

December 12, 2016

Mr. Raphael Ketani New York State Department of Environmental Conservation Division of Environmental Remediation – Region 2 Hunters Point Plaza 47-40 21st Street Long Island City, NY 11101-5407

Re: NYSDEC Spill #95-00846 Speedway #7830 3904 Northern Boulevard Long Island City, NY

Dear Mr. Ketani:

Please find enclosed a Remedial Action Plan (RAP) for the above referenced location.

If you have any questions regarding this RAP, please do not hesitate to contact Matt Butler of Speedway at (732) 738-2924 or myself or Ed Russo at (631) 924-3001.

Sincerely,

Rume

Joseph Rennie Project Manager

ec: Matt Butler (Speedway)

REMEDIAL ACTION PLAN

Speedway # 7830 39-04 Northern Boulevard Long Island City, New York

NYSDEC Spill # 95-00846

December 2016

Prepared For:

Speedway LLC 500 Speedway Drive Enon, OH 45323

Prepared By:

EnviroTrac Ltd. 5 Old Dock Road Yaphank, New York 11980

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1. INTRODUCTION

Speedway LLC (Speedway) has retained EnviroTrac Ltd. (EnviroTrac) to prepare this Remedial Action Plan (RAP) for Speedway Station # 7830 located at 3904 Northern Boulevard, Long Island City, New York (the Site). This RAP is being prepared to address New York State Department of Environmental Conservation (NYSDEC) Spill # 95-00846.

2. SITE DESCRIPTION

2.1 Site Location

The Site is located on the southeastern corner of the intersection of Northern Blvd and 39th Street in Long Island City, New York. An Aerial Photograph of the site is included as **Figure 1**.

2.2 Hydrogeology and Site Geology

Groundwater at the site and surrounding area ranges from approximately 16 to 20 feet below grade surface with regional groundwater flow direction towards the west. A data table summarizing the historical groundwater elevation measurements is included in **Appendix A**. Based on observations made during earlier underground storage tank (UST) closure activities and subsurface investigations, the soil in the vicinity of the site consists of brown, fine to medium-grained sand with trace gravels. Based on historic subsurface investigations and well logs, a layer of cobbles and boulders exists between 10 and 40 feet below grade. A detailed description of geology encountered during soil boring and well installation activities is presented in the geologic logs provided as **Appendix B**.

2.3 Background

The Site is an active retail gasoline station selling regular, plus, and premium grades of unleaded gasoline only. Site structures include a convenience store, canopy, car wash and dispenser islands. A summary of historical site activities is provided below:

- April 1995 Impacted soils were encountered during a UST upgrade project. Four (4) 4,000-gallon, two (2) 2,000-gallon, and thirty-eight (38) 550-gallon steel gasoline and one (1) 1,000-gallon steel fuel-oil underground storage tanks (USTs) were removed. During this project, 846 tons of impacted soils were removed off site for disposal. NYSDEC Spill #95-00846 was assigned to the site. The closed UST system was replaced by a new UST system consisting of five (5) 4,000-gallon double-walled fiberglass gasoline USTs and one 600-gallon double-walled fiberglass waste water UST.
- 1996 A subsurface investigation was conducted that included installation of monitoring wells (MW-1, MW-2, MW-3, and MW-4).
- June 21, 2000 Soil vapor extraction (SVE) and air sparge (AS) feasibility testing was performed.
- August 15, 2000 Two (2) monitoring wells (MW-5 and MW-6) were installed.
- October 17, 18 and 19, 2001 Five (5) sparge point wells (SP-1, SP-2, SP-3 and SP-4) and two (2) vapor point wells (VP-2 and VP-3).
- October 31, 2001 Geological Services Corporation (GSC) Submitted Remedial Action Plan and Specifications for Environmental Installation to the NYSDEC for operation of an AS/SVE Remediation System.
- **February 28, 2002** A Stipulation Agreement was executed and during a 2002 station upgrade, 955 tons of soils were excavated. The station upgrade was witnessed by another consultant and the details of the upgrade are not available to EnviroTrac.
- September 26, 2002 An onsite AS/SVE system was installed and commenced operation.
- February 10, 2006 The AS/SVE system was shutdown with permission from the NYSDEC. The system had recovered an estimated 7,489 lbs. of cumulative petroleum hydrocarbons during operation.
- August 4, 2006 The Supplemental Remedial Action Plan (SRAP) to address residual dissolved liquid phase hydrocarbon impacts in the vicinity of MW-3 was approved by the NYSDEC.
- November 2009 through March 2010 Short Term Remediation Events (STREs) were conducted on selected monitoring wells.
- April 5 through April 7, 2010 Three (3) monitoring wells (MW-7, MW-8 and MW-9) and one (1) air sparge well (AS-1) were installed.

August 2 through August 20, 2013 – A subsurface investigation, which included the installation of two (2) AS wells (AS-2 and AS-3) and one (1) cluster well (CW-3) was completed.

2.4 Potential Sensitive Receptors

The Site is surrounded by commercial and retail properties. A subway line runs to the north of the property. The closest surface water body is the East River, which is approximately 1.5 miles northwest (down-gradient) of the site.

3. AREAS OF ADSORBED AND DISSOLVED HYDROCARBON IMPACT

3.1 Adsorbed Hydrocarbon Impact

In order to determine hydrocarbon impact to subsurface soil at the Site, geologic logs and soil sampling data from the installation of wells MW-7, MW-8, MW-9, and AS-1 were reviewed. Photo-ionization detector (PID) readings of soil samples collected during well installation activities ranged from 0.0 parts per million (ppm) in several wells, to 921 ppm (MW-9). Soil sampling data indicated volatile organic compounds (VOCs) above their respective NYSDEC soil cleanup objectives in samples collected from wells MW-7, MW-8, MW-9, and CW-3. Summaries of Soil Sampling Data are included in **Appendix A** and Geologic Logs and Well Construction Details are included in **Appendix B**.

3.2 Dissolved Hydrocarbon Impact

As illustrated in the Groundwater Gauging and Analytical Data table (**Appendix A**), dissolved hydrocarbon impact is present at the Site with significant concentrations only remaining in one on-site well (MW-9). Data from the most recent groundwater sampling event conducted on September 19, 2016 revealed benzene, toluene, ethylbenzene, and xylenes (BTEX) concentrations ranging from non-detect (ND) in wells MW-1, MW-3, MW-4, and MW-6 to 6,501.6 micrograms per liter (μ g/L) in well MW-9. Methyl tertiary-butyl ether (MTBE) concentrations were found to be ND in all wells. Liquid-phase hydrocarbons (LPH) have never

been detected in any on-site monitoring wells. **Figure 2** includes groundwater sampling data from the last four (4) sampling events, including the September 19, 2016 event.

4. ENVIRONMENTAL DATABASE REPORT, DATED SEPTEMBER 4, 2015

An Environmental Database Report (ER) was ordered from Toxics Targeting on September 3, 2015 to address surrounding properties of the Speedway Station. According to the ER, there are five (5) Brownfields Sites within ½ mile from the Site, seven (7) Active Hazardous Spills within ½ mile of the Site. The ER is included in **Appendix C**. A list of sites within the ER that pose a threat to subsurface soil and groundwater quality in the vicinity of the Speedway Station includes:

- Standard Motor Products Building at 37-18 Northern Boulevard in Long Island City, located 408 feet to the South West of the Site is identified on several environmental databases (Air Discharge Site, Toxic Release Inventory Site, Hazardous Waste Generator/Transporter, Petroleum Bulk Storage Site, Chemical Bulk Storage Facility, Brownfields Site, and others). Spill # 9006846 was opened with the NYSDEC on September 21, 1990 as a result of an unknown amount of waste oil/used oil spilled. The spill was closed on October 15, 1990. Spill # 9509528 was opened with the NYSDEC on November 1, 1995 due to an unknown amount of #4 fuel oil was released. The spill was closed on March 23, 2004. Spill # 9900754 was opened with the NYSDEC on April 20, 1999, the material and quantity spilled was unknown and the spill was closed on June 11, 2002.
- Silver Star Motors Site at 37-14 36th Street in Long Island City, located 1,131 feet to the West of the Site is identified as a Brownfield's Site. Soil and groundwater have been impacted by VOCs and SVOCs as a result of former site usage. The site has had several owners and has historically operated as a gasoline service station, an automotive repair shop, a carwash and an automobile dealership. Spill # 0000726 was opened with the NYSDEC on April 18, 2000 and groundwater impacts at the site are currently being addressed.
- Levco Metals at 34-11 36th Street in Long Island City, located 1,830 feet to the North of the Speedway Station is identified as a Brownfield's Site. The site historically operated as a metal finishing facility for 30 years, with industrial operations ceasing in November 1990. Soils had been impacted by VOCs. On-site groundwater was impacted by VOCs

and an AS/SVE system operated from 2005-2007. Groundwater quality is currently underway on a semi-annual basis.

- Subway Station S/B Platform at 34-17 Northern Boulevard in Long Island City, located 1,566 feet to the West of the Site is identified on the Active Hazardous Spills database. A Shell Station located at 34-17 Northern Boulevard was identified as a possible source of petroleum impacts at the Subway Station and remediation is currently being addressed between the owner of the Shell Station (Bill Wolf Petroleum) and the NYC MTA.
- Kaufman-Astoria Film Studio Buildings at 34-41 36th Street and 34-44 36th Street in Long Island City, located 1,884 feet to the North of the Site is identified as a Brownfield's Site. The property was used for film/movie related activities including film storage, chemical mixing and lab production. There are three (3) Historic Closed Spills identified with this site. Spill # 0708563 was opened with the NYSDEC on November 6, 2007 as a result of eight (8) gallons of #6 fuel oil spilled, and the cause is listed as equipment failure. On December 31, 2010 five (5) gallons of #6 fuel oil were spilled for the same reason and on January 14, 2012 twenty (20) gallons of #6 fuel oil were spilled due to overfilling. The three (3) spills are listed as closed.
- Plaza 48 Shopping Center at 48th Street and Northern Boulevard in Long Island City, located 2,629 feet to the East of the Site is identified on the Hazardous Material Spills Database. On May 31, 1995 spill # 9502582 was opened with the NYSDEC as a result of twenty (20) gallons of diesel spilled. The spill was contained by the spiller and thus was closed on May 31, 1995.
- The Amtrak Sunnyside Yard at Northern Boulevard and Skillman Avenue in Long Island City, located 2,594 feet to the South West of the Speedway Station is listed in the Hazardous Material Spills Database. There are forty-eight (48) Hazardous Material Spills associated with this address. Several of the spills identified are open, and remediation is ongoing.

5. REMEDIAL PILOT TESTING

5.1 AS/SVE Pilot Test

To determine the feasibility of continuing to use SVE and in-situ AS technologies to remediate remaining soil and groundwater impacts at the Site, EnviroTrac conducted an AS/SVE pilot test on wells MW-9, CW-3, and AS-3 on September 20, 2016. SVE step tests were performed on wells MW-9 and CW-3. The step test procedures consisted of extracting soil vapors at different vacuums and flow rates utilizing a 3-horsepower (hp) vacuum blower. During testing, vacuum conditions were monitored at the test extraction well and vacuum responses were measured at the wellheads of nearby wells. These measurements were used to estimate the radius of influence (ROI) for the extraction well. ROI is the estimated distance in which soil vapor is captured by the extraction well. During each step, soil vapor discharge samples were collected in Tedlar sample bags and field-screened for VOCs using a PID. Due to the high vacuum and water being extracted from the well only a single step was performed on CW-3.

Following the SVE tests, AS field test procedures were conducted using a 2-hp air compressor connected to the air sparge well (AS-3 and CW-3AS). During testing, pressure and flow rates were measured at the test AS well while positive pressure and headspace PID readings in nearby wells were monitored. SVE effluent air samples were collected for laboratory analysis from wells MW-9 and CW-3 with and without the nearby air sparge well operating.

5.2 SVE Test Results

SVE field test data is provided in **Appendix D**. Maximum PID concentrations during SVE only testing ranged from 0.0 ppm (CW-3) to 8.3 ppm (MW-9). The ROI for the extraction test well MW-9 was estimated using the graphical approach. Pressure influence readings collected from the surrounding monitoring wells during testing were plotted as functions of distance from the extraction well on a semi-logarithmic scale. As shown in the graph found in **Appendix D**, a logarithmic trendline is drawn on the graph for each set of plotted points. Using the formula for the trendline, the radial distance where the vacuum response equals 0.10" H₂O is calculated and taken to be the ROI of the well at the corresponding extraction flow rate/wellhead vacuum. SVE ROI's for well MW-9 ranged from 15 feet to 37 feet at wellhead vacuums of 13" H₂O to 32" H₂O and flow rates of 31 to 88 standard cubic feet per minute (scfm). Based on the test results, the SVE ROI is estimated to be 30 ft. The proposed SVE remedial coverage is depicted in **Figure 4**.

5.3 AS Test Results

A summary of AS test results is provided in **Appendix D**. During each test pressure and flow readings were measured from the air sparge test well and pressure response and PID head space readings were measured from the surrounding observation wells. At AS-3, a breaking pressure of 11 pounds per square inch (psi), running pressure of 6 psi and flow rate of 12 cfm were observed. Head space PID concentrations increased in the wells surrounding AS-3 from 0.0 ppm before sparging to 1,330 ppm while sparging. BTEX and PID concentrations increased in the air extracted from MW-9 from 0.0 ppm and 1.9 ppm respectively without sparging to 386.7 ppm and 1,400 ppm respectively when sparging AS-3. At CW-3AS, a breaking pressure of 15 psi, running pressure of 8 psi and flow rate of 10 cfm were observed. Head space PID concentrations increased in the air extracted from CW-3 from 0.0 ppm before sparging to 90 ppm while sparging CW-3AS. BTEX and PID concentrations increased in the air extracted from CW-3 from 0.0 ppm and 0.0 ppm respectively without sparging to 105.1 ppm and 330 ppm respectively when sparging CW-3AS. Based upon this data and experience with similar sites, an estimated AS ROI of 15 feet was selected for remedial design purposes. The proposed AS remedial coverage is depicted in **Figure 4**.

6. REMEDIAL ACTION PLAN

Based on the results of site characterization activities, groundwater sampling, AS/SVE pilot testing, and historical data, it has been determined that adsorbed and dissolved hydrocarbon impacts are still present at the Site in the area of MW-9. A review of the ER and Sensitive Receptors in the area has indicated the presence of several Brownfields Sites and Active Hazardous Spills within ½ mile of the Site. The Site is surrounded by commercial and retail properties and drinking water is provided by municipal water services, thus there is no threat to drinking water.

Pilot test results indicate that AS/SVE would be an effective remedial technology to remove hydrocarbon mass from the subsurface from both the saturated and unsaturated zones. Positive results of the AS/SVE pilot testing and experience with similar projects for which AS/SVE

technology has been effective in the remediation of hydrocarbons under similar conditions confirm this approach as an effective remedial technology for the Site. EnviroTrac proposes to conduct short term remediation events (STREs) using AS/SVE technology. The STREs will be conducted once a month for a period of six (6) months. During each event air sparge will be operated on air sparge well AS-3 and soil vapor extraction will be performed on well MW-9 for a duration of 8-hrs.

6.1 Soil Vapor Extraction

Based on the results of SVE pilot testing, one (1) SVE well (MW-9) will be utilized during each remedial event. Based on the applied vacuum and air flow rates observed during SVE pilot testing, it is expected that an average SVE radius of influence of 30 feet can be achieved. The proposed ROI for the SVE remedial events is included in **Figure 3**. The average extraction flow rate from each well will be 80 cfm with an average wellhead vacuum of 30 in. w.c. The discharge stack will extend to 15-ft above grade.

6.2 Air Sparge

Based on the results of AS pilot testing, one (1) AS wells (AS-3) will be utilized during each remedial event. Air will be injected into the subsurface at a flow rate of 15-20 cfm at depths ranging from 10 to 12 feet below the water table. The AS component of the mobile remedial system will be operated to maintain a 15-foot radius of influence surrounding the sparge well. The AS/SVE layout allows for adequate overlapping of injection and vacuum extraction points, minimizing the possibility of fugitive vapor migration. The proposed ROI for the AS system is depicted in **Figure 3**. To ensure adequate coverage, the air sparge well will only be operated when the nearby SVE well is operating.

6.3 Proposed Remedial Equipment

A proposed process and instrumentation diagram of the mobile remediation trailer is provided as **Figure 4**. The remedial equipment necessary to conduct the STREs will likely include, but not be limited to:

- A regenerative blower for SVE (80 cfm @ 30"H20 vac);
- A moisture separator and particulate air filter;
- A rotary vane oil-less air compressor for AS (15 cfm @ 12 psi);
- Portable generator;
- Instrumentation; and
- Associated piping and fittings.

During every remediation event, the remedial wells will be surrounded by barricades to protect vehicular and pedestrian traffic. Ramps will be utilized to allow pedestrians to safely cross over AS and SVE hoses. A PID will be used before, during, and after testing to confirm 0.0 ppm PID readings inside the station's convenience store. If PID readings > 0.0 ppm are detected at any point, the STRE event will be shutdown.

7. OPERATION, MAINTENACE AND MONITORING PLAN (OMMP)

During each STRE gauge readings (vacuum, flow, pressure) will be recorded and the SVE effluent air will be analyzed for volatile organic compounds (VOCs) using a photoionization detector (PID). Pressure/vacuum influence measurements will be collected from the surrounding observation wells.

Near the conclusion of the 1st event a sample will be collected for laboratory analysis of the air extracted from MW-9 and analyzed for BTEX and MTBE via EPA method TO-3. Laboratory results of the discharge sampling will be forwarded to the NYSDEC along with recommendations for future sampling and/or vapor treatment prior to the 2nd STRE.

8. SCHEDULE

Following approval of this RAP by the NYSDEC, Speedway will execute the following implementation schedule:

Action Item	Duration (Days)
NYSDEC approval of RAP	-

Begin Monthly STREs.	30 days from date of RAP approval
Evaluate need for additional remediation.	180 days from above

9. REPORTING

Quarterly update reports, which will summarize remedial event performance, work performed during the monitoring period, air effluent data, groundwater analytical data from the quarterly groundwater sampling events, and proposed action items, if any, will be submitted to the NYSDEC. The NYSDEC will be notified if any significant Site changes occur between reporting periods. After conducting the monthly events for six months an evaluation of groundwater and remedial event data will be conducted in order to determine the need for future events or other remedial activities to address any remaining impact.

AERIAL PHOTOGRAPH

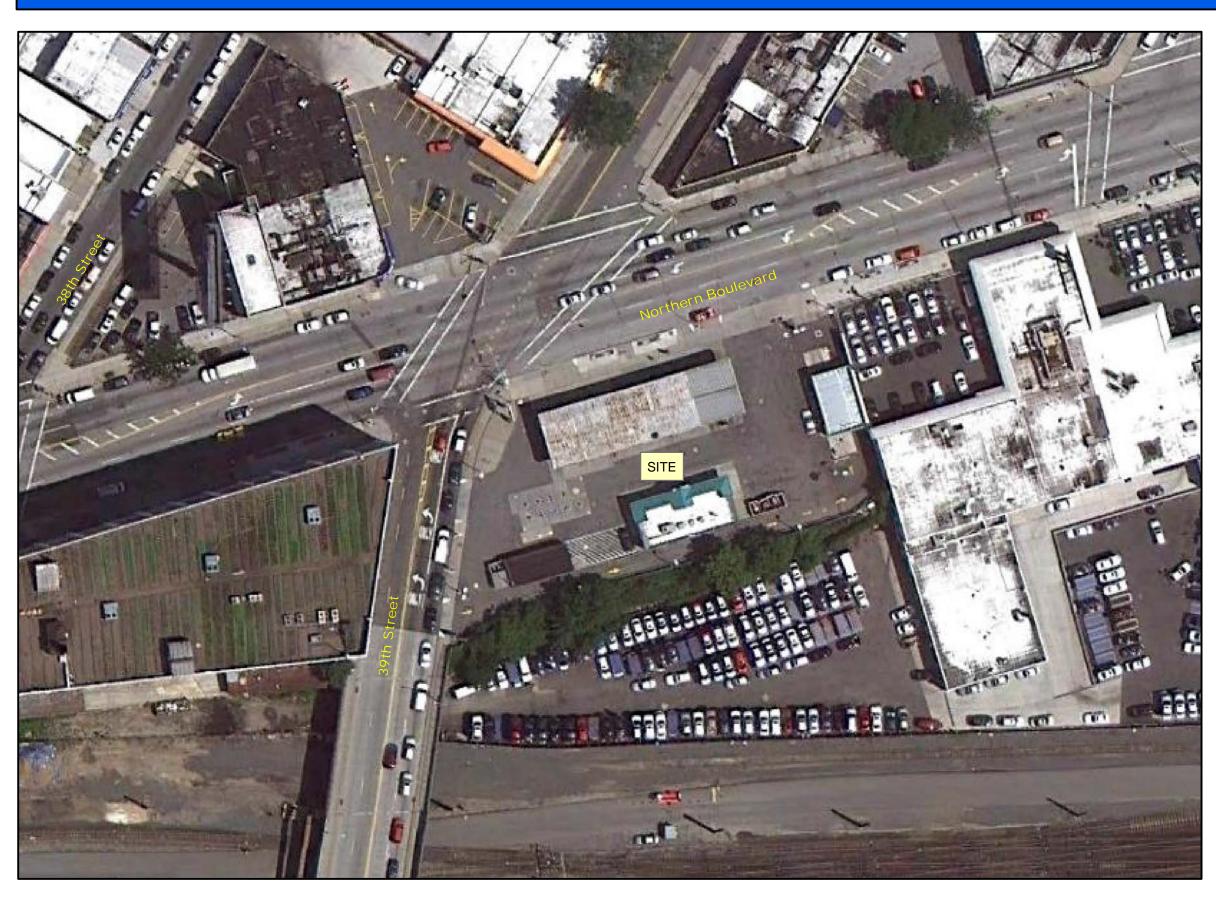


Figure 1 Aerial Photograph

39-04 Northern Boulevard Long Island City, NY

Digital Imagery taken in 2010







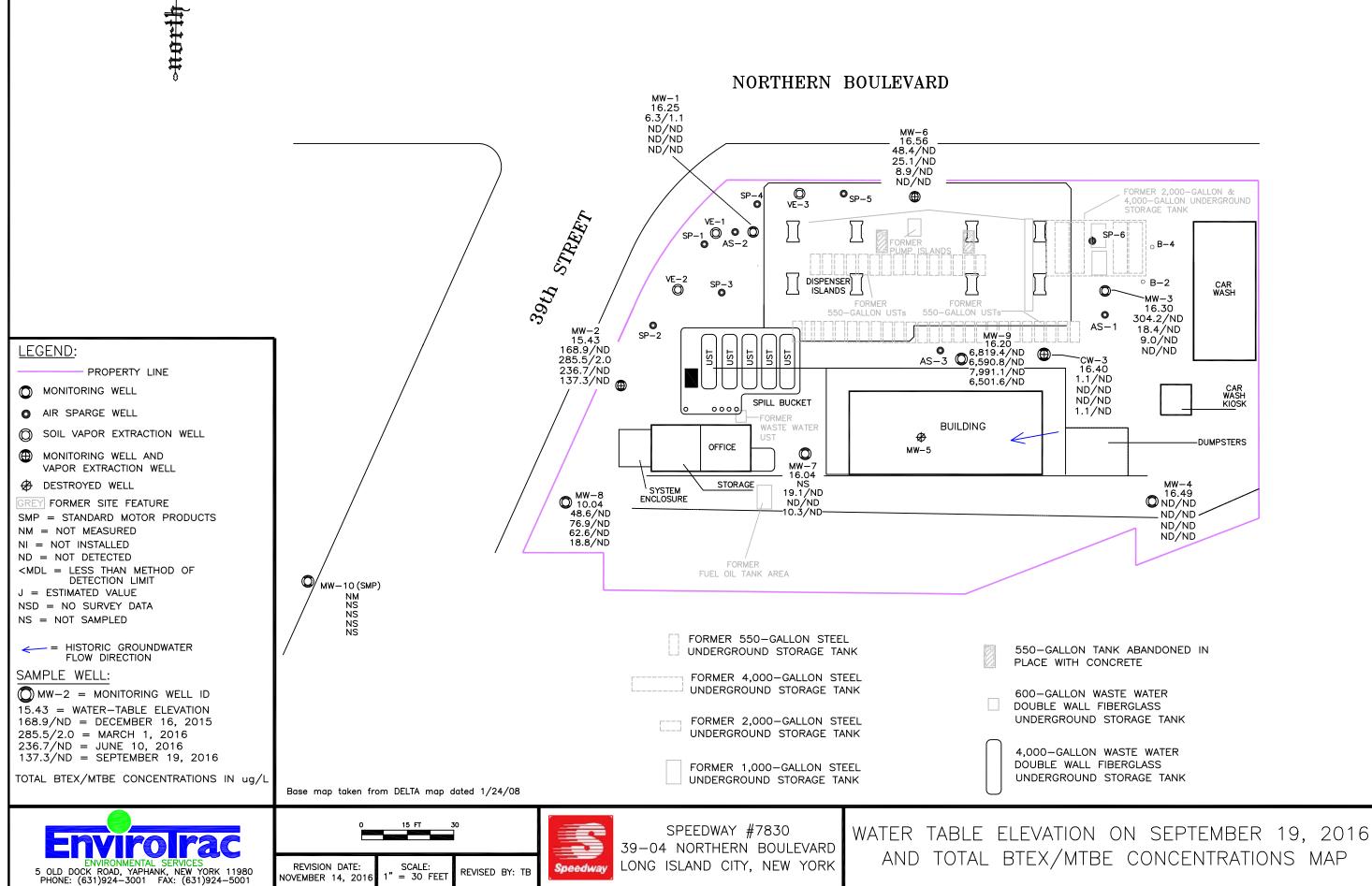


FIGURE # \cap

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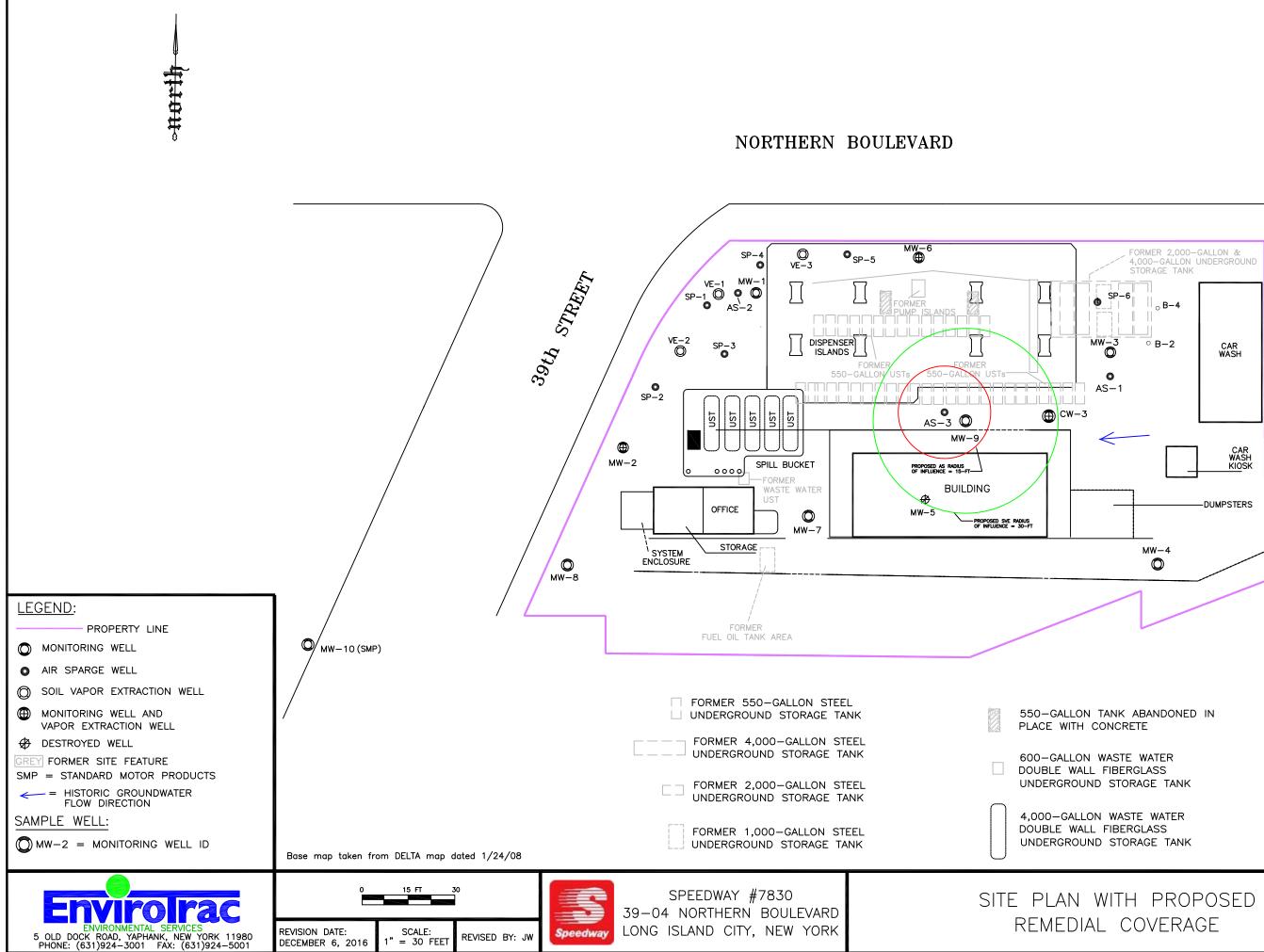
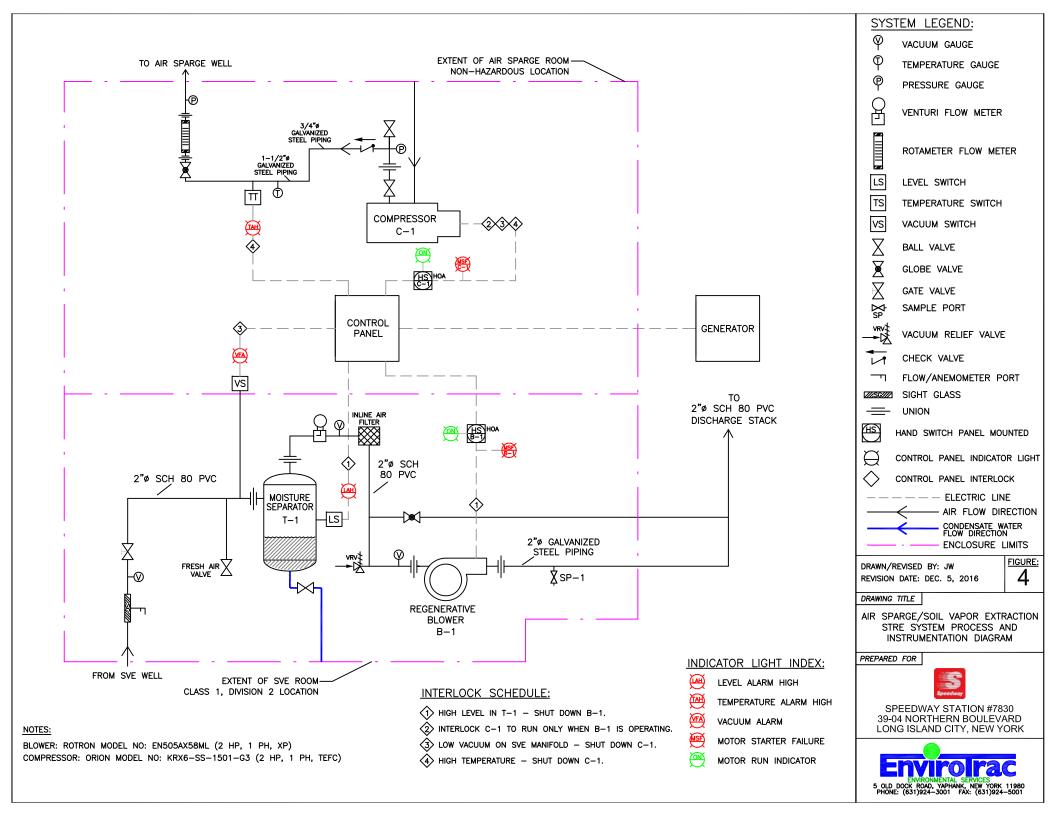


FIGURE #

3



Appendix A – Data Tables

Well ID	Date	Gauge Point Elevation	Depth to Water	Depth to Product	Product Thickness	Relative GW Elevation	Benzene	Toluene	Ethylbenzene	Xylenes	BTEX	МТВЕ
(Screen Zone)	Dale	(feet)	(fbg)	(fbg)	(feet)	(feet)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
MW-1 (13-28')	10/11/96 a	100.27	13.94			86.33	63.7	276	83.7	594	1,017.4	288
	1/14/1997	100.27	13.76			86.51	10.9	16	13.1	86.5	127	160
	4/1/1997	100.27	14.17			86.10	19.9	40.3	21.6	118	200	179
	7/9/1997	100.27	13.84			86.43	106	162	68.9	759	1,096	810
	10/14/1997	100.27	13.70			86.57	195	341	87.8	1,880	2,504	1,220
	1/6/1998	100.27	13.87			86.40	41.5	120	111	611	884	140
	4/8/1998	100.27	13.99			86.28	27.5	18.4	29.1	124	199	541
	7/22/1998 10/16/1998	100.27 100.27	13.77 13.39			86.50 86.88	44.7 222	41.3 267	63.8 317	499 1,570	649 2,376	272 782
	2/1/1999	100.27	13.39			86.84	52.9	92	160	1,120	1,425	117
	6/7/1999	100.27	13.19			87.08	480	860	140	5,000	6,480	1,500
	10/18/1999	100.27	13.19			87.08	3,400	11,000	570	4,500	19,470	200,000
	2/2/2000	100.27	13.04			87.23	1,000	6,300	1,200	5,000	13,500	31,000
	06/20/00 c	100.27	13.44			86.83	5,200	17,000	640	7,400	30,240	270,000
	9/8/2000	100.27	18.33			81.94	2,100	6,700	530	3,600	12,930	130,000
	10/12/2000	100.27	18.43			81.84	4,900	17,000	1,300	10,000	33,200	230,000
	2/13/2001 6/13/2001	100.27 100.27	18.35 18.11			81.92 82.16	2,600 5,100	4,900 17,000	<1000 1,200	4,400 10,000	11,900 33,300	75,000 150,000
	10/17/01 b	100.27	18.10			82.17	5,800	21,000	1,100	9,400	37,300	170,000
	2/5/2002	100.27	18.46			81.81	39	120	6.50	140	306	900
	6/4/2002	100.27	18.46			81.81	170	160	22.00	330	682	17,000
	10/17/2002	100.27	17.62			82.65	8.6	5.7	10.00	22.80	47	260
	2/14/2003	100.27	18.15			82.12	340	600	500	1,800	3,240	1,200
	6/30/2003	100.27	17.45			82.82	13.0	<10	<10	<20	13.0	500
	10/17/2003	100.27	17.80			82.47	<1	<1	1.4	2.2	4.0	3.3
	2/12/2004	100.27 100.27	23.03			77.24 82.29	1.9	<1	<1	<2 <2	2.0	12 23
	6/16/2004 10/7/2004	100.27	17.98 17.54			82.73	3.1 <1	<1 <1	1.1 <1	<2	4.0 ND	23 <1
	2/28/2005	100.27	17.89			82.38	1.9	<1	<1	<2	1.9	1.5
	6/17/2005	100.27	17.38			82.89	<1	<1	<1	<2	ND	3.24
	10/10/2005	100.27	17.74			82.53	<1	<1	<1	<2	ND	<1
	2/20/2006	100.27	17.64			82.63	4.3	<1	<1	<1	4.3	2.6
	5/8/2006	100.27	17.81			82.46	18.1	<1	0.47 J	<1	19	6.1
	8/30/2006	100.27	17.22			83.05	<1	<1	<1	<1	ND	1.0
	12/29/2006	100.27	17.61			82.66	<1	<1	<1	<3	ND	<1
	2/22/2007 5/12/2007	100.27 100.27	18.02 17.36			82.25 82.91	16 55	<1 <1	<1 <1	<3 <3	16 55	53 <1
	9/10/2007	100.27	NM			NM	NS	NS	NS	NS	NS	NS
	12/21/2007	100.27	17.70			82.57	<1	<1	<1	<3	ND	1.3
	3/24/2008	100.27	NM			NM	NS	NS	NS	NS	NS	NS
	06/30/08	100.27	17.23			83.04	479	89.1	1,050	3,680	5,298.1	77.5
	09/10/08	100.27	17.40			82.87	NS	NS	NS	NS	NS	NS
	12/17/08	100.27	17.50			82.77	108	1.2	ND	1.1	110	3.0
	03/23/09	100.27	18.10			82.17	ND	ND	ND	ND	ND	1.7
	06/04/09	100.27	17.79			82.48	5.8	ND	ND	ND	5.8	4.2
	09/22/09 12/29/09	100.27 100.27	17.63 17.49			82.64 82.78	33.6 0.52 J	0.32 J ND	0.91 J ND	ND ND	34.83 J 0.52 J	10.3 2.9
	03/31/10	100.27	16.70			83.57	0.32 J ND	ND	ND	ND	0.32 J ND	2.9 5.9
	06/22/10	100.27	17.59			82.68	ND	ND	ND	ND	ND	1.3
	09/23/10	100.27	17.97			82.30	4.2	ND	ND	ND	4.2	2.8
	12/16/10	100.27	18.05			82.22	4.6	ND	2.6	2.9	10.1	1.5
	03/22/11	100.27	17.51			82.76	15.8	ND	ND	ND	15.8	2.9
	06/27/11	100.27	17.68			82.59	ND	ND	ND	ND	ND	1.2
	09/27/11	100.27	16.95			83.32	ND	ND	ND	ND	ND	0.71 J
	12/20/11 03/27/12	100.27 100.27	17.26 17.92			83.01 82.35	ND ND	ND ND	ND ND	ND ND	ND ND	ND 0.72 J
	06/27/12	100.27	17.92			82.66	ND	ND	ND	ND	ND	0.72 J 0.48 J
	09/27/12	100.27	17.72			82.55	ND	ND	ND	ND	ND	ND
	12/20/12	100.27	17.86			82.41	ND	ND	ND	ND	ND	0.38 J
	03/25/13	100.27	17.69			82.58	13.9	0.31 J	0.84 J	1.8	16.85 J	0.95 J
	06/24/13	100.27	17.38			82.89	0.77 J	ND	ND	ND	0.77 J	1.4
	09/24/13	100.27	17.73			82.54	0.75 J	ND	0.53 J	0.33 J	1.61 J	0.64 J
	12/18/13	100.27	17.82			82.45	ND	ND	ND	ND	ND	0.65 J
	03/27/14	100.27	17.71			82.56	ND	ND	ND	ND	ND	0.84 J
	06/17/14	100.27	17.07			83.20	3.5	ND	ND	ND	3.5	1.3
	09/30/14 12/18/14	100.27	17.76			82.51	ND 202	ND	ND 28.6	ND	ND	0.30 J
	12/18/14 03/18/15	100.27 34.69	17.31 17.33			82.96 17.36	302 ND	49.0 ND	28.6 ND	49.0 ND	428.6 ND	ND ND
	03/18/15	34.69 34.69	17.33			17.36	ND	ND	ND	ND	ND	ND
	09/24/15	34.69 34.69	18.96			17.29	246	6.9	38.0	24.5	315.4	19.6
	12/16/15	34.69	18.56			16.13	3.0	ND	3.3	24.5 ND	6.3	1.1
	03/01/16	34.69	17.74			16.95	ND	ND	ND	ND	ND	ND
		34.69	18.02			16.67	ND	ND	ND	ND	ND	ND
	06/10/16	34.09	10.02			10.07	ND	ND	ND	ND	ND	

Well ID (Screen Zone)	Date	Gauge Point Elevation (feet)	Depth to Water (fbg)	Depth to Product (fbg)	Product Thickness (feet)	Relative GW Elevation (feet)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	BTEX (ug/L)	MTBE (ug/L)
		(,	(3)	(3)	()	()						
MW-2 (11-26')	10/11/96 a	100.91	13.93			86.98	943	205	1,900	1,480	4,528	1,720
	1/14/1997	100.91	13.76			87.15	591	33	1,490	531	2,645	1,210
	4/1/1997	100.91	14.17			86.74	913	61	2,160	830	3,964	3,520
	7/9/1997	100.91	13.83			87.08	1,050	94	2,130	544	3,818	963
	10/14/1997	100.91	13.67			87.24	951	329	2,550	1,110	4,940	842
	1/6/1998	100.91	13.87			87.04	809	176	2,610	572	4,167	719
	04/8/98 b 7/22/1998	100.91 100.91	15.01 13.76			85.90 87.15	1,040 681	330 148	3,420 3,500	1,498 1,529	6,288 5,858	2,380 1,930
	10/16/1998	100.91	13.36			87.55	1,230	140	2,430	1,529	5,858	6,110
	2/1/1999	100.91	14.42			86.49	699	82	2,340	1,163	4,284	442
	6/7/1999	100.91	14.88			86.03	760	73	2,000	1,000	3,833	910
	10/18/1999	100.91	13.38			87.53	820	64	1,900	1,200	3,984	2,900
	2/2/2000	100.91	13.03			87.88	1,000	62	1,700	640	3,402	1,900
	6/20/2000	100.91	13.48			87.43	520	53	1,300	940	2,813	4,700
	9/8/2000	100.91	19.43			81.48	400	94	2,300	1,400	4,194	3,900
	10/12/2000	100.91	19.52			81.39	510	100	2,700	1,200	4,510	3,800
	2/13/2001	100.91	19.40			81.51	760	90	1,300	570	2,720	7,300
	6/13/2001	100.91	19.18			81.73	520	80	1,800	700	3,100	6,800
	10/17/2001	100.91	19.20			81.71	630	140	2,300	2,180	5,250	16,000
	2/5/2002	100.91	19.55			81.36	460	30	1,500	362	2,352	25,000
	6/4/2002	100.91	NM			NM	NS	NS	NS	NS	NS	NS
	10/17/02 c	100.91	18.10			82.81	430	58	1,700	650	2,838	46,000
	2/14/2003	100.91	18.90			82.01	400	51	990	290	1,731	11,000
	6/30/2003	100.91	18.15			82.76	650	110	1,500	780	3,040	8,000
	10/17/2003	100.91	18.45			82.46	230	<100	330	230	790	6,100
	2/12/2004	100.91	18.43			82.48	350	42	490	310	1,192	1,900
	6/16/2004	100.91	18.65			82.26	330	64	180	553	1,127	1,200
	10/7/2004	100.91	18.23			82.68	330	65	230	335	960	790
	2/28/2005	100.91	18.59			82.32	170	31	39	116 154.1	356	200
	6/17/2005	100.91	18.10			82.81 82.82	170	25.4	5.82		355	131
	10/10/2005 2/20/2006	100.91 100.91	18.09 17.97			82.82 82.94	123 215	20.4 53.5	14 43.3	88.5	246 442	201 75.4
	5/8/2006	100.91	19.51			82.94 81.40	278	53.5 51.7	43.3 34.2	130 207	442 571	33.6
	8/30/2006	100.91	17.93			82.98	157	56.6	44.8	207	478	13
	12/29/2006	100.91	18.34			82.57	310	85	60	280	735	<10
	2/22/2007	100.91	18.69			82.22	390	91	43	311	835	<2
	5/12/2007	100.91	18.04			82.87	470	37	32	110	649	<10
	9/10/2007	100.91	16.84			84.07	340	73	37	252	702	<4
	12/21/2007	100.91	18.37			82.54	300	39	34	136.2	509.2	<5
	3/24/2008	100.91	18.28			82.63	89.5	8.0	9.6	24.8	131.9	<1.0
	06/30/08	100.91	17.06			83.85	342	51.0	44.9	124	561.9	3.5
	09/10/08	100.91	18.26			82.65	1,210	195	18.5	94.9	1,518.4	1.7
	12/17/08	100.91	16.91			84.00	808	39.8	73.9	90.0	1,012	32.3
	03/23/09	100.91	18.82			82.09	444	62.7	50.9	83.5	641.1	66.5
	06/04/09	100.91	18.46			82.45	228	66.4	56.5	103	453.9	95.2
	09/22/09	100.91	18.53			82.38	156	10.8	10.4	24.8	202.0	46.5
	12/29/09	100.91	18.17			82.74	387	52.4	81.7	148	669.1	206
	03/31/10	100.91	17.56			83.35	5.2	0.92 J	1.7	3.5	11.32 J	10.0
	06/22/10	100.91	18.31			82.60	165	20.5	24.6	40.9	251.0	176
	09/23/10	100.91	18.71			82.20	97.8	17.1	16.7	44.5	176.1	13.8
	12/16/10	100.91	18.73			82.18	422	68.6	76.6	115	682.2	54.8
	03/22/11	100.91	18.14			82.77	51.0	14.2	29.6	27.5	122.3	13.5
	06/27/11	100.91	18.36			82.55	147	31.1	36.3	72.6	287	15.4
	09/27/11	100.91	17.69			83.22	296	46.5	46.7	101	490.2	91.7
	12/20/11	100.91	18.02			82.89	227	63.2	46.1	119	455.3	5.3
	03/27/12	100.91	18.63			82.28	178	42.7	45.0	93.9	359.6	4.5
	06/27/12	100.91	18.29			82.62	99.2 207	17.3	20.2	36.9	173.6	0.89 J
	09/27/12	100.91	18.97			81.94	207	45.1	57.1	95.2	404.4	2.2 J
	12/20/12 03/25/13	100.91 100.91	18.54 18.38			82.37 82.53	21.1 1/9	4.4 33.9	3.2 49.9	7.2 81.6	35.9 314.4	ND 1.0
	03/25/13 06/24/13	100.91	18.01			82.53 82.90	149 148	33.9 23.0	49.9 0.31 J	81.6 82.0	253.31 J	1.0 2.5
	09/24/13	100.91	18.42			82.90	213	23.0 72.4	100	162	253.31 J 547.4	2.5 1.4
	12/18/13	100.91	18.50			82.49	282	47.9	34.2	123	487.1	0.84 J
	03/27/14	100.91	18.44			82.47	202 95.6	47.9	7.3	50.1	170.4	0.84 J ND
	06/17/14	100.91	17.77			83.14	101	18.3	7.2	36.8	163.3	ND
	09/30/14	100.91	18.53			82.38	119	24.2	21.5	48.0	212.7	0.61 J
	12/18/14	100.91	17.98			82.93	ND	ND	ND	40.0 ND	ND	ND
	03/18/15	35.38	18.02			17.36	166	27.9	19.7	43.8	257.4	ND
	06/18/15	35.38	18.08			17.30	164	47.6	36.2	64.6	312.4	ND
	09/24/15	35.38	19.61			15.77	168	48.8	74.1	106.0	396.9	1.4
	12/16/15	35.38	19.28			16.10	30.3	35.4	13.1	90.1	168.9	ND
	03/01/16	35.38	18.41			16.97	125	40.8	16.7	103	285.5	2.0
	06/10/16	35.38	18.77			16.61	119	29.7	15.4	72.6	236.7	ND
			19.95			-	-		4.7	-	-	

Well ID	Date	Gauge Point Elevation	Depth to Water	Depth to Product	Product Thickness	Relative GW Elevation	Benzene	Toluene	Ethylbenzene	Xylenes	BTEX	MTBE
(Screen Zone)	Date	(feet)	(fbg)	(fbg)	(feet)	(feet)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
MW-3 (9-24')	10/11/96 ac	100.02	14.36			85.66	491	9,490	3,770	17,100	30,851	2,870
	1/14/1997	100.02	14.20			85.82	99.9	6,780	3,650	16,500	27,030	965
	4/1/1997	100.02	14.38			85.64	87	5,390	4,060	15,500	25,037	1,370
	7/9/1997	100.02	14.19			85.83	94.3	5,180	4,860	17,500	27,634	295
	10/14/1997	100.02	14.10			85.92	<50	6,850	5,640	22,600	35,090	83
	01/6/98 b	100.02	14.33			85.69	89.8	4,970	5,570	24,000	34,629.8	<50
	4/8/1998 7/22/1998	100.02 100.02	14.49 14.26			85.53 85.76	26.1 19.9	2,940 2,330	6,180 5,130	20,240 19,910	29,386 27,390	402 <100
	10/16/1998	100.02	13.81			86.21	<25	1,600	4,200	16,120	21,920	1,190
	2/1/1999	100.02	13.86			86.16	<25	996	4,730	20,960	26,686	<25
	6/7/1999	100.02	13.61			86.41	<50	550	5,200	21,000	26,750	<100
	10/18/1999	100.02	13.61			86.41	7.3	970	6,100	25,000	32,077	21
	2/2/2000	100.02	13.46			86.56	6	930	6,400	24,000	31,336	14
	6/20/2000 9/8/2000	100.02 100.02	13.91 17.74			86.11 82.28	<5 <5	350 110	4,700 3,800	18,000 12,000	23,050 15,910	13 <10
	9/8/2000 10/12/2000	100.02	17.81			82.20	3.9	280	4,900	12,000	21,184	12
	2/13/2001	100.02	17.75			82.27	10	180	5,100	16,000	21,290	23
	6/13/2001	100.02	17.46			82.56	3	100	4,500	13,000	17,603	6
	10/17/2001	100.02	17.49			82.53	<50	<50	2,100	3,050	5,150	130
	2/5/2002	100.02	17.87			82.15	1.3	8.5	2,400	3,430	5,840	<1.0
	6/4/2002	100.02	17.80			82.22	<50	<50	2,700	9,550	12,250	510
	10/17/2002 2/14/2003	100.02 100.02	16.94 17.55			83.08 82.47	<50 <20	<50 <20	1,700 2,700	6,030 8,990	7,730 11,690	<50 31
	6/30/2003	100.02	16.75			83.27	<5	<5	250	420	670	<5
	10/17/2003	100.02	17.10			82.92	<1	<1	3.20	53.7	57	1.10
	2/12/2004	100.02	17.02			83.00	<2	3.2	1,600	5,290	6,893	7.8
	6/16/2004	100.02	17.35			82.67	<10	<10	960	1,066	2,026	<10
	10/7/2004	100.02	16.83			83.19	<1	<1	56	132	188	<1
	2/28/2005	100.02	17.25			82.77	<1	<1	270	119	389	3.2
	6/17/2005 10/10/2005	100.02 100.02	16.84 17.20			83.18 82.82	<5 <5	<5 <5	357 406	694 176	1,051 582	<5 <5
	2/20/2006	100.02	17.09			82.93	<5 <5	2.20 J	1,290	2,450	3,742	<5 <5
	5/8/2006	100.02	17.12			82.90	<5	<5	1,490	2,560	4,050	<5
	8/30/2006	100.02	16.62			83.40	<1	0.47 J	124	35	159	<1
	12/29/2006	100.02	16.94			83.08	<1	<1	130	31	161	<1
	2/22/2007	100.02	17.34			82.68	<1	<1	91	85	176	<1
	5/12/2007 9/10/2007	100.02 100.02	16.64 18.10			83.38 81.92	<1 <1	<1 <1	1.2 1.5	<3 <3	1.2 1.5	<1 <1
	12/21/2007	100.02	16.93			83.09	<2.5	<2.5	110	31	141	<2.5
	3/24/2008	100.02	16.83			83.19	<1	<1	5.9	5.7	11.5	<1.0
	06/30/08	100.02	16.91			83.11	829	534	182	1,060	2,605	105
	09/10/08	100.02	16.71			83.31	ND	0.64 J	107	88.0	195.64 J	ND
	12/17/08	100.02	16.86			83.16	0.26 J	0.88 J	130	137	268 J	ND
	03/23/09 06/04/09	100.02 100.02	17.46 17.18			82.56 82.84	ND ND	ND ND	229 36	25 2.9	253.7 39.1	ND ND
	09/22/09	100.02	17.16			82.86	ND	ND	4.8	2.9 5.0	9.8	ND
	12/29/09	100.02	16.77			83.25	ND	1.2	120	280	401.2	ND
	03/31/10	100.02	16.23			83.79	11.2	40.8	231	338	621.0	0.89 J
	06/22/10	100.02	16.95			83.07	ND	ND	22.7	54.4	77.1	ND
	09/23/10	100.02	17.83			82.19	ND	ND	ND	ND	ND	ND
	12/16/10 03/22/11	100.02	17.28			82.74	ND	7.1	442	848	1,297.1 2.16 J	ND
	06/27/11	100.02 100.02	16.85 17.12			83.17 82.90	ND ND	ND 0.48 J	1.3 32.4	0.86 J 13.9	2.16 J 46.78 J	ND ND
	09/27/11	100.02	16.39			83.63	ND	ND	ND	ND	ND	ND
	12/20/11	100.02	16.87			83.15	ND	ND	ND	ND	ND	ND
	03/27/12	100.02	17.36			82.66	ND	0.28 J	19.1	1.3	20.68 J	ND
	06/27/12	100.02	17.11			82.91	ND	0.65 J	16.3	6.4	23.35 J	ND
	09/27/12	100.02	17.17			82.85	0.45 J	2.6	35.3	22.2	60.55 J	ND
	12/20/12 03/25/13	100.02 100.02	17.26 17.09			82.76 82.93	ND ND	1.1 ND	28.4 ND	28.0 ND	57.5 ND	ND 0.21 J
	06/24/13	100.02	16.72			83.30	ND	ND	ND	ND	ND	ND
	09/24/13	100.02	17.20			82.82	ND	1.0	22.1	14.8	37.9	ND
	12/18/13	100.02	17.24			82.78	ND	2.9	42.3	49.2	94.4	ND
	03/27/14	100.02	17.20			82.82	ND	ND	2.9	1.7	4.6	ND
	06/17/14	100.02	16.51			83.51	ND	ND	ND	ND	ND	ND
	09/30/14	100.02	17.34			82.68	ND	ND	0.31 J	ND	0.31 J	ND
	12/18/14 03/18/15	100.02 34.84	16.72 17.16			83.30 17.68	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
	03/18/15	34.84 34.84	16.48			17.68	ND	ND	ND 2.4	ND	ND 2.4	ND
	09/24/15	34.84	18.18			16.66	ND	2.4	48.7	32.9	84.0	ND
	12/16/15	34.84	17.98			16.86	ND	4.2	164	136	304.2	ND
	03/01/16	34.84	17.12			17.72	ND	1.7	8.4	8.3	18.4	ND
	06/10/16	34.84	17.42			17.42	ND	ND	9.0	ND	9.0	ND
	09/19/16	34.84	18.54			16.30	ND	ND	ND	ND	ND	ND

Well ID	Date	Gauge Point Elevation	Depth to Water	Depth to Product	Product Thickness	Relative GW Elevation	Benzene	Toluene	Ethylbenzene	Xylenes	BTEX	МТВЕ
Screen Zone)		(feet)	(fbg)	(fbg)	(feet)	(feet)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
MW-4 (9-25')	10/11/96 a	100.62	14.38			86.24	<0.5	<0.5	<0.5	0.54	0.54	1.59
(,	1/14/1997	100.62	14.19			86.43	<0.5	10.3	8.02	37	55	0.52
	4/1/1997	100.62	14.53			86.09	<0.5	4.04	3.92	15.4	23.36	14.3
	7/9/1997	100.62	14.18			86.44	< 0.5	< 0.5	<0.5	< 0.5	ND	< 0.5
	10/14/1997 1/6/1998	100.62 100.62	14.05 14.31			86.57 86.31	<0.5 <0.5	<0.5 1.89	<0.5 2.61	<0.5 14.2	ND 19	<0.5 0.75
	4/8/1998	100.62	14.51			86.11	1.94	0.75	1.71	6.0	10	0.97
	7/22/1998	100.62	14.27			86.35	ND	ND	ND	ND	ND	ND
	10/16/1998	100.62	13.82			86.80	ND	ND	ND	ND	ND	7.8
	2/1/1999	100.62	13.87			86.75	ND	ND	ND	ND	ND	1.04
	6/7/1999 10/18/1999	100.62 100.62	13.57 13.62			87.05 87.00	ND ND	ND ND	ND 4.8	ND 19	ND 24	ND ND
	2/2/2000	100.62	13.44			87.18	ND	ND	ND	ND	ND	ND
	6/20/2000	100.62	13.92			86.70	ND	ND	1.1	4.3	5	ND
	9/8/2000	100.62	18.25			82.37	<0.5	<1	<1	<1	ND	<1
	10/12/2000	100.62	18.31			82.31	ND	2.8	3.8	11	18.0	4.7
	2/13/2001 6/13/2001	100.62 100.62	18.20 17.92			82.42 82.70	<0.5 <0.5	<1 <1	<1 <1	<1 <1	ND ND	<1 <1
	10/17/2001	100.62	17.92			82.63	<1	<1	<1	<1	ND	<1
	2/5/2002	100.62	18.41			82.21	<1	<1	<1	<2	ND	1.4
	6/4/2002	100.62	18.35			82.27	<1	<1	<1	<2	ND	7.2
	10/17/2002	100.62	17.43			83.19	<1	<1	<1	<2	ND	2.2
	2/14/2003 6/30/2003	100.62 100.62	18.10 17.27			82.52 83.35	<1 <1	<1 <1	<1 <1	<2 <2	ND ND	1.6 <1
	10/17/2003	100.62	17.70			82.92	<1	<1	<1	<2	ND	<1
	2/12/2004	100.62	17.56			83.06	<1	<1	<1	<2	ND	3.3
	06/16/04 c	100.62	17.86			82.76	4.4	1.6	<1	<2	6.0	62
	10/7/2004	100.62	17.37			83.25	<1	<1	<1	<2	ND	6.4
	2/28/2005 6/17/2005	100.62 100.62	17.82 17.30			82.80 83.32	<1 <1	<1 <1	<1 <1	<2 <2	ND ND	7.8 1.59
	10/10/2005	100.62	17.30			82.89	<1	<1	<1	<2	ND	<1
	2/20/2006	100.62	17.59			83.03	<1	<1	<1	<1	ND	0.77 J
	5/8/2006	100.62	17.66			82.96	<1	<1	<1	<1	ND	0.67
	8/30/2006	100.62	17.11			83.51	<1	<1	<1	<1	ND	<1
	12/29/2006	100.62 100.62	17.48 17.89			83.14 82.73	<1 -1	<1 <1	<1 <1	<3	ND ND	<1
	2/22/2007 5/12/2007	100.62	17.09			83.43	<1 <1	<1	<1	<3 <3	ND	<1 <1
	9/10/2007	100.62	NM			NM	NS	NS	NS	NS	NS	NS
	12/21/2007	100.62	17.51			83.11	<1	<1	<1	<3	ND	<1
	03/24/08	100.62	NM			NM	NS	NS	NS	NS	NS	NS
	06/30/08 b	100.62	16.90 NM			83.72 NM	<1.0 NS	0.52 J NS	47.9 NS	24.8 NS	73.22 J NS	ND NS
	09/10/08 12/17/08	100.62 100.62	17.36			83.26	ND	0.22 J	ND	ND	0.22 J	ND
	03/23/09	100.62	18.03			82.59	ND	ND	ND	ND	ND	ND
	06/04/09	100.62	17.70			82.92	ND	ND	ND	ND	ND	ND
	09/22/09	100.62	17.73			82.89	ND	ND	ND	ND	ND	ND
	12/29/09	100.62	17.26			83.36	ND	ND	ND	ND	ND	ND
	03/31/10 06/22/10	100.62 100.62	16.36 17.52			84.26 83.10	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
	09/23/10	100.62	17.87			82.75	ND	ND	ND	ND	ND	ND
	12/16/10	100.62	17.95			82.67	ND	ND	ND	ND	ND	ND
	03/22/11	100.62	17.38			83.24	ND	ND	ND	ND	ND	ND
	06/27/11	100.62	17.64			82.98	ND	ND	ND	ND	ND	ND
	09/27/11 12/20/11	100.62 100.62	16.92 17.17			83.70 83.45	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
	03/27/12	100.62	17.96			82.66	ND	ND	ND	ND	ND	ND
	06/27/12	100.62	17.61			83.01	ND	ND	ND	ND	ND	ND
	09/27/12	100.62	17.74			82.88	ND	ND	ND	ND	ND	ND
	12/20/12	100.62	17.82			82.80	ND	ND	ND	ND	ND	ND
	03/25/13 06/24/13	100.62 100.62	18.62 17.27			82.00 83.35	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
	09/24/13	100.62	17.78			82.84	ND	ND	ND	ND	ND	ND
	12/18/13	100.62	17.91			82.71	ND	ND	ND	ND	ND	ND
	03/27/14	100.62	17.89			82.73	ND	ND	ND	ND	ND	ND
	06/17/14	100.62	17.04			83.58	ND	ND	ND	ND	ND	ND
	09/30/14 12/18/14	100.62	17.85 17.30			82.77 83 32					ND ND	
	03/18/14	100.62 35.06	17.30 17.28			83.32 17.78	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
	06/18/15	35.06	17.20			17.66	ND	ND	ND	ND	ND	ND
	09/24/15	35.06	18.70			16.36	ND	ND	ND	ND	ND	ND
	12/16/15	35.06	18.60			16.46	ND	ND	ND	ND	ND	ND
	03/01/16	35.06	17.70			17.36	ND	ND ND	ND	ND	ND	ND
	06/10/16	35.06	17.99			17.07	ND		ND	ND	ND	ND

Well ID Screen Zone)	Date	Gauge Point Elevation (feet)	Depth to Water (fbg)	Depth to Product (fbg)	Product Thickness (feet)	Relative GW Elevation (feet)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	BTEX (ug/L)	MTB (ug/L
IW-5 (15-30')	09/8/00 abc	32.30	18.79			13.51	110	140	7,200	14,000	21,450	160
100-5 (15-50)	10/12/2000	32.30	NM			NM	NS	NS	NS	NS	NS	NS
	2/13/2001	32.30	18.78			13.52	27	38	1,000	670	1,735	120
	6/13/2001	32.30	18.50			13.80	<5	24	190	100	314	94
	10/17/2001	32.30	18.50			13.80	8	19	120	36	175	130
	2/5/2002	32.30	18.92			13.38	1.20	4.1	94	11.2	111	23
	06/04/02	32.30	WD			WD	WD	WD	WD	WD	WD	WD
IW-6 (11-26')	09/8/00 ab	99.50	17.46			82.04	29	740	460	3,900	5,129	2,20
- (-)	10/12/2000	99.50	NM			NM	NS	NS	NS	NS	NS	ŃS
	2/13/2001	99.50	17.50			82.00	27	160	470	1,400	2,057	410
	6/13/2001	99.50	17.20			82.30	<5	38	140	180	358	790
	10/17/2001	99.50	17.25			82.25	12	23	78	62	163	270
	2/5/2002	99.50	17.60			81.90	44	270	1,300	2,330	3,944	2,00
	6/4/2002	99.50	17.51			81.99	<2	8	36	45	89	280
	10/17/02 c	99.50	16.71			82.79	140	61	<20	179	380	2,50
	2/14/2003	99.50	17.30			82.20	47	290	620	1,410	2,367	1,00
	6/30/2003	99.50	16.73			82.77	72	120	490	820	1,502	320
	10/17/2003	99.50	16.78			82.72	94	170	890	1,300	2,454	330
	2/12/2004	99.50	16.95			82.55	50	39	250	275	614	69
	6/16/2004	99.50	17.20			82.30	75	50	590	101	816	21
	10/7/2004	99.50	16.77			82.73	67	75	340	167	649	45
	2/28/2005	99.50	17.12			82.38	30	14	130	24	198	22
	6/17/2005	99.50	16.62			82.88	30.1	10.3	125.0	22.7	188.0	18.
	10/10/2005	99.50	17.11			82.39	5.1	6.46	40.1	32.45	84	3.9
	2/20/2006	99.50	NM			NM	NS	NS	NS	NS	NS	NS
	5/8/2006	99.50	16.97			82.53	7.4	6.3	39.8	21	75	<1
	8/30/2006	99.50	16.56			82.94	8.5	17.2	114	128	268	<1
	12/29/2006	99.50	16.87			82.63	16	17	120	63.6	217	<1
	2/22/2007	99.50	17.24			82.26	13	11	76	19.7	119.7	<1
	5/12/2007	99.50	16.62			82.88	33	64	310	248	655	<5
	9/10/2007	99.50	16.73			82.77	8.3	9.4	46	17.3	81	<1
	12/21/2007	99.50	16.94			82.56	6.1	9.4	42	13.6	71.1	<1
	3/24/2008	99.50	16.70			82.80	<1	1.5	9.4	18	28.9	<1.
	06/30/08	99.50	16.75			82.75	6.1	19.1	57.3	30.6	113.1	NE
	09/10/08	99.50	16.65			82.85	5.5	19.5	152	99.6	276.6	NE
	12/29/09	99.50	16.79			82.71	5.5	19.8	92.2	62.4	179.9	NE
	03/23/09	99.50	17.28			82.22	3.0	12.2	5.9	24.0	45.1	NE
	06/04/09	99.50	17.00			82.50	2.3	11.9	6.5	13.9	34.6	NE
	09/22/09	99.50	17.04			82.46	2.5	22.1	10.9	93.6	129.1	N
	12/29/09	99.50	16.72			82.78	2.2	28.5	224	118	372.7	1.0
	03/31/10	99.50	16.00			83.50	ND	ND	45.8	151	196.8	N
	06/22/10	99.50	16.84			82.66	1.3	14.6	33.6	178	227.5	N
	09/23/10	99.50	17.13			82.37	1.4	17.5	18.3	151	188.2	N
	12/16/10	99.50	17.22			82.28	ND	3.1	7.3	27.9	38.3	N
	03/22/11	99.50	16.76			82.74	1.9	19.8	116	150	287.7	N
	06/27/11	99.50	16.89			82.61	0.74 J	10.5	15.1	65.5	91.84 J	N
	09/27/11	99.50	16.33			83.17	5.9	16.2	110	202	334.1	N
	12/20/11	99.50	16.52			82.98	ND	4.8	5.2	32.4	42.4	N
	03/27/12	99.50	17.14			82.36	0.44 J	4.3	1.1	12.4	18.24 J	N
	06/27/12	99.50	16.83			82.67	ND	0.51 J	6.5	6.4	13.41 J	N
	09/27/12	99.50	16.95			82.55	0.38 J	9.3	29.6	54.9	94.18 J	N
	12/20/12	99.50	17.06			82.44	ND	1.3	1.6	5.7	8.6	N
	03/25/13	99.50	16.90			82.60	0.32 J	6.9	12.0	12.4	31.62 J	NE
	06/24/13	99.50	16.61			82.89	1.5	13.8	135	144	294.3	N
	09/24/13	99.50	16.96			82.54	0.38 J	6.9	16.8	43.8	67.88 J	N
	12/18/13	99.50	17.03			82.47	0.32 J	4.4	7.9	31.0	43.62 J	N
	03/27/14	99.50	17.02			82.48	0.23 J	0.53 J	2.7	0.48 J	4.94 J	N
	06/17/14	99.50	16.42			83.08	3.0	7.6	49.4	101	161.0	N
	09/30/14	99.50 99.50	17.02			82.48	0.34 J	0.93 J	1.1	3.4	5.77 J	N
	12/18/14	99.50 99.50	16.53			82.48 82.97	0.34 J ND	0.93 J ND	ND	ND	ND	N
	03/18/15	99.50 33.96	16.62			17.34	ND	ND	ND	ND	ND	N
	03/18/15 06/18/15		16.62					ND ND	ND	ND ND	ND ND	
		33.96 33.96				17.28 15.88						N
	09/24/15	33.96	18.08			15.88		1.4	1.5	5.4	8.3	N
	12/16/15	33.96	17.74			16.22	ND	21.0	5.1	22.3	48.4	N
	03/01/16 06/10/16	33.96 33.96	17.00 17.23			16.96 16.73	ND ND	1.8 1.3	11.0 4.2	12.3 3.4	25.1 8.9	NE NE
	09/19/16	33.96	17.23			16.56	ND	ND	ND	ND	ND	N
W-7 (10-25')	06/22/10 ab	101.19	18.48			82.71	0.24 J	0.35 J	21.7	17.2	39.49 J	6.
	09/23/10 c	101.19	18.80			82.39	ND	ND	2.8	1.4	4.2	18
	12/16/10	101.19	18.89			82.30	ND	4.0	418	891	1,313.0	0.99
	03/22/11	101.19	18.29			82.90	ND	ND	6.6	7.6	14.2	N
	06/27/11	101.19	18.50			82.69	ND	ND	0.49 J	ND	0.49 J	N
	09/27/11	101.19	17.84			83.35	ND	4.7	460	967	1,431.7	N
	12/20/11	101.19	18.09			83.10	ND	0.86 J	1.9	12.4	15.16 J	N

Well ID (Screen Zone)	Date	Gauge Point Elevation (feet)	Depth to Water (fbg)	Depth to Product (fbg)	Product Thickness (feet)	Relative GW Elevation (feet)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	BTEX (ug/L)	MTBE (ug/L)
		(1001)	(159)	(159)	(1001)	(1001)						
MW-7 (10-25')	03/27/12	101.19	18.80			82.39	ND	ND	7.2	1.1	8.3	ND
· · /	06/27/12	101.19	18.38			82.81	NS	NS	NS	NS	NS	NS
	09/27/12	101.19	18.68			82.51	ND	0.51 J	190	35.1	225.61 J	ND
	12/20/12	101.19	18.70			82.49	ND	0.39 J	98.3	11.1	109.79 J	ND
	03/25/13	101.19	18.54			82.65	ND	ND	15.2	3.3	18.5	ND
	06/24/13	101.19	18.17			83.02	ND	0.68 J	150	175	325.68 J	ND
	09/24/13	101.19	18.82			82.37	ND	1.4	242	269	512.4	ND
	12/18/13	101.19	18.67			82.52	ND	0.53 J	60.0	26.7	87.23 J	ND
	03/27/14	101.19	18.63			82.56	ND	ND	6.4	1.8	8.2	ND
	06/17/14	101.19	17.93			83.26	ND	ND	0.36 J	0.61 J	0.97 J	ND
	09/30/14	101.19	NA			NA	NA	NA	NA	NA	NA	NA
	12/18/14	101.19	18.17			83.02	ND	ND	ND	ND	ND	ND
	03/18/15	35.53	18.17			17.36	ND	ND	ND	ND	ND	ND
	06/18/15	35.53	18.27			17.26	ND	ND	ND	ND	ND	ND
	09/24/15	35.53	19.69			15.84	ND	ND	ND	ND	ND	ND
	12/16/15	35.53	NM			NM	NS	NS	NS	NS	NS	NS
	03/01/16	35.53	18.58			16.95	ND	ND	13.0	6.1	19.1	ND
	06/10/16	35.53	18.91			16.62	ND	ND	ND	ND	ND	ND
	09/19/16	35.53	19.49			16.04	ND	ND	10.3	ND	10.3	ND
MW-8 (13-28')	06/22/10 a	102.62	20.08			82.54	29.5	22.7	2,630	1,700	4,382.2	18.7
	09/23/10 bc	102.62	20.00			82.34	29.5	10.5 J	2,950	1,500	4,382.2 4,480.6 J	19.2 J
			20.32			82.15	21.4	14.7 J	2,250			
	12/16/10 03/22/11	102.62 102.62	20.47 20.89			82.15	21.4 8.7 J	14.7 J 10.4	2,250 1,430	863 600	3,149.1 J	25.9
											2,049.1 J	6.4 J
	06/27/11	102.62	20.08			82.54	10.8	11.2	1,980	484	2,486	4.0 J
	09/27/11	102.62	19.43			83.19	3.0	5.4	741	240	989.4	ND
	12/20/11	102.62	19.69			82.93	ND	4.8 J	1,010	151	1,165.8 J	ND
	03/27/12	102.62	20.31			82.31	10.2	8.5 J	1,160	149	1,327.7 J	3.4 J
	06/27/12	102.62	20.07			82.55	7.6 J	8.6 J	1,060	107	1,183.2 J	3.7 J
	09/27/12	102.62	20.23			82.39	2.4	5.3	848	74.1	929.8	1.1
	12/20/12	102.62	20.25			82.37	4.1	6.2 J	588	72.3	670.6 J	ND
	03/25/13	102.62	20.09			82.53	8.5	8.7	323	78.7	418.9	1.1
	06/24/13	102.62	19.78			82.84	3.8	5.1	134	35.8	178.7	ND
	09/24/13	102.62	20.16			82.46	7.9	9.9	183	53.9	254.7	0.99 J
	12/18/13	102.62	20.21			82.41	5.3	6.8	97.7	35.4	145.2	0.53 J
	03/27/14		20.21			82.41	1.6					ND
		102.62						1.8	17.6	10.9	31.9	
	06/17/14	102.62	19.54			83.08	7.1	8.1	63.9	35.0	114.1	1.0
	09/30/14	102.62	20.30			82.32	1.2	2.4	37.3	11.6	52.5	0.29 J
	12/18/14	102.62	19.73			82.89	5.0	7.1	76.5	28.2	116.8	ND
	03/18/15	37.04	19.73			17.31	1.3	ND	1.1	ND	2.4	ND
	06/18/15	37.04	19.85			17.19	1.5	3.5	27.8	10.0	42.8	ND
	09/24/15	37.04	21.26			15.78	ND	4.9	54.9	6.3	66.1	ND
	12/16/15	37.04	20.98			16.06	ND	6.4	35.1	7.1	48.6	ND
	03/01/16	37.04	20.09			16.95	3.0	13.0	46.4	14.5	76.9	ND
	06/10/16	37.04	20.40			16.64	2.2	13.2	34.9	12.3	62.6	ND
	09/19/16	37.04	27.00			10.04	ND	7.5	11.3	ND	18.8	ND
MW-9 (11-26')	06/22/10 ac	100.55	17.72			82.83	<5.9	392	3,960	6,000	10,352	ND
/	09/23/10 b	100.55	19.02			81.53	<6.7	289	4,820	7,940	13,049	ND
	12/16/10	100.55	18.09			82.46	<5.3	265	4,410	8,120	12,795	ND
	03/22/11	100.55	17.55			83.00	ND	246	2,700	4,110	7,056	ND
	06/27/11	100.55	17.88			82.67	ND	170	3,790	5,050	9,010	ND
	09/27/11	100.55	17.08			82.67 83.47	ND	90.7	3,790 1,860	5,050 1,950	3,900.7	ND
	12/20/11	100.55	17.33			83.22	ND	132	2,860	3,540	6,532	
	03/27/12	100.55	18.08			82.47	ND	146	3,280	5,480	8,906	ND
	06/27/12	100.55	17.74			82.81	ND	193	3,120	4,840	8,153	ND
	09/27/12	100.55	17.86			82.69	ND	222	3,420	4,870	8,512	ND
	12/20/12	100.55	17.99			82.56	ND	144	3,000	5,430	8,574	ND
	03/25/13	100.55	17.79			82.76	ND	183	3,270	5,490	8,943	ND
	06/24/13	100.55	17.45			83.10	ND	130	2,460	3,840	6,430	ND
	09/24/13	100.55	17.91			82.64	ND	140	3,600	5,930	9,670	ND
	12/18/13	100.55	17.96			82.59	ND	175	2,940	4,940	8,055	ND
	03/27/14	100.55	17.91			82.64	ND	269	3,020	4,600	7,889	ND
	06/17/14	100.55	17.21			83.34	ND	177	2,250	3,050	5,477	ND
	09/30/14	100.55	17.94			82.61	ND	110	2,720	4,370	7,200	ND
	12/18/14	100.55	17.94			82.53	ND	121	2,720	4,370 4,240	7,200	ND
	03/18/15	34.95	17.72			17.23	ND	ND 100	11.5	4.5	16.0	ND
	06/18/15	34.95	17.54			17.41	ND	126	2,690	4,110	6,926	ND
	09/24/15	34.95	18.96			15.99	ND	57	3,090	5,530	8,677	ND
	12/16/15	34.95	18.72			16.23	ND	39.4	2,600	4,180	6,819.4	ND
	03/01/16	34.95	17.86			17.09	ND	50.8	2,480	4,060	6,590.8	ND
	06/10/16	34.95	18.13			16.82	ND	61.1	2,870	5,060	7,991.1	ND
	09/19/16	34.95	18.75			16.20	ND	61.6	2,410	4,030	6,501.6	ND
MW-10 (SMP)	06/22/10 abc	NSD	4.70			NSD NSD	ND 1.7	20.7	472 10.9	198	690.7	ND

Well ID (Screen Zone)	Date	Gauge Point Elevation (feet)	Depth to Water (fbg)	Depth to Product (fbg)	Product Thickness (feet)	Relative GW Elevation (feet)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	BTEX (ug/L)	MTBE (ug/L)
MW-10 (SMP)	12/16/10	NSD	4.52			NSD	4.8	52.2	382	365	804.0	ND
- (-)	03/22/11	NSD	4.56			NSD	5.9	63.5	464	941	1,474.4	ND
	06/27/11	NSD	4.73			NSD	7.6	46.8	370	782	1,206.4	ND
	09/27/11	NSD	4.07			NSD	6.8	53.8	390	602	1,052.6	ND
	12/20/11	NSD	4.37			NSD	1.4	13.0	159	192	365.4	ND
	03/27/12	NSD	4.98			NSD	1.5	12.5	120	120	254.0	0.22 J
	06/27/12	NSD	4.60			NSD	2.6	20.2	103	101	226.8	ND
	09/27/12	NSD	4.82			NSD	0.85 J	6.8	19.6	22.3	49.55 J	ND
	12/20/12	NSD	4.91			NSD	4.4	29.7	230	243	507.1	ND
	03/25/13	NSD	4.17			NSD	ND	1.6	5.4	5.4	12.4	ND
	06/24/13	NSD	4.54			NSD	2.0	12.9	111	86.1	212.0	ND
	09/24/13	NSD	4.92			NSD	0.93 J	14.1	164	98.2	277.23 J	ND
	12/18/13	NSD	4.97			NSD	0.84 J	10	94.4	65.6	170.84 J	ND
	03/27/14	NSD	4.99			NSD	0.39 J	4.6	34.4	18.9	58.29 J	ND
	06/17/14	NSD	4.29			NSD	1.5	12.4	130	101	244.9	ND
	09/30/14	NSD	5.15			NSD	0.20 J	0.28 J	0.37 J	0.75 J	1.60 J	ND
	12/18/14	NSD	4.54			NSD	ND	3.1	18.1	10.8	32.0	ND
	03/18/15	NSD	4.55			NSD	1.4	8.7	66.0	41.3	117.4	ND
CW-3	9/24/2013 abc	NSD	18.07			NSD	9.0	5.8	762	2,290	3,066.8	0.64 J
	12/18/13	NSD	18.06			NSD	4.3	0.86 J	481	22.1	508.26 J	ND
	03/27/14	NSD	18.04			NSD	2.5	0.99 J	128	2.6	134.09 J	ND
	06/17/14	NSD	17.36			NSD	ND	ND	1.7	0.36 J	2.06 J	ND
	09/30/14	NSD	18.14			NSD	1.3	0.31 J	191	1.2	193.81 J	ND
	12/18/14	NSD	17.56			NSD	ND	ND	15.1	ND	15.1	ND
	03/18/15	35.23	17.54			17.69	ND	ND	1.8	ND	1.8	ND
	06/18/15	35.23	17.68			17.55	ND	ND	2.1	ND	2.1	ND
	09/24/15	35.23	19.07			16.16	1.2	ND	17.7	ND	18.9	ND
	12/16/15	35.23	18.86			16.37	1.1	ND	ND	ND	1.1	ND
	03/01/16	35.23	17.99			17.24	ND	ND	ND	ND	ND	ND
	06/10/16	35.23	18.37			16.86	ND	ND	ND	ND	ND	ND
	09/19/16	35.23	18.83			16.40	1.1	ND	ND	ND	1.1	ND

Notes

a - Initial Sampling Event b - Highest BTEX Concentration Sampling Event c - Highest MTBE Concentration Sampling Event NM - Not Measured

ND - Not Detected D - Dry WD - Well Destroyed

J - Estimated Value

NS - Not Sampled NSP - Not Sampled due to Product

NSD - No Survey Data

Site re-surveyed on December 16, 2010

Table 2 Summary of Soil Sample Results for Monitoring Wells (MW-7, 8, and 9) Speedway Station #7830 39-04 Northern Boulevard Long Island City, NY

Compound	MW-7	MW-7	MW-8	MW-8	MW-9	MW-9	NYSDEC TAGM #4046
Compound	(15-20')	(20-25')	(20-25')	(25-30')	(15-19')	(19-21')	Soil Cleanup Objective
Benzene	ND	ND	ND	<230	ND	<220	60
n-Butylbenzene	ND	2,010	ND	18,200	ND	11,800	10,000
sec-Butylbenzene	ND	877	ND	6,400	ND	4,660	10,000
tert-Butylbenzene	ND	ND	ND	ND	ND	ND	10,000
Ethylbenzene	ND	446	ND	83,500	ND	82,300	5,500
Isopropylbenzene	ND	400	ND	15,100	ND	14,500	2300
p-Isopropyltoluene	ND	280 J	ND	3,670	ND	2640 J	10,000
Methyl Tertiary-Butyl Ether	ND	ND	ND	ND	ND	ND	120
Naphthalene	ND	2,290	ND	36,200	ND	30,300	13,000
n-Propylbenzene	ND	2,590	ND	64,200	ND	53,100	3,700
Toluene	ND	ND	ND	ND	0.92 J	667	1,500
1,2,4-Trimethylbenzene	ND	11,300	ND	152,000	1.8 J	308,000	10,000
1,3,5-Trimethylbenzene	ND	2,170	ND	5,240	3.0 J	16,600	3,300
m,p-Xylene	ND	1,690	ND	55,700	1.7 J	195,000	1,200
o-Xylene	ND	538	ND	903	0.84 J	35,700	1,200
Xylene (total)	ND	2,230	ND	56,600	2.5 J	231,000	1,200
Acenaphthene	ND	26.8 J	ND	48.4	ND	ND	50,000
Anthracene	ND	ND	ND	24.4 J	15.8 J	ND	50,000
Benzo(a)anthracene	ND	ND	ND	24.3 J	52.7	17.2 J	224
Benzo(a)pyrene	ND	ND	ND	ND	70.5	ND	61
Benzo(b)flouranthene	ND	ND	16.1 J	ND	96.7	ND	1,100
Benzo(g,h,i)perylene	ND	ND	ND	ND	83.5	ND	50,000
Benzo(k)flouranthene	ND	ND	12.8 J	ND	58.4	ND	1,100
Chrysene	ND	ND	ND	35.9	72.0	27.5 J	400
Dibenzo(a,h)anthracene	ND	ND	ND	ND	36.0	ND	14
Fluoranthene	ND	28.7 J	23.4 J	62.3	99.8	37.3	50,000
Fluorene	ND	54.5	ND	102	ND	61.1	50,000
Indeno(1,2,3-cd)pyrene	ND	ND	ND	ND	73.6	ND	3,200
Naphthalene	ND	169	ND	15,000	80.9	8,050	13,000
Phenanthrene	ND	48.2	ND	129	42.9	70.4	50,000
Pyrene	ND	26.3 J	21.3 J	53.9	63.1	41.1	50,000

Notes:

Samples collected on April 6-7, 2010.

EPA Analytical Method 8260 plus MTBE, and 8270 (STARS Compounds Only)

Concentration units - ug/Kg (micrograms per kilogram)

ND - Compound not detected above the method detection limit

J - Estimated Value

NM- Not Measured

Table 3Summary of Soil Sample Results for Soil Borings (B-4 and B-5)Speedway Station #783039-04 Northern BoulevardLong Island City, NY

Compound	B-4 (11-13')	B-5 (AS-1) (15-17')	B-5 (AS-1) (19-21')	NYSDEC TAGM #4046 Soil Cleanup Objective
Benzene	ND	(13-17) ND	ND	60
n-Butylbenzene	ND	ND	222 J	10.000
sec-Butylbenzene	ND	ND	186 J	10,000
tert-Butylbenzene	ND	ND	ND	10,000
Ethylbenzene	ND	ND	ND	5,500
Isopropylbenzene	ND	ND	51.7 J	2300
p-Isopropyltoluene	ND	ND	99.6 J	10,000
Methyl Tertiary-Butyl Ether	ND	ND	ND	120
Naphthalene	ND	ND	ND	13,000
n-Propylbenzene	ND	ND	449	3,700
Toluene	ND	ND	ND	1,500
1,2,4-Trimethylbenzene	ND	ND	523	10,000
1,3,5-Trimethylbenzene	ND	ND	ND	3,300
m,p-Xylene	ND	ND	ND	1,200
o-Xylene	ND	ND	ND	1,200
Xylene (total)	ND	ND	ND	1,200
Acenaphthene	32.9	ND	ND	50,000
Anthracene	82.6	ND	51.2	50,000
Benzo(a)anthracene	228	25.8 J	33.1	224
Benzo(a)pyrene	251	ND	15.8 J	61
Benzo(b)flouranthene	263	24.7 J	14.7 J	1,100
Benzo(g,h,i)perylene	156	ND	ND	50,000
Benzo(k)flouranthene	142	ND	12.3 J	1,100
Chrysene	225	33.5	38.1	400
Dibenzo(a,h)anthracene	60.5	ND	ND	14
Fluoranthene	495	88.0	305	50,000
Fluorene	29.2	ND	19.5 J	50,000
Indeno(1,2,3-cd)pyrene	145	ND	ND	3,200
Naphthalene	67.6	ND	ND	13,000
Phenanthrene	211	37.7	112	50,000
Pyrene	307	54.9	223	50,000

Notes:

Samples collected on April 5, 2010.

EPA Analytical Method 8260 plus MTBE, and 8270 (STARS Compounds Only)

Concentration units - ug/Kg (micrograms per kilogram)

ND - Compound not detected above the method detection limit

J - Estimated Value

Table 4Summary of VOCs and SVOCs for Soil Analytical Data of CW-3Speedway Station #783039-04 Northern BoulevardLong Island City, New York

	CW-3	CW-3	CW-3	NYSDEC Soil Cleanup
Compound	(20-22')	(30-32')	(35-37')	Objective (CP-51)
Benzene	0.73 J	0.57 J	0.49 J	60
n-Butylbenzene	43.3	8.1	7.1	12,000
sec-Butylbenzene	32.3	13.3	3.9 J	11,000
tert-Butylbenzene	ND	ND	ND	5,900
Ethylbenzene	4.9	8.3	1.4	1,000
Isopropylbenzene	93.3	13.0	2.2 J	2,300
p-Isopropyltoluene	15.5	7.8	2.4 J	10,000
MTBE	ND	ND	ND	930
Naphthalene	2.8 J	ND	ND	12,000
n-Propylbenzene	2,910	13.0	7.3	3,900
Toluene	1.9	0.75 J	0.96 J	700
1,2,4-Trimethylbenzene	6,450	8.5	6.5	3,600
1,3,5-Trimethylbenzene	41.2 J	53.5	9.5	8,400
m,p-Xylene	5.8	16.7	1.7	*
o-Xylene	1.5	22.8	1.3	*
Total Xylenes	7.4	39.5	3.0	260
Acenaphthene	71.1	ND	ND	20,000
Anthracene	206	ND	ND	100,000
Benzo(a)anthracene	617	ND	ND	1,000
Benzo(a)pyrene	626	ND	ND	1,000
Benzo(b)fluoranthene	710	ND	ND	1,000
Benzo(g,h,i)perylene	388	ND	ND	100,000
Benzo(k)fluoranthene	300	ND	ND	800
Chrysene	653	ND	ND	1000
Dibenzo(a,h)anthracene	97.4	ND	ND	330
Fluoranthene	1,560	ND	ND	100,000
Fluorene	65.9	ND	ND	30,000
Indeno(1,2,3-cd)pyrene	419	ND	ND	500
Naphthalene	28.4 J	ND	ND	12,000
Phenanthrene	822	ND	ND	100,000
Pyrene	1,100	ND	ND	100,000

Notes:

1. Samples collected on August 13, 2013

2. Concentration units = ug/kg (micrograms per kilogram)

3. * = No Cleanup Objective exists

4. Laboratory analysis via EPA Method 8260 & 8270 (STARS Lists)

5. J = Estimated Value

6. ND = Not Detected

Appendix B – Geologic Logs & Well Construction Details

EnviroTrac Ltd. S Old Dock Road, Yaphank, NY, 11980 Air-Sparge Well AS-2 Client: Depth to Water (ft. from measuring pt.) Besk 32525 39-04 Northern Boulevard, Long Island City, NY Date DTW Verse 32525 39-04 Northern Boulevard, Long Island City, NY NM NM Measuring Drilling Company: Method: AARCO Environmental Hollow Stem Auger Measuring Date Started: Date Completed: 8/13/2013 8/13/2013 Measuring	Ge	olog	ic Lo	g & V	Vell	Constru	uction	n Deta	nils			
Air-Sparge Well AS-2 (It from measuring p.) Site Elem Here a 32255 Site Atome measuring p.) Site Elem Method Output to Water in measuring p.) Site Elem Method Output to Water in measuring p.) Method		5	•									
Clerct Hess Carponation Address: Hess 2325 3			5 0				1980					
Address: Address: Date DTV NM NM NM NM Difling Company: Method: Method: ARCO: Environmental Date Completed: Method: Date Stand: Date Completed: Method: Scanding: ENVIROTRAC Oversight: Method: Victor Cartoxa ENVIROTRAC Oversight: Method: Scanding: ENVIROTRAC Oversight: Method: Victor Cartoxa Biow Soll DESCRIPTION (NTS) DEPTH Recovery Biow (NTS) Diff. NM NM B MA 0 6 NA NM Diff. 10 1 NA 0 15 0.5 NA 0 15:12 16:0 15 0.5 NA 12:12 Dark brown ligrand SAND, with cobbles with fill material: 10:12 16:0 0 15:12 10:12 17 0.5 NA 0 15:12 18:0 0 15:12 10:12 19:0 0.5 NA 14:12 10 1 NA 14:12 10 1 NA 14:12	lient:				sparg	e wen AS-2	Depth	to Water	Site Elevation Datum			
Best #3225 320-04 Northern Boulevard, Long Island City, NY NM MM ARGO Environmental Holice Stem Auger Method Method Method Samuel Standad Date Completion Depth: ENVIROTRAC Oversight: Method Method Samuel Standad Date Completion Depth: ENVIROTRAC Oversight: Method Method Samuel Standad Date Completion Depth: ENVIROTRAC Oversight: SOLL DESCRIPTION BORING CONSTRUCTION Method Soll DESCRIPTION Soll DESCRIPTION (NTS) grade) Recovery Biow OV/M BORING CONSTRUCTION 0 6 NA NM Date Completion Depth: 10 1 NA 0 Date Completion Depth SOLL DESCRIPTION 0 6 NA NM Date Completion Depth Soll DESCRIPTION 0 1 NA 0 Date Completion Depth Soll DESCRIPTION 0 1 NA 0 Date Completion Depth Soll DESCRIPTION 0 1 1 NA 0 Date Completion Depth 10 1 NA 0 Date Completion Depth Date Completion Depth 20 2 NA 2.002 Date Completion			Adross						NM			
AAGCO_Environmental Hollow Stem Auger Measuring Jale Standel Date Completion Marking Standard Measuring Strandel Date Completion ENVIRONTRAC Oversight: Measuring Strandel ENVIRONTRAC Oversight: Vidor Cardoza SOIL DESCRIPTION BORING CONSTRUCTION Defe Completion SOIL DESCRIPTION SOIL DESCRIPTION BORING CONSTRUCTION 0 6 NA NM <u>A.E.</u> Hand cleared through asphalt and concrete. - 5 - - - 1 NA 0 10/12 Dark from sity to fine grained SAND, with small gravel and o dry, no odor - 15 0.5 NA 0 15/17 Dark from sity to fine grained SAND, with amail gravel and o dry, no odor - 20 2 NA 2.000 20/22 Dark from sity to fine grained SAND, with small gravel and o dry, no odor - - - 0.5 NA 0 15/17 Dark from to gray medium to coarse grained SAND, with small gravel and o dry, no odor - - - - - 20 20/22 Dark from to gray medium to fine grained SA												
Date Stand: Date Completed: 2010 3 24/32013 2011 3 24/32013 2011 0 Epth: ENVIROT RAC Oversight: Victor Cardicaa South RES 2011 0 Epth: 0 2011 0 Epth: <td>rilling Company:</td> <td></td> <td></td> <td></td> <td></td> <td><u> </u></td> <td></td> <td></td> <td></td>	rilling Company:					<u> </u>						
Size 2013 Britage 1 Size Completion Depth: ENVERTRACE Oversight: Victor Cardoza Name Less BORING CONSTRUCTION (NTS) (It below grade) Recovery Blow per (It,) OVM Solid Less of the per (It below grade) Solid DESCRIPTION BORING CONSTRUCTION (NTS) 0 6 NA NM Cgt Hand cleared through asphalt and concrete. BORING CONSTRUCTION (NTS) 0 6 NA NM Cgt Hand cleared through asphalt and concrete. - 10 1 NA 0 10-12 Dark foron silly to fine grained SAND, with cobbles, with fill material; Brow medium to fine grained SAND, with cobbles - 10 1 NA 0 15-17 Brow medium to fine grained SAND, with cobbles - 20 2 NA 2.00 2222 Dark foron to gray medium to clearse grained SAND, with small gravel and cobbles, wet, petroleum-like odor - - - - - - - - 0.5 NA 1.416 35.37 Dark foron to gray medium to clearse grained SAND, with cobble - - - - - - - - - -									Measuring Point Elevation			
Completion Depth: Str ENVINCOTRAC Oversight: Vetor Cardoza Solut DESCRIPTION BORING CONSTRUCTION (INTS) DEFTH (INTS) Recovery grade) Blow (INTS) Solut DESCRIPTION B-17AS 0 6 NA NM C.S. Encovery Solut DESCRIPTION - 10 1 NA 0 10-12 Dark torown sity to fine grained SAND, with small gravel and chy, no odor - - 0.5 NA 0 15-17 Brown medium to fine grained SAND, with small gravel and coobles, wet, petroleum-like odor - - 0.5 NA 1,416 32-32 Dark torown to gray medium to coarse grained SAND, with small gravel and coobles, wet, petroleum-like odor <				ted:								
BORING CONSTRUCTION (NTS) DEPTH (t) SAMPLES BIOW (t) BIOW 6 in. (ppm) SOL DESCRIPTION B-1/AS 0 6 NA NM D-1/AS 0 1 NA 0 D-1/AS 0.5 NA 0 10.12 D-1/AS 0.5 NA 0 10.12 D-2 2 NA 2.000 2022 D-2 2 NA 2.001 2022 D-3 0.5 NA 1.416 20.32 D-3 0.5 NA 1.418 20.32 D-3 0.5 NA 1.418 20.32 D-4 3 NA 543 2.32			ENVIROTRA						NM			
BORING CONSTRUCTION (NTS) (ft below grade) Recovery (ft) Biow oper (ft) OV/M (ppm) SOL DESCRIPTION B-1/AS 0 6 NA NM <u>6</u> : Hand cleared through asphalt and concrete. B-1/AS 0 6 NA NM <u>6</u> : Hand cleared through asphalt and concrete. B-1/AS 0 1 NA 0 <u>11:12</u> Dark brown silty to line grained SAND, with cobbles, with fill material; dy, no odor -15 0.5 NA 0 <u>15:17</u> Brown medium to fine grained SAND, with cobbles dy, no odor -20 2 NA 2.000 <u>20:22</u> Dark brown to gray medium to fine grained SAND, with small g and cobbles, wet, petroleum-like odor -30 0.5 NA 1.416 <u>30:327</u> Dark brown to gray medium to coarse grained SAND, with small g and cobbles, wet, petroleum-like odor -35 0.5 NA 1.481 <u>35:37</u> Dark brown to gray medium to fine grained SAND, with cobble wet, petroleum-like odor -40 -3 NA 543 <u>42:72</u> Dark brown to gray medium to fine grained SAND, with cobble wet, petroleum-like odor -50 -6 NA 1.481 <u>50:577</u> Dark brown to gray, fine to silty SAND, wet, petroleum-like odor -55 -2 NA<	2'	DEPTH	Victor Cardoz									
B-17 AS 0 6 NA NM 0.5 B-17 AS 0 6 NA NM 0.5 Hand cleared through asphalt and concrete. B-10 Brown fine grained SAND, with cobbles, with fill material; 10 1 NA 0 10:12 Dark brown sity to fine grained SAND, with cobbles dy, no odor 20 2 NA 2.000 20 2 NA 1.416 30 0.5 NA 1.418 35 0.5 NA 1.418 36 0.5 NA 1.481 36 0.5 NA 1.481 36 0.5 NA 1.481 36 0.5 NA 1.481 36 3 NA 543 36 0 55 2 NA 45 3 <td< td=""><td>BORING CONSTRUCTION</td><td></td><td>Recovery</td><td></td><td></td><td></td><td>SOI</td><td>L DESCRIPTIC</td><td>DN</td></td<>	BORING CONSTRUCTION		Recovery				SOI	L DESCRIPTIC	DN			
Image: Construction O 6 NA NM Quest Hand cleared through asphalt and concrete. 6:10 5 - <td></td> <td>grade)</td> <td>(ft.)</td> <td></td> <td>-</td> <td></td> <td></td> <td></td> <td></td>		grade)	(ft.)		-							
6:10 Brown fine grained SAND, with cobbles, with fill material; 10 1 NA 0 Dark brown silly to fine grained SAND, with cobbles, with fill material; 10 1 NA 0 Dark brown silly to fine grained SAND, with cobbles, with small gravel and o dry, no odor 20 2 NA 0 Brown medium to fine grained SAND, with cobbles dry, no odor 20 2 NA 2,000 Dark brown to gray medium to fine grained SAND, with small gravel and o dry, no odor 20 2 NA 1,416 20-32' 30 0.5 NA 1,416 20-32' 33 0.5 NA 1,418 35-32' 35 0.5 NA 1,418 35-32' 36 0.5 NA 1,418 35-32' 36 0.5 NA 1,481 35-32' 36 0.5 NA 1,481 35-32' 37 0.5 NA 1,481 35-32' 38 0.5 NA 1,481 35-32' 39 0.5 NA 1,481 35-32' 40 <td>B-1/AS</td> <td>0</td> <td>6</td> <td>NA</td> <td>NM</td> <td></td> <td>ich asphalt ar</td> <td>d concrete</td> <td></td>	B-1/AS	0	6	NA	NM		ich asphalt ar	d concrete				
6:10 1 NA 0 10:12 Brown fine grained SAND, with cobbles, with fill material; 10 1 NA 0 10:12 Dark brown silty to fine grained SAND, with cobbles, dry, no odor 15 0.5 NA 0 15:17 Brown medium to fine grained SAND, with cobbles dry, no odor 20 2 NA 2.000 20:22 Dark brown to gray medium to fine grained SAND, with small g and cobbes, wet, petroleum-like odor 30 0.5 NA 1.416 30:327 Dark brown to gray medium to coarse grained SAND, with small g and cobbes, wet, petroleum-like odor 35 0.5 NA 1.416 30:327 Same as above wet, petroleum-like odor 40 3 NA 543 40:422 Dark brown to gray medium to fine grained SAND, with cobble wet, petroleum-like odor 45 3 NA 543 40:422 Dark brown to gray medium to fine grained SAND, with cobble wet, petroleum-like odor 45 3 NA 543 40:422 Dark brown to gray, fine to silty SAND, trace medium grained s trace small gravel, wet, petroleum-like odor 50 6 NA 1.484 50:527 Dark brown to gray, coarse grained SAND, with medium and s wet						Hand cleared throu	ign asphalt ar	iu concrete.				
6:10 1 NA 0 10:12 Dark brown silty to fine grained SAND, with cobbles, with fill material; Dark brown silty to fine grained SAND, with small gravel and o dry, no odor 15 0.5 NA 0 15:17 Brown medium to fine grained SAND, with cobbles dry, no odor 20 2 NA 2.000 20:22 Dark brown to gray medium to fine grained SAND, with small g and cobbles, wet, petroleum-like odor 30 0.5 NA 1.416 30:32 Dark brown to gray medium to coarse grained SAND, with small g and cobbles, wet, petroleum-like odor 30 0.5 NA 1.416 30:32 Dark brown to gray medium to fine grained SAND, with small g and cobbles, wet, petroleum-like odor 40 3 NA 543 40:42 Dark brown to gray medium to fine grained SAND, with cobble wet, petroleum-like odor 40 3 NA 543 40:42 Dark brown to gray fine to silty SAND, trace medium grained s trace small gravel, wet, petroleum-like odor 45 3 NA 363 56:52 Dark brown to gray, coarse grained SAND, with medium and s wet, petroleum-like odor 55 2 NA 0 60:55 Gray CLAY, no odor 66 NA 1.484 50:52 Dark brown to gray, coarse grained SAND, with medium and s wet, petroleum-like odor 66		5										
Image: Construction of the grained SAND, with small gravel and of dry, no odor 15 0.5 NA 0 15-17 Brown medium to fine grained SAND, with cobbles dry, no odor 20-22 20-22 20 2 NA 2002 20-22 20 2 NA 2002 20-22 20 2 NA 2002 20-22 20 0.5 NA 1,416 30-32 20 0.5 NA 1,417 35-37 30 0.5 NA 1,418 36-33 20 2 NA 54-34 24-42 20-32 20 2 NA 363 45-42 20-32 20-32 20 45 3 NA 363 25-52 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>ed SAND, wit</td> <td>h cobbles, with</td> <td>h fill material; no odor</td>							ed SAND , wit	h cobbles, with	h fill material; no odor			
Image: Construction of the grained SAND, with small gravel and or dry, no odor 15 0.5 NA 0 15-17 Brown medium to fine grained SAND, with cobbles dry, no odor 20-22 2 NA 20.00 20 2 NA 2.000 20-27 Dark brown to gray medium to fine grained SAND, with small grand cobbles, wet, petroleum-like odor 30 0.5 NA 1,416 30-32 30 0.5 NA 1,418 35-37 32 0.5 NA 1,418 35-37 33 NA 543 45-42 30-36 45 3 NA 363 45-47 30-36 55 2 NA 28-37 36-37 36		10	1	NA	0	10-12'						
EGEND: Concrete Concrete						Dark brown silty to	fine grained \$	SAND, with sma	all gravel and cobbles,			
20 2 NA 2,000 20-22' Dark brown to gray medium to fine grained SAND, with small g and cobbles, wet, petroleum-like odor 30 0.5 NA 1,416 30-32' Dark brown to gray medium to coarse grained SAND, with small and cobbes, wet, petroleum-like odor 30 0.5 NA 1,416 30-32' Dark brown to gray medium to coarse grained SAND, with small and cobbes, wet, petroleum-like odor 35 0.5 NA 1,481 35:37' Same as above wet, petroleum-like odor 40 3 NA 543 40-42' Dark brown to gray medium to fine grained SAND, with cobble wet, petroleum-like odor 45 3 NA 363 45-47' Dark brown to gray fine to silty SAND, trace medium grained s trace small gravel, wet, petroleum-like odor 50 6 NA 1,484 50-52' Dark brown to gray, fine to silty SAND, wet, petroleum-like odor 55 2 NA 28.9 55-57' Dark brown to gray, coarse grained SAND, with medium and s wet, petroleum-like odor 60 1.5 NA 0 60-62' Gray CLAY, no odor EGEND: Concrete 65 2 NA 0 60-62' Gray CLAY, no odor Bentonite Seal Gravel Pack (Morie #2) 50 + 43' Morie Sand: 50 + 43' Morie Sand: </td <td></td> <td>15</td> <td>0.5</td> <td>NA</td> <td>0</td> <td>Brown medium to f</td> <td>ine grained SA</td> <td>AND, with cobb</td> <td>les</td>		15	0.5	NA	0	Brown medium to f	ine grained S A	AND, with cobb	les			
25		20	2	NA	2,000	<u>20-22'</u> Dark brown to gray			D, with small gravel			
EGEND: Concrete Bentonite Seal 65 Gravel Pack (Morie #2) 64		25										
40 3 NA 543 <u>40-42'</u> Dark brown to gray medium to fine grained SAND, with cobble wet, petroleum-like odor 45 3 NA 363 <u>45-47'</u> Dark brown to gray fine to silty SAND, trace medium grained s trace small gravel, wet, petroleum-like odor 50 6 NA 1,484 <u>50-52'</u> Dark brown to gray, fine to silty SAND, wet, petroleum-like odor 55 2 NA 28.9 <u>55-57'</u> Dark brown to gray, coarse grained SAND, with medium and s wet, petroleum-like odor 60 1.5 NA 0 <u>60-62'</u> Gray CLAY, no odor EEGEND: Concrete 65 6 NA 0 Bentonite Seal 65 Screen Zone: Gravel Pack (Morie #2) 50-45' Grout: 61-1'		30	0.5	NA	1,416	Dark brown to gray			AND, with small gravel			
A5 3 NA 363 45-47' Dark brown to gray medium to fine grained SAND, with cobblet wet, petroleum-like odor 45 3 NA 363 45-47' Dark brown to gray fine to silty SAND, trace medium grained so trace small gravel, wet, petroleum-like odor 50 6 NA 1,484 50-52' Dark brown to gray, fine to silty SAND, wet, petroleum-like odor 55 2 NA 28.9 55-57' Dark brown to gray, coarse grained SAND, with medium and so wet, petroleum-like odor 60 1.5 NA 0 60-62' Gray CLAY, no odor EGEND: Concrete 65 65 NA 0 Bentonite Seal 65 0 50' Screen Zone: 50-48' Morie Sand: 50 to 45' Gravel Pack (Morie #2) 0 61' S		35	0.5	NA	1,481	Same as above	odor					
Dark brown to gray fine to silty SAND, trace medium grained s: trace small gravel, wet, petroleum-like odor 50 6 NA 1,484 S0-52' Dark brown to gray, fine to silty SAND, wet, petroleum-like odor 55 2 NA 28.9 S5-57' Dark brown to gray, coarse grained SAND, with medium and s wet, petroleum-like odor 60 1.5 NA 0 G0-62' Gray CLAY, no odor 65 65 65 End of soil boring at 62' below grade 65 65 Screen Zone: 50-48' SCREND: Screen Zone: 50-48' SCREND: 67 Gravel Pack (Morie #2) 65 Grout: 6-1'		40	3	NA	543	Dark brown to gray		ne grained SAN	D, with cobbles			
EGEND: 60 1.5 NA 28.9 55-57' Concrete 65 65 65 65 Bentonite Seal 65 65 65 Gravel Pack (Morie #2) 61 61' 61'		45	3	NA	363	Dark brown to gray			dium grained sand,			
EGEND: 60 1.5 NA 0 60-62' Gray CLAY, no odor Bentonite Seal 65		50	6	NA	1,484		v, fine to silty S	SAND, wet, petr	oleum-like odor			
EGEND: 65 Concrete 65 Bentonite Seal Screen Zone: 50-48' Morie Sand: 50 to 45' Grout: 6-1'	-	55	2	NA	28.9	Dark brown to gray		ned SAND , with	medium and small gravel,			
EGEND: Well Construction Details: Concrete Bottom of Well: 50' Bentonite Seal Screen Zone: 50-48' Gravel Pack (Morie #2) Grout: 6-1'	-	60	1.5	NA	0							
Concrete Well Construction Details: Bottom of Well: 50' Bentonite Seal Screen Zone: 50-48' Morie Sand: 50 to 45' Gravel Pack (Morie #2) Grout: 6-1'		65					End of soil b	poring at 62' be	elow grade			
Bottom of Well: 50' Bentonite Seal Screen Zone: 50-48' Morie Sand: 50 to 45' Grout: 6-1'						Well Construction	Details:					
Gravel Pack (Morie #2) Morie Sand: 50 to 45' Grout: 6-1'						Bottom of Well:	50'					
Gravel Pack (Morie #2) Grout: 6-1'	Bentonite Seal											
Screen material: 2" Sch 40 PVC 20 Slot	Gravel Pack (Morie #2)					Grout:	6-1'	10 00 0' ·				
Screen Zone Casing material: 2" Sch 40 PVC	Screen Zone											
Bentonite Seals: 45-14'						Bentonite Seals:	45-14'					
End/Top Cap Sand Pack: Morie #2 Concrete: Flush Mount	Enu/ rop Cap											

Ge	eolog	ic Lo	-		Constru	uction	n Deta	ils				
EnviroTrac Ltd. 5 Old Dock Road, Yaphank, NY, 11980 Log of Air Sparge Well AS-3												
Client:			LOG OI		arge wen AO-5	1	to Water	Site Elevation Datum				
Hess Corporation							easuring pt.)					
Site Name: Hess # 32525		Address:	n Poulovord		and City, NV	Date NM	DTW NM	NM				
Drilling Company:												
AARCO Environmental Hollow Stem Auger/ Air Rotary Measuring Point Elevation												
Date Started: Date Completed:												
8/6/2013												
Completion Depth: ENVIROTRAC Oversight: NM 62' Victor Cardoza Image: Cardoza												
	DEPTH		SAMPLES					1				
BORING CONSTRUCTION	(ft below	Recovery	Blow			SOI	L DESCRIPTIC	N				
(NTS)	grade)	(ft.)	per 6 in.	OVM (ppm)								
AS-3		(n.)	0 111.	(ppin)								
	0	6	NA	NM	0-6' Hand cleared throu Brown fine grains			grained sand and gravel,				
	5	-			with cobbles, with concrete and asph 6-10'	n fill material	consisting of b					
		0.5	NA	0	Brown fine graine with cobbles, with <u>10-12'</u>	n fill material;	no odor	n grained sand and gravel, medium and small gravel,				
	15	0.5	NA	0	<u>15-17'</u> Dark brown mediu with mixed sized g							
	20	1.5	NA	2,000	<u>20-22'</u> Dark brown to gree and cobbles, wet,			ND, trace small gravel				
	25	1.5	NA	1,873	<u>25-27'</u> Gray medium to fir wet, petroleum-like		ND, with coarse	grains,				
	30	1.5	NA	2,000	<u>30-32'</u> Dark brown mediu and cobbes, wet, p			small gravel				
	35	NA	NA	NA	<u>35'</u> Encountered bould Air Rotary drilling	ders at ~35' be	low grade, swit	ched to				
	40	0.5	NA	1,819	<u>40-42'</u> Dark brown to gray wet, petroleum-like		ne grained SAN	D,				
	45	1.5	NA	1,038	<u>45-47'</u> Dark brown to gray wet, petroleum-like		to medium grai	ned SAND ,				
	50	1	NA	2,000	<u>50-52'</u> Dark brown to gray wet, petroleum-like		to medium grai	ned SAND ,				
	55	2	NA	137.1	55-57' Brown to gray med wet, petroleum-like	lium to coarse	grained SAND	, with small gravel,				
	60	2.0	NA	29.8	<u>58-62'</u> Gray CLAY , wet, p	petroleum-like	odor					
LEGEND:	65					End of soil b	ooring at 62' be	elow grade				
Concrete												
Bentonite Seal					Well Construction Bottom of Well:	Details: 35'						
Demonite Seal					Screen Zone:	35 33-35'						
Gravel Pack (Morie #2)					Morie Sand:	0-23' and 31						
Screen Zone					Screen material: Casing material:	2" Sch 40 P\ 2" Sch 40 P\						
End/Top Cap					Bentonite Seals: Sand Pack: Concrete:	23-31' Morie #2 Flush Mount						
NTS - Not to Scale ND - Not	t Detected				ot Monitored	DTW - Depth		NA - Not Applicable				

Geologic Log & Well Construction Details

EnviroTrac Ltd.

5 Old Dock Road, Yaphank, NY, 11980

Log of Cluster Well CW-3

			LUU		ster Well CW-3)		
Client:							to Water	Site Elevation Datum
Hess Corporation						(ft. from m	easuring pt.)	
Site Name:		Address:				Date DTW	NM	
less # 32525		39-04 Norther	n Boulevard,	Long Isla	nd City, NY	NM	NM	
Drilling Company:		Method:						
ARCO Environmental		Hollow Stem A	Auger					Measuring Point Elevation
Date Started:		Date Complete	ed:					
3/2/2013		8/16/2013						
Completion Depth:		ENVIROTRAC	COversight:					NM
8'		Victor Cardoza	a					
CLUSTER WELL			SAMPLES					
CONSTRUCTION	DEPTH		Blow			SOI	L DESCRIPTIO	Ν
(NTS)	(ft below	Recovery	per	OVM				
	grade)	(ft.)	6 in.	(ppm)				
CW-3								
	0	6	NA	NM	<u>0-6'</u>			
					Hand cleared throug			arovel with medium
		4 1			sized cobbles, with			gravel, with medium
	5				dry, no odor		isisting of aspin	
		1 1			6-10'			
						dium grained	SAND, trace	gravel, with medium
		1			sized cobbles, with			
	10	1	NA	0	<u>10-12'</u>			
		1			Brown to dark brown	n medium to fi	ne grained SAN	D , with cobble,
					dry, no odor			
	15	1	NA	0	<u>15-17'</u>			
					Brown to dark brown			ND, brick
		4 1			with small and medi	um gravel, dry	, no odor	
	20	0.5	NIA	461	20.22			
	20	0.5	NA	401	<u>20-22'</u> Dark brown modium	to fino graina		ooroo graina
					Dark brown medium with small gravel, w			barse grains,
		1 1			with Shian gravel, w	et, petroleum		
	25	0.5	NA	888	25-27'			
		1			Dark brown medium	n to fine graine	d SAND, trace	small gravel,
					wet, petroleum-like	odor		
		1						
	30	0.5	NA	549	<u>30-32'</u>			
					Dark brown medium	•		h fine grains,
		4 1			with small gravel, w	et, petroleum-	like odor	
	25	0.5	NIA	1 200	25.27			
	35	0.5	NA	1,280	<u>35-37'</u> Dark brown modium	to fine graine		oarse grains, wet, no odor
					Dark brown median	r to fille graffe		barse grains, wet, no odor
ŀ		1 1						
	40					Obstructi	on at 38' belov	v grade
EGEND:		1						0
Concrete					Well Construction E	etails MW; AS	<u>S:</u>	
					Bottom of Well:	26'; 36'		
Bentonite Seal					Screen Zone:	11-26'; 34-36		
	`				Morie Sand:	0-5', 9-28' and		
Gravel Pack (Morie #2))				Screen material:	2" Sch 40 PV		
Soroon Zono					Casing material:	2" Sch 40 PV		
Screen Zone					Bentonite Seals: Sand Pack:	5-9' and 28-3. Morie #2	۷	
End/Top Cap					Sand Pack: Concrete:	Flush Mount		
End/Top Cap					CONCIECE.			
TS - Not to Scale ND	- Not Detec			· Not Mon		DTW - Depth		NA - Not Applicable

Geologic Log & Well Construction Detail Log of Monitoring Well (MW-7) ENVIROTRAC LTD.

5 Old Dock Road, Yaphank, NY 11980

Client: Hess Corporation				NYSDEC #'s: 95-00846				
Site Name:					95-00846 Address:			
	Jolond City							
Hess Station # 32525- Long	Island City				39-04 Northern Blvd., Long Island City, NY			
Drilling Company:				Method:				
Summit Drilling				Hollow Stem Auger/ Air Rotary				
Date Started:				Date Completed:				
4/5/2010					4/7/2010			
Completion Depth:					ENVIROTRAC Geologist:			
25'					Donna Eschrich			
			SAMPLES					
WELL CONSTRUCTION	DEPTH	Recovery	Blow per	PID	SOIL DESCRIPTION			
(NTS)	(ft below grade)	(ft.)	6 in.	(ppm)				
MW-7	(it bolow grado)	(11.)	0	(ppm)				
10100-7								
	0	NM	NM	NM				
					0-5'			
		N IN 4	N IN 4					
	5	NM	NM	ND	Hand Cleared, asphalt and brown medium grained SAND ;			
					dry, no odor			
					5-10'			
	10	NINA	NINA					
	10	NM	NM	ND	Brown medium grained SAND with some cobbles;			
					dry, no odor			
					10-15'			
		NM	NM	ND	No recovery- Switched to Air Rotary due to obstruction at 10 ft.			
	15							
	15							
					15-20'			
		NM	NM	ND	Dark Brown medium grained SAND; moist, slight			
	20				petroleum-like odor			
	20							
					20-25'			
		NM	NM	188.0	Dark Grey to Black medium grained SAND; moist to wet,			
	25	t			petroleum-like odor			
NTS- Not to Scale	ND- Not Detected	NIM	- Not Measu	ired	NA- Not Applicable			
	THE THE DELECTED		1 1101 106450					
LEGEND:								
Concrete				Well Construe	ction Details:			
				Bottom of We	ell: 25'			
Bentonite Seal				Screen Zone:				
Morie Sand: 10-25'								
	N I							
Gravel Pack (Morie #2	-)			Screen mater				
				ial: 4" Sch 40 PVC				
Screen Zone				Sand Pack:	Morie #2			
				Cement Seal				
End/Top Cap								

Geologic Log & Well Construction Detail Log of Monitoring Well (MW-8) ENVIROTRAC LTD.

5 Old Dock Road, Yaphank, NY 11980

Clier						NYSDEC #'s:			
	s Corporation					95-00846 Address:			
	Name: s Station #32525- Lor	a Island City				Adaress: 39-04 Northern Blvd., Long Island City, NY			
	ng Company:	ig Island City				Method:			
	mit Drilling					Hollow Stem Auger/ Air Rotary			
	Started:					Date Completed:			
4/5/2						4/7/2010			
	pletion Depth:					ENVIROTRAC Geologist:			
30'						Donna Eschrich			
		DEDTU		SAMPLES					
WE			Recovery	Blow per	PID	SOIL DESCRIPTION			
	(NTS)	(ft below grade)	(ft.)	6 in.	(ppm)				
	MW 8								
		0	NM	NM	NM	<u>0-5'</u> Hand cleared asphalt and medium brown SAND , dry, no odor			
		5	NM	NM	ND	<u>5-10'</u> Light Brown to Medium Brown SAND , trace gravel, dry, no odor			
		10	NM	NM	ND	<u>10-15'</u> Medium Brown to Dark Brown SAND , dry to moist, no odor			
		15	NM	NM	ND	<u>15-20'</u> Reddish Brown fine to medium grained SAND , dry, no odor			
		20	NM	NM	ND	<u>20-25'</u> Reddish Brown fine to medium grained SAND , dry, no odor			
		25	NM	NM	741.0	<u>25-30'</u> Dark Grey fine to medium grained SAND , wet, petroleum-like odor			
NTS	- Not to Scale N	D- Not Detected		NM- Not Me	easured	NA- Not Applicable			
LEG	END:				Well Constr	uction Details:			
	Concrete				Bottom of W				
100000					Screen Zone				
	Bentonite Seal				Morie Sand:				
					Screen mate				
	Gravel Pack (Morie #2)				Casing mate	erial: 4" Sch 40 PVC			
	Screen Zone				Bentonite So Sand Pack:	Morie #2 Morie #2			
	End/Top Cap				Cement Sea	al: 1.0-Grade (Flush Mount)			

Geologic Log & Well Construction Detail Log of Monitoring Well (MW-9) ENVIROTRAC LTD.

5 Old Dock Road, Yaphank, NY 11980

Client	t:				NYSDEC #'s:			
	Corporation				95-00846			
	Name: Station #32525- Long	Island City				Address: 39-04 Northern Blvd., Long Island City, NY		
	g Company:					Method:		
Sumr	nit Drilling					Hollow Stem Auger/Air Rotary		
Date 4/5/20	Started:					Date Completed: 4/7/2010		
	oletion Depth:					ENVIROTRAC Geologist:		
26'	olocion Bopun				Donna Eschrich			
				SAMPLES				
WEI		DEPTH	Recovery	Blow per	PID	SOIL DESCRIPTION		
	(NTS) MW-9	(ft below grade)	(ft.)	6 in.	(ppm)			
	10100-9							
		0	NM	NA	ND	<u>0-5'</u>		
						Hand cleared, asphalt with Brown SAND, some gravel; dry,		
						no odor		
			0.50	0/0/7/5				
		5	0.50	6/9/7/5	ND	<u>5-7'</u> Brown medium to coarse SAND , some gravel; dry		
						no odor		
			1.0	5/9/7/6	ND	7-9'		
						Dark brown to medium brown, medium to coarse grained SAND;		
						slightly moist, no odor		
			0.50	2/1/NM/NM	ND	<u>9-11'</u>		
						Medium to coarse grained SAND , with fill material; moist, no odor		
		10				Obstruction at 10 ft.		
			NA	NA	NA	11-15'		
						No Recovery		
						· · · · · · · · · · · · · · · · · · ·		
		15	0.50	17/8/9/11	ND	<u>15-17'</u>		
						Dark brown to light brown, medium grained SAND; moist, no odor		
			0.75	7/0/7/7		47.40		
			0.75	7/9/7/7	ND	<u>17-19'</u> Dark brown to light brown modium grained SAND , moist, no oder		
						Dark brown to light brown, medium grained SAND ; moist, no odor		
			1.25	3/5/8/10	382.0	19-21'		
		20				Dark grey, medium grained SAND; wet, petroleum-like odor		
			NA	NA	921.0	<u>21-26'</u>		
						Dark grey, medium grained SAND; wet, petroleum-like odor		
		25						
		25						
		30						
NTS	- Not to Scale	ND- Not Detected	NN NN	I- Not Measu	red	NA- Not Applicable		
u = -								
LEGE						Well Construction Details:		
	Concrete					Bottom of Well: 26' Screen Zone: 11-26'		
	Bentonite Seal					Screen Zone: 11-26' Morie Sand: 11-26'		
	Demonite Seal					Screen material: 4" Sch 40 PVC 20 Slot		
	Gravel Pack (Morie #2	2)				Casing material: 4" Sch 40 PVC		
aurungi (,				Bentonite Seals: 7-9'		
	Screen Zone					Sand Pack: Morie #2		

End/Top Cap

Cement Seal: Grade-1.0' (Flush Mount)

Geologic Log & Well Construction Detail Log of Air Sparge Well (AS-1) ENVIROTRAC LTD. 5 Old Dock Road, Yaphank, NY 11980

a #					NYOREO III-		
Client:				NYSDEC #'s:			
Hess Corporation					95-00846		
Site Name: Hess Station #32525- Long	Island City				Address: 39-04 Northern Blvd., Long Island City, NY		
Drilling Company:					Method:		
Summit Drilling					Hollow Stem Auger/Air Rotary		
Date Started:					Date Completed:		
4/7/2010					4/7/2010		
Completion Depth:				ENVIROTRAC Geologist:			
21'		1			Donna Eschrich		
			SAMPLES	1			
WELL CONSTRUCTION	DEPTH	Recovery	Blow per	PID	SOIL DESCRIPTION		
(NTS)	(ft below grade)	(ft.)	6 in.	(ppm)			
B-5 (AS-1)							
	0	NM	NA	ND	<u>0-5'</u>		
					Hand cleared, asphalt surface, Brown SAND, some gravel; dry,		
					no odor		
	5	0.75	6/7/3/4	ND	<u>5-7'</u>		
	-				Medium brown, medium to coarse grained SAND, some gravel; dry		
					no odor		
		0.25	5/3/2/4	ND	7-9'		
		0.20	5/5/2/4		Dark brown to medium brown, medium to coarse grained SAND ;		
					dry, no odor		
		0.50	E IC IC IO		0.11		
		0.50	5/6/6/8	ND	<u>9-11'</u>		
					Medium to coarse grained SAND, with fill material; dry, no odor		
	10						
		0.50	12/12/5/5	ND	<u>11-13'</u>		
					Reddish brown, medium grained SAND, with fill material, dry,		
					no odor		
	15	1.0	3/9/13/9	ND	<u>15-17'</u>		
					Dark brown to light brown, medium grained SAND; dry, no odor		
		1.0	6/6/6/6	ND	17-19'		
					Dark brown to light brown, medium grained SAND; moist, no odor		
		1.75	1/5/8/12	765.0	19-21'		
	20				Dark grey, medium grained SAND ; wet, petroleum like odor		
<u>NEREN I</u>	20						
	25						
	30						
NTS- Not to Scale	ND- Not Detected	d NM	I- Not Measu	red	NA- Not Applicable		
LEGEND:					Well Construction Details:		
Concrete					Bottom of Well: 21'		
					Screen Zone: 18'-20'		
Bentonite Seal					Morie Sand: 17'-21'		
					Screen material: 2" Sch 40 PVC 20 Slot		
Gravel Pack (Morie #2	2)				Casing material: 2" Sch 40 PVC		
	,				Bentonite Seals: 15'-17'		

Sand Pack: Morie #2

Cement Seal: Grade-1' (Flush Mount)

Screen Zone

End/Top Cap

Well Log

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Project: Merit-Northern	Owner: Merit Oil			
Location: 3904 Northern Boulevard	Screen Length: 15' Type: .020			
Long Island City, NY	Casing Length: 13' Type: PVC			
Total Depth: 28'	Casing Diam.: 4"			
Drilling Method: Air Rotary	Screen Diam.: 4"			
Driller: Summit Drilling	Static Water: 19.50'			
Sample Method: Split Spoon	Log By: Wayne Kempski			
Date: 01/31/96	Casing Elevation: NA			
Completion Details: MW on the Northwest side of station.				

MW1

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Depth (feet)	Sample No.	Con- struction	OVM (ppm)	Recovery	Blow Counts		Lithology
- 1 - - 2 - - 3 - - 4 -						0-5'	Asphalt, Pavement and Blend
- 5 - - 6 -			5.0			5-7'	Light brown fine to medium SAND, no Silt or Gravel; no odor
- 7 -						7-9.5'	(Boulder drilled through)
9			2.2			9.5-12'	Light brown coarse GRAVEL and fine SAND; no odor
-12 - 13 - 13 - 14 - 15 - 16 - 16 - 16 - 16 - 16 - 16 - 16			1.8			12-17'	Brown fine to medium SAND and SILT, little Gravel; no odor
- 17 - - 18 - - 19 - - 20 -						17-21'	Brown fine SAND and SILT; odor
-21 - 22 - 23 - 23 - 24 - 25 - 26 - 27 - 28 - 28 - 28 - 28 - 28 - 28 - 28	- * MW:		100 185 200			21-22' 22-24'	Dark gray-brown coarse GRAVEL and SILT, some fine Sand; strong odor, (shean on water in spoon), wet Dark gray-brown coarse SAND, little Silt and Gravel; wet
$ \begin{array}{c} -29 \\ -30 \\ -31 \\ -32 \\ -33 \\ -34 \\ \end{array} $						We	ell completed at 28'

* Note: Soil sample analyzed for VOC's and Gasoline Range/Organics via EPA method 8020 and API Method Rev. 5.

Well Log

Project: Merit-Northern Location: 3904 Northern Boulevard Long Island City, NY	Owner: Merit Oil Screen Length: 15' Type: .020 Casing Length: 11' Type: PVC
Total Depth: 26'	Casing Diam.: 4"
Drilling Method: Air Rotary	Screen Diam.: 4"
Driller: Summit Drilling	Static Water: 19.21'
Sample Method: Split Spoon	Log By: Wayne Kempski
Date: 02/23/96	Casing Elevation: NA

Completion Details: MW on the Northwest side of site.

<u>MW2</u>

Materia.

Depth (feet)	Sample No.	Con- struction	OVM (ppm)	Recovery	Blow Counts		Lithology
- 1						0-2'	Asphalt, Pavement and Blend
- 2 - - 3 -						2-8'	Fill material, Brick, Wood, etc.
- 4 -							
- 5 - 6							
- 7 -							
- 8 - - 9 -			1.5			8-17'	Light brown Silty-SAND, little Gravel, trace Cobbles
- 10 -			1				
-11 - -12 -							
- 13 -							
- 14 - - 15 -							
- 16 -	-						
- 17 - - 18 -						17-19'	(Boulder drilled through)
19	-					19-20'	Light brown Silty-SAND, little Gravel, trace
- 20 - - 21 -	1		2.8			20-28'	Cobbles and Boulders Gray-brown medium to coarse SAND, little
- 22 -	* MW2		188				Gravel, trace Cobbles; strong odor
- 23 - - 24 -	1						
- 25 -			156				
- 26 - - 27 -						W	ell completed at 26'
- 28 - 29 -							
- 30 -							
- 31 - - 32 -							
- 33 -	-						
- 34 -							anics via EPA method 8020 and API Method Re-

* Note: Soil sample analyzed for VOC's and Gasoline Range/Organics via EPA method 8020 and API Method Rev. 5.

Well Log

Project: Merit-Northern	Owner: Merit Oil			
Location: 3904 Northern Boulevard	Screen Length: 15' Type: .020			
Long Island City, NY	Casing Length: 9' Type: PVC			
Total Depth: 24'	Casing Diam.: 4"			
Drilling Method: Air Rotary	Screen Diam.: 4"			
Driller: Summit Drilling	Static Water: 18.17'			
Sample Method: Split Spoon	Log By: Wayne Kempski			
Date: 02/22/96	Casing Elevation: NA			
Completion Details: MW on the West side of site.				

<u>MW3</u>

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Depth (feet)	Sample No.	Con- struction	OVM (ppm)	Recovery	Blow Counts		Lithology
						0-5'	Asphalt, Pavement and Gravel
-2 -							`
- 3 -							
- 4 -							
- 5 -						5-16'	Dark brown Silty-SAND, little Gravel, trace
6 -			4.2				Boulders; no odor
- 7 -	l.		4.2				
- 8 -		88		1			
- 9 -							
- 10 -			ļ				
-11 -			4.5				
- 12 -							
- 13 -							
-14 -							. '.
-15 -							
- 16			11.8			16-18'	Tan fine SAND, no Silt or Gravel; faint odor
- 18 - - 19 -	*		1			18-20'	Dark gray-brown fine Silty-SAND, no Gravel; odor
-20 -	*MW3		280				odor
-21						20-24'	Gray-brown Silty-SAND, no Gravel; strong
- 22 -							odor
-23 -			65				
-24 -			0.5	1		L	
- 25 -			1			We	ll completed at 24'
- 26 -							
- 27 -	·						
28 -							
- 29 -	1						
- 30 -							
- 33 -							
- 34 -				1			
							nice via EPA method 2000 and ADVAL in the

* Note: Soil sample analyzed for VOC's and Gasoline Range/Organics via EPA method 8020 and API Method Rev. 5.

Well Log

Project: Merit-Northern	Owner: Merit Oil		
Location: 3904 Northern Boulevard	Screen Length: 16' Type: .020		
Long Island City, NY	Casing Length: 9' Type: PVC		
Total Depth: 25'	Casing Diam.: 4"		
Drilling Method: Air Rotary	Screen Diam.: 4"		
Driller: Summit Drilling	Static Water: 18.02'		
Sample Method: Split Spoon	Log By: Wayne Kempski		
Date: 02/23/96	Casing Elevation: NA		
Completion Detailer MW on the Couth cost	alde of station		

Completion Details: MW on the Southeast side of station.

<u>MW4</u>

1

Depth (feet)	Sample No.	Con- struction	OVM (ppm)	Recovery	Blow Counts		Lithology
- 1						0-2' Aspha	alt, Pavement and Blend
- 2 - - 3 -						2-12' Fill m Build	aterial including Sand, Bricks and ing Debris
- 4 — - 5 —							
- 6 — - 7 —							
- 8							
- 10 - - 11 -							
- 12 - - 13 - - 14 -			0.8				brown medium to coarse SAND with little no Gravel; no odor
- 15 - - 16 -							
- 17 - - 18 -			1.0			18-25' Dark	to brown medium to coarse SAND, little
19 - 20 -	* MW4		1.2				no Gravel; no odor, wet
- 21 - - 22 -							
- 23 - - 24 - - 25 -							
- 26 - - 27 -						Well com	pleted at 25'
- 28 - - 29 -	-						
— 30 - — 31 ·	-					-	
- 32 · - 33 · - 34 ·							
]						ia EPA method 8020 and API Method Rev.

GEOL	OGIC SI	ERVICES					
CORP	ORATIC	DN .	Monitoring Well - 5 Construction Log				
		4. Bahemis, NY 11716	Womening Wen - 5 Construction Log				
	1) 214-4954 //	ur: (631) 218 6942					
		hern Boulevard	Use: Groundwater Moo Type of Well: Monitor				
City/Sta	te: Queens	i, New york	Well Depth (ft bgs): 3				
GSC Proj	ect #: 0006	404	Casing: 15 feet; sched		0" slot 2"PVC		
	ate: 8/15/2 Driller: BL M				Schedule 40, 0.010" slot 2"	PVC	
		iljør Stem Auger	Screened Interval (ft bgs): 15' - 30'				
Geologis	it: Jeremy T	ravis					
Project N	Nanager: Bi	rian Kelly					
-	1 0			-	1		
Օզուի (ի.)	Munsell Color Char Code	Settle-deale Brook of the Inc.		Oepth (A.)		-	
1 H	콜콜의	Soil/Geologic Description (modified	6urmister)	t d	Well	Diagram	
<u> </u>				•			
						6 0° Diam Steel Manhole	
	4	Asphalt		<u> </u>		Manitok	
- ·	2			L .	NUME	2" PVC Stip	
		1		l— í		Cap	
	3 10yr 3/4	(Hand Clear to 5")					
<u> </u>	1	Medium sand, w/ 15% coarse gravel, tr	ace of cobbles,	_			
	1	fine-medium gravel, dry, no odor		<u> </u>			
	5			— ,		Backfill	
-				_			
<u> </u>	6	1		6			
	7 10yr 3/4	Medium sand, dry, no ador		— ,			
				— '			
<u> </u>				_ •		2" PVC	
- ,							
<u> </u>	1			°			
10				10		Sentonne	
I				_		Seal	
<u> </u>	'			· ۱۱			
12	10yr 3/4	Loosely packed	ł	12			
_		Coarse to medium gravel		_ `			
13	1			13			
L 14				14			
_				14			
15				15	X		
16				16			
			ł				
17	10yr 3/4	Loosely packed		17	1 · ·		
<u> </u>	1	Coarse to medium gravel		_			
<u> </u>			ŀ	18			
12			Water @ 19'		14. A.		
20				20	10 m	Screen	
21			ŀ	21			
-				_			
22	2.5y 2 5/1	Fine sand and clay, black, damp, no odo	۲ -	22			
23			-	23			
_				_ ^,	10 S 10	# 2 Send	
24				24			
- 25			-				
				25			
26				26			
- ,,	354350			-			
- "	2.5y 2.5/1	Fine sand and clay, dark black, wet, petr has a film on It	pleum odor,	27	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
28			F	28	at the		
				_			
29			-	29			
			F	- 30			
					and a state of the		
— "I			F	H	"Oraning vertically to scale		
1							

GEOLO	OGIC SE	RVICES				
1401 Church		Bohemie, NY 11716	Monitoring Well - 6 Construction Log			
Site Name Address: Clty/State GSC Proje Install Da Boring Dr Drilling M Geologist:	e: Merit No 3904 North e: Queens ect #: 0006- ite: 8/15/2 diller: BL M	hern Boulevard , New york 404 9000 yers Illow Stem Auger avis	Use: Groundwater Monitoring Type of Well: Monitoring well Well Depth (ft bgs): 26' Casing: 15 feet; schedule 40, 0.010" slot 2"PVC Screen Length and Type: 15 feet; Schedule 40, 0.010" slot 2" PVC Screened Interval (ft bgs): 11' - 26'			
Depth (ft.)	Munsell Color Chart Code	Sail/Geologic Description (modified	Burmister)	Depth (ft.)	Well Diagram	
1		Concrete (5" reinforced)		ı	6.0* Diam Steel Manhole	
2 3 4 4	10yr 4/6	(Hand Clear to 5') Medium sand, trace of fine sand Dry, no odor		2 3 4 4	2" PVC Slip Ceo	
- 6 - 7 - 8 - 9 - 10	10yr 4/6	Fine sand, w/25% medium sand Dry, no odor		6 6 7 8 9	Backfill Bentonite Seal	
- 11 - 12 - 13 - 14 - 15	10yr 3/4	Fine sand, w/I SX medium to coarse grav Trace of day and silt Dry, no odor		10 11 12 13 14 14	Z AK	
16 17 18 19	10yr 4/3	Medium to fine sand, w/10% medium to Moist, no odor	fine gravel	15 16 17, 18 18	er Stand	
21 22 23 24 25	10үт 3/3	Medium to coarse sand, w/SX fine to me 10% day, wet, some odor	dium gravel,	20 21 22 23 24 25	Lower -	
26	2.5y 3/1	Fine send and day,wet, some odor		26	Drawing versically to scale	
27				27	or any rest (CRIP ID SCALE	

Appendix C – Environmental Database Report, dated September 4, 2015

Toxics Targeting Environmental Report

Sensitive Receptor Report 1/2 Mile Search Radius 39-04 Northern Blvd Long Island City, NY 11101

September 04, 2015

LIMITED WARRANTY AND DISCLAIMER OF LIABILITY

Who is Covered

This limited warranty is extended by Toxics Targeting, Inc. only to the original purchaser of the accompanying Environmental Report ("Report"). It may not be assigned to any other person.

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What We Will Do

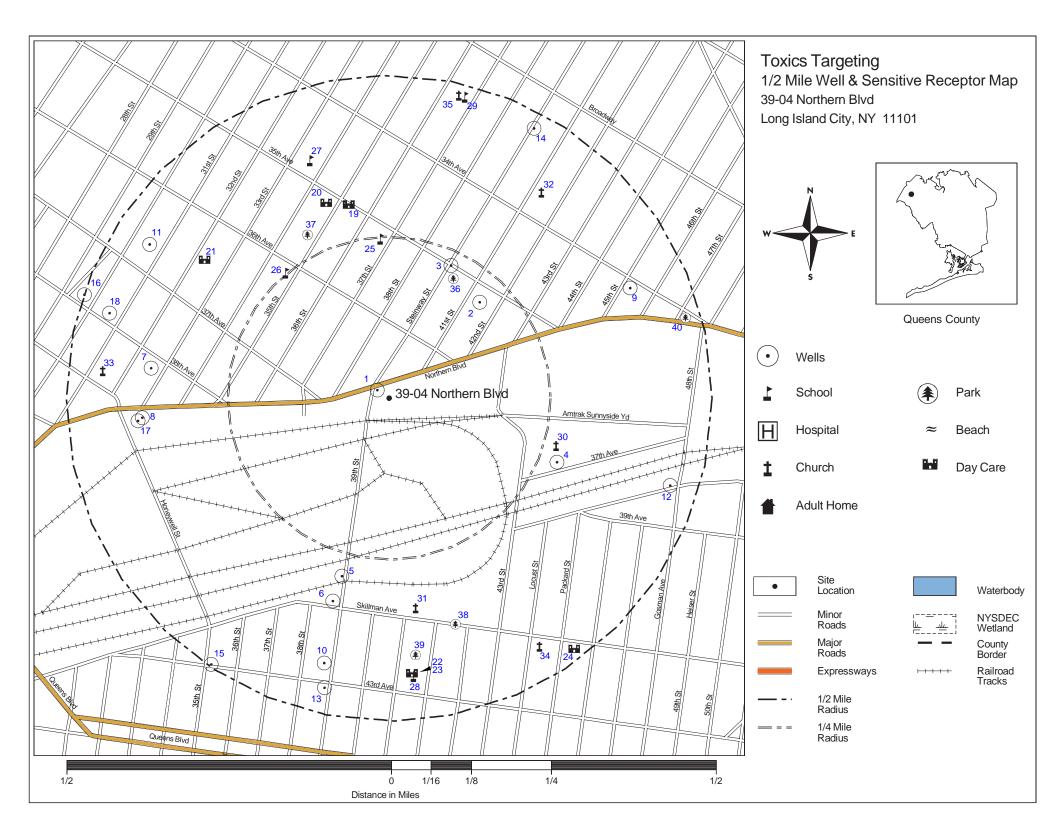
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Page 1

USGS GROUNDWATER SITE INVENTORY (GWSI) WELLS IDENTIFIED WITHIN 1/2 MILE SEARCH RADIUS

PLEASE NOTE: * Compass directions can vary substantially for sites located very close to the subject property address.

Map Identification Number 1 USGS Site-id: 404508073552901

Local Well Number: Q 389.1

MAP LOCATION INFORMATION Site location mapped by: MAP COORDINATE (?) Approximate distance from property: 117 feet to the NW* ADDRESS CHANGE INFORMATION Revised street: NO CHANGE Revised zip code: NO CHANGE

Owner:No Information providedStation Type:GROUND WATER OTHER THAN SPRINGGround-water Site Type:WELL, FOR SINGLE WELLS OTHER THAN WELLS OF THE COLLECTOR OR RANNEY TYPEHole Depth:84 ftWell Depth:Well Depth:

Primary:

Site Use TEST Water Use

Map Identification Number 2 USGS Site-id: 404515073551801

Local Well Number: Q 1813.1

MAP LOCATION INFORMATION Site location mapped by: MAP COORDINATE (?) Approximate distance from property: 1079 feet to the NE ADDRESS CHANGE INFORMATION Revised street: NO CHANGE Revised zip code: NO CHANGE

Owner:	No
Station Type:	GI
Ground-water Site Type:	W
Hole Depth:	

o Information provided ROUND WATER OTHER THAN SPRING /ELL, FOR SINGLE WELLS OTHER THAN WELLS OF THE COLLECTOR OR RANNEY TYPE Well Depth: ' 58' ft

Primary:

Site Use TEST

Page 2

Map Identification Number 3 USGS Site-id: 404518073552101

Local Well Number: Q 376.1

MAP LOCATION INFORMATIONADDRESS CHANGE INFORMATIONSite location mapped by:MAP COORDINATE (?)Revised street: NO CHANGEApproximate distance from property:1197 feet to the NNERevised zip code: NO CHANGE

Owner: Station Type:	No Information provided GROUND WATER OTHER TH	IAN SPRING
Ground-water Site Type: Hole Depth:		OTHER THAN WELLS OF THE COLLECTOR OR RANNEY TYPE Well Depth:
	Site Use	Water Use

Map Identification Number 4 USGS Site-id: 404502073551001

TEST

Local Well Number: Q 62.1

MAP LOCATION INFORMATION Site location mapped by: MAP COORDINATE (?) Approximate distance from property: 1469 feet to the ESE ADDRESS CHANGE INFORMATION Revised street: NO CHANGE Revised zip code: NO CHANGE

Owner:No Information providedStation Type:GROUND WATER OTHER THAN SPRINGGround-water Site Type:WELL, FOR SINGLE WELLS OTHER THAN WELLS OF THE COLLECTOR OR RANNEY TYPEHole Depth:129 ftWell Depth:Well Depth:

Primary:

Primary:

Site Use TEST

Page 3

Map Identification Number 5 USGS Site-id: 404453073553301

Local Well Number: Q 602.1

MAP LOCATION INFORMATION Site location mapped by: MAP COORDINATE (?) Approximate distance from property: 1506 feet to the SSW ADDRESS CHANGE INFORMATION Revised street: NO CHANGE Revised zip code: NO CHANGE

Owner:	No Information provided	
Station Type:	GROUND WATER OTHER TH	IAN SPRING
Ground-water Site Type: Hole Depth:	WELL, FOR SINGLE WELLS	OTHER THAN WELLS OF THE COLLECTOR OR RANNEY TYPE Well Depth:
	139 11	Weil Deptil.
	Site Use	Water Use
Primary:	TEST	

Map Identification Number 6 USGS Sit

USGS Site-id: 404451073553401

Local Well Number: Q 386.1

MAP LOCATION INFORMATION Site location mapped by: MAP COORDINATE (?) Approximate distance from property: 1721 feet to the SSW ADDRESS CHANGE INFORMATION Revised street: NO CHANGE Revised zip code: NO CHANGE

Owner:No Information providedStation Type:GROUND WATER OTHER THAN SPRINGGround-water Site Type:WELL, FOR SINGLE WELLS OTHER THAN WELLS OF THE COLLECTOR OR RANNEY TYPEHole Depth:222 ftWell Depth:Well Depth:

Primary:

Site Use TEST

Page 4

Map Identification Number 7 USGS Site-id: 404510073555301

Local Well Number: Q 1635.1

MAP LOCATION INFORMATION ADDRESS CHANGE INFORMATION Site location mapped by: MAP COORDINATE (?) Revised street: NO CHANGE Approximate distance from property: 1961 feet to the W Revised zip code: NO CHANGE

Owner: Station Type: Ground-water Site Type: Hole Depth:	No Information provided GROUND WATER OTHER THAN SPRING WELL, FOR SINGLE WELLS OTHER THAN WELLS OF 40 ft	F THE COLLECTOR OR RANNEY TYPE Well Depth:
Hole Depth:	40 It Site Use	Well Depth: Water Use

Primary:

site Use TEST

water Use

Map Identification Number 8 USGS Site-id: 404506073555401 Local Well Number: Q 13.1

MAP LOCATION INFORMATION Site location mapped by: MAP COORDINATE (?) Approximate distance from property: 2024 feet to the W ADDRESS CHANGE INFORMATION Revised street: NO CHANGE Revised zip code: NO CHANGE

Owner: No Information provided Station Type: GROUND WATER OTHER THAN SPRING Ground-water Site Type: WELL, FOR SINGLE WELLS OTHER THAN WELLS OF THE COLLECTOR OR RANNEY TYPE Hole Depth: 89 ft Well Depth:

Primary:

Site Use TEST

Page 5

Map Identification Number 9 USGS Site-id: 404516073550201

Local Well Number: Q 3122.1

MAP LOCATION INFORMATION Site location mapped by: MAP COORDINATE (?) Approximate distance from property: 2166 feet to the ENE ADDRESS CHANGE INFORMATION Revised street: NO CHANGE Revised zip code: NO CHANGE

Owner:	U.S. GEOLOGICAL SURVEY
Station Type:	GROUND WATER OTHER THAN SPRING
Ground-water Site Type:	WELL, FOR SINGLE WELLS OTHER THAN WELLS OF THE COLLECTOR OR RANNEY TYPE
Hole Depth:	Well Depth: ' 47' ft

Primary:

Site Use OBSERVATION Water Use UNUSED

Map Identification Number 10 USGS Site-id: 404446073553501

Local Well Number: Q 453.1

MAP LOCATION INFORMATION Site location mapped by: MAP COORDINATE (?) Approximate distance from property: 2230 feet to the SSW ADDRESS CHANGE INFORMATION Revised street: NO CHANGE Revised zip code: NO CHANGE

Owner:No Information providedStation Type:GROUND WATER OTHER THAN SPRINGGround-water Site Type:WELL, FOR SINGLE WELLS OTHER THAN WELLS OF THE COLLECTOR OR RANNEY TYPEHole Depth:147 ftWell Depth:Well Depth:

Primary:

Site Use TEST

Page 6

Map Identification Number 11 USGS Site-id: 404520073555301

Local Well Number: Q 1246.1

MAP LOCATION INFORMATIONADDRESS CHANGE INFORMATIONSite location mapped by:MAP COORDINATE (?)Revised street: NO CHANGEApproximate distance from property:2327 feet to the WNWRevised zip code: NO CHANGE

Owner:	No Information provided	
Station Type:	GROUND WATER OTHER TH	AN SPRING
Ground-water Site Type: Hole Depth:	THER THAN WELLS OF THE COLLECTOR OR RANNEY TYPE Well Depth:	
Primary:	Site Use TEST	Water Use

Map Identification Number 12 USGS Site-id: 404500073545801

Local Well Number: Q 263.1

MAP LOCATION INFORMATION Site location mapped by: MAP COORDINATE (?) Approximate distance from property: 2407 feet to the ESE ADDRESS CHANGE INFORMATION Revised street: NO CHANGE Revised zip code: NO CHANGE

Owner:No Information providedStation Type:GROUND WATER OTHER THAN SPRINGGround-water Site Type:WELL, FOR SINGLE WELLS OTHER THAN WELLS OF THE COLLECTOR OR RANNEY TYPEHole Depth:125 ftWell Depth:Well Depth:

Primary:

Site Use TEST

Page 7

Map Identification Number 13 USGS Site-id: 404444073553501

Local Well Number: Q 425.1

MAP LOCATION INFORMATIONADDRESS CHANGE INFORMATIONSite location mapped by:MAP COORDINATE (?)Revised street: NO CHANGEApproximate distance from property:2426 feet to the SSWRevised zip code: NO CHANGE

 Owner:
 No Information provided

 Station Type:
 GROUND WATER OTHER THAN SPRING

 Ground-water Site Type:
 WELL, FOR SINGLE WELLS OTHER THAN WELLS OF THE COLLECTOR OR RANNEY TYPE

 Hole Depth:
 159 ft

 Well Depth:
 Site Use

 Primary:
 TEST

Map Identification Number 14

USGS Site-id: 404529073551201

Local Well Number: Q 379.1

MAP LOCATION INFORMATION Site location mapped by: MAP COORDINATE (?) Approximate distance from property: 2504 feet to the NNE ADDRESS CHANGE INFORMATION Revised street: NO CHANGE Revised zip code: NO CHANGE

Owner:No Information providedStation Type:GROUND WATER OTHER THAN SPRINGGround-water Site Type:WELL, FOR SINGLE WELLS OTHER THAN WELLS OF THE COLLECTOR OR RANNEY TYPEHole Depth:147 ftWell Depth:Well Depth:

Primary:

Site Use TEST

Page 8

Map Identification Number 15 USGS Site-id: 404446073554701

Local Well Number: Q 1258.1

MAP LOCATION INFORMATIONADDRESS CHANGE INFORMATIONSite location mapped by:MAP COORDINATE (?)Revised street: NO CHANGEApproximate distance from property:2618 feet to the SWRevised zip code: NO CHANGE

Owner: Station Type:	No Information provided GROUND WATER OTHER THAN S	
Ground-water Site Type:		ER THAN WELLS OF THE COLLECTOR OR RANNEY TYPE
Hole Depth:	63 ft	Well Depth:
	Oite Llee	Materilles

Primary:

Site Use TEST Water Use

Map Identification Number 16 USGS Site-id: 404516073560001

Local Well Number: Q 1912.1

MAP LOCATION INFORMATION Site location mapped by: MAP COORDINATE (?) Approximate distance from property: 2631 feet to the WNW ADDRESS CHANGE INFORMATION Revised street: NO CHANGE Revised zip code: NO CHANGE

Owner:No Information providedStation Type:GROUND WATER OTHER THAN SPRINGGround-water Site Type:WELL, FOR SINGLE WELLS OTHER THAN WELLS OF THE COLLECTOR OR RANNEY TYPEHole Depth:400 ftWell Depth:Well Depth:

Primary:

Site Use TEST

NO NYSDEC WATER WELLS IDENTIFIED WITHIN 1/2 MILE SEARCH RADIUS

NO NYSDEC LONG ISLAND WELLS OVER 45 GAL/MIN IDENTIFIED WITHIN 1/2 MILE SEARCH RADIUS

NO NYSDEC PUBLIC SUPPLY WELLS IDENTIFIED WITHIN 1/2 MILE SEARCH RADIUS

NYSDEC WELL REGISTRATION SITES IDENTIFIED WITHIN 1/2 MILE SEARCH RADIUS

PLEASE NOTE: * Compass directions can vary substantially for sites located very close to the subject property address.

Map Identification Number 17 39-29 HONEYWELL STREET, LONG ISLAND CITY

MAP LOCATION INFORMATION Site location mapped by: ADDRESS MAPPING Approximate distance from property: 2062 feet to the W Revised street: NO CHANGE Revised zip code: 11101

Owner: AMTRAK Permit Number: Depth: 60 ft

Mail Address: 39-29 HONEYWELL STREET, LONG ISLAND CITY Driller Registration Number: 1667 Approval Date for Drilling: 09/28/1994 Purpose: BATHROOM Remarks: CANCELLED

These wells are unmapped and may be located in the search area:

Well Number: Q003581T Well Location: SUNNYSIDE YARD, LONG ISLAND CITY, QUEENS Well Number: Q003590 Well Location: 3200 RAILROAD AVENUE, LONG ISLAND CITY

Well Number: Q003586

ADDRESS CHANGE INFORMATION

Page 13

NEW YORK CITY HEALTH DEPARTMENT WELLS IDENTIFIED WITHIN 1/2 MILE SEARCH RADIUS

PLEASE NOTE: * Compass directions can vary substantially for sites located very close to the subject property address.

Map Identificatio	on Number 18	ASTORIA 38TH A 37-40 31 STREET	,	QUEENS, NY 11101	Camis-id: 40423103	
	ped by: PARCEL	- MAPPING (1) : 2389 feet to the	WNW		ADDRESS CHANGE INFO Revised street: 3740 31S Revised zip code: 11101	
Doc Number: Status: Expiration Date:	199977 002 12/31/1996	License Number: Class:	0006487 ND	License Code: Sub-Class:	H33 R	

DAY CARE FACILITIES IDENTIFIED WITHIN THE 1/2 MILE SEARCH RADIUS

PLEASE NOTE: * Compass directions can vary substantially for sites located very close to the subject property address.

Map Identificat	ion Number 19	NYC PARKS & RECREATION ARROW COMMUNI 35-30 35TH AVE.	TY CENTER ASTORIA, NY 17	Facility Id: 234297	
Site location ma	N INFORMATION pped by: ADDRE stance from property	SS MATCHING 1: 1594 feet to the NNW	ADDRESS CHANGE INFORMATION Revised street: 3530 35TH AVE. Revised zip code: NO CHANGE		
Facility Type: Contact: Capacity:	School Age Chil Ms. Mackenzie \$ 30	d Care Steinkamp, Director	Status: Contact Phone:	Open (718) 349-3408	

Map Identification Number 20 CONDE- BARBECKO, JUDITH 35-10 35TH STREET, APT. A1

MAP LOCATION INFORMATION Site location mapped by: PARCEL MAPPING (3) Approximate distance from property: 1659 feet to the NNW

Facility Type:Group Family Day CareContact:Mrs. JUDITH CONDE- BARBECKO, On-Site ProviderCapacity:10 Children, Ages 6 weeks to 12 years or
12 Children Ages 2 to 12 years and
2 Additional School Age

Facility Id: 169744 LONG ISLAND CITY, NY 11106

ADDRESS CHANGE INFORMATION Revised street: 3510 35TH ST Revised zip code: NO CHANGE

Status: Open Contact Phone: (718) 784-5259

Map Identification Number 21 TABARE

TABARES, MARIA 36-33 32ND. STREET, 1ST FLOOR

MAP LOCATION INFORMATION Site location mapped by: PARCEL MAPPING (3) Approximate distance from property: 1883 feet to the NW

Facility Type:Family Day CareContact:MARIA TABARES, On-Site ProviderCapacity:5 Children, Ages 6 weeks to 12 years or
6 Children Ages 2 to 12 years

Facility Id: 67304

LONG ISLAND CITY, NY 11106

ADDRESS CHANGE INFORMATION Revised street: 3633 32ND ST Revised zip code: NO CHANGE

Status: Open Contact Phone: (718) 729-8321

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39-04 Northern Blvd

Map Identification Number 22 YMCA LONG ISLAND CITY VIRTUAL Y @ PS 150 40-01 43RD AVE

MAP LOCATION INFORMATION Site location mapped by: PARCEL MAPPING (3) Approximate distance from property: 2282 feet to the S

Facility Type:School Age Child CareContact:Ms. Gerarda Sacino, DirectorCapacity:63

Map Identification Number 23 SUNNYSIDE COMM. SERVICES @ PS 150 40-01 43RD AVE

MAP LOCATION INFORMATION Site location mapped by: PARCEL MAPPING (3)

Approximate distance from property: 2282 feet to the S

Facility Type:School Age Child CareContact:Ms. Laura E. Forster, DirectorCapacity:169

Map Identification Number 24 HOLY MOUNTAIN PRE-SCHOOL 45-08 SKILLMAN AVE

MAP LOCATION INFORMATION Site location mapped by: PARCEL MAPPING (3) Approximate distance from property: 2559 feet to the SE

Facility Type:	School Age Child Care
Contact:	Ms. Theresa Alagna, Director
Capacity:	25

Facility Id: 73817 LONG ISLAND CITY, NY 11104

ADDRESS CHANGE INFORMATION Revised street: 4001 43RD AVE Revised zip code: NO CHANGE

Status: Open Contact Phone: (718) 392-7932

Facility Id: 74139

SUNNYSIDE, NY 11104

ADDRESS CHANGE INFORMATION Revised street: 4001 43RD AVE Revised zip code: NO CHANGE

Status: Open Contact Phone: (718) 784-6173

Facility Id: 274353

SUNNYSIDE, NY 11104

ADDRESS CHANGE INFORMATION Revised street: 4508 SKILLMAN AVE Revised zip code: NO CHANGE

Status: Open Contact Phone: (718) 361-0080

SCHOOLS IDENTIFIED WITHIN THE 1/2 MILE SEARCH RADIUS

PLEASE NOTE: * Compass directions can vary substantially for sites located very close to the subject property address.

Map Identification Number 25

OUR WORLD NEIGHBORHOOD CHARTER SCHOO 36-12 35TH AVE

MAP LOCATION INFORMATION Site location mapped by: PARCEL MAPPING (3) Approximate distance from property: 1303 feet to the N

Map Identification Number 26BACCALAUREATE SCHOOL-GLOBAL ED
34-12 36TH AVE

MAP LOCATION INFORMATION Site location mapped by: PARCEL MAPPING (3) Approximate distance from property: 1324 feet to the NW

Map Identification Number 27 PS 166 HENRY GRADSTEIN SCHOOL 33-09 35TH AVE

MAP LOCATION INFORMATION Site location mapped by: PARCEL MAPPING (3) Approximate distance from property: 2047 feet to the NNW

Map Identification Number 28

PS 150 40-01 43D AVE

MAP LOCATION INFORMATION Site location mapped by: PARCEL MAPPING (3) Approximate distance from property: 2284 feet to the S

Map Identification Number 29

MOST PRECIOUS BLOOD SCHOOL 32-52 37TH ST

MAP LOCATION INFORMATION Site location mapped by: PARCEL MAPPING (3) Approximate distance from property: 2543 feet to the NNE

Facility Id: 343000860836 ASTORIA, NY 11106

ADDRESS CHANGE INFORMATION Revised street: 3612 35TH AVE Revised zip code: 11106

39-04 Northern Blvd

Facility Id: 343000011580 LONG ISLAND CITY, NY 11106

ADDRESS CHANGE INFORMATION Revised street: 3412 36TH AVE Revised zip code: 11106

Facility Id: 343000010166 LONG ISLAND CITY, NY 11106

ADDRESS CHANGE INFORMATION Revised street: 3309 35TH AVE Revised zip code: 11106

Facility Id: 343000010150 LONG ISLAND CITY, NY 11104

ADDRESS CHANGE INFORMATION Revised street: 4001 43RD AVE Revised zip code: 11104

Facility Id: 343000125958 LONG ISLAND CITY, NY 111034004

ADDRESS CHANGE INFORMATION Revised street: 3252 37TH ST Revised zip code: 111034004 Copyright 2015 Toxics Targeting, Inc. September 4, 2015

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NO HOSPITALS IDENTIFIED WITHIN 1/2 MILE SEARCH RADIUS

NO ADULT NURSING HOMES IDENTIFIED WITHIN 1/2 MILE SEARCH RADIUS

CHURCHES IDENTIFIED WITHIN 1/2 MILE SEARCH RADIUS

PLEASE NOTE: * Compass directions can vary substantially for sites located very close to the subject property address.

Map Identification Number 30

NY Presbyterian Church 4323 37TH AVE

MAP LOCATION INFORMATION Site location mapped by: PARCEL MAPPING (1) Approximate distance from property: 1419 feet to the ESE

Map Identification Number 31

Moak Yang Presbyterian Church 4005 SKILLMAN AVE

MAP LOCATION INFORMATION Site location mapped by: PARCEL MAPPING (1) Approximate distance from property: 1731 feet to the S

Map Identification Number 32

Korean Central Church of NY 3271 41ST ST

MAP LOCATION INFORMATION Site location mapped by: PARCEL MAPPING (1) Approximate distance from property: 2092 feet to the NE

Map Identification Number 33

St. George Coptic Orthodox Church 3825 31ST ST

MAP LOCATION INFORMATION Site location mapped by: PARCEL MAPPING (1) Approximate distance from property: 2353 feet to the W

Map Identification Number 34 Queen of the total of total of the total of the total of total o

Queen of Angels RC Church 4404 SKILLMAN AVE

MAP LOCATION INFORMATION Site location mapped by: PARCEL MAPPING (2) Approximate distance from property: 2375 feet to the SSE

Facility Id:

Long Island City, NY 11101

ADDRESS CHANGE INFORMATION Revised street: NO CHANGE Revised zip code: NO CHANGE

Facility Id:

Long Island City, NY 11104

ADDRESS CHANGE INFORMATION Revised street: NO CHANGE Revised zip code: NO CHANGE

Facility Id:

Queens, NY 11103

ADDRESS CHANGE INFORMATION Revised street: NO CHANGE Revised zip code: NO CHANGE

Facility Id:

Long Island City, NY 11101

ADDRESS CHANGE INFORMATION Revised street: NO CHANGE Revised zip code: NO CHANGE

Facility Id:

Sunnyside, NY 11104

ADDRESS CHANGE INFORMATION Revised street: NO CHANGE Revised zip code: NO CHANGE

Page 20

Map Identification Number 35Most Precious Blood RC3223 36TH ST

MAP LOCATION INFORMATION Site location mapped by: PARCEL MAPPING (1) Approximate distance from property: 2538 feet to the NNE Facility Id:

Queens, NY 11106

ADDRESS CHANGE INFORMATION Revised street: NO CHANGE Revised zip code: NO CHANGE

PARKS IDENTIFIED WITHIN 1/2 MILE SEARCH RADIUS

PLEASE NOTE: * Compass directions can vary substantially for sites located very close to the subject property address.

Map Identification Number 36

Playground Thirty Five STEINWAT ST / 35TH AVE

MAP LOCATION INFORMATION Site location mapped by: PARCEL MAPPING (1) Approximate distance from property: 1110 feet to the NNE

Map Identification Number 37

A.R.R.O.W. Field House 3538 35TH ST

MAP LOCATION INFORMATION Site location mapped by: PARCEL MAPPING (1) Approximate distance from property: 1493 feet to the NNW

Map Identification Number 38

Torsney Playground

MAP LOCATION INFORMATION Site location mapped by: MAP COORDINATE (2) Approximate distance from property: 1927 feet to the SSE

Map Identification Number 39

P.S. 150 Playground 4122 42ND ST

MAP LOCATION INFORMATION Site location mapped by: PARCEL MAPPING (1) Approximate distance from property: 2111 feet to the S

Map Identification Number 40

Dwyer Square 34TH AVE / NORTHERN BLVD

MAP LOCATION INFORMATION Site location mapped by: PARCEL MAPPING (1) Approximate distance from property: 2512 feet to the ENE

Facility Id:

Long Island City, NY 11101

ADDRESS CHANGE INFORMATION Revised street: NO CHANGE Revised zip code: NO CHANGE

Facility Id:

Queens, NY 11106

ADDRESS CHANGE INFORMATION Revised street: NO CHANGE Revised zip code: NO CHANGE

Facility Id: NY43184

Queens, NY

ADDRESS CHANGE INFORMATION Revised street: NO CHANGE Revised zip code: NO CHANGE

Facility Id:

Long Island City, NY 11104

ADDRESS CHANGE INFORMATION Revised street: NO CHANGE Revised zip code: NO CHANGE

Facility Id:

Long Island City, NY 11101

ADDRESS CHANGE INFORMATION Revised street: NO CHANGE Revised zip code: NO CHANGE NO BEACHES IDENTIFIED WITHIN 1/2 MILE SEARCH RADIUS

Copyright 2015 Toxics Targeting, Inc. September 4, 2015

NO WETLANDS IDENTIFIED WITHIN 1/2 MILE SEARCH RADIUS

Appendix D – SVE/AS Pilot Test Data

	ilot Test Data	traction (SVE) P	Soil Vapor Ex Extracti	ne Speedway #7830 39-04 Northern Boulevard, Long Island City, NY							
		MW-9		est Date: 9/20/2016							
Observation We	Observation Well	Observation Well	Observation Well					JW, DW	Personnel		
		MW-3	CW-3	eather: Cloudy/75 DEG F							
Distance (ft)	Distance (ft)	Distance (ft)	Distance (ft)						voullor.		
		52.4	19.4								
Vacuum"H ₂ 0	Vacuum"H ₂ 0	Vacuum"H ₂ 0	Vacuum"H ₂ 0	Extraction PID (ppm)	Flow (scfm)	Flow (acfm)	System Vac	Well Head Vac	Time		
		0.00	0.00	-	-	-	-	-	9:20		
		0.02	0.08	0.0	31.1	30	14	13	10:00		
		0.01	0.08	0.0	31.1	30	14	13	10:10		
		0.01	0.08	0.0	31.1	30	14	13	10:15		
		0.02	0.15	1.4	53.3	50	25	21	10:16		
		0.02	0.15	1.9	53.3	50	25	21	10:21		
		0.02	0.15	3.3	53.3	50	25	21	10:26		
		0.02	0.22	5.9	87.5	80	35	32	10:27		
		0.03	0.22	2.4	87.5	80	35	32	10:32		
		0.03	0.22	8.3	87.5	80	35	32	10:37		
								/ Notes:	Comment		

Collected air bag during 10:21 stage.

						Soil Vapor Extraction (SVE) Pilot Test Data			
Site Name Speedway #7830 39-04 Northern Boulevard, Long Island City, NY					Extraction Well				
Test Date: 9/20/2016						CW-3			
						v-3			
Personnel	:JW, DW					Observation Well	Observation Well	Observation Well	Observation Well
Weather:	Cloudy/75 DEG	F				MW-9	MW-3		
weather.	Cloudy/15 DEC	I				Distance (ft)	Distance (ft)	Distance (ft)	Distance (ft)
						19.4	40		
Time	Well Head Vac	System Vac	Flow (acfm)	Flow (scfm)	Extraction PID (ppm)	Vacuum"H ₂ 0	Vacuum"H ₂ 0	Vacuum"H ₂ 0	Vacuum"H ₂ 0
10:40	-	-	-	-	-	0.00	0.00		
10:45	64	70	30	36.2	0.0	0.06	0.07		
10:50	64	70	30	36.2	0.0	0.07	0.07		
10:55	64	70	30	36.2	0.0	0.07	0.07		
Comment	/ Notes:		Blower maxed	out on initial sta	0e				
			Collected air ba		3~.				
				ay e 10.00.					

				Air Sparge Pilot Test Data							
Site Name	Site Name Speedway #7830 39-04 Northern Boulevard, Long Island City, N				AS Te	st Well					
Test Date:	9/20/2016				AS	S-3					
Personnel	JW, DW			Observa	tion Well		tion Well	Observa	tion Well	Observa	tion Well
Weather:	Veather: Cloudy/75 DEG F			MV	V-9	CV	V-3				
					nce (ft) 60		nce (ft) .92	Distar	nce (ft)	Distan	ce (II)
Time	Max Pres. (psi)	Run Pres. (psi)	Flow (cfm)	Pressure (in. w.c.)	PID (ppm)	Pressure (in. w.c.)	PID (ppm)	Pressure (in. w.c.)	PID (ppm)	Pressure (in. w.c.)	PID (ppm)
10:57	-	-	-	0.00	0.0	0.00	0.0				
11:00	11	8	10	0.06	6	0.01	0				
11:15	-	6	12	0.30	6.6	0.05	0				
11:30	-	6	12	0.25	6.3	0.05	0				
11:45	-	6	12	0.31	615	0.05	0				
12:00	-	6	12	0.32	757	0.05	42				
12:15	-	6	12	0.32	1330	0.05	38				

Comment / Notes:

Well breaking pressure - 11 psi.

Site Name Speedway #7830				Air Sparge Pilot Test Data AS Test Well							
	39-04 Northern Boulevard, Long Island City, N										
Test Date:	9/20/2016			(CW-	3AS	5				
Personnel:	JW, DW				7	Observa	tion Well	Ohserva	tion Well	Observat	tion Well
Weather:	Cloudy/80 DEC	G F		, CV			V-9		V-3		
				Distar	ice (ft)	Distar	nce (ft)	Distar	nce (ft)	Distance (ft)	
				0.	33	19	.40	40	.00		
Time	Max Pres. (psi)	Run Pres. (psi)	Flow (cfm)	Pressure (in. w.c.)	PID (ppm)	Pressure (in. w.c.)	(mqq)	Pressure (in. w.c.)	PID (ppm)	Pressure (in. w.c.)	PID (ppm)
12:30	15	14	6	0.70	40	0.02	1000	0.02	0.0		
1:00	-	8	10	1.00	90	0.07	750	0.00	0.0		
1:15	-	8	10	0.95	82	0.07	755	0.00	0.0		
1:30	-	8	10	0.97	85	0.07	750	0.00	0.0		
Comment	/ Notes:	Well breaking	pressure - 15 ps	i.							

Site Name: Speedway				
39-04 100	thern Boulevard, Long I	Island City, NY	/	AS Test Well
Test Date: 9/20/2016				
				AS-3
Personnel: JW, DW				
				pressure = 11 psi.
Maathari Claudu 75			Running pres	
Weather: Cloudy, 75	DEG		Running now	rate = 12 cfm.
	Air	r Sparge Pilot Test	Data	
	Air	r Sparge Pilot Test	Data	
	Aiı	r Sparge Pilot Test	Data Maximum PID Head	Maximum Pressure
	Air	r Sparge Pilot Test Baseline PID Head		Maximum Pressure Influence During
	Air		Maximum PID Head	
Well ID	Distance (ft)	Baseline PID Head Space Reading (ppm)	Maximum PID Head Space Reading During Sparging (ppm)	Influence During Sparging (in. w.c.)
MW-9	Distance (ft) 5.6	Baseline PID Head Space Reading (ppm) 0.0	Maximum PID Head Space Reading During Sparging (ppm) 1330	Influence During Sparging (in. w.c.) 0.32
	Distance (ft)	Baseline PID Head Space Reading (ppm)	Maximum PID Head Space Reading During Sparging (ppm)	Influence During Sparging (in. w.c.)
MW-9	Distance (ft) 5.6	Baseline PID Head Space Reading (ppm) 0.0	Maximum PID Head Space Reading During Sparging (ppm) 1330	Influence During Sparging (in. w.c.) 0.32
MW-9	Distance (ft) 5.6	Baseline PID Head Space Reading (ppm) 0.0	Maximum PID Head Space Reading During Sparging (ppm) 1330	Influence During Sparging (in. w.c.) 0.32
MW-9	Distance (ft) 5.6	Baseline PID Head Space Reading (ppm) 0.0	Maximum PID Head Space Reading During Sparging (ppm) 1330	Influence During Sparging (in. w.c.) 0.32

Site Name:	Speedway #7830 39-04 Northern Boule	evard, Long Island	d City, NY		А	S Test Well
Test Date:	9/20/2016				C١	V-3AS
Personnel:	JW, DW					
Weather:	Cloudy, 80 DEG				Breakthrough Running press Running flow r	
		Air Sp	arge Pilot Test	Data	• •	
		•				
Well I		stance (ft)	Baseline PID Head Space Reading (ppm)	Space Rea Spar	PID Head ding During rging om)	Maximum Pressure Influence During Sparging (in. w.c.)
CW- MW- MW-	3 9	0.3 19.4 40.0	0.0 0.0 0.0		90 000 0.0	1.00 0.07 0.02

Site Name: Speedway #7830 39-04 Northern Boulevard, Long Island City, NY

Test Date: 9/20/2016

Personnel: JW, DW

MW-9 SVE Effluent Air Sampling Results With & Without AS

Contaminant	Concentration w/o AS (ppmV)	Concentration w/ AS-3 (ppmV)
MTBE	ND	95.7
Benzene	ND	124
Toluene	ND	47
Ethylbenzene	ND	45.3
Xylenes	ND	74.7
PID	1.9	1,400

CW-3 SVE Effluent Air Sampling Results With & Without AS

Contaminant	Concentration w/o AS (ppmV)	Concentration w/ CW-3AS (ppmV)
MTBE	ND	ND
Benzene	ND	ND
Toluene	ND	48.2
Ethylbenzene	ND	14.1
Xylenes	ND	42.8
PID	0.0	330

Summary of Soil Vapor Extraction Pilot Test Data Speedway Station # 7830 39-04 Northern Boulevard Long Island City, NY

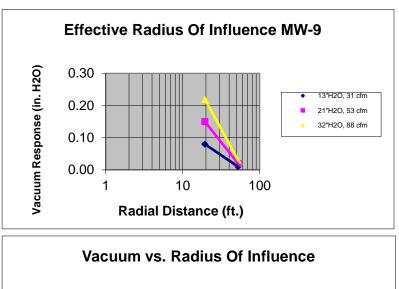
Test Date:	9/20/2016
Performed By:	EnviroTrac
Extraction Well:	MW-9
Test Duration (min.):	55
Wellhead Vacuum ("H2O):	10 to 30
Vapor Discharge Flow (scfm):	25 to 100

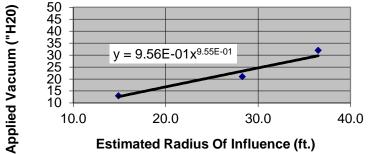
SVE Design Data

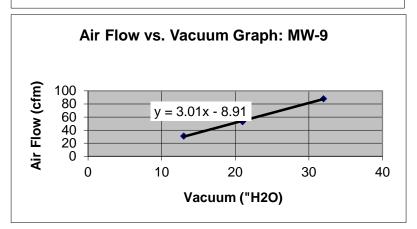
	vacuum	vacuum	vacuum
	Response 1	Response 2	Response 3
	13" H2O	21" H2O	32" H2O
	Applied	Applied	Applied
Radial	Vacuum, 31	Vacuum, 53	Vacuum, 88
Distance (ft.)	scfm ("H2O)	scfm ("H2O)	scfm ("H2O)
19.4	0.08	0.15	0.22
52.4	0.01	0.02	0.03

Est. ROI (ft.)	Vacuum ("H2O)	Flow (scfm)
14.9	13	31
28.3	21	53
36.5	32	88

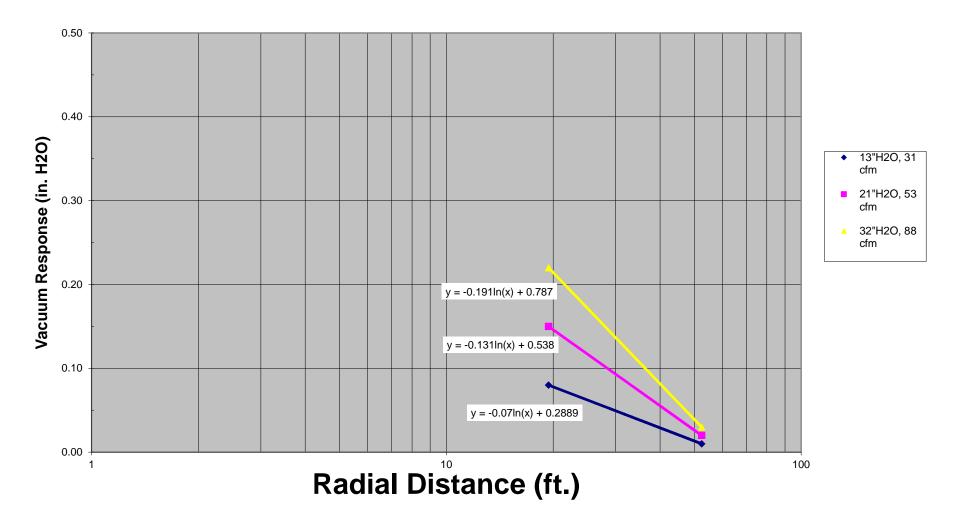
Desired ROI = 30 feet @ 30 ft ROI, Vacuum = 17 inches w.c. @ 17 inches w.c. Vacuum, Flow = 53 cfm







Effective Radius Of Influence MW-9



Appendix E – Pilot Test Laboratory Data



Pace Analytical Services, Inc. 1700 Elm Street - Suite 200 Minneapolis, MN 55414 (612)607-1700

October 03, 2016

Ed Russo Enviro Trac Ltd. 5 Old Dock Road Yaphank, NY 11980

RE: Project: C210007830 COC ID # 00044223 Pace Project No.: 10363118

Dear Ed Russo:

Enclosed are the analytical results for sample(s) received by the laboratory on September 21, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Joanne Richardson

Joanne M Richardson joanne.richardson@pacelabs.com Project Manager

Enclosures





Pace Analytical Services, Inc. 1700 Elm Street - Suite 200 Minneapolis, MN 55414 (612)607-1700

CERTIFICATIONS

Project: C210007830 COC ID # 00044223 Pace Project No.: 10363118

Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414 Alaska Certification UST-107 525 N 8th Street, Salina, KS 67401 A2LA Certification #: 2926.01 Alaska Certification #: UST-078 Alaska Certification #MN00064 Alabama Certification #40770 Arizona Certification #: AZ-0014 Arkansas Certification #: 88-0680 California Certification #: 01155CA Colorado Certification #Pace Connecticut Certification #: PH-0256 EPA Region 8 Certification #: 8TMS-L Florida/NELAP Certification #: E87605 Guam Certification #:14-008r Georgia Certification #: 959 Georgia EPD #: Pace Idaho Certification #: MN00064 Hawaii Certification #MN00064 Illinois Certification #: 200011 Indiana Certification#C-MN-01 Iowa Certification #: 368 Kansas Certification #: E-10167 Kentucky Dept of Envi. Protection - DW #90062 Kentucky Dept of Envi. Protection - WW #:90062 Louisiana DEQ Certification #: 3086 Louisiana DHH #: LA140001 Maine Certification #: 2013011 Maryland Certification #: 322

Michigan DEPH Certification #: 9909 Minnesota Certification #: 027-053-137 Mississippi Certification #: Pace Montana Certification #: MT0092 Nevada Certification #: MN 00064 Nebraska Certification #: Pace New Jersey Certification #: MN-002 New York Certification #: 11647 North Carolina Certification #: 530 North Carolina State Public Health #: 27700 North Dakota Certification #: R-036 Ohio EPA #: 4150 Ohio VAP Certification #: CL101 Oklahoma Certification #: 9507 Oregon Certification #: MN200001 Oregon Certification #: MN300001 Pennsylvania Certification #: 68-00563 Puerto Rico Certification Saipan (CNMI) #:MP0003 South Carolina #:74003001 Texas Certification #: T104704192 Tennessee Certification #: 02818 Utah Certification #: MN000642013-4 Virginia DGS Certification #: 251 Virginia/VELAP Certification #: Pace Washington Certification #: C486 West Virginia Certification #: 382 West Virginia DHHR #:9952C Wisconsin Certification #: 999407970



SAMPLE SUMMARY

Project: C210007830 COC ID # 00044223

Pace Project No.: 10363118

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10363118001	MW-9 SVE ONLY	Air	09/20/16 10:21	09/21/16 07:55
10363118002	CW-3 SVE ONLY	Air	09/20/16 10:50	09/21/16 07:55
10363118003	MW-9 SVE W/ AS	Air	09/20/16 12:15	09/21/16 07:55
10363118004	CW-3 SVE W/AS	Air	09/20/16 13:30	09/21/16 07:55



SAMPLE ANALYTE COUNT

 Project:
 C210007830 COC ID # 00044223

 Pace Project No.:
 10363118

Lab ID	Sample ID	Method	Analysts	Analytes Reported
10363118001	MW-9 SVE ONLY	TO-3 Air	RTP	6
10363118002	CW-3 SVE ONLY	TO-3 Air	RTP	6
10363118003	MW-9 SVE W/ AS	TO-3 Air	RTP	6
10363118004	CW-3 SVE W/AS	TO-3 Air	RTP	6



Project: C210007830 COC ID # 00044223

Pace Project No.: 10363118

Sample: MW-9 SVE ONLY	Lab ID: 1	0363118001	Collected: 09/20/1	6 10:21	Received: 09	9/21/16 07:55 N	latrix: Air	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO3 GCV AIR BTEX BAG	Analytical N	lethod: TO-3 Ai	r					
Benzene	ND	ppmv	0.67	6.7		09/28/16 10:02	71-43-2	1M
Ethylbenzene	ND	ppmv	0.67	6.7		09/28/16 10:02	100-41-4	
Methyl-tert-butyl ether	ND	ppmv	0.67	6.7		09/28/16 10:02	1634-04-4	
Toluene	ND	ppmv	0.67	6.7		09/28/16 10:02	108-88-3	
m&p-Xylene	ND	ppmv	1.3	6.7		09/28/16 10:02	179601-23-1	
o-Xylene	ND	ppmv	0.67	6.7		09/28/16 10:02	95-47-6	



Project: C210007830 COC ID # 00044223

Pace Project No.: 10363118

Sample: CW-3 SVE ONLY	Lab ID: 10	0363118002	Collected: 09/20/	16 10:50	Received: 09	9/21/16 07:55 N	Aatrix: Air	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO3 GCV AIR BTEX BAG	Analytical M	ethod: TO-3 Ai	r					
Benzene	ND	ppmv	0.58	5.79		09/28/16 10:23	71-43-2	1M
Ethylbenzene	ND	ppmv	0.58	5.79		09/28/16 10:23	100-41-4	
Methyl-tert-butyl ether	ND	ppmv	0.58	5.79		09/28/16 10:23	1634-04-4	
Toluene	ND	ppmv	0.58	5.79		09/28/16 10:23	108-88-3	
m&p-Xylene	ND	ppmv	1.2	5.79		09/28/16 10:23	179601-23-1	
o-Xylene	ND	ppmv	0.58	5.79		09/28/16 10:23	95-47-6	



Project: C210007830 COC ID # 00044223

Pace Project No.: 10363118

Sample: MW-9 SVE W/ AS	Lab ID: 10	0363118003	Collected: 09/20/	16 12:15	Received: 09	9/21/16 07:55 N	/latrix: Air	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO3 GCV AIR BTEX BAG	Analytical Me	ethod: TO-3 Air	r					
Benzene	124	ppmv	8.1	81.4		09/28/16 13:13	71-43-2	1M
Ethylbenzene	45.3	ppmv	8.1	81.4		09/28/16 13:13	100-41-4	
Methyl-tert-butyl ether	95.7	ppmv	8.1	81.4		09/28/16 13:13	1634-04-4	
Toluene	47.0	ppmv	8.1	81.4		09/28/16 13:13	108-88-3	
m&p-Xylene	59.5	ppmv	16.3	81.4		09/28/16 13:13	179601-23-1	
o-Xylene	15.2	ppmv	8.1	81.4		09/28/16 13:13	95-47-6	



Project: C210007830 COC ID # 00044223

Pace Project No.: 10363118

Sample: CW-3 SVE W/AS	Lab ID: 10	363118004	Collected: 09/20/	6 13:30	Received: 09	/21/16 07:55 N	latrix: Air	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO3 GCV AIR BTEX BAG	Analytical Me	thod: TO-3 Ai	r					
Benzene	13.4	ppmv	0.68	6.76		09/28/16 10:53	71-43-2	1M
Ethylbenzene	6.6	ppmv	0.68	6.76		09/28/16 10:53	100-41-4	
Methyl-tert-butyl ether	13.3	ppmv	0.68	6.76		09/28/16 10:53	1634-04-4	
Toluene	3.4	ppmv	0.68	6.76		09/28/16 10:53	108-88-3	
m&p-Xylene	9.3	ppmv	1.4	6.76		09/28/16 10:53	179601-23-1	
o-Xylene	2.3	ppmv	0.68	6.76		09/28/16 10:53	95-47-6	



QUALITY CONTROL DATA

Project: C210007830 COC ID # 00044223

Pace Project No.: 10363118

QC Batch:	437900	Analysis Method:	TO-3 Air
QC Batch Method:	TO-3 Air	Analysis Description:	TO3 GCV AIR BTEX BAG
Associated Lab Sam	ples: 10363118001, 10363118002,	10363118003, 10363118004	

METHOD BLANK: 2378778

Matrix: Air

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ppmv	ND	0.10	09/28/16 08:29	
Ethylbenzene	ppmv	ND	0.10	09/28/16 08:29	
m&p-Xylene	ppmv	ND	0.20	09/28/16 08:29	
Methyl-tert-butyl ether	ppmv	ND	0.10	09/28/16 08:29	
o-Xylene	ppmv	ND	0.10	09/28/16 08:29	
Toluene	ppmv	ND	0.10	09/28/16 08:29	
a,a,a-Trifluorotoluene (S)	%.	113	30-150	09/28/16 08:29	

LABORATORY CONTROL SAMPLE &	LCSD: 2378779		23	378780						
		Spike	LCS	LCSD	LCS	LCSD	% Rec		Max	
Parameter	Units	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qualifiers
Benzene	ppmv	1	1.1	1.0	109	105	70-130	4	30	
Ethylbenzene	ppmv	1	1.1	1.0	111	103	70-130	7	30	
m&p-Xylene	ppmv	2	2.2	2.0	111	102	70-130	8	30	
Methyl-tert-butyl ether	ppmv	1	1.0	1.0	102	100	70-130	3	30	
o-Xylene	ppmv	1	1.1	1.0	113	102	70-130	10	30	
Toluene	ppmv	1	1.1	1.0	109	105	70-130	4	30	
a,a,a-Trifluorotoluene (S)	%.				110	108	30-150			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALIFIERS

Project: C210007830 COC ID # 00044223

Pace Project No.: 10363118

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

1M Sample was transferred from a sampling bag into a Summa Canister within 72 hours of collection.



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: C210007830 COC ID # 00044223

Pace Project No.: 10363118

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10363118001	MW-9 SVE ONLY	TO-3 Air	437900		
10363118002	CW-3 SVE ONLY	TO-3 Air	437900		
10363118003	MW-9 SVE W/ AS	TO-3 Air	437900		
10363118004	CW-3 SVE W/AS	TO-3 Air	437900		

10363118	e: of			GROUND WATER DRINKING WATER	OTHER					(N/Y) BI	ninolif) (eubie	Bace Project No./ Lab I.D. OD	202	0 2 2	pùá							SAMPLE CONDITIONS	x x x Day	ut≊ct aonelet)))))))))))))))))))	ni qmaT Teceive (Y) eoi Custo Custo Custo Curvi V/V) eseleme V/V)	-
Iment urately.	Page:		REGULATORY AGENCY	NPDES GROU	UST RCRA	Site Location	STATE:	Requested Analysis Filtered (Y/N)														DATE	91211 0755		210 112	1 10 110
CHAIN-OF-CUSTODY / Analytical Request Document The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.	Section C Invoice Information:	Attention:	Name:	Address:	Pace Quote Reference:		Pace Profile #		Preservatives)	inalysis Tes S ₂ O ₃ DH DH DA Da Da Da DA Da DA Da DA DA DA DA DA DA DA DA DA DA DA DA DA) 							TIME ACCENTED BY / AFFILIATION	Jun Bagy and		R. J.M. W. W. TUSOU	& WINDOW
CHAIN-OF-CU The Chain-of-Custody is a	Section B Required Project Information:	Report To: edr@envirotrac.com	Copy To:		Purchase Order No :	Project Name: LIC (Northern)	Project Number: Speedway #7830		itter (juan	er eaber billev eae GRAB C=CON Safety		DATE TIME DATE TIME	1 1 M//// 1 10/201	1414 WWW T N 17.15										SAMPLER NAME AND SIGNATURE	PRINT Name of SAMPLER:	SIGNALUKE O' SAMITLEK.
Pace Analytical	lient Information:	: Ltd.	5 Old Dock Road	Yaphank, NY 11980	edr@envirotrac.com	Phone: 631-924-3001 Fax: Proje	Requested Due Date/TAT: Standard Proje		atrix Co		SAMPLE ID WPE (A-2, 0-9 / -) CHER Sample IDs MUST BE UNIQUE TISSUE	0	7-004	2013 06H	Cu-3 SVE W/											
	F Section A Required C	Company:	Address:		Email To:	Phone.	Reque				#	ITEM	-	~	- 4	50	8	~ •	• •	2	=	4				

Page 12 of 15

	Address:	3904 No	3904 Northern Blvd			Consultant:	EnviroTrac Ltd - Yaphank, NY	- Yaphank, NY
Ľ	City:	Long Island City	and City	State:	NY	Project Mgr:		
Second	Phone #:			Fax #:		Address:		
TURN AROUND TIME	Speedway Proj. Mgr: Matthew Butler	Matthev	v Butler	**INVOICE TO S	TO SPEEDWAY**	Phone #:		Fax #:
STANDARD	AFE #:	150266		Work Order #: 1100686625	1100686625	Sampler: Shipped: Tracking #:	Jim Wilkinson FedExp 809251694900	
Sample ID	Date/Time Sampled	Matrix	Count	Container Type	Preservative	Preservative Analysis to be Performed	ed Method	Remarks
CW-3 SVE ONLY	09/20/2016 10:50am	A	1	TEDLAR	NONE	TO-3	TO-3	BTEX/MTBE
CW-3 SVE W/AS	09/20/2016 01:30pm	A	1	TEDLAR	NONE	TO-3	TO-3	(1:30) BTEX/MTBE
MW-9 SVE ONLY	09/20/2016 10:21am	A	1	TEDLAR	NONE	TO-3	TO-3	BTEX/MTBE
MW-9 SVE W/ AS	09/20/2016 12:15pm	A	1	TEDLAR	NONE	TO-3	TO-3	BTEX/MTBE
Relinquished by:			Date	Time	Received by:		Date	Time
Relinquished by:			Date	Time	Received by laboratory:		Date	Time
Special Reporting Requirements:					Lab Notes:		Temp	

Pace Analytical Services (MN)

COC ID # 00044223

Lab Information

Lab:

2-297313

Facility ID

Speedway Store #: C210007830

Chain-of-Custody-Record Speedway Project Information

Page 1 of 1

Analysis Name: TO-3 (Air)

Analysis Description / Method: TO-3 Air / Air Analysis

Container Type / Preservative: TEDLAR / NONE

Analytes: Benzene ppmv, Ethylbenzene ppmv, Methyl tert butyl ether ppmv, Toluene ppmv, m,p-Xylene ppmv, o-Xylene ppmv

Constanting of	2		ent Name: ition Upon Receipt	Document Revised: 26AP Page 1 of 1	R2016
Pac	ce Analytical*	Docum	nent No.: 106-rev.11	Issuing Authority: Pace Minnesota Quality	Office
Upon Receipt	ient Name: Enuro- huc ed Ex ロロPS		Project #:	0#:103631:	18
	ommercial Pace	Other: ၂၄၂၀၁	103	63118	•
istody Seal on Cooler/B	ox Present? Yes	Seals in	tact? 🗌 Yes 🚜	Optional: Proj. Due Date:	Proj. Name:
:king Material: 🔤 Bub	bble Wrap 🔄 Bubble I	Bags 🗌 Foam 🖄	one 🗌 Tin Can 🗌	Other: Temp	Blank rec: Yes
mp. (T017 and T013 samp emp should be above freezi se of ice Received Bla	ing to 6°C Correction Fac	Corrected Temp (°C): tor:		Jsed: B88A912167504 B88A0143310098 als of Person Examining Contents: _	□151401163 □151401164 <u>6</u> 2 9 2 1 0
			· · · · · · · · · · · · · · · · · · ·	Comments:	
Chain of Custody Present?	3	Yes No	N/A 1		
hain of Custody Filled Ou	it?	Yes No	N/A 2.		
hain of Custody Relinquis		Yes No	N/A 3.		
ampler Name and/or Sigi	· · ·	No Res	N/A 4.		
amples Arrived within Ho		Yes No	N/A 5.		
hort Hold Time Analysis	(<72 hr)?	Ves No	$\square N/A = 6. 7$	-BAG	
ush Turn Around Time R	equested?	Yes No	N/A 7		
ufficient Volume?		Yes No	N/A 8.		
orrect Containers Used?		Yes No	□N/A 9.		
-Pace Containers Used?)	Yes No			
ontainers Intact?		Yes No	N/A 10.		
Aedia: Air Can	Airbag Filter	TDT Passive	11.		
ample Labels Match COC	?	Pes No	□N/A 12.		
amples Received:		· · · · · · · · · · · · · · · · · · ·			
	Canisters			Canisters	
Sample Number	Can ID	Flow Controller ID	Sample Numb	er Can ID	Flow Controller ID
· · · · · · · · · · · · · · · · · · ·	······	······································			
					·
ENT NOTIFICATION/RE Person Conta			Date/Time:	Field Data Required?	
Comments/Resolu	·	of custody provided via e			······································
				· · · · · · · · · · · · · · · · · · ·	·····
			· · · ·		



Client: Phone:	Speedway 631-924-30	,		Lab Project Number: 10363118 Project Name: C210007830 COC ID # 00044223							
Lab Sample Client Sam		10363118001 MW-9 SV		Pro	jSampleNum: Matrix:		18001		Collected: 09/ Received: 09/		
Parameters	S		Results	Units	Report Limit	DF	Analyzed		CAS No.	Qualifiers	
Air TO-3 Air											
Benzen	е		ND	mg/m3	2.2	6.7	09/28/16 10:02 I	RTP	71-43-2	1M	
Ethylbe	nzene		ND	mg/m3	3	6.7	09/28/16 10:02 I	RTP	100-41-4		
m&p-Xy	/lene		ND	mg/m3	5.7	6.7	09/28/16 10:02 H	RTP	179601-23-1		
Methyl-	tert-butyl eth	er	ND	mg/m3	2.5	6.7	09/28/16 10:02 H	RTP	1634-04-4		
o-Xylen	e		ND	mg/m3	3	6.7	09/28/16 10:02 H	RTP	95-47-6		
Toluene	Э		ND	mg/m3	2.6	6.7	09/28/16 10:02 H	RTP	108-88-3		



	Speedway Pr 631-924-3001					Lab Project Numbe Project Nam		COC ID # 00044223
Lab Sample No:10363118002Client Sample ID:CW-3 SVE ONLY		Pr	ojSampleNum: Matrix:			Date Collected: 09/20/16 10:50 Date Received: 09/21/16 7:55		
Parameters	6	Resul	ts Units	Report Limit	DF	Analyzed	CAS No.	Qualifiers
Air TO-3 Air								
Benzene	е	ND	mg/m3	1.9	5.79	09/28/16 10:23 RTP	71-43-2	1M
Ethylben	nzene	ND	mg/m3	2.6	5.79	09/28/16 10:23 RTP	100-41-4	
m&p-Xyl	lene	ND	mg/m3	5.3	5.79	09/28/16 10:23 RTP	179601-23-1	
Methyl-te	ert-butyl ether	ND	mg/m3	2.1	5.79	09/28/16 10:23 RTP	1634-04-4	
o-Xylene	е	ND	mg/m3	2.6	5.79	09/28/16 10:23 RTP	95-47-6	
Toluene	•	ND	mg/m3	2.2	5.79	09/28/16 10:23 RTP	108-88-3	



•						Lab Project Numbe Project Nam		COC ID # 00044223	
Lab Sample No: 10363118003 Client Sample ID: MW-9 SVE W/ AS		-	ProjSampleNum: 10363118003 Matrix: Air				Date Collected: 09/20/16 12:15 Date Received: 09/21/16 7:55		
Parameters		Results	Units	Report Limit	DF	Analyzed	CAS No.	Qualifiers	
Air TO-3 Air									
Benzene		403	mg/m3	26.3	81.4	09/28/16 13:13 RTP	71-43-2	1M	
Ethylbenzene		200	mg/m3	35.8	81.4	09/28/16 13:13 RTP	100-41-4		
m&p-Xylene		263	mg/m3	71.9	81.4	09/28/16 13:13 RTP	179601-23-1		
Methyl-tert-but	/l ether	351	mg/m3	29.7	81.4	09/28/16 13:13 RTP	1634-04-4		
o-Xylene		67.1	mg/m3	35.8	81.4	09/28/16 13:13 RTP	95-47-6		
Toluene		180	mg/m3	31	81.4	09/28/16 13:13 RTP	108-88-3		



Client: Speedway Pro Phone: 631-924-3001	ject				Lab Project Numbe Project Nam		COC ID # 00044223
Lab Sample No:10363118004Client Sample ID:CW-3 SVE W/AS						te Collected: 09 te Received: 09	
Parameters	Results	Units	Report Limit	DF	Analyzed	CAS No.	Qualifiers
Air TO-3 Air							
Benzene	43.5	mg/m3	2.2	6.76	09/28/16 10:53 RTP	71-43-2	1M
Ethylbenzene	29.1	mg/m3	3	6.76	09/28/16 10:53 RTP	100-41-4	
m&p-Xylene	41.1	mg/m3	6.2	6.76	09/28/16 10:53 RTP	179601-23-1	
Methyl-tert-butyl ether	48.7	mg/m3	2.5	6.76	09/28/16 10:53 RTP	1634-04-4	
o-Xylene	10.2	mg/m3	3	6.76	09/28/16 10:53 RTP	95-47-6	
Toluene	13	mg/m3	2.6	6.76	09/28/16 10:53 RTP	108-88-3	



Pace Analytical Services, Inc. **17 00 Elm Street – Suite 200 Minneapolis, MN 55414 Phone: 612.607.1700** Fax: 612.607.6444

ANALYTICAL RESULTS

Client: Speedway Project Phone: 631-924-3001 Lab Project Number: 10363118 Project Name: C210007830 COC ID # 00044223

PARAMETER FOOTNOTES

ND Not detected at or above adjusted reporting limit

NC Not Calculable

- J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
- [1M] Sample was transferred from a sampling bag into a Summa Canister within 72 hours of collection.



Client: Speedway Project Phone: 631-924-3001							Lab Project N Project			COC ID # 00044223
Lab Sample No:10363118001Client Sample ID:MW-9 SVE ONLY								e Collected: 09/ e Received: 09/		
Parameters	•		Results	Units	Report Limit	DF	Analyzed		CAS No.	Qualifiers
Air TO-3 Air										
Benzene	Э		ND	ppbv	670	6.7	09/28/16 10:02	RTP	71-43-2	1M
Ethylben	nzene		ND	ppbv	670	6.7	09/28/16 10:02	RTP	100-41-4	
m&p-Xyl	lene		ND	ppbv	1300	6.7	09/28/16 10:02	RTP	179601-23-1	
Methyl-te	ert-butyl ethe	ər	ND	ppbv	670	6.7	09/28/16 10:02	RTP	1634-04-4	
o-Xylene	e		ND	ppbv	670	6.7	09/28/16 10:02	RTP	95-47-6	
Toluene			ND	ppbv	670	6.7	09/28/16 10:02	RTP	108-88-3	



Client: Speedwa Phone: 631-924-				Lab Project Nur Project N			COC ID # 00044223		
Lab Sample No:	10363118002			ProjSampleNum: 10 Matrix: Air				e Collected: 09/20/16 10:50 e Received: 09/21/16 7:55	
Client Sample ID: CW-3 SVE ONLY				Matrix.	All		Dale Re	eceiveu. 09/	21/10 7.55
Parameters		Results	Units	Report Limit	DF	Analyzed		CAS No.	Qualifiers
Air TO-3 Air									
Benzene		ND	ppbv	580	5.79	09/28/16 10:23 R	TP 7	1-43-2	1M
Ethylbenzene		ND	ppbv	580	5.79	09/28/16 10:23 R	TP 10	00-41-4	
m&p-Xylene		ND	ppbv	1200	5.79	09/28/16 10:23 R	TP 1	79601-23-1	
Methyl-tert-butyl e	ether	ND	ppbv	580	5.79	09/28/16 10:23 R	TP 10	634-04-4	
o-Xylene		ND	ppbv	580	5.79	09/28/16 10:23 R	TP 9	5-47-6	
Toluene		ND	ppbv	580	5.79	09/28/16 10:23 R	TP 10	08-88-3	



Client: Speedway Phone: 631-924-3				Lab Project Numb Project Nai		COC ID # 00044223				
Lab Sample No:10363118003Client Sample ID:MW-9 SVE W/ AS								te Collected: 09/20/16 12:15 te Received: 09/21/16 7:55		
Parameters		Results	Units	Report Limit	DF	Analyzed	CAS No.	Qualifiers		
Air TO-3 Air										
Benzene		124000	ppbv	8100	81.4	09/28/16 13:13 RTI	P 71-43-2	1M		
Ethylbenzene		45300	ppbv	8100	81.4	09/28/16 13:13 RTF	P 100-41-4			
m&p-Xylene		59500	ppbv	16300	81.4	09/28/16 13:13 RT	P 179601-23-1			
Methyl-tert-butyl et	ner	95700	ppbv	8100	81.4	09/28/16 13:13 RT	P 1634-04-4			
o-Xylene		15200	ppbv	8100	81.4	09/28/16 13:13 RT	95-47-6			
Toluene		47000	ppbv	8100	81.4	09/28/16 13:13 RTF	P 108-88-3			



Client: Speedway Project Phone: 631-924-3001				Lab Project Number: 10363118 Project Name: C210007830 COC ID # 00044223						
		10363118004 CW-3 SV		ProjSampleNum: Matrix:			18004		e Collected: 09/20/16 13:30 e Received: 09/21/16 7:55	
Paramete	rs	_	Results	Units	Report Limit	DF	Analyzed		CAS No.	Qualifiers
Air TO-3 Air										
Benze	ne		13400	ppbv	680	6.76	09/28/16 10:53 F	RTP	71-43-2	1M
Ethylbe	enzene		6600	ppbv	680	6.76	09/28/16 10:53 F	RTP	100-41-4	
m&p-X	(ylene		9300	ppbv	1400	6.76	09/28/16 10:53 F	RTP	179601-23-1	
Methyl	l-tert-butyl eth	ner	13300	ppbv	680	6.76	09/28/16 10:53 F	RTP	1634-04-4	
o-Xyle	ne		2300	ppbv	680	6.76	09/28/16 10:53 F	RTP	95-47-6	
Toluen	ne		3400	ppbv	680	6.76	09/28/16 10:53 F	RTP	108-88-3	



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ANALYTICAL RESULTS

Client: Speedway Project Phone: 631-924-3001 Lab Project Number: 10363118 Project Name: C210007830 COC ID # 00044223

PARAMETER FOOTNOTES

ND Not detected at or above adjusted reporting limit

NC Not Calculable

- J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
- [1M] Sample was transferred from a sampling bag into a Summa Canister within 72 hours of collection.