0.0064	0.0064	< 0.0020	0.0020	10
05265	Ethylbenzene	100-41-4	0.15	0.0087	0.033	0.0020	10
05265	Methyl t-Butyl Ether	1634-04-4	< 0.0072	0.0072	< 0.0020	0.0020	10
05265	Toluene	108-88-3	< 0.075	0.075	< 0.020	0.020	10
05265	m/p-Xylene	179601-23-1	2.1	0.087	0.49	0.020	100
05265	o-Xylene	95-47-6	2.6	0.0087	0.60	0.0020	10

The sample was collected in a Tedlar bag which is not the container referenced in the EPA method.

MDL = Method Detection Limit

Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07090	BTEX/MTBE/Hydrocarbons by GC	EPA 18 mod/EPA 25 mod	1	M1819330AA	07/12/2018 17:05	Alexander D Sechrist	1
05265	TO-15 VOA Ext. List Tedlar	EPA TO-15 modified	1	E1819330AA	07/12/2018 21:41	Jacob E Bailey	100
05265	TO-15 VOA Ext. List Tedlar	EPA TO-15 modified	1	E1819330AA	07/13/2018 08:28	Jacob E Bailey	10

Sample Description: CATOX EFF Grab Air
10954
138-50 Hillside Ave. - Jamaica, NY

Project Name: 10954

Submittal Date/Time: 07/12/2018 09:50
Collection Date/Time: 07/11/2018 07:50

ARCADIS
ELLE Sample #: AQ 9698879
ELLE Group #: 1964740
Matrix: Air

CAT No.	Analysis Name	CAS Number	Final Result	MDL	Final Result	MDL	DF
Volatiles in Air	**EPA 18 mod/EPA 25 mod**		**mg/m3**	**mg/m3**	**ppm(v)**	**ppm(v)**	
07090	C1-C4 Hydrocarbons as hexane	n.a.	< 20	20	< 5	5	1
07090	>C4-C10 Hydrocarbons hexane	n.a.	< 20	20	< 5	5	1
Volatiles in Air	**EPA TO-15 modified**		**mg/m3**	**mg/m3**	**ppm(v)**	**ppm(v)**	
05265	Acetone	67-64-1	0.036	0.012	0.015	0.0050	1
05265	Acetonitrile	75-05-8	< 0.0084	0.0084	< 0.0050	0.0050	1
05265	Acrolein	107-02-8	< 0.0011	0.0011	< 0.00050	0.00050	1
05265	Acrylonitrile	107-13-1	< 0.0011	0.0011	< 0.00050	0.00050	1
05265	Benzene	71-43-2	0.0011 J	0.00064	0.00035 J	0.00020	1
05265	Bromobenzene	108-86-1	< 0.0013	0.0013	< 0.00020	0.00020	1
05265	Bromodichloromethane	75-27-4	< 0.0013	0.0013	< 0.00020	0.00020	1
05265	Bromoform	75-25-2	< 0.0021	0.0021	< 0.00020	0.00020	1
05265	Bromomethane	74-83-9	< 0.00078	0.00078	< 0.00020	0.00020	1
05265	1,3-Butadiene	106-99-0	< 0.00088	0.00088	< 0.00040	0.00040	1
05265	2-Butanone	78-93-3	0.012	0.0015	0.0041	0.00050	1
05265	tert-Butyl Alcohol	75-65-0	0.0037	0.0015	0.0012	0.00050	1
05265	Carbon Disulfide	75-15-0	< 0.016	0.016	< 0.0050	0.0050	1
05265	Carbon Tetrachloride	56-23-5	< 0.0013	0.0013	< 0.00020	0.00020	1
05265	Chlorobenzene	108-90-7	< 0.00092	0.00092	< 0.00020	0.00020	1
05265	Chlorodifluoromethane	75-45-6	< 0.00071	0.00071	< 0.00020	0.00020	1
05265	Chloroethane	75-00-3	< 0.00053	0.00053	< 0.00020	0.00020	1
05265	Chloroform	67-66-3	< 0.00098	0.00098	< 0.00020	0.00020	1
05265	Chloromethane	74-87-3	< 0.00041	0.00041	< 0.00020	0.00020	1
05265	3-Chloropropene	107-05-1	< 0.00063	0.00063	< 0.00020	0.00020	1
05265	Cumene	98-82-8	< 0.00098	0.00098	< 0.00020	0.00020	1
05265	Dibromochloromethane	124-48-1	< 0.0017	0.0017	< 0.00020	0.00020	1
05265	1,2-Dibromoethane	106-93-4	< 0.0015	0.0015	< 0.00020	0.00020	1
05265	Dibromomethane	74-95-3	< 0.0014	0.0014	< 0.00020	0.00020	1
05265	1,2-Dichlorobenzene	95-50-1	< 0.0012	0.0012	< 0.00020	0.00020	1
05265	1,3-Dichlorobenzene	541-73-1	< 0.0012	0.0012	< 0.00020	0.00020	1
05265	1,4-Dichlorobenzene	106-46-7	< 0.0012	0.0012	< 0.00020	0.00020	1
05265	Dichlorodifluoromethane	75-71-8	0.0019 J	0.00099	0.00039 J	0.00020	1
05265	1,1-Dichloroethane	75-34-3	< 0.00081	0.00081	< 0.00020	0.00020	1
05265	1,2-Dichloroethane	107-06-2	< 0.00081	0.00081	< 0.00020	0.00020	1
05265	1,1-Dichloroethene	75-35-4	< 0.00079	0.00079	< 0.00020	0.00020	1
05265	cis-1,2-Dichloroethene	156-59-2	< 0.00079	0.00079	< 0.00020	0.00020	1
05265	trans-1,2-Dichloroethene	156-60-5	< 0.00079	0.00079	< 0.00020	0.00020	1
05265	Dichlorofluoromethane	75-43-4	< 0.00084	0.00084	< 0.00020	0.00020	1
05265	1,2-Dichloropropane	78-87-5	< 0.00092	0.00092	< 0.00020	0.00020	1
05265	cis-1,3-Dichloropropene	10061-01-5	< 0.00091	0.00091	< 0.00020	0.00020	1
05265	trans-1,3-Dichloropropene	10061-02-6	< 0.00091	0.00091	< 0.00020	0.00020	1
05265	1,4-Dioxane	123-91-1	< 0.0018	0.0018	< 0.00050	0.00050	1
05265	Ethyl Acetate	141-78-6	< 0.0018	0.0018	< 0.00050	0.00050	1

Sample Description: **CATOX EFF Grab Air**
10954
138-50 Hillside Ave. - Jamaica, NY

Project Name: **10954**

Submittal Date/Time: 07/12/2018 09:50
Collection Date/Time: 07/11/2018 07:50

ARCADIS
ELLE Sample #: AQ 9698879
ELLE Group #: 1964740
Matrix: Air

CAT No.	Analysis Name	CAS Number	Final Result	MDL	Final Result	MDL	DF
Volatiles in Air	**EPA TO-15 modified**		**mg/m3**	**mg/m3**	**ppm(v)**	**ppm(v)**	
05265	Ethyl Acrylate	140-88-5	< 0.00082	0.00082	< 0.00020	0.00020	1
05265	Ethyl Methacrylate	97-63-2	< 0.00093	0.00093	< 0.00020	0.00020	1
05265	Ethylbenzene	100-41-4	0.0024 J	0.00087	0.00054 J	0.00020	1
05265	4-Ethyltoluene	622-96-8	0.0017 J	0.00098	0.00035 J	0.00020	1
05265	Freon 113	76-13-1	< 0.0038	0.0038	< 0.00050	0.00050	1
05265	Freon 114	76-14-2	< 0.0014	0.0014	< 0.00020	0.00020	1
05265	Heptane	142-82-5	0.014	0.00082	0.0034	0.00020	1
05265	Hexachlorobutadiene	87-68-3	< 0.0043	0.0043	< 0.00040	0.00040	1
05265	Hexachloroethane	67-72-1	< 0.0019	0.0019	< 0.00020	0.00020	1
05265	Hexane	110-54-3	0.042	0.00070	0.012	0.00020	1
05265	2-Hexanone	591-78-6	< 0.0020	0.0020	< 0.00050	0.00050	1
05265	Isooctane	540-84-1	0.21	0.00093	0.044	0.00020	1
05265	Methyl Acrylate	96-33-3	< 0.00070	0.00070	< 0.00020	0.00020	1
05265	Methyl Iodide	74-88-4	< 0.0012	0.0012	< 0.00020	0.00020	1
05265	Methyl Methacrylate	80-62-6	< 0.00082	0.00082	< 0.00020	0.00020	1
05265	Alpha Methyl Styrene	98-83-9	< 0.00097	0.00097	< 0.00020	0.00020	1
05265	Methyl t-Butyl Ether	1634-04-4	< 0.00072	0.00072	< 0.00020	0.00020	1
05265	4-Methyl-2-pentanone	108-10-1	< 0.0020	0.0020	< 0.00050	0.00050	1
05265	Methylene Chloride	75-09-2	< 0.017	0.017	< 0.0050	0.0050	1
05265	Octane	111-65-9	0.0051	0.00093	0.0011	0.00020	1
05265	Pentane	109-66-0	0.11	0.00059	0.038	0.00020	1
05265	Propene	115-07-1	0.0016 J	0.00034	0.00091 J	0.00020	1
05265	Styrene	100-42-5	0.0016 J	0.00085	0.00039 J	0.00020	1
05265	1,1,1,2-Tetrachloroethane	630-20-6	< 0.0014	0.0014	< 0.00020	0.00020	1
05265	1,1,2,2-Tetrachloroethane	79-34-5	< 0.0014	0.0014	< 0.00020	0.00020	1
05265	Tetrachloroethene	127-18-4	0.095	0.0014	0.014	0.00020	1
05265	Toluene	108-88-3	0.026	0.0075	0.0068	0.0020	1
05265	1,2,4-Trichlorobenzene	120-82-1	< 0.0037	0.0037	< 0.00050	0.00050	1
05265	1,1,1-Trichloroethane	71-55-6	< 0.0011	0.0011	< 0.00020	0.00020	1
05265	1,1,2-Trichloroethane	79-00-5	< 0.0011	0.0011	< 0.00020	0.00020	1
05265	Trichloroethene	79-01-6	< 0.0011	0.0011	< 0.00020	0.00020	1
05265	Trichlorofluoromethane	75-69-4	< 0.0011	0.0011	< 0.00020	0.00020	1
05265	1,2,3-Trichloropropane	96-18-4	< 0.0012	0.0012	< 0.00020	0.00020	1
05265	1,2,4-Trimethylbenzene	95-63-6	0.0050	0.00098	0.0010	0.00020	1
05265	1,3,5-Trimethylbenzene	108-67-8	0.0023 J	0.00098	0.00047 J	0.00020	1
05265	Vinyl Acetate	108-05-4	< 0.0018	0.0018	< 0.00050	0.00050	1
05265	Vinyl Chloride	75-01-4	< 0.00051	0.00051	< 0.00020	0.00020	1
05265	m/p-Xylene	179601-23-1	0.010	0.00087	0.0024	0.00020	1
05265	o-Xylene	95-47-6	0.0045	0.00087	0.0010	0.00020	1

The sample was collected in a Tedlar bag which is not the container referenced in the EPA method.

MDL = Method Detection Limit

Sample Description: **CATOX EFF Grab Air**
10954
138-50 Hillside Ave. - Jamaica, NY

Project Name: **10954**

Submittal Date/Time: 07/12/2018 09:50
Collection Date/Time: 07/11/2018 07:50

ARCADIS
ELLE Sample #: AQ 9698879
ELLE Group #: 1964740
Matrix: Air

Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07090	BTEX/MTBE/Hydrocarbons by GC	EPA 18 mod/EPA 25 mod	1	M1819330AA	07/12/2018 17:34	Alexander D Sechrist	1
05265	TO-15 VOA Ext. List Tedlar	EPA TO-15 modified	1	E1819330AA	07/12/2018 22:13	Jacob E Bailey	1

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Quality Control Summary

Client Name: ARCADIS
Reported: 07/20/2018 14:16

Group Number: 1964740

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result mg/m3	MDL mg/m3	Result ppm(v)	MDL ppm(v)
Batch number: E1819330AA	Sample number(s): 9698878-9698879			
Acetone	< 0.0012	0.0012	< 0.00050	0.00050
Acetonitrile	< 0.00084	0.00084	< 0.00050	0.00050
Acrolein	< 0.0023	0.0023	< 0.0010	0.0010
Acrylonitrile	< 0.0011	0.0011	< 0.00050	0.00050
Benzene	< 0.00064	0.00064	< 0.00020	0.00020
Bromobenzene	< 0.0013	0.0013	< 0.00020	0.00020
Bromodichloromethane	< 0.0013	0.0013	< 0.00020	0.00020
Bromoform	< 0.0021	0.0021	< 0.00020	0.00020
Bromomethane	< 0.0019	0.0019	< 0.00050	0.00050
1,3-Butadiene	< 0.00088	0.00088	< 0.00040	0.00040
2-Butanone	< 0.0015	0.0015	< 0.00050	0.00050
tert-Butyl Alcohol	< 0.0015	0.0015	< 0.00050	0.00050
Carbon Disulfide	< 0.0016	0.0016	< 0.00050	0.00050
Carbon Tetrachloride	< 0.0013	0.0013	< 0.00020	0.00020
Chlorobenzene	< 0.00092	0.00092	< 0.00020	0.00020
Chlorodifluoromethane	< 0.00071	0.00071	< 0.00020	0.00020
Chloroethane	< 0.00053	0.00053	< 0.00020	0.00020
Chloroform	< 0.00098	0.00098	< 0.00020	0.00020
Chloromethane	< 0.00041	0.00041	< 0.00020	0.00020
3-Chloropropene	< 0.00063	0.00063	< 0.00020	0.00020
Cumene	< 0.00098	0.00098	< 0.00020	0.00020
Dibromochloromethane	< 0.0017	0.0017	< 0.00020	0.00020
1,2-Dibromoethane	< 0.0015	0.0015	< 0.00020	0.00020
Dibromomethane	< 0.0014	0.0014	< 0.00020	0.00020
1,2-Dichlorobenzene	< 0.0012	0.0012	< 0.00020	0.00020
1,3-Dichlorobenzene	< 0.0012	0.0012	< 0.00020	0.00020
1,4-Dichlorobenzene	< 0.0012	0.0012	< 0.00020	0.00020
Dichlorodifluoromethane	< 0.00099	0.00099	< 0.00020	0.00020
1,1-Dichloroethane	< 0.00081	0.00081	< 0.00020	0.00020
1,2-Dichloroethane	< 0.00081	0.00081	< 0.00020	0.00020
1,1-Dichloroethene	< 0.00079	0.00079	< 0.00020	0.00020
cis-1,2-Dichloroethene	< 0.00079	0.00079	< 0.00020	0.00020
trans-1,2-Dichloroethene	< 0.00079	0.00079	< 0.00020	0.00020
Dichlorofluoromethane	< 0.00084	0.00084	< 0.00020	0.00020
1,2-Dichloropropane	< 0.00092	0.00092	< 0.00020	0.00020
cis-1,3-Dichloropropene	< 0.00091	0.00091	< 0.00020	0.00020
trans-1,3-Dichloropropene	< 0.00091	0.00091	< 0.00020	0.00020
1,4-Dioxane	< 0.0018	0.0018	< 0.00050	0.00050
Ethyl Acetate	< 0.0018	0.0018	< 0.00050	0.00050

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ARCADIS
Reported: 07/20/2018 14:16

Group Number: 1964740

Method Blank (continued)

Analysis Name	Result mg/m3	MDL mg/m3	Result ppm(v)	MDL ppm(v)
Ethyl Acrylate	< 0.00082	0.00082	< 0.00020	0.00020
Ethyl Methacrylate	< 0.00093	0.00093	< 0.00020	0.00020
Ethylbenzene	< 0.00087	0.00087	< 0.00020	0.00020
4-Ethyltoluene	< 0.00098	0.00098	< 0.00020	0.00020
Freon 113	< 0.0038	0.0038	< 0.00050	0.00050
Freon 114	< 0.0014	0.0014	< 0.00020	0.00020
Heptane	< 0.0020	0.0020	< 0.00050	0.00050
Hexachlorobutadiene	< 0.0043	0.0043	< 0.00040	0.00040
Hexachloroethane	< 0.0048	0.0048	< 0.00050	0.00050
Hexane	< 0.00070	0.00070	< 0.00020	0.00020
2-Hexanone	< 0.0020	0.0020	< 0.00050	0.00050
Isooctane	< 0.00093	0.00093	< 0.00020	0.00020
Methyl Acrylate	< 0.00070	0.00070	< 0.00020	0.00020
Methyl Iodide	< 0.0012	0.0012	< 0.00020	0.00020
Methyl Methacrylate	< 0.00082	0.00082	< 0.00020	0.00020
Alpha Methyl Styrene	< 0.00097	0.00097	< 0.00020	0.00020
Methyl t-Butyl Ether	< 0.00072	0.00072	< 0.00020	0.00020
4-Methyl-2-pentanone	< 0.0020	0.0020	< 0.00050	0.00050
Methylene Chloride	< 0.00069	0.00069	< 0.00020	0.00020
Octane	< 0.00093	0.00093	< 0.00020	0.00020
Pentane	< 0.0015	0.0015	< 0.00050	0.00050
Propene	< 0.00086	0.00086	< 0.00050	0.00050
Styrene	< 0.00085	0.00085	< 0.00020	0.00020
1,1,1,2-Tetrachloroethane	< 0.0014	0.0014	< 0.00020	0.00020
1,1,2,2-Tetrachloroethane	< 0.0014	0.0014	< 0.00020	0.00020
Tetrachloroethene	< 0.0014	0.0014	< 0.00020	0.00020
Toluene	< 0.00075	0.00075	< 0.00020	0.00020
1,2,4-Trichlorobenzene	< 0.0037	0.0037	< 0.00050	0.00050
1,1,1-Trichloroethane	< 0.0011	0.0011	< 0.00020	0.00020
1,1,2-Trichloroethane	< 0.0011	0.0011	< 0.00020	0.00020
Trichloroethene	< 0.0011	0.0011	< 0.00020	0.00020
Trichlorofluoromethane	< 0.0011	0.0011	< 0.00020	0.00020
1,2,3-Trichloropropane	< 0.0012	0.0012	< 0.00020	0.00020
1,2,4-Trimethylbenzene	< 0.00098	0.00098	< 0.00020	0.00020
1,3,5-Trimethylbenzene	< 0.00098	0.00098	< 0.00020	0.00020
Vinyl Acetate	< 0.0035	0.0035	< 0.0010	0.0010
Vinyl Chloride	< 0.00051	0.00051	< 0.00020	0.00020
m/p-Xylene	< 0.00087	0.00087	< 0.00020	0.00020
o-Xylene	< 0.00087	0.00087	< 0.00020	0.00020
Batch number: M1819330AA	Sample number(s): 9698878-9698879			
C1-C4 Hydrocarbons as hexane	< 20	20	< 5	5
>C4-C10 Hydrocarbons hexane	< 20	20	< 5	5

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: ARCADIS
Reported: 07/20/2018 14:16

Group Number: 1964740

LCS/LCSD

Analysis Name	LCS Spike Added mg/m3	LCS Conc mg/m3	LCSD Spike Added mg/m3	LCSD Conc mg/m3	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: E1819330AA	Sample number(s): 9698878-9698879								
Acetone	0.0238	0.0230	0.0238	0.0227	97	95	71-136	2	25
Acetonitrile	0.0168	0.0178	0.0168	0.0163	106	97	56-136	9	25
Acrolein	0.0229	0.0236	0.0229	0.0246	103	107	54-132	4	25
Acrylonitrile	0.0217	0.0220	0.0217	0.0215	101	99	68-135	2	25
Benzene	0.0319	0.0290	0.0319	0.0296	91	93	76-123	2	25
Bromobenzene	0.0642	0.0601	0.0642	0.0606	94	94	74-118	1	25
Bromodichloromethane	0.0670	0.0588	0.0670	0.0599	88	89	75-134	2	25
Bromoform	0.103	0.0954	0.103	0.0961	92	93	58-144	1	25
Bromomethane	0.0388	0.0393	0.0388	0.0378	101	97	71-133	4	25
1,3-Butadiene	0.0221	0.0211	0.0221	0.0212	96	96	72-122	0	25
2-Butanone	0.0295	0.0281	0.0295	0.0284	95	96	75-126	1	25
tert-Butyl Alcohol	0.0303	0.0302	0.0303	0.0308	100	102	71-154	2	25
Carbon Disulfide	0.0311	0.0291	0.0311	0.0285	94	92	72-128	2	25
Carbon Tetrachloride	0.0629	0.0591	0.0629	0.0584	94	93	72-127	1	25
Chlorobenzene	0.0460	0.0422	0.0460	0.0422	92	92	76-117	0	25
Chlorodifluoromethane	0.0354	0.0351	0.0354	0.0349	99	99	70-138	0	25
Chloroethane	0.0264	0.0257	0.0264	0.0257	97	97	76-129	0	25
Chloroform	0.0488	0.0461	0.0488	0.0448	94	92	75-127	3	25
Chloromethane	0.0207	0.0186	0.0207	0.0181	90	88	65-140	3	25
3-Chloropropene	0.0313	0.0356	0.0313	0.0365	114	117	67-141	3	25
Cumene	0.0492	0.0505	0.0492	0.0502	103	102	80-133	0	25
Dibromochloromethane	0.0852	0.0789	0.0852	0.0800	93	94	74-131	1	25
1,2-Dibromoethane	0.0768	0.0724	0.0768	0.0731	94	95	73-121	1	25
Dibromomethane	0.0711	0.0649	0.0711	0.0663	91	93	76-124	2	25
1,2-Dichlorobenzene	0.0601	0.0576	0.0601	0.0591	96	98	71-126	3	25
1,3-Dichlorobenzene	0.0601	0.0581	0.0601	0.0585	97	97	75-129	1	25
1,4-Dichlorobenzene	0.0601	0.0586	0.0601	0.0585	98	97	74-123	0	25
Dichlorodifluoromethane	0.0495	0.0481	0.0495	0.0467	97	94	74-133	3	25
1,1-Dichloroethane	0.0405	0.0383	0.0405	0.0374	95	92	74-129	2	25
1,2-Dichloroethane	0.0405	0.0369	0.0405	0.0372	91	92	72-138	1	25
1,1-Dichloroethene	0.0396	0.0393	0.0396	0.0389	99	98	70-129	1	25
cis-1,2-Dichloroethene	0.0396	0.0378	0.0396	0.0373	95	94	76-126	1	25
trans-1,2-Dichloroethene	0.0396	0.0391	0.0396	0.0382	99	96	77-128	2	25
Dichlorofluoromethane	0.0421	0.0428	0.0421	0.0419	102	100	75-137	2	25
1,2-Dichloropropane	0.0462	0.0420	0.0462	0.0423	91	91	75-127	1	25
cis-1,3-Dichloropropene	0.0454	0.0408	0.0454	0.0422	90	93	51-120	3	25
trans-1,3-Dichloropropene	0.0454	0.0439	0.0454	0.0459	97	101	76-131	4	25
1,4-Dioxane	0.0360	0.0364	0.0360	0.0372	101	103	76-124	2	25
Ethyl Acetate	0.0360	0.0332	0.0360	0.0301	92	84	73-124	10	25
Ethyl Acrylate	0.0409	0.0380	0.0409	0.0393	93	96	71-126	4	25
Ethyl Methacrylate	0.0467	0.0452	0.0467	0.0463	97	99	69-137	2	25
Ethylbenzene	0.0434	0.0421	0.0434	0.0422	97	97	77-117	0	25

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ARCADIS
Reported: 07/20/2018 14:16

Group Number: 1964740

LCS/LCSD (continued)

Analysis Name	LCS Spike Added mg/m3	LCS Conc mg/m3	LCSD Spike Added mg/m3	LCSD Conc mg/m3	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
4-Ethyltoluene	0.0492	0.0515	0.0492	0.0513	105	104	73-130	0	25
Freon 113	0.0766	0.0712	0.0766	0.0685	93	89	66-119	4	25
Freon 114	0.0699	0.0686	0.0699	0.0662	98	95	66-126	3	25
Heptane	0.0410	0.0380	0.0410	0.0386	93	94	74-122	2	25
Hexachlorobutadiene	0.107	0.0968	0.107	0.102	91	96	49-154	5	25
Hexachloroethane	0.0968	0.0764	0.0968	0.0785	79	81	59-135	3	25
Hexane	0.0352	0.0336	0.0352	0.0329	95	93	70-118	2	25
2-Hexanone	0.0410	0.0405	0.0410	0.0416	99	102	74-134	3	25
Isooctane	0.0467	0.0444	0.0467	0.0456	95	98	74-127	3	25
Methyl Acrylate	0.0352	0.0356	0.0352	0.0349	101	99	75-125	2	25
Methyl Iodide	0.0581	0.0558	0.0581	0.0545	96	94	72-127	2	25
Methyl Methacrylate	0.0409	0.0378	0.0409	0.0387	92	95	73-117	2	25
Alpha Methyl Styrene	0.0483	0.0514	0.0483	0.0537	106	111	71-138	4	25
Methyl t-Butyl Ether	0.0361	0.0356	0.0361	0.0348	99	97	71-119	2	25
4-Methyl-2-pentanone	0.0410	0.0380	0.0410	0.0397	93	97	79-131	5	25
Methylene Chloride	0.0347	0.0377	0.0347	0.0369	108	106	69-128	2	25
Octane	0.0467	0.0458	0.0467	0.0455	98	97	73-122	1	25
Pentane	0.0295	0.0255	0.0295	0.0252	86	85	69-125	1	25
Propene	0.0172	0.0158	0.0172	0.0154	92	90	78-126	2	25
Styrene	0.0426	0.0454	0.0426	0.0461	107	108	77-143	1	25
1,1,1,2-Tetrachloroethane	0.0687	0.0653	0.0687	0.0655	95	95	73-137	0	25
1,1,2,2-Tetrachloroethane	0.0687	0.0626	0.0687	0.0629	91	92	72-133	1	25
Tetrachloroethene	0.0678	0.0715	0.0678	0.0696	105	103	68-123	3	25
Toluene	0.0377	0.0353	0.0377	0.0358	94	95	78-119	1	25
1,2,4-Trichlorobenzene	0.0742	0.0727	0.0742	0.0777	98	105	45-156	7	25
1,1,1-Trichloroethane	0.0546	0.0524	0.0546	0.0514	96	94	74-122	2	25
1,1,2-Trichloroethane	0.0546	0.0501	0.0546	0.0503	92	92	76-127	0	25
Trichloroethene	0.0537	0.0500	0.0537	0.0516	93	96	76-118	3	25
Trichlorofluoromethane	0.0562	0.0538	0.0562	0.0526	96	94	73-132	2	25
1,2,3-Trichloropropane	0.0603	0.0567	0.0603	0.0564	94	94	71-127	1	25
1,2,4-Trimethylbenzene	0.0492	0.0511	0.0492	0.0513	104	104	70-138	0	25
1,3,5-Trimethylbenzene	0.0492	0.0509	0.0492	0.0509	103	104	72-130	0	25
Vinyl Acetate	0.0352	0.0365	0.0352	0.0393	104	112	75-161	7	25
Vinyl Chloride	0.0256	0.0256	0.0256	0.0252	100	99	75-130	2	25
m/p-Xylene	0.0434	0.0427	0.0434	0.0430	98	99	78-119	1	25
o-Xylene	0.0434	0.0428	0.0434	0.0426	98	98	78-121	0	25

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: ARCADIS
Group Number: 1964740
Reported: 07/20/2018 14:16

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

A-13045 G-1964740

Chain of Custody Record

T. Maier

S-969888-79

Client Contact	Project Manager: Jerome Oertling	Site Contact:	Date: 7/11/18	COC No:
Company: Arcadis of New York, Inc	Tel/Fax: 860.533.9953	Lab Contact:	Carrier: Fedex	1 of 1 COCs
Address: 160 Chapel Road, Suite 201	Analysis Turnaround Time			Results to: jerome.oertling@arcadis-us.com chad.colwell@arcadis-us.com richard.hatch@arcadis-us.com
City/State/Zip: Manchester, CT 06042	Calendar (C) or Work Days (W)			Invoice to:
Phone: 860-533-9953	TAT if different from Below			
Fax:	☐ (Standard)			
Project Name: Alliance 10954	☐ 1 week			
Site: 138-50 Hillside Avenue, Jamaica, NY	☐ 2 days			
P O # : B0085850.0954	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	BTEX/MTBE (TO-15)	TPH (C1-C4) (EPA 18 25)	TPH (C4-C10) (EPA 18 25)	Extended List VOC (TO-15)	Sample Specific Notes:
CATOX INF	7/11/18	0755	Grab	Vapor	1		X	X	X		
CATOX EFF	7/11/18	0750	Grab	Vapor	1			X	X	X	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

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 & Comments:

7/11/18

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Tim Mates	ARCadis	1700			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
			Kaye Hall	LL	7/12/18 09:50

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Sample Administration Receipt Documentation Log

Doc Log ID: 221335

Group Number(s):

Client: Arcadis

10954 | 924740

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	07/12/2018 9:50
Number of Packages:	1	Number of Projects:	2
State/Province of Origin:	NY		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	No	VOA Vial Headspace ≥ 6mm:	N/A
Paperwork Enclosed:	Yes	Total Trip Blank Qty:	0
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Katie Hartlove (2114) at 10:25 on 07/12/2018

2425 New Holland Pike
Lancaster, PA 17605-2425

T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.cor

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

ARCADIS
Suite 600
630 Plaza Drive
Highlands Ranch CO 80129

Report Date: September 19, 2018 14:08

Project: 10954

Account #: 13045
Group Number: 1978651
PO Number: B0085850.0954
Release Number: PM: OERTLING
State of Sample Origin: NY

Electronic Copy To	ARCADIS	Attn: Richard Hatch
Electronic Copy To	ARCADIS	Attn: Chad Colwell
Electronic Copy To	ARCADIS	Attn: Nicholas Beyrle
Electronic Copy To	ARCADIS	Attn: Jerome Oertling

Respectfully Submitted,

Hannah L. Cottman
Project Manager

(717) 556-7383

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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
CATOX INF Grab Air	08/20/2018 07:35	9764582
CATOX EFF Grab Air	08/20/2018 07:30	9764583

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Sample Description: **CATOX INF Grab Air**
10954
138-50 Hillside Ave - Jamaica, NY

Project Name: **10954**

Submittal Date/Time: 08/21/2018 10:00
Collection Date/Time: 08/20/2018 07:35

ARCADIS
ELLE Sample #: AQ 9764582
ELLE Group #: 1978651
Matrix: Air

CAT No.	Analysis Name	CAS Number	Final Result	MDL	Final Result	MDL	DF
Volatiles in Air	**EPA TO-15 modified**		**mg/m3**	**mg/m3**	**ppm(v)**	**ppm(v)**	
05265	Benzene	71-43-2	< 0.0032	0.0032	< 0.0010	0.0010	10
05265	Ethylbenzene	100-41-4	0.044	0.010	0.010	0.0023	10
05265	Methyl t-Butyl Ether	1634-04-4	< 0.0072	0.0072	< 0.0020	0.0020	10
05265	Toluene	108-88-3	0.012 J	0.0045	0.0032 J	0.0012	10
05265	m/p-Xylene	179601-23-1	1.7	0.018	0.38	0.0042	10
05265	o-Xylene	95-47-6	1.7	0.013	0.39	0.0029	10

The sample was collected in a Tedlar bag which is not the container referenced in the EPA method.

MDL = Method Detection Limit

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05265	TO-15 VOA Ext. List Tedlar	EPA TO-15 modified	1	E1823430AA	08/23/2018 01:34	Jacob E Bailey	10

Sample Description: **CATOX EFF Grab Air**
10954
138-50 Hillside Ave - Jamaica, NY

ARCADIS
ELLE Sample #: AQ 9764583
ELLE Group #: 1978651
Matrix: Air

Project Name: **10954**

Submittal Date/Time: 08/21/2018 10:00
Collection Date/Time: 08/20/2018 07:30

CAT No.	Analysis Name	CAS Number	Final Result	MDL	Final Result	MDL	DF
Volatiles in Air	**EPA TO-15 modified**		**mg/m3**	**mg/m3**	**ppm(v)**	**ppm(v)**	
05265	Acetone	67-64-1	0.038	0.0013	0.016	0.00053	1
05265	Acetonitrile	75-05-8	< 0.0014	0.0014	< 0.00082	0.00082	1
05265	Acrolein	107-02-8	< 0.0013	0.0013	< 0.00057	0.00057	1
05265	Acrylonitrile	107-13-1	< 0.00043	0.00043	< 0.00020	0.00020	1
05265	Benzene	71-43-2	0.00071 J	0.00032	0.00022 J	0.00010	1
05265	Bromobenzene	108-86-1	< 0.00064	0.00064	< 0.00010	0.00010	1
05265	Bromodichloromethane	75-27-4	< 0.00080	0.00080	< 0.00012	0.00012	1
05265	Bromoform	75-25-2	< 0.0018	0.0018	< 0.00017	0.00017	1
05265	Bromomethane	74-83-9	< 0.00070	0.00070	< 0.00018	0.00018	1
05265	1,3-Butadiene	106-99-0	< 0.00038	0.00038	< 0.00017	0.00017	1
05265	2-Butanone	78-93-3	0.0073	0.00065	0.0025	0.00022	1
05265	tert-Butyl Alcohol	75-65-0	0.0032	0.00061	0.0011	0.00020	1
05265	Carbon Disulfide	75-15-0	0.016	0.00037	0.0050	0.00012	1
05265	Carbon Tetrachloride	56-23-5	< 0.00088	0.00088	< 0.00014	0.00014	1
05265	Chlorobenzene	108-90-7	< 0.00055	0.00055	< 0.00012	0.00012	1
05265	Chlorodifluoromethane	75-45-6	< 0.00053	0.00053	< 0.00015	0.00015	1
05265	Chloroethane	75-00-3	< 0.00047	0.00047	< 0.00018	0.00018	1
05265	Chloroform	67-66-3	< 0.00042	0.00042	< 0.000087	0.000087	1
05265	Chloromethane	74-87-3	< 0.00047	0.00047	< 0.00023	0.00023	1
05265	3-Chloropropene	107-05-1	< 0.00050	0.00050	< 0.00016	0.00016	1
05265	Cumene	98-82-8	< 0.0012	0.0012	< 0.00025	0.00025	1
05265	Dibromochloromethane	124-48-1	< 0.0012	0.0012	< 0.00014	0.00014	1
05265	1,2-Dibromoethane	106-93-4	< 0.0010	0.0010	< 0.00013	0.00013	1
05265	Dibromomethane	74-95-3	< 0.0010	0.0010	< 0.00014	0.00014	1
05265	1,2-Dichlorobenzene	95-50-1	< 0.0011	0.0011	< 0.00019	0.00019	1
05265	1,3-Dichlorobenzene	541-73-1	< 0.0011	0.0011	< 0.00018	0.00018	1
05265	1,4-Dichlorobenzene	106-46-7	< 0.0010	0.0010	< 0.00017	0.00017	1
05265	Dichlorodifluoromethane	75-71-8	0.0016 J	0.00064	0.00032 J	0.00013	1
05265	1,1-Dichloroethane	75-34-3	< 0.00039	0.00039	< 0.000096	0.000096	1
05265	1,2-Dichloroethane	107-06-2	< 0.00020	0.00020	< 0.000050	0.000050	1
05265	1,1-Dichloroethene	75-35-4	< 0.00056	0.00056	< 0.00014	0.00014	1
05265	cis-1,2-Dichloroethene	156-59-2	< 0.00044	0.00044	< 0.00011	0.00011	1
05265	trans-1,2-Dichloroethene	156-60-5	< 0.00036	0.00036	< 0.000090	0.000090	1
05265	Dichlorofluoromethane	75-43-4	< 0.00051	0.00051	< 0.00012	0.00012	1
05265	1,2-Dichloropropane	78-87-5	< 0.00044	0.00044	< 0.000096	0.000096	1
05265	cis-1,3-Dichloropropene	10061-01-5	< 0.00040	0.00040	< 0.000088	0.000088	1
05265	trans-1,3-Dichloropropene	10061-02-6	< 0.00050	0.00050	< 0.00011	0.00011	1
05265	1,4-Dioxane	123-91-1	< 0.00050	0.00050	< 0.00014	0.00014	1
05265	Ethyl Acetate	141-78-6	< 0.00068	0.00068	< 0.00019	0.00019	1
05265	Ethyl Acrylate	140-88-5	< 0.00066	0.00066	< 0.00016	0.00016	1
05265	Ethyl Methacrylate	97-63-2	< 0.00098	0.00098	< 0.00021	0.00021	1
05265	Ethylbenzene	100-41-4	0.0011 J	0.0010	0.00026 J	0.00023	1

Sample Description: **CATOX EFF Grab Air**
10954
138-50 Hillside Ave - Jamaica, NY

ARCADIS
ELLE Sample #: AQ 9764583
ELLE Group #: 1978651
Matrix: Air

Project Name: **10954**

Submittal Date/Time: 08/21/2018 10:00
Collection Date/Time: 08/20/2018 07:30

CAT No.	Analysis Name	CAS Number	Final Result	MDL	Final Result	MDL	DF
Volatiles in Air	**EPA TO-15 modified**		**mg/m3**	**mg/m3**	**ppm(v)**	**ppm(v)**	
05265	4-Ethyltoluene	622-96-8	0.0028 J	0.00093	0.00056 J	0.00019	1
05265	Freon 113	76-13-1	< 0.00084	0.00084	< 0.00011	0.00011	1
05265	Freon 114	76-14-2	< 0.00084	0.00084	< 0.00012	0.00012	1
05265	Heptane	142-82-5	0.0052	0.00098	0.0013	0.00024	1
05265	Hexachlorobutadiene	87-68-3	< 0.0049	0.0049	< 0.00046	0.00046	1
05265	Hexachloroethane	67-72-1	< 0.0022	0.0022	< 0.00023	0.00023	1
05265	Hexane	110-54-3	0.021	0.00046	0.0060	0.00013	1
05265	2-Hexanone	591-78-6	< 0.00078	0.00078	< 0.00019	0.00019	1
05265	Isooctane	540-84-1	0.12	0.00061	0.026	0.00013	1
05265	Methyl Acrylate	96-33-3	< 0.00049	0.00049	< 0.00014	0.00014	1
05265	Methyl Iodide	74-88-4	< 0.00070	0.00070	< 0.00012	0.00012	1
05265	Methyl Methacrylate	80-62-6	< 0.00066	0.00066	< 0.00016	0.00016	1
05265	Alpha Methyl Styrene	98-83-9	0.0013 J	0.00087	0.00028 J	0.00018	1
05265	Methyl t-Butyl Ether	1634-04-4	< 0.00072	0.00072	< 0.00020	0.00020	1
05265	4-Methyl-2-pentanone	108-10-1	< 0.00061	0.00061	< 0.00015	0.00015	1
05265	Methylene Chloride	75-09-2	0.019	0.00069	0.0054	0.00020	1
05265	Octane	111-65-9	0.0036 J	0.0021	0.00078 J	0.00046	1
05265	Pentane	109-66-0	0.092	0.00038	0.031	0.00013	1
05265	Propene	115-07-1	0.0018	0.00034	0.0010	0.00020	1
05265	Styrene	100-42-5	< 0.00089	0.00089	< 0.00021	0.00021	1
05265	1,1,1,2-Tetrachloroethane	630-20-6	< 0.00096	0.00096	< 0.00014	0.00014	1
05265	1,1,2,2-Tetrachloroethane	79-34-5	< 0.00096	0.00096	< 0.00014	0.00014	1
05265	Tetrachloroethene	127-18-4	0.12	0.0014	0.018	0.00021	1
05265	Toluene	108-88-3	0.010	0.00045	0.0027	0.00012	1
05265	1,2,4-Trichlorobenzene	120-82-1	< 0.0028	0.0028	< 0.00038	0.00038	1
05265	1,1,1-Trichloroethane	71-55-6	< 0.00065	0.00065	< 0.00012	0.00012	1
05265	1,1,2-Trichloroethane	79-00-5	< 0.00052	0.00052	< 0.000096	0.000096	1
05265	Trichloroethene	79-01-6	< 0.00075	0.00075	< 0.00014	0.00014	1
05265	Trichlorofluoromethane	75-69-4	< 0.00067	0.00067	< 0.00012	0.00012	1
05265	1,2,3-Trichloropropane	96-18-4	< 0.00084	0.00084	< 0.00014	0.00014	1
05265	1,2,4-Trimethylbenzene	95-63-6	0.0053 J	0.0014	0.0011 J	0.00028	1
05265	1,3,5-Trimethylbenzene	108-67-8	0.0065 J	0.0016	0.0013 J	0.00032	1
05265	Vinyl Acetate	108-05-4	< 0.00060	0.00060	< 0.00017	0.00017	1
05265	Vinyl Chloride	75-01-4	< 0.00033	0.00033	< 0.00013	0.00013	1
05265	m/p-Xylene	179601-23-1	0.0076 J	0.0018	0.0017 J	0.00042	1
05265	o-Xylene	95-47-6	0.0043 J	0.0013	0.0010 J	0.00029	1

The sample was collected in a Tedlar bag which is not the container referenced in the EPA method.

MDL = Method Detection Limit

Sample Description: **CATOX EFF Grab Air**
10954
138-50 Hillside Ave - Jamaica, NY

Project Name: **10954**

Submittal Date/Time: 08/21/2018 10:00
Collection Date/Time: 08/20/2018 07:30

ARCADIS
ELLE Sample #: **AQ 9764583**
ELLE Group #: **1978651**
Matrix: Air

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05265	TO-15 VOA Ext. List Tedlar	EPA TO-15 modified	1	E1823430AA	08/23/2018 02:23	Jacob E Bailey	1

Quality Control Summary

Client Name: ARCADIS
Reported: 09/19/2018 14:08

Group Number: 1978651

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result mg/m3	MDL mg/m3	Result ppm(v)	MDL ppm(v)
Batch number: E1823430AA	Sample number(s): 9764582-9764583			
Acetone	< 0.0013	0.0013	< 0.00053	0.00053
Acetonitrile	< 0.0014	0.0014	< 0.00083	0.00083
Acrolein	< 0.0014	0.0014	< 0.00062	0.00062
Acrylonitrile	< 0.00028	0.00028	< 0.00013	0.00013
Benzene	< 0.00035	0.00035	< 0.00011	0.00011
Bromobenzene	< 0.00064	0.00064	< 0.00010	0.00010
Bromodichloromethane	< 0.00080	0.00080	< 0.00012	0.00012
Bromoform	< 0.0018	0.0018	< 0.00017	0.00017
Bromomethane	< 0.00070	0.00070	< 0.00018	0.00018
1,3-Butadiene	< 0.00038	0.00038	< 0.00017	0.00017
2-Butanone	< 0.00062	0.00062	< 0.00021	0.00021
tert-Butyl Alcohol	< 0.00064	0.00064	< 0.00021	0.00021
Carbon Disulfide	< 0.00040	0.00040	< 0.00013	0.00013
Carbon Tetrachloride	< 0.00088	0.00088	< 0.00014	0.00014
Chlorobenzene	< 0.00060	0.00060	< 0.00013	0.00013
Chlorodifluoromethane	< 0.00053	0.00053	< 0.00015	0.00015
Chloroethane	< 0.00050	0.00050	< 0.00019	0.00019
Chloroform	< 0.00045	0.00045	< 0.000092	0.000092
Chloromethane	< 0.00050	0.00050	< 0.00024	0.00024
3-Chloropropene	< 0.00047	0.00047	< 0.00015	0.00015
Cumene	< 0.0012	0.0012	< 0.00024	0.00024
Dibromochloromethane	< 0.0011	0.0011	< 0.00013	0.00013
1,2-Dibromoethane	< 0.0010	0.0010	< 0.00013	0.00013
Dibromomethane	< 0.0010	0.0010	< 0.00014	0.00014
1,2-Dichlorobenzene	< 0.0012	0.0012	< 0.00020	0.00020
1,3-Dichlorobenzene	< 0.0011	0.0011	< 0.00019	0.00019
1,4-Dichlorobenzene	< 0.0010	0.0010	< 0.00017	0.00017
Dichlorodifluoromethane	< 0.00064	0.00064	< 0.00013	0.00013
1,1-Dichloroethane	< 0.00036	0.00036	< 0.000089	0.000089
1,2-Dichloroethane	< 0.00032	0.00032	< 0.000080	0.000080
1,1-Dichloroethene	< 0.00056	0.00056	< 0.00014	0.00014
cis-1,2-Dichloroethene	< 0.00048	0.00048	< 0.00012	0.00012
trans-1,2-Dichloroethene	< 0.00034	0.00034	< 0.000086	0.000086
Dichlorofluoromethane	< 0.00046	0.00046	< 0.00011	0.00011
1,2-Dichloropropane	< 0.00060	0.00060	< 0.00013	0.00013
cis-1,3-Dichloropropene	< 0.00045	0.00045	< 0.00010	0.00010
trans-1,3-Dichloropropene	< 0.00054	0.00054	< 0.00012	0.00012
1,4-Dioxane	< 0.00061	0.00061	< 0.00017	0.00017
Ethyl Acetate	< 0.00090	0.00090	< 0.00025	0.00025

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ARCADIS
Reported: 09/19/2018 14:08

Group Number: 1978651

Method Blank (continued)

Analysis Name	Result mg/m3	MDL mg/m3	Result ppm(v)	MDL ppm(v)
Ethyl Acrylate	< 0.00066	0.00066	< 0.00016	0.00016
Ethyl Methacrylate	< 0.00089	0.00089	< 0.00019	0.00019
Ethylbenzene	< 0.00083	0.00083	< 0.00019	0.00019
4-Ethyltoluene	< 0.00088	0.00088	< 0.00018	0.00018
Freon 113	< 0.00084	0.00084	< 0.00011	0.00011
Freon 114	< 0.00084	0.00084	< 0.00012	0.00012
Heptane	< 0.00094	0.00094	< 0.00023	0.00023
Hexachlorobutadiene	< 0.0050	0.0050	< 0.00047	0.00047
Hexachloroethane	< 0.0026	0.0026	< 0.00027	0.00027
Hexane	< 0.00046	0.00046	< 0.00013	0.00013
2-Hexanone	< 0.00074	0.00074	< 0.00018	0.00018
Isooctane	< 0.00061	0.00061	< 0.00013	0.00013
Methyl Acrylate	< 0.00049	0.00049	< 0.00014	0.00014
Methyl Iodide	< 0.00087	0.00087	< 0.00015	0.00015
Methyl Methacrylate	< 0.00061	0.00061	< 0.00015	0.00015
Alpha Methyl Styrene	< 0.00087	0.00087	< 0.00018	0.00018
Methyl t-Butyl Ether	< 0.00054	0.00054	< 0.00015	0.00015
4-Methyl-2-pentanone	< 0.00061	0.00061	< 0.00015	0.00015
Methylene Chloride	< 0.00087	0.00087	< 0.00025	0.00025
Octane	< 0.0019	0.0019	< 0.00040	0.00040
Pentane	< 0.00038	0.00038	< 0.00013	0.00013
Propene	< 0.00028	0.00028	< 0.00016	0.00016
Styrene	< 0.00085	0.00085	< 0.00020	0.00020
1,1,1,2-Tetrachloroethane	< 0.0010	0.0010	< 0.00015	0.00015
1,1,2,2-Tetrachloroethane	< 0.0010	0.0010	< 0.00015	0.00015
Tetrachloroethene	< 0.0017	0.0017	< 0.00025	0.00025
Toluene	< 0.00045	0.00045	< 0.00012	0.00012
1,2,4-Trichlorobenzene	< 0.0028	0.0028	< 0.00038	0.00038
1,1,1-Trichloroethane	< 0.00065	0.00065	< 0.00012	0.00012
1,1,2-Trichloroethane	< 0.00065	0.00065	< 0.00012	0.00012
Trichloroethene	< 0.00097	0.00097	< 0.00018	0.00018
Trichlorofluoromethane	< 0.00084	0.00084	< 0.00015	0.00015
1,2,3-Trichloropropane	< 0.00084	0.00084	< 0.00014	0.00014
1,2,4-Trimethylbenzene	< 0.0014	0.0014	< 0.00028	0.00028
1,3,5-Trimethylbenzene	< 0.0016	0.0016	< 0.00032	0.00032
Vinyl Acetate	< 0.00056	0.00056	< 0.00016	0.00016
Vinyl Chloride	< 0.00031	0.00031	< 0.00012	0.00012
m/p-Xylene	< 0.0011	0.0011	< 0.00026	0.00026
o-Xylene	< 0.00083	0.00083	< 0.00019	0.00019

LCS/LCSD

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ARCADIS
Reported: 09/19/2018 14:08

Group Number: 1978651

LCS/LCSD

Analysis Name	LCS Spike Added mg/m3	LCS Conc mg/m3	LCSD Spike Added mg/m3	LCSD Conc mg/m3	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: E1823430AA	Sample number(s): 9764582-9764583								
Acetone	0.0238	0.0207	0.0238	0.0211	87	89	71-136	2	25
Acetonitrile	0.0168	0.0142	0.0168	0.0151	84	90	56-136	6	25
Acrolein	0.0229	0.0203	0.0229	0.0228	89	100	54-132	12	25
Acrylonitrile	0.0217	0.0193	0.0217	0.0197	89	91	68-135	2	25
Benzene	0.0319	0.0279	0.0319	0.0288	87	90	76-123	3	25
Bromobenzene	0.0642	0.0582	0.0642	0.0584	91	91	74-118	0	25
Bromodichloromethane	0.0670	0.0585	0.0670	0.0603	87	90	75-134	3	25
Bromoform	0.103	0.0921	0.103	0.0944	89	91	58-144	2	25
Bromomethane	0.0388	0.0359	0.0388	0.0356	92	92	71-133	1	25
1,3-Butadiene	0.0221	0.0186	0.0221	0.0190	84	86	72-122	2	25
2-Butanone	0.0295	0.0264	0.0295	0.0276	90	94	75-126	4	25
tert-Butyl Alcohol	0.0303	0.0311	0.0303	0.0321	103	106	71-154	3	25
Carbon Disulfide	0.0311	0.0278	0.0311	0.0283	89	91	72-128	2	25
Carbon Tetrachloride	0.0629	0.0584	0.0629	0.0594	93	94	72-127	2	25
Chlorobenzene	0.0460	0.0407	0.0460	0.0423	88	92	76-117	4	25
Chlorodifluoromethane	0.0354	0.0333	0.0354	0.0352	94	99	70-138	5	25
Chloroethane	0.0264	0.0244	0.0264	0.0254	92	96	76-129	4	25
Chloroform	0.0488	0.0434	0.0488	0.0455	89	93	75-127	5	25
Chloromethane	0.0207	0.0170	0.0207	0.0178	82	86	65-140	4	25
3-Chloropropene	0.0313	0.0337	0.0313	0.0346	108	110	67-141	3	25
Cumene	0.0492	0.0455	0.0492	0.0474	92	96	80-133	4	25
Dibromochloromethane	0.0852	0.0783	0.0852	0.0782	92	92	74-131	0	25
1,2-Dibromoethane	0.0768	0.0692	0.0768	0.0705	90	92	73-121	2	25
Dibromomethane	0.0711	0.0645	0.0711	0.0649	91	91	76-124	1	25
1,2-Dichlorobenzene	0.0601	0.0542	0.0601	0.0559	90	93	71-126	3	25
1,3-Dichlorobenzene	0.0601	0.0559	0.0601	0.0575	93	96	75-129	3	25
1,4-Dichlorobenzene	0.0601	0.0533	0.0601	0.0541	89	90	74-123	2	25
Dichlorodifluoromethane	0.0495	0.0453	0.0495	0.0460	92	93	74-133	1	25
1,1-Dichloroethane	0.0405	0.0369	0.0405	0.0376	91	93	74-129	2	25
1,2-Dichloroethane	0.0405	0.0357	0.0405	0.0362	88	90	72-138	2	25
1,1-Dichloroethene	0.0396	0.0364	0.0396	0.0381	92	96	70-129	5	25
cis-1,2-Dichloroethene	0.0396	0.0349	0.0396	0.0361	88	91	76-126	3	25
trans-1,2-Dichloroethene	0.0396	0.0352	0.0396	0.0369	89	93	77-128	5	25
Dichlorofluoromethane	0.0421	0.0400	0.0421	0.0415	95	99	75-137	4	25
1,2-Dichloropropane	0.0462	0.0399	0.0462	0.0409	86	88	75-127	2	25
cis-1,3-Dichloropropene	0.0454	0.0385	0.0454	0.0409	85	90	51-120	6	25
trans-1,3-Dichloropropene	0.0454	0.0423	0.0454	0.0434	93	96	76-131	3	25
1,4-Dioxane	0.0360	0.0331	0.0360	0.0333	92	93	76-124	1	25
Ethyl Acetate	0.0360	0.0325	0.0360	0.0333	90	92	73-124	2	25
Ethyl Acrylate	0.0409	0.0348	0.0409	0.0364	85	89	71-126	5	25
Ethyl Methacrylate	0.0467	0.0438	0.0467	0.0441	94	95	69-137	1	25
Ethylbenzene	0.0434	0.0400	0.0434	0.0407	92	94	77-117	2	25
4-Ethyltoluene	0.0492	0.0484	0.0492	0.0499	98	102	73-130	3	25

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ARCADIS
Reported: 09/19/2018 14:08

Group Number: 1978651

LCS/LCSD (continued)

Analysis Name	LCS Spike Added mg/m3	LCS Conc mg/m3	LCSD Spike Added mg/m3	LCSD Conc mg/m3	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Freon 113	0.0766	0.0678	0.0766	0.0692	88	90	66-119	2	25
Freon 114	0.0699	0.0652	0.0699	0.0660	93	94	66-126	1	25
Heptane	0.0410	0.0360	0.0410	0.0370	88	90	74-122	2	25
Hexachlorobutadiene	0.107	0.0850	0.107	0.0896	80	84	49-154	5	25
Hexachloroethane	0.0968	0.0844	0.0968	0.0842	87	87	59-135	0	25
Hexane	0.0352	0.0307	0.0352	0.0320	87	91	70-118	4	25
2-Hexanone	0.0410	0.0371	0.0410	0.0393	90	96	74-134	6	25
Isooctane	0.0467	0.0428	0.0467	0.0441	92	94	74-127	3	25
Methyl Acrylate	0.0352	0.0314	0.0352	0.0336	89	96	75-125	7	25
Methyl Iodide	0.0581	0.0505	0.0581	0.0521	87	90	72-127	3	25
Methyl Methacrylate	0.0409	0.0352	0.0409	0.0361	86	88	73-117	3	25
Alpha Methyl Styrene	0.0483	0.0474	0.0483	0.0487	98	101	71-138	3	25
Methyl t-Butyl Ether	0.0361	0.0324	0.0361	0.0335	90	93	71-119	4	25
4-Methyl-2-pentanone	0.0410	0.0367	0.0410	0.0382	89	93	79-131	4	25
Methylene Chloride	0.0347	0.0355	0.0347	0.0358	102	103	69-128	1	25
Octane	0.0467	0.0428	0.0467	0.0427	92	91	73-122	0	25
Pentane	0.0295	0.0250	0.0295	0.0256	85	87	69-125	2	25
Propene	0.0172	0.0147	0.0172	0.0148	85	86	78-126	1	25
Styrene	0.0426	0.0422	0.0426	0.0434	99	102	77-143	3	25
1,1,1,2-Tetrachloroethane	0.0687	0.0634	0.0687	0.0653	92	95	73-137	3	25
1,1,2,2-Tetrachloroethane	0.0687	0.0645	0.0687	0.0642	94	94	72-133	0	25
Tetrachloroethene	0.0678	0.0639	0.0678	0.0637	94	94	68-123	0	25
Toluene	0.0377	0.0342	0.0377	0.0351	91	93	78-119	3	25
1,2,4-Trichlorobenzene	0.0742	0.0594	0.0742	0.0626	80	84	45-156	5	25
1,1,1-Trichloroethane	0.0546	0.0504	0.0546	0.0519	92	95	74-122	3	25
1,1,2-Trichloroethane	0.0546	0.0512	0.0546	0.0495	94	91	76-127	4	25
Trichloroethene	0.0537	0.0471	0.0537	0.0476	88	89	76-118	1	25
Trichlorofluoromethane	0.0562	0.0511	0.0562	0.0516	91	92	73-132	1	25
1,2,3-Trichloropropane	0.0603	0.0548	0.0603	0.0544	91	90	71-127	1	25
1,2,4-Trimethylbenzene	0.0492	0.0474	0.0492	0.0505	96	103	70-138	6	25
1,3,5-Trimethylbenzene	0.0492	0.0464	0.0492	0.0482	94	98	72-130	4	25
Vinyl Acetate	0.0352	0.0349	0.0352	0.0348	99	99	75-161	0	25
Vinyl Chloride	0.0256	0.0237	0.0256	0.0247	93	97	75-130	4	25
m/p-Xylene	0.0434	0.0406	0.0434	0.0413	93	95	78-119	2	25
o-Xylene	0.0434	0.0410	0.0434	0.0416	94	96	78-121	1	25

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

Quality Control Summary

Client Name: ARCADIS
Group Number: 1978651
Reported: 09/19/2018 14:08

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

13045 | 1978651 | 9764582-83

Chain of Custody Record

Client Contact	Project Manager: Jerome Oerting	Site Contact: T. Mark	Date: 8/20/18	COC No:
Company: Arcadis of New York, Inc	Tel/Fax: 860 533 9953	Lab Contact:	Carrier: Fed Ex	1 of 1 COCs
Address: 160 Chapel Road, Suite 201	Analysis Turnaround Time			Results to: jerome.oerting@arcadis-us.com chad.colwell@arcadis-us.com richard.hatch@arcadis-us.com
City/State/Zip: Manchester, CT 06042	Calendar (C) or Work Days (W)			Invoice to:
Phone: 860-533-9953	TAT if different from Below			
Fax:	☐ Standard			
Project Name: Alliance 10954	☐ 1 week			
Site: 138-50 Hillside Avenue, Jamaica, NY	☐ 2 days			
P O #: B0085850.0954	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	BTEX, MTBE (TO-15)	TPH (GC-FID) (EPA 18.25)	TPH (GC-PID) (EPA 18.25)	Extended List VOC (TO-15)	Sample Specific Notes:
CATOX INF	0755	8/20/18	Grab	Vapor	1		X	X	X		
CATOX EFF	0730	8/20/18	Grab	Vapor	1			X	X	X	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐

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 & Comments:

8/20/18

Relinquished by	Company	Date/Time	Received by	Company	Date/Time
Tim Mark	ARCADIS	1700			
Relinquished by	Company	Date/Time	Received by	Company	Date/Time
Relinquished by	Company	Date/Time	Received by	Company	Date/Time

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 224734

Group Number(s): 1978651

Client: Arcadis

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	08/21/2018 10:00
Number of Packages:	1	Number of Projects:	1

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	N/A
Custody Seal Present:	No	Sample Date/Times match COC:	N/A
Samples Chilled:	N/A	VOA Vial Headspace ≥ 6mm:	N/A
Paperwork Enclosed:	No	Total Trip Blank Qty:	0
Samples Intact:	Yes	Air Quality Samples Present:	Yes
Missing Samples:	No	Air Quality Flow Controllers Present:	No
Extra Samples:	No	Air Quality Returns:	No
Discrepancy in Container Qty on COC:	N/A		

Unpacked by Nicole Reiff (25684) at 10:54 on 08/21/2018

Paperwork Not Enclosed Details

Sample ID on Label	No. of Containers	Date on Label	Comments
Catox INF.	1	8/20/2018 07:35	
Catox EFF.	1	8/20/2018 07:30	

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Eurofins Lancaster Laboratories Environmental, LLC

2425 New Holland Pike
Lancaster, PA 17605

Client Project # 1978651

Analytical Report
(0818-154)

EPA Method 18 (Tedlar Bags)

C_1-C_4 as Hexane
>C_4-C_{10} as Hexane

Enthalpy Analytical, LLC
Phone: (919) 850 - 4392 / Fax: (919) 850 - 9012 / www.enthalpy.com
800-1 Capitola Drive Durham, NC 27713-4385

I certify that to the best of my knowledge all analytical data presented in this report:

- Have been checked for completeness
- Are accurate, error-free, and legible
- Have been conducted in accordance with approved protocol, and that all deviations and analytical problems are summarized in the appropriate narrative(s)

This analytical report was prepared in Portable Document Format (.PDF) and contains 64 pages.

Quentisha L. Forrester

QA Review Performed by – Quentisha L. Forrester

Report Issued: 09/11/2018

ENTHALPY
ANALYTICAL

Summary of Results

Enthalpy Analytical

Company: Eurofins Lancaster Laboratories Environmental, LLC
Job No.: 0818-154 - EPA Method 18 (Bags)
Client No.: 1978651

Summary Table

Sample Train Name	CATOX INF (Bag ID 9764582)	CATOX EFF (Bag ID 9764583)
Compound	Sample Concentration (mg/m^3)	
C1-C4 as Hexane	1.85 J	1.82 J
>C4-C10 as Hexane	14.6	1.76 ND

Results

Enthalpy Analytical

Company: Eurofins Lancaster Laboratories Environmental, LLC

Job No.: 0818-154 - EPA Method 18 (Bags)

Client No.: 1978651

Sample Analysis Method Used:

EDITHP1163F_EUROFIN_1.M

C1-C4 as Hexane

Client's Sample Name	Filename #1	Filename #2	MDL	Curve Min	Curve Max	Ret Time (min)	Ret Time (min)	Ret Time (min)	%dif RT	Conc #1 (ppm)	Conc #2 (ppm)	%dif conc	Avg Conc (ppm)	DF	Sample Conc (ppm)	Flag
CATOX INF (Bag ID 9764582)	005F0701.D	005F0702.D	0.500	5.00	4,006	NA	NA	NA	NA	0.525	0.527	0.5	0.526	1	0.526	J
CATOX EFF (Bag ID 9764583)	004F0601.D	004F0602.D	0.500	5.00	4,006	NA	NA	NA	NA	0.536	0.496	7.9	0.516	1	0.516	J

>C4-C10 as Hexane

Client's Sample Name	Filename #1	Filename #2	MDL	Curve Min	Curve Max	Ret Time (min)	Ret Time (min)	Ret Time (min)	%dif RT	Conc #1 (ppm)	Conc #2 (ppm)	%dif conc	Avg Conc (ppm)	DF	Sample Conc (ppm)	Flag
CATOX INF (Bag ID 9764582)	005F0701.D	005F0702.D	0.500	5.00	4,006	NA	NA	NA	NA	4.58	3.72	20.7	4.15	1	4.15	
CATOX EFF (Bag ID 9764583)	004F0601.D	004F0602.D	0.500	5.00	4,006	NA	NA	NA	NA	0.500	0.500	0	0.500	1	0.500	ND

Narrative Summary

Enthalpy Analytical Narrative Summary

Company	Eurofins Lancaster Laboratories Environmental, LLC
Job #	0818-154 - EPA Method 18 (Bags)
Client #	1978651

Custody

Matthew St. Lawrence received the samples on 8/24/18 after being relinquished by Eurofins Lancaster Laboratories Environmental, LLC. The samples were received at ambient temperature and in good condition.

Prior to, during, and after analysis, the samples were kept under lock with access only to authorized personnel by Enthalpy Analytical, LLC.

Analysis

The samples were analyzed for C_1-C_4 as hexane and >C_4-C_{10} as hexane using the analytical procedures in EPA Method 18, Measurement of Gaseous Organic Compound Emissions by Gas Chromatography (40 CFR Part 60, Appendix A).

All samples and standards were introduced directly to the column using an automated multi-port Valco gas sampling valve equipped with a stainless steel loop. Hexane was referenced to certified gas phase standards..

The n-alkane retention times are used to generate retention time windows for the hydrocarbons. The areas for all peaks between 1.477 and 3.600 minutes are referenced to the calibrated hexane response. The sum of the results is labeled ‘C1-C4 as Hexane’. The areas for all peaks between 3.600 and 16.300 minutes are referenced to the calibrated hexane response. The sum of the results is labeled ‘C4-C10 as Hexane’.

The Gas Chromatograph "Edith" was equipped with a Flame Ionization Detector for this analysis.

Calibration

The calibration curves are included in the Raw Data section of this report. The data analysis method is referenced in the Analysis Method column on the Detailed Results page.

The first page of the curve contains all method specific parameters (i.e., curve type, origin, weight, etc.) used to quantify the samples. The calibration curve section also includes a table with the Retention Time (RetTime), Level (Lvl), Amount (corresponding units), Area, Response Factor (Amt/Area) and the analyte Name. The calibration table is used to identify (by retention time) and quantify each target compound.

ENTHALPY ANALYTICAL

Enthalpy Analytical Narrative Summary
(continued)

Chromatographic Conditions	The acquisition methods (AQ_EDITHP503_HRVOC_LONG.M, AQ_EDITHP503_HRVOC_SHORT.M, AQ_EDITHP503_HRVOC.M) are included in the Raw Data section of this report.
QC Notes	Hexane was not identified in the analysis of the laboratory blank at concentrations greater than the detection limit.
Reporting Notes	These analytical results are reported on a wet basis. The user of this report should determine the percent moisture in the sample and correct the reported value to ppmvd as appropriate. The results presented in this report are representative of the samples as provided to the laboratory. These analyses met the requirements of the TNI Standard. Any deviations from the requirements of the reference method or TNI Standard have been stated above.

ENTHALPY ANALYTICAL

General Reporting Notes

The following are general reporting notes that are applicable to all Enthalpy Analytical, LLC data reports, unless specifically noted otherwise.

- Any analysis which refers to the method as ***"Type"*** represents a planned deviation from the reference method. For instance a Hydrogen Sulfide assay from a Tedlar bag would be labeled as "EPA Method 16-Type" because Tedlar bags are not mentioned as one of the collection options in EPA Method 16.

- The acronym ***MDL*** represents the Minimum Detection Limit. Below this value the laboratory cannot determine the presence of the analyte of interest reliably.

- The acronym ***LOQ*** represents the Limit of Quantification. Below this value the laboratory cannot quantitate the analyte of interest within the criteria of the method.

- The acronym ***ND*** following a value indicates a non-detect or analytical result below the MDL.

- The letter ***J*** in the Qualifier or Flag column in the results indicates that the value is between the MDL and the LOQ. The laboratory can positively identify the analyte of interest as present, but the value should be considered an estimate.

- The letter ***E*** in the Qualifier or Flag column indicates an analytical result exceeding 100% of the highest calibration point. The associated value should be considered as an estimate.

- Sample results are presented 'as measured' for single injection methodologies, or an average value if multiple injections are made. If all injections are below the MDL, the sample is considered non-detect and the ND value is presented. If one, but not all, are below the MDL, the MDL value is used for any injections that are below the MDL. For example, if the MDL is 0.500 and LOQ is 1.00, and the instrument measures 0.355, 0.620, and 0.442 - the result reported is the average of 0.500, 0.620, and 0.500 - - - i.e. 0.540 with a J flag.

- When a spike recovery (Bag Spike, Collocated Spike Train, or liquid matrix spike) is being calculated, the native (unspiked) sample result is used in the calculations, as long as the value is above the MDL. If a sample is ND, then 0 is used as the native amount (not the MDL value).

- The acronym ***DF*** represents Dilution Factor. This number represents dilution of the sample during the preparation and/or analysis process. The analytical result taken from a laboratory instrument is multiplied by the DF to determine the final undiluted sample results.

- The addition of ***MS*** to the Sample ID represents a Matrix Spike. An aliquot of an actual sample is spiked with a known amount of analyte so that a percent recovery value can be determined. The MS analysis indicates what effect the sample matrix may have on the target analyte, i.e. whether or not anything in the sample matrix interferes with the analysis of the analyte(s).

ENTHALPY ANALYTICAL

General Reporting Notes
(continued)

- The addition of ***MSD*** to the Sample ID represents a Matrix Spike Duplicate. Prepared in the same manner as a MS, the use of duplicate matrix spikes allows further confirmation of laboratory quality by showing the consistency of results gained by performing the same steps multiple times.

- The addition of ***LD*** to the Sample ID represents a Laboratory Duplicate. The analyst prepares an additional aliquot of sample for testing and the results of the duplicate analysis are compared to the initial result. The result should have a difference value of within 10% of the initial result (if the results of the original analysis are greater than the LOQ).

- The addition of ***AD*** to the Sample ID represents an Alternate Dilution. The analyst prepares an additional aliquot at a different dilution factor (usually double the initial factor). This analysis helps confirm that no additional compound is present and coeluting or sharing absorbance with the analyte of interest, as they would have a different response/absorbance than the analyte of interest.

- The Sample ID ***LCS*** represents a Laboratory Control Sample. Clean matrix, similar to the client sample matrix, prepared and analyzed by the laboratory using the same reagents, spiking standards and procedures used for the client samples. The LCS is used to assess the control of the laboratory's analytical system. Whenever spikes are prepared for our client projects, two spikes are retained as LCSs. The LCSs are labeled with the associated project number and kept in-house at the appropriate temperature conditions. When the project samples are received for analysis, the LCSs are analyzed to confirm that the analyte could be recovered from the media, separate from the samples which were used on the project and which may have been affected by source matrix, sample collection, and/or sample transport.

- **Significant Figures**: Where the reported value is much greater than unity (1.00) in the units expressed, the number is rounded to a whole number of units, rather than to 3 significant figures. For example, a value of 10,456.45 ug catch is rounded to 10,456 ug. There are five significant digits displayed, but no confidence should be placed on more than two significant digits. In the case of small numbers, generally 3 significant figures are presented, but still only 2 should be used with confidence. Many neat materials are only certified to 3 digits, and as the mathematically correct final result is always 1 digit less than all its pre-cursors - 2 significant figures are what are most defensible.

- **Manual Integration**: The data systems used for processing will flag manually integrated peaks with an "M". There are several reasons a peak may be manually integrated. These reasons will be identified by the following two letter designations on sample chromatograms, if provided in the report. The peak was ***not integrated*** by the software **"NI"**, the peak was ***integrated incorrectly*** by the software **"II"** or the ***wrong peak*** was integrated by the software **"WP"**. These codes will accompany the analyst's manual integration stamp placed next to the compound name on the chromatogram.

ENTHALPY ANALYTICAL

Sample Custody

Chain of Custody Record

ENTHALPY analytical, inc

Page 1 of ____

Special Handling:
- ☐ Standard Turn Around Time (10 business days)
- ☐ Rush Turn Around Time -- Date Needed_____
- All TATs Subject to Approval by Enthalpy Analytical, Inc.
- All Bag/Can Samples Disposed of 1 Month from Receipt.
- All Other Samples Disposed of 4 Months from Receipt.

Client Name: Eurofins Lancaster Laboratories Environmental
Project Manager: Hannah Cottman
Report To: Hannah Cottman

Project Number: 1978651
Site Name: N/A
Location: N/A

PO#: N/A
Telephone#: 717-656-2300 Ext 1896
Email: ENVsubcontracting@EurofinsUS.com

For spiked or duplicate samples: please provide sample volumes for recovery calculations. For Particulates: please provide tare weights and/or condensed water volumes.

Special Instructions:

A=Air 1=H2SO4 2=NaOH W=Water O=Other
X=XAD C=Charcoal SG=Silica Gel
G=Grab C=Composite Q=Quality Control O=Other

Sample ID	Date	Time	Sample Volume	Type	Matrix	Sample Containers: # of VOA Vials	# of Glass	# of Plastic	# of Bags	# of Canisters	# of Tubes	# Other	Analyses: C1-C4	>C4-C10							Notes:
CATOX INF	8/20/18	0735		G	A				1				X	X							9764582
CATOX EFF	8/20/18	0730		G	A				1				X	X							9764583

Please report in mg/m³
HLC 8-23-18

Relinquished By:	Date:	Received By:	Date:	Time:	Sample Condition Upon Receipt:
Hannah Cottman	8-23-18	Matt D. Lawson	8/24/18	0830	☐ Iced ☑ Ambient ☐ °C_____
					☐ Iced ☐ Ambient ☐ °C_____
					☐ Iced ☐ Ambient ☐ °C_____

800-1 Capitola Drive • Durham, NC 27713 • (919) 850-4392 • FAX (919) 850-9012 • www.enthalpy.com

Good condition Mst 8/24/18
Ambient temp

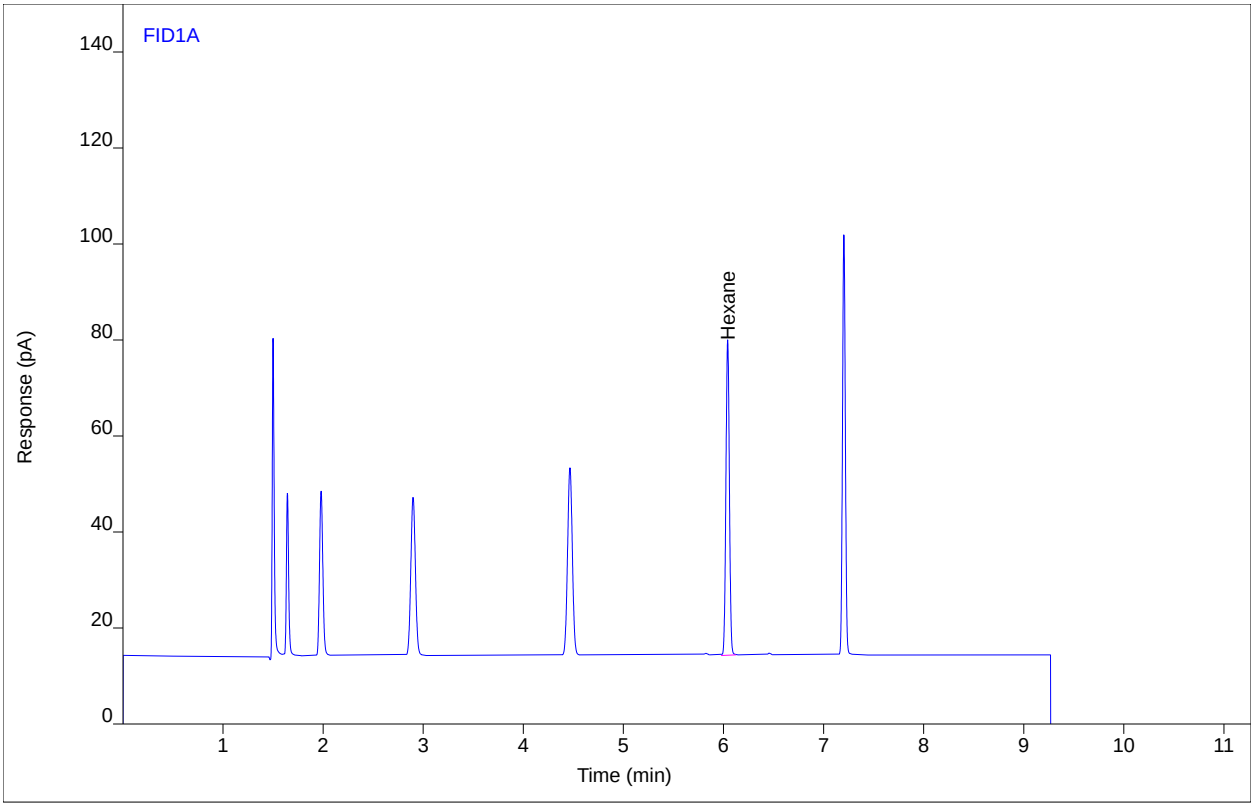
Raw Data

Chromatogram Report

Enthalpy Analytical

Sample Name	Edithp1429 #C4 ENV(1=0,2=400.67)
Sequence Name	EDITHP1469 ver.12
Inj Data File	002F1302.D
File Location	GC/2018/Edith/Quarter 3
Injection Date	8/24/2018 1:26 AM
File Modified	8/28/2018 10:19 AM
Instrument	
Operator	Nicholas Traversa

Sample Type	Calibration
Vial Number	Vial 2
Injection Volume	250
Injection	2 of 4
Acquisition Method	AQ_EDITHP503_HRVOC.M
Analysis Method	EDITHP1163F_C1-C7.M
Method Modified	6/21/2018 2:51 PM
Printed	8/29/2018 9:35 AM



Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hexane	BB	6.04	158.073	65.6565	103.917	1	103.917	ppm

Analyst Peak Integration Comments

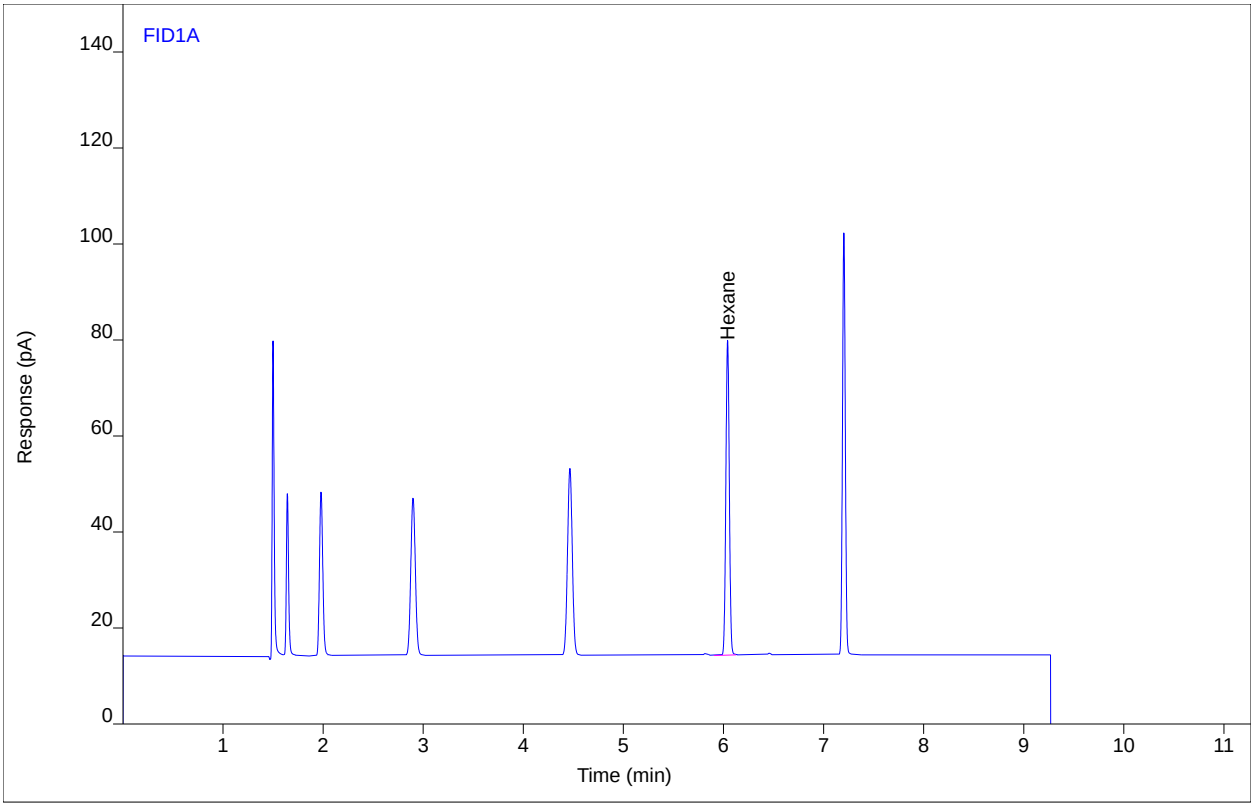
08:06:08 08/24/18 Nicholas Traversa II-BL

Chromatogram Report

Enthalpy Analytical

Sample Name	Edithp1429 #C4 ENV(1=0,2=400.67)
Sequence Name	EDITHP1469 ver.12
Inj Data File	002F1303.D
File Location	GC/2018/Edith/Quarter 3
Injection Date	8/24/2018 1:46 AM
File Modified	8/28/2018 10:19 AM
Instrument	
Operator	Nicholas Traversa

Sample Type	Calibration
Vial Number	Vial 2
Injection Volume	250
Injection	3 of 4
Acquisition Method	AQ_EDITHP503_HRVOC.M
Analysis Method	EDITHP1163F_C1-C7.M
Method Modified	6/21/2018 2:51 PM
Printed	8/29/2018 9:35 AM



Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hexane	VB	6.04	157.232	65.5807	103.365	1	103.365	ppm

Analyst Peak Integration Comments

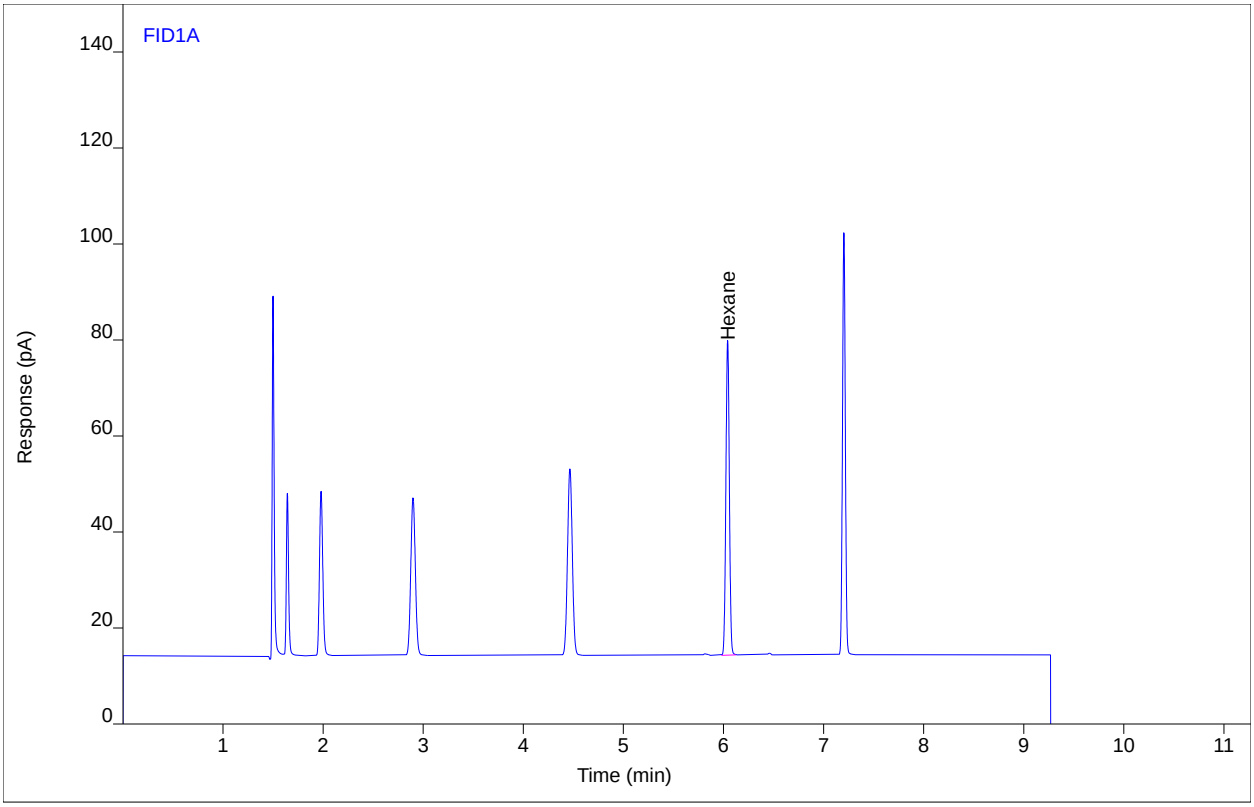
08:06:14 08/24/18 Nicholas Traversa II-BL

Chromatogram Report

Enthalpy Analytical

Sample Name	Edithp1429 #C4 ENV(1=0,2=400.67)
Sequence Name	EDITHP1469 ver.12
Inj Data File	002F1304.D
File Location	GC/2018/Edith/Quarter 3
Injection Date	8/24/2018 2:02 AM
File Modified	8/28/2018 10:19 AM
Instrument	
Operator	Nicholas Traversa

Sample Type	Calibration
Vial Number	Vial 2
Injection Volume	250
Injection	4 of 4
Acquisition Method	AQ_EDITHP503_HRVOC.M
Analysis Method	EDITHP1163F_C1-C7.M
Method Modified	6/21/2018 2:51 PM
Printed	8/29/2018 9:35 AM



Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hexane	BB	6.04	157.412	65.6126	103.483	1	103.483	ppm

Analyst Peak Integration Comments

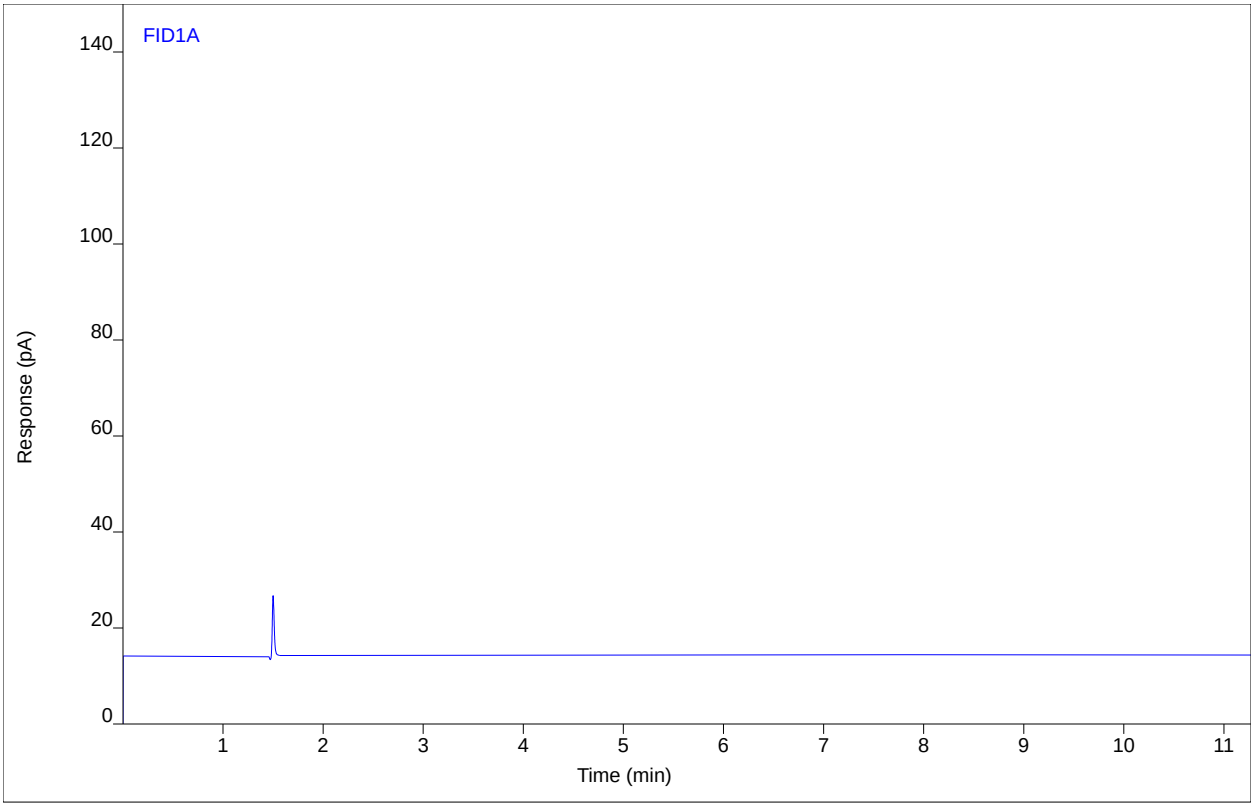
08:06:19 08/24/18 Nicholas Traversa II-BL

Chromatogram Report

Enthalpy Analytical

Sample Name	Zero Air Blank
Sequence Name	EDITHP1469 ver.12
Inj Data File	016F1601.D
File Location	GC/2018/Edith/Quarter 3
Injection Date	8/24/2018 4:29 AM
File Modified	8/28/2018 10:19 AM
Instrument	
Operator	Nicholas Traversa

Sample Type	Sample
Vial Number	Vial 16
Injection Volume	250
Injection	1 of 3
Acquisition Method	AQ_EDITHP503_HRVOC_LONG.M
Analysis Method	EDITHP1163F_C1-C7.M
Method Modified	6/21/2018 2:51 PM
Printed	8/29/2018 9:35 AM



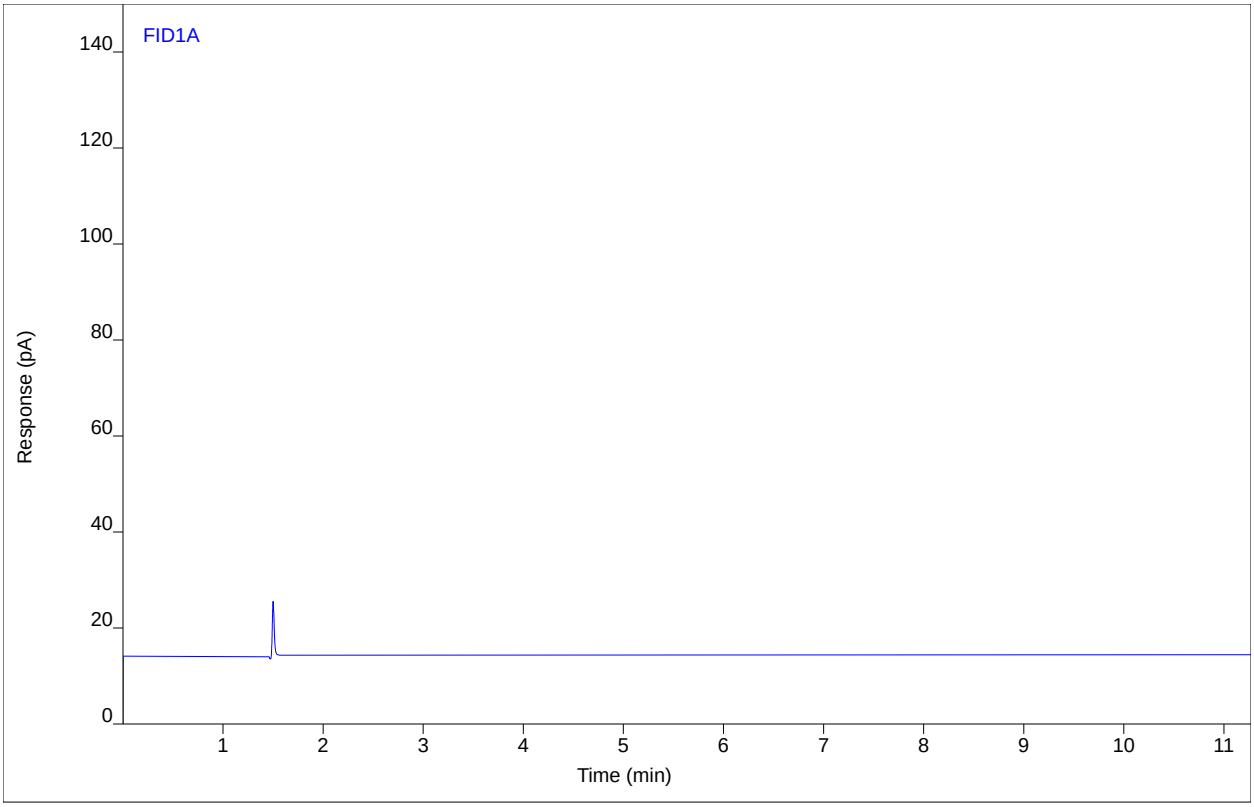
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hexane		(6.05)				1		

Chromatogram Report

Sample Name	Zero Air Blank
Sequence Name	EDITHP1469 ver.12
Inj Data File	016F1602.D
File Location	GC/2018/Edith/Quarter 3
Injection Date	8/24/2018 4:51 AM
File Modified	8/28/2018 10:19 AM
Instrument	
Operator	Nicholas Traversa

Enthalpy Analytical

Sample Type	Sample
Vial Number	Vial 16
Injection Volume	250
Injection	2 of 3
Acquisition Method	AQ_EDITHP503_HRVOC_LONG.M
Analysis Method	EDITHP1163F_C1-C7.M
Method Modified	6/21/2018 2:51 PM
Printed	8/29/2018 9:35 AM



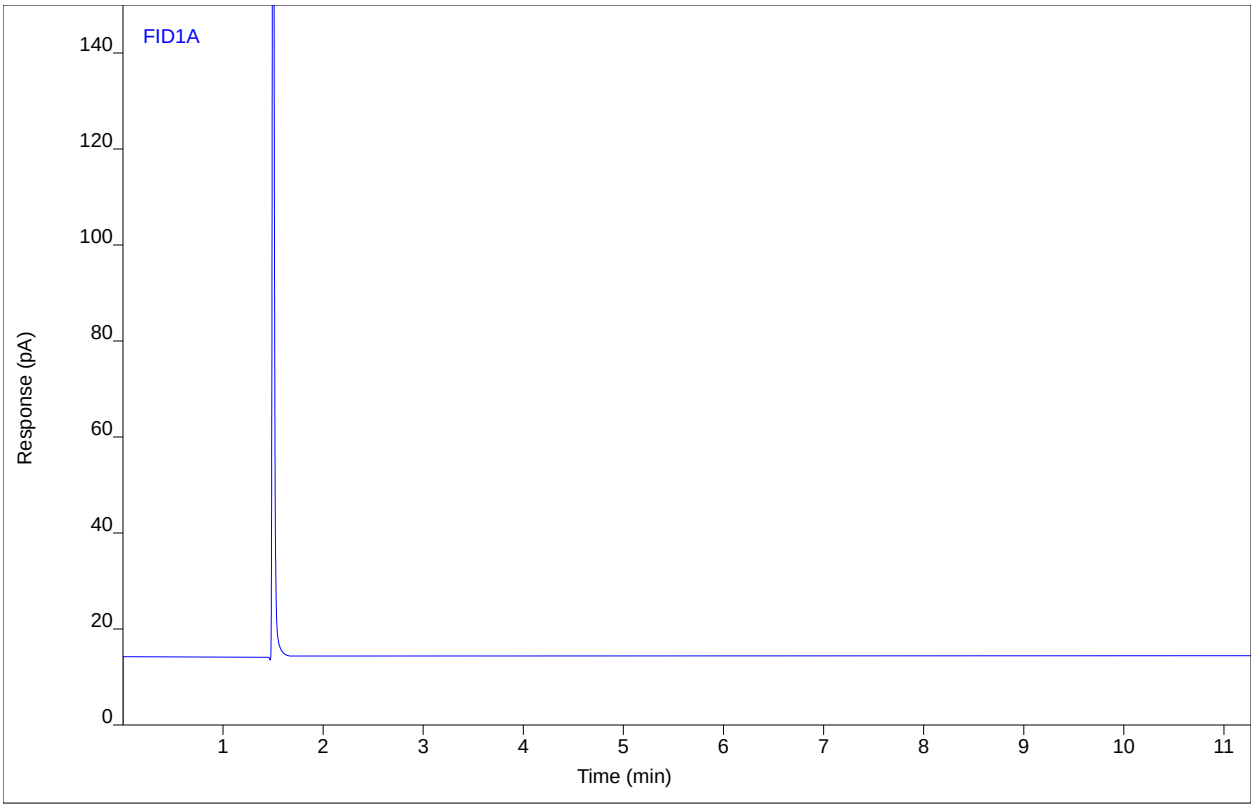
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hexane		(6.05)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	Zero Air Blank
Sequence Name	EDITHP1469 ver.12
Inj Data File	016F1603.D
File Location	GC/2018/Edith/Quarter 3
Injection Date	8/24/2018 5:14 AM
File Modified	8/28/2018 10:19 AM
Instrument	
Operator	Nicholas Traversa

Sample Type	Sample
Vial Number	Vial 16
Injection Volume	250
Injection	3 of 3
Acquisition Method	AQ_EDITHP503_HRVOC_LONG.M
Analysis Method	EDITHP1163F_C1-C7.M
Method Modified	6/21/2018 2:51 PM
Printed	8/29/2018 9:35 AM



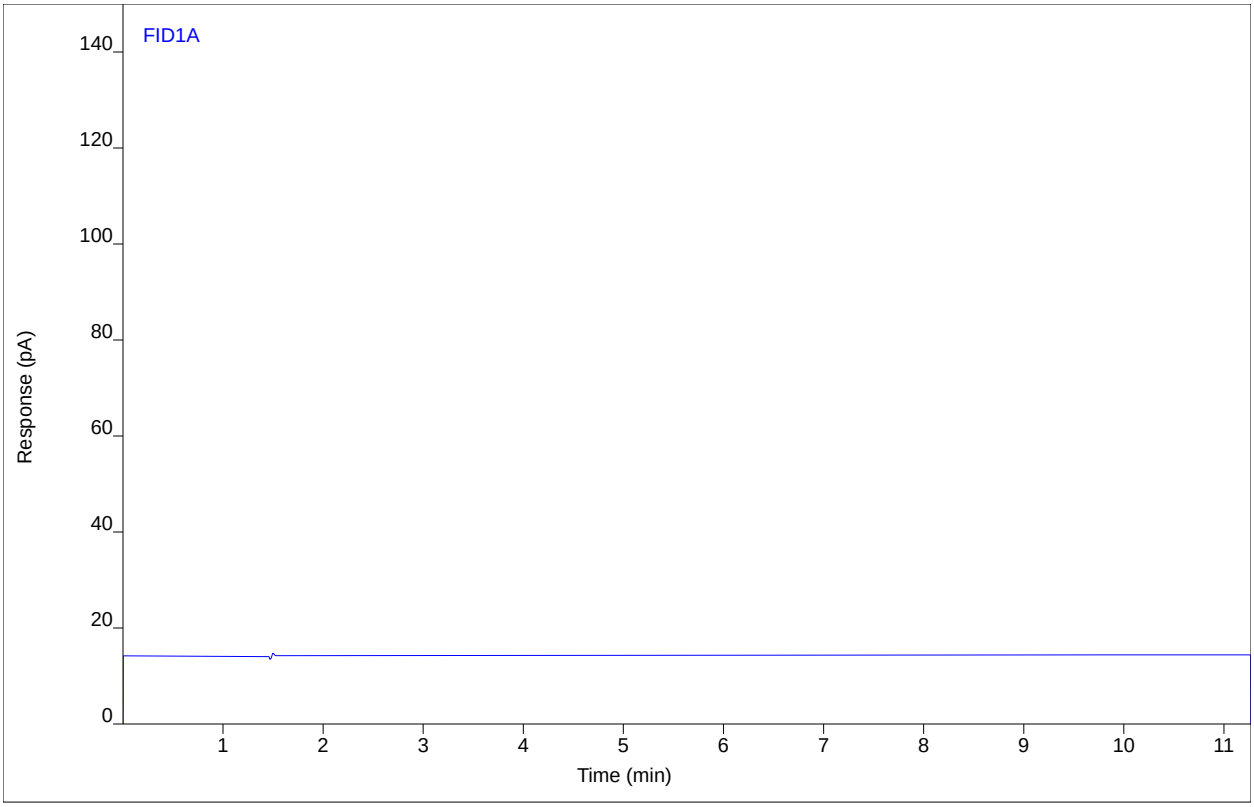
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hexane		(6.05)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0818-154.CATOX EFF.Bag
Sequence Name	EDITHP1470 ver.3
Inj Data File	004F0601.D
File Location	GC/2018/Edith/Quarter 3
Injection Date	8/24/2018 1:00 PM
File Modified	8/29/2018 9:27 AM
Instrument	
Operator	Nicholas Traversa

Sample Type	Sample
Vial Number	Vial 4
Injection Volume	250
Injection	1 of 2
Acquisition Method	AQ_EDITHP503_HRVOC_11MIN.M
Analysis Method	EDITHP1163F_EUROFIN_1.M
Method Modified	8/28/2018 10:33 AM
Printed	8/29/2018 9:35 AM



Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
as Hexane C1-C4					0.53627	1	0.53627	
Hexane		(15.00)				1		

Analyst Peak Integration Comments

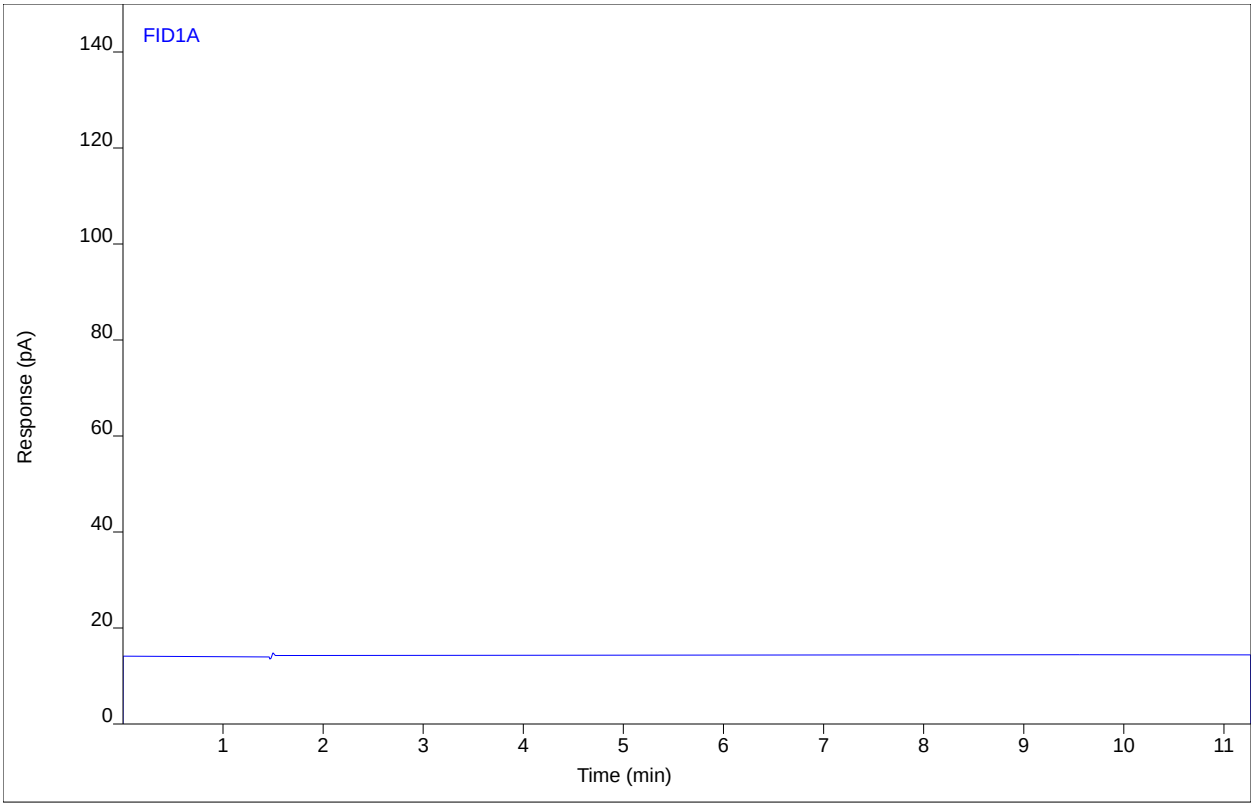
09:27:13 08/29/18 Nicholas Traversa Removed Negative Peak

Chromatogram Report

Enthalpy Analytical

Sample Name	0818-154.CATOX EFF.Bag
Sequence Name	EDITHP1470 ver.3
Inj Data File	004F0602.D
File Location	GC/2018/Edith/Quarter 3
Injection Date	8/24/2018 1:16 PM
File Modified	8/29/2018 9:27 AM
Instrument	
Operator	Nicholas Traversa

Sample Type	Sample
Vial Number	Vial 4
Injection Volume	250
Injection	2 of 2
Acquisition Method	AQ_EDITHP503_HRVOC_11MIN.M
Analysis Method	EDITHP1163F_EUROFIN_1.M
Method Modified	8/28/2018 10:33 AM
Printed	8/29/2018 9:35 AM



Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
as Hexane C1-C4					0.49555	1	0.49555	
Hexane		(15.00)				1		

Analyst Peak Integration Comments

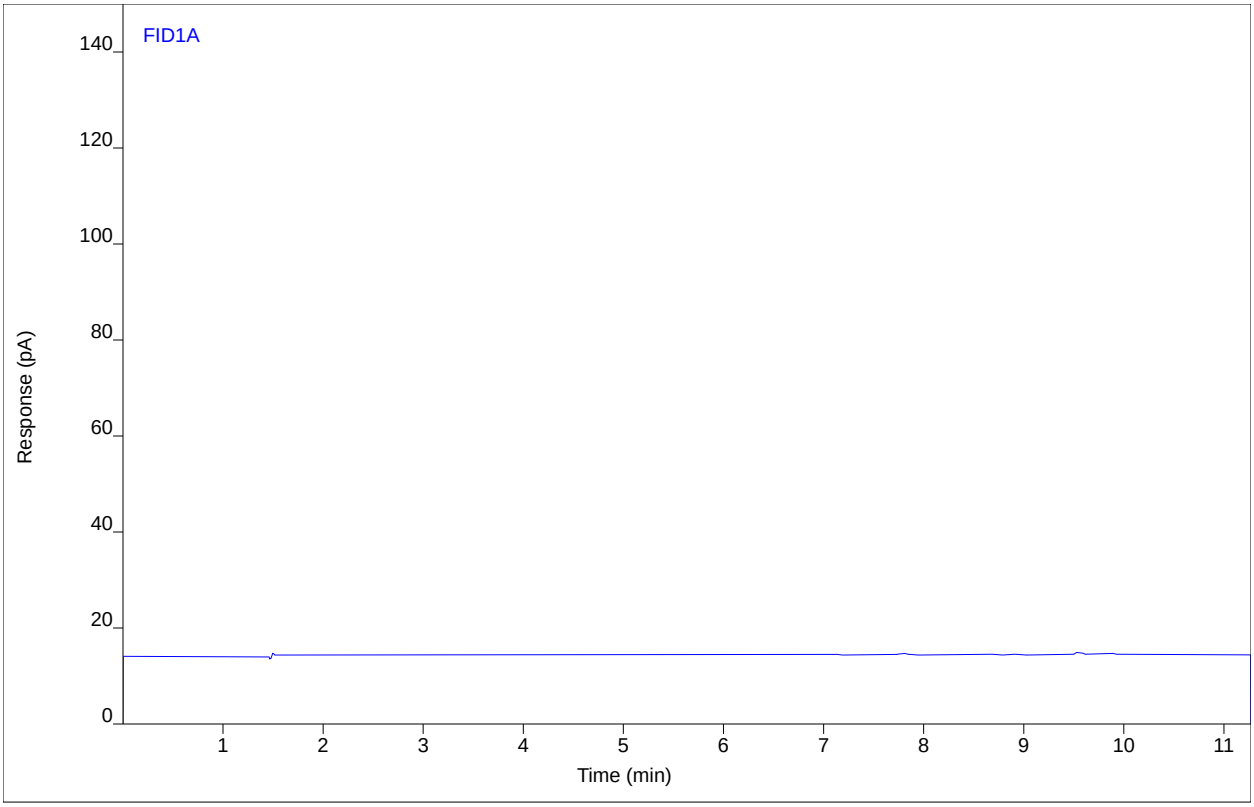
09:27:19 08/29/18 Nicholas Traversa Removed Negative Peak

Chromatogram Report

Enthalpy Analytical

Sample Name	0818-154.CATOX INF.Bag
Sequence Name	EDITHP1470 ver.3
Inj Data File	005F0701.D
File Location	GC/2018/Edith/Quarter 3
Injection Date	8/24/2018 1:32 PM
File Modified	8/29/2018 9:27 AM
Instrument	
Operator	Nicholas Traversa

Sample Type	Sample
Vial Number	Vial 5
Injection Volume	250
Injection	1 of 2
Acquisition Method	AQ_EDITHP503_HRVOC_11MIN.M
Analysis Method	EDITHP1163F_EUROFIN_1.M
Method Modified	8/28/2018 10:33 AM
Printed	8/29/2018 9:35 AM



Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
as Hexane C1-C4					0.52457	1	0.52457	
as Hexane C4-C10					4.57735	1	4.57735	
Hexane		(15.00)				1		

Analyst Peak Integration Comments

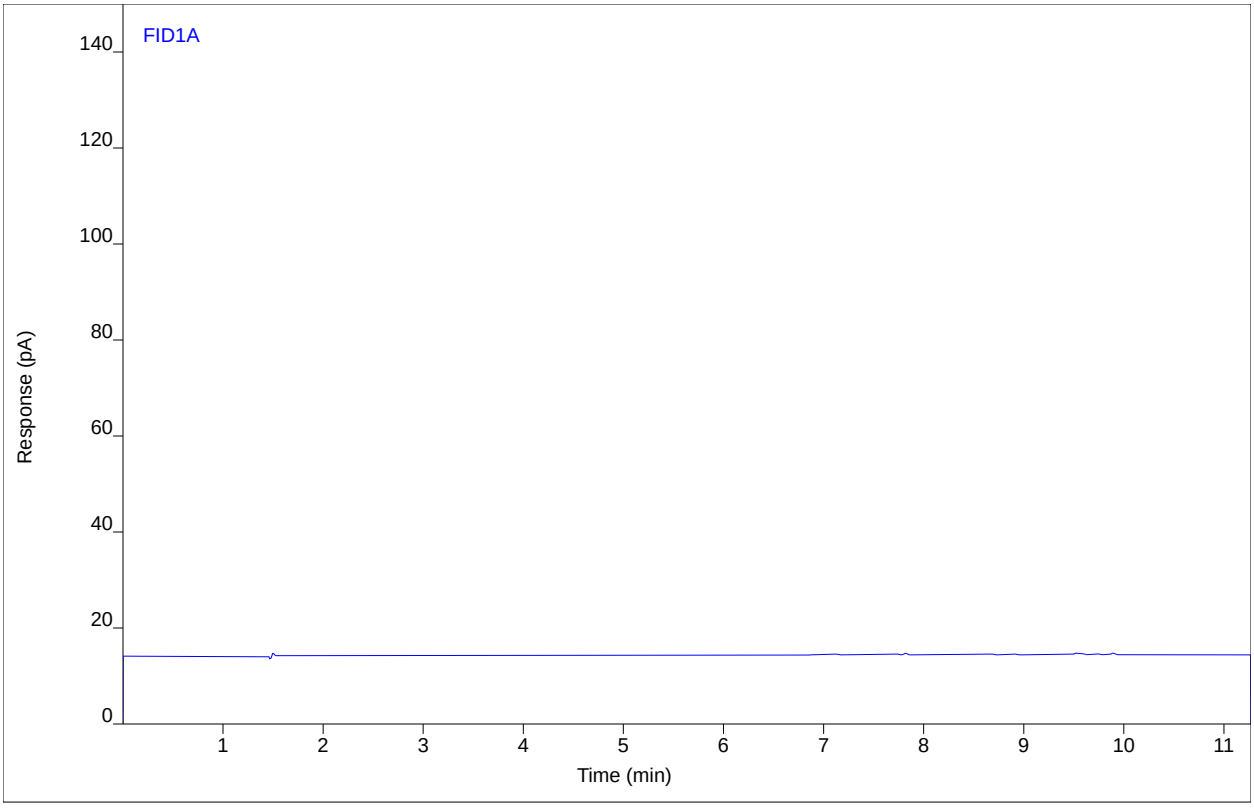
09:27:24 08/29/18 Nicholas Traversa Removed Negative Peak

Chromatogram Report

Enthalpy Analytical

Sample Name	0818-154.CATOX INF.Bag
Sequence Name	EDITHP1470 ver.3
Inj Data File	005F0702.D
File Location	GC/2018/Edith/Quarter 3
Injection Date	8/24/2018 1:48 PM
File Modified	8/29/2018 9:27 AM
Instrument	
Operator	Nicholas Traversa

Sample Type	Sample
Vial Number	Vial 5
Injection Volume	250
Injection	2 of 2
Acquisition Method	AQ_EDITHP503_HRVOC_11MIN.M
Analysis Method	EDITHP1163F_EUROFIN_1.M
Method Modified	8/28/2018 10:33 AM
Printed	8/29/2018 9:35 AM



Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
as Hexane C1-C4					0.52746	1	0.52746	
as Hexane C4-C10					3.72025	1	3.72025	
Hexane		(15.00)				1		

Analyst Peak Integration Comments

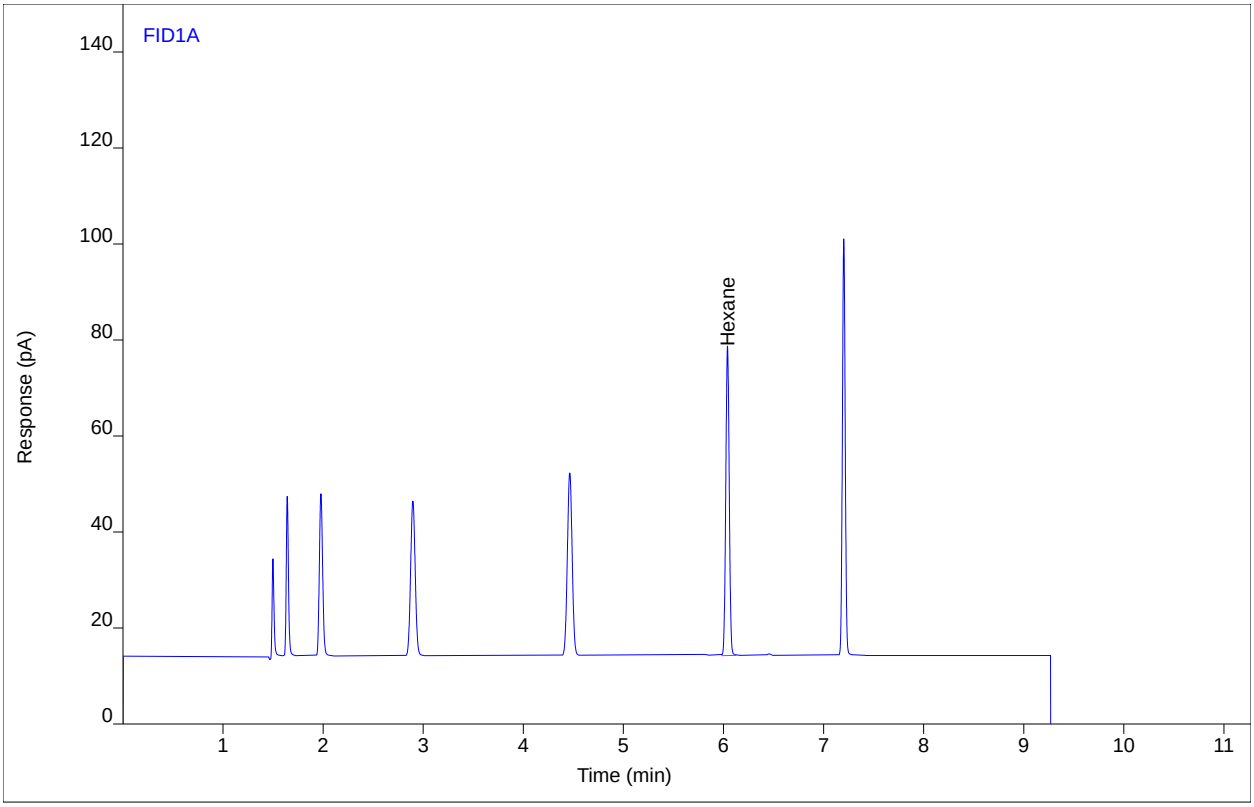
09:27:30 08/29/18 Nicholas Traversa Removed Negative Peak

Chromatogram Report

Enthalpy Analytical

Sample Name	Edithp1429 #C4 ENV(1=0,2=400.67)
Sequence Name	EDITHP1470 ver.3
Inj Data File	002F1302.D
File Location	GC/2018/Edith/Quarter 3
Injection Date	8/24/2018 4:29 PM
File Modified	8/28/2018 1:54 PM
Instrument	
Operator	Nicholas Traversa

Sample Type	Calibration
Vial Number	Vial 2
Injection Volume	250
Injection	2 of 4
Acquisition Method	AQ_EDITHP503_HRVOC.M
Analysis Method	EDITHP1163F_C1-C7.M
Method Modified	6/21/2018 2:51 PM
Printed	8/29/2018 9:35 AM



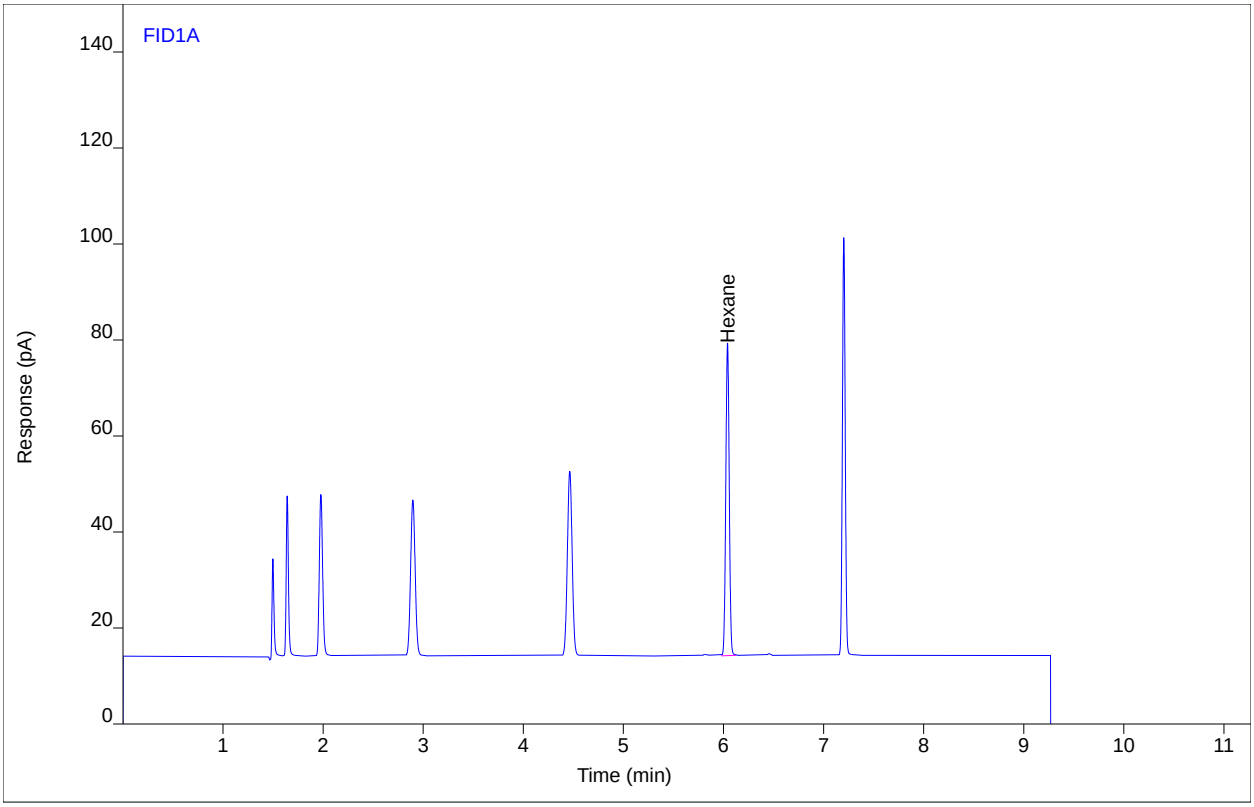
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hexane	BB	6.04	154.594	64.3292	101.632	1	101.632	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	Edithp1429 #C4 ENV(1=0,2=400.67)
Sequence Name	EDITHP1470 ver.3
Inj Data File	002F1303.D
File Location	GC/2018/Edith/Quarter 3
Injection Date	8/24/2018 4:46 PM
File Modified	8/28/2018 1:54 PM
Instrument	
Operator	Nicholas Traversa

Sample Type	Calibration
Vial Number	Vial 2
Injection Volume	250
Injection	3 of 4
Acquisition Method	AQ_EDITHP503_HRVOC.M
Analysis Method	EDITHP1163F_C1-C7.M
Method Modified	6/21/2018 2:51 PM
Printed	8/29/2018 9:35 AM



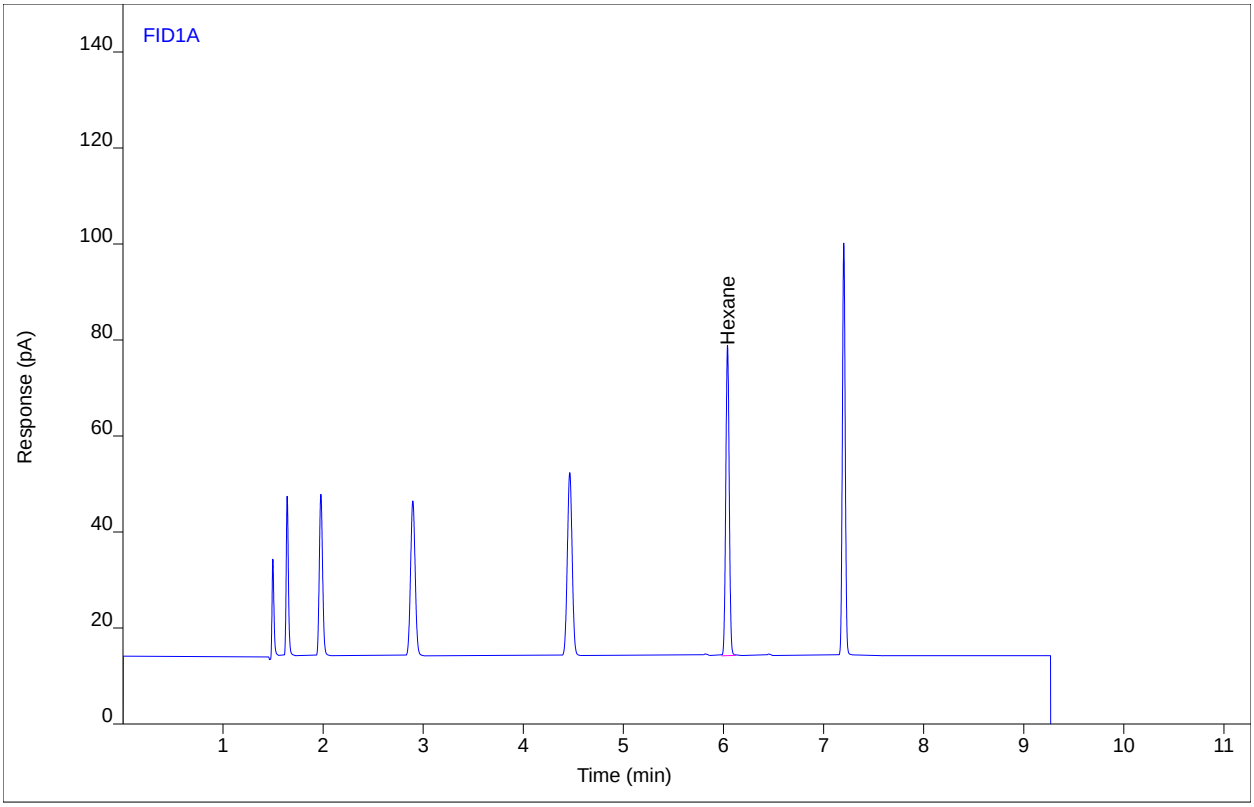
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hexane	BB	6.04	155.558	65.0892	102.265	1	102.265	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	Edithp1429 #C4 ENV(1=0,2=400.67)
Sequence Name	EDITHP1470 ver.3
Inj Data File	002F1304.D
File Location	GC/2018/Edith/Quarter 3
Injection Date	8/24/2018 5:03 PM
File Modified	8/28/2018 1:54 PM
Instrument	
Operator	Nicholas Traversa

Sample Type	Calibration
Vial Number	Vial 2
Injection Volume	250
Injection	4 of 4
Acquisition Method	AQ_EDITHP503_HRVOC.M
Analysis Method	EDITHP1163F_C1-C7.M
Method Modified	6/21/2018 2:51 PM
Printed	8/29/2018 9:35 AM



Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hexane	BB	6.04	154.569	64.5846	101.616	1	101.616	ppm

Calibration Table

Calib. Data Modified : 8/28/2018 10:33:48 AM

Rel. Reference Window : 0.000 %
Abs. Reference Window : 0.100 min
Rel. Non-ref. Window : 0.000 %
Abs. Non-ref. Window : 0.050 min
Uncalibrated Peaks : Separately calculated (see below)
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: No, only for identified peaks

Curve Type : Linear
Origin : Connected
Weight : Quadratic (Amnt)

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

Signal 1: FID1 A, Front Signal
Uncalibrated Peaks : using compound Hexane
Signal 2: FID3 B, Back Signal
Uncalibrated Peaks : not reported

RetTime [min]	Sig	Lvl	Amount [ppm]	Area	Amt/Area	Ref	Grp	Name
15.000	1	1	5.00000	7.43455	6.72536e-1			Hexane
		2	20.00000	30.32785	6.59460e-1			
		3	40.00000	60.91316	6.56673e-1			
		4	100.00000	151.04099	6.62072e-1			
		5	201.00000	297.61755	6.75363e-1			
		6	604.00000	916.64144	6.58927e-1			
		7	4006.00000	6299.16732	6.35957e-1			

Peak Sum Table

Name	StartTime [min]	EndTime [min]	Use Reference	Response factor	Multiplier	ISTD Peak
as Hexane	1.477	3.600	None	6.6000e-1	0.6600	None
as Hexane	3.610	16.300	None	6.6000e-1	0.6600	None

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Calibration Curves

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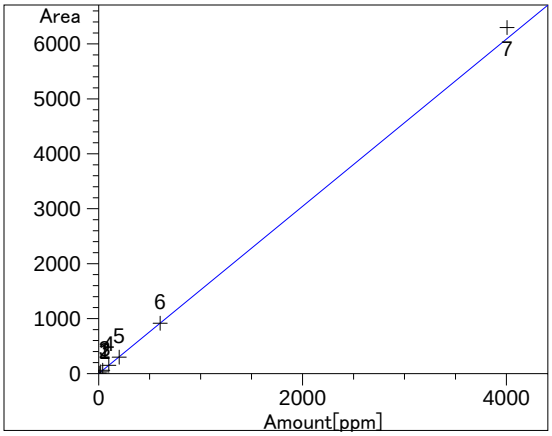

Hexane at exp. RT: 15.000
FID1 A, Front Signal
Correlation: 0.99981
Residual Std. Dev.: 88.91281
Formula: y = mx + b
m: 1.52290
b: -1.81634e-1
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.0625
Level 3 : 0.015625
Level 4 : 0.0025
Level 5 : 0.000619
Level 6 : 0.000069
Level 7 : 1.55782e-006

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Enthalpy Analytical

Company: Eurofins Lancaster Laboratories Environmental, LLC

Job No.: 0818-154 - EPA Method 18 (Bags)

Client No.: 1978651

Hexane -- Calibration Standards

SAMPLE NAME	Filename #1	Filename #2	Filename #3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	%dif RT	Conc # 1	Conc # 2	Conc # 3	%dif conc	Units	Avg Conc	Standard Tag	% Tag
Edithp1429 #C4 ENV(1=0,2=400.67)	002F1302.D	002F1303.D	002F1304.D	EDITHP1163F_C1-C7.M	6.04	6.04	6.04	0.0	104	103	103	0.3	ppm	104	101	103
Zero Air Blank	016F1601.D	016F1602.D	016F1603.D	EDITHP1163F_C1-C7.M	NA	NA	NA	NA	0.500	0.500	0.500	0.0	ppm	0.500	ND	
Edithp1429 #C4 ENV(1=0,2=400.67)	002F1302.D	002F1303.D	002F1304.D	EDITHP1163F_C1-C7.M	6.04	6.04	6.04	0.0	102	102	102	0.4	ppm	102	101	101

Calibration Table

Calib. Data Modified : 2/22/2018 10:21:41 AM

Rel. Reference Window : 0.000 %
Abs. Reference Window : 0.100 min
Rel. Non-ref. Window : 0.000 %
Abs. Non-ref. Window : 0.050 min
Uncalibrated Peaks : Separately calculated (see below)
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: No, only for identified peaks

Curve Type : Linear
Origin : Connected
Weight : Quadratic (Amnt)

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

Signal 1: FID1 A, Front Signal
Uncalibrated Peaks : using compound Propane
Signal 2: FID3 B, Back Signal
Uncalibrated Peaks : not reported

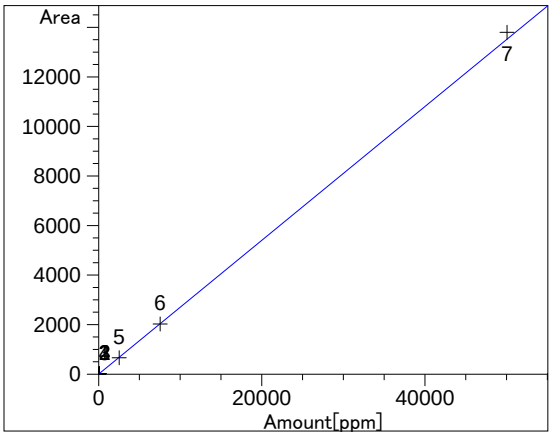
RetTime [min]	Sig	Lvl	Amount [ppm]	Area	Amt/Area	Ref	Grp	Name
1.506	1	1	5.00000	1.22567	4.07941			Methane
		2	20.00000	5.34797	3.73974			
		3	40.00000	10.83565	3.69152			
		4	100.00000	26.78109	3.73398			
		5	2515.00000	659.99679	3.81062			
		6	7543.00000	2022.99207	3.72864			
		7	5.00600e4	1.37975e4	3.62820			
1.649	1	1	5.05000	2.51410	2.00867			Ethane
		2	20.20000	10.55771	1.91329			
		3	40.40000	21.21094	1.90468			
		4	101.00000	52.46002	1.92528			
		5	2513.00000	1273.60018	1.97315			
		6	7538.00000	3903.02710	1.93132			
		7	5.00300e4	2.65802e4	1.88223			
1.989	1	1	5.00000	3.69271	1.35402			Propane
		2	20.00000	15.43856	1.29546			
		3	40.00000	31.18861	1.28252			
		4	100.00000	77.42424	1.29159			
		5	2513.00000	1904.13220	1.31976			
		6	7538.00000	5839.21208	1.29093			
		7	5.00300e4	3.97798e4	1.25767			
2.910	1	1	5.00000	5.06041	9.88062e-1			Butane
		2	20.00000	20.63003	9.69460e-1			
		3	40.00000	41.40256	9.66124e-1			
		4	100.00000	102.82179	9.72557e-1			

RetTime [min]	Sig	Lvl	Amount [ppm]	Area	Amt/Area	Ref	Grp	Name
		5	502.00000	504.89557	9.94265e-1			
		6	1507.00000	1550.37846	9.72021e-1			
		7	1.00000e4	1.06161e4	9.41969e-1			
4.479	1	1	5.00000	6.46515	7.73377e-1			Pentane
		2	20.00000	25.75816	7.76453e-1			
		3	40.00000	51.44824	7.77480e-1			
		4	100.00000	127.34086	7.85294e-1			
		5	251.00000	313.55038	8.00509e-1			
		6	754.00000	965.94735	7.80581e-1			
		7	5003.00000	6624.74235	7.55199e-1			
6.053	1	1	5.00000	7.43455	6.72536e-1			Hexane
		2	20.00000	30.32785	6.59460e-1			
		3	40.00000	60.91316	6.56673e-1			
		4	100.00000	151.04099	6.62072e-1			
		5	201.00000	297.61755	6.75363e-1			
		6	604.00000	916.64144	6.58927e-1			
		7	4006.00000	6299.16732	6.35957e-1			
7.213	1	1	5.00000	8.55722	5.84302e-1			Heptane
		2	20.00000	34.89551	5.73140e-1			
		3	40.00000	70.09591	5.70647e-1			
		4	100.00000	173.85586	5.75189e-1			
		7	251.00000	458.46882	5.47475e-1			

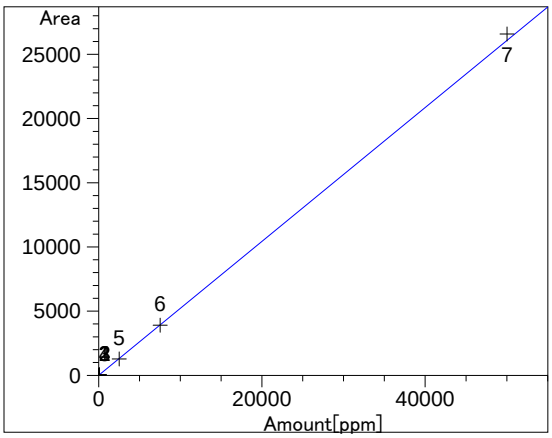
Peak Sum Table

Name	StartTime [min]	EndTime [min]	Use Reference	Response factor	Multiplier	ISTD Peak
as Ethane	1.560	1.825	None	1.9340	1.9340	None
as Propane	1.825	2.500	None	1.2990	1.2990	None
as Butane	2.500	3.600	None	9.7200e-1	0.9720	None
as Pentane	3.600	5.250	None	7.7800e-1	0.7780	None
as Hexane	5.250	6.600	None	6.6000e-1	0.6600	None
as Heptane	6.600	16.300	None	5.7000e-1	0.5700	None

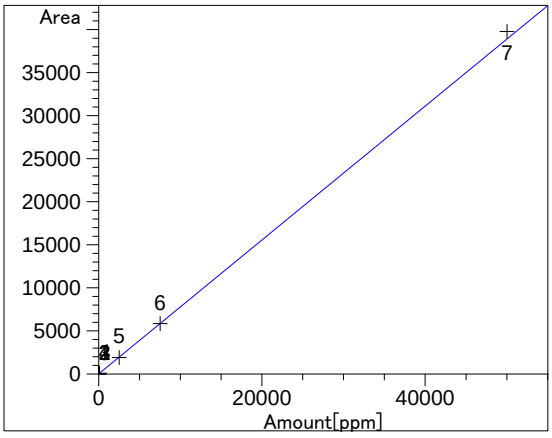
Calibration Curves



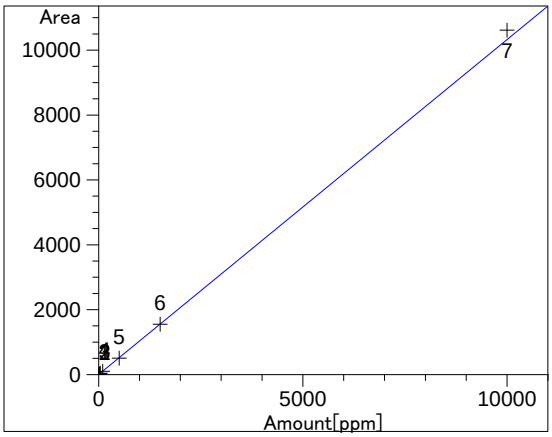
Methane at exp. RT: 1.506
FID1 A, Front Signal
Correlation: 0.99984
Residual Std. Dev.: 121.08133
Formula: y = mx + b
m: 2.70235e-1
b: -1.19684e-1
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.0625
Level 3 : 0.015625
Level 4 : 0.0025
Level 5 : 3.95243e-006
Level 6 : 4.39392e-007
Level 7 : 9.97604e-009



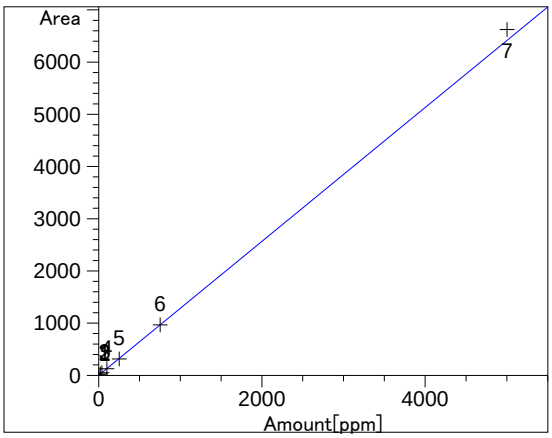
Ethane at exp. RT: 1.649
FID1 A, Front Signal
Correlation: 0.99985
Residual Std. Dev.: 216.64617
Formula: y = mx + b
m: 5.21651e-1
b: -1.08793e-1
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.0625
Level 3 : 0.015625
Level 4 : 0.0025
Level 5 : 4.03829e-006
Level 6 : 4.48818e-007
Level 7 : 1.01888e-008



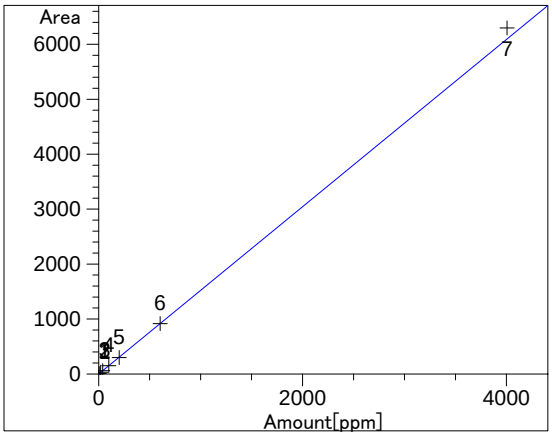
Propane at exp. RT: 1.989
FID1 A, Front Signal
Correlation: 0.99988
Residual Std. Dev.: 383.71712
Formula: y = mx + b
m: 7.78010e-1
b: -1.89724e-1
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.0625
Level 3 : 0.015625
Level 4 : 0.0025
Level 5 : 3.95872e-006
Level 6 : 4.39975e-007
Level 7 : 9.98801e-009



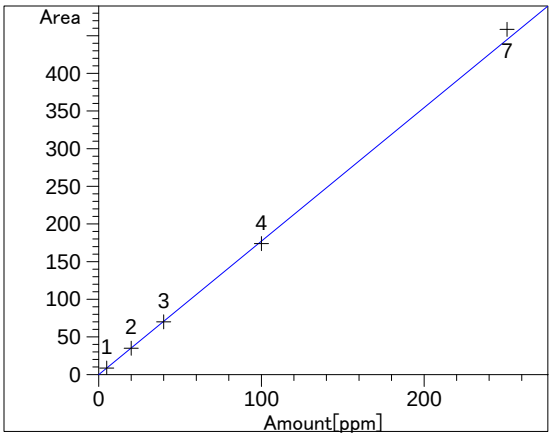
Butane at exp. RT: 2.910
FID1 A, Front Signal
Correlation: 0.99985
Residual Std. Dev.: 127.53139
Formula: y = mx + b
m: 1.03314
b: -1.00601e-1
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.0625
Level 3 : 0.015625
Level 4 : 0.0025
Level 5 : 0.000099
Level 6 : 0.000011
Level 7 : 2.5e-007



Pentane at exp. RT: 4.479
FID1 A, Front Signal
Correlation: 0.99982
Residual Std. Dev.: 92.20263
Formula: y = mx + b
m: 1.28297
b: 4.89093e-2
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.0625
Level 3 : 0.015625
Level 4 : 0.0025
Level 5 : 0.000397
Level 6 : 0.000044
Level 7 : 9.98801e-007



Hexane at exp. RT: 6.053
FID1 A, Front Signal
Correlation: 0.99981
Residual Std. Dev.: 88.91281
Formula: y = mx + b
m: 1.52290
b: -1.81634e-1
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.0625
Level 3 : 0.015625
Level 4 : 0.0025
Level 5 : 0.000619
Level 6 : 0.000069
Level 7 : 1.55782e-006



Heptane at exp. RT: 7.213
FID1 A, Front Signal
Correlation: 0.99978
Residual Std. Dev.: 7.96830
Formula: y = mx + b
m: 1.77455
b: -3.42679e-1
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.0625
Level 3 : 0.015625
Level 4 : 0.0025
Level 7 : 0.000397

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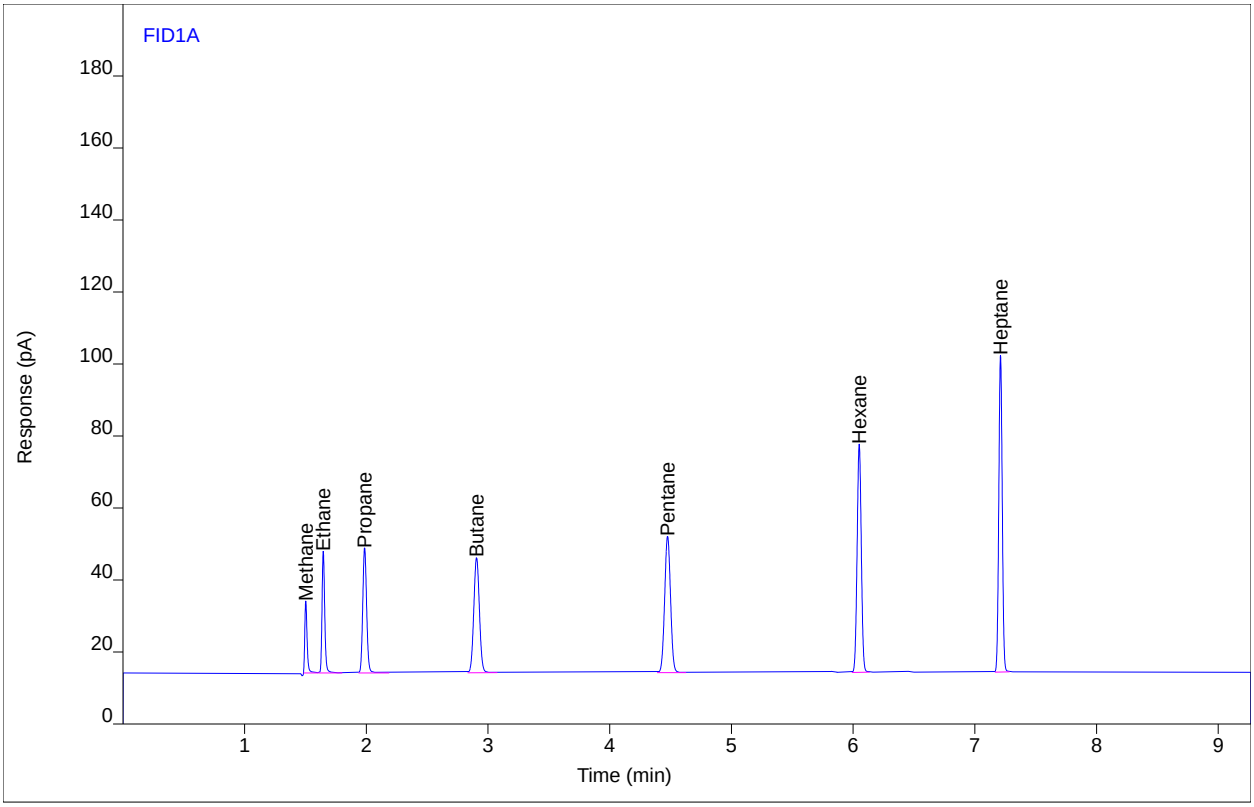
Chromatogram Report

Enthalpy Analytical

Sample Name	Edithp1163 #C4 ENV(1=0,2=400.67)
Sequence Name	EDITHP1163A ver.2
Inj Data File	002F0802.D
File Location	GC/2017/Edith/Quarter 4
Injection Date	11/27/2017 5:53 PM
File Modified	11/29/2017 1:29 PM
Instrument	
Operator	Nicholas Traversa

Sample Type	Calibration
Vial Number	Vial 2
Injection Volume	250
Injection	2 of 4
Acquisition Method	AQ_EDITHP503_HRVOC.M
Analysis Method	EDITHP1163F_C1-C7.M
Method Modified	11/29/2017 9:17 AM
Printed	11/30/2017 2:58 PM



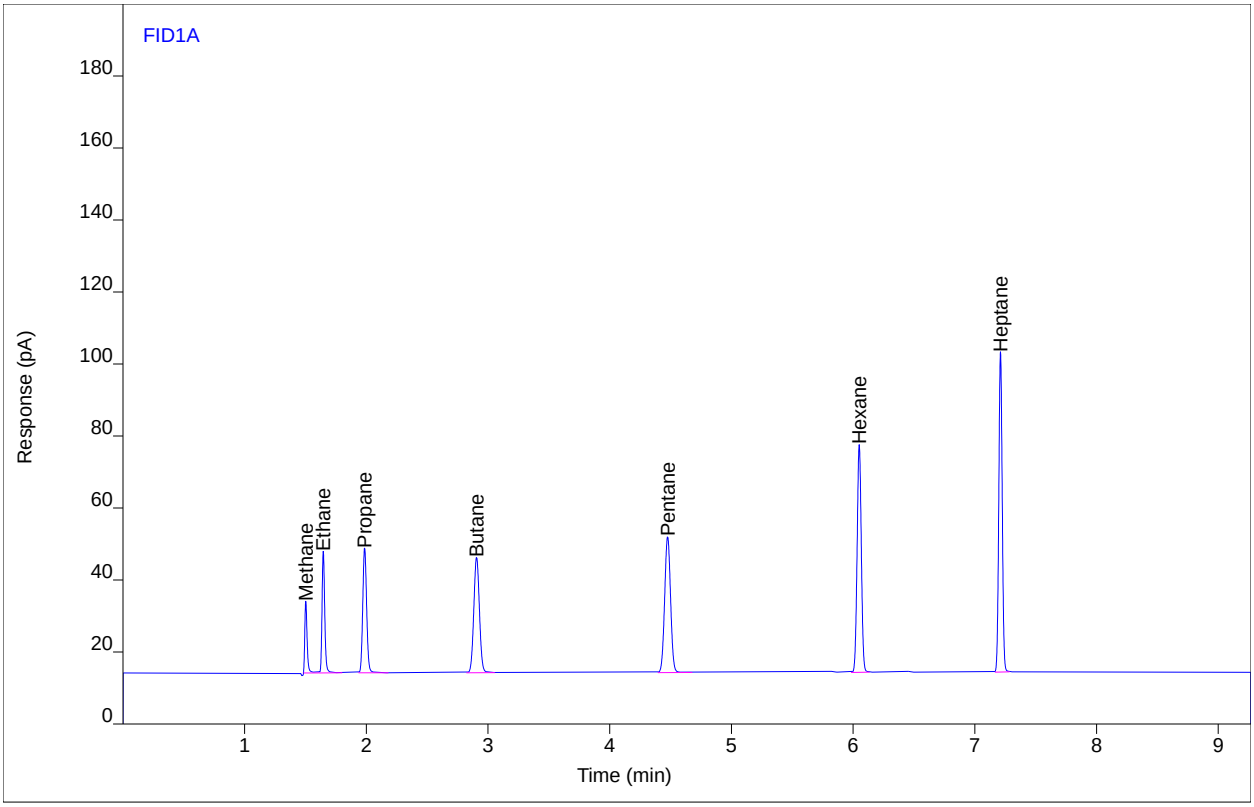
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PV	1.50	26.7767	20.0053	99.5294	1	99.5294	ppm
Ethane	VB	1.65	52.4027	33.7276	100.664	1	100.664	ppm
Propane	BB	1.99	77.4402	34.7573	99.7801	1	99.7801	ppm
Butane	BB	2.91	102.847	32.0417	99.6453	1	99.6453	ppm
Pentane	BV	4.48	127.426	37.9058	99.2826	1	99.2826	ppm
Hexane	BB	6.05	151.032	63.3786	99.2931	1	99.2931	ppm
Heptane	BB	7.21	173.831	87.8776	98.1508	1	98.1508	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	Edithp1163 #C4 ENV(1=0,2=400.67)
Sequence Name	EDITHP1163A ver.2
Inj Data File	002F0803.D
File Location	GC/2017/Edith/Quarter 4
Injection Date	11/27/2017 6:09 PM
File Modified	11/29/2017 1:29 PM
Instrument	
Operator	Nicholas Traversa

Sample Type	Calibration
Vial Number	Vial 2
Injection Volume	250
Injection	3 of 4
Acquisition Method	AQ_EDITHP503_HRVOC.M
Analysis Method	EDITHP1163F_C1-C7.M
Method Modified	11/29/2017 9:17 AM
Printed	11/30/2017 2:58 PM



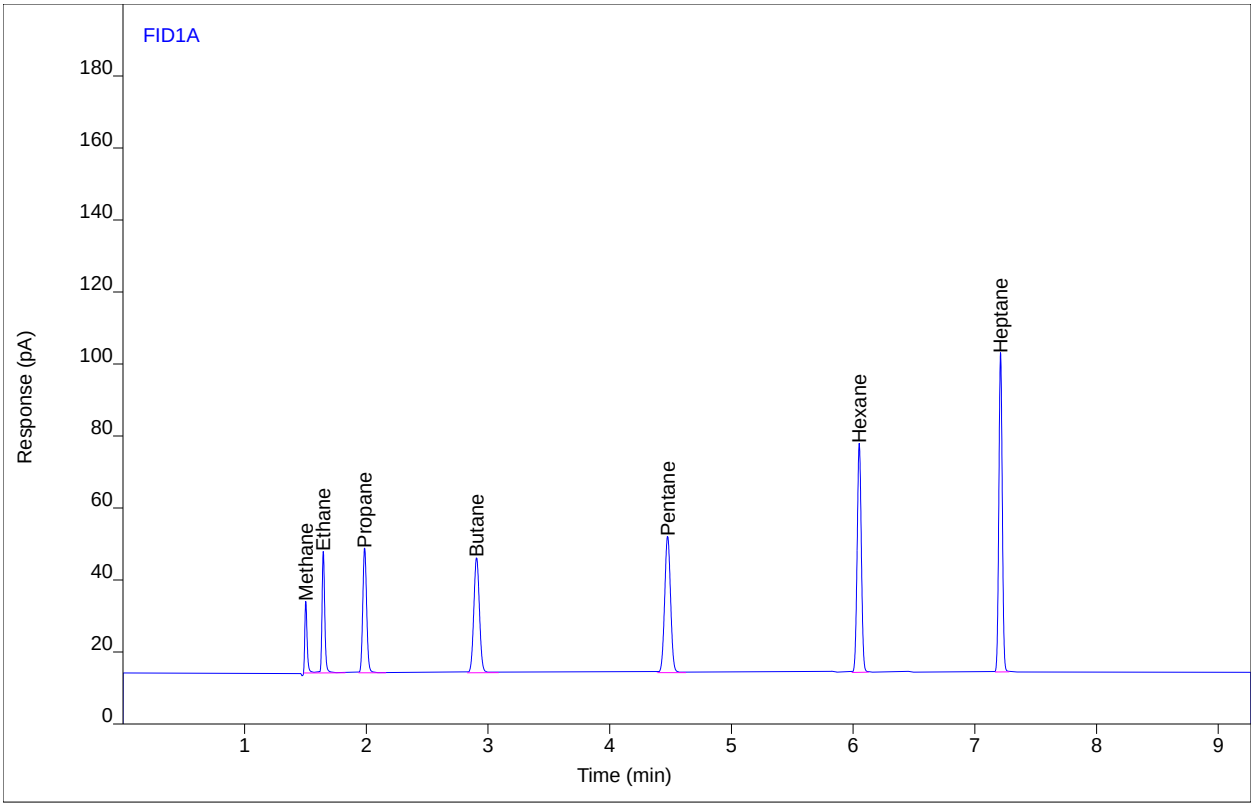
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PV	1.50	26.7704	19.9791	99.5062	1	99.5062	ppm
Ethane	VB	1.65	52.4301	33.7254	100.717	1	100.717	ppm
Propane	BB	1.99	77.4682	34.7228	99.8161	1	99.8161	ppm
Butane	BB	2.91	102.789	32.1063	99.5891	1	99.5891	ppm
Pentane	BB	4.48	127.217	37.8351	99.1198	1	99.1198	ppm
Hexane	BB	6.05	151.150	63.2414	99.3705	1	99.3705	ppm
Heptane	BB	7.21	173.921	88.7331	98.2013	1	98.2013	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	Edithp1163 #C4 ENV(1=0,2=400.67)
Sequence Name	EDITHP1163A ver.2
Inj Data File	002F0804.D
File Location	GC/2017/Edith/Quarter 4
Injection Date	11/27/2017 6:25 PM
File Modified	11/29/2017 1:29 PM
Instrument	
Operator	Nicholas Traversa

Sample Type	Calibration
Vial Number	Vial 2
Injection Volume	250
Injection	4 of 4
Acquisition Method	AQ_EDITHP503_HRVOC.M
Analysis Method	EDITHP1163F_C1-C7.M
Method Modified	11/29/2017 9:17 AM
Printed	11/30/2017 2:58 PM



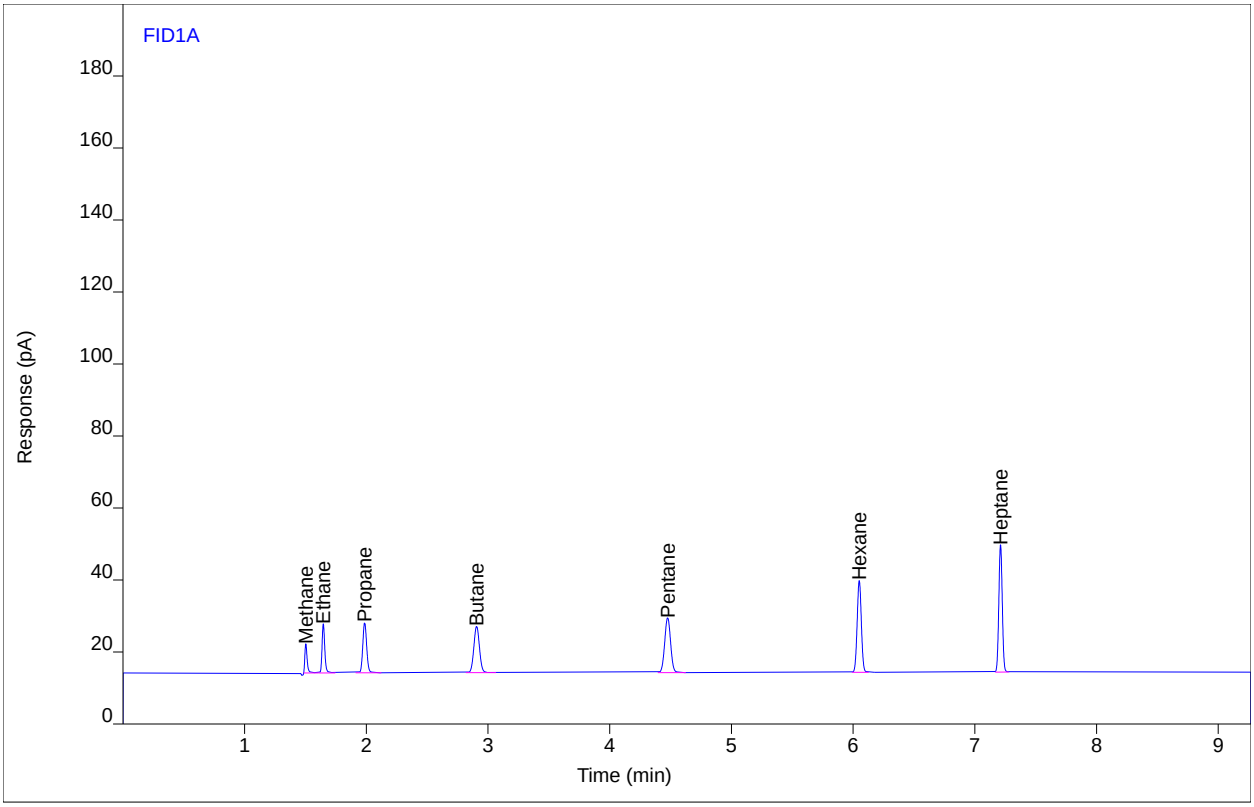
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PV	1.50	26.7962	19.9743	99.6017	1	99.6017	ppm
Ethane	VB	1.65	52.5472	33.7126	100.941	1	100.941	ppm
Propane	BB	1.99	77.3643	34.7189	99.6824	1	99.6824	ppm
Butane	BB	2.91	102.830	32.0302	99.6288	1	99.6288	ppm
Pentane	BV	4.48	127.380	37.9372	99.2471	1	99.2471	ppm
Hexane	BB	6.05	150.942	63.5166	99.2340	1	99.2340	ppm
Heptane	BB	7.21	173.815	88.5062	98.1418	1	98.1418	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	Edithp1163 #C3 ENV(1=600,2=400.67)
Sequence Name	EDITHP1163A ver.2
Inj Data File	002F0902.D
File Location	GC/2017/Edith/Quarter 4
Injection Date	11/27/2017 6:57 PM
File Modified	11/29/2017 1:29 PM
Instrument	
Operator	Nicholas Traversa

Sample Type	Calibration
Vial Number	Vial 2
Injection Volume	250
Injection	2 of 4
Acquisition Method	AQ_EDITHP503_HRVOC.M
Analysis Method	EDITHP1163F_C1-C7.M
Method Modified	11/29/2017 9:17 AM
Printed	11/30/2017 2:58 PM



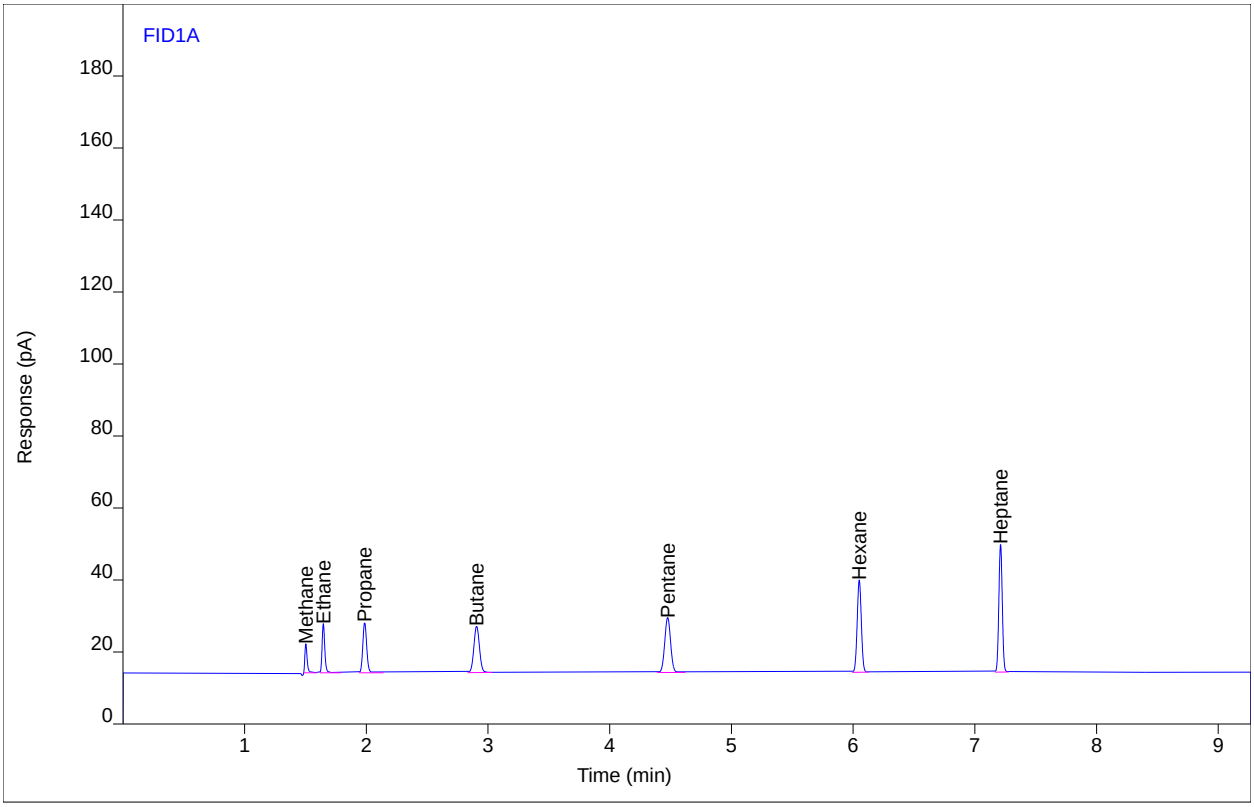
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PV	1.50	10.8613	8.05482	40.6349	1	40.6349	ppm
Ethane	VB	1.65	21.2055	13.5800	40.8594	1	40.8594	ppm
Propane	PB	1.99	31.1581	13.9948	40.2923	1	40.2923	ppm
Butane	BB	2.91	41.3297	12.8966	40.1014	1	40.1014	ppm
Pentane	BB	4.48	51.4211	15.2226	40.0416	1	40.0416	ppm
Hexane	BB	6.05	60.8443	25.4463	40.0722	1	40.0722	ppm
Heptane	BB	7.21	69.9977	35.3858	39.6384	1	39.6384	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	Edithp1163 #C3 ENV(1=600,2=400.67)
Sequence Name	EDITHP1163A ver.2
Inj Data File	002F0903.D
File Location	GC/2017/Edith/Quarter 4
Injection Date	11/27/2017 7:13 PM
File Modified	11/29/2017 1:29 PM
Instrument	
Operator	Nicholas Traversa

Sample Type	Calibration
Vial Number	Vial 2
Injection Volume	250
Injection	3 of 4
Acquisition Method	AQ_EDITHP503_HRVOC.M
Analysis Method	EDITHP1163F_C1-C7.M
Method Modified	11/29/2017 9:17 AM
Printed	11/30/2017 2:58 PM



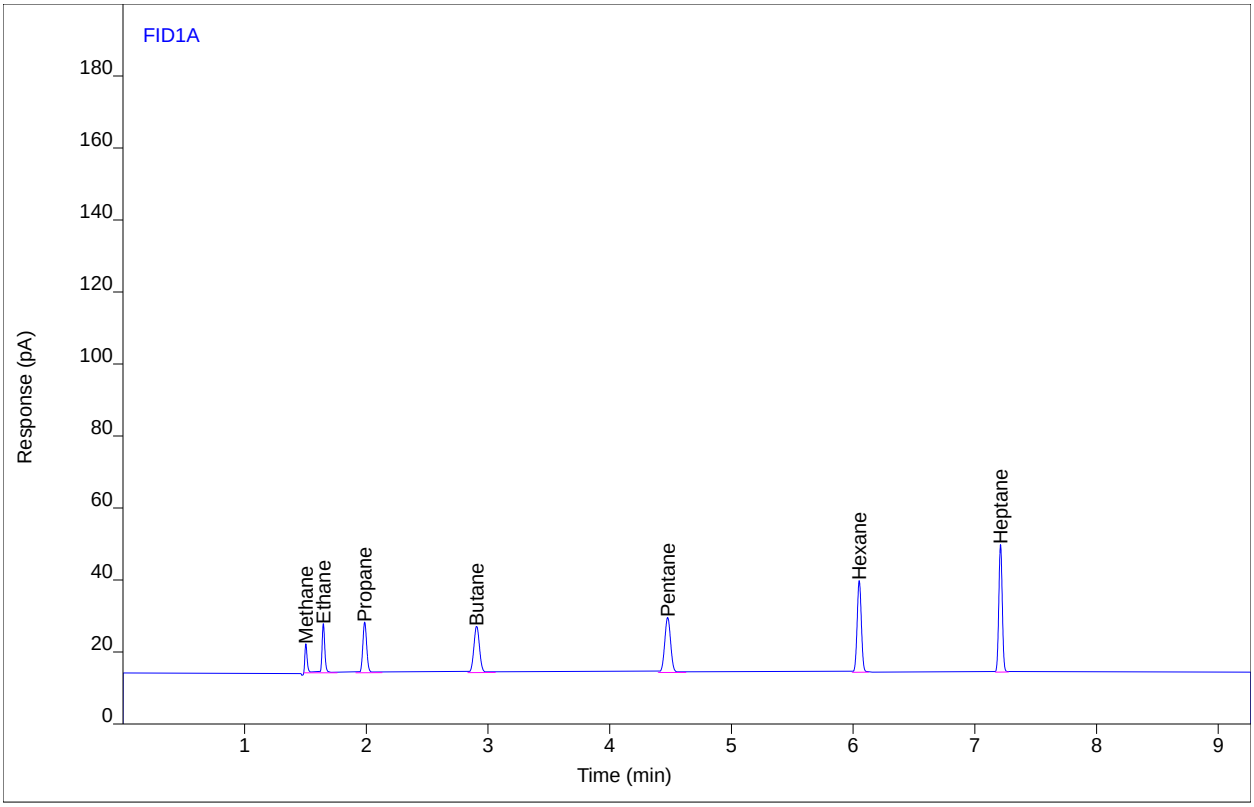
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	1.50	10.7541	8.05352	40.2380	1	40.2380	ppm
Ethane	BB	1.65	21.1319	13.5816	40.7183	1	40.7183	ppm
Propane	BB	1.99	31.1569	14.0061	40.2907	1	40.2907	ppm
Butane	BB	2.91	41.3468	12.9263	40.1179	1	40.1179	ppm
Pentane	BB	4.48	51.4255	15.2709	40.0450	1	40.0450	ppm
Hexane	BB	6.05	60.8817	25.6049	40.0967	1	40.0967	ppm
Heptane	BB	7.21	70.0868	35.4769	39.6885	1	39.6885	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	Edithp1163 #C3 ENV(1=600,2=400.67)
Sequence Name	EDITHP1163A ver.2
Inj Data File	002F0904.D
File Location	GC/2017/Edith/Quarter 4
Injection Date	11/27/2017 7:29 PM
File Modified	11/29/2017 1:29 PM
Instrument	
Operator	Nicholas Traversa

Sample Type	Calibration
Vial Number	Vial 2
Injection Volume	250
Injection	4 of 4
Acquisition Method	AQ_EDITHP503_HRVOC.M
Analysis Method	EDITHP1163F_C1-C7.M
Method Modified	11/29/2017 9:17 AM
Printed	11/30/2017 2:58 PM



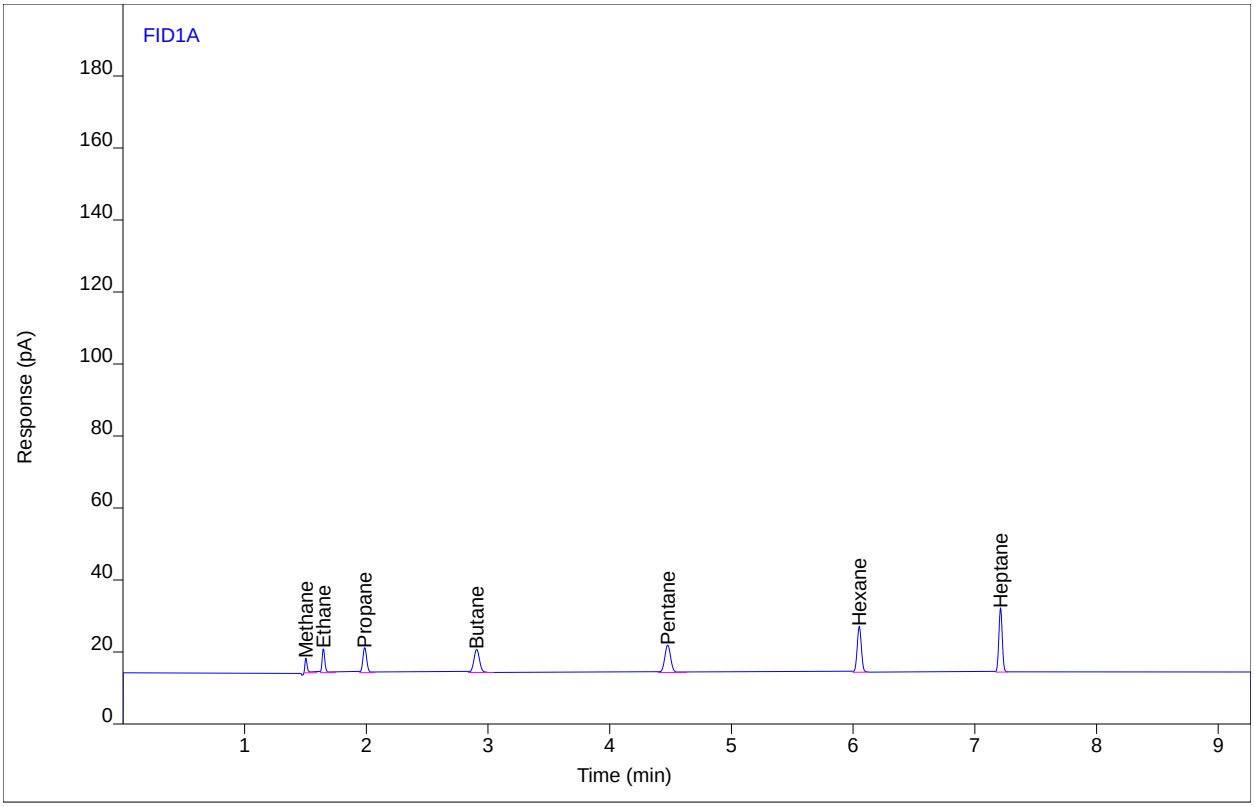
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PV	1.50	10.8916	8.06385	40.7471	1	40.7471	ppm
Ethane	VB	1.65	21.2953	13.5554	41.0315	1	41.0315	ppm
Propane	PB	1.99	31.2509	14.0231	40.4115	1	40.4115	ppm
Butane	BB	2.91	41.5312	12.9425	40.2964	1	40.2964	ppm
Pentane	BB	4.48	51.4981	15.2684	40.1016	1	40.1016	ppm
Hexane	BB	6.05	61.0135	25.4172	40.1833	1	40.1833	ppm
Heptane	BB	7.21	70.2032	35.4050	39.7541	1	39.7541	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	Edithp1163 #C2 ENV(1=800,2=200.34)
Sequence Name	EDITHP1163A ver.2
Inj Data File	002F1002.D
File Location	GC/2017/Edith/Quarter 4
Injection Date	11/27/2017 8:00 PM
File Modified	11/29/2017 1:30 PM
Instrument	
Operator	Nicholas Traversa

Sample Type	Calibration
Vial Number	Vial 2
Injection Volume	250
Injection	2 of 4
Acquisition Method	AQ_EDITHP503_HRVOC.M
Analysis Method	EDITHP1163F_C1-C7.M
Method Modified	11/29/2017 9:17 AM
Printed	11/30/2017 2:58 PM



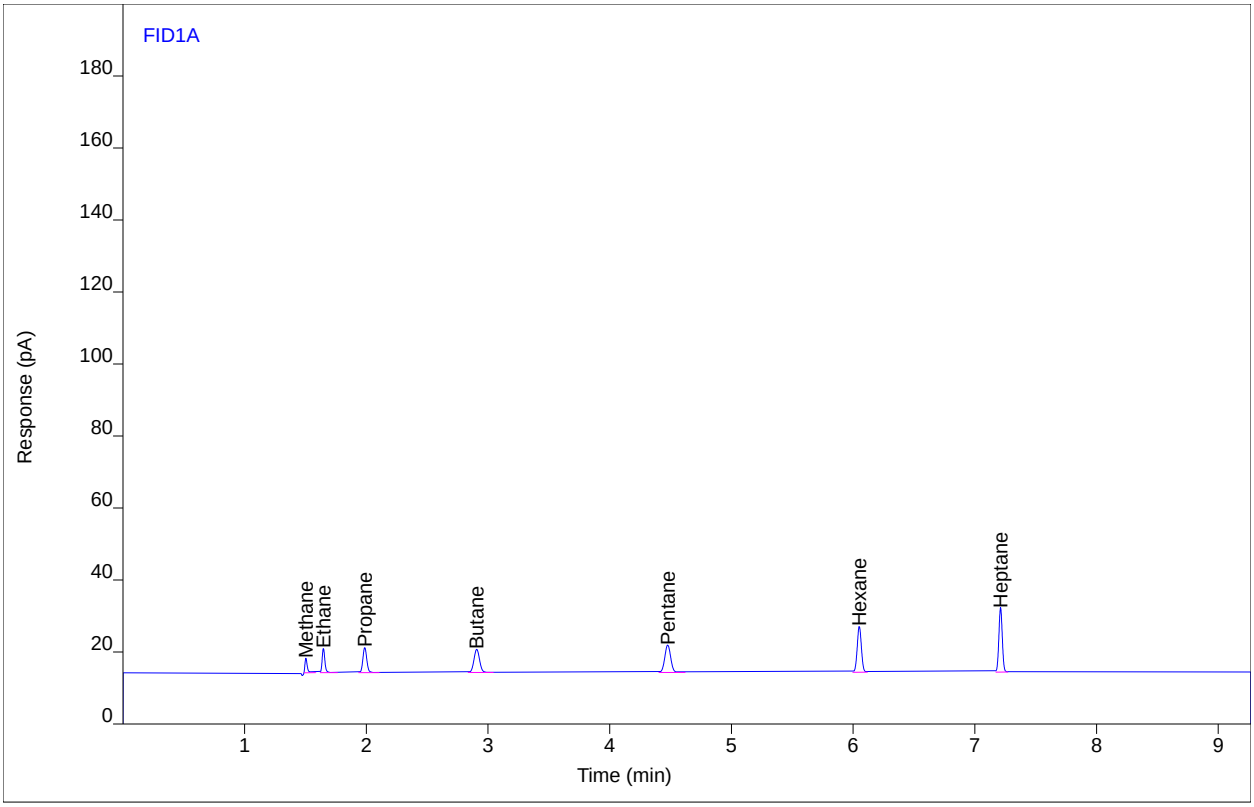
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	1.50	5.33253	3.96358	20.1758	1	20.1758	ppm
Ethane	BB	1.65	10.4598	6.74899	20.2598	1	20.2598	ppm
Propane	BB	1.99	15.3644	6.96005	19.9922	1	19.9922	ppm
Butane	BB	2.91	20.5990	6.43718	20.0356	1	20.0356	ppm
Pentane	BB	4.48	25.6927	7.61294	19.9878	1	19.9878	ppm
Hexane	BB	6.05	30.2848	12.6846	20.0056	1	20.0056	ppm
Heptane	BB	7.21	34.8517	17.7803	19.8328	1	19.8328	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	Edithp1163 #C2 ENV(1=800,2=200.34)
Sequence Name	EDITHP1163A ver.2
Inj Data File	002F1003.D
File Location	GC/2017/Edith/Quarter 4
Injection Date	11/27/2017 8:16 PM
File Modified	11/29/2017 1:30 PM
Instrument	
Operator	Nicholas Traversa

Sample Type	Calibration
Vial Number	Vial 2
Injection Volume	250
Injection	3 of 4
Acquisition Method	AQ_EDITHP503_HRVOC.M
Analysis Method	EDITHP1163F_C1-C7.M
Method Modified	11/29/2017 9:17 AM
Printed	11/30/2017 2:58 PM



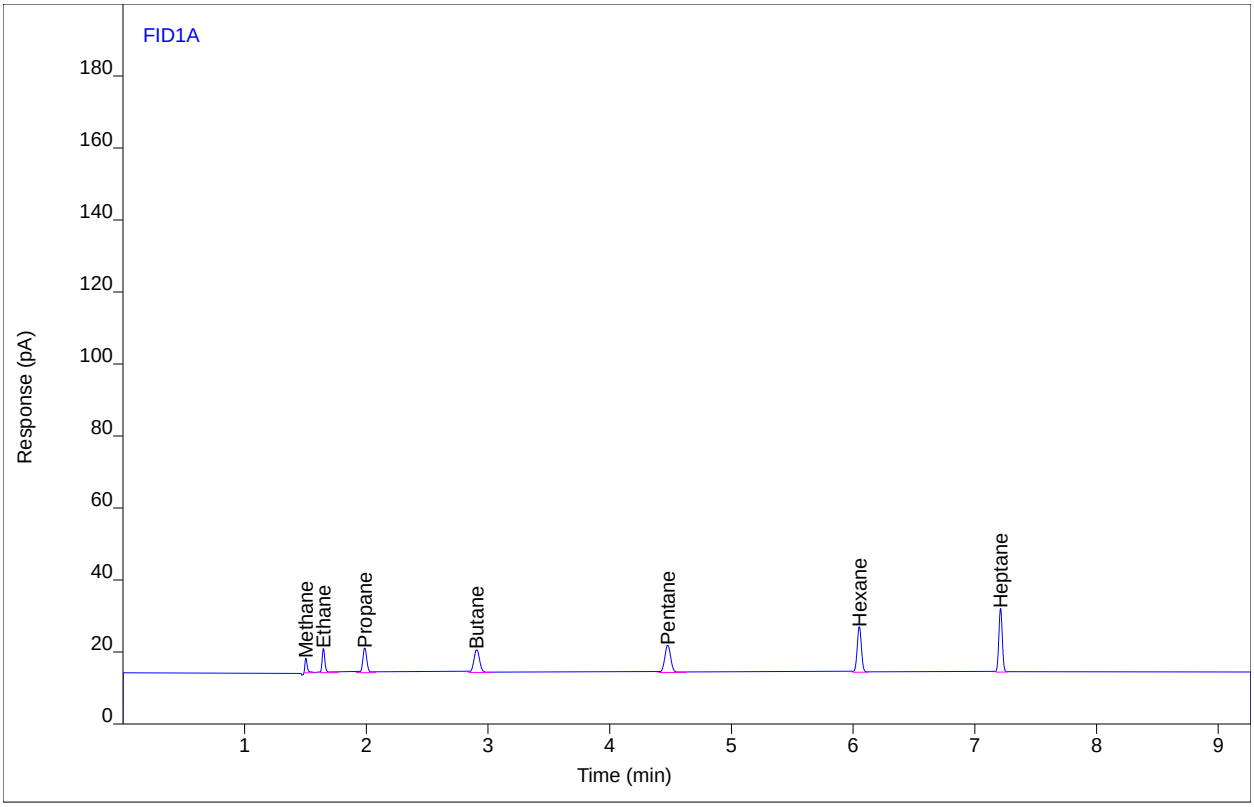
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	1.50	5.33090	3.97546	20.1698	1	20.1698	ppm
Ethane	BB	1.65	10.5538	6.75481	20.4401	1	20.4401	ppm
Propane	PB	1.99	15.5202	6.98592	20.1925	1	20.1925	ppm
Butane	BB	2.91	20.6531	6.43164	20.0880	1	20.0880	ppm
Pentane	BB	4.48	25.7754	7.61374	20.0523	1	20.0523	ppm
Hexane	BB	6.05	30.3278	12.6973	20.0338	1	20.0338	ppm
Heptane	BB	7.21	34.9028	17.8713	19.8616	1	19.8616	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	Edithp1163 #C2 ENV(1=800,2=200.34)
Sequence Name	EDITHP1163A ver.2
Inj Data File	002F1004.D
File Location	GC/2017/Edith/Quarter 4
Injection Date	11/27/2017 8:32 PM
File Modified	11/29/2017 1:30 PM
Instrument	
Operator	Nicholas Traversa

Sample Type	Calibration
Vial Number	Vial 2
Injection Volume	250
Injection	4 of 4
Acquisition Method	AQ_EDITHP503_HRVOC.M
Analysis Method	EDITHP1163F_C1-C7.M
Method Modified	11/29/2017 9:17 AM
Printed	11/30/2017 2:58 PM

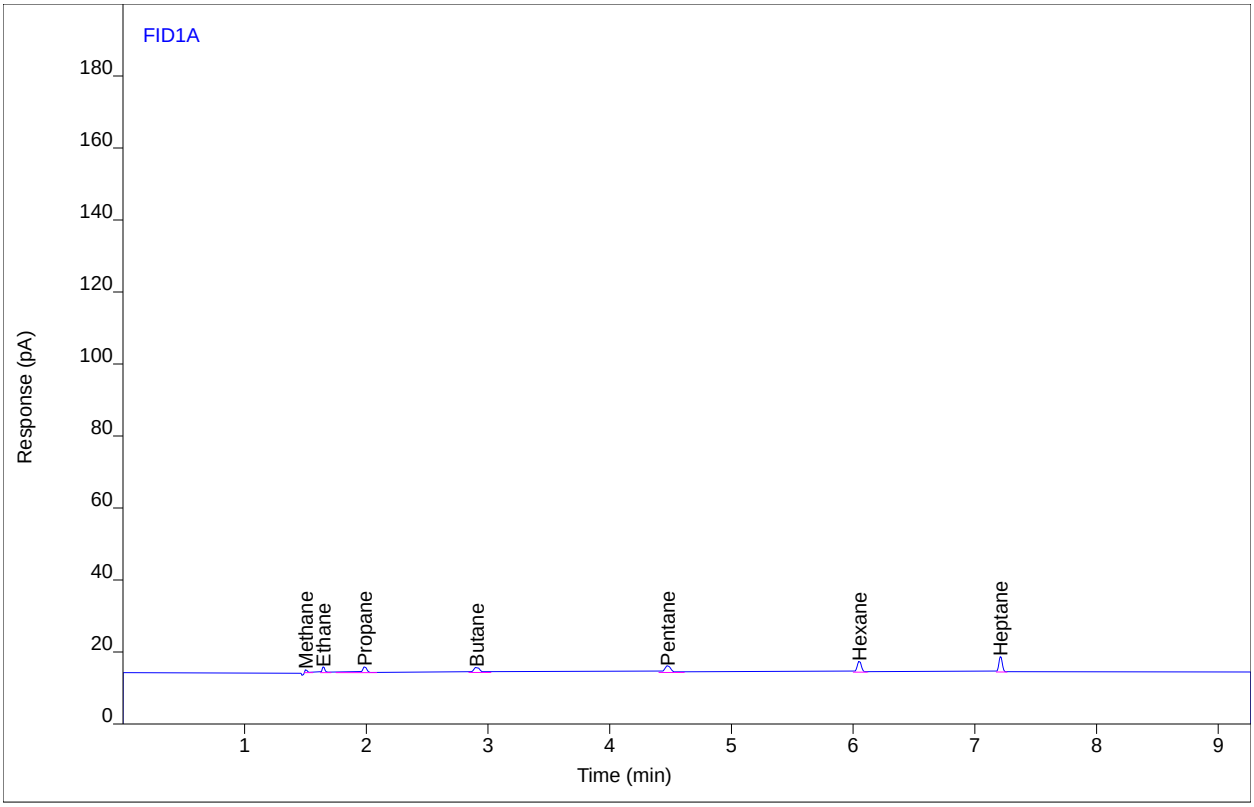


Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	1.50	5.38049	3.98151	20.3533	1	20.3533	ppm
Ethane	BB	1.65	10.6595	6.76244	20.6428	1	20.6428	ppm
Propane	PB	1.99	15.4311	6.95601	20.0779	1	20.0779	ppm
Butane	BB	2.91	20.6380	6.44635	20.0734	1	20.0734	ppm
Pentane	BV	4.48	25.8064	7.65285	20.0764	1	20.0764	ppm
Hexane	BB	6.05	30.3709	12.6634	20.0621	1	20.0621	ppm
Heptane	BB	7.21	34.9320	17.7223	19.8781	1	19.8781	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	Edithp1163 #C1 ENV(1=3800,2=200.34)	Sample Type	Calibration
Sequence Name	EDITHP1163A ver.2	Vial Number	Vial 2
Inj Data File	002F1102.D	Injection Volume	250
File Location	GC/2017/Edith/Quarter 4	Injection	2 of 10
Injection Date	11/27/2017 9:03 PM	Acquisition Method	AQ_EDITHP503_HRVOC.M
File Modified	11/29/2017 1:30 PM	Analysis Method	EDITHP1163F_C1-C7.M
Instrument		Method Modified	11/29/2017 9:17 AM
Operator	Nicholas Traversa	Printed	11/30/2017 2:58 PM

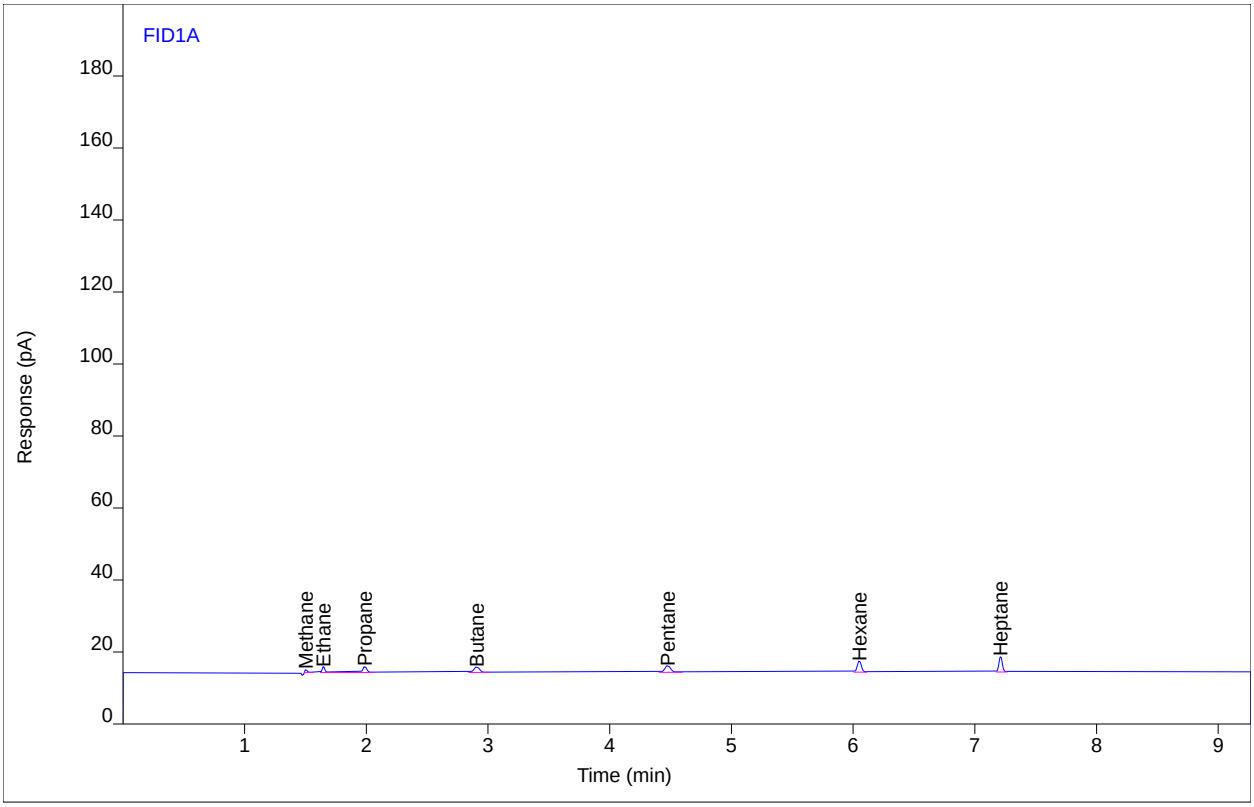


Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	1.50	1.22459	0.96504	4.97199	1	4.97199	ppm
Ethane	BB	1.65	2.54169	1.65843	5.08095	1	5.08095	ppm
Propane	BB	1.99	3.73906	1.71500	5.04979	1	5.04979	ppm
Butane	BB	2.91	5.06971	1.58782	5.00447	1	5.00447	ppm
Pentane	BB	4.48	6.59846	1.90808	5.10499	1	5.10499	ppm
Hexane	BB	6.05	7.44948	3.12795	5.01091	1	5.01091	ppm
Heptane	BB	7.21	8.57396	4.37048	5.02472	1	5.02472	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	Edithp1163 #C1 ENV(1=3800,2=200.34)	Sample Type	Calibration
Sequence Name	EDITHP1163A ver.2	Vial Number	Vial 2
Inj Data File	002F1103.D	Injection Volume	250
File Location	GC/2017/Edith/Quarter 4	Injection	3 of 10
Injection Date	11/27/2017 9:19 PM	Acquisition Method	AQ_EDITHP503_HRVOC.M
File Modified	11/29/2017 1:30 PM	Analysis Method	EDITHP1163F_C1-C7.M
Instrument		Method Modified	11/29/2017 9:17 AM
Operator	Nicholas Traversa	Printed	11/30/2017 2:58 PM

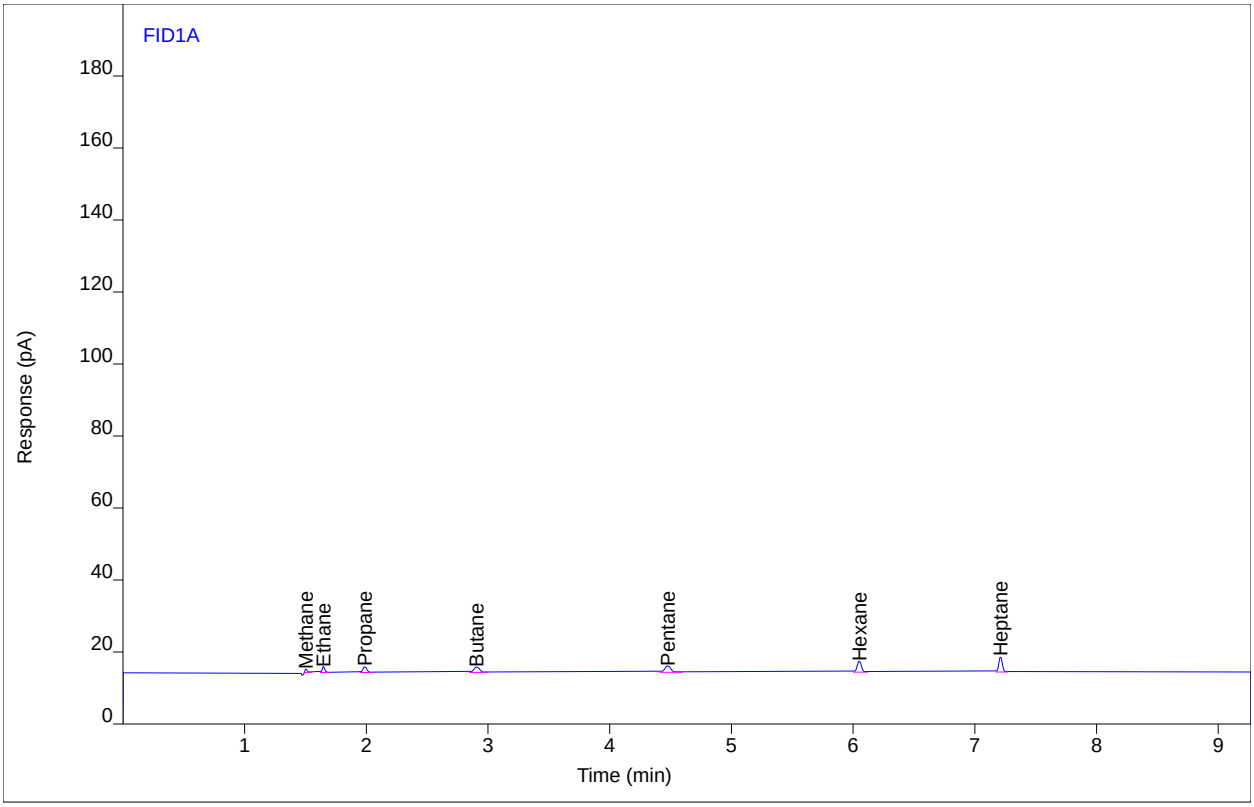


Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	1.50	1.23786	0.97088	5.02355	1	5.02355	ppm
Ethane	BP	1.65	2.50504	1.64184	5.00899	1	5.00899	ppm
Propane	VB	1.99	3.60715	1.70418	4.87409	1	4.87409	ppm
Butane	BB	2.91	5.04213	1.57826	4.97733	1	4.97733	ppm
Pentane	BB	4.48	6.39267	1.88562	4.94500	1	4.94500	ppm
Hexane	BB	6.05	7.43813	3.13455	5.00346	1	5.00346	ppm
Heptane	BB	7.21	8.53547	4.34832	5.00303	1	5.00303	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	Edithp1163 #C1 ENV(1=3800,2=200.34)	Sample Type	Calibration
Sequence Name	EDITHP1163A ver.2	Vial Number	Vial 2
Inj Data File	002F1104.D	Injection Volume	250
File Location	GC/2017/Edith/Quarter 4	Injection	4 of 10
Injection Date	11/27/2017 9:34 PM	Acquisition Method	AQ_EDITHP503_HRVOC.M
File Modified	11/29/2017 1:30 PM	Analysis Method	EDITHP1163F_C1-C7.M
Instrument		Method Modified	11/29/2017 9:17 AM
Operator	Nicholas Traversa	Printed	11/30/2017 2:58 PM



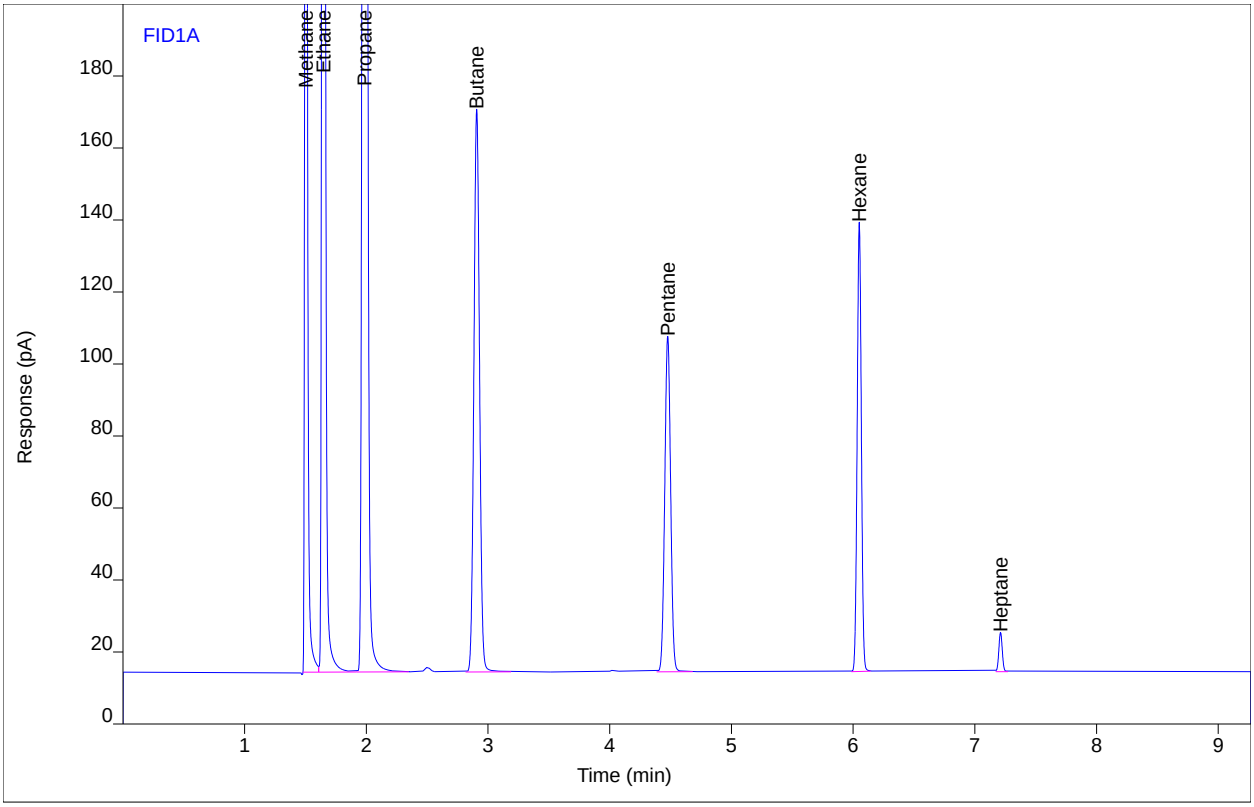
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	1.50	1.21455	0.96913	4.93121	1	4.93121	ppm
Ethane	BP	1.65	2.49557	1.64124	4.99006	1	4.99006	ppm
Propane	PB	1.99	3.73193	1.71188	5.04062	1	5.04062	ppm
Butane	BB	2.91	5.06938	1.58179	5.00415	1	5.00415	ppm
Pentane	BB	4.48	6.40432	1.88123	4.95402	1	4.95402	ppm
Hexane	BB	6.05	7.41605	3.10032	4.98869	1	4.98869	ppm
Heptane	BB	7.21	8.56223	4.31668	5.01811	1	5.01811	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	Edithp1163 #C5 ENV(1=3800,4=243.37)
Sequence Name	EDITHP1163A ver.2
Inj Data File	002F1902.D
File Location	GC/2017/Edith/Quarter 4
Injection Date	11/28/2017 7:07 AM
File Modified	11/29/2017 1:32 PM
Instrument	
Operator	Justin Guenzler

Sample Type	Calibration
Vial Number	Vial 2
Injection Volume	250
Injection	2 of 4
Acquisition Method	AQ_EDITHP503_HRVOC.M
Analysis Method	EDITHP1163F_C1-C7.M
Method Modified	11/29/2017 9:17 AM
Printed	11/30/2017 2:58 PM



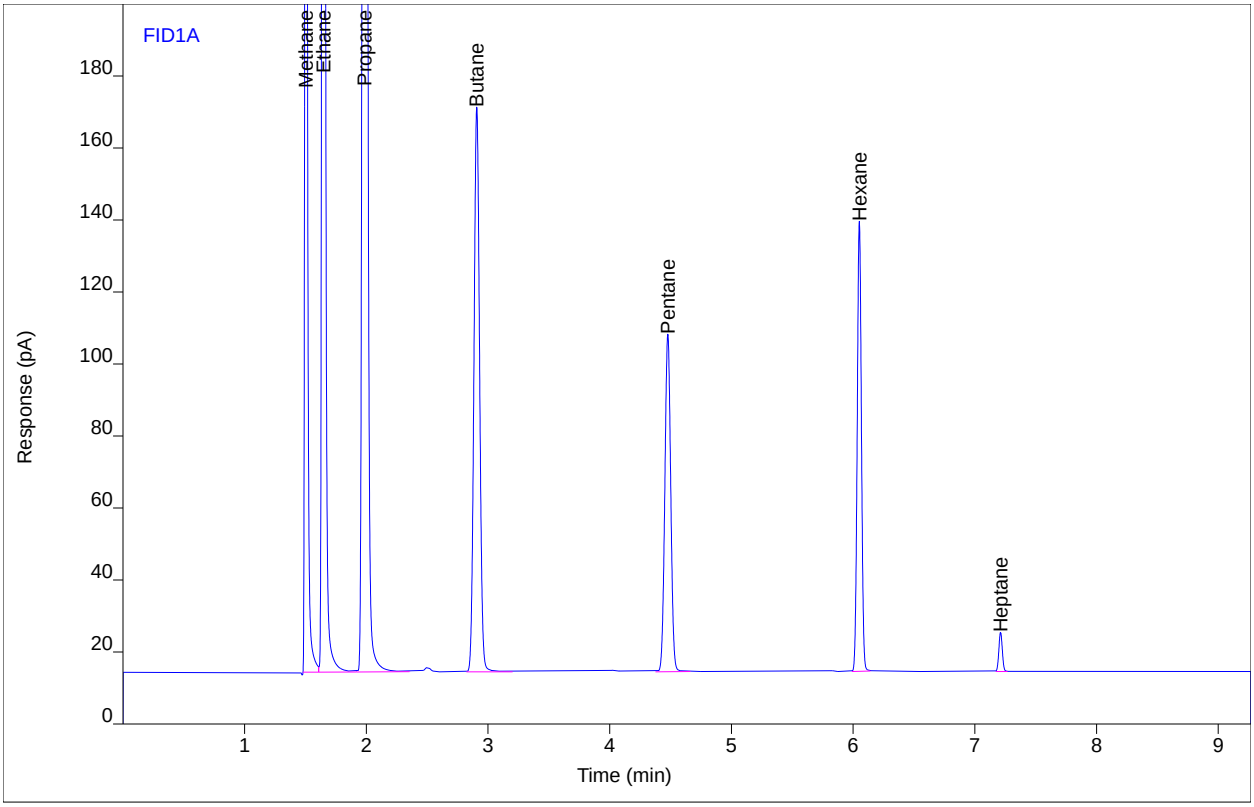
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PV	1.50	658.107	487.093	2435.75	1	2435.75	ppm
Ethane	VV	1.65	1269.92	808.279	2434.63	1	2434.63	ppm
Propane	VB	1.99	1898.64	846.244	2440.62	1	2440.62	ppm
Butane	BB	2.91	503.430	156.117	487.380	1	487.380	ppm
Pentane	BB	4.48	312.559	93.1937	243.583	1	243.583	ppm
Hexane	BB	6.05	296.705	124.584	194.949	1	194.949	ppm
Heptane	BB	7.21	21.4720	10.9087	12.2931	1	12.2931	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	Edithp1163 #C5 ENV(1=3800,4=243.37)
Sequence Name	EDITHP1163A ver.2
Inj Data File	002F1903.D
File Location	GC/2017/Edith/Quarter 4
Injection Date	11/28/2017 7:22 AM
File Modified	11/29/2017 1:32 PM
Instrument	
Operator	Justin Guenzler

Sample Type	Calibration
Vial Number	Vial 2
Injection Volume	250
Injection	3 of 4
Acquisition Method	AQ_EDITHP503_HRVOC.M
Analysis Method	EDITHP1163F_C1-C7.M
Method Modified	11/29/2017 9:17 AM
Printed	11/30/2017 2:58 PM



Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PV	1.50	662.158	486.396	2450.74	1	2450.74	ppm
Ethane	VV	1.65	1277.83	813.409	2449.80	1	2449.80	ppm
Propane	VB	1.99	1910.46	851.692	2455.82	1	2455.82	ppm
Butane	BB	2.91	506.551	156.847	490.400	1	490.400	ppm
Pentane	BB	4.48	314.627	93.8110	245.195	1	245.195	ppm
Hexane	BB	6.05	298.462	124.974	196.102	1	196.102	ppm
Heptane	BB	7.21	21.5926	10.9487	12.3610	1	12.3610	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	Edithp1163 #C5 ENV(1=3800,4=243.37)
Sequence Name	EDITHP1163A ver.2
Inj Data File	002F1904.D
File Location	GC/2017/Edith/Quarter 4
Injection Date	11/28/2017 7:38 AM
File Modified	11/29/2017 1:32 PM
Instrument	
Operator	Justin Guenzler

Sample Type	Calibration
Vial Number	Vial 2
Injection Volume	250
Injection	4 of 4
Acquisition Method	AQ_EDITHP503_HRVOC.M
Analysis Method	EDITHP1163F_C1-C7.M
Method Modified	11/29/2017 9:17 AM
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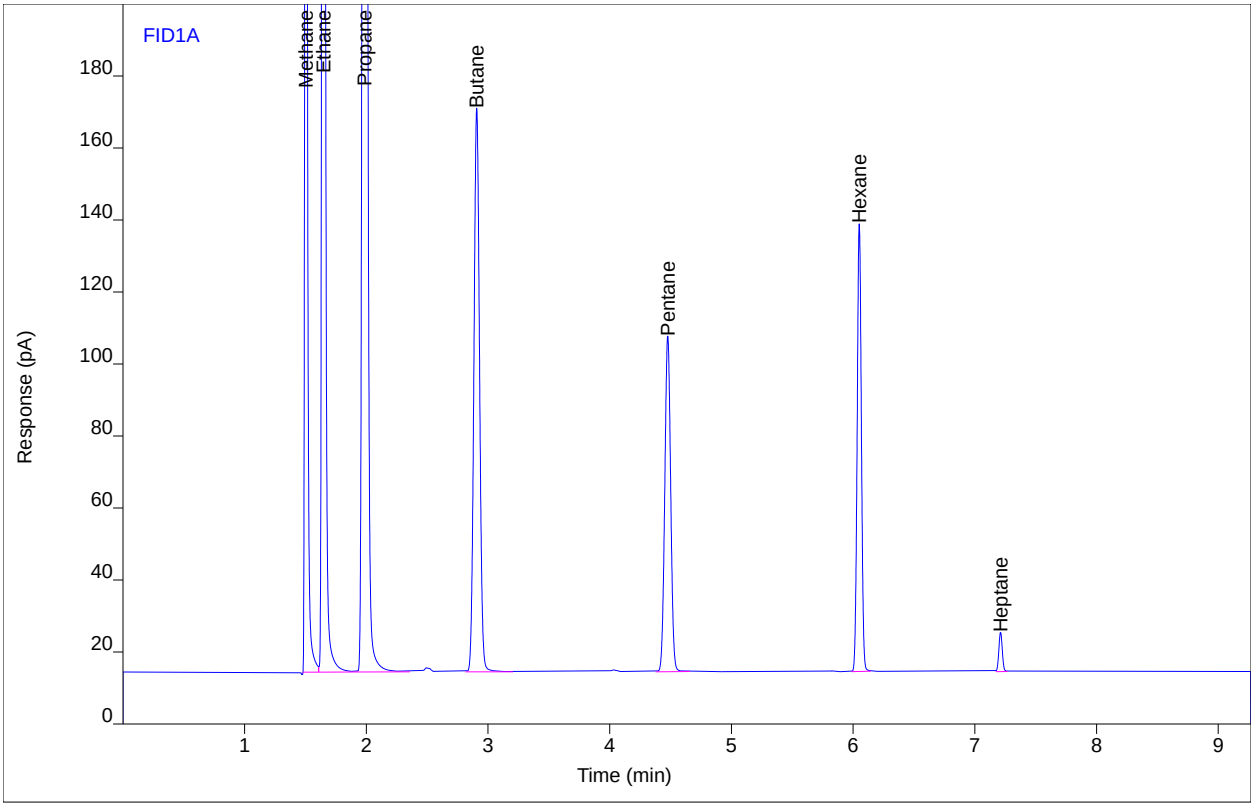


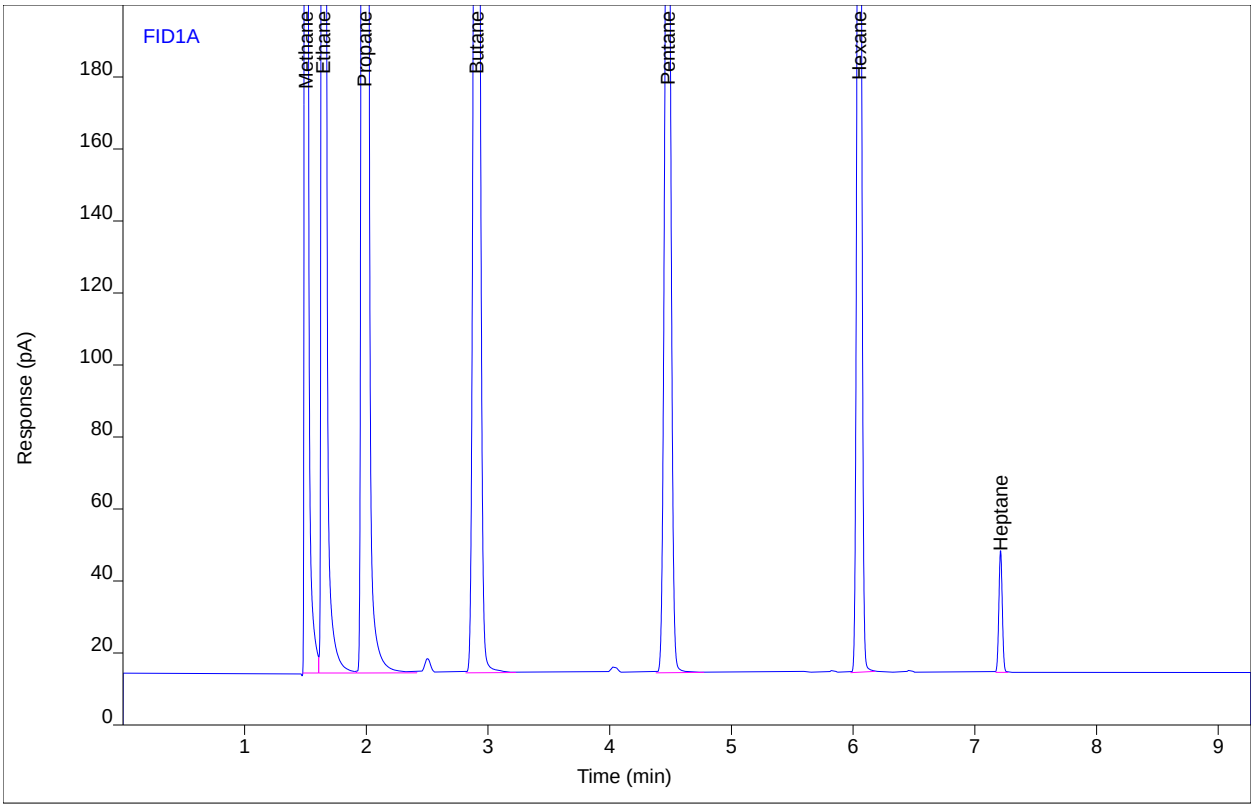
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PV	1.50	659.726	487.095	2441.75	1	2441.75	ppm
Ethane	VV	1.65	1273.04	813.409	2440.62	1	2440.62	ppm
Propane	VB	1.99	1903.30	849.077	2446.61	1	2446.61	ppm
Butane	BB	2.91	504.706	156.479	488.614	1	488.614	ppm
Pentane	BB	4.48	313.465	93.3090	244.290	1	244.290	ppm
Hexane	BB	6.05	297.685	124.297	195.592	1	195.592	ppm
Heptane	BB	7.21	21.5624	10.9727	12.3440	1	12.3440	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	Edithp1163 #C6 ENV(1=1700,4=365.06)
Sequence Name	EDITHP1163A ver.2
Inj Data File	002F2002.D
File Location	GC/2017/Edith/Quarter 4
Injection Date	11/28/2017 8:09 AM
File Modified	11/29/2017 1:32 PM
Instrument	
Operator	Nicholas Traversa

Sample Type	Calibration
Vial Number	Vial 2
Injection Volume	250
Injection	2 of 4
Acquisition Method	AQ_EDITHP503_HRVOC.M
Analysis Method	EDITHP1163F_C1-C7.M
Method Modified	11/29/2017 9:17 AM
Printed	11/30/2017 2:58 PM

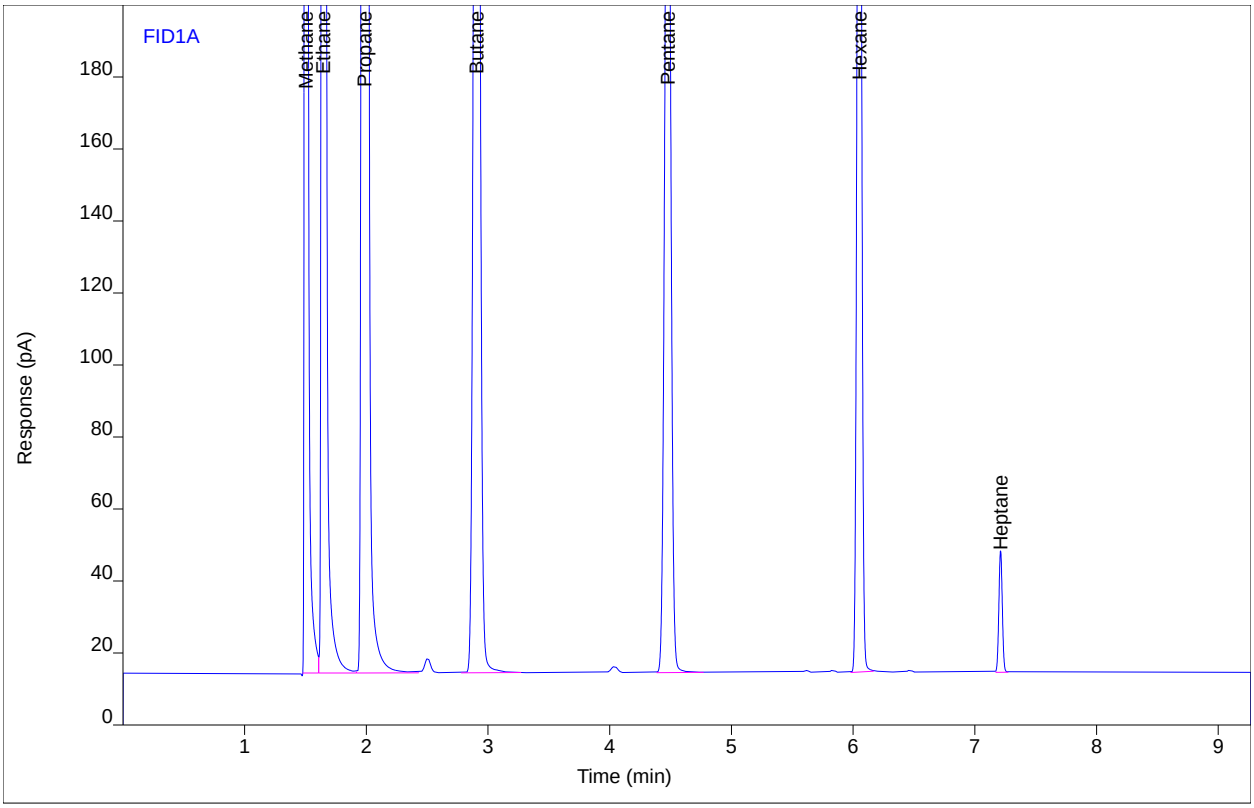


Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PV	1.50	2022.34	1498.45	7484.07	1	7484.07	ppm
Ethane	VV	1.65	3901.58	2491.44	7479.49	1	7479.49	ppm
Propane	VB	1.99	5836.93	2593.54	7502.63	1	7502.63	ppm
Butane	BB	2.91	1549.49	479.399	1499.89	1	1499.89	ppm
Pentane	BB	4.48	965.628	287.052	752.611	1	752.611	ppm
Hexane	BB	6.05	916.297	382.875	601.798	1	601.798	ppm
Heptane	BB	7.21	66.3455	33.8269	37.5802	1	37.5802	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	Edithp1163 #C6 ENV(1=1700,4=365.06)	Sample Type	Calibration
Sequence Name	EDITHP1163A ver.2	Vial Number	Vial 2
Inj Data File	002F2003.D	Injection Volume	250
File Location	GC/2017/Edith/Quarter 4	Injection	3 of 4
Injection Date	11/28/2017 8:25 AM	Acquisition Method	AQ_EDITHP503_HRVOC.M
File Modified	11/29/2017 1:32 PM	Analysis Method	EDITHP1163F_C1-C7.M
Instrument		Method Modified	11/29/2017 9:17 AM
Operator	Nicholas Traversa	Printed	11/30/2017 2:58 PM



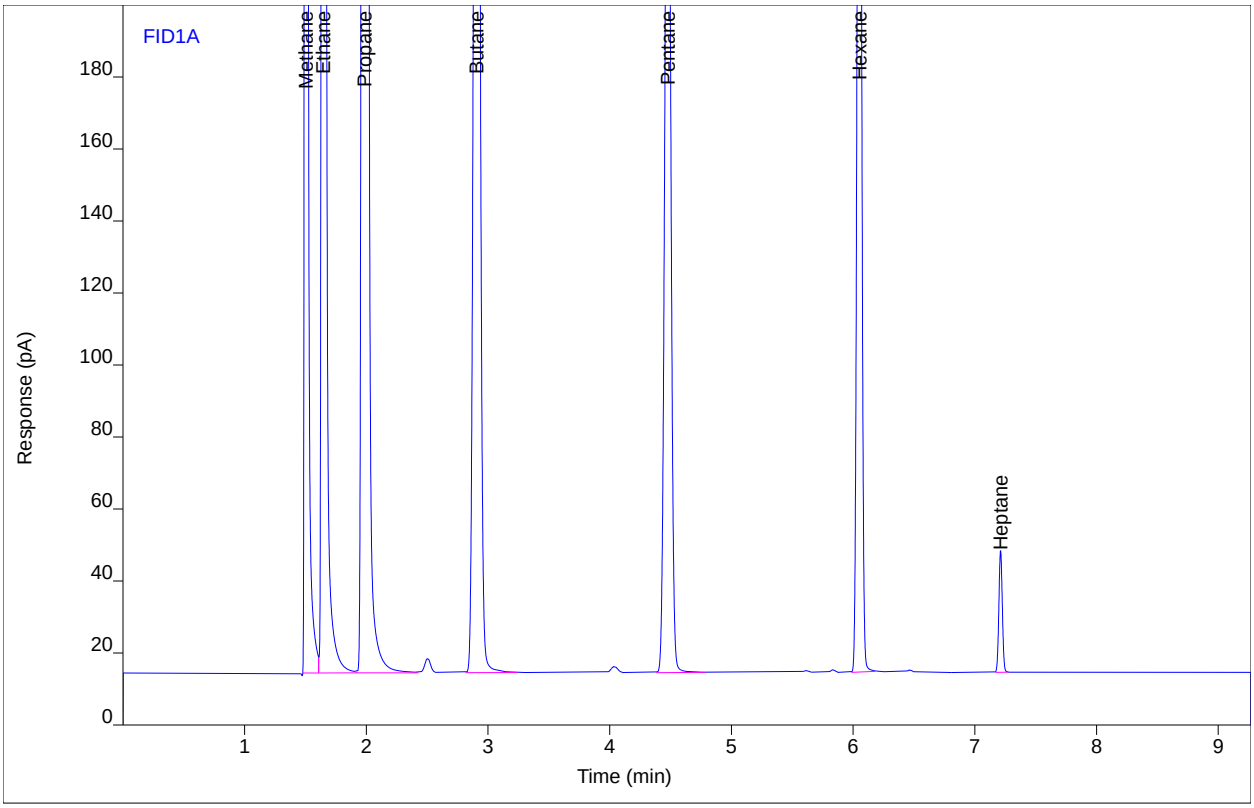
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PV	1.50	2024.33	1501.51	7491.43	1	7491.43	ppm
Ethane	VV	1.65	3905.68	2495.24	7487.36	1	7487.36	ppm
Propane	VV	1.99	5843.39	2595.53	7510.93	1	7510.93	ppm
Butane	BB	2.91	1551.77	480.860	1502.09	1	1502.09	ppm
Pentane	BB	4.48	966.534	287.651	753.318	1	753.318	ppm
Hexane	BB	6.05	917.152	385.774	602.360	1	602.360	ppm
Heptane	BB	7.21	66.5111	33.8427	37.6735	1	37.6735	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	Edithp1163 #C6 ENV(1=1700,4=365.06)
Sequence Name	EDITHP1163A ver.2
Inj Data File	002F2004.D
File Location	GC/2017/Edith/Quarter 4
Injection Date	11/28/2017 8:41 AM
File Modified	11/29/2017 1:32 PM
Instrument	
Operator	Nicholas Traversa

Sample Type	Calibration
Vial Number	Vial 2
Injection Volume	250
Injection	4 of 4
Acquisition Method	AQ_EDITHP503_HRVOC.M
Analysis Method	EDITHP1163F_C1-C7.M
Method Modified	11/29/2017 9:17 AM
Printed	11/30/2017 2:58 PM



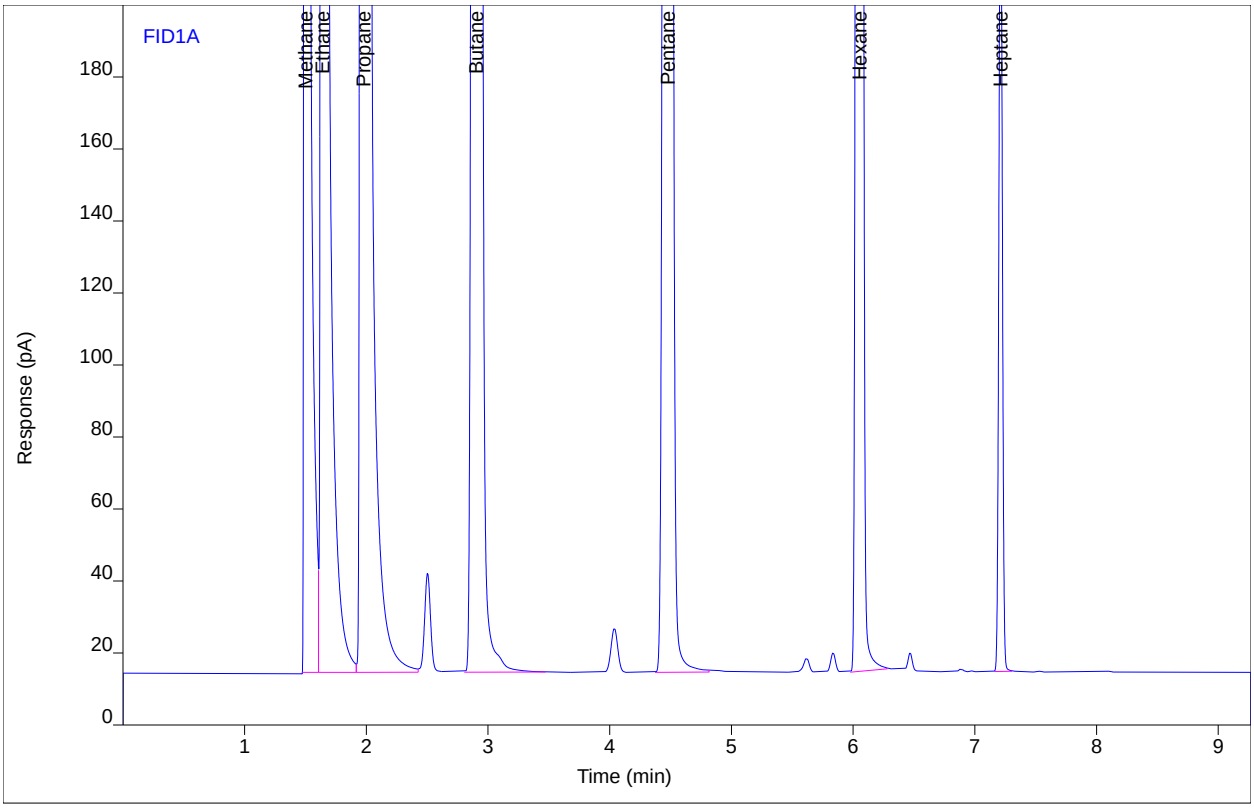
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PV	1.50	2022.31	1487.02	7483.94	1	7483.94	ppm
Ethane	VV	1.65	3901.82	2489.13	7479.95	1	7479.95	ppm
Propane	VB	1.99	5837.31	2594.08	7503.12	1	7503.12	ppm
Butane	BB	2.91	1549.88	479.893	1500.26	1	1500.26	ppm
Pentane	BB	4.48	965.680	286.605	752.652	1	752.652	ppm
Hexane	BB	6.05	916.476	382.986	601.916	1	601.916	ppm
Heptane	BB	7.21	66.4261	33.8710	37.6256	1	37.6256	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	Edithp1163 #C7 ENV(1=0,4=400.67)
Sequence Name	EDITHP1163A ver.2
Inj Data File	002F2102.D
File Location	GC/2017/Edith/Quarter 4
Injection Date	11/28/2017 9:12 AM
File Modified	11/29/2017 1:32 PM
Instrument	
Operator	Nicholas Traversa

Sample Type	Calibration
Vial Number	Vial 2
Injection Volume	250
Injection	2 of 4
Acquisition Method	AQ_EDITHP503_HRVOC.M
Analysis Method	EDITHP1163F_C1-C7.M
Method Modified	11/29/2017 9:17 AM
Printed	11/30/2017 2:58 PM



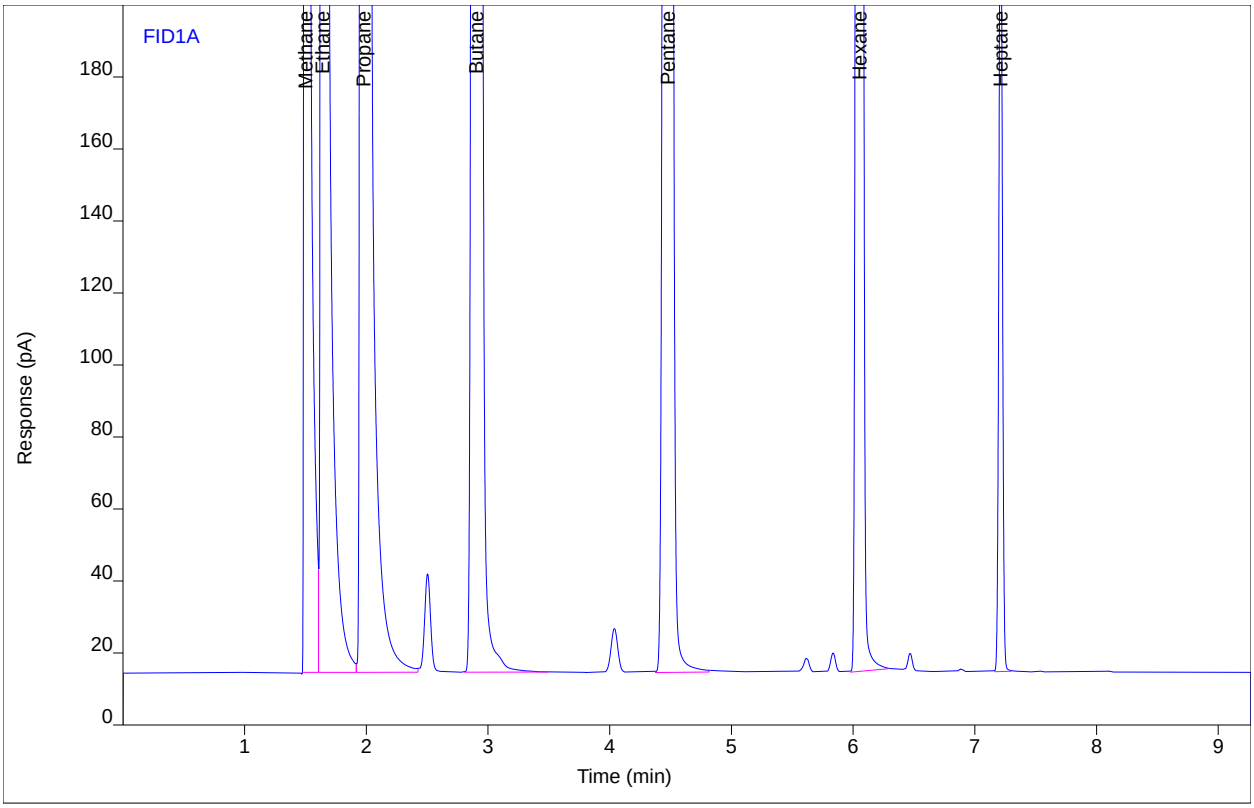
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PV	1.50	13794.5	10437.4	51046.7	1	51046.7	ppm
Ethane	VV	1.64	26573.3	16576.5	50940.9	1	50940.9	ppm
Propane	VV	1.98	39769.2	17046.1	51116.8	1	51116.8	ppm
Butane	BB	2.90	10613.0	3273.16	10272.7	1	10272.7	ppm
Pentane	BV	4.48	6622.33	1952.89	5161.67	1	5161.67	ppm
Hexane	BB	6.05	6296.27	2624.77	4134.52	1	4134.52	ppm
Heptane	BB	7.21	458.175	231.344	258.384	1	258.384	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	Edithp1163 #C7 ENV(1=0,4=400.67)
Sequence Name	EDITHP1163A ver.2
Inj Data File	002F2103.D
File Location	GC/2017/Edith/Quarter 4
Injection Date	11/28/2017 9:28 AM
File Modified	11/29/2017 1:32 PM
Instrument	
Operator	Nicholas Traversa

Sample Type	Calibration
Vial Number	Vial 2
Injection Volume	250
Injection	3 of 4
Acquisition Method	AQ_EDITHP503_HRVOC.M
Analysis Method	EDITHP1163F_C1-C7.M
Method Modified	11/29/2017 9:17 AM
Printed	11/30/2017 2:58 PM



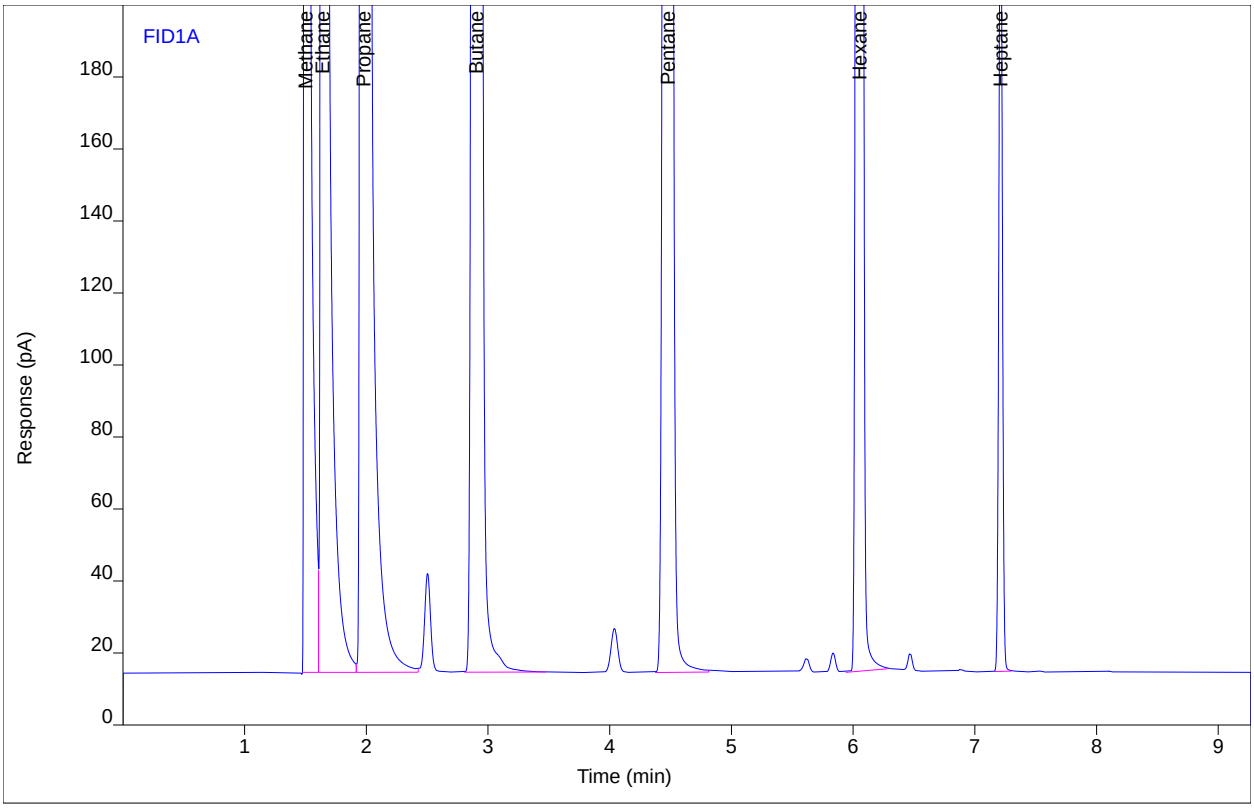
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PV	1.50	13780.1	10442.3	50993.5	1	50993.5	ppm
Ethane	VV	1.64	26549.2	16547.0	50894.7	1	50894.7	ppm
Propane	VV	1.98	39732.6	17029.2	51069.8	1	51069.8	ppm
Butane	BB	2.90	10603.7	3271.98	10263.7	1	10263.7	ppm
Pentane	BV	4.48	6617.42	1956.31	5157.85	1	5157.85	ppm
Hexane	BB	6.05	6293.05	2611.83	4132.40	1	4132.40	ppm
Heptane	BB	7.21	458.237	232.476	258.420	1	258.420	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	Edithp1163 #C7 ENV(1=0,4=400.67)
Sequence Name	EDITHP1163A ver.2
Inj Data File	002F2104.D
File Location	GC/2017/Edith/Quarter 4
Injection Date	11/28/2017 9:44 AM
File Modified	11/29/2017 1:32 PM
Instrument	
Operator	Nicholas Traversa

Sample Type	Calibration
Vial Number	Vial 2
Injection Volume	250
Injection	4 of 4
Acquisition Method	AQ_EDITHP503_HRVOC.M
Analysis Method	EDITHP1163F_C1-C7.M
Method Modified	11/29/2017 9:17 AM
Printed	11/30/2017 2:58 PM



Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PV	1.50	13817.8	10462.5	51132.8	1	51132.8	ppm
Ethane	VV	1.64	26618.3	16573.4	51027.1	1	51027.1	ppm
Propane	VV	1.98	39837.6	17064.3	51204.7	1	51204.7	ppm
Butane	BB	2.90	10631.5	3276.62	10290.6	1	10290.6	ppm
Pentane	BV	4.48	6634.48	1970.23	5171.14	1	5171.14	ppm
Hexane	VB	6.05	6308.18	2609.75	4142.34	1	4142.34	ppm
Heptane	BB	7.21	458.995	230.177	258.847	1	258.847	ppm

Airgas

Airgas USA, LLC
616 Miller Cut Off Road
Laporte, TX 77571
281-842-6900
Airgas.com

CERTIFICATE OF ANALYSIS

Grade of Product: CERTIFIED HYDROCARBON

Customer:	MONTROSE ENVIRONMETAL GROUP - MORRISVILLE , NC		
Part Number:	X08NI83C15AC015	Reference Number:	126-400736189-1
Cylinder Number:	CC425315	Cylinder Volume:	15.8 CF
Laboratory:	ASG - LaPorte Mix (SAP) - TX	Cylinder Pressure:	204 PSIG
Analysis Date:	Jul 11, 2016	Valve Outlet:	350
Lot Number:	126-400736189-1	Expiration Date:	Jul 11, 2019

Traceability Statement: Hydrocarbon Process standards are NIST traceable either directly by weight or by comparison to Airgas laboratory standards that are directly NIST traceable by weight.

CERTIFIED CONCENTRATIONS

Component	Requested Concentration	Reported Mole %	Accuracy
N HEPTANE	250.0 PPM	251.0 PPM	+/- 2%
HEXANE	0.4000 %	0.4006 %	+/- 2%
N PENTANE	0.5000 %	0.5003 %	+/- 2%
N BUTANE	1.000 %	1.000 %	+/- 2%
ETHANE	5.000 %	5.003 %	+/- 2%
METHANE	5.000 %	5.006 %	+/- 2%
PROPANE	5.000 %	5.003 %	+/- 2%
NITROGEN	Balance	Balance	

Notes:
MONTROSE ENVIRONMETAL GROUP

Approved for Release

Airgas
an Air Liquide company

CERTIFICATE OF ANALYSIS

Grade of Product: CERTIFIED STANDARD-SPEC

Part Number:	X08NI99C15A0079	Reference Number:	141-124564924-5
Cylinder Number:	CC20849	Cylinder Volume:	144.4 CF
Laboratory:	ASG - Conley Stryker - OH	Cylinder Pressure:	2015 PSIG
Analysis Date:	Jul 12, 2016	Valve Outlet:	350
Lot Number:	141-124564924-5		

Expiration Date: Jul 12, 2019

Product composition verified by direct comparison to calibration standards traceable to N.I.S.T. weights and/or N.I.S.T. Gas Mixture reference materials.

ANALYTICAL RESULTS

Component	Req Conc	Actual Concentration (Mole %)	Analytical Uncertainty
ETHANE	100.0 PPM	101.0 PPM	+/- 2%
HEXANE	100.0 PPM	100.0 PPM	+/- 2%
METHANE	100.0 PPM	100.0 PPM	+/- 2%
N BUTANE	100.0 PPM	100.0 PPM	+/- 2%
N HEPTANE	100.0 PPM	100.0 PPM	+/- 2%
N PENTANE	100.0 PPM	100.0 PPM	+/- 2%
PROPANE	100.0 PPM	100.0 PPM	+/- 2%
NITROGEN	Balance		

Approved for Release

method: C:\GC\2017\EDITH\METHODS\AQ_EDITHP503_HRVOC_LONG.M
Modified on: 8/14/2017 at 12:18:56 PM

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Agilent 7890A

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Oven	
Equilibration Time	0.3 min
Max Temperature	200 degrees C
Slow Fan	Disabled
Oven Program	On
35 °C for 2.2 min	
#1 then 15 °C/min to 70 °C for 0.07 min	
#2 then 30 °C/min to 180 °C for 10 min	
Run Time	18.27 min

Sample Overlap
Sample overlap is not enabled

Front SS Inlet H2	
Mode	Split
Heater	On 200 °C
Pressure	On 5.1931 psi
Total Flow	On 15.6 mL/min
Septum Purge Flow	On 3 mL/min
Gas Saver	Off
Split Ratio	5 :1
Split Flow	10.5 mL/min

Back SS Inlet H2	
Mode	Split
Heater	On 200 °C
Pressure	On 14.935 psi
Total Flow	On 25.632 mL/min
Septum Purge Flow	On 3 mL/min
Gas Saver	Off
Split Ratio	2 :1
Split Flow	15.088 mL/min

Column #1
Restek 10198Rtx-1 S/N 1452467
280 °C: 30 m x 320 µm x 4 µm
In: Front SS Inlet H2
Out: Front Detector FID

(Initial)	35 °C
Pressure	5.1931 psi
Flow	2.1 mL/min
Average Velocity	39.91 cm/sec
Holdup Time	1.2528 min
Flow Program	On
2.1 mL/min for 0 min	
Run Time	18.27 min

Column #2
Restek 19757Rt-Alumina BOND/Na2SO4
200 °C: 30 m x 320 µm x 5 µm
In: Back SS Inlet H2
Out: Back Detector FID

(Initial)	35 °C
Pressure	14.935 psi
Flow	7.5439 mL/min
Average Velocity	110 cm/sec
Holdup Time	0.45455 min
Flow Program	On

method: C:\GC\2017\EDITH\METHODS\AQ_EDITHP503_HRVOC_LONG.M
Modified on: 8/14/2017 at 12:18:56 PM
7.5439 mL/min for 0 min

Run Time	18.27 min
Front Detector FID	
Heater	On 300 °C
H2 Flow	On 50 mL/min
Air Flow	On 450 mL/min
Makeup Flow	On 35 mL/min
Const Col + Makeup	Off
Flame	On
Electrometer	On
Back Detector FID	
Heater	On 200 °C
H2 Flow	On 50 mL/min
Air Flow	On 450 mL/min
Makeup Flow	On 35 mL/min
Const Col + Makeup	Off
Flame	On
Electrometer	On
Valve 1	
Gas Sampling Valve	Unknown
GSV Loop Volume	0.25 mL
Load Time	1.5 min
Inject Time	0.5 min
Valve 2	
Gas Sampling Valve	Unknown
GSV Loop Volume	0.25 mL
Load Time	1.5 min
Inject Time	0.5 min
Valve Box	
Heater	On 150 °C
Signals	
Signal #1: Front Signal	Save On 20 Hz
Signal #2: Test Plot	Save Off 50 Hz
Signal #3: Back Signal	Save On 20 Hz
Signal #4: Test Plot	Save Off 50 Hz

method: C:\GC\2017\EDITH\METHODS\AQ_EDITHP503_HRVOC_SHORT.M
Modified on: 8/14/2017 at 12:20:10 PM

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Agilent 7890A

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Oven	
Equilibration Time	0.3 min
Max Temperature	200 degrees C
Slow Fan	Disabled
Oven Program	On
35 °C for 2.2 min	
then 15 °C/min to 70 °C for 0.07 min	
Run Time	4.6033 min

Sample Overlap
Sample overlap is not enabled

Front SS Inlet H2	
Mode	Split
Heater	On 200 °C
Pressure	On 5.1931 psi
Total Flow	On 15.6 mL/min
Septum Purge Flow	On 3 mL/min
Gas Saver	Off
Split Ratio	5 :1
Split Flow	10.5 mL/min

Back SS Inlet H2	
Mode	Split
Heater	On 200 °C
Pressure	On 14.935 psi
Total Flow	On 25.632 mL/min
Septum Purge Flow	On 3 mL/min
Gas Saver	Off
Split Ratio	2 :1
Split Flow	15.088 mL/min

Column #1
Restek 10198Rtx-1 S/N 1452467
280 °C: 30 m x 320 µm x 4 µm
In: Front SS Inlet H2
Out: Front Detector FID

(Initial)	35 °C
Pressure	5.1931 psi
Flow	2.1 mL/min
Average Velocity	39.91 cm/sec
Holdup Time	1.2528 min
Flow Program	On
2.1 mL/min for 0 min	
Run Time	4.6033 min

Column #2
Restek 19757Rt-Alumina BOND/Na2SO4
200 °C: 30 m x 320 µm x 5 µm
In: Back SS Inlet H2
Out: Back Detector FID

(Initial)	35 °C
Pressure	14.935 psi
Flow	7.5439 mL/min
Average Velocity	110 cm/sec
Holdup Time	0.45455 min
Flow Program	On
7.5439 mL/min for 0 min	

method: C:\GC\2017\EDITH\METHODS\AQ_EDITHP503_HRVOC_SHORT.M
Modified on: 8/14/2017 at 12:20:10 PM

Run Time	4.6033 min
Front Detector FID	
Heater	On 300 °C
H2 Flow	On 50 mL/min
Air Flow	On 450 mL/min
Makeup Flow	On 35 mL/min
Const Col + Makeup	Off
Flame	On
Electrometer	On
Back Detector FID	
Heater	On 200 °C
H2 Flow	On 50 mL/min
Air Flow	On 450 mL/min
Makeup Flow	On 35 mL/min
Const Col + Makeup	Off
Flame	On
Electrometer	On
Valve 1	
Gas Sampling Valve	Unknown
GSV Loop Volume	0.25 mL
Load Time	1.5 min
Inject Time	0.5 min
Valve 2	
Gas Sampling Valve	Unknown
GSV Loop Volume	0.25 mL
Load Time	1.5 min
Inject Time	0.5 min
Valve Box	
Heater	On 150 °C
Signals	
Signal #1: Front Signal	Save On 20 Hz
Signal #2: Test Plot	Save Off 50 Hz
Signal #3: Back Signal	Save On 20 Hz
Signal #4: Test Plot	Save Off 50 Hz

method: C:\GC\2017\EDITH\METHODS\AQ_EDITHP503_HRVOC.M
Modified on: 8/14/2017 at 12:13:37 PM

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Agilent 7890A

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Oven	
Equilibration Time	0.3 min
Max Temperature	200 degrees C
Slow Fan	Disabled
Oven Program	On
35 °C for 2.2 min	
#1 then 15 °C/min to 70 °C for 0.07 min	
#2 then 30 °C/min to 180 °C for 1 min	
Run Time	9.27 min
Sample Overlap	
Sample overlap is not enabled	
Front SS Inlet H2	
Mode	Split
Heater	On 200 °C
Pressure	On 5.1931 psi
Total Flow	On 15.6 mL/min
Septum Purge Flow	On 3 mL/min
Gas Saver	Off
Split Ratio	5 :1
Split Flow	10.5 mL/min
Back SS Inlet H2	
Mode	Split
Heater	On 200 °C
Pressure	On 14.935 psi
Total Flow	On 25.632 mL/min
Septum Purge Flow	On 3 mL/min
Gas Saver	Off
Split Ratio	2 :1
Split Flow	15.088 mL/min
Column #1	
Restek 10198Rtx-1 S/N 1452467	
280 °C: 30 m x 320 µm x 4 µm	
In: Front SS Inlet H2	
Out: Front Detector FID	
(Initial)	35 °C
Pressure	5.1931 psi
Flow	2.1 mL/min
Average Velocity	39.91 cm/sec
Holdup Time	1.2528 min
Flow Program	On
2.1 mL/min for 0 min	
Run Time	9.27 min
Column #2	
Restek 19757Rt-Alumina BOND/Na2SO4	
200 °C: 30 m x 320 µm x 5 µm	
In: Back SS Inlet H2	
Out: Back Detector FID	
(Initial)	35 °C
Pressure	14.935 psi
Flow	7.5439 mL/min
Average Velocity	110 cm/sec
Holdup Time	0.45455 min
Flow Program	On

method: C:\GC\2017\EDITH\METHODS\AQ_EDITHP503_HRVOC.M
Modified on: 8/14/2017 at 12:13:37 PM
7.5439 mL/min for 0 min

Run Time	9.27 min
Front Detector FID	
Heater	On 300 °C
H2 Flow	On 50 mL/min
Air Flow	On 450 mL/min
Makeup Flow	On 35 mL/min
Const Col + Makeup	Off
Flame	On
Electrometer	On
Back Detector FID	
Heater	On 200 °C
H2 Flow	On 50 mL/min
Air Flow	On 450 mL/min
Makeup Flow	On 35 mL/min
Const Col + Makeup	Off
Flame	On
Electrometer	On
Valve 1	
Gas Sampling Valve	Unknown
GSV Loop Volume	0.25 mL
Load Time	1.5 min
Inject Time	0.5 min
Valve 2	
Gas Sampling Valve	Unknown
GSV Loop Volume	0.25 mL
Load Time	1.5 min
Inject Time	0.5 min
Valve Box	
Heater	On 150 °C
Signals	
Signal #1: Front Signal	Save On 20 Hz
Signal #2: Test Plot	Save Off 50 Hz
Signal #3: Back Signal	Save On 20 Hz
Signal #4: Test Plot	Save Off 50 Hz

This Is The Last Page Of This Report.

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

eurofins | Lancaster Laboratories Environmental

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

ARCADIS
Suite 600
630 Plaza Drive
Highlands Ranch CO 80129

Report Date: October 02, 2018 12:16

Project: 10954

Account #: 13045
Group Number: 1990769
PO Number: B0085850.0954
Release Number: PM: OERTLING
State of Sample Origin: NY

Electronic Copy To	ARCADIS	Attn: Richard Hatch
Electronic Copy To	ARCADIS	Attn: Nicholas Beyrle
Electronic Copy To	ARCADIS	Attn: Chad Colwell
Electronic Copy To	ARCADIS	Attn: Jerome Oertling

Respectfully Submitted,

Hannah L. Cottman
Project Manager

(717) 556-7383

To view our laboratory's current scopes of accreditation please go to http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/ . Historical copies may be requested through your project manager.

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
CATOX INF Air	09/24/2018 13:20	9819033
CATOX EFF Air	09/24/2018 13:15	9819034

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Sample Description: **CATOX INF Air**
10954
138-50 Hillside Ave. - Jamaica, NY

Project Name: **10954**

Submittal Date/Time: 09/25/2018 10:30
Collection Date/Time: 09/24/2018 13:20

ARCADIS
ELLE Sample #: AQ 9819033
ELLE Group #: 1990769
Matrix: Air

CAT No.	Analysis Name	CAS Number	Final Result	MDL	Final Result	MDL	DF
Volatiles in Air	**EPA 18 mod/EPA 25 mod**		**mg/m3**	**mg/m3**	**ppm(v)**	**ppm(v)**	
07090	C1-C4 Hydrocarbons as hexane	n.a.	37	20	11	5	1
07090	>C4-C10 Hydrocarbons hexane	n.a.	290	20	84	5	1
Volatiles in Air	**EPA TO-15 modified**		**mg/m3**	**mg/m3**	**ppm(v)**	**ppm(v)**	
05265	Benzene	71-43-2	< 0.0064	0.0064	< 0.0020	0.0020	20
05265	Ethylbenzene	100-41-4	0.19	0.020	0.044	0.0046	20
05265	Methyl t-Butyl Ether	1634-04-4	< 0.014	0.014	< 0.0040	0.0040	20
05265	Toluene	108-88-3	0.062 J	0.0090	0.016 J	0.0024	20
05265	m/p-Xylene	179601-23-1	1.6	0.036	0.37	0.0084	20
05265	o-Xylene	95-47-6	0.70	0.025	0.16	0.0058	20

The sample was collected in a Tedlar bag which is not the container referenced in the EPA method.

MDL = Method Detection Limit

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07090	BTEX/MTBE/Hydrocarbons by GC	EPA 18 mod/EPA 25 mod	1	M1826930AA	09/26/2018 17:21	Jeffrey B Smith	1
05265	TO-15 VOA Ext. List Tedlar	EPA TO-15 modified	1	F1827030AA	09/27/2018 23:30	Jacob E Bailey	20

Sample Description: **CATOX EFF Air**
10954
138-50 Hillside Ave. - Jamaica, NY

Project Name: **10954**

Submittal Date/Time: 09/25/2018 10:30
Collection Date/Time: 09/24/2018 13:15

ARCADIS
ELLE Sample #: AQ 9819034
ELLE Group #: 1990769
Matrix: Air

CAT No.	Analysis Name	CAS Number	Final Result	MDL	Final Result	MDL	DF
Volatiles in Air	**EPA 18 mod/EPA 25 mod**		**mg/m3**	**mg/m3**	**ppm(v)**	**ppm(v)**	
07090	C1-C4 Hydrocarbons as hexane	n.a.	20 J	20	7 J	5	1
07090	>C4-C10 Hydrocarbons hexane	n.a.	30 J	20	9 J	5	1
Volatiles in Air	**EPA TO-15 modified**		**mg/m3**	**mg/m3**	**ppm(v)**	**ppm(v)**	
05265	Acetone	67-64-1	0.26	0.025	0.11	0.011	20
05265	Acetonitrile	75-05-8	< 0.0014	0.0014	< 0.00082	0.00082	1
05265	Acrolein	107-02-8	< 0.0013	0.0013	< 0.00057	0.00057	1
05265	Acrylonitrile	107-13-1	< 0.00043	0.00043	< 0.00020	0.00020	1
05265	Benzene	71-43-2	0.0012 J	0.00032	0.00038 J	0.00010	1
05265	Bromobenzene	108-86-1	< 0.00064	0.00064	< 0.00010	0.00010	1
05265	Bromodichloromethane	75-27-4	< 0.00080	0.00080	< 0.00012	0.00012	1
05265	Bromoform	75-25-2	< 0.0018	0.0018	< 0.00017	0.00017	1
05265	Bromomethane	74-83-9	0.00093 J	0.00070	0.00024 J	0.00018	1
05265	1,3-Butadiene	106-99-0	< 0.00038	0.00038	< 0.00017	0.00017	1
05265	2-Butanone	78-93-3	< 0.00065	0.00065	< 0.00022	0.00022	1
05265	tert-Butyl Alcohol	75-65-0	0.0016 J	0.00061	0.00054 J	0.00020	1
05265	Carbon Disulfide	75-15-0	0.012	0.00037	0.0038	0.00012	1
05265	Carbon Tetrachloride	56-23-5	< 0.00088	0.00088	< 0.00014	0.00014	1
05265	Chlorobenzene	108-90-7	< 0.00055	0.00055	< 0.00012	0.00012	1
05265	Chlorodifluoromethane	75-45-6	< 0.00053	0.00053	< 0.00015	0.00015	1
05265	Chloroethane	75-00-3	0.0019 J	0.00047	0.00071 J	0.00018	1
05265	Chloroform	67-66-3	< 0.00042	0.00042	< 0.000087	0.000087	1
05265	Chloromethane	74-87-3	< 0.00047	0.00047	< 0.00023	0.00023	1
05265	3-Chloropropene	107-05-1	< 0.00050	0.00050	< 0.00016	0.00016	1
05265	Cumene	98-82-8	< 0.0012	0.0012	< 0.00025	0.00025	1
05265	Dibromochloromethane	124-48-1	< 0.0012	0.0012	< 0.00014	0.00014	1
05265	1,2-Dibromoethane	106-93-4	< 0.0010	0.0010	< 0.00013	0.00013	1
05265	Dibromomethane	74-95-3	< 0.0010	0.0010	< 0.00014	0.00014	1
05265	1,2-Dichlorobenzene	95-50-1	< 0.0011	0.0011	< 0.00019	0.00019	1
05265	1,3-Dichlorobenzene	541-73-1	< 0.0011	0.0011	< 0.00018	0.00018	1
05265	1,4-Dichlorobenzene	106-46-7	< 0.0010	0.0010	< 0.00017	0.00017	1
05265	Dichlorodifluoromethane	75-71-8	0.0024 J	0.00064	0.00048 J	0.00013	1
05265	1,1-Dichloroethane	75-34-3	< 0.00039	0.00039	< 0.000096	0.000096	1
05265	1,2-Dichloroethane	107-06-2	< 0.00020	0.00020	< 0.000050	0.000050	1
05265	1,1-Dichloroethene	75-35-4	< 0.00056	0.00056	< 0.00014	0.00014	1
05265	cis-1,2-Dichloroethene	156-59-2	< 0.00044	0.00044	< 0.00011	0.00011	1
05265	trans-1,2-Dichloroethene	156-60-5	0.00037 J	0.00036	0.000094 J	0.000090	1
05265	Dichlorofluoromethane	75-43-4	< 0.00051	0.00051	< 0.00012	0.00012	1
05265	1,2-Dichloropropane	78-87-5	< 0.00044	0.00044	< 0.000096	0.000096	1
05265	cis-1,3-Dichloropropene	10061-01-5	< 0.00040	0.00040	< 0.000088	0.000088	1
05265	trans-1,3-Dichloropropene	10061-02-6	< 0.00050	0.00050	< 0.00011	0.00011	1
05265	1,4-Dioxane	123-91-1	< 0.00050	0.00050	< 0.00014	0.00014	1
05265	Ethyl Acetate	141-78-6	< 0.00068	0.00068	< 0.00019	0.00019	1

Sample Description: **CATOX EFF Air**
10954
138-50 Hillside Ave. - Jamaica, NY

Project Name: **10954**

Submittal Date/Time: 09/25/2018 10:30
Collection Date/Time: 09/24/2018 13:15

ARCADIS
ELLE Sample #: AQ 9819034
ELLE Group #: 1990769
Matrix: Air

CAT No.	Analysis Name	CAS Number	Final Result	MDL	Final Result	MDL	DF
Volatiles in Air	**EPA TO-15 modified**		**mg/m3**	**mg/m3**	**ppm(v)**	**ppm(v)**	
05265	Ethyl Acrylate	140-88-5	< 0.00066	0.00066	< 0.00016	0.00016	1
05265	Ethyl Methacrylate	97-63-2	< 0.00098	0.00098	< 0.00021	0.00021	1
05265	Ethylbenzene	100-41-4	0.0012 J	0.0010	0.00027 J	0.00023	1
05265	4-Ethyltoluene	622-96-8	0.0012 J	0.00093	0.00025 J	0.00019	1
05265	Freon 113	76-13-1	< 0.00084	0.00084	< 0.00011	0.00011	1
05265	Freon 114	76-14-2	< 0.00084	0.00084	< 0.00012	0.00012	1
05265	Heptane	142-82-5	0.27	0.00098	0.066	0.00024	1
05265	Hexachlorobutadiene	87-68-3	< 0.0049	0.0049	< 0.00046	0.00046	1
05265	Hexachloroethane	67-72-1	< 0.0022	0.0022	< 0.00023	0.00023	1
05265	Hexane	110-54-3	1.2	0.0092	0.34	0.0026	20
05265	2-Hexanone	591-78-6	< 0.00078	0.00078	< 0.00019	0.00019	1
05265	Isooctane	540-84-1	1.9	0.012	0.42	0.0026	20
05265	Methyl Acrylate	96-33-3	< 0.00049	0.00049	< 0.00014	0.00014	1
05265	Methyl Iodide	74-88-4	< 0.00070	0.00070	< 0.00012	0.00012	1
05265	Methyl Methacrylate	80-62-6	< 0.00066	0.00066	< 0.00016	0.00016	1
05265	Alpha Methyl Styrene	98-83-9	< 0.00087	0.00087	< 0.00018	0.00018	1
05265	Methyl t-Butyl Ether	1634-04-4	< 0.00072	0.00072	< 0.00020	0.00020	1
05265	4-Methyl-2-pentanone	108-10-1	< 0.00061	0.00061	< 0.00015	0.00015	1
05265	Methylene Chloride	75-09-2	< 0.00069	0.00069	< 0.00020	0.00020	1
05265	Octane	111-65-9	0.10	0.0021	0.021	0.00046	1
05265	Pentane	109-66-0	3.0	0.038	1.0	0.013	100
05265	Propene	115-07-1	0.0036	0.00034	0.0021	0.00020	1
05265	Styrene	100-42-5	0.0011 J	0.00089	0.00026 J	0.00021	1
05265	1,1,1,2-Tetrachloroethane	630-20-6	< 0.00096	0.00096	< 0.00014	0.00014	1
05265	1,1,2,2-Tetrachloroethane	79-34-5	< 0.00096	0.00096	< 0.00014	0.00014	1
05265	Tetrachloroethene	127-18-4	0.050	0.0014	0.0074	0.00021	1
05265	Toluene	108-88-3	0.033	0.00045	0.0087	0.00012	1
05265	1,2,4-Trichlorobenzene	120-82-1	< 0.0028	0.0028	< 0.00038	0.00038	1
05265	1,1,1-Trichloroethane	71-55-6	< 0.00065	0.00065	< 0.00012	0.00012	1
05265	1,1,2-Trichloroethane	79-00-5	< 0.00052	0.00052	< 0.000096	0.000096	1
05265	Trichloroethene	79-01-6	< 0.00075	0.00075	< 0.00014	0.00014	1
05265	Trichlorofluoromethane	75-69-4	< 0.00067	0.00067	< 0.00012	0.00012	1
05265	1,2,3-Trichloropropane	96-18-4	< 0.00084	0.00084	< 0.00014	0.00014	1
05265	1,2,4-Trimethylbenzene	95-63-6	0.0038 J	0.0014	0.00076 J	0.00028	1
05265	1,3,5-Trimethylbenzene	108-67-8	0.0022 J	0.0016	0.00045 J	0.00032	1
05265	Vinyl Acetate	108-05-4	< 0.00060	0.00060	< 0.00017	0.00017	1
05265	Vinyl Chloride	75-01-4	< 0.00033	0.00033	< 0.00013	0.00013	1
05265	m/p-Xylene	179601-23-1	0.0055 J	0.0018	0.0013 J	0.00042	1
05265	o-Xylene	95-47-6	0.0024 J	0.0013	0.00055 J	0.00029	1

The sample was collected in a Tedlar bag which is not the container referenced in the EPA method.

MDL = Method Detection Limit

Sample Description: **CATOX EFF Air**
10954
138-50 Hillside Ave. - Jamaica, NY

Project Name: **10954**

Submittal Date/Time: 09/25/2018 10:30
Collection Date/Time: 09/24/2018 13:15

ARCADIS
ELLE Sample #: AQ 9819034
ELLE Group #: 1990769
Matrix: Air

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07090	BTEX/MTBE/Hydrocarbons by GC	EPA 18 mod/EPA 25 mod	1	M1826930AA	09/26/2018 17:49	Jeffrey B Smith	1
05265	TO-15 VOA Ext. List Tedlar	EPA TO-15 modified	1	F1827030AA	09/27/2018 23:00	Jacob E Bailey	1
05265	TO-15 VOA Ext. List Tedlar	EPA TO-15 modified	1	E1827130AA	09/28/2018 13:19	Jacob E Bailey	20
05265	TO-15 VOA Ext. List Tedlar	EPA TO-15 modified	1	F1827130AA	09/28/2018 18:30	Jacob E Bailey	100

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Quality Control Summary

Client Name: ARCADIS
Reported: 10/02/2018 12:16

Group Number: 1990769

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result mg/m3	MDL mg/m3	Result ppm(v)	MDL ppm(v)
Batch number: E1827130AA	Sample number(s): 9819034			
Acetone	< 0.0013	0.0013	< 0.00053	0.00053
Hexane	< 0.00046	0.00046	< 0.00013	0.00013
Isooctane	< 0.00061	0.00061	< 0.00013	0.00013
Batch number: F1827030AA	Sample number(s): 9819033-9819034			
Acetonitrile	< 0.0014	0.0014	< 0.00083	0.00083
Acrolein	< 0.0014	0.0014	< 0.00062	0.00062
Acrylonitrile	< 0.00028	0.00028	< 0.00013	0.00013
Benzene	< 0.00035	0.00035	< 0.00011	0.00011
Bromobenzene	< 0.00064	0.00064	< 0.00010	0.00010
Bromodichloromethane	< 0.00080	0.00080	< 0.00012	0.00012
Bromoform	< 0.0018	0.0018	< 0.00017	0.00017
Bromomethane	< 0.00070	0.00070	< 0.00018	0.00018
1,3-Butadiene	< 0.00038	0.00038	< 0.00017	0.00017
2-Butanone	< 0.00062	0.00062	< 0.00021	0.00021
tert-Butyl Alcohol	< 0.00064	0.00064	< 0.00021	0.00021
Carbon Disulfide	< 0.00040	0.00040	< 0.00013	0.00013
Carbon Tetrachloride	< 0.00088	0.00088	< 0.00014	0.00014
Chlorobenzene	< 0.00060	0.00060	< 0.00013	0.00013
Chlorodifluoromethane	< 0.00053	0.00053	< 0.00015	0.00015
Chloroethane	< 0.00050	0.00050	< 0.00019	0.00019
Chloroform	< 0.00045	0.00045	< 0.000092	0.000092
Chloromethane	< 0.00050	0.00050	< 0.00024	0.00024
3-Chloropropene	< 0.00047	0.00047	< 0.00015	0.00015
Cumene	< 0.0012	0.0012	< 0.00024	0.00024
Dibromochloromethane	< 0.0011	0.0011	< 0.00013	0.00013
1,2-Dibromoethane	< 0.0010	0.0010	< 0.00013	0.00013
Dibromomethane	< 0.0010	0.0010	< 0.00014	0.00014
1,2-Dichlorobenzene	< 0.0012	0.0012	< 0.00020	0.00020
1,3-Dichlorobenzene	< 0.0011	0.0011	< 0.00019	0.00019
1,4-Dichlorobenzene	< 0.0010	0.0010	< 0.00017	0.00017
Dichlorodifluoromethane	< 0.00064	0.00064	< 0.00013	0.00013
1,1-Dichloroethane	< 0.00036	0.00036	< 0.000089	0.000089
1,2-Dichloroethane	< 0.00032	0.00032	< 0.000080	0.000080
1,1-Dichloroethene	< 0.00056	0.00056	< 0.00014	0.00014
cis-1,2-Dichloroethene	< 0.00048	0.00048	< 0.00012	0.00012
trans-1,2-Dichloroethene	< 0.00034	0.00034	< 0.000086	0.000086
Dichlorofluoromethane	< 0.00046	0.00046	< 0.00011	0.00011
1,2-Dichloropropane	< 0.00060	0.00060	< 0.00013	0.00013

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ARCADIS
Reported: 10/02/2018 12:16

Group Number: 1990769

Method Blank (continued)

Analysis Name	Result mg/m3	MDL mg/m3	Result ppm(v)	MDL ppm(v)
cis-1,3-Dichloropropene	< 0.00045	0.00045	< 0.00010	0.00010
trans-1,3-Dichloropropene	< 0.00054	0.00054	< 0.00012	0.00012
1,4-Dioxane	< 0.00061	0.00061	< 0.00017	0.00017
Ethyl Acetate	< 0.00090	0.00090	< 0.00025	0.00025
Ethyl Acrylate	< 0.00066	0.00066	< 0.00016	0.00016
Ethyl Methacrylate	< 0.00089	0.00089	< 0.00019	0.00019
Ethylbenzene	< 0.00083	0.00083	< 0.00019	0.00019
4-Ethyltoluene	< 0.00088	0.00088	< 0.00018	0.00018
Freon 113	< 0.00084	0.00084	< 0.00011	0.00011
Freon 114	< 0.00084	0.00084	< 0.00012	0.00012
Heptane	< 0.00094	0.00094	< 0.00023	0.00023
Hexachlorobutadiene	< 0.0050	0.0050	< 0.00047	0.00047
Hexachloroethane	< 0.0026	0.0026	< 0.00027	0.00027
2-Hexanone	< 0.00074	0.00074	< 0.00018	0.00018
Methyl Acrylate	< 0.00049	0.00049	< 0.00014	0.00014
Methyl Iodide	< 0.00087	0.00087	< 0.00015	0.00015
Methyl Methacrylate	< 0.00061	0.00061	< 0.00015	0.00015
Alpha Methyl Styrene	< 0.00087	0.00087	< 0.00018	0.00018
Methyl t-Butyl Ether	< 0.00054	0.00054	< 0.00015	0.00015
4-Methyl-2-pentanone	< 0.00061	0.00061	< 0.00015	0.00015
Methylene Chloride	< 0.00087	0.00087	< 0.00025	0.00025
Octane	< 0.0019	0.0019	< 0.00040	0.00040
Propene	< 0.00028	0.00028	< 0.00016	0.00016
Styrene	< 0.00085	0.00085	< 0.00020	0.00020
1,1,1,2-Tetrachloroethane	< 0.0010	0.0010	< 0.00015	0.00015
1,1,2,2-Tetrachloroethane	< 0.0010	0.0010	< 0.00015	0.00015
Tetrachloroethene	< 0.0017	0.0017	< 0.00025	0.00025
Toluene	< 0.00045	0.00045	< 0.00012	0.00012
1,2,4-Trichlorobenzene	< 0.0028	0.0028	< 0.00038	0.00038
1,1,1-Trichloroethane	< 0.00065	0.00065	< 0.00012	0.00012
1,1,2-Trichloroethane	< 0.00065	0.00065	< 0.00012	0.00012
Trichloroethene	< 0.00097	0.00097	< 0.00018	0.00018
Trichlorofluoromethane	< 0.00084	0.00084	< 0.00015	0.00015
1,2,3-Trichloropropane	< 0.00084	0.00084	< 0.00014	0.00014
1,2,4-Trimethylbenzene	< 0.0014	0.0014	< 0.00028	0.00028
1,3,5-Trimethylbenzene	< 0.0016	0.0016	< 0.00032	0.00032
Vinyl Acetate	< 0.00056	0.00056	< 0.00016	0.00016
Vinyl Chloride	< 0.00031	0.00031	< 0.00012	0.00012
m/p-Xylene	< 0.0011	0.0011	< 0.00026	0.00026
o-Xylene	< 0.00083	0.00083	< 0.00019	0.00019
Batch number: F1827130AA	Sample number(s): 9819034			
Pentane	< 0.00038	0.00038	< 0.00013	0.00013
Batch number: M1826930AA	Sample number(s): 9819033-9819034			
C1-C4 Hydrocarbons as hexane	< 20	20	< 5	5

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ARCADIS
Reported: 10/02/2018 12:16

Group Number: 1990769

Method Blank (continued)

Analysis Name	Result mg/m3	MDL mg/m3	Result ppm(v)	MDL ppm(v)
>C4-C10 Hydrocarbons hexane	< 20	20	< 5	5

LCS/LCSD

Analysis Name	LCS Spike Added mg/m3	LCS Conc mg/m3	LCSD Spike Added mg/m3	LCSD Conc mg/m3	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: E1827130AA	Sample number(s): 9819034								
Acetone	0.0238	0.0239	0.0238	0.0228	101	96	71-136	5	25
Hexane	0.0352	0.0331	0.0352	0.0314	94	89	70-118	5	25
Isooctane	0.0467	0.0456	0.0467	0.0443	98	95	74-127	3	25
Batch number: F1827030AA	Sample number(s): 9819033-9819034								
Acetonitrile	0.0168	0.0171	0.0168	0.0179	102	106	56-136	4	25
Acrolein	0.0229	0.0248	0.0229	0.0256	108	111	54-132	3	25
Acrylonitrile	0.0217	0.0231	0.0217	0.0235	106	108	68-135	2	25
Benzene	0.0319	0.0338	0.0319	0.0338	106	106	76-123	0	25
Bromobenzene	0.0642	0.0615	0.0642	0.0643	96	100	74-118	5	25
Bromodichloromethane	0.0670	0.0715	0.0670	0.0707	107	106	75-134	1	25
Bromoform	0.103	0.102	0.103	0.102	99	99	58-144	0	25
Bromomethane	0.0388	0.0455	0.0388	0.0447	117	115	71-133	2	25
1,3-Butadiene	0.0221	0.0235	0.0221	0.0218	106	98	72-122	8	25
2-Butanone	0.0295	0.0301	0.0295	0.0313	102	106	75-126	4	25
tert-Butyl Alcohol	0.0303	0.0326	0.0303	0.0337	108	111	71-154	3	25
Carbon Disulfide	0.0311	0.0332	0.0311	0.0344	107	110	72-128	3	25
Carbon Tetrachloride	0.0629	0.0620	0.0629	0.0628	99	100	72-127	1	25
Chlorobenzene	0.0460	0.0466	0.0460	0.0478	101	104	76-117	3	25
Chlorodifluoromethane	0.0354	0.0387	0.0354	0.0398	109	112	70-138	3	25
Chloroethane	0.0264	0.0286	0.0264	0.0290	109	110	76-129	1	25
Chloroform	0.0488	0.0508	0.0488	0.0518	104	106	75-127	2	25
Chloromethane	0.0207	0.0220	0.0207	0.0232	106	112	65-140	5	25
3-Chloropropene	0.0313	0.0414	0.0313	0.0418	132	133	67-141	1	25
Cumene	0.0492	0.0452	0.0492	0.0473	92	96	80-133	4	25
Dibromochloromethane	0.0852	0.0893	0.0852	0.0872	105	102	74-131	2	25
1,2-Dibromoethane	0.0768	0.0802	0.0768	0.0815	104	106	73-121	2	25
Dibromomethane	0.0711	0.0742	0.0711	0.0752	104	106	76-124	1	25
1,2-Dichlorobenzene	0.0601	0.0539	0.0601	0.0561	90	93	71-126	4	25
1,3-Dichlorobenzene	0.0601	0.0543	0.0601	0.0562	90	93	75-129	3	25
1,4-Dichlorobenzene	0.0601	0.0531	0.0601	0.0561	88	93	74-123	5	25
Dichlorodifluoromethane	0.0495	0.0529	0.0495	0.0545	107	110	74-133	3	25
1,1-Dichloroethane	0.0405	0.0428	0.0405	0.0438	106	108	74-129	2	25
1,2-Dichloroethane	0.0405	0.0448	0.0405	0.0455	111	112	72-138	1	25

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ARCADIS
Reported: 10/02/2018 12:16

Group Number: 1990769

LCS/LCSD (continued)

Analysis Name	LCS Spike Added mg/m3	LCS Conc mg/m3	LCSD Spike Added mg/m3	LCSD Conc mg/m3	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,1-Dichloroethene	0.0396	0.0428	0.0396	0.0433	108	109	70-129	1	25
cis-1,2-Dichloroethene	0.0396	0.0417	0.0396	0.0427	105	108	76-126	2	25
trans-1,2-Dichloroethene	0.0396	0.0426	0.0396	0.0438	107	111	77-128	3	25
Dichlorofluoromethane	0.0421	0.0480	0.0421	0.0489	114	116	75-137	2	25
1,2-Dichloropropane	0.0462	0.0474	0.0462	0.0482	103	104	75-127	1	25
cis-1,3-Dichloropropene	0.0454	0.0464	0.0454	0.0466	102	103	51-120	0	25
trans-1,3-Dichloropropene	0.0454	0.0470	0.0454	0.0475	104	105	76-131	1	25
1,4-Dioxane	0.0360	0.0361	0.0360	0.0364	100	101	76-124	1	25
Ethyl Acetate	0.0360	0.0366	0.0360	0.0385	102	107	73-124	5	25
Ethyl Acrylate	0.0409	0.0426	0.0409	0.0424	104	104	71-126	1	25
Ethyl Methacrylate	0.0467	0.0451	0.0467	0.0452	97	97	69-137	0	25
Ethylbenzene	0.0434	0.0414	0.0434	0.0428	95	99	77-117	3	25
4-Ethyltoluene	0.0492	0.0447	0.0492	0.0459	91	93	73-130	3	25
Freon 113	0.0766	0.0719	0.0766	0.0742	94	97	66-119	3	25
Freon 114	0.0699	0.0728	0.0699	0.0747	104	107	66-126	3	25
Heptane	0.0410	0.0387	0.0410	0.0384	94	94	74-122	1	25
Hexachlorobutadiene	0.107	0.0776	0.107	0.0822	73	77	49-154	6	25
Hexachloroethane	0.0968	0.0929	0.0968	0.0921	96	95	59-135	1	25
2-Hexanone	0.0410	0.0412	0.0410	0.0420	101	103	74-134	2	25
Methyl Acrylate	0.0352	0.0359	0.0352	0.0370	102	105	75-125	3	25
Methyl Iodide	0.0581	0.0573	0.0581	0.0595	99	102	72-127	4	25
Methyl Methacrylate	0.0409	0.0412	0.0409	0.0404	101	99	73-117	2	25
Alpha Methyl Styrene	0.0483	0.0436	0.0483	0.0434	90	90	71-138	0	25
Methyl t-Butyl Ether	0.0361	0.0340	0.0361	0.0355	94	98	71-119	4	25
4-Methyl-2-pentanone	0.0410	0.0418	0.0410	0.0434	102	106	79-131	4	25
Methylene Chloride	0.0347	0.0412	0.0347	0.0418	119	120	69-128	1	25
Octane	0.0467	0.0467	0.0467	0.0483	100	103	73-122	3	25
Propene	0.0172	0.0174	0.0172	0.0177	101	103	78-126	2	25
Styrene	0.0426	0.0418	0.0426	0.0420	98	99	77-143	1	25
1,1,1,2-Tetrachloroethane	0.0687	0.0693	0.0687	0.0692	101	101	73-137	0	25
1,1,2,2-Tetrachloroethane	0.0687	0.0691	0.0687	0.0699	101	102	72-133	1	25
Tetrachloroethene	0.0678	0.0667	0.0678	0.0685	98	101	68-123	3	25
Toluene	0.0377	0.0385	0.0377	0.0392	102	104	78-119	2	25
1,2,4-Trichlorobenzene	0.0742	0.0529	0.0742	0.0574	71	77	45-156	8	25
1,1,1-Trichloroethane	0.0546	0.0534	0.0546	0.0555	98	102	74-122	4	25
1,1,2-Trichloroethane	0.0546	0.0560	0.0546	0.0578	103	106	76-127	3	25
Trichloroethene	0.0537	0.0575	0.0537	0.0584	107	109	76-118	2	25
Trichlorofluoromethane	0.0562	0.0557	0.0562	0.0569	99	101	73-132	2	25
1,2,3-Trichloropropane	0.0603	0.0594	0.0603	0.0610	98	101	71-127	3	25
1,2,4-Trimethylbenzene	0.0492	0.0440	0.0492	0.0451	89	92	70-138	3	25
1,3,5-Trimethylbenzene	0.0492	0.0445	0.0492	0.0461	90	94	72-130	4	25
Vinyl Acetate	0.0352	0.0413	0.0352	0.0422	117	120	75-161	2	25
Vinyl Chloride	0.0256	0.0264	0.0256	0.0271	103	106	75-130	3	25
m/p-Xylene	0.0434	0.0417	0.0434	0.0428	96	99	78-119	3	25

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ARCADIS
Reported: 10/02/2018 12:16

Group Number: 1990769

LCS/LCSD (continued)

Analysis Name	LCS Spike Added mg/m3	LCS Conc mg/m3	LCSD Spike Added mg/m3	LCSD Conc mg/m3	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
o-Xylene	0.0434	0.0418	0.0434	0.0428	96	99	78-121	2	25
Batch number: F1827130AA	Sample number(s): 9819034								
Pentane	0.0295	0.0299	0.0295	0.0301	101	102	69-125	1	25

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

A-13045 G-1990769

Chain of Custody Record

S-981903-34

Client Contact	Project Manager: Jerome Oertling	Site Contact: T. Mazz	Date: 9/27/18	COC No:
Company: Arcadis of New York, Inc	Tel/Fax: 860.533.9953	Lab Contact:	Carrier: Fedex	1 of 1 COCs
Address: 160 Chapel Road, Suite 201	Analysis Turnaround Time			Results to: jerome.oertling@arcadis-us.com chad.colwell@arcadis-us.com richard.hatch@arcadis-us.com
City/State/Zip: Manchester, CT 06042	Calendar (C) or Work Days (W)			Invoice to:
Phone: 860-533-9953	TAT if different from Below			
Fax:	☐ Standard			
Project Name: Alliance 10954	☐ 1 week			
Site: 138-50 Hillside Avenue, Jamaica, NY	☐ 2 days			
P O # : B0085850.0954	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	BTEX MTBE (TO-15)	TPH (C1-C4) (EPA 18 25)	TPH (C4-C10) (EPA 18 25)	Extended List VOC (TO-15)	Sample Specific Notes:
CATOX INF	9/24/18	1320	Grab	Vapor	2		X	X	X		
CATOX EFF	9/24/18	1315	Grab	Vapor	2			X	X	X	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

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 & Comments:

9/24/18

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Tim Mazz	Arcadis	1600			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
			Kane Hen	LCI	9/25/18 10:30

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Sample Administration Receipt Documentation Log

Doc Log ID: 227984

Group Number(s):

Client: Arcadis

10954

1990769

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	09/25/2018 10:30
Number of Packages:	1	Number of Projects:	1
State/Province of Origin:	NY		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	N/A	VOA Vial Headspace ≥ 6mm:	N/A
Paperwork Enclosed:	Yes	Total Trip Blank Qty:	0
Samples Intact:	Yes	Air Quality Samples Present:	Yes
Missing Samples:	No	Air Quality Flow Controllers Present:	No
Extra Samples:	No	Air Quality Returns:	No
Discrepancy in Container Qty on COC:	No		

Unpacked by Katie Hartlove (2114) at 12:14 on 09/25/2018

2425 New Holland Pike
Lancaster, PA 17605-2425

T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.cor

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

ARCADIS
Suite 600
630 Plaza Drive
Highlands Ranch CO 80129

Report Date: November 06, 2018 18:39

Project: 10954

Account #: 13045
Group Number: 2002745
PO Number: B0085850.0954
Release Number: PM: OERTLING
State of Sample Origin: NY

Electronic Copy To	ARCADIS	Attn: Richard Hatch
Electronic Copy To	ARCADIS	Attn: Nicholas Beyrle
Electronic Copy To	ARCADIS	Attn: Chad Colwell
Electronic Copy To	ARCADIS	Attn: Jerome Oertling

Respectfully Submitted,

Hannah L. Cottman
Project Manager

(717) 556-7383

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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
CATOX INF Grab Air	10/25/2018 08:35	9870151
CATOX EFF Grab Air	10/25/2018 08:30	9870152

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

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Analysis Report

Sample Description: **CATOX INF Grab Air**
10954
138-50 Hillside Ave. - Jamaica, NY

Project Name: **10954**

Submittal Date/Time: 10/26/2018 10:30
Collection Date/Time: 10/25/2018 08:35

ARCADIS
ELLE Sample #: AQ 9870151
ELLE Group #: 2002745
Matrix: Air

CAT No.	Analysis Name	CAS Number	Final Result	MDL	Final Result	MDL	DF
Volatiles in Air	**EPA 18 mod/EPA 25 mod**		**mg/m3**	**mg/m3**	**ppm(v)**	**ppm(v)**	
07090	C1-C4 Hydrocarbons as hexane	n.a.	30 J	20	7 J	5	1
07090	>C4-C10 Hydrocarbons hexane	n.a.	500	20	140	5	1
Volatiles in Air	**EPA TO-15 modified**		**mg/m3**	**mg/m3**	**ppm(v)**	**ppm(v)**	
05265	Benzene	71-43-2	< 0.0064	0.0064	< 0.0020	0.0020	20
05265	Ethylbenzene	100-41-4	0.27	0.020	0.063	0.0046	20
05265	Methyl t-Butyl Ether	1634-04-4	< 0.014	0.014	< 0.0040	0.0040	20
05265	Toluene	108-88-3	0.31	0.0090	0.081	0.0024	20
05265	m/p-Xylene	179601-23-1	5.9	0.036	1.4	0.0084	20
05265	o-Xylene	95-47-6	2.0	0.025	0.46	0.0058	20

The sample was collected in a Tedlar bag which is not the container referenced in the EPA method.

MDL = Method Detection Limit

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07090	BTEX/MTBE/Hydrocarbons by GC	EPA 18 mod/EPA 25 mod	1	M1830230AA	10/29/2018 18:28	Jeffrey B Smith	1
05265	TO-15 VOA Ext. List Tedlar	EPA TO-15 modified	1	F1830330AA	10/31/2018 00:23	Jacob E Bailey	20

Sample Description: CATOX EFF Grab Air
10954
138-50 Hillside Ave. - Jamaica, NY

Project Name: 10954

Submittal Date/Time: 10/26/2018 10:30
Collection Date/Time: 10/25/2018 08:30

ARCADIS
ELLE Sample #: AQ 9870152
ELLE Group #: 2002745
Matrix: Air

CAT No.	Analysis Name	CAS Number	Final Result	MDL	Final Result	MDL	DF
Volatiles in Air	**EPA 18 mod/EPA 25 mod**		**mg/m3**	**mg/m3**	**ppm(v)**	**ppm(v)**	
07090	C1-C4 Hydrocarbons as hexane	n.a.	< 20	20	< 5	5	1
07090	>C4-C10 Hydrocarbons hexane	n.a.	65	20	18	5	1
Volatiles in Air	**EPA TO-15 modified**		**mg/m3**	**mg/m3**	**ppm(v)**	**ppm(v)**	
05265	Acetone	67-64-1	0.32	0.025	0.13	0.011	20
05265	Acetonitrile	75-05-8	0.069 J	0.028	0.041 J	0.016	20
05265	Acrolein	107-02-8	< 0.026	0.026	< 0.011	0.011	20
05265	Acrylonitrile	107-13-1	< 0.0087	0.0087	< 0.0040	0.0040	20
05265	Benzene	71-43-2	0.0066 J	0.0064	0.0021 J	0.0020	20
05265	Bromobenzene	108-86-1	< 0.013	0.013	< 0.0020	0.0020	20
05265	Bromodichloromethane	75-27-4	< 0.016	0.016	< 0.0024	0.0024	20
05265	Bromoform	75-25-2	< 0.035	0.035	< 0.0034	0.0034	20
05265	Bromomethane	74-83-9	< 0.014	0.014	< 0.0036	0.0036	20
05265	1,3-Butadiene	106-99-0	< 0.0075	0.0075	< 0.0034	0.0034	20
05265	2-Butanone	78-93-3	< 0.013	0.013	< 0.0044	0.0044	20
05265	tert-Butyl Alcohol	75-65-0	< 0.012	0.012	< 0.0040	0.0040	20
05265	Carbon Disulfide	75-15-0	0.012 J	0.0075	0.0038 J	0.0024	20
05265	Carbon Tetrachloride	56-23-5	< 0.018	0.018	< 0.0028	0.0028	20
05265	Chlorobenzene	108-90-7	< 0.011	0.011	< 0.0024	0.0024	20
05265	Chlorodifluoromethane	75-45-6	< 0.011	0.011	< 0.0030	0.0030	20
05265	Chloroethane	75-00-3	< 0.0095	0.0095	< 0.0036	0.0036	20
05265	Chloroform	67-66-3	< 0.0085	0.0085	< 0.0017	0.0017	20
05265	Chloromethane	74-87-3	< 0.0095	0.0095	< 0.0046	0.0046	20
05265	3-Chloropropene	107-05-1	< 0.010	0.010	< 0.0032	0.0032	20
05265	Cumene	98-82-8	< 0.025	0.025	< 0.0050	0.0050	20
05265	Dibromochloromethane	124-48-1	< 0.024	0.024	< 0.0028	0.0028	20
05265	1,2-Dibromoethane	106-93-4	< 0.020	0.020	< 0.0026	0.0026	20
05265	Dibromomethane	74-95-3	< 0.020	0.020	< 0.0028	0.0028	20
05265	1,2-Dichlorobenzene	95-50-1	< 0.023	0.023	< 0.0038	0.0038	20
05265	1,3-Dichlorobenzene	541-73-1	< 0.022	0.022	< 0.0036	0.0036	20
05265	1,4-Dichlorobenzene	106-46-7	< 0.020	0.020	< 0.0034	0.0034	20
05265	Dichlorodifluoromethane	75-71-8	< 0.013	0.013	< 0.0026	0.0026	20
05265	1,1-Dichloroethane	75-34-3	< 0.0078	0.0078	< 0.0019	0.0019	20
05265	1,2-Dichloroethane	107-06-2	< 0.0040	0.0040	< 0.0010	0.0010	20
05265	1,1-Dichloroethene	75-35-4	< 0.011	0.011	< 0.0028	0.0028	20
05265	cis-1,2-Dichloroethene	156-59-2	< 0.0087	0.0087	< 0.0022	0.0022	20
05265	trans-1,2-Dichloroethene	156-60-5	< 0.0071	0.0071	< 0.0018	0.0018	20
05265	Dichlorofluoromethane	75-43-4	< 0.010	0.010	< 0.0024	0.0024	20
05265	1,2-Dichloropropane	78-87-5	< 0.0089	0.0089	< 0.0019	0.0019	20
05265	cis-1,3-Dichloropropene	10061-01-5	< 0.0080	0.0080	< 0.0018	0.0018	20
05265	trans-1,3-Dichloropropene	10061-02-6	< 0.010	0.010	< 0.0022	0.0022	20
05265	1,4-Dioxane	123-91-1	< 0.010	0.010	< 0.0028	0.0028	20
05265	Ethyl Acetate	141-78-6	< 0.014	0.014	< 0.0038	0.0038	20

Sample Description: **CATOX EFF Grab Air**
10954
138-50 Hillside Ave. - Jamaica, NY

Project Name: **10954**

Submittal Date/Time: 10/26/2018 10:30
Collection Date/Time: 10/25/2018 08:30

ARCADIS
ELLE Sample #: AQ 9870152
ELLE Group #: 2002745
Matrix: Air

CAT No.	Analysis Name	CAS Number	Final Result	MDL	Final Result	MDL	DF
Volatiles in Air	**EPA TO-15 modified**		**mg/m3**	**mg/m3**	**ppm(v)**	**ppm(v)**	
05265	Ethyl Acrylate	140-88-5	< 0.013	0.013	< 0.0032	0.0032	20
05265	Ethyl Methacrylate	97-63-2	< 0.020	0.020	< 0.0042	0.0042	20
05265	Ethylbenzene	100-41-4	< 0.020	0.020	< 0.0046	0.0046	20
05265	4-Ethyltoluene	622-96-8	< 0.019	0.019	< 0.0038	0.0038	20
05265	Freon 113	76-13-1	< 0.017	0.017	< 0.0022	0.0022	20
05265	Freon 114	76-14-2	< 0.017	0.017	< 0.0024	0.0024	20
05265	Heptane	142-82-5	0.31	0.020	0.077	0.0048	20
05265	Hexachlorobutadiene	87-68-3	< 0.098	0.098	< 0.0092	0.0092	20
05265	Hexachloroethane	67-72-1	< 0.045	0.045	< 0.0046	0.0046	20
05265	Hexane	110-54-3	0.76	0.0092	0.21	0.0026	20
05265	2-Hexanone	591-78-6	< 0.016	0.016	< 0.0038	0.0038	20
05265	Isooctane	540-84-1	1.7	0.012	0.36	0.0026	20
05265	Methyl Acrylate	96-33-3	< 0.0099	0.0099	< 0.0028	0.0028	20
05265	Methyl Iodide	74-88-4	< 0.014	0.014	< 0.0024	0.0024	20
05265	Methyl Methacrylate	80-62-6	< 0.013	0.013	< 0.0032	0.0032	20
05265	Alpha Methyl Styrene	98-83-9	< 0.017	0.017	< 0.0036	0.0036	20
05265	Methyl t-Butyl Ether	1634-04-4	< 0.014	0.014	< 0.0040	0.0040	20
05265	4-Methyl-2-pentanone	108-10-1	< 0.012	0.012	< 0.0030	0.0030	20
05265	Methylene Chloride	75-09-2	< 0.014	0.014	< 0.0040	0.0040	20
05265	Octane	111-65-9	0.081 J	0.043	0.017 J	0.0092	20
05265	Pentane	109-66-0	1.7	0.0077	0.59	0.0026	20
05265	Propene	115-07-1	0.016 J	0.0069	0.0091 J	0.0040	20
05265	Styrene	100-42-5	< 0.018	0.018	< 0.0042	0.0042	20
05265	1,1,1,2-Tetrachloroethane	630-20-6	< 0.019	0.019	< 0.0028	0.0028	20
05265	1,1,2,2-Tetrachloroethane	79-34-5	< 0.019	0.019	< 0.0028	0.0028	20
05265	Tetrachloroethene	127-18-4	0.058 J	0.028	0.0086 J	0.0042	20
05265	Toluene	108-88-3	0.036 J	0.0090	0.0096 J	0.0024	20
05265	1,2,4-Trichlorobenzene	120-82-1	< 0.056	0.056	< 0.0076	0.0076	20
05265	1,1,1-Trichloroethane	71-55-6	< 0.013	0.013	< 0.0024	0.0024	20
05265	1,1,2-Trichloroethane	79-00-5	< 0.010	0.010	< 0.0019	0.0019	20
05265	Trichloroethene	79-01-6	< 0.015	0.015	< 0.0028	0.0028	20
05265	Trichlorofluoromethane	75-69-4	< 0.013	0.013	< 0.0024	0.0024	20
05265	1,2,3-Trichloropropane	96-18-4	< 0.017	0.017	< 0.0028	0.0028	20
05265	1,2,4-Trimethylbenzene	95-63-6	< 0.028	0.028	< 0.0056	0.0056	20
05265	1,3,5-Trimethylbenzene	108-67-8	< 0.031	0.031	< 0.0064	0.0064	20
05265	Vinyl Acetate	108-05-4	< 0.012	0.012	< 0.0034	0.0034	20
05265	Vinyl Chloride	75-01-4	< 0.0066	0.0066	< 0.0026	0.0026	20
05265	m/p-Xylene	179601-23-1	< 0.036	0.036	< 0.0084	0.0084	20
05265	o-Xylene	95-47-6	< 0.025	0.025	< 0.0058	0.0058	20

The sample was collected in a Tedlar bag which is not the container referenced in the EPA method.

MDL = Method Detection Limit

Sample Description: **CATOX EFF Grab Air**
10954
138-50 Hillside Ave. - Jamaica, NY

Project Name: **10954**

Submittal Date/Time: 10/26/2018 10:30
Collection Date/Time: 10/25/2018 08:30

ARCADIS
ELLE Sample #: **AQ 9870152**
ELLE Group #: **2002745**
Matrix: Air

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07090	BTEX/MTBE/Hydrocarbons by GC	EPA 18 mod/EPA 25 mod	1	M1830230AA	10/29/2018 18:56	Jeffrey B Smith	1
05265	TO-15 VOA Ext. List Tedlar	EPA TO-15 modified	1	F1830430AA	10/31/2018 19:26	Jacob E Bailey	20

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Quality Control Summary

Client Name: ARCADIS
Reported: 11/06/2018 18:39

Group Number: 2002745

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result mg/m3	MDL mg/m3	Result ppm(v)	MDL ppm(v)
Batch number: F1830330AA	Sample number(s): 9870151			
Benzene	< 0.00035	0.00035	< 0.00011	0.00011
Ethylbenzene	< 0.00083	0.00083	< 0.00019	0.00019
Methyl t-Butyl Ether	< 0.00054	0.00054	< 0.00015	0.00015
Toluene	< 0.00045	0.00045	< 0.00012	0.00012
m/p-Xylene	< 0.0011	0.0011	< 0.00026	0.00026
o-Xylene	< 0.00083	0.00083	< 0.00019	0.00019
Batch number: F1830430AA	Sample number(s): 9870152			
Acetone	< 0.0013	0.0013	< 0.00053	0.00053
Acetonitrile	< 0.0014	0.0014	< 0.00083	0.00083
Acrolein	< 0.0014	0.0014	< 0.00062	0.00062
Acrylonitrile	< 0.00028	0.00028	< 0.00013	0.00013
Benzene	< 0.00035	0.00035	< 0.00011	0.00011
Bromobenzene	< 0.00064	0.00064	< 0.00010	0.00010
Bromodichloromethane	< 0.00080	0.00080	< 0.00012	0.00012
Bromoform	< 0.0018	0.0018	< 0.00017	0.00017
Bromomethane	< 0.00070	0.00070	< 0.00018	0.00018
1,3-Butadiene	< 0.00038	0.00038	< 0.00017	0.00017
2-Butanone	< 0.00062	0.00062	< 0.00021	0.00021
tert-Butyl Alcohol	< 0.00064	0.00064	< 0.00021	0.00021
Carbon Disulfide	< 0.00040	0.00040	< 0.00013	0.00013
Carbon Tetrachloride	< 0.00088	0.00088	< 0.00014	0.00014
Chlorobenzene	< 0.00060	0.00060	< 0.00013	0.00013
Chlorodifluoromethane	< 0.00053	0.00053	< 0.00015	0.00015
Chloroethane	< 0.00050	0.00050	< 0.00019	0.00019
Chloroform	< 0.00045	0.00045	< 0.000092	0.000092
Chloromethane	< 0.00050	0.00050	< 0.00024	0.00024
3-Chloropropene	< 0.00047	0.00047	< 0.00015	0.00015
Cumene	< 0.0012	0.0012	< 0.00024	0.00024
Dibromochloromethane	< 0.0011	0.0011	< 0.00013	0.00013
1,2-Dibromoethane	< 0.0010	0.0010	< 0.00013	0.00013
Dibromomethane	< 0.0010	0.0010	< 0.00014	0.00014
1,2-Dichlorobenzene	< 0.0012	0.0012	< 0.00020	0.00020
1,3-Dichlorobenzene	< 0.0011	0.0011	< 0.00019	0.00019
1,4-Dichlorobenzene	< 0.0010	0.0010	< 0.00017	0.00017
Dichlorodifluoromethane	< 0.00064	0.00064	< 0.00013	0.00013
1,1-Dichloroethane	< 0.00036	0.00036	< 0.000089	0.000089
1,2-Dichloroethane	< 0.00032	0.00032	< 0.000080	0.000080
1,1-Dichloroethene	< 0.00056	0.00056	< 0.00014	0.00014

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: ARCADIS
Reported: 11/06/2018 18:39

Group Number: 2002745

Method Blank (continued)

Analysis Name	Result mg/m3	MDL mg/m3	Result ppm(v)	MDL ppm(v)
cis-1,2-Dichloroethene	< 0.00048	0.00048	< 0.00012	0.00012
trans-1,2-Dichloroethene	< 0.00034	0.00034	< 0.000086	0.000086
Dichlorofluoromethane	< 0.00046	0.00046	< 0.00011	0.00011
1,2-Dichloropropane	< 0.00060	0.00060	< 0.00013	0.00013
cis-1,3-Dichloropropene	< 0.00045	0.00045	< 0.00010	0.00010
trans-1,3-Dichloropropene	< 0.00054	0.00054	< 0.00012	0.00012
1,4-Dioxane	< 0.00061	0.00061	< 0.00017	0.00017
Ethyl Acetate	< 0.00090	0.00090	< 0.00025	0.00025
Ethyl Acrylate	< 0.00066	0.00066	< 0.00016	0.00016
Ethyl Methacrylate	< 0.00089	0.00089	< 0.00019	0.00019
Ethylbenzene	< 0.00083	0.00083	< 0.00019	0.00019
4-Ethyltoluene	< 0.00088	0.00088	< 0.00018	0.00018
Freon 113	< 0.00084	0.00084	< 0.00011	0.00011
Freon 114	< 0.00084	0.00084	< 0.00012	0.00012
Heptane	< 0.00094	0.00094	< 0.00023	0.00023
Hexachlorobutadiene	< 0.0050	0.0050	< 0.00047	0.00047
Hexachloroethane	< 0.0026	0.0026	< 0.00027	0.00027
Hexane	< 0.00046	0.00046	< 0.00013	0.00013
2-Hexanone	< 0.00074	0.00074	< 0.00018	0.00018
Isooctane	< 0.00061	0.00061	< 0.00013	0.00013
Methyl Acrylate	< 0.00049	0.00049	< 0.00014	0.00014
Methyl Iodide	< 0.00087	0.00087	< 0.00015	0.00015
Methyl Methacrylate	< 0.00061	0.00061	< 0.00015	0.00015
Alpha Methyl Styrene	< 0.00087	0.00087	< 0.00018	0.00018
Methyl t-Butyl Ether	< 0.00054	0.00054	< 0.00015	0.00015
4-Methyl-2-pentanone	< 0.00061	0.00061	< 0.00015	0.00015
Methylene Chloride	< 0.00087	0.00087	< 0.00025	0.00025
Octane	< 0.0019	0.0019	< 0.00040	0.00040
Pentane	< 0.00038	0.00038	< 0.00013	0.00013
Propene	< 0.00028	0.00028	< 0.00016	0.00016
Styrene	< 0.00085	0.00085	< 0.00020	0.00020
1,1,1,2-Tetrachloroethane	< 0.0010	0.0010	< 0.00015	0.00015
1,1,2,2-Tetrachloroethane	< 0.0010	0.0010	< 0.00015	0.00015
Tetrachloroethene	< 0.0017	0.0017	< 0.00025	0.00025
Toluene	< 0.00045	0.00045	< 0.00012	0.00012
1,2,4-Trichlorobenzene	< 0.0028	0.0028	< 0.00038	0.00038
1,1,1-Trichloroethane	< 0.00065	0.00065	< 0.00012	0.00012
1,1,2-Trichloroethane	< 0.00065	0.00065	< 0.00012	0.00012
Trichloroethene	< 0.00097	0.00097	< 0.00018	0.00018
Trichlorofluoromethane	< 0.00084	0.00084	< 0.00015	0.00015
1,2,3-Trichloropropane	< 0.00084	0.00084	< 0.00014	0.00014
1,2,4-Trimethylbenzene	< 0.0014	0.0014	< 0.00028	0.00028
1,3,5-Trimethylbenzene	< 0.0016	0.0016	< 0.00032	0.00032
Vinyl Acetate	< 0.00056	0.00056	< 0.00016	0.00016
Vinyl Chloride	< 0.00031	0.00031	< 0.00012	0.00012

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ARCADIS
Reported: 11/06/2018 18:39

Group Number: 2002745

Method Blank (continued)

Analysis Name	Result mg/m3	MDL mg/m3	Result ppm(v)	MDL ppm(v)
m/p-Xylene	< 0.0011	0.0011	< 0.00026	0.00026
o-Xylene	< 0.00083	0.00083	< 0.00019	0.00019
Batch number: M1830230AA	Sample number(s): 9870151-9870152			
C1-C4 Hydrocarbons as hexane	< 20	20	< 5	5
>C4-C10 Hydrocarbons hexane	< 20	20	< 5	5

LCS/LCSD

Analysis Name	LCS Spike Added mg/m3	LCS Conc mg/m3	LCSD Spike Added mg/m3	LCSD Conc mg/m3	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: F1830330AA	Sample number(s): 9870151								
Benzene	0.0319	0.0334	0.0319	0.0345	105	108	76-123	3	25
Ethylbenzene	0.0434	0.0421	0.0434	0.0427	97	98	77-117	1	25
Methyl t-Butyl Ether	0.0361	0.0378	0.0361	0.0405	105	112	71-119	7	25
Toluene	0.0377	0.0378	0.0377	0.0389	100	103	78-119	3	25
m/p-Xylene	0.0434	0.0426	0.0434	0.0439	98	101	78-119	3	25
o-Xylene	0.0434	0.0425	0.0434	0.0438	98	101	78-121	3	25
Batch number: F1830430AA	Sample number(s): 9870152								
Acetone	0.0238	0.0261	0.0238	0.0263	110	111	71-136	1	25
Acetonitrile	0.0168	0.0201	0.0168	0.0203	120	121	56-136	1	25
Acrolein	0.0229	0.0265	0.0229	0.0277	115	121	54-132	5	25
Acrylonitrile	0.0217	0.0245	0.0217	0.0249	113	115	68-135	2	25
Benzene	0.0319	0.0353	0.0319	0.0361	110	113	76-123	2	25
Bromobenzene	0.0642	0.0601	0.0642	0.0631	94	98	74-118	5	25
Bromodichloromethane	0.0670	0.0717	0.0670	0.0705	107	105	75-134	2	25
Bromoform	0.103	0.0968	0.103	0.0873	94	84	58-144	10	25
Bromomethane	0.0388	0.0477	0.0388	0.0462	123	119	71-133	3	25
1,3-Butadiene	0.0221	0.0219	0.0221	0.0193	99	87	72-122	13	25
2-Butanone	0.0295	0.0316	0.0295	0.0318	107	108	75-126	1	25
tert-Butyl Alcohol	0.0303	0.0318	0.0303	0.0327	105	108	71-154	3	25
Carbon Disulfide	0.0311	0.0359	0.0311	0.0358	115	115	72-128	0	25
Carbon Tetrachloride	0.0629	0.0627	0.0629	0.0633	100	101	72-127	1	25
Chlorobenzene	0.0460	0.0463	0.0460	0.0459	101	100	76-117	1	25
Chlorodifluoromethane	0.0354	0.0410	0.0354	0.0406	116	115	70-138	1	25
Chloroethane	0.0264	0.0311	0.0264	0.0321	118	122	76-129	3	25
Chloroform	0.0488	0.0515	0.0488	0.0528	105	108	75-127	3	25
Chloromethane	0.0207	0.0224	0.0207	0.0226	108	109	65-140	1	25
3-Chloropropene	0.0313	0.0412	0.0313	0.0413	132	132	67-141	0	25
Cumene	0.0492	0.0480	0.0492	0.0499	98	102	80-133	4	25
Dibromochloromethane	0.0852	0.0859	0.0852	0.0812	101	95	74-131	6	25

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ARCADIS
Reported: 11/06/2018 18:39

Group Number: 2002745

LCS/LCSD (continued)

Analysis Name	LCS Spike Added mg/m3	LCS Conc mg/m3	LCSD Spike Added mg/m3	LCSD Conc mg/m3	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,2-Dibromoethane	0.0768	0.0767	0.0768	0.0770	100	100	73-121	0	25
Dibromomethane	0.0711	0.0748	0.0711	0.0733	105	103	76-124	2	25
1,2-Dichlorobenzene	0.0601	0.0523	0.0601	0.0537	87	89	71-126	3	25
1,3-Dichlorobenzene	0.0601	0.0572	0.0601	0.0587	95	98	75-129	3	25
1,4-Dichlorobenzene	0.0601	0.0560	0.0601	0.0573	93	95	74-123	2	25
Dichlorodifluoromethane	0.0495	0.0557	0.0495	0.0562	113	114	74-133	1	25
1,1-Dichloroethane	0.0405	0.0436	0.0405	0.0441	108	109	74-129	1	25
1,2-Dichloroethane	0.0405	0.0426	0.0405	0.0434	105	107	72-138	2	25
1,1-Dichloroethene	0.0396	0.0436	0.0396	0.0451	110	114	70-129	3	25
cis-1,2-Dichloroethene	0.0396	0.0428	0.0396	0.0437	108	110	76-126	2	25
trans-1,2-Dichloroethene	0.0396	0.0432	0.0396	0.0444	109	112	77-128	3	25
Dichlorofluoromethane	0.0421	0.0494	0.0421	0.0501	117	119	75-137	1	25
1,2-Dichloropropane	0.0462	0.0518	0.0462	0.0504	112	109	75-127	3	25
cis-1,3-Dichloropropene	0.0454	0.0480	0.0454	0.0471	106	104	51-120	2	25
trans-1,3-Dichloropropene	0.0454	0.0477	0.0454	0.0461	105	102	76-131	3	25
1,4-Dioxane	0.0360	0.0398	0.0360	0.0400	110	111	76-124	1	25
Ethyl Acetate	0.0360	0.0365	0.0360	0.0365	101	101	73-124	0	25
Ethyl Acrylate	0.0409	0.0423	0.0409	0.0409	103	100	71-126	3	25
Ethyl Methacrylate	0.0467	0.0469	0.0467	0.0441	100	94	69-137	6	25
Ethylbenzene	0.0434	0.0423	0.0434	0.0428	97	99	77-117	1	25
4-Ethyltoluene	0.0492	0.0484	0.0492	0.0498	98	101	73-130	3	25
Freon 113	0.0766	0.0795	0.0766	0.0779	104	102	66-119	2	25
Freon 114	0.0699	0.0788	0.0699	0.0778	113	111	66-126	1	25
Heptane	0.0410	0.0435	0.0410	0.0446	106	109	74-122	3	25
Hexachlorobutadiene	0.107	0.0841	0.107	0.0880	79	83	49-154	5	25
Hexachloroethane	0.0968	0.0891	0.0968	0.0838	92	87	59-135	6	25
Hexane	0.0352	0.0374	0.0352	0.0379	106	108	70-118	1	25
2-Hexanone	0.0410	0.0433	0.0410	0.0408	106	100	74-134	6	25
Isooctane	0.0467	0.0512	0.0467	0.0516	110	110	74-127	1	25
Methyl Acrylate	0.0352	0.0363	0.0352	0.0377	103	107	75-125	4	25
Methyl Iodide	0.0581	0.0539	0.0581	0.0563	93	97	72-127	4	25
Methyl Methacrylate	0.0409	0.0419	0.0409	0.0408	102	100	73-117	3	25
Alpha Methyl Styrene	0.0483	0.0494	0.0483	0.0474	102	98	71-138	4	25
Methyl t-Butyl Ether	0.0361	0.0378	0.0361	0.0381	105	106	71-119	1	25
4-Methyl-2-pentanone	0.0410	0.0432	0.0410	0.0419	105	102	79-131	3	25
Methylene Chloride	0.0347	0.0428	0.0347	0.0430	123	124	69-128	0	25
Octane	0.0467	0.0483	0.0467	0.0484	103	104	73-122	0	25
Pentane	0.0295	0.0305	0.0295	0.0309	104	105	69-125	1	25
Propene	0.0172	0.0185	0.0172	0.0196	108	114	78-126	6	25
Styrene	0.0426	0.0427	0.0426	0.0420	100	99	77-143	2	25
1,1,1,2-Tetrachloroethane	0.0687	0.0687	0.0687	0.0650	100	95	73-137	6	25
1,1,2,2-Tetrachloroethane	0.0687	0.0646	0.0687	0.0655	94	95	72-133	1	25
Tetrachloroethene	0.0678	0.0662	0.0678	0.0660	98	97	68-123	0	25
Toluene	0.0377	0.0385	0.0377	0.0384	102	102	78-119	0	25

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ARCADIS
Reported: 11/06/2018 18:39

Group Number: 2002745

LCS/LCSD (continued)

Analysis Name	LCS Spike Added mg/m3	LCS Conc mg/m3	LCSD Spike Added mg/m3	LCSD Conc mg/m3	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,2,4-Trichlorobenzene	0.0742	0.0559	0.0742	0.0596	75	80	45-156	6	25
1,1,1-Trichloroethane	0.0546	0.0546	0.0546	0.0548	100	100	74-122	0	25
1,1,2-Trichloroethane	0.0546	0.0584	0.0546	0.0563	107	103	76-127	4	25
Trichloroethene	0.0537	0.0563	0.0537	0.0582	105	108	76-118	3	25
Trichlorofluoromethane	0.0562	0.0583	0.0562	0.0584	104	104	73-132	0	25
1,2,3-Trichloropropane	0.0603	0.0584	0.0603	0.0584	97	97	71-127	0	25
1,2,4-Trimethylbenzene	0.0492	0.0501	0.0492	0.0521	102	106	70-138	4	25
1,3,5-Trimethylbenzene	0.0492	0.0493	0.0492	0.0509	100	104	72-130	3	25
Vinyl Acetate	0.0352	0.0413	0.0352	0.0417	117	118	75-161	1	25
Vinyl Chloride	0.0256	0.0256	0.0256	0.0245	100	96	75-130	4	25
m/p-Xylene	0.0434	0.0425	0.0434	0.0432	98	100	78-119	2	25
o-Xylene	0.0434	0.0416	0.0434	0.0424	96	98	78-121	2	25

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Chain of Custody Record

A-13045 G-2002745 S-98701S1-52

Client Contact	Project Manager: Jerome Oertling	Site Contact: T. Main	Date: 10/25/18	COC No:
Company: Arcadis of New York, Inc	Tel/Fax: 860.533.9953	Lab Contact:	Carrier: FedEx	1 of 1 COCs
Address: 160 Chapel Road, Suite 201	Analysis Turnaround Time			Results to: jerome.oertling@arcadis-us.com chad.colwell@arcadis-us.com richard.hatch@arcadis-us.com
City/State/Zip: Manchester, CT 06042	Calendar (C) or Work Days (W)			Invoice to:
Phone: 860-533-9953	TAT if different from Below			
Fax:	☐ Standard			
Project Name: Alliance 10954	☐ 1 week			
Site: 138-50 Hillside Avenue, Jamaica, NY	☐ 2 days			
P O # : B0085850.0954	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample ☐	BTEX MTBE (TO-15)	TPH (C1-C4) (EPA 18 25)	TPH (C4-C10) (EPA 18 25)	Extended List VOC (TO-15)	Sample Specific Notes:
CATOX INF	10/25/18	8:35	Grab	Vapor	1		X	X	X		
CATOX EFF	10/25/18	9:50	Grab	Vapor	1			X	X	X	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant Poison B ☐ Unknown ☐

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 & Comments:

10/25/18

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Tim Main	Arcadis	1500			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
				LL	10/26/18 10:30

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Sample Administration Receipt Documentation Log

Doc Log ID: 231236

Group Number(s):

Client: Arcadis

Z002745

10954

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	10/26/2018 10:30
Number of Packages:	1	Number of Projects:	1
State/Province of Origin:	NY		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	N/A	VOA Vial Headspace ≥ 6mm:	N/A
Paperwork Enclosed:	Yes	Total Trip Blank Qty:	0
Samples Intact:	Yes	Air Quality Samples Present:	Yes
Missing Samples:	No	Air Quality Flow Controllers Present:	No
Extra Samples:	No	Air Quality Returns:	No
Discrepancy in Container Qty on COC:	No		

Unpacked by Katie Hartlove (2114) at 12:09 on 10/26/2018

2425 New Holland Pike
Lancaster, PA 17605-2425

T : 717-656-2300
F : 717-656-2681
www.LancasterLabs.cor

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

ARCADIS
Suite 600
630 Plaza Drive
Highlands Ranch CO 80129

Report Date: November 28, 2018 17:16

Project: 10954

Account #: 13045
Group Number: 2009763
PO Number: B0085850.0954
Release Number: PM: OERTLING
State of Sample Origin: NY

Electronic Copy To	ARCADIS	Attn: Richard Hatch
Electronic Copy To	ARCADIS	Attn: Nicholas Beyrle
Electronic Copy To	ARCADIS	Attn: Chad Colwell
Electronic Copy To	ARCADIS	Attn: Jerome Oertling

Respectfully Submitted,

Hannah L. Cottman
Project Manager

(717) 556-7383

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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
CATOX INF Grab Air	11/14/2018 09:20	9901769
CATOX EFF Grab Air	11/14/2018 09:15	9901770

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Sample Description: **CATOX INF Grab Air**
10954
138-50 Hillside Ave. - Jamaica, NY

ARCADIS
ELLE Sample #: AQ 9901769
ELLE Group #: 2009763
Matrix: Air

Project Name: **10954**

Submittal Date/Time: 11/15/2018 11:40
Collection Date/Time: 11/14/2018 09:20

CAT No.	Analysis Name	CAS Number	Final Result	MDL	Final Result	MDL	DF
Volatiles in Air	**EPA 18 mod/EPA 25 mod**		**mg/m3**	**mg/m3**	**ppm(v)**	**ppm(v)**	
07090	C1-C4 Hydrocarbons as hexane	n.a.	< 20	20	< 5	5	1
07090	>C4-C10 Hydrocarbons hexane	n.a.	170	20	49	5	1
Volatiles in Air	**EPA TO-15 modified**		**mg/m3**	**mg/m3**	**ppm(v)**	**ppm(v)**	
05265	Benzene	71-43-2	< 0.0064	0.0064	< 0.0020	0.0020	20
05265	Ethylbenzene	100-41-4	< 0.020	0.020	< 0.0046	0.0046	20
05265	Methyl t-Butyl Ether	1634-04-4	< 0.014	0.014	< 0.0040	0.0040	20
05265	Toluene	108-88-3	0.025 J	0.0090	0.0066 J	0.0024	20
05265	m/p-Xylene	179601-23-1	0.12 J	0.036	0.027 J	0.0084	20
05265	o-Xylene	95-47-6	0.086 J	0.025	0.020 J	0.0058	20

The sample was collected in a Tedlar bag which is not the container referenced in the EPA method.
Reporting limits were raised due to interference from the sample matrix.

MDL = Method Detection Limit

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07090	BTEX/MTBE/Hydrocarbons by GC	EPA 18 mod/EPA 25 mod	1	M1832330AA	11/19/2018 20:54	Jeffrey B Smith	1
05265	TO-15 VOA Ext. List Tedlar	EPA TO-15 modified	1	F1833130AA	11/27/2018 21:27	Jacob E Bailey	20

Sample Description: CATOX EFF Grab Air
10954
138-50 Hillside Ave. - Jamaica, NY

Project Name: 10954

Submittal Date/Time: 11/15/2018 11:40
Collection Date/Time: 11/14/2018 09:15

ARCADIS
ELLE Sample #: AQ 9901770
ELLE Group #: 2009763
Matrix: Air

CAT No.	Analysis Name	CAS Number	Final Result	MDL	Final Result	MDL	DF
Volatiles in Air	**EPA 18 mod/EPA 25 mod**		**mg/m3**	**mg/m3**	**ppm(v)**	**ppm(v)**	
07090	C1-C4 Hydrocarbons as hexane	n.a.	< 20	20	< 5	5	1
07090	>C4-C10 Hydrocarbons hexane	n.a.	< 20	20	< 5	5	1
Volatiles in Air	**EPA TO-15 modified**		**mg/m3**	**mg/m3**	**ppm(v)**	**ppm(v)**	
05265	Acetone	67-64-1	0.19 J	0.025	0.079 J	0.011	20
05265	Acetonitrile	75-05-8	< 0.028	0.028	< 0.016	0.016	20
05265	Acrolein	107-02-8	< 0.026	0.026	< 0.011	0.011	20
05265	Acrylonitrile	107-13-1	< 0.0087	0.0087	< 0.0040	0.0040	20
05265	Benzene	71-43-2	< 0.0064	0.0064	< 0.0020	0.0020	20
05265	Bromobenzene	108-86-1	< 0.013	0.013	< 0.0020	0.0020	20
05265	Bromodichloromethane	75-27-4	< 0.016	0.016	< 0.0024	0.0024	20
05265	Bromoform	75-25-2	< 0.035	0.035	< 0.0034	0.0034	20
05265	Bromomethane	74-83-9	< 0.014	0.014	< 0.0036	0.0036	20
05265	1,3-Butadiene	106-99-0	< 0.0075	0.0075	< 0.0034	0.0034	20
05265	2-Butanone	78-93-3	0.099	0.013	0.034	0.0044	20
05265	tert-Butyl Alcohol	75-65-0	< 0.012	0.012	< 0.0040	0.0040	20
05265	Carbon Disulfide	75-15-0	0.012 J	0.0075	0.0039 J	0.0024	20
05265	Carbon Tetrachloride	56-23-5	< 0.018	0.018	< 0.0028	0.0028	20
05265	Chlorobenzene	108-90-7	< 0.011	0.011	< 0.0024	0.0024	20
05265	Chlorodifluoromethane	75-45-6	< 0.011	0.011	< 0.0030	0.0030	20
05265	Chloroethane	75-00-3	< 0.0095	0.0095	< 0.0036	0.0036	20
05265	Chloroform	67-66-3	< 0.0085	0.0085	< 0.0017	0.0017	20
05265	Chloromethane	74-87-3	< 0.0095	0.0095	< 0.0046	0.0046	20
05265	3-Chloropropene	107-05-1	< 0.010	0.010	< 0.0032	0.0032	20
05265	Cumene	98-82-8	< 0.025	0.025	< 0.0050	0.0050	20
05265	Dibromochloromethane	124-48-1	< 0.024	0.024	< 0.0028	0.0028	20
05265	1,2-Dibromoethane	106-93-4	< 0.020	0.020	< 0.0026	0.0026	20
05265	Dibromomethane	74-95-3	< 0.020	0.020	< 0.0028	0.0028	20
05265	1,2-Dichlorobenzene	95-50-1	< 0.023	0.023	< 0.0038	0.0038	20
05265	1,3-Dichlorobenzene	541-73-1	< 0.022	0.022	< 0.0036	0.0036	20
05265	1,4-Dichlorobenzene	106-46-7	< 0.020	0.020	< 0.0034	0.0034	20
05265	Dichlorodifluoromethane	75-71-8	< 0.013	0.013	< 0.0026	0.0026	20
05265	1,1-Dichloroethane	75-34-3	< 0.0078	0.0078	< 0.0019	0.0019	20
05265	1,2-Dichloroethane	107-06-2	< 0.0040	0.0040	< 0.0010	0.0010	20
05265	1,1-Dichloroethene	75-35-4	< 0.011	0.011	< 0.0028	0.0028	20
05265	cis-1,2-Dichloroethene	156-59-2	< 0.0087	0.0087	< 0.0022	0.0022	20
05265	trans-1,2-Dichloroethene	156-60-5	< 0.0071	0.0071	< 0.0018	0.0018	20
05265	Dichlorofluoromethane	75-43-4	< 0.010	0.010	< 0.0024	0.0024	20
05265	1,2-Dichloropropane	78-87-5	< 0.0089	0.0089	< 0.0019	0.0019	20
05265	cis-1,3-Dichloropropene	10061-01-5	< 0.0080	0.0080	< 0.0018	0.0018	20
05265	trans-1,3-Dichloropropene	10061-02-6	< 0.010	0.010	< 0.0022	0.0022	20
05265	1,4-Dioxane	123-91-1	< 0.010	0.010	< 0.0028	0.0028	20
05265	Ethyl Acetate	141-78-6	< 0.014	0.014	< 0.0038	0.0038	20

Sample Description: **CATOX EFF Grab Air**
10954
138-50 Hillside Ave. - Jamaica, NY

ARCADIS
ELLE Sample #: AQ 9901770
ELLE Group #: 2009763
Matrix: Air

Project Name: **10954**

Submittal Date/Time: 11/15/2018 11:40
Collection Date/Time: 11/14/2018 09:15

CAT No.	Analysis Name	CAS Number	Final Result	MDL	Final Result	MDL	DF
Volatiles in Air	**EPA TO-15 modified**		**mg/m3**	**mg/m3**	**ppm(v)**	**ppm(v)**	
05265	Ethyl Acrylate	140-88-5	< 0.013	0.013	< 0.0032	0.0032	20
05265	Ethyl Methacrylate	97-63-2	< 0.020	0.020	< 0.0042	0.0042	20
05265	Ethylbenzene	100-41-4	< 0.020	0.020	< 0.0046	0.0046	20
05265	4-Ethyltoluene	622-96-8	< 0.019	0.019	< 0.0038	0.0038	20
05265	Freon 113	76-13-1	< 0.017	0.017	< 0.0022	0.0022	20
05265	Freon 114	76-14-2	< 0.017	0.017	< 0.0024	0.0024	20
05265	Heptane	142-82-5	0.22	0.020	0.053	0.0048	20
05265	Hexachlorobutadiene	87-68-3	< 0.098	0.098	< 0.0092	0.0092	20
05265	Hexachloroethane	67-72-1	< 0.045	0.045	< 0.0046	0.0046	20
05265	Hexane	110-54-3	0.61	0.0092	0.17	0.0026	20
05265	2-Hexanone	591-78-6	< 0.016	0.016	< 0.0038	0.0038	20
05265	Isooctane	540-84-1	1.1	0.012	0.24	0.0026	20
05265	Methyl Acrylate	96-33-3	< 0.0099	0.0099	< 0.0028	0.0028	20
05265	Methyl Iodide	74-88-4	< 0.014	0.014	< 0.0024	0.0024	20
05265	Methyl Methacrylate	80-62-6	< 0.013	0.013	< 0.0032	0.0032	20
05265	Alpha Methyl Styrene	98-83-9	< 0.017	0.017	< 0.0036	0.0036	20
05265	Methyl t-Butyl Ether	1634-04-4	< 0.014	0.014	< 0.0040	0.0040	20
05265	4-Methyl-2-pentanone	108-10-1	< 0.012	0.012	< 0.0030	0.0030	20
05265	Methylene Chloride	75-09-2	< 0.014	0.014	< 0.0040	0.0040	20
05265	Octane	111-65-9	< 0.043	0.043	< 0.0092	0.0092	20
05265	Pentane	109-66-0	1.5	0.0077	0.51	0.0026	20
05265	Propene	115-07-1	< 0.0069	0.0069	< 0.0040	0.0040	20
05265	Styrene	100-42-5	< 0.018	0.018	< 0.0042	0.0042	20
05265	1,1,1,2-Tetrachloroethane	630-20-6	< 0.019	0.019	< 0.0028	0.0028	20
05265	1,1,2,2-Tetrachloroethane	79-34-5	< 0.019	0.019	< 0.0028	0.0028	20
05265	Tetrachloroethene	127-18-4	0.034 J	0.028	0.0051 J	0.0042	20
05265	Toluene	108-88-3	0.015 J	0.0090	0.0041 J	0.0024	20
05265	1,2,4-Trichlorobenzene	120-82-1	< 0.056	0.056	< 0.0076	0.0076	20
05265	1,1,1-Trichloroethane	71-55-6	< 0.013	0.013	< 0.0024	0.0024	20
05265	1,1,2-Trichloroethane	79-00-5	< 0.010	0.010	< 0.0019	0.0019	20
05265	Trichloroethene	79-01-6	< 0.015	0.015	< 0.0028	0.0028	20
05265	Trichlorofluoromethane	75-69-4	< 0.013	0.013	< 0.0024	0.0024	20
05265	1,2,3-Trichloropropane	96-18-4	< 0.017	0.017	< 0.0028	0.0028	20
05265	1,2,4-Trimethylbenzene	95-63-6	< 0.028	0.028	< 0.0056	0.0056	20
05265	1,3,5-Trimethylbenzene	108-67-8	< 0.031	0.031	< 0.0064	0.0064	20
05265	Vinyl Acetate	108-05-4	< 0.012	0.012	< 0.0034	0.0034	20
05265	Vinyl Chloride	75-01-4	< 0.0066	0.0066	< 0.0026	0.0026	20
05265	m/p-Xylene	179601-23-1	< 0.036	0.036	< 0.0084	0.0084	20
05265	o-Xylene	95-47-6	< 0.025	0.025	< 0.0058	0.0058	20

The sample was collected in a Tedlar bag which is not the container referenced in the EPA method.

MDL = Method Detection Limit

Sample Description: **CATOX EFF Grab Air**
10954
138-50 Hillside Ave. - Jamaica, NY

Project Name: **10954**

Submittal Date/Time: 11/15/2018 11:40
Collection Date/Time: 11/14/2018 09:15

ARCADIS
ELLE Sample #: AQ 9901770
ELLE Group #: 2009763
Matrix: Air

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07090	BTEX/MTBE/Hydrocarbons by GC	EPA 18 mod/EPA 25 mod	1	M1832330AA	11/19/2018 21:22	Jeffrey B Smith	1
05265	TO-15 VOA Ext. List Tedlar	EPA TO-15 modified	1	F1833130AA	11/27/2018 21:58	Jacob E Bailey	20

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Quality Control Summary

Client Name: ARCADIS
Reported: 11/28/2018 17:16

Group Number: 2009763

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result mg/m3	MDL mg/m3	Result ppm(v)	MDL ppm(v)
Batch number: F1833130AA	Sample number(s): 9901769-9901770			
Acetone	< 0.0013	0.0013	< 0.00053	0.00053
Acetonitrile	< 0.0014	0.0014	< 0.00083	0.00083
Acrolein	< 0.0014	0.0014	< 0.00062	0.00062
Acrylonitrile	< 0.00028	0.00028	< 0.00013	0.00013
Benzene	< 0.00035	0.00035	< 0.00011	0.00011
Bromobenzene	< 0.00064	0.00064	< 0.00010	0.00010
Bromodichloromethane	< 0.00080	0.00080	< 0.00012	0.00012
Bromoform	< 0.0018	0.0018	< 0.00017	0.00017
Bromomethane	< 0.00070	0.00070	< 0.00018	0.00018
1,3-Butadiene	< 0.00038	0.00038	< 0.00017	0.00017
2-Butanone	< 0.00062	0.00062	< 0.00021	0.00021
tert-Butyl Alcohol	< 0.00064	0.00064	< 0.00021	0.00021
Carbon Disulfide	< 0.00040	0.00040	< 0.00013	0.00013
Carbon Tetrachloride	< 0.00088	0.00088	< 0.00014	0.00014
Chlorobenzene	< 0.00060	0.00060	< 0.00013	0.00013
Chlorodifluoromethane	< 0.00053	0.00053	< 0.00015	0.00015
Chloroethane	< 0.00050	0.00050	< 0.00019	0.00019
Chloroform	< 0.00045	0.00045	< 0.000092	0.000092
Chloromethane	< 0.00050	0.00050	< 0.00024	0.00024
3-Chloropropene	< 0.00047	0.00047	< 0.00015	0.00015
Cumene	< 0.0012	0.0012	< 0.00024	0.00024
Dibromochloromethane	< 0.0011	0.0011	< 0.00013	0.00013
1,2-Dibromoethane	< 0.0010	0.0010	< 0.00013	0.00013
Dibromomethane	< 0.0010	0.0010	< 0.00014	0.00014
1,2-Dichlorobenzene	< 0.0012	0.0012	< 0.00020	0.00020
1,3-Dichlorobenzene	< 0.0011	0.0011	< 0.00019	0.00019
1,4-Dichlorobenzene	< 0.0010	0.0010	< 0.00017	0.00017
Dichlorodifluoromethane	< 0.00064	0.00064	< 0.00013	0.00013
1,1-Dichloroethane	< 0.00036	0.00036	< 0.000089	0.000089
1,2-Dichloroethane	< 0.00032	0.00032	< 0.000080	0.000080
1,1-Dichloroethene	< 0.00056	0.00056	< 0.00014	0.00014
cis-1,2-Dichloroethene	< 0.00048	0.00048	< 0.00012	0.00012
trans-1,2-Dichloroethene	< 0.00034	0.00034	< 0.000086	0.000086
Dichlorofluoromethane	< 0.00046	0.00046	< 0.00011	0.00011
1,2-Dichloropropane	< 0.00060	0.00060	< 0.00013	0.00013
cis-1,3-Dichloropropene	< 0.00045	0.00045	< 0.00010	0.00010
trans-1,3-Dichloropropene	< 0.00054	0.00054	< 0.00012	0.00012
1,4-Dioxane	< 0.00061	0.00061	< 0.00017	0.00017
Ethyl Acetate	< 0.00090	0.00090	< 0.00025	0.00025

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ARCADIS
Reported: 11/28/2018 17:16

Group Number: 2009763

Method Blank (continued)

Analysis Name	Result mg/m3	MDL mg/m3	Result ppm(v)	MDL ppm(v)
Ethyl Acrylate	< 0.00066	0.00066	< 0.00016	0.00016
Ethyl Methacrylate	< 0.00089	0.00089	< 0.00019	0.00019
Ethylbenzene	< 0.00083	0.00083	< 0.00019	0.00019
4-Ethyltoluene	< 0.00088	0.00088	< 0.00018	0.00018
Freon 113	< 0.00084	0.00084	< 0.00011	0.00011
Freon 114	< 0.00084	0.00084	< 0.00012	0.00012
Heptane	< 0.00094	0.00094	< 0.00023	0.00023
Hexachlorobutadiene	< 0.0050	0.0050	< 0.00047	0.00047
Hexachloroethane	< 0.0026	0.0026	< 0.00027	0.00027
Hexane	< 0.00046	0.00046	< 0.00013	0.00013
2-Hexanone	< 0.00074	0.00074	< 0.00018	0.00018
Isooctane	< 0.00061	0.00061	< 0.00013	0.00013
Methyl Acrylate	< 0.00049	0.00049	< 0.00014	0.00014
Methyl Iodide	< 0.00087	0.00087	< 0.00015	0.00015
Methyl Methacrylate	< 0.00061	0.00061	< 0.00015	0.00015
Alpha Methyl Styrene	< 0.00087	0.00087	< 0.00018	0.00018
Methyl t-Butyl Ether	< 0.00054	0.00054	< 0.00015	0.00015
4-Methyl-2-pentanone	< 0.00061	0.00061	< 0.00015	0.00015
Methylene Chloride	< 0.00087	0.00087	< 0.00025	0.00025
Octane	< 0.0019	0.0019	< 0.00040	0.00040
Pentane	< 0.00038	0.00038	< 0.00013	0.00013
Propene	< 0.00028	0.00028	< 0.00016	0.00016
Styrene	< 0.00085	0.00085	< 0.00020	0.00020
1,1,1,2-Tetrachloroethane	< 0.0010	0.0010	< 0.00015	0.00015
1,1,2,2-Tetrachloroethane	< 0.0010	0.0010	< 0.00015	0.00015
Tetrachloroethene	< 0.0017	0.0017	< 0.00025	0.00025
Toluene	< 0.00045	0.00045	< 0.00012	0.00012
1,2,4-Trichlorobenzene	< 0.0028	0.0028	< 0.00038	0.00038
1,1,1-Trichloroethane	< 0.00065	0.00065	< 0.00012	0.00012
1,1,2-Trichloroethane	< 0.00065	0.00065	< 0.00012	0.00012
Trichloroethene	< 0.00097	0.00097	< 0.00018	0.00018
Trichlorofluoromethane	< 0.00084	0.00084	< 0.00015	0.00015
1,2,3-Trichloropropane	< 0.00084	0.00084	< 0.00014	0.00014
1,2,4-Trimethylbenzene	< 0.0014	0.0014	< 0.00028	0.00028
1,3,5-Trimethylbenzene	< 0.0016	0.0016	< 0.00032	0.00032
Vinyl Acetate	< 0.00056	0.00056	< 0.00016	0.00016
Vinyl Chloride	< 0.00031	0.00031	< 0.00012	0.00012
m/p-Xylene	< 0.0011	0.0011	< 0.00026	0.00026
o-Xylene	< 0.00083	0.00083	< 0.00019	0.00019
Batch number: M1832330AA	Sample number(s): 9901769-9901770			
C1-C4 Hydrocarbons as hexane	< 20	20	< 5	5
>C4-C10 Hydrocarbons hexane	< 20	20	< 5	5

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ARCADIS
Reported: 11/28/2018 17:16

Group Number: 2009763

LCS/LCSD

Analysis Name	LCS Spike Added mg/m3	LCS Conc mg/m3	LCSD Spike Added mg/m3	LCSD Conc mg/m3	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: F1833130AA	Sample number(s): 9901769-9901770								
Acetone	0.0238	0.0234	0.0238	0.0228	99	96	71-136	3	25
Acetonitrile	0.0168	0.0166	0.0168	0.0159	99	95	56-136	4	25
Acrolein	0.0229	0.0229	0.0229	0.0224	100	98	54-132	2	25
Acrylonitrile	0.0217	0.0216	0.0217	0.0216	100	100	68-135	0	25
Benzene	0.0319	0.0298	0.0319	0.0290	93	91	76-123	3	25
Bromobenzene	0.0642	0.0553	0.0642	0.0557	86	87	74-118	1	25
Bromodichloromethane	0.0670	0.0605	0.0670	0.0570	90	85	75-134	6	25
Bromoform	0.103	0.0867	0.103	0.0787	84	76	58-144	10	25
Bromomethane	0.0388	0.0405	0.0388	0.0385	104	99	71-133	5	25
1,3-Butadiene	0.0221	0.0219	0.0221	0.0191	99	87	72-122	14	25
2-Butanone	0.0295	0.0286	0.0295	0.0272	97	92	75-126	5	25
tert-Butyl Alcohol	0.0303	0.0296	0.0303	0.0292	98	96	71-154	1	25
Carbon Disulfide	0.0311	0.0298	0.0311	0.0289	96	93	72-128	3	25
Carbon Tetrachloride	0.0629	0.0572	0.0629	0.0536	91	85	72-127	6	25
Chlorobenzene	0.0460	0.0397	0.0460	0.0396	86	86	76-117	0	25
Chlorodifluoromethane	0.0354	0.0363	0.0354	0.0343	103	97	70-138	6	25
Chloroethane	0.0264	0.0258	0.0264	0.0258	98	98	76-129	0	25
Chloroform	0.0488	0.0465	0.0488	0.0439	95	90	75-127	6	25
Chloromethane	0.0207	0.0194	0.0207	0.0189	94	91	65-140	3	25
3-Chloropropene	0.0313	0.0369	0.0313	0.0363	118	116	67-141	2	25
Cumene	0.0492	0.0453	0.0492	0.0460	92	94	80-133	1	25
Dibromochloromethane	0.0852	0.0723	0.0852	0.0672	85	79	74-131	7	25
1,2-Dibromoethane	0.0768	0.0671	0.0768	0.0635	87	83	73-121	6	25
Dibromomethane	0.0711	0.0667	0.0711	0.0629	94	88	76-124	6	25
1,2-Dichlorobenzene	0.0601	0.0475	0.0601	0.0475	79	79	71-126	0	25
1,3-Dichlorobenzene	0.0601	0.0497	0.0601	0.0497	83	83	75-129	0	25
1,4-Dichlorobenzene	0.0601	0.0478	0.0601	0.0481	79	80	74-123	1	25
Dichlorodifluoromethane	0.0495	0.0491	0.0495	0.0472	99	96	74-133	4	25
1,1-Dichloroethane	0.0405	0.0381	0.0405	0.0374	94	92	74-129	2	25
1,2-Dichloroethane	0.0405	0.0383	0.0405	0.0376	95	93	72-138	2	25
1,1-Dichloroethene	0.0396	0.0389	0.0396	0.0385	98	97	70-129	1	25
cis-1,2-Dichloroethene	0.0396	0.0376	0.0396	0.0375	95	95	76-126	0	25
trans-1,2-Dichloroethene	0.0396	0.0379	0.0396	0.0374	96	94	77-128	1	25
Dichlorofluoromethane	0.0421	0.0436	0.0421	0.0412	104	98	75-137	6	25
1,2-Dichloropropane	0.0462	0.0408	0.0462	0.0411	88	89	75-127	1	25
cis-1,3-Dichloropropene	0.0454	0.0417	0.0454	0.0397	92	88	51-120	5	25
trans-1,3-Dichloropropene	0.0454	0.0417	0.0454	0.0394	92	87	76-131	6	25
1,4-Dioxane	0.0360	0.0344	0.0360	0.0348	96	96	76-124	1	25
Ethyl Acetate	0.0360	0.0374	0.0360	0.0359	104	100	73-124	4	25
Ethyl Acrylate	0.0409	0.0379	0.0409	0.0347	93	85	71-126	9	25
Ethyl Methacrylate	0.0467	0.0411	0.0467	0.0383	88	82	69-137	7	25
Ethylbenzene	0.0434	0.0380	0.0434	0.0381	88	88	77-117	0	25

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ARCADIS
Reported: 11/28/2018 17:16

Group Number: 2009763

LCS/LCSD (continued)

Analysis Name	LCS Spike Added mg/m3	LCS Conc mg/m3	LCSD Spike Added mg/m3	LCSD Conc mg/m3	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
4-Ethyltoluene	0.0492	0.0453	0.0492	0.0458	92	93	73-130	1	25
Freon 113	0.0766	0.0673	0.0766	0.0634	88	83	66-119	6	25
Freon 114	0.0699	0.0659	0.0699	0.0624	94	89	66-126	5	25
Heptane	0.0410	0.0398	0.0410	0.0395	97	96	74-122	1	25
Hexachlorobutadiene	0.107	0.0711	0.107	0.0729	67	68	49-154	2	25
Hexachloroethane	0.0968	0.0796	0.0968	0.0762	82	79	59-135	4	25
Hexane	0.0352	0.0343	0.0352	0.0328	97	93	70-118	4	25
2-Hexanone	0.0410	0.0358	0.0410	0.0334	87	82	74-134	7	25
Isooctane	0.0467	0.0460	0.0467	0.0454	98	97	74-127	1	25
Methyl Acrylate	0.0352	0.0345	0.0352	0.0332	98	94	75-125	4	25
Methyl Iodide	0.0581	0.0540	0.0581	0.0531	93	92	72-127	2	25
Methyl Methacrylate	0.0409	0.0372	0.0409	0.0362	91	88	73-117	3	25
Alpha Methyl Styrene	0.0483	0.0439	0.0483	0.0403	91	83	71-138	8	25
Methyl t-Butyl Ether	0.0361	0.0346	0.0361	0.0334	96	93	71-119	3	25
4-Methyl-2-pentanone	0.0410	0.0365	0.0410	0.0339	89	83	79-131	7	25
Methylene Chloride	0.0347	0.0396	0.0347	0.0367	114	106	69-128	8	25
Octane	0.0467	0.0447	0.0467	0.0432	96	92	73-122	3	25
Pentane	0.0295	0.0268	0.0295	0.0264	91	89	69-125	2	25
Propene	0.0172	0.0165	0.0172	0.0162	96	94	78-126	2	25
Styrene	0.0426	0.0402	0.0426	0.0379	94	89	77-143	6	25
1,1,1,2-Tetrachloroethane	0.0687	0.0588	0.0687	0.0549	86	80	73-137	7	25
1,1,2,2-Tetrachloroethane	0.0687	0.0540	0.0687	0.0524	79	76	72-133	3	25
Tetrachloroethene	0.0678	0.0609	0.0678	0.0588	90	87	68-123	4	25
Toluene	0.0377	0.0345	0.0377	0.0340	92	90	78-119	1	25
1,2,4-Trichlorobenzene	0.0742	0.0457	0.0742	0.0493	62	66	45-156	7	25
1,1,1-Trichloroethane	0.0546	0.0491	0.0546	0.0466	90	85	74-122	5	25
1,1,2-Trichloroethane	0.0546	0.0483	0.0546	0.0454	89	83	76-127	6	25
Trichloroethene	0.0537	0.0498	0.0537	0.0486	93	90	76-118	2	25
Trichlorofluoromethane	0.0562	0.0505	0.0562	0.0488	90	87	73-132	3	25
1,2,3-Trichloropropane	0.0603	0.0517	0.0603	0.0519	86	86	71-127	0	25
1,2,4-Trimethylbenzene	0.0492	0.0453	0.0492	0.0465	92	95	70-138	3	25
1,3,5-Trimethylbenzene	0.0492	0.0458	0.0492	0.0469	93	95	72-130	2	25
Vinyl Acetate	0.0352	0.0394	0.0352	0.0390	112	111	75-161	1	25
Vinyl Chloride	0.0256	0.0264	0.0256	0.0249	103	97	75-130	6	25
m/p-Xylene	0.0434	0.0383	0.0434	0.0394	88	91	78-119	3	25
o-Xylene	0.0434	0.0372	0.0434	0.0375	86	86	78-121	1	25

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: ARCADIS
Group Number: 2009763
Reported: 11/28/2018 17:16

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

13045 200963 9901769-70

Chain of Custody Record

11/14/18

Client Contact	Project Manager: Jerome Oertling	Site Contact: T. Mairs	Date:	COC No:
Company: Arcadis of New York, Inc	Tel/Fax: 860.533.9953	Lab Contact:	Carrier: Fedex	1 of 1 COCs
Address: 160 Chapel Road, Suite 201	Analysis Turnaround Time			Results to: jerome.oertling@arcadis-us.com chad.colwell@arcadis-us.com richard.hatch@arcadis-us.com
City/State/Zip: Manchester, CT 06042	Calendar (C) or Work Days (W)			Invoice to:
Phone: 860-533-9953	TAT if different from Below			
Fax:	☐ Standard			
Project Name: Alliance 10954	☐ 1 week			
Site: 138-50 Hillside Avenue, Jamaica, NY	☐ 2 days			
P O # : B0085850.0954	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	BTEX/MTBE (TO-15)	TPH (C1-C4) (EPA 18.25)	TPH (C4-C10) (EPA 18.25)	Extended List VOC (TO-15)	Sample Specific Notes:
CATOX INF	11/14/18	0920	Grab	Vapor	1		X	X	X		
CATOX EFF	11/14/18	0915	Grab	Vapor	1			X	X	X	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

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 & Comments:

11/14/18

Relinquished by: Tim Mc	Company: Arcadis	Date/Time: 1600	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company: ELLE	Date/Time: 11/15/18 1140

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Sample Administration Receipt Documentation Log

Doc Log ID: 233412

Group Number(s): 2009763

Client: Arcadis of New York, Inc.

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	11/15/2018 11:40
Number of Packages:	1	Number of Projects:	1

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	N/A	VOA Vial Headspace ≥ 6mm:	N/A
Paperwork Enclosed:	Yes	Total Trip Blank Qty:	0
Samples Intact:	Yes	Air Quality Samples Present:	Yes
Missing Samples:	No	Air Quality Flow Controllers Present:	No
Extra Samples:	No	Air Quality Returns:	No
Discrepancy in Container Qty on COC:	No		

Unpacked by Nicole Reiff (25684) at 12:28 on 11/15/2018

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

ARCADIS
Suite 600
630 Plaza Drive
Highlands Ranch CO 80129

Report Date: December 17, 2018 17:06

Project: 10954

Account #: 13045
Group Number: 2015025
PO Number: B0085850.0954
Release Number: PM: OERTLING
State of Sample Origin: NY

Electronic Copy To	ARCADIS	Attn: Richard Hatch
Electronic Copy To	ARCADIS	Attn: Jerome Oertling
Electronic Copy To	ARCADIS	Attn: Nicholas Beyrle
Electronic Copy To	ARCADIS	Attn: Chad Colwell

Respectfully Submitted,

Hannah L. Cottman
Project Manager

(717) 556-7383

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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
CATOX INF Grab Air	12/04/2018 10:50	9924109
CATOX EFF Grab Air	12/04/2018 10:45	9924110

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Sample Description: **CATOX INF Grab Air**
10954
138-50 Hillside Ave. - Jamaica, NY

ARCADIS
ELLE Sample #: AQ 9924109
ELLE Group #: 2015025
Matrix: Air

Project Name: **10954**

Submittal Date/Time: 12/05/2018 09:30
Collection Date/Time: 12/04/2018 10:50

CAT No.	Analysis Name	CAS Number	Final Result	MDL	Final Result	MDL	DF
Volatiles in Air	**EPA 18 mod/EPA 25 mod**		**mg/m3**	**mg/m3**	**ppm(v)**	**ppm(v)**	
07090	C1-C4 Hydrocarbons as hexane	n.a.	< 20	20	< 5	5	1
07090	>C4-C10 Hydrocarbons hexane	n.a.	410	20	120	5	1
Volatiles in Air	**EPA TO-15 modified**		**mg/m3**	**mg/m3**	**ppm(v)**	**ppm(v)**	
05265	Benzene	71-43-2	< 0.0064	0.0064	< 0.0020	0.0020	20
05265	Ethylbenzene	100-41-4	0.37	0.020	0.085	0.0046	20
05265	Methyl t-Butyl Ether	1634-04-4	< 0.014	0.014	< 0.0040	0.0040	20
05265	Toluene	108-88-3	0.52	0.0090	0.14	0.0024	20
05265	m/p-Xylene	179601-23-1	3.9	0.36	0.90	0.084	200
05265	o-Xylene	95-47-6	2.6	0.025	0.61	0.0058	20

The sample was collected in a Tedlar bag which is not the container referenced in the EPA method.

MDL = Method Detection Limit

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07090	BTEX/MTBE/Hydrocarbons by GC	EPA 18 mod/EPA 25 mod	1	M1834130AA	12/07/2018 18:45	Jeffrey B Smith	1
05265	TO-15 VOA Ext. List Tedlar	EPA TO-15 modified	1	F1834830AA	12/14/2018 19:40	Jacob E Bailey	200
05265	TO-15 VOA Ext. List Tedlar	EPA TO-15 modified	1	F1834930AA	12/15/2018 14:25	Jacob E Bailey	20

Sample Description: **CATOX EFF Grab Air**
10954
138-50 Hillside Ave. - Jamaica, NY

Project Name: **10954**

Submittal Date/Time: 12/05/2018 09:30
Collection Date/Time: 12/04/2018 10:45

ARCADIS
ELLE Sample #: AQ 9924110
ELLE Group #: 2015025
Matrix: Air

CAT No.	Analysis Name	CAS Number	Final Result	MDL	Final Result	MDL	DF
Volatiles in Air	**EPA 18 mod/EPA 25 mod**		**mg/m3**	**mg/m3**	**ppm(v)**	**ppm(v)**	
07090	C1-C4 Hydrocarbons as hexane	n.a.	< 20	20	< 5	5	1
07090	>C4-C10 Hydrocarbons hexane	n.a.	30 J	20	7 J	5	1
Volatiles in Air	**EPA TO-15 modified**		**mg/m3**	**mg/m3**	**ppm(v)**	**ppm(v)**	
05265	Acetone	67-64-1	0.24	0.025	0.10	0.011	20
05265	Acetonitrile	75-05-8	< 0.028	0.028	< 0.016	0.016	20
05265	Acrolein	107-02-8	< 0.026	0.026	< 0.011	0.011	20
05265	Acrylonitrile	107-13-1	< 0.0087	0.0087	< 0.0040	0.0040	20
05265	Benzene	71-43-2	< 0.0064	0.0064	< 0.0020	0.0020	20
05265	Bromobenzene	108-86-1	< 0.013	0.013	< 0.0020	0.0020	20
05265	Bromodichloromethane	75-27-4	< 0.016	0.016	< 0.0024	0.0024	20
05265	Bromoform	75-25-2	< 0.035	0.035	< 0.0034	0.0034	20
05265	Bromomethane	74-83-9	< 0.014	0.014	< 0.0036	0.0036	20
05265	1,3-Butadiene	106-99-0	< 0.0075	0.0075	< 0.0034	0.0034	20
05265	2-Butanone	78-93-3	0.11	0.013	0.037	0.0044	20
05265	tert-Butyl Alcohol	75-65-0	< 0.012	0.012	< 0.0040	0.0040	20
05265	Carbon Disulfide	75-15-0	0.0089 J	0.0075	0.0028 J	0.0024	20
05265	Carbon Tetrachloride	56-23-5	< 0.018	0.018	< 0.0028	0.0028	20
05265	Chlorobenzene	108-90-7	< 0.011	0.011	< 0.0024	0.0024	20
05265	Chlorodifluoromethane	75-45-6	< 0.011	0.011	< 0.0030	0.0030	20
05265	Chloroethane	75-00-3	< 0.0095	0.0095	< 0.0036	0.0036	20
05265	Chloroform	67-66-3	< 0.0085	0.0085	< 0.0017	0.0017	20
05265	Chloromethane	74-87-3	< 0.0095	0.0095	< 0.0046	0.0046	20
05265	3-Chloropropene	107-05-1	< 0.010	0.010	< 0.0032	0.0032	20
05265	Cumene	98-82-8	< 0.025	0.025	< 0.0050	0.0050	20
05265	Dibromochloromethane	124-48-1	< 0.024	0.024	< 0.0028	0.0028	20
05265	1,2-Dibromoethane	106-93-4	< 0.020	0.020	< 0.0026	0.0026	20
05265	Dibromomethane	74-95-3	< 0.020	0.020	< 0.0028	0.0028	20
05265	1,2-Dichlorobenzene	95-50-1	< 0.023	0.023	< 0.0038	0.0038	20
05265	1,3-Dichlorobenzene	541-73-1	< 0.022	0.022	< 0.0036	0.0036	20
05265	1,4-Dichlorobenzene	106-46-7	< 0.020	0.020	< 0.0034	0.0034	20
05265	Dichlorodifluoromethane	75-71-8	< 0.013	0.013	< 0.0026	0.0026	20
05265	1,1-Dichloroethane	75-34-3	< 0.0078	0.0078	< 0.0019	0.0019	20
05265	1,2-Dichloroethane	107-06-2	< 0.0040	0.0040	< 0.0010	0.0010	20
05265	1,1-Dichloroethene	75-35-4	< 0.011	0.011	< 0.0028	0.0028	20
05265	cis-1,2-Dichloroethene	156-59-2	< 0.0087	0.0087	< 0.0022	0.0022	20
05265	trans-1,2-Dichloroethene	156-60-5	< 0.0071	0.0071	< 0.0018	0.0018	20
05265	Dichlorofluoromethane	75-43-4	< 0.010	0.010	< 0.0024	0.0024	20
05265	1,2-Dichloropropane	78-87-5	< 0.0089	0.0089	< 0.0019	0.0019	20
05265	cis-1,3-Dichloropropene	10061-01-5	< 0.0080	0.0080	< 0.0018	0.0018	20
05265	trans-1,3-Dichloropropene	10061-02-6	< 0.010	0.010	< 0.0022	0.0022	20
05265	1,4-Dioxane	123-91-1	< 0.010	0.010	< 0.0028	0.0028	20
05265	Ethyl Acetate	141-78-6	< 0.014	0.014	< 0.0038	0.0038	20

Sample Description: **CATOX EFF Grab Air**
10954
138-50 Hillside Ave. - Jamaica, NY

Project Name: **10954**

Submittal Date/Time: 12/05/2018 09:30
Collection Date/Time: 12/04/2018 10:45

ARCADIS
ELLE Sample #: AQ 9924110
ELLE Group #: 2015025
Matrix: Air

CAT No.	Analysis Name	CAS Number	Final Result	MDL	Final Result	MDL	DF
Volatiles in Air	**EPA TO-15 modified**		mg/m3	mg/m3	ppm(v)	ppm(v)	
05265	Ethyl Acrylate	140-88-5	< 0.013	0.013	< 0.0032	0.0032	20
05265	Ethyl Methacrylate	97-63-2	< 0.020	0.020	< 0.0042	0.0042	20
05265	Ethylbenzene	100-41-4	< 0.020	0.020	< 0.0046	0.0046	20
05265	4-Ethyltoluene	622-96-8	< 0.019	0.019	< 0.0038	0.0038	20
05265	Freon 113	76-13-1	< 0.017	0.017	< 0.0022	0.0022	20
05265	Freon 114	76-14-2	< 0.017	0.017	< 0.0024	0.0024	20
05265	Heptane	142-82-5	0.26	0.020	0.063	0.0048	20
05265	Hexachlorobutadiene	87-68-3	< 0.098	0.098	< 0.0092	0.0092	20
05265	Hexachloroethane	67-72-1	< 0.045	0.045	< 0.0046	0.0046	20
05265	Hexane	110-54-3	0.65	0.0092	0.18	0.0026	20
05265	2-Hexanone	591-78-6	< 0.016	0.016	< 0.0038	0.0038	20
05265	Isooctane	540-84-1	2.4	0.012	0.52	0.0026	20
05265	Methyl Acrylate	96-33-3	< 0.0099	0.0099	< 0.0028	0.0028	20
05265	Methyl Iodide	74-88-4	< 0.014	0.014	< 0.0024	0.0024	20
05265	Methyl Methacrylate	80-62-6	< 0.013	0.013	< 0.0032	0.0032	20
05265	Alpha Methyl Styrene	98-83-9	< 0.017	0.017	< 0.0036	0.0036	20
05265	Methyl t-Butyl Ether	1634-04-4	< 0.014	0.014	< 0.0040	0.0040	20
05265	4-Methyl-2-pentanone	108-10-1	< 0.012	0.012	< 0.0030	0.0030	20
05265	Methylene Chloride	75-09-2	< 0.014	0.014	< 0.0040	0.0040	20
05265	Octane	111-65-9	0.075 J	0.043	0.016 J	0.0092	20
05265	Pentane	109-66-0	1.9	0.0077	0.65	0.0026	20
05265	Propene	115-07-1	< 0.0069	0.0069	< 0.0040	0.0040	20
05265	Styrene	100-42-5	< 0.018	0.018	< 0.0042	0.0042	20
05265	1,1,1,2-Tetrachloroethane	630-20-6	< 0.019	0.019	< 0.0028	0.0028	20
05265	1,1,2,2-Tetrachloroethane	79-34-5	< 0.019	0.019	< 0.0028	0.0028	20
05265	Tetrachloroethene	127-18-4	< 0.028	0.028	< 0.0042	0.0042	20
05265	Toluene	108-88-3	0.019 J	0.0090	0.0051 J	0.0024	20
05265	1,2,4-Trichlorobenzene	120-82-1	< 0.056	0.056	< 0.0076	0.0076	20
05265	1,1,1-Trichloroethane	71-55-6	< 0.013	0.013	< 0.0024	0.0024	20
05265	1,1,2-Trichloroethane	79-00-5	< 0.010	0.010	< 0.0019	0.0019	20
05265	Trichloroethene	79-01-6	< 0.015	0.015	< 0.0028	0.0028	20
05265	Trichlorofluoromethane	75-69-4	< 0.013	0.013	< 0.0024	0.0024	20
05265	1,2,3-Trichloropropane	96-18-4	< 0.017	0.017	< 0.0028	0.0028	20
05265	1,2,4-Trimethylbenzene	95-63-6	0.029 J	0.028	0.0059 J	0.0056	20
05265	1,3,5-Trimethylbenzene	108-67-8	< 0.031	0.031	< 0.0064	0.0064	20
05265	Vinyl Acetate	108-05-4	< 0.012	0.012	< 0.0034	0.0034	20
05265	Vinyl Chloride	75-01-4	< 0.0066	0.0066	< 0.0026	0.0026	20
05265	m/p-Xylene	179601-23-1	0.061 J	0.036	0.014 J	0.0084	20
05265	o-Xylene	95-47-6	0.033 J	0.025	0.0075 J	0.0058	20

The sample was collected in a Tedlar bag which is not the container referenced in the EPA method.

MDL = Method Detection Limit

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Analysis Report

Sample Description: **CATOX EFF Grab Air**
10954
138-50 Hillside Ave. - Jamaica, NY

Project Name: **10954**

Submittal Date/Time: 12/05/2018 09:30
Collection Date/Time: 12/04/2018 10:45

ARCADIS
ELLE Sample #: AQ 9924110
ELLE Group #: 2015025
Matrix: Air

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07090	BTEX/MTBE/Hydrocarbons by GC	EPA 18 mod/EPA 25 mod	1	M1834130AA	12/07/2018 19:13	Jeffrey B Smith	1
05265	TO-15 VOA Ext. List Tedlar	EPA TO-15 modified	1	F1834830AA	12/14/2018 20:10	Jacob E Bailey	20

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Quality Control Summary

Client Name: ARCADIS
Reported: 12/17/2018 17:06

Group Number: 2015025

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result mg/m3	MDL mg/m3	Result ppm(v)	MDL ppm(v)
Batch number: F1834830AA	Sample number(s): 9924109-9924110			
Acetone	< 0.13	0.13	< 0.053	0.053
Acetonitrile	< 0.14	0.14	< 0.083	0.083
Acrolein	< 0.14	0.14	< 0.062	0.062
Acrylonitrile	< 0.028	0.028	< 0.013	0.013
Benzene	< 0.035	0.035	< 0.011	0.011
Bromobenzene	< 0.064	0.064	< 0.010	0.010
Bromodichloromethane	< 0.080	0.080	< 0.012	0.012
Bromoform	< 0.18	0.18	< 0.017	0.017
Bromomethane	< 0.070	0.070	< 0.018	0.018
1,3-Butadiene	< 0.038	0.038	< 0.017	0.017
2-Butanone	< 0.062	0.062	< 0.021	0.021
tert-Butyl Alcohol	< 0.064	0.064	< 0.021	0.021
Carbon Disulfide	< 0.040	0.040	< 0.013	0.013
Carbon Tetrachloride	< 0.088	0.088	< 0.014	0.014
Chlorobenzene	< 0.060	0.060	< 0.013	0.013
Chlorodifluoromethane	< 0.053	0.053	< 0.015	0.015
Chloroethane	< 0.050	0.050	< 0.019	0.019
Chloroform	< 0.045	0.045	< 0.0092	0.0092
Chloromethane	< 0.050	0.050	< 0.024	0.024
3-Chloropropene	< 0.047	0.047	< 0.015	0.015
Cumene	< 0.12	0.12	< 0.024	0.024
Dibromochloromethane	< 0.11	0.11	< 0.013	0.013
1,2-Dibromoethane	< 0.10	0.10	< 0.013	0.013
Dibromomethane	< 0.10	0.10	< 0.014	0.014
1,2-Dichlorobenzene	< 0.12	0.12	< 0.020	0.020
1,3-Dichlorobenzene	< 0.11	0.11	< 0.019	0.019
1,4-Dichlorobenzene	< 0.10	0.10	< 0.017	0.017
Dichlorodifluoromethane	< 0.064	0.064	< 0.013	0.013
1,1-Dichloroethane	< 0.036	0.036	< 0.0089	0.0089
1,2-Dichloroethane	< 0.032	0.032	< 0.0080	0.0080
1,1-Dichloroethene	< 0.056	0.056	< 0.014	0.014
cis-1,2-Dichloroethene	< 0.048	0.048	< 0.012	0.012
trans-1,2-Dichloroethene	< 0.034	0.034	< 0.0086	0.0086
Dichlorofluoromethane	< 0.046	0.046	< 0.011	0.011
1,2-Dichloropropane	< 0.060	0.060	< 0.013	0.013
cis-1,3-Dichloropropene	< 0.045	0.045	< 0.010	0.010
trans-1,3-Dichloropropene	< 0.054	0.054	< 0.012	0.012
1,4-Dioxane	< 0.061	0.061	< 0.017	0.017
Ethyl Acetate	< 0.090	0.090	< 0.025	0.025

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ARCADIS
Reported: 12/17/2018 17:06

Group Number: 2015025

Method Blank (continued)

Analysis Name	Result mg/m3	MDL mg/m3	Result ppm(v)	MDL ppm(v)
Ethyl Acrylate	< 0.066	0.066	< 0.016	0.016
Ethyl Methacrylate	< 0.089	0.089	< 0.019	0.019
Ethylbenzene	< 0.083	0.083	< 0.019	0.019
4-Ethyltoluene	< 0.088	0.088	< 0.018	0.018
Freon 113	< 0.084	0.084	< 0.011	0.011
Freon 114	< 0.084	0.084	< 0.012	0.012
Heptane	< 0.094	0.094	< 0.023	0.023
Hexachlorobutadiene	< 0.50	0.50	< 0.047	0.047
Hexachloroethane	< 0.26	0.26	< 0.027	0.027
Hexane	< 0.046	0.046	< 0.013	0.013
2-Hexanone	< 0.074	0.074	< 0.018	0.018
Isooctane	< 0.061	0.061	< 0.013	0.013
Methyl Acrylate	< 0.049	0.049	< 0.014	0.014
Methyl Iodide	< 0.087	0.087	< 0.015	0.015
Methyl Methacrylate	< 0.061	0.061	< 0.015	0.015
Alpha Methyl Styrene	< 0.087	0.087	< 0.018	0.018
Methyl t-Butyl Ether	< 0.054	0.054	< 0.015	0.015
4-Methyl-2-pentanone	< 0.061	0.061	< 0.015	0.015
Methylene Chloride	< 0.087	0.087	< 0.025	0.025
Octane	< 0.19	0.19	< 0.040	0.040
Pentane	< 0.038	0.038	< 0.013	0.013
Propene	< 0.028	0.028	< 0.016	0.016
Styrene	< 0.085	0.085	< 0.020	0.020
1,1,1,2-Tetrachloroethane	< 0.10	0.10	< 0.015	0.015
1,1,2,2-Tetrachloroethane	< 0.10	0.10	< 0.015	0.015
Tetrachloroethene	< 0.17	0.17	< 0.025	0.025
Toluene	< 0.045	0.045	< 0.012	0.012
1,2,4-Trichlorobenzene	< 0.28	0.28	< 0.038	0.038
1,1,1-Trichloroethane	< 0.065	0.065	< 0.012	0.012
1,1,2-Trichloroethane	< 0.065	0.065	< 0.012	0.012
Trichloroethene	< 0.097	0.097	< 0.018	0.018
Trichlorofluoromethane	< 0.084	0.084	< 0.015	0.015
1,2,3-Trichloropropane	< 0.084	0.084	< 0.014	0.014
1,2,4-Trimethylbenzene	< 0.14	0.14	< 0.028	0.028
1,3,5-Trimethylbenzene	< 0.16	0.16	< 0.032	0.032
Vinyl Acetate	< 0.056	0.056	< 0.016	0.016
Vinyl Chloride	< 0.031	0.031	< 0.012	0.012
m/p-Xylene	< 0.11	0.11	< 0.026	0.026
o-Xylene	< 0.083	0.083	< 0.019	0.019
Batch number: F1834930AA	Sample number(s): 9924109			
Benzene	< 0.00035	0.00035	< 0.00011	0.00011
Ethylbenzene	< 0.00083	0.00083	< 0.00019	0.00019
Methyl t-Butyl Ether	< 0.00054	0.00054	< 0.00015	0.00015
Toluene	< 0.00045	0.00045	< 0.00012	0.00012

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ARCADIS
Reported: 12/17/2018 17:06

Group Number: 2015025

Method Blank (continued)

Analysis Name	Result mg/m3	MDL mg/m3	Result ppm(v)	MDL ppm(v)
o-Xylene	< 0.00083	0.00083	< 0.00019	0.00019
Batch number: M1834130AA	Sample number(s): 9924109-9924110			
C1-C4 Hydrocarbons as hexane	< 20	20	< 5	5
>C4-C10 Hydrocarbons hexane	< 20	20	< 5	5

LCS/LCSD

Analysis Name	LCS Spike Added mg/m3	LCS Conc mg/m3	LCSD Spike Added mg/m3	LCSD Conc mg/m3	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: F1834830AA	Sample number(s): 9924109-9924110								
Acetone	0.0238	0.0254	0.0238	0.0254	107	107	71-136	0	25
Acetonitrile	0.0168	0.0193	0.0168	0.0195	115	116	56-136	1	25
Acrolein	0.0229	0.0239	0.0229	0.0252	104	110	54-132	5	25
Acrylonitrile	0.0217	0.0224	0.0217	0.0234	103	108	68-135	4	25
Benzene	0.0319	0.0335	0.0319	0.0333	105	104	76-123	1	25
Bromobenzene	0.0642	0.0667	0.0642	0.0666	104	104	74-118	0	25
Bromodichloromethane	0.0670	0.0697	0.0670	0.0664	104	99	75-134	5	25
Bromoform	0.103	0.104	0.103	0.0958	100	93	58-144	8	25
Bromomethane	0.0388	0.0429	0.0388	0.0421	110	109	71-133	2	25
1,3-Butadiene	0.0221	0.0198	0.0221	0.0211	89	95	72-122	6	25
2-Butanone	0.0295	0.0307	0.0295	0.0308	104	105	75-126	0	25
tert-Butyl Alcohol	0.0303	0.0325	0.0303	0.0344	107	113	71-154	6	25
Carbon Disulfide	0.0311	0.0315	0.0311	0.0322	101	103	72-128	2	25
Carbon Tetrachloride	0.0629	0.0647	0.0629	0.0641	103	102	72-127	1	25
Chlorobenzene	0.0460	0.0463	0.0460	0.0466	101	101	76-117	0	25
Chlorodifluoromethane	0.0354	0.0372	0.0354	0.0379	105	107	70-138	2	25
Chloroethane	0.0264	0.0272	0.0264	0.0282	103	107	76-129	4	25
Chloroform	0.0488	0.0503	0.0488	0.0507	103	104	75-127	1	25
Chloromethane	0.0207	0.0209	0.0207	0.0214	101	103	65-140	2	25
3-Chloropropene	0.0313	0.0388	0.0313	0.0402	124	128	67-141	4	25
Cumene	0.0492	0.0523	0.0492	0.0533	106	109	80-133	2	25
Dibromochloromethane	0.0852	0.0875	0.0852	0.0814	103	96	74-131	7	25
1,2-Dibromoethane	0.0768	0.0793	0.0768	0.0758	103	99	73-121	4	25
Dibromomethane	0.0711	0.0748	0.0711	0.0741	105	104	76-124	1	25
1,2-Dichlorobenzene	0.0601	0.0602	0.0601	0.0611	100	102	71-126	1	25
1,3-Dichlorobenzene	0.0601	0.0614	0.0601	0.0620	102	103	75-129	1	25
1,4-Dichlorobenzene	0.0601	0.0604	0.0601	0.0617	100	103	74-123	2	25
Dichlorodifluoromethane	0.0495	0.0514	0.0495	0.0542	104	110	74-133	5	25
1,1-Dichloroethane	0.0405	0.0406	0.0405	0.0416	100	103	74-129	2	25
1,2-Dichloroethane	0.0405	0.0432	0.0405	0.0434	107	107	72-138	0	25

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ARCADIS
Reported: 12/17/2018 17:06

Group Number: 2015025

LCS/LCSD (continued)

Analysis Name	LCS Spike Added mg/m3	LCS Conc mg/m3	LCSD Spike Added mg/m3	LCSD Conc mg/m3	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,1-Dichloroethene	0.0396	0.0408	0.0396	0.0427	103	108	70-129	5	25
cis-1,2-Dichloroethene	0.0396	0.0392	0.0396	0.0404	99	102	76-126	3	25
trans-1,2-Dichloroethene	0.0396	0.0403	0.0396	0.0416	102	105	77-128	3	25
Dichlorofluoromethane	0.0421	0.0453	0.0421	0.0469	108	112	75-137	4	25
1,2-Dichloropropane	0.0462	0.0490	0.0462	0.0476	106	103	75-127	3	25
cis-1,3-Dichloropropene	0.0454	0.0469	0.0454	0.0453	103	100	51-120	3	25
trans-1,3-Dichloropropene	0.0454	0.0472	0.0454	0.0457	104	101	76-131	3	25
1,4-Dioxane	0.0360	0.0387	0.0360	0.0390	107	108	76-124	1	25
Ethyl Acetate	0.0360	0.0359	0.0360	0.0370	100	103	73-124	3	25
Ethyl Acrylate	0.0409	0.0427	0.0409	0.0422	104	103	71-126	1	25
Ethyl Methacrylate	0.0467	0.0482	0.0467	0.0466	103	100	69-137	3	25
Ethylbenzene	0.0434	0.0432	0.0434	0.0436	99	100	77-117	1	25
4-Ethyltoluene	0.0492	0.0519	0.0492	0.0540	106	110	73-130	4	25
Freon 113	0.0766	0.0744	0.0766	0.0748	97	98	66-119	1	25
Freon 114	0.0699	0.0713	0.0699	0.0737	102	105	66-126	3	25
Heptane	0.0410	0.0414	0.0410	0.0409	101	100	74-122	1	25
Hexachlorobutadiene	0.107	0.108	0.107	0.112	101	105	49-154	4	25
Hexachloroethane	0.0968	0.109	0.0968	0.100	113	104	59-135	8	25
Hexane	0.0352	0.0354	0.0352	0.0358	100	101	70-118	1	25
2-Hexanone	0.0410	0.0424	0.0410	0.0407	104	99	74-134	4	25
Isooctane	0.0467	0.0479	0.0467	0.0487	103	104	74-127	2	25
Methyl Acrylate	0.0352	0.0363	0.0352	0.0372	103	106	75-125	2	25
Methyl Iodide	0.0581	0.0544	0.0581	0.0577	94	99	72-127	6	25
Methyl Methacrylate	0.0409	0.0414	0.0409	0.0401	101	98	73-117	3	25
Alpha Methyl Styrene	0.0483	0.0543	0.0483	0.0532	112	110	71-138	2	25
Methyl t-Butyl Ether	0.0361	0.0358	0.0361	0.0368	99	102	71-119	3	25
4-Methyl-2-pentanone	0.0410	0.0424	0.0410	0.0408	104	100	79-131	4	25
Methylene Chloride	0.0347	0.0402	0.0347	0.0408	116	118	69-128	1	25
Octane	0.0467	0.0473	0.0467	0.0485	101	104	73-122	3	25
Pentane	0.0295	0.0278	0.0295	0.0295	94	100	69-125	6	25
Propene	0.0172	0.0167	0.0172	0.0175	97	102	78-126	5	25
Styrene	0.0426	0.0447	0.0426	0.0443	105	104	77-143	1	25
1,1,1,2-Tetrachloroethane	0.0687	0.0710	0.0687	0.0671	103	98	73-137	6	25
1,1,2,2-Tetrachloroethane	0.0687	0.0675	0.0687	0.0658	98	96	72-133	2	25
Tetrachloroethene	0.0678	0.0713	0.0678	0.0707	105	104	68-123	1	25
Toluene	0.0377	0.0378	0.0377	0.0382	100	101	78-119	1	25
1,2,4-Trichlorobenzene	0.0742	0.0746	0.0742	0.0816	101	110	45-156	9	25
1,1,1-Trichloroethane	0.0546	0.0553	0.0546	0.0551	101	101	74-122	0	25
1,1,2-Trichloroethane	0.0546	0.0573	0.0546	0.0559	105	102	76-127	2	25
Trichloroethene	0.0537	0.0568	0.0537	0.0566	106	105	76-118	0	25
Trichlorofluoromethane	0.0562	0.0546	0.0562	0.0565	97	101	73-132	3	25
1,2,3-Trichloropropane	0.0603	0.0633	0.0603	0.0609	105	101	71-127	4	25
1,2,4-Trimethylbenzene	0.0492	0.0547	0.0492	0.0567	111	115	70-138	4	25
1,3,5-Trimethylbenzene	0.0492	0.0531	0.0492	0.0546	108	111	72-130	3	25

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ARCADIS
Reported: 12/17/2018 17:06

Group Number: 2015025

LCS/LCSD (continued)

Analysis Name	LCS Spike Added mg/m3	LCS Conc mg/m3	LCSD Spike Added mg/m3	LCSD Conc mg/m3	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Vinyl Acetate	0.0352	0.0408	0.0352	0.0432	116	123	75-161	6	25
Vinyl Chloride	0.0256	0.0266	0.0256	0.0272	104	107	75-130	2	25
m/p-Xylene	0.0434	0.0442	0.0434	0.0455	102	105	78-119	3	25
o-Xylene	0.0434	0.0433	0.0434	0.0446	100	103	78-121	3	25
Batch number: F1834930AA	Sample number(s): 9924109								
Benzene	0.0319	0.0334	0.0319	0.0335	104	105	76-123	0	25
Ethylbenzene	0.0434	0.0413	0.0434	0.0423	95	98	77-117	3	25
Methyl t-Butyl Ether	0.0361	0.0342	0.0361	0.0346	95	96	71-119	1	25
Toluene	0.0377	0.0361	0.0377	0.0373	96	99	78-119	3	25
o-Xylene	0.0434	0.0405	0.0434	0.0423	93	98	78-121	5	25

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

5-992416-110

A-13045 G-245025

Chain of Custody Record

T. Maire 12/4/18

Client Contact	Project Manager: Jerome Oertling	Site Contact:	Date:	COC No:
Company: Arcadis of New York, Inc	Tel/Fax: 860.533.9953	Lab Contact:	Carrier: UPS	1 of 1 COCs
Address: 160 Chapel Road, Suite 201	Analysis Turnaround Time			Results to: jerome.oertling@arcadis-us.com chad.colwell@arcadis-us.com richard.hatch@arcadis-us.com
City/State/Zip: Manchester, CT 06042	Calendar (C) or Work Days (W)			
Phone: 860-533-9953	TAT if different from Below ☐ (Standard) ☐ 1 week ☐ 2 days ☐ 1 day			Invoice to:
Fax:				
Project Name: Alliance 10954				
Site: 138-50 Hillside Avenue, Jamaica, NY				
P O # : B0085850.0954				

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample (Y/N)	BTEX-MTBE (TO-15)	TPH (C1-C4) (EPA 18 25)	TPH (C4-C10) (EPA 18 25)	Extended List VOC (TO-15)	Sample Specific Notes:
CATOX INF	12/4/18	1050	Grab	Vapor	1		X	X	X		
CATOX EFF	12/4/18	1045	Grab	Vapor	1			X	X	X	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant Poison B ☐ Unknown ☐

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 & Comments:

12/4/18

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Tim Mass	ARcadis	1600			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
				LLI	12/5/18 09:30

2.3

90.5

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Sample Administration Receipt Documentation Log

Doc Log ID: 235060

Group Number(s):

Client: Arcadis

10954

20150225

Delivery and Receipt Information

Delivery Method:	UPS	Arrival Timestamp:	12/05/2018 9:30
Number of Packages:	1	Number of Projects:	1
State/Province of Origin:	NY		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	N/A	VOA Vial Headspace ≥ 6mm:	N/A
Paperwork Enclosed:	Yes	Total Trip Blank Qty:	0
Samples Intact:	Yes	Air Quality Samples Present:	Yes
Missing Samples:	No	Air Quality Flow Controllers Present:	No
Extra Samples:	No	Air Quality Returns:	No
Discrepancy in Container Qty on COC:	No		

Unpacked by Katie Hartlove (2114) at 09:40 on 12/05/2018

2425 New Holland Pike
Lancaster, PA 17605-2425

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F | 717-656-2681
www.LancasterLabs.cor

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

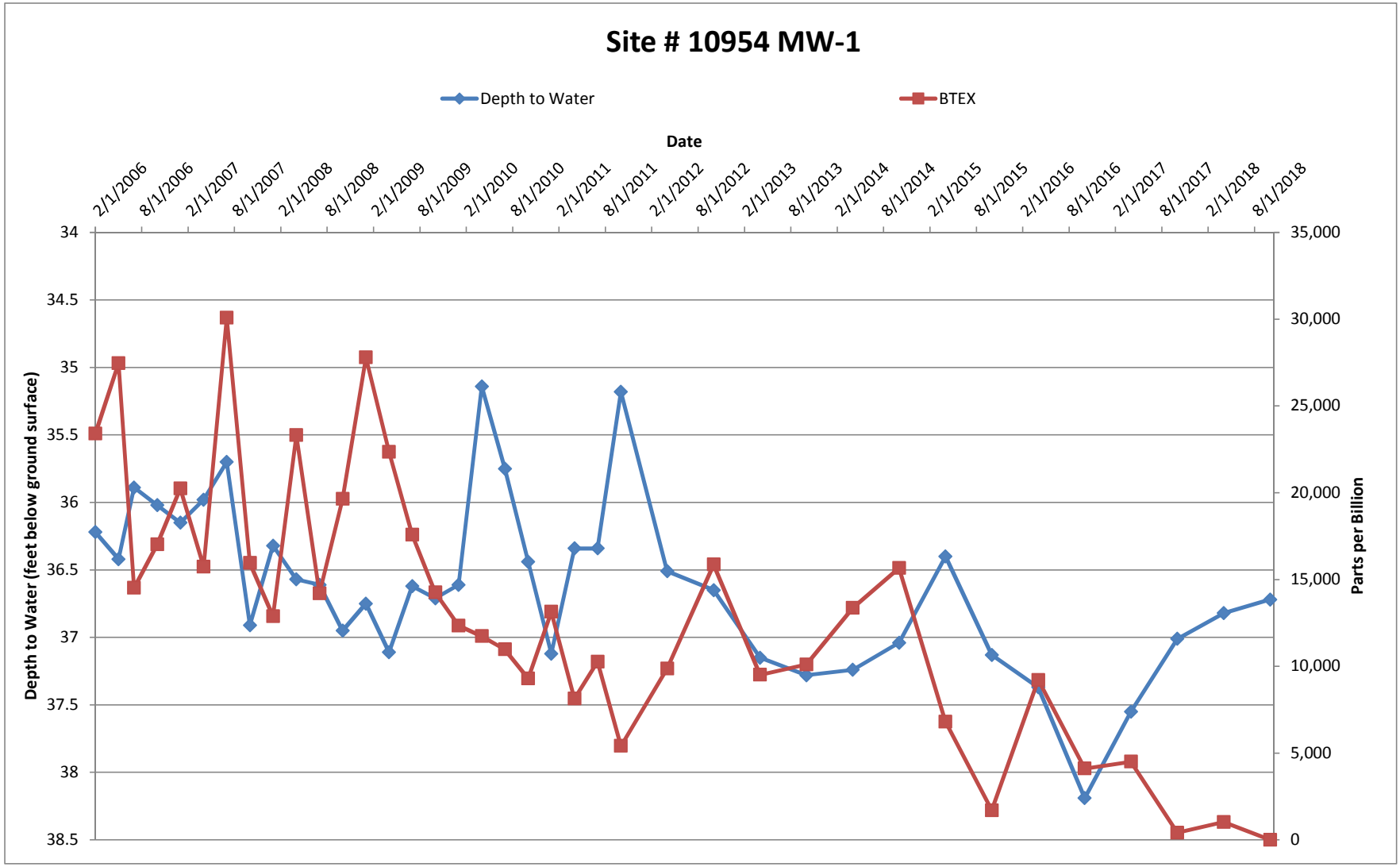
Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

APPENDIX C

Hydrographs

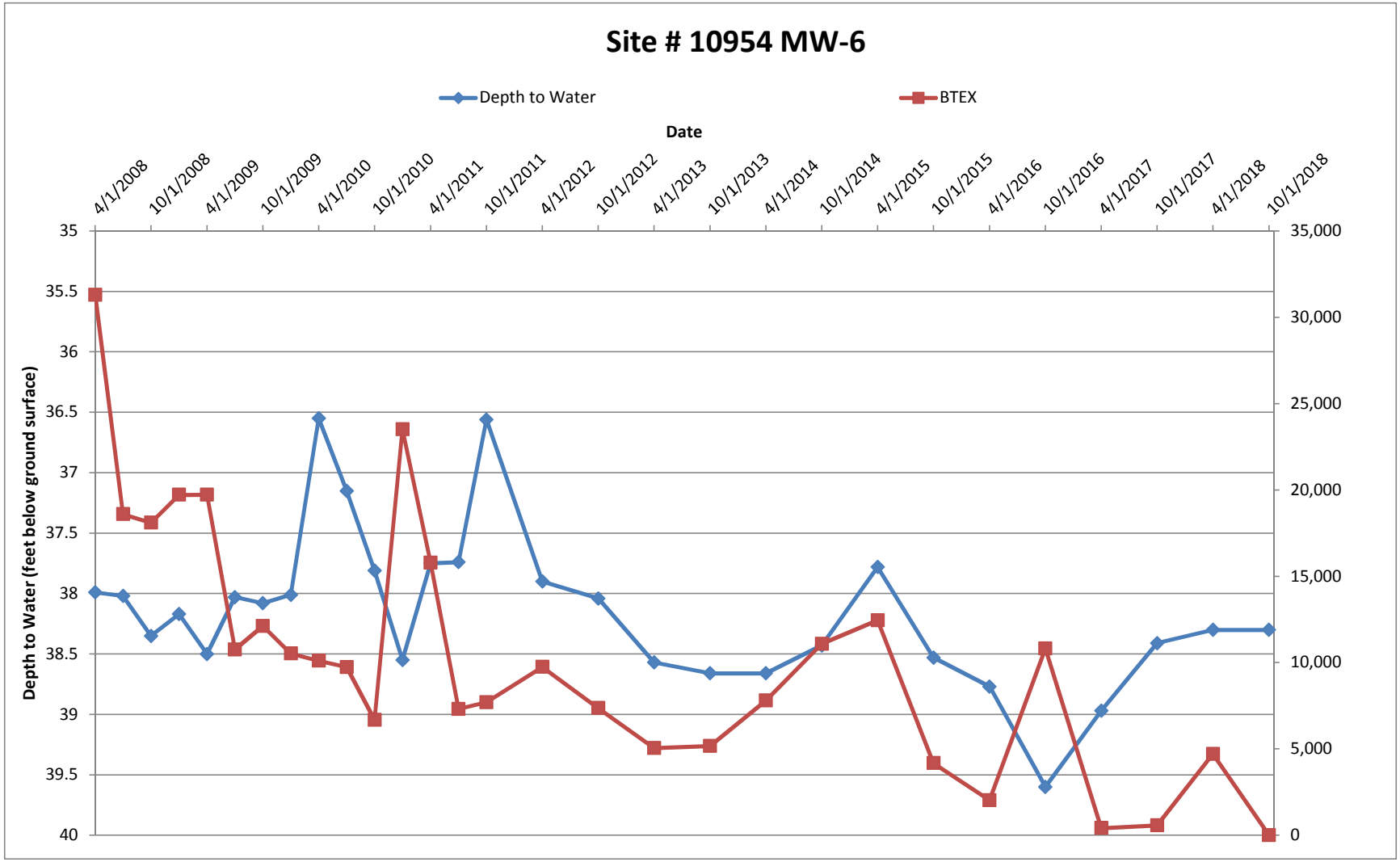
MW-1 Hydrograph
February 6, 2006 through October 31, 2018

Mobil Branded Service Station
Former Mobil #10954 (17-HMB)
138-50 Hillside Avenue
Jamaica, New York



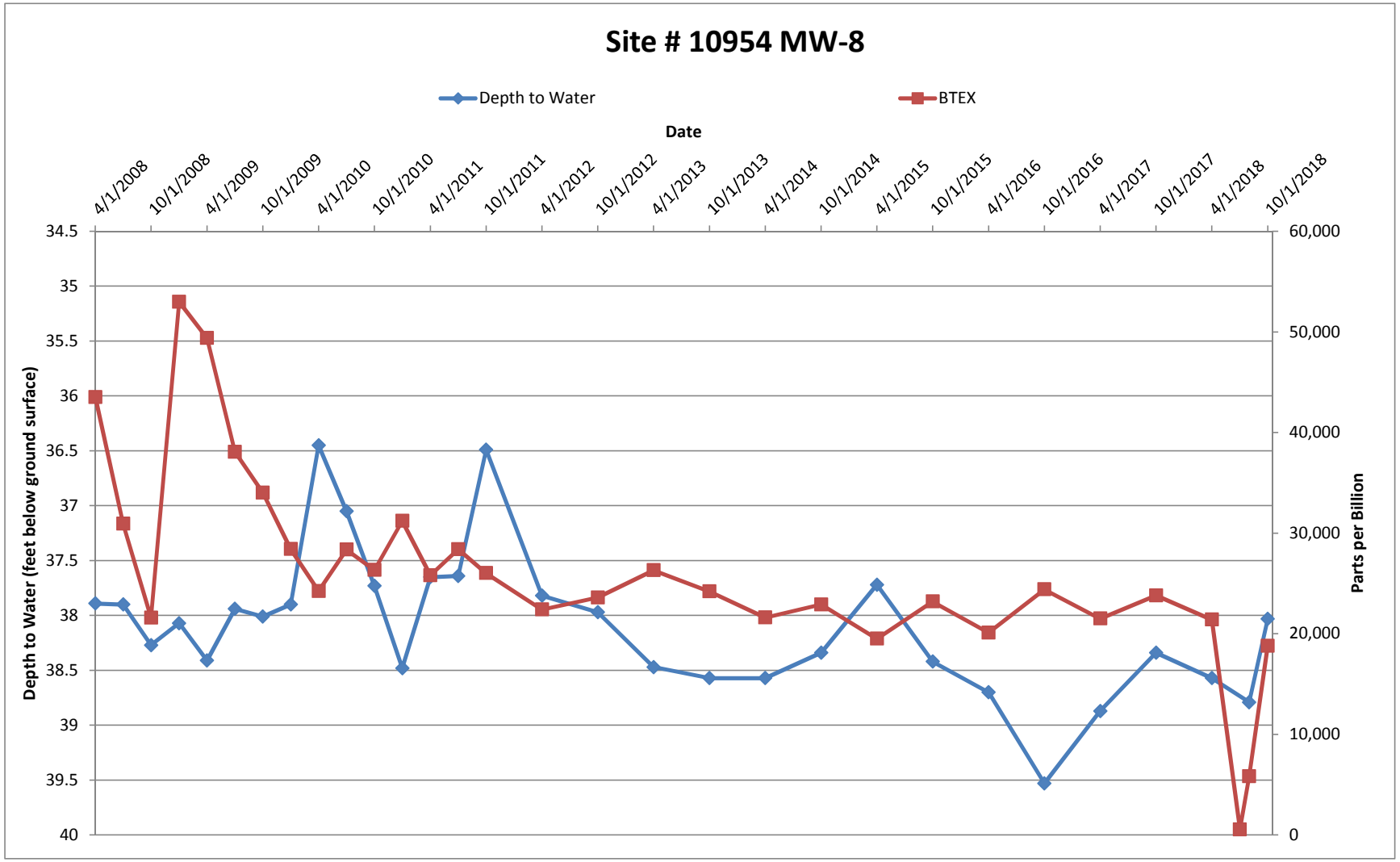
MW-6 Hydrograph
February 6, 2006 through October 31, 2018

Mobil Branded Service Station
Former Mobil #10954 (17-HMB)
138-50 Hillside Avenue
Jamaica, New York



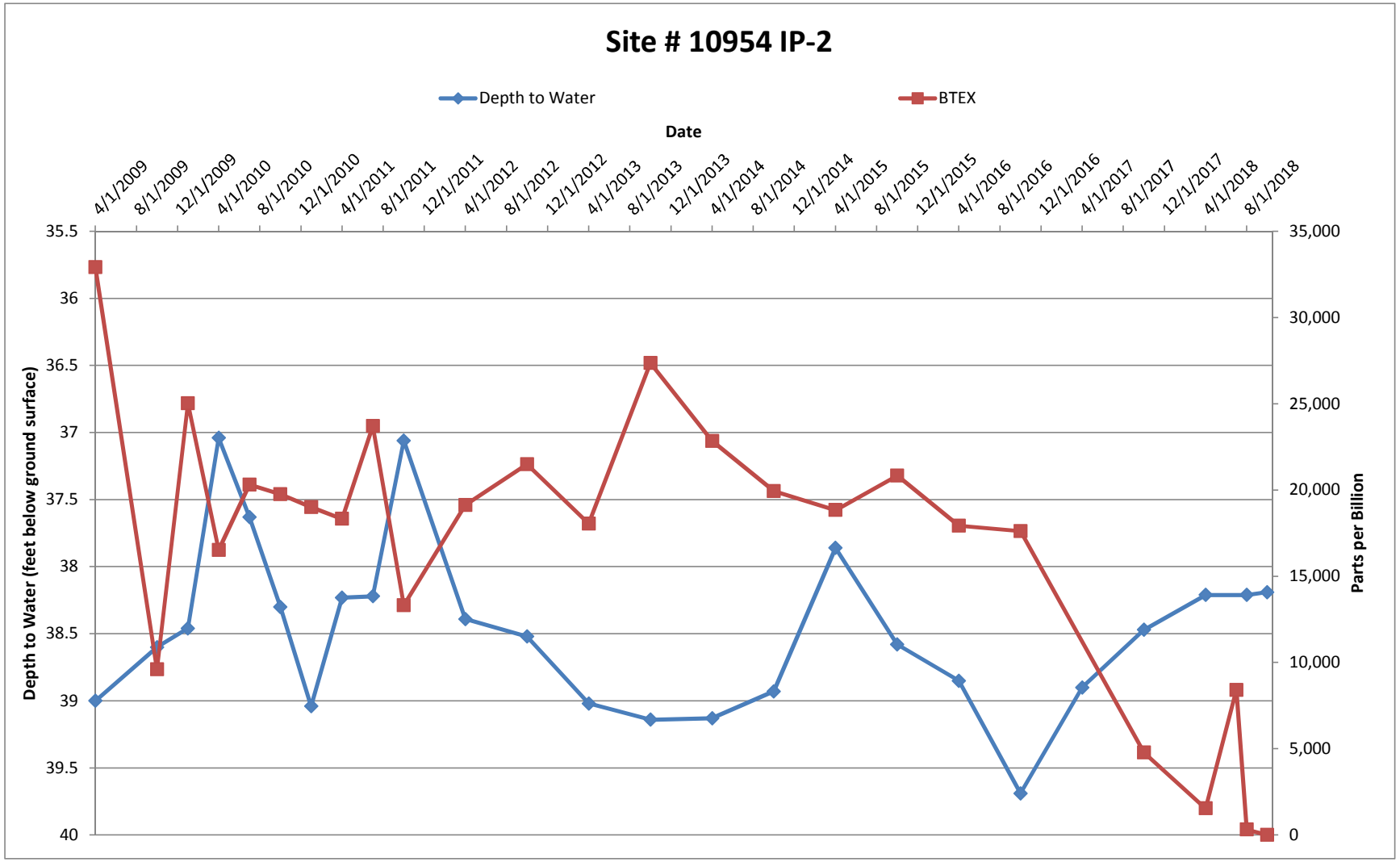
MW-8 Hydrograph
April 30, 2008 through October 31, 2018

Mobil Branded Service Station
Former Mobil #10954 (17-HMB)
138-50 Hillside Avenue
Jamaica, New York



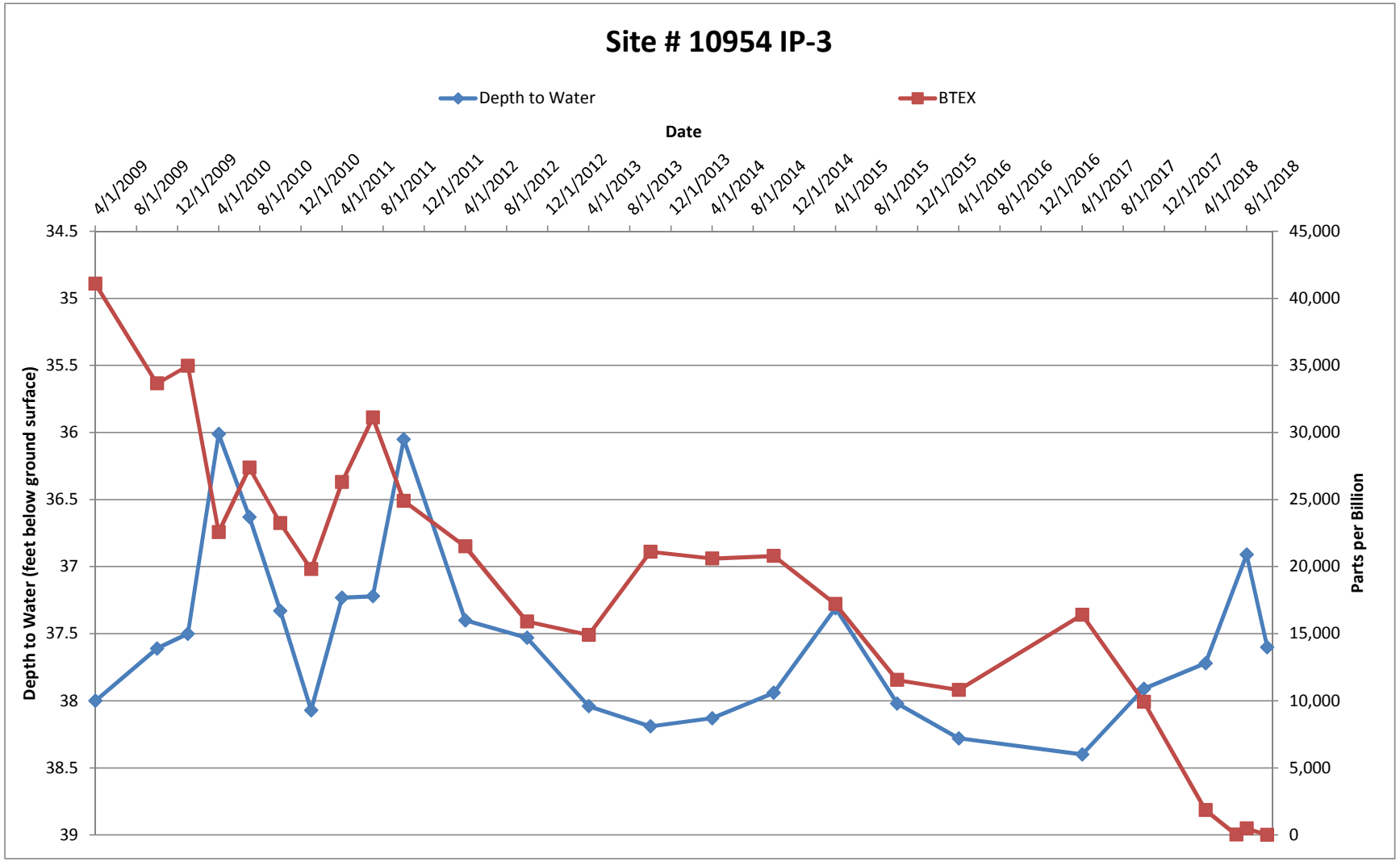
IP-2 Hydrograph
April 8, 2009 through October 31, 2018

Mobil Branded Service Station
Former Mobil #10954 (17-HMB)
138-50 Hillside Avenue
Jamaica, New York



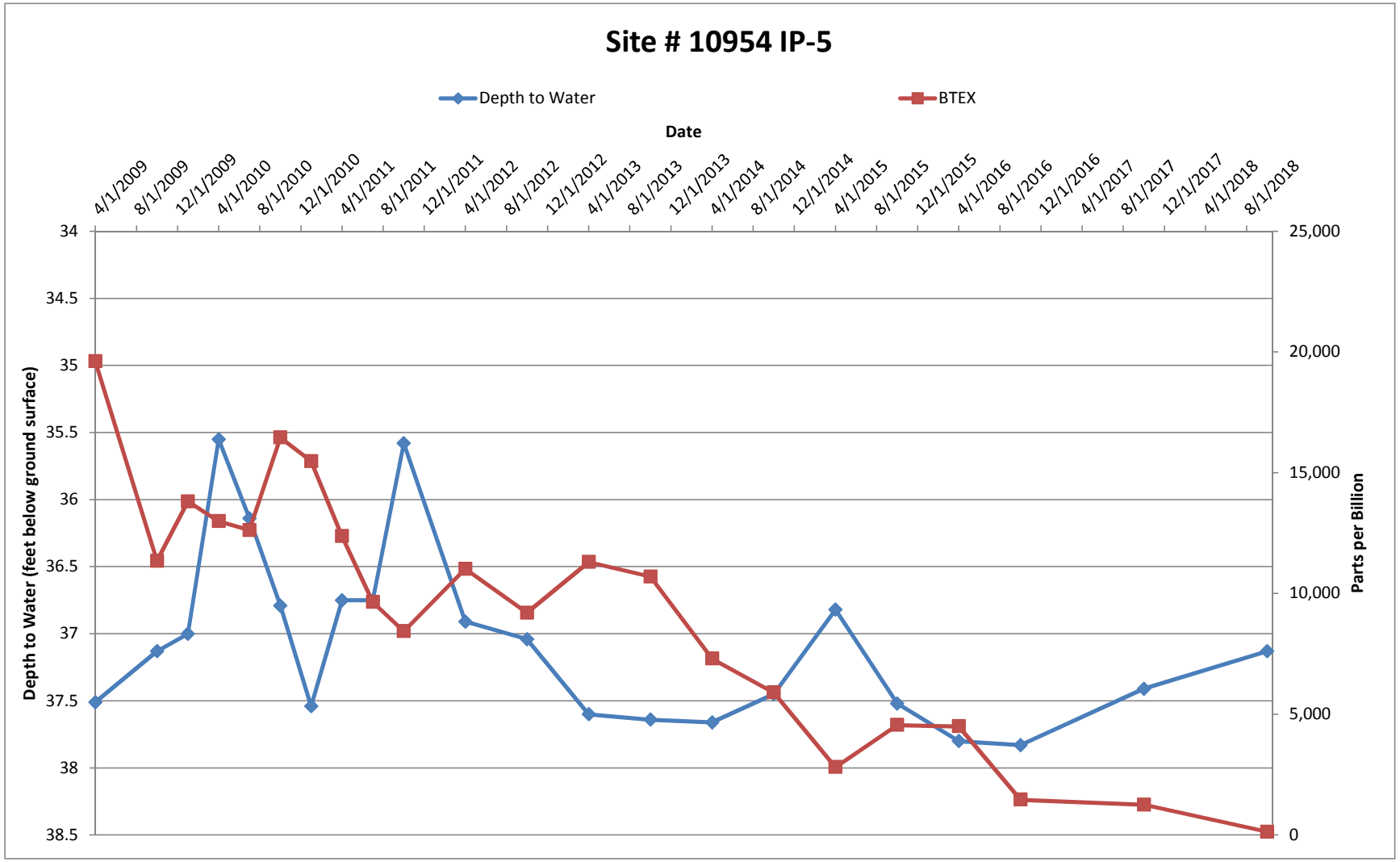
IP-3 Hydrograph
April 8, 2009 through October 31, 2018

Mobil Branded Service Station
Former Mobil #10954 (17-HMB)
138-50 Hillside Avenue
Jamaica, New York



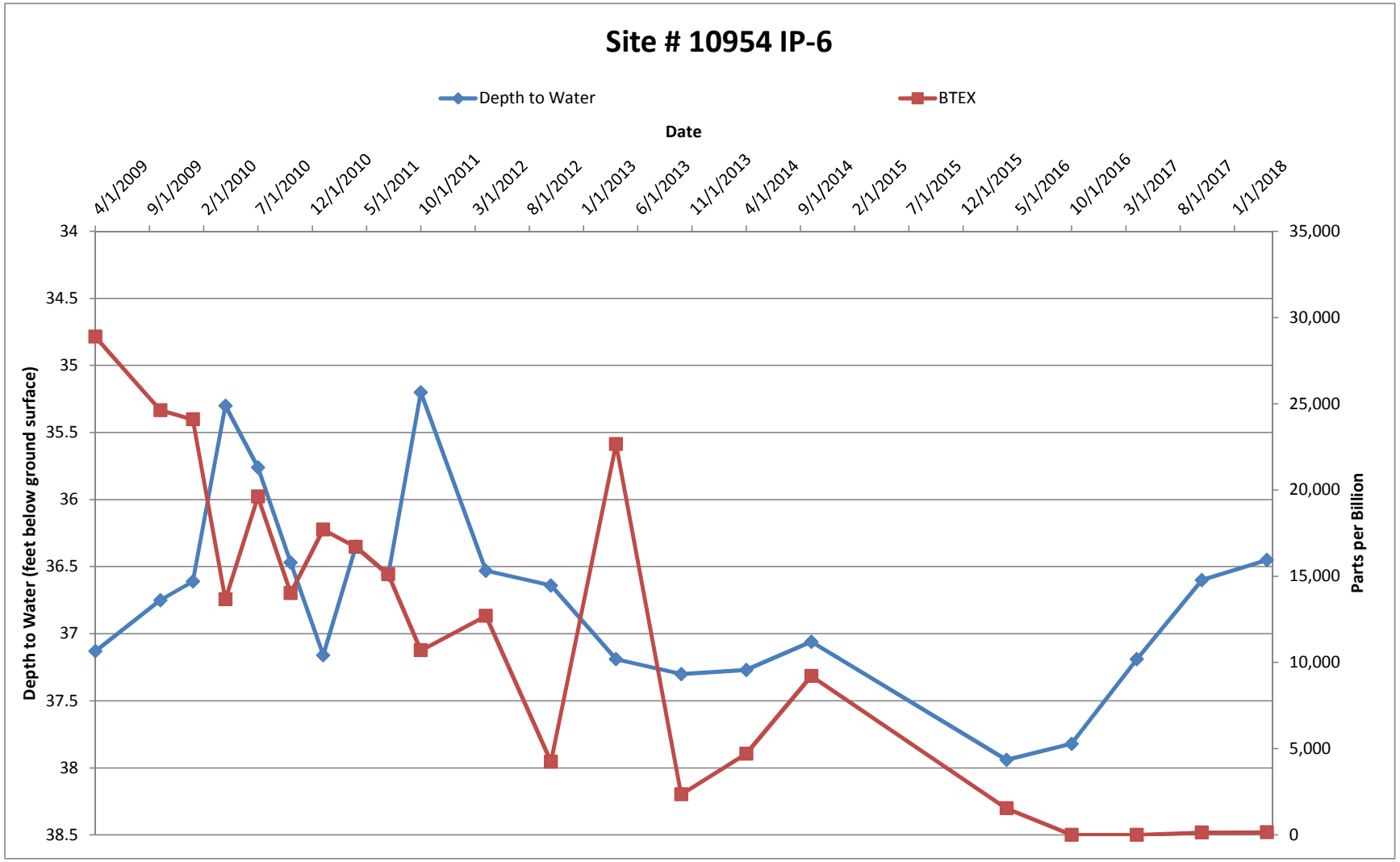
IP-5 Hydrograph
April 8, 2009 through October 31, 2018

Mobil Branded Service Station
Former Mobil #10954 (17-HMB)
138-50 Hillside Avenue
Jamaica, New York



IP-6 Hydrograph
April 8, 2009 through October 31, 2018

Mobil Branded Service Station
Former Mobil #10954 (17-HMB)
138-50 Hillside Avenue
Jamaica, New York



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