TRANSMITTAL LETTER

ARCADIS Design & Consultancy for natural and built assets

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Date:
January 20, 2017

Subject:
Former Gulf Oil Terminal Oceanside
Town of Hempstead, New York
NYSDEC Site No. 130165

Arcadis Project No.:
B0047517.0023

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Comments: As requested, enclosed is one unbound copy of the above-referenced report, including a CD containing a PDF of the full report. Feel free to contact me at 315.671.9172 or william.mccune@arcadis.com if you have any questions.

ARCADIS Design & Consultancy for natural and built assets

Chevron Environmental Management Company

SUPPLEMENTAL REMEDIAL INVESTIGATION REPORT

Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York
(NYSDEC Site #130165)

January 2017

SUPPLEMENTAL REMEDIAL INVESTIGATION REPORT

Former Gulf Oil Terminal
Oceanside, Township of Hempstead,
New York
(NYSDEC Site #130165)

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January 2017

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ACRONYMS AND ABBREVIATIONS

Arcadis	Arcadis of New York, Inc.
AST	aboveground storage tank
bcgs	below current ground surface
BCP	Brownfield Cleanup Program
bgs	below ground surface
Catamount	Catamount Petroleum LP
CEMC	Chevron Environmental Management Company
CFI	Cumberland Farms, Inc.
cgs	current ground surface
COCs	constituents of concern
CVOCs	Chlorinated Volatile Organic Compounds
DCE	Dichloroethene
FS	Feasibility Study
ft/ft	foot/foot
Gulf	Gulf Oil Limited Partnership
IRM	interim remedial measure
LNAPL	light nonaqueous phase liquid
Lowe's	Lowe's Home Centers, Inc.
mg/kg	milligrams per kilogram
MIPs	Membrane Interface Probes
MNA	monitored natural attenuation
MTBE	methyl tert-butyl ether
NYSDEC	New York State Department of Environmental Conservation
PID	photoionization detector
PVC	polyvinyl chloride
RI Report	Supplemental Remedial Investigation Report
SCOs	Soil Cleanup Objectives
site	former Gulf Oil Terminal located in Oceanside, Township of Hempstead, New York (NYSDEC Site #130165)
SVOC	semivolatile organic compound

TAL	Target Analyte List
TCE	trichloroethene
TOGS	Technical & Operational Guidance Series
USTs	underground storage tanks
VRU	Vapor Recovery Unit
VOC	volatile organic compound

1 INTRODUCTION

On behalf of Chevron Environmental Management Company (CEMC), Arcadis of New York, Inc. (Arcadis) is submitting this Supplemental Remedial Investigation Report (RI Report) to the New York State Department of Environmental Conservation (NYSDEC) for the former Gulf Oil Terminal located in Oceanside, Township of Hempstead, New York (NYSDEC Site #130165).

This RI Report has been prepared in accordance with the New York Codes, Rules and Regulations, the NYSDEC's Division of Environmental Remediation-10 – Technical Guidance for Site Investigation and Remediation (NYSDEC 2010).

The purpose of this report is to provide an update to the 2011 Remedial Investigation Data Summary Report (Arcadis, 2011) and to provide a summary of current site conditions to support the development of remedial actions as part of the Feasibility Study (FS) (will be provided under a separate cover).

1.1 Site Background

1.1.1 Site Description

The 7.2-acre site is located at 1 Industrial Place in Oceanside, Township of Hempstead, Nassau County, New York. A Site Location Map is presented on **Figure 1.** The site is currently being developed for retail use. The site is bound to the south by Barnum's Channel, to the east by the Long Island Railroad, to the north by the former Exxon Petroleum Terminal (included as part of the development), and to the west by Hampton Road. A vehicle recycling operation and office buildings are located west of Hampton Road, fronting Hog Island Channel. Daly Boulevard is located north of the former Exxon Petroleum Terminal, and Sprague Petroleum Terminal is located north of Daly Boulevard.

1.1.2 Site History

The site consists of three lots, Lots 502, 503, and 504. In 1931, Gulf Oil Corporation developed a portion of the site (Lot 504) as a petroleum terminal. Gulf Oil Corporation purchased Lots 503 and 502 in 1950 and 1956, respectively. Chevron acquired Gulf Oil Corporation in the mid-1980s. As part of the purchase agreement, Chevron was required to divest the northeast division. In 1986, Cumberland Farms, Inc. (CFI) purchased the northeast marketing assets of Gulf Oil Corporation from Chevron. The purchase included the Oceanside Terminal, which was transferred to CFI in May 1986. In December 1993, CFI, in a joint venture with Catamount Petroleum LP (Catamount), formed Gulf Oil Limited Partnership (Gulf). CFI owned two-thirds of Gulf as a limited partner, and Catamount owned one-third of Gulf as the general partner. In September 2005, CFI exercised its option to buy out Catamount and reorganized Gulf under a new general partner. However, ownership percentages of Gulf did not change during the reorganization. In 2015, the site was sold to Coremark L.L.C., who has leased the property to Costco. The site is currently being developed into a retail store.

Operation of the petroleum terminal was ceased in the early 1990s. Demolition of the aboveground storage tanks (ASTs) at the former petroleum terminal was completed in 2003. The remaining on-site

buildings (maintenance building, office building, and several small buildings associated with historical petroleum terminal operations) were demolished in 2005.

The site has undergone extensive investigation and remediation since the 1990s under NYSDEC oversight (Spill No. 92-03883). In January 2007, the NYSDEC accepted Lowe's Home Centers, Inc. (Lowe's) as a volunteer under the Brownfield Cleanup Program (BCP) – Site No. C130165. Following the decision by Lowe's to withdraw from the BCP in 2009, the NYSDEC transferred the site into the Hazardous Waste Program (State Superfund Site). An Order on Consent and Administrative Settlement was executed between the NYSDEC and CEMC on December 23, 2009 (Index # W3-1142-09-08, Site #130165).

The following were previously located on the Gulf parcel:

- Nine large-quantity ASTs containing fuel oil, kerosene, and gasoline;
- Two small 550-gallon ASTs containing fuel oil for the on-site garage and office building;
- Three underground storage tanks (USTs) containing fuel oil (one 550-gallon, one 1,000-gallon, and one 5,000-gallon);
- One 1,000-gallon UST containing waste oil;
- A loading rack;
- A retention pond;
- A maintenance garage;
- A vapor recovery unit (VRU); and
- An office complex.

Four of the nine large ASTs were demolished prior to 2000, with the remaining five large ASTs reportedly demolished in 2003. The two 550-gallon ASTs containing fuel oil for the maintenance garage and the office building were demolished in 2005.The approximate location of the former building, structures, tanks, and monitoring wells are depicted on the Site Plan (**Figure 2**).

Light non-aqueous phase liquid (LNAPL), consisting of a mixture of No. 2 and No. 4 fuel oil, kerosene, and gasoline, had previously been detected in a monitoring well near the bulkhead at the southern portion of the site at a thickness up to 2.28 feet. LNAPL was also encountered near the former VRU and the former garage building. The observed occurrences of LNAPL and shallow soil impacts were addressed through a series of initial remedial measurements. Measurable thicknesses of LNAPL have not been observed at the site since 2004.

In 2015, approximately 4 feet of clean fill were added to the site, and additional material will be added during paving of the site. To provide a summary of the analytical data in terms of current site conditions, and because some of the analytical data has been collected after the installation of the fill material, the discussion of sample depths in terms of foot below ground surface will be in reference to current ground surface (cgs). A comprehensive survey of the cgs at the site has not been completed because the ground surface elevation is still changing in connection with site development. To account for the change in ground surface elevation, 4 feet have been added to excavation depths and sample depth intervals for samples collected prior to 2015. All depth intervals are considered approximate until the site has been paved and the comprehensive survey has been completed. All depths discussed in this text reference the

depth from cgs. Both current and historical sample depths for soil and groundwater samples are shown on the tables and figures included with this report.

1.2 Remedial Actions

The historical remedial actions implemented prior to 2011 were completed while the site was being address under the Spills program. Refer to the 2011 Remedial Investigation Data Summary Report (Arcadis, 2011) for a summary of remedial actions completed prior to 2011.

Since 2011, two interim remedial measures (IRMs) have been completed at the site: excavation in the former VRU area and three excavations to address isolated hot spots. These IRMs are detailed in the Interim Remedial Measure Completion Report (Arcadis, 2014). A summary of each of these IRMs is provided below.

1.2.1 Former VRU Area – IRM Activities – 2013 and 2014

In fall 2013 and early 2014, an IRM was completed in the former VRU area. The VRU measured approximately 60 feet by 65 feet and was excavated to a final depth that varied from 13 to 18 feet below current ground surface (bcgs). The excavation was performed using a cement-bentonite slurry, which mitigated the need for dewatering and maintained adequate hydraulic pressure to prevent water infiltration and failure of the minimal remaining clay zone above the lower sand. The cement-bentonite slurry was produced using a batch plant to mix dry materials with public water. Cement-bentonite slurry from the batch plant was transferred to a surge tank for additional mixing, which was then pumped into the excavation area while excavation was occurring. The cement-bentonite slurry prevented the trench sides from collapsing by providing outward and downward pressure(s), which balanced the inward and upward hydraulic force(s) and reduced groundwater flow into the trench. Approximately 3,464 tons of soil was excavated for off-site disposal. Impacted material was excavated using traditional construction equipment to the limits shown on **Figure 2**.

1.2.2 IRM Addendum Activities – 2014

The three IRM Addendum excavation areas were excavated in 2014 in accordance with NYSDEC conditional approval letter (NYSDEC, 2014): the AMW-5 excavation measured 10 feet by 10 feet and was excavated to 13 feet bcgs; the GS-2/GP-NORTH excavation measured 10 feet by 15 feet and was excavated to 8 feet bcgs; and the GP-6 excavation measured 5 feet by 5 feet and was excavated to 7 feet bcgs. Impacted material was excavated using traditional construction equipment to the limits shown on **Figure 2**. Material was removed from the excavation, staged adjacent to the excavation, and then loaded into trucks for off-site disposal. Approximately 110 tons of soil were excavated for off-site disposal.

1.3 Future Site Use

The site and the ExxonMobil site to the north are currently being developed for commercial use as a large retail store. The current development plans have the store being primarily located on the ExxonMobil site, with a faction of the store located on the northern edge of the site. A gas station will be installed on the southern part of the site, with the reminder of the site being covered by a parking lot and landscaping.

2 REMEDIAL INVESTIGATION ACTIVITIES

Since 2010, a series of supplemental investigation activities were completed to further characterize the site conditions. The supplemental field investigation was conducted from November 2010 through April 2011 to further characterize the petroleum impacts (including historically observed LNAPL) and augment the existing monitoring well network. The results of this supplemental investigation are documented in the May 2011 Remedial Investigation Data Summary Report (Arcadis, 2011). In 2016, the former VRU area was investigated in accordance with the Residual Source Assessment Work Plan (Arcadis, 2016).

The field activities completed as part of the 2010/2011 Remedial Investigation are summarized in the May 2011 Remedial Investigation Data Summary Report (Arcadis, 2011), and the 2016 source zone evaluation activities are discussed below. Field activities associated with the Former VRU IRM, including well decommissioning and pre-characterization soil borings, are documented in the Interim Remedial Measure Completion Report (Arcadis, 2014).

During the course of the site investigations, the ground surface elevation of the site has changed as part of its development. In 2015, approximately 4 feet of clean fill were added to the site, and additional elevation will be added during paving of the site in 2017. To provide a summary of the analytical data in terms of current site conditions and because some of the analytical data has been collected after the installation of the fill material, the discussion of sample depths in terms of feet below ground surface will be in referenced to cgs. A comprehensive survey of the cgs at the site has not been completed because the ground surface is still changing. To account for the change in ground surface elevation, 4 feet have been added to sample depth intervals for samples collected prior to 2015. All depth intervals from the cgs are considered approximate until the site has been paved and the comprehensive survey has been completed. The historical sample interval and the approximate current sample interval are both shown on the data tables and data box figures provided with this report. The text below references the current sample interval only; soil and groundwater data from excavated areas are not included in this report.

2.1 Soil and Groundwater Cleanup Objectives

2.1.1 Soil Cleanup Objectives (SCOs)

The SCOs established for this site include the restricted use commercial SCOs and the protection of groundwater SCOs, which is consistent with both the current property zoning and the anticipated future use of this site as a commercial retail store. The analytical results of the soil samples are compared to these relevant SCOs, as well as to the unrestricted use SCOs. The SCOs are based on the NYSDEC Technical & Operational Guidance Series (TOGS) for Soil, Subpart 375-6: Remedial Program Soil Cleanup Objectives (effective December 14, 2006) (NYSDEC 2006).

2.1.2 Groundwater Quality Standards

Groundwater analytical data have been compared to NYSDEC TOGS for Groundwater (standard), Section 703.6 (effective August 4, 1999) (NYSDEC 1999).

2.2 Membrane Interface Probes (MIPs)

In February 2016, a residual source area investigation was completed using MIPs. As part of the MIPs investigation, 16 direct push MIPs were advanced into the lower sand unit in the area of the former VRU (**Figures 3**). The soil analytical results were compared to the MIPs response, and in general, the MIPs response indicated greater concentrations than was indicated in the soil analytical data. The results of the MIPs investigation were used to provide a semi-quantitative delineation of the residual source area and to select the location of the AMW-15 well cluster. The MIPs logs are provided in **Appendix A**.

2.3 Soil Borings

In June 2016, a series of eight soil borings were completed in the former VRU area and downgradient to provide additional delineation of the source area (**Figure 3**). The soil borings were advanced using Sonic drilling methods. During the advancement of the soil borings, five grab groundwater samples were collected below the former VRU excavation and submitted for analysis for volatile organic compounds (VOCs). The groundwater sampling was set at intervals of maximum photoionization detector (PID) measurements. In addition, 17 soil samples were collected from the lower sand unit and submitted for analysis of VOCs, and selected samples were also analyzed for semivolatile organic compounds (SVOCs), Target Analyte List (TAL) inorganics, and total organic carbon to provide additional characterization in the lower sand unit and data to support future remedial actions. The sample intervals were selected based on PID measurements and based on the results of the MIPs investigation. Soil boring logs are provided in **Appendix B**.

2.4 Monitoring Well Installation

Eleven monitoring wells were installed in 2016 during the residual source assessment at the locations shown on **Figure 2**.

- Four monitoring wells (AMW-15-D1, AMW-15-D2, AMW-15-D3, and AMW-15-VD) were installed to replace the MW-25 well cluster in the former VRU area. The MW-25 well cluster was removed during the 2013/2014 IRM.
- Two well clusters (AMW-13 and AMW-14), consisting of a D1, D2, and VD well, were installed downgradient of the former VRU area.
- MW-28D2, which was damaged beyond repair during site development, was decommissioned and replaced.

The boreholes for the monitoring wells were advanced using Sonic drilling methods. The monitoring wells located within the former VRU area were constructed by installing 10-foot-long sections of 2-inch-diameter, stainless steel well screens, with 2-foot sumps, and stainless steel risers to extend to the ground surface. The annular space of each borehole was filled with a #0 silica sand filter pack at least 1 foot above the top of the screen, and a 2-foot-thick bentonite seal was installed above the filter pack.

The wells located outside of the former VRU area were constructed of polyvinyl chloride (PVC) materials. Each of these wells were constructed by installing 10-foot-long screens of 2-inch-diameter, Schedule 40, machine-slotted PVC pipe and Schedule 40 PVC risers to extend to the ground surface. The annular

space of each borehole was filled with a #0 silica sand filter pack at least 1 foot above the top of the screen, and a 2-foot-thick bentonite seal was installed above the filter pack.

Monitoring wells were developed after completion according to the Arcadis Standard Operating Procedure for monitoring well installation and development (Arcadis, 2010a).

Well construction details and boring logs for all existing wells and wells decommissioned as part of the former VRU area IRM are provided in **Appendix C**, and well construction information is included in **Table 1**.

2.5 Groundwater Sampling

In 2016, three groundwater monitoring events were completed, including sampling events in January, June, and July 2016, such that each well (including the new monitoring wells) were sampled twice in 2016.

Groundwater samples were collected from a total of 31 existing and 11 newly installed monitoring wells and 8 temporary wells using low-flow sampling methods. Groundwater field measurements are summarized in **Table 2**. The locations of the monitoring wells sampled are illustrated on **Figure 2**. All groundwater samples were analyzed for VOCs, and a subset of the wells were analyzed for SVOCs and TAL metals (total and dissolved) and for monitored natural attenuation (MNA) parameters.

MNA parameters included:

- sulfate;
- sulfide;
- alkalinity-bicarbonate;
- alkalinity;
- iron (filtered and unfiltered); and
- manganese (filtered and unfiltered).

2.6 Methyl Tert-Butyl Ether (MTBE) Investigation

In October 2016, a supplemental MTBE investigation in the lower sand was completed. The investigation included collection of four grab groundwater samples from below the meadow mat in the lower sand unit, along the northern property boundary, and submitting the samples for analysis of VOCs. The results of the investigation were consistent with the data from existing monitoring wells. Additional detail on the MTBE investigation is provided in **Appendix D**.

MTBE was detected in all four of the groundwater samples collected from the temporary wells. Concentrations ranged from 76 ug/L in TW-4 at the western most sampling point (closest to Hampton Road) to 670 ug/L in TW-7 (eastern most sampling point). The data from the temporary monitoring wells was consist with the existing data from adjacent monitoring wells. The highest concentrations of MTBE are closest to the former VRU Area and concentrations decrease to the west of the former VRU area.

2.7 Community Air Monitoring Plan

Air monitoring, which was performed during implementation of the field investigation, was performed to ensure that no unacceptable exposures occurred in conjunction with the field investigation activities completed.

Consistent with the Community Air Monitoring Plan (Arcadis, 2010b) developed for use during RI activities on site, monitoring was performed to assess the potential for exposure to VOCs and particulates during the MIPs investigation. Data recorded during the air monitoring is provided in **Appendix E**.

As required by the CAMP, monitoring stations were set up and operated at appropriate locations upwind and downwind of the work area for monitoring of VOCs and particulates during field events involving the disturbance of subsurface soil. These units provided real-time monitoring of the perimeter air conditions with alarm that would sound in response to criteria exceedance. No alarms indicating an exceedance of VOC and particulate criteria occurred as a result of our investigation.

2.8 Waste Management

During the 2016 site characterization, all soil and groundwater investigation-derived waste was contained in 55-gallon drums and sampled for disposal off site. Trichloroethene (TCE), a listed hazardous waste compound, was not detected in the water or soil waste profile samples, and the waste was not characteristically hazardous. Therefore, the waste was disposed of as non-hazardous waste at the Waste Management Model City, New York facility.

3 SITE GEOLOGY AND HYDROGEOLOGY

3.1 Regional Geology/Hydrogeology

The regional geology generally consists of upper glacial deposits (clay, sand, gravel, and boulders) to depths of approximately 50 feet below ground surface (bgs), the Gardiners Clay (clay, silt, and lenses of sand) to a depth of 75 feet bgs, the Magothy Aquifer (sand with lenses of clay) to a depth of 800 feet bgs, the Raritan Confining Unit (clay with lenses of sand) to 900 feet bgs, and the Lloyd Aquifer (sand and gravel with lenses of clay) to 1,400 feet bgs. Bedrock is present beneath the Lloyd Aquifer and consists of crystalline metamorphic and igneous rock (muscovite-biotite schist, gneiss, and granite) (N.E. McClyonds and O. L. Franke, 1972).

3.2 Site Geology/Hydrogeology

The geologic units identified at the site during the RI include:

- sand and gravel fill from the ground surface to approximately 12 feet bcgs;
- meadow mat (silt with fibrous organics and trace clay) to approximately 20 feet bcgs;
- underlying sand (coarse to fine sand, trace to some fine gravel) to approximately 90 feet bcgs; and
- Gardiners Clay.

With the exception of the bulkhead area, the meadow mat was encountered throughout the site at a thickness ranging from 5 to 12 feet. Meadow mat was not observed in the bulkhead area during the RI investigation or in previous environmental investigations. The meadow mat in the former VRU area was excavated as part of the IRM.

The underlying sand (lower sand unit) has been divided into three horizons for purposes of discussion: monitoring wells in the D1 horizon are generally screened between 20 and 30 feet bgs, monitoring wells in the D2 horizon are screened between 30 and 42 feet bgs, and monitoring wells in the VD horizon are screened at the base of the unit (58 to 83 feet bcgs). Cross section locations are shown **on Figure 4**; Cross Sections A' and B' are provided on **Figures 5 and 6**, respectively.

3.3 Groundwater Flow

Groundwater has historically been observed at elevations ranging between 2 and 5 feet above mean sea level (7 to 9 feet bcgs). The groundwater elevation in the lower sand unit is strongly influenced by the tidal cycle. The groundwater elevation in the lower sand unit can change by as much as 3 feet in response to tidal changes. The groundwater elevation in the shallow fill material shows a minimal response to the tidal cycle (less than 0.5 feet). The groundwater flow direction in the shallow fill material is consistently to the southwest, regardless of the tidal cycle. The groundwater flow direction in the lower sand unit can change by as much as 180 degrees in response to the tidal cycle. The general flow direction in the lower sand unit is to the southwest. Groundwater elevation data is summarized in **Table 3**, and groundwater elevation contour maps for each are presented in **Appendix F**.

Hydraulic conductivity testing on the lower sand unit has not been successful to date. Attempts at slug testing in the lower sand unit have not been successful because the change in groundwater elevation has been too small and recovery too rapid to be able to distinguished from the tidal elevation changes. In September 2011, an injection test using 2,500 gallons of water was completed; however, the groundwater elevation response was too small in the observation wells to calculate hydraulic conductivity.

3.4 Horizontal and Vertical Gradients

On July 26, 2016, a complete round of groundwater elevation data was collected from the on-site monitoring wells at both high and low tides. Groundwater flow in the shallow fill material is to the southwest at a horizontal gradient of approximately 0.005 foot/foot (ft/ft). The general groundwater flow direction in the lower sand unit at low tide is to the southwest at a gradient of 0.008 ft/ft to 0.014 ft/ft. The table below provides a summary of the vertical gradient observed:

Wells	Vertical Gradient – Low Tide (ft/ft)	Vertical Gradient – High Tide (ft/ft)
AMW-13 D1/D2	0.006	0.001
AMW-13 D2/VD	-0.01	-0.009
AMW-14 D1/D2	-0.003	-0.001
AMW-14 D2/VD	-0.01	-0.013
AMW-15 D1/D2	0.002	-0.046
AMW-15 D2/VD	0.003	-0.006
MW-23-D1R/D2R	0.032	-0.005
MW-24-D1/D2	0.001	0.002
MW-26-D1/D2	0.01	0.001
MW-26-D2/VD	-0.04	0.016
MW-27-D1/D2	-0.007	-0.025
MW-28-D1/D2R	-0.186	-0.007
MW-29-D1/D2	-0.02	0.001
MW-29-D2/VD	-0.05	0.043
MW-30-D1/D2	0.01	-0.007
MW-30-D2/VD	-0.02	-0.016
MW-31-D1R/D2R	-0.073	-0.008

Note:
Negative gradients are upward.

Overall, the vertical gradients are variable depending on locations. The following generalization can be made:

- The vertical gradients between the D-1 and D-2 wells are evenly mixed between upwards and downwards at low tide and generally more upward at high tide.
- The vertical gradient between the D-2 and VD wells is generally upward at low tide and mixed at high tide.

4 INVESTIGATION RESULTS

4.1 Soil Results

Since 2004, a total of 227 soil samples have been collected for analysis at this site. Of the 227 soil samples, 162 samples were collected from the shallow fill unit, 10 samples were collected from the meadow mat, and 55 samples were collected from the lower sand unit. The following is a summary of the constituents of concern observed to exceed protection of groundwater and the commercial use SCOs in one or more soil sample at the site. The soil analytical data are summarized in **Tables 4 and 5**, and the locations of exceedances are illustrated on **Figures 7, 8, and 9**. Laboratory analytical results are provided in **Appendix F**.

Soil samples that have been excavated as part of an interim remedy are not included in the data summary figures but are presented in the summary tables.

4.1.1 Fill Unit – Protection of Groundwater SCO

Below is a summary of all exceedances of the Protection of Groundwater SCO in the fill unit. The summary does not include samples that have been excavated or remediated. Analytical results are presented on **Figures 7 and 8** and summarized in **Tables 4 and 5**.

4.1.1.1 VOCs

- Acetone was detected above the Protection of Groundwater SCO of 0.05 milligrams per kilogram (mg/kg) in five samples at concentrations ranging from 0.058 mg/kg in soil sample TP-11-1 (9 feet bcgs) to 0.18 mg/kg in soil sample AMW-6 (10 – 12 feet bcgs).
- Benzene was detected above the Protection of Groundwater SCO of 0.06 mg/kg in 57 samples at concentrations ranging from 0.066 mg/kg in PX-C6 (6 – 7 feet bcgs) to 23 mg/kg in soil sample T-12-D2 (7 – 7.5 feet bcgs).
- n-Butylbenzene was detected above the Protection of Groundwater SCO of 12 mg/kg in 10 samples at concentrations ranging from 12 mg/kg in soil samples G4-D1 (7 – 7.5 feet bcgs) and G9-D1 (7 – 7.5 feet bcgs) to 30 mg/kg in soil sample G8-S1 (5.5 – 6 feet bcgs).
- Ethylbenzene was detected above the Protection of Groundwater SCO of 1.1 mg/kg in 58 samples at concentrations ranging from 1.1 mg/kg in soil samples G8-D2 (7- 7.5 feet bcgs) and G10-D1 (7- 7.5 feet bcgs) to 230 mg/kg in soil sample PX-D2 (6 – 7 feet bcgs).
- Methylene Chloride was detected above the Protection of Groundwater SCO of 0.05 mg/kg in six samples at concentrations ranging from 0.062 mg/kg in soil sample AMW-3 (8 – 10 feet bcgs) to 0.11 mg/kg in soil sample TP-5-2 (9.5 feet bcgs).
- MTBE was detected above the Protection of Groundwater SCO of 0.93 mg/kg in one sample at a concentration of 0.99 mg/kg in soil sample LB-13 (7.5 – 8 feet bcgs).

- Naphthalene was detected above the Protection of Groundwater SCO of 12 mg/kg in 20 samples at concentrations ranging from 12 mg/kg in soil sample G8-D1 (7 – 7.5 feet bcgs) to 44 mg/kg in soil sample GP-7 (2002) (7 – 8 feet bcgs).
- n-Propylbenzene was detected above the Protection of Groundwater SCO of 3.9 mg/kg in 23 samples at concentrations ranging from 4.5 mg/kg in soil sample G10-D2 (7 – 7.5 feet bcgs) to 40 mg/kg in soil sample G8-S1 (5.5 – 6 feet bcgs).
- 1,2,4 Trimethylbenzene was detected above the Protection of Groundwater SCO of 3.6 mg/kg in eight samples at concentrations ranging from 4.2 mg/kg in soil sample G8-D2 (7 – 7.5 feet bcgs) to 11 mg/kg in soil sample G10-S2 (5.5 – 6 feet bcgs).
- Toluene was detected above the Protection of Groundwater SCO of 0.7 mg/kg in four samples at concentrations ranging from 0.72 mg/kg in soil sample PX-D4 (6 - 7 feet bcgs) to 2.1 mg/kg in soil sample PX-D2 (6 - 7 feet bcgs).
- Xylenes were detected above the Protection of Groundwater SCO of 1.6 mg/kg in 39 samples at concentrations ranging from 1.6 mg/kg in soil sample G6-S2 (5.5 - 6 feet bcgs) to 400 mg/kg in soil sample PX-D2 (6 – 7 feet bcgs).

4.1.1.2 SVOCs

- Benzo(b)fluoranthene was detected above the Protection of Groundwater SCO of 1.7 mg/kg in five samples at concentrations ranging from 2.8 mg/kg in soil sample TP-6-3 (9.5 feet bcgs) to 11 mg/kg in soil sample MW-31-D2R (10 – 12 feet bcgs).
- Benzo(k)fluoranthene was detected above the Protection of Groundwater SCO of 1.7 mg/kg in two samples at concentrations of 2.2 mg/kg in soil sample MW-17 (8 feet bcgs) and 4.5 mg/kg in soil sample MW-31-D2R (10 – 12 feet bcgs).
- Chrysene was detected above the Protection of Groundwater SCO of 1 mg/kg in six samples at concentrations ranging from 1.8 mg/kg in soil sample P-18R (4 – 6 feet bcgs) to 8.5 mg/kg in soil sample MW-31-D2R (10 – 12 feet bcgs).

4.1.1.3 Inorganics

- Arsenic was detected above the Protection of Groundwater SCO of 16 mg/kg in four samples at concentrations ranging from 16.2 mg/kg in soil sample AMW-6 (6 - 8 feet bcgs) to 28.1 mg/kg in soil sample TP-6-1 (9 feet bcgs).
- Mercury was detected above the Protection of Groundwater SCO of 0.73 mg/kg in soil sample TP-12-1 (8.7 feet bcgs) at a concentration 1.35 mg/kg.

4.1.2 Lower Sand Unit Protection of Groundwater

Below is a summary of the exceedance of the Protection of Groundwater SCO in the lower sand unit.

4.1.2.1 VOCs

- Cis 1-2-dichloroethene was detected above the Protection of Groundwater SCO of 0.25 mg/kg in three samples at concentrations ranging from 0.57 mg/kg in soil sample LB-6 (22 – 22.5 feet bcgs) to 2.7 mg/kg in soil sample ASB-7 (21 - 23 feet bcgs).
- Methylene Chloride was detected above the Protection of Groundwater SCO of 0.05 mg/kg in four samples at concentrations ranging from 0.077 mg/kg in soil sample ASB-4 (28 – 30 feet bcgs) to 0.12 mg/kg in soil samples MW-25-D3 (24 - 27 feet bcgs) and MW-30-VD (72 – 74 feet bcgs).
- TCE was detected above the Protection of Groundwater SCO of 0.47 mg/kg in one sample at a concentration of 2.9 mg/kg in soil sample LB-6 (22 – 22.5 feet bcgs).
- Vinyl Chloride was detected above the Protection of Groundwater SCO of 0.02 mg/kg in five samples at concentrations ranging from 0.061 mg/kg in soil sample ASB-6 (26 – 28 feet bcgs) to 0.58 mg/kg in soil sample ASB-7 (21 – 23 feet bcgs).
- Phenol was detected above the Protection of Groundwater SCO of 0.33 mg/kg in one sample at a concentration of 0.58 mg/kg in soil sample ASB-7 (20.5 – 21 feet bcgs).

4.1.3 Commercial Exceedances

There were no detections of analytes above the Commercial Use SCO in the lower sand unit.

Below is a summary of all exceedances of the Commercial Use SCO in the fill unit. The summary does not include samples that have been excavated or remediated. The locations at which soil exceedances of the Commercial Use SCO are also illustrated on **Figure 6**.

- Benzo(a)pyrene was detected above the Commercial Use SCO of 1 mg/kg in five samples at concentrations ranging from 2.7 mg/kg in soil sample TP-6-3 (9.5 feet bcgs) to 11 mg/kg in soil sample MW-31-D2R (10 – 12 feet bcgs).
- Benzo(a)anthracene, benzo(b)fluoranthene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene were detected above their respective Commercial Use SCO in the soil sample collected from MW-31-D2R at a depth of 10 to 12 feet bcgs.
- Arsenic was detected above the Commercial Use SCO of 16 mg/kg in four samples at concentrations ranging from 16.2 mg/kg in soil sample AMW-6 (6 - 8 feet bcgs) to 28.1 mg/kg in soil sample TP-6-1 (9 feet bcgs).

4.2 Groundwater Results

The following discussion of exceedance of TOGS criteria is limited to post-IRM sampling performed in 2016 because it is most representative of current site conditions in the lower sand unit.

The analytical results for the groundwater samples collected for the supplemental remedial investigations between 2011 to 2016 are summarized in **Table 6**, and a full set of historical groundwater analytical results are provided in **Appendix H**.

4.2.1 Fill Unit

A total of 29 groundwater samples have been collected from 11 monitoring wells and three temporary wells screened in the shallow fill unit during sampling events completed in 2016. A summary of the exceedances of the TOGS guidance values is provided below.

4.2.1.1 VOCs

- Benzene was detected above the TOGS guidance value of 1 µg/L in 11 monitoring wells at concentrations ranging from 1.1 µg/L in AMW-7 to 510 µg/L in AMW-3.
- Toluene was detected above the TOGS guidance value of 5 µg/L in three monitoring wells at concentrations ranging from 5.1 µg/L in AMW-12 to 36 µg/L in AMW-3.
- Ethylbenzene was detected above the TOGS guidance value of 5 µg/L in four monitoring wells at concentrations of 5.7 µg/L and 930 µg/L in temporary well TW-3 and AMW-11, respectively.
- Xylenes was detected above the TOGS guidance value of 5 µg/L in eight monitoring wells at concentrations ranging from 6.2 µg/L in temporary well TW-1 to 5,600 µg/L in TW-3.
- MTBE was detected above the TOGS guidance value of 10 µg/L in four monitoring wells at concentrations ranging from 16 µg/L in MW-18R to 95 µg/L in AMW-3.
- Isopropylbenzene was detected above the TOGS guidance value of 5 µg/L in eight monitoring wells at concentrations ranging from 6.3 µg/L in temporary well TW-1 to 110 µg/L in AMW-3.
- Cis-1,2-Dichloroethene (DCE) was detected above the TOGS guidance value of 5 µg/L in one monitoring well (MW-18R) at a concentration of 14 µg/L.
- Methylene Chloride was detected above the TOGS guidance value of 5 µg/L in one monitoring well (AMW-3) at a concentration of 15 µg/L.
- 1,1,2-Trichloroethane was detected above the TOGS guidance value of 1 µg/L in one monitoring well (AMW-3) at a concentration of 4.8 µg/L.

4.2.1.2 SVOCs

- Acenaphthalene was detected above the TOGS guidance value of 20 µg/L in one monitoring well (AMW-11) at concentrations of 96 µg/L and 160 µg/L.
- Benzo(a)anthracene was detected above the TOGS guidance value of 0.002 µg/L in two monitoring wells at concentrations of 0.39 µg/L and 2.9 µg/L in monitoring wells P-10 and AMW-11, respectively.
- Benzo(b)fluoranthene was detected above the TOGS guidance value of 0.002 µg/L in two monitoring wells at concentrations of 1.0 µg/L and 1.1 µg/L in monitoring wells P-10 and AMW-11, respectively.

- Bis(2-ethylhexyl)phthalate was detected above the TOGS guidance value of 5 µg/L in one monitoring well (P-10) at a concentration of 120 µg/L.
- Chrysene was detected above the TOGS guidance value of 0.002 µg/L in two monitoring wells at concentrations of 0.75 µg/L and 2.7 µg/L in monitoring wells P-10 and AMW-11, respectively.
- Fluorene was detected above the TOGS guidance value of 50 µg/L in one monitoring well (AMW-11) at concentrations of 55 µg/L and 110 µg/L.
- Naphthalene was detected above the TOGS guidance value of 10 µg/L in eight monitoring wells at concentrations ranging from 11 µg/L in AMW-3 to 220 µg/L in AMW-2.
- Phenanthrene was detected above the TOGS guidance value of 50 µg/L in one monitoring well (AMW-11) at a concentration of 140 µg/L.
- Phenol was detected above the TOGS guidance value of 1 µg/L in six monitoring wells at concentrations ranging from 1.3 µg/L in P-10 to 200 µg/L in temporary well TW-3.

4.2.2 Lower Sand Unit

A total of 67 groundwater sample were collected from 32 monitoring wells and 5 temporary wells screened in the lower sand unit during sampling events completed in 2016. A summary of the exceedances of the TOGS guidance values is provided below.

4.2.2.1 VOCs

- Benzene was detected above the TOGS guidance value of 1 µg/L in 15 monitoring wells at concentrations ranging from 1.1 µg/L in MW-31-D1R and MW-30-VD to 160 µg/L in MW-27-D2.
- Toluene was detected above the TOGS guidance value of 5 µg/L in five monitoring wells at concentrations ranging from 6.4 µg/L in IW-2-D1 to 17 µg/L in MW-27-D2.
- Ethylbenzene was detected above the TOGS guidance value of 5 µg/L in two monitoring wells at concentrations of 6.7 µg/L and 92 µg/L in temporary well ASB-4 and MW-27-D2, respectively.
- Xylenes were detected above the TOGS guidance value of 5 µg/L in six monitoring wells at concentrations ranging from 6.5 µg/L in AWM-15-D1 to 68 µg/L in MW-27-D2.
- Isopropylbenzene was detected above the TOGS guidance value of 5 µg/L in two monitoring wells at concentrations of 38 µg/L and 5.4 µg/L in MW-27-D2 and MW-29-D1, respectively.
- MTBE was detected above the TOGS guidance value of 10 µg/L in 20 monitoring wells at concentrations ranging from 12 µg/L in AMW-14-D1 to 640 µg/L in OW-1-D1.
- Acetone was detected above the TOGS guidance value of 50 µg/L in three monitoring wells at concentrations ranging from 53 µg/L in MW-27-D1 to 280 µg/L in MW-28-D1.
- Cis-1,2-DCE was detected above the TOGS guidance value of 5 µg/L in seven monitoring wells at concentrations ranging from 10 µg/L in MW-24-D1 to 1,900 µg/L in temporary well ASB-4.

- Chloroform was detected above the TOGS guidance value of 7 µg/L in two monitoring wells at concentrations of 19 µg/L and 21 µg/L in temporary wells ASB-5 and ASB-7, respectively.
- Methylene Chloride was detected above the TOGS guidance value of 5 µg/L in three monitoring wells at concentrations ranging from 5.7 µg/L in MW-27-D2 to 330 µg/L in temporary well ASB-4.
- TCE was detected above the TOGS guidance value of 5 µg/L in three monitoring wells at concentrations ranging from 5.5 µg/L in AMW-15-D1 to 2,100 µg/L in ASB-4.
- Vinyl Chloride was detected above the TOGS guidance value of 2 µg/L in 15 monitoring wells at concentrations ranging from 3.5 µg/L in AMW-15-D2 to 2,100 µg/L in AMW-14-D1.

The current extent of residual TCE, vinyl chloride, and MTBE in the lower sand unit is visually illustrated in a series of isoconcentration figures presented in **Appendix I**.

4.2.2.2 SVOCs

- Acenaphthalene was detected above the TOGS guidance value of 20 µg/L in two monitoring wells at concentrations of 22 µg/L and 47 µg/L in OW-1-D1 and IW-2-D1, respectively.
- Bis(2-ethylhexyl)phthalate was detected above the TOGS guidance value of 5 µg/L in five monitoring wells at concentrations ranging from 7.5 µg/L in MW-30-D1 to 11 µg/L in MW-26-D1 and MW-30-VD.
- Butylbenzylphthalate was detected above the TOGS guidance value of 50 µg/L in monitoring well MW-26-VD at a concentration of 96 µg/L.
- Naphthalene was detected above the TOGS guidance value of 10 µg/L in three monitoring wells at concentrations ranging from 24 µg/L in OW-2-D1 to 88 µg/L in MW-27-D2.
- Phenol was detected above the TOGS guidance value of 1 µg/L in two monitoring wells at concentrations of 14 µg/L and 56 µg/L in MW-28-D1 and MW-27-D2, respectively.
- Trans-1,2-DCE was detected above the TOGS guidance value of 5 µg/L in two monitoring wells at concentration of 11 µg/L and 13 µg/L in MW-24-D2 and temporary well ASB-4, respectively.
- Tetrachloroethene was detected above the TOGS guidance value of 5 µg/L in temporary well ASB-4-D1 at a concentration of 6.7 µg/L.

5 SITE CONCEPTUAL MODEL

The Site Conceptual Model is outlined below consistent with DER-10 expectations. The model includes a discussion of contaminant sources, current observed extent of contamination, relevant fate and transport characteristics, the potential migration pathways, and potential receptors.

5.1 Source of Contamination

There are two primary sources of contamination identified at the site, impacts from the historical petroleum terminal operations which occurred from 1931 to the early 1990's and the historic fill used to create the landmass which became the site.

5.2 Nature of Contamination

The nature of residual contamination in the soil and groundwater at this site, as characterized through this and previous investigation results, is summarized in the following sections for soil and groundwater impacts, respectively.

The data summaries presented in the following sections omit data of samples for soil locations previously remediated through the IRMs completed, as these data no longer represent the current conditions at the site.

5.3 Soil Impacts

The COCs detected in soil in the Fill Unit and Lower Sand Unit.

5.3.1 Fill Unit

The following sixteen COCs were detected in the fill unit at concentrations above the Protection of Groundwater SCO: acetone, benzene, n-butylbenzene, ethylbenzene, methylene chloride, MTBE, naphthene, n-propylbenzene, 1,2,4-trimethylbenzene, toluene, xylenes, benzo(a)pyrene, benzo(k)fluoranthene, chrysene, arsenic, and mercury.

The following seven COCs were detected in soil at concentrations above the Commercial Use SCO: Benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene, dibenzo(a,h)anthracene, indeno(1,2,3-cd)pyrene, and arsenic.

The soil analytical data is summarized in Tables 4 and 5 and presented on Figures 7 and 9.

5.3.2 Lower Sand Unit

The following five COCs were detected in the lower sand unit at concentrations above the Protection of Groundwater SCO: cis-1-2-DCE, methylene chloride, TCE, vinyl chloride, and phenol.

There were no exceedances of the Commercial Use SCO in the lower sand unit.

The soil analytical data is summarized in Tables 4 and 5 and presented on Figure 8.

5.4 Groundwater Impacts

5.4.1 Fill Unit

The following eighteen COCs were detected in groundwater in the fill unit at concentrations above TOGS guidance: benzene, toluene, ethylbenzene, xylenes, MTBE, isopropylbenzene, cis-1,2-DCE, methylene chloride, 1,1,2-trichloroethane, acenaphthalene, benzo(a)anthracene, benzo(b)fluoranthene, bis(2-ethylhexyl)phthalate, chrysene, fluorene, naphthalene, phenanthrene, and phenol.

5.4.2 Lower Sand Unit

The following eleven COCs were detected in groundwater in the lower sand unit at concentrations above the TOGS guidance values: benzene, toluene, ethylbenzene, xylenes, isopropylbenzene, MTBE, acetone, cis-1,2-DCE, trans-1,2-DCE, tetrachloroethene, chloroform, methylene chloride, TCE, acenaphthalene, bis(2-ethylhexyl) phthalate, butylbenzylphthalate, naphthalene, and phenol.

5.5 Extent of Residual Commination

There are two sources of contamination at the site: terminal operations, including the operation of the former VRU, and historical fill. Impacts from petroleum impacts (benzene, toluene, ethylbenzene and xylenes and MTBE) and historical fill are primarily limited to the fill unit, and impacts from the former VRU, which include CVOCs, primarily impact the lower sand unit. There are some petroleum-related impacts in the lower sand unit, including MTBE, and there are some CVOCs at low concentrations detected above TOGS guidance values in the fill unit.

5.5.1 Fill Unit

Low level petroleum and fill-related soil impacts are widespread in the fill unit. The significate impacts (greater than one order of magnitude above the Commercial Use SCO) were excavated as part of the IRMs (Section 1.2). Petroleum COCs have been detected in groundwater at concentrations above the TOGS guidance values in the last 5 years. The highest concentrations of petroleum COCs in groundwater are located in the central area of the site, near the former truck loading rack area. Concentrations of petroleum COCs decrease by an order of magnitude along the downgradient boundary of the site.

5.5.2 Lower Sand Unit

The primary source of COCs in the lower sand unit was the meadow mat below the former VRU area. The meadow mat was excavated in 2013/2014 as part of an IRM. Although other VOCs were detected in the lower sand unit at concentrations above the TOGS guidance values, the discussion of the extent of the plumes will be limited to TCE, vinyl chloride, and MTBE because they are most representative of conditions in the lower sand unit.

Concentrations of TCE in groundwater have decreased from 340,000 µg/L in MW-25-D2 in August 2013 to 2,100 µg/L in ASB-4 in June 2016; concentrations of vinyl chloride have decreased from 6,300 µg/L in MW-25-D1 in August 2013 to 2,100 µg/L in AMW-14-D1 in July 2016; and concentrations of MTBE have

decreased from 2,500 µg/L in MW-25-D2 in August 2013 to 640 µg/L in OW-4-D1 in January 2016. Below is a summary of the current extent of the plumes in the lower sand unit.

The TCE plume is approximately 100 feet long and extends from the base of the meadow mat at 20 feet bcgs to 35 feet bgs. The maximum concentration of TCE in the D1 horizon is in temporary well ASB-4 at 2,100 µg/L. TCE was not detected in the perimeter D-1 horizon monitoring wells or in the D2 and VD horizon monitoring wells. The TOGS guidance value is 5 µg/L for TCE.

The vinyl chloride plume is approximately 180 feet long and extends from the base of the meadow mat at 20 feet bcgs to 45 feet bcgs (D2 horizon). In June 2016, the maximum concentration of vinyl chloride in the D1 horizon was 2,100 µg/L in AMW-14-D1, and the maximum concentration in the D2 horizon was 38 µg/L in MW-24-D2. Vinyl chloride was detected in perimeter monitoring well MW-26-D1 at 20 µg/L. Vinyl chloride was not detected in the VD horizon monitoring wells. The TOGS guidance value is 2 µg/L for vinyl chloride.

MTBE was detected in all three horizons in the lower sand unit, and the extent of the MTBE plume has not been delineated off site. In the D1 horizon, the maximum concentration is 640 µg/L in OW-1-D1, and concentrations at the downgradient property line range from 4.7 µg/L in MW-28-D1 to 340 µg/L in MW-26-D1. In the D2 horizon, the maximum concentration is 130 µg/L in MW-24-D2, and the concentrations in the D2 horizon at the property boundary range from 0.25 µg/L in MW-28-D2 to 59 µg/L in MW-26-D2. MTBE was detected in five of the six wells in the VD horizon at concentrations ranging from 0.42 µg/L in MW-29-VD to 3.4 µg/L in AMW-13-VD. The TOGS guidance value for MTBE is 10 µg/L.

5.6 Mass of Constituents of Concern (COCs)

The total estimated mass of COCs in the Lower Sand Unit is based on groundwater analytical results in the Lower Sand Unit in 2016. The mass provided below is represents post IRM current site conditions.

Due to the limited data in the fill unit in 2016, COC mass was not calculated. The calculation is based:

- The areas presented on the isoconcentration maps in Appendix I;
- Thickness of 15 feet for the D1 horizon and 10 feet for the D2 horizon; and
- Porosity of 0.35.

COC	TCE (kg)	Vinyl Chloride (kg)	MTBE (kg)
Lower Sand Horizon D1	0.03	0.09	0.17
Lower Sand Horizon D2	--	0.0001	0.02

5.7 Migration Pathways

The following is a preliminary assessment of the potential migration pathways for each media of potential concern in connection with this site:

Groundwater

Groundwater must be considered as a potential migration pathway, however, a complete pathway to potential receptors is mitigated by the deed restrictions which prohibits any purpose other than for remediation and limits land use to commercial purposes. The potential groundwater to serve as a complete pathway to receptors is further mitigated by the fact that groundwater in the site vicinity has been demonstrated to have chloride and/or total solids concentrations which exceed the non-potable GSB classification criteria of 1,000 mg/L and 2,000 mg/L, respectively (Langan 2007).

Surface Water

Concentrations of COCs at the surface water groundwater interface were not observed to indicate a potential for a containment migration pathway to surface water.

Soil Vapor

Soil vapor has the potential to serve as a pathway for volatile COCs within the subsurface (including BTEX and CVOCs) to migrate into site future buildings on this site. However, the potential for a complete pathway to receptors within future building will be mitigated by installing an appropriate vapor barrier under the retail facility.

Soil and Groundwater Direct Contact

The potential for direct contact with impacted soil or groundwater to be the pathway for exposure to COCs is unlikely given that the grade of the site was recently raised through the placement of between three and five feet of clean fill across the entire site and the surface will largely be paved as a parking lot or covered by buildings. While direct contact still represents a potential pathway of concern for utility and excavation workers, this pathway can be effectively mitigated through a Site Management Plan requiring that excavations will be completed under an appropriate health and safety plan to protect workers.

Biotic

Based on the current site conditions and future use of the site as a retail facility, the potential risk to ecological receptors is considered limited due to the low-quality habitat at the site and in the surrounding area.

In summary, the only potential migration pathway would be direct contact with soil and groundwater, which has been reduced by the addition of fill material to the site and will be addressed in the Site Management Plan.

6 SUMMARY AND CONCLUSIONS

This section presents a summary of soil and groundwater conditions and the relevant conclusions that can be drawn regarding the nature and extent of soil and groundwater impacts at this site.

6.1 Soil Conditions

6.1.1 Fill Unit

The following COCs were detected in the fill unit at concentrations above the Protection of Groundwater SCO: acetone, benzene, n-butylbenzene, ethylbenzene, methylene chloride, MTBE, naphthene, n-propylbenzene, 1,2,4 trimethylbenzene, toluene, xylenes, benzo(k)fluoranthene, chrysene, arsenic, and mercury. The most widespread of these exceedances were for BTEX compounds, many of which were detected within an order of magnitude of the relevant criteria.

The following COCs were detected in the fill unit at concentrations above the Commercial Use SCO in the fill unit: benzo(a)anthracene, benzo(b)fluoranthene, dibenzo(a,h)anthracene, indeno(1,2,3-cd)pyrene, and arsenic. The exceedances of the Commercial Use SCO in the fill unit are sporadic in nature and are within an order of magnitude of the SCO.

6.1.2 Lower Sand

The following COCs were detected in the lower sand unit at concentrations above the Protection of Groundwater SCO: cis 1-2-dichloroethene, methylene chloride, TCE, vinyl chloride, and phenol.

The primary COCs in the lower sand are the CVOCs and the exceedances are all in the vicinity of the former VRU area. Of the COCs detected above the Protection of Groundwater SCO, only vinyl chloride was detected at a concentration greater than an order of magnitude above the SCO.

6.2 Groundwater Conditions

The current, post-IRM, groundwater conditions at this site have recently been further investigated through the installation of wells in the former VRU area, the installation of additional monitoring wells downgradient of the former VRU area, and the sampling of the complete groundwater monitoring network. The results of the recent groundwater sampling are summarized in **Table 6** and on **Figures 10 and 11**. A complete summary of historical groundwater sampling results is provided in **Appendix G**.

The water-bearing units of interest beneath the site are a shallow fill unit and a lower sand unit. The units are separated by a meadow mat unit which is continuous across most of the site.

6.2.1 Fill Unit

The primary COCs in groundwater in the shallow groundwater/fill unit are benzene, ethylbenzene, xylenes, isopropylbenzene, and naphthalene. Other COCs were detected in groundwater at concentrations above the TOGS guidance values; however, the detections were isolated and/or concentrations were within an order of magnitude of the guidance values.

6.2.2 Lower Sand Unit

The primary COCs at the site are TCE, vinyl chloride, and MTBE in the lower sand. Other COCs were detected in groundwater at concentrations above their respective criteria; however, the detections were sporadic and/or within an order of magnitude of the criteria. Following the completion of the former CRU area IRM, the concentrations of VOCs have decreased: TCE decreased from 340,000 µg/L in MW-25-D2 in August 2013 to 2,100 µg/L in ASB-4 in June 2016; vinyl chloride decreased from 6,300 µg/L in MW-25-D1 in August 2013 to 2,100 µg/L in AMW-14-D1 in June 2016; and MTBE decreased from 100,000 µg/L in MW-25-D2 in August 2013 to 640 µg/L in OW-1-D1 in January 2016.

The extent of CVOCs impacts in the lower sand unit are limited to the shallow D1 and D2 horizons. No CVOCs were detected in the VD horizon at concentrations above the TOGS guidance values. The TCE impacts are limited to the D1 horizon in the footprint of the former VRU area IRM. Vinyl chloride, a degradation produce of TCE, extends beyond the former VRU area in the D1 and D2 horizons to the property line to the west of the former VRU area. Vinyl chloride was not detected in the VD horizon wells. The distribution of vinyl chloride is consistent with a TCE plume that is natural attenuating and shrinking.

MTBE was detected in the lower sand unit in all three horizons, although the detections of MTBE were not above the TOGS guidance value in the VD horizon. The horizontal extent in the D1 and D2 horizons has not been defined at the property boundary. Concentrations of MTBE were detected at the property boundary in the D1 horizon in MW-26-D1 (340 µg/L) and MW-29-D1 (23 µg/L) and in the D2 horizon in MW-26-D2 (59 µg/L) and MW-29-D2 (51 µg/L). The TOGS guidance value for MTBE is 10 µg/L.

6.3 Conclusions

The following conclusions are supported by the available site characterization results:

- The IRM implemented to address the identified source of CVOC contamination at the site involved the slurry-based excavation of the impacted soil within and surrounding the former VRU Area. A comparison of groundwater quality conditions observed before and after implementation of this IRM demonstrate the dramatic improvement of the observed groundwater conditions following removal action.
- Residual impacts observed in excess of relevant criteria or guidance within the shallow fill unit are composed mostly of petroleum related compounds including BTEX and MTBE. These exceedances are sporadically distributed around the site and are typically within an order of magnitude of the relevant criteria or guidance value.
- Residual impacts observed in excess of relevant criteria or guidance within the lower sand unit are primarily residual CVOCs including TCE, VC and other CVOC daughter compounds. These exceedances are observed at their highest concentrations beneath the former VRU area. However, these dissolved concentrations in groundwater are observed to attenuate very rapidly down gradient of the former source area such that concentrations of CVOCs in wells along the down gradient property boundary are below the relevant criteria or guidance with the exception of a single detection of VC at 20 µg/L in MW-26-D1. Petroleum related compounds including BTEX and MTBE are also observed to exceed relevant criteria or guidance at sporadic locations within the lower sand unit. Most of these exceedances are observed to be within an order of magnitude of the relevant criteria or guidance.
- The available site assessments completed to date provide an adequate characterization of the site assessment of appropriate alternatives capable of remediating the site.

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TABLES

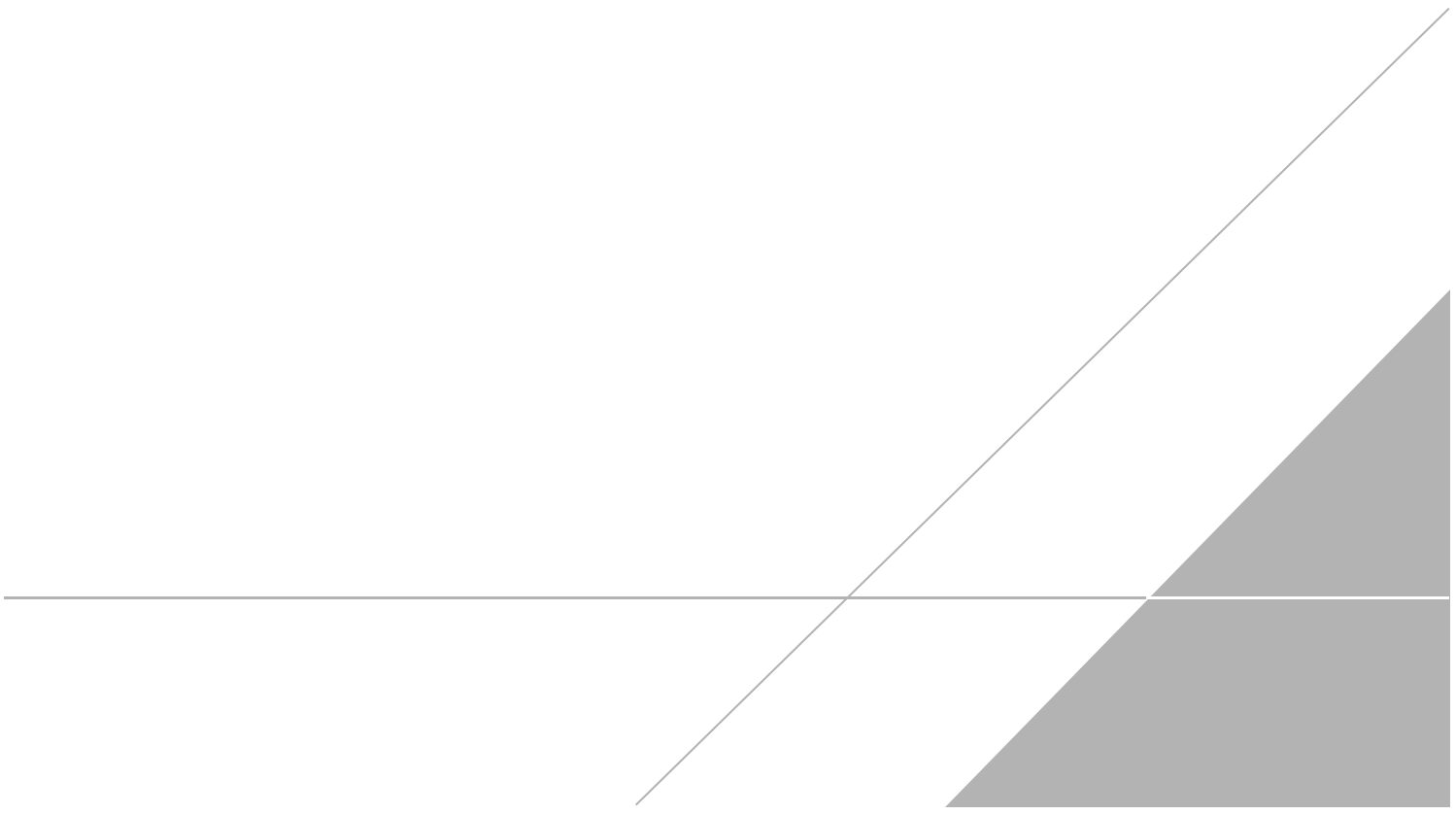

Table 1
Well Construction Summary

Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Well ID	Historical Screen Interval (ft bgs)	(feet below current groundsurface)	Well Status - July 2016	TIC July 2016	Groundsurface (estimated July 2016)	Top of Screen (ft, amsl)	Bottom of Screen (ft, amsl)
AMW-1	2 - 12	6 - 16	decommissioned	NA	NA	3.18	-6.82
AMW-2	4 - 9	8 - 13	decommissioned	NA	NA	1.37	-3.63
AMW-3	4 - 9	8 - 13	present	11.96	9.4	1.46	-3.54
AMW-4	2 - 12	6 - 16	decommissioned	NA	NA	4.60	-5.40
AMW-5	2 - 12	6 - 16	decommissioned	NA	NA	4.98	-5.02
AMW-6	3 - 13	7 - 17	decommissioned	NA	NA	3.76	-6.24
AMW-7	2 - 12	6 - 16	present	7.7	NA	4.74	-5.26
AMW-8	11 - 14	15 - 18	decommissioned	NA	NA	-5.59	-8.59
AMW-9	10 - 14	14 - 18	decommissioned	NA	NA	-4.38	-8.38
AMW-10	10 - 14	14 - 18	decommissioned	NA	NA	-4.39	-8.39
AMW-11	2 - 12	6 - 16	decommissioned	NA	NA	2.59	-7.41
AMW-12	3 - 8	7 - 12	decommissioned	NA	NA	NA	NA
AMW-13D1	NA	22 - 32	present	11.41	9.4	-12.60	-22.60
AMW-13D2	NA	32 - 42	present	11.39	9.4	-22.60	-32.60
AMW-13VD	NA	60 - 70	present	11.85	9.4	-50.60	-60.60
AMW-14D1	NA	22 - 32	present	10.77	9.4	-12.60	-22.60
AMW-14D2	NA	32 - 42	present	11.83	9.4	-22.60	-32.60
AMW-14VD	NA	64 - 74	present	10.81	9.4	-54.60	-64.60
AMW-15D1	NA	23.5 - 33.5	present	11.24	9.4	-14.10	-24.10
AMW-15D2	NA	30 - 40	present	11.29	9.4	-20.60	-30.60
AMW-15D3	NA	40 - 50	present	11.5	9.4	-30.60	-40.60
AMW-15VD	NA	60 - 70	present	11.07	9.4	-50.60	-60.60
IW-1	19-24	23 - 28	decommissioned	NA	NA	NA	NA
IW-2-D1	19-29	23 - 33	present	9.36	9.5	-13.50	NA
MW-18R	2-7	6 - 11	present	9.45	9.5	3.50	NA
MW-23-D1R	16.5 - 26.5	20.5 - 30.5	present	9.83	9.5	-11.05	-21.05
MW-23-D2R	31 - 41	35 - 45	present	9.62	9.5	-25.32	-35.32
MW-24-D1	17 - 27	21 - 31	present	10.28	9.5	-11.34	-21.34
MW-24-D2	32 - 42	36 - 46	present	9.96	9.5	-26.60	-36.60
MW-24VD	63 - 73	67 - 77	decommissioned	NA	NA	-57.66	-67.66
MW-25-D1	16 - 26	20 - 30	decommissioned	NA	NA	-10.38	-20.38
MW-25-D2	31 - 41	35 - 45	decommissioned	NA	NA	-25.49	-35.49
MW-25D3	40 - 50	44 - 54	decommissioned	NA	NA	-34.51	-44.51
MW-25VD	63 - 73	67 - 77	decommissioned	NA	NA	-57.49	-67.49
MW-26-D1	15 -25	19 - 29	present	9.53	9.4	-11.15	-21.15
MW-26-D2	30 - 40	34 - 44	present	9.37	9.4	-26.06	-36.06
MW-26VD	58 - 68	62 - 72	present	10.18	9.4	-53.98	-63.98
MW-27-D1	18 -28	22 - 32	present	8.51	9.4	-12.54	-22.54
MW-27-D2	33 - 43	37 - 47	present	9.34	9.4	-27.48	-37.48
MW-28-D1	17.5 - 27.5	21.5 - 31.5	present	8.69	9	-12.21	-22.21
MW-28-D2R	32.5 - 42.5	36.5 - 46.5	present	9.9	9	-27.12	-37.22
MW-29-D1	17 - 27	21 - 31	present	5.26	5	-12.46	-22.46
MW-29-D2	32 - 42	36 - 46	present	5.36	5	-27.58	-37.58
MW-29-VD	53 - 63	57 - 67	present	5.22	5	-48.63	-58.63
MW-30-D1	18 - 28	22 - 32	present	9.07	9.4	-12.42	-22.42
MW-30-D2	33 - 43	37 - 47	present	8.97	9.4	-27.28	-37.28
MW-30VD	73 - 83	77 - 87	present	9.3	9.4	-67.37	-77.37
MW-31-D1R	17 - 27	21 - 31	present	8.75	9.4	-11.79	-11.79
MW-31-D2R	32 - 42	36 - 46	present	8.62	9.4	-26.59	-36.59
MW-32D	24 - 34	28 - 38	present	8.83	9.4	-18.64	-37.64
MW-33D	18 - 28	22 - 32	decommissioned	NA	NA	-13.04	-23.04
MW-35D	16 - 26	20 - 30	decommissioned	NA	NA	NA	NA
MW-DR	NA	NA	damaged	NA	NA	NA	NA
OW-1-D1	19-24	24 - 29	decommissioned	NA	9.4	NA	NA
OW-2-D1	25-29	29 - 33	present	9.87	9.4	-19.60	-23.60
OW-3-D1	19-29	23 - 33	present	9.21	9.4	-23.50	-33.60
P-10	NA	NA	decommissioned	NA	NA	NA	NA
P-18R	2 - 8	6 - 12	decommissioned	NA	NA	3.07	3.07
P-26	NA	NA	decommissioned	NA	NA	NA	NA

Notes:
1. Elevations are shown in feet above mean sea level (AMSL) relative to the NAVD datum of 1988 (NAVD88).
2. NA = not available.

Table 2
Groundwater Sample Collection Field Parameters

ARCADIS Design & Consultancy for natural and built assets

Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Well ID	Date Sampled	pH (SU)	Temperature (ºC)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTUs)
AMW-1	1/20/2011	6.91	5.45	0.523	2.89	-263.5	0.0
AMW-2	1/20/2011	6.59	4.93	0.461	1.46	-162.7	3.3
AMW-3	1/20/2011	6.89	4.85	0.691	0.52	-170.8	9.5
AMW-3	1/13/2016	7.14	7.15	1.713	1.68	-174.9	9.4
AMW-3	6/21/2016	8.41	19.82	1.401	0.41	-283.7	6.23
AMW-4	1/26/2011	7.77	7.91	1.442	0.75	-23.2	8.2
AMW-4	9/11/2013	6.55	22.18	2.72	0.07	-128	0.28
AMW-5	1/26/2011	5.10	7.72	1.441	0.94	-309.3	1.9
AMW-5	9/11/2013	8.84	22.09	2.19	0.05	-372	1.64
AMW-7	1/26/2011	8.29	8.19	2.259	0.61	-367.9	6.1
AMW-7	9/11/2013	8.83	22.03	3.06	2.69	-380	0.09
AMW-7	1/21/2016	8.23	9.18	1.922	0.27	-301.7	8.98
AMW-7	6/21/2016	7.58	23.62	2.297	0.17	-292.1	2.15
AMW-8	1/20/2011	6.48	7.77	1.167	1.18	-167.4	6.2
AMW-9	1/20/2011	6.17	7.12	1.103	1.20	-186.1	10.0
AMW-10	1/20/2011	6.21	6.65	1.612	5.00	-103.6	13.7
AMW-11	1/26/2011	4.52	5.76	0.773	1.21	-124.6	8.2
AMW-11	9/11/2013	6.41	23.14	3.88	0.39	-104.2	1.08
AMW-12	2/20/2013	6.66	5.54	0.87	0.00	-27.5	0
AMW-12	9/13/2013	6.53	25.34	1.741	1.06	-115.8	11.7
AMW-12	1/14/2016	6.97	9.97	1.477	0.44	-81.1	4.2
AMW-13-D1	6/24/2016	6.81	19.27	8.279	0.18	-319.7	21.1
AMW-13-D1	7/27/2016	6.87	22.68	8.578	0.00	301.6	3.42
AMW-13-D2	6/23/2016	7.64	17.38	9.331	0.21	-240.2	110
AMW-13-D2	7/27/2016	6.55	25.48	16.82	0.04	-332.1	0.1
AMW-13-VD	6/23/2016	7.53	11.40	30.21	0.40	-137.1	4.65
AMW-13-VD	7/27/2016	6.93	24.87	39.86	0.25	-205.9	0.81
AMW-14-D1	6/24/2016	10.06	17.54	9.393	0.28	-302.5	7.94
AMW-14-D1	7/26/2016	6.69	23.11	10.54	0.00	-319.7	1.52
AMW-14-D2	6/23/2016	7.56	16.56	10.9	0.35	-348.3	22.6
AMW-14-D2	7/26/2016	6.54	22.79	14.14	0.69	-323.2	1.99
AMW-14-VD	6/23/2016	7.37	16.31	34.26	0.49	-128.1	9.69
AMW-14-VD	7/27/2016	6.61	20.00	37.62	0.96	-110	0.72
AMW-15-D1	6/23/2016	7.42	17.21	8.094	0.27	-336.2	4.67
AMW-15-D1	7/27/2016	6.84	27.14	10.12	0.11	-353.9	0.71
AMW-15-D2	6/23/2016	11.54	17.14	9.89	0.17	-313	40.4
AMW-15-D2	7/27/2016	8.20	25.24	11.33	0.01	-400.1	1.41
AMW-15-D3	6/23/2016	10.60	18.53	21.53	NA	-66.3	298
AMW-15-D3	7/27/2016	7.25	22.80	13.49	0.05	-361.1	0.12
AMW-15-VD	6/23/2016	8.15	17.12	37.43	0.61	211.6	3.42
AMW-15-VD	7/27/2016	7.53	25.04	41.63	0.11	-240.9	0.91
IW-1	8/21/2013	6.82	15.34	11.55	0.04	-356.6	37.2
IW-2-D1	2/20/2013	6.92	10.69	3.353	0.00	-202.3	23.8
IW-2-D1	9/12/2013	6.75	17.00	9.94	1.78	-291.1	1.2
IW-2-D1	1/13/2016	7.03	12.96	9.047	0.21	-353.1	7.97
MW-18R	2/20/2013	7.41	4.31	0.693	0.00	-54.9	4.3
MW-18R	6/22/2016	7.23	19.44	2.248	0.48	-52.4	2.84
MW-23-D1R	1/19/2011	6.65	10.10	1.351	5.51	-270.1	2.7
MW-23-D1R	9/10/2013	6.83	18.41	3.611	0.78	-118	4.39
MW-23-D1R	1/12/2016	7.09	13.17	6.02	0.40	-317	1.9
MW-23-D1R	6/20/2016	7.33	17.52	6.465	0.70	-314.2	3.67
MW-23-D2R	1/20/2011	6.90	9.10	9.371	6.13	-339.6	0.7
MW-23-D2R	9/11/2013	5.99	17.02	12.66	0.44	-285.4	1.1
MW-23-D2R	1/11/2016	6.96	8.78	7.747	0.52	-329.8	2.41
MW-23-D2R	6/20/2016	7.51	15.98	9.845	0.26	-319.5	0.9
MW-24-D1	1/19/2011	6.92	11.47	11.04	0.00	-342.8	6.1
MW-24-D1	9/12/2013	6.84	15.83	13.02	1.94	-320.1	0.54
MW-24-D1	1/13/2016	7.06	11.16	7.782	0.18	-338.7	3.01
MW-24-D1	6/21/2016	6.86	16.33	9.4	0.28	-344.4	1.15
MW-24-D2	1/19/2011	6.95	11.13	10.02	0.00	-332.6	1.9
MW-24-D2	9/11/2013	6.48	17.21	12.16	0.69	-302.1	0.95
MW-24-D2	1/13/2016	7.03	11.71	9.488	0.31	-342.9	8.75
MW-24-D2	6/21/2016	6.82	17.32	11.58	0.31	-347.4	1.95

See Notes on Page 3.

Table 2
Groundwater Sample Collection Field Parameters

Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Well ID	Date Sampled	pH (SU)	Temperature (ºC)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTUs)
MW-24VD	1/19/2011	6.76	10.63	32.37	0.82	-199.5	0.9
MW-24VD	8/21/2013	6.24	16.53	39.08	0.98	-224.3	5.0
MW-25-D1	1/19/2011	6.27	11.51	9.935	0.00	-346.4	7.4
MW-25-D1	8/21/2013	6.72	15.05	13.58	0.08	-343.4	40.0
MW-25-D2	1/19/2011	6.30	10.98	10.06	2.49	-333.0	0.9
MW-25-D2	8/21/2013	6.01	16.31	16.25	0.36	-323	5.6
MW-25D3	1/21/2011	7.24	11.57	29.96	0.08	-364.1	2.7
MW-25D3	8/21/2013	5.89	15.70	31.88	1.10	-272	5.7
MW-25VD	1/19/2011	6.40	10.75	21.63	0.93	-275.3	0.5
MW-25VD	8/21/2013	6.63	16.98	42.6	0.06	-63.9	22
MW-26-D1	1/25/2011	6.12	10.71	14.27	0.04	-360.1	7.8
MW-26-D1	9/10/2013	6.86	18.36	8.878	NA	-325.4	15.2
MW-26-D1	1/12/2016	7.08	11.08	6.752	0.25	-325.7	16.3
MW-26-D1	6/22/2016	7.62	16.69	7.361	0.46	-285.7	1.46
MW-26-D2	1/25/2011	6.03	10.06	18.62	0.00	-299.6	5.5
MW-26-D2	9/10/2013	6.75	17.73	15.37	NA	-334.1	0.6
MW-26-D2	1/12/2016	6.68	10.17	22.35	0.28	-289	23.1
MW-26-D2	6/22/2016	7.16	18.79	24.24	0.34	-172	1.65
MW-26VD	1/18/2011	11.88	7.36	16.34	0.91	-251.3	0.2
MW-26VD	9/10/2013	7.64	17.35	16.96	1.60	-346	14.1
MW-26-VD	1/13/2016	7.49	5.73	13.39	0.15	-326.8	>1000
MW-26-VD	6/22/2016	7.48	19.53	16.57	0.48	-113.3	>1000
MW-27-D1	1/18/2011	6.82	11.22	8.056	0.00	-354.2	7.5
MW-27-D1	1/13/2016	7.94	7.66	1.776	0.71	0.7	14.1
MW-27-D1	6/21/2016	6.92	16.57	12.57	0.40	-352.7	8.79
MW-27-D2	1/18/2011	6.43	10.92	19.31	0.64	-170.6	4.1
MW-27-D2	1/13/2016	6.61	10.47	19.06	0.38	-108.1	32.4
MW-27-D2	6/21/2016	6.67	16.85	19.73	0.42	-320.5	22.2
MW-28-D1	1/25/2011	6.04	11.66	8.870	0.00	-394.1	6.2
MW-28-D1	6/24/2016	6.97	16.97	9.41	0.29	-331.4	20.7
MW-28-D1	7/28/2016	6.89	27.11	10.43	0.08	-359.4	3.81
MW-28-D2	1/25/2011	6.48	13.10	22.60	0.17	-293.2	19.1
MW-28-D2	7/28/2016	6.75	25.61	19.55	0.13	-222	4.00
MW-28-D2R	6/24/2016	7.11	19.38	23.59	0.29	-205.4	21.1
MW-29-D1	1/25/2011	6.68	12.32	4.431	0.93	-233.1	5.1
MW-29-D1	9/10/2013	6.63	18.08	4.944	2.90	-134	1.7
MW-29-D1	1/14/2016	6.84	12.41	4.552	0.38	-128.1	4.88
MW-29-D1	6/21/2016	6.75	18.62	4.738	0.31	-92.6	0.78
MW-29-D2	1/25/2011	5.62	10.36	19.37	0.56	-263.4	1.2
MW-29-D2	9/10/2013	9.13	18.24	39.23	2.00	-63.9	2.9
MW-29-D2	1/14/2016	6.90	13.06	13.07	0.25	-330.8	5.86
MW-29-D2	6/21/2016	7.03	18.72	20.3	0.35	-286	0.93
MW-29-VD	1/25/2011	6.53	13.32	23.28	0 [1]	-304.1	5.1
MW-29-VD	9/10/2013	6.74	21.83	17.79	NA	-337	30.6
MW-29-VD	1/14/2016	8.12	11.72	33.22	0.52	-186.2	5.75
MW-29-VD	6/21/2016	8.19	16.61	35.66	0.35	-90.3	1.86
MW-30-D1	1/24/2011	6.22	9.01	8.620	0.07	-340.1	1.0
MW-30-D1	9/9/2013	6.71	17.13	10.25	NA	-327.5	0.16
MW-30-D1	1/14/2016	7.02	9.81	10.42	0.08	-317.5	7.21
MW-30-D1	6/22/2016	6.77	19.53	11.52	0.35	-349.7	16.9
MW-30D2	9/10/2013	6.60	16.92	13.78	NA	-368.5	0.07
MW-30-D2	4/7/2011	6.72	11.75	11.16	1.48	-354.8	3.2
MW-30-D2	1/14/2016	6.82	12.88	12.83	0.23	-319.8	3.12
MW-30-D2	6/23/2016	6.45	16.23	11.62	0.43	-339.2	13.4
MW-30VD	1/25/2011	7.56	11.48	22.18	0 [1]	-321.7	6.2
MW-30VD	9/10/2013	8.70	19.64	41.47	0.11	-408.3	0.7
MW-30-VD	1/14/2016	7.48	9.81	15.69	0.40	-244.5	65.8
MW-30-VD	6/22/2016	6.56	18.75	39.85	0.53	-68.3	25.8
MW-31-D1R	1/21/2011	6.58	9.04	8.320	0.82	-340.9	0.0
MW-31-D1R	9/13/2013	6.73	16.59	12.97	0.27	-323.4	1.64
MW-31-D1R	1/14/2016	10.32	6.94	0.237	2.97	-234.9	14.7
MW-31-D1R	6/22/2016	8.94	18.89	2.549	0.42	-292	10.1

See Notes on Page 3.

Table 2
Groundwater Sample Collection Field Parameters

ARCADIS Design & Consultancy for natural and built assets

Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Well ID	Date Sampled	pH (SU)	Temperature (ºC)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTUs)
MW-31-D2R	1/12/2011	6.97	10.48	18.76	0.88	-329.6	0.0
MW-31-D2R	9/13/2013	6.65	17.73	23.8	0.05	-316	2.07
MW-31-D2R	1/14/2016	6.37	8.60	0.243	0.51	101.1	50.1
MW-31-D2R	6/22/2016	6.88	18.26	18.13	0.26	-295.4	2.72
MW-32D	1/19/2010	6.95	12.46	8.372	0.00	-337.7	0.0
MW-33D	1/27/2011	6.98	11.69	7.132	0.93	-335.6	11.7
MW-35D	1/27/2011	7.36	10.57	1.554	0.75	-334.0	9.8
MW-DR	1/26/2011	4.52	7.31	0.617	1.04	-214.3	11.8
MW-DR	9/12/2013	6.40	22.72	4.36	0.08	-263.7	1.34
OW-1-D1	2/20/2013	6.86	10.45	11.85	0.00	-354.7	8.8
OW-1-D1	9/12/2013	6.37	17.81	17.49	2.20	-357.2	2.78
OW-1-D1	1/13/2016	7.04	10.02	12	0.17	-355.8	2.09
OW-2-D1	2/21/2013	6.30	9.54	6.33	0.00	-308.9	2.5
OW-2-D1	9/11/2013	6.43	17.10	9.841	1.08	-293.9	0.81
OW-2-D1	1/12/2016	7.08	12.09	7.449	0.38	-329	1.3
OW-3-D1	2/21/2013	6.80	10.91	7.309	0.00	-317.4	4.5
OW-3-D1	9/13/2013	6.80	15.85	9.389	0-1[1]	-266.1	9.0
OW-3-D1	1/13/2016	6.99	12.37	7.862	0.28	-341.1	0.9
P-10	4/7/2011	6.76	6.88	0.727	9.57	-97.1	16
P-10	9/13/2013	6.58	21.29	6.58	4.80	-179.2	30.5
P-18R	1/27/2011	7.24	2.86	0.671	0.67	-204.0	9.6
P-18R	1/12/2016	6.87	10.13	2.132	0.53	-57.7	4.97

Notes:
[1]Colorimetric dissolved oxygen measurement.
NA = Dissolved oxygen meter not properly functioning.
ºC = Celsius.
mg/L = milligrams per liter.
mV = millivolts.
NTUs = Nephelometric Turbidity Units.
SU = Standard Units.
mS/cm = milliSiemens per centimeter.
NR = Not reported.
Dissolved oxygen measurements collected in February 2013 were measured using a Horbia.

Table 3
Groundwater Elevation Summary Table

Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Well ID	Screen Interval (feet below current ground surface)	Depth to Water (TIC) Low Tide 7/26/16	Low Tide Groundwater Elevation (ft AMSL) 7/26/16	Depth to Water (TIC) High Tide 7/26/16	High Tide Groundwater Elevation (ft AMSL) 7/26/16
AMW-3	8 - 13	8.31	3.65	8.25	3.71
AMW-7	6 - 16	5.62	2.08	5.35	2.35
AMW-13D1	22 - 32	12.46	-1.05	9.48	1.93
AMW-13D2	32 - 42	12.50	-1.11	9.47	1.92
AMW-13VD	60 - 70	12.65	-0.80	9.69	2.16
AMW-14D1	22 - 32	11.94	-1.17	8.90	1.87
AMW-14D2	32 - 42	12.97	-1.14	9.95	1.88
AMW-14VD	64 - 74	11.68	-0.87	8.52	2.29
AMW-15D1	23.5 - 33.5	12.17	-0.93	9.60	1.64
AMW-15D2	30 - 40	12.23	-0.94	9.35	1.94
AMW-15D3	40 - 50	12.53	-1.03	9.75	1.75
AMW-15VD	60 - 70	11.68	-0.61	8.95	2.12
IW-2-D1	23 - 33	10.47	-1.11	8.57	0.79
MW-18R	6 - 11	5.80	3.65	5.55	3.90
MW-23-D1R	21 - 31	10.64	-0.81	7.83	2.00
MW-23-D2R	35 - 45	10.88	-1.26	7.55	2.07
MW-24-D1	21 - 31	11.35	-1.07	8.41	1.87
MW-24-D2	36 - 46	11.04	-1.08	8.12	1.84
MW-26-D1	19 - 29	10.70	-1.17	7.61	1.92
MW-26-D2	34 - 44	10.65	-1.28	7.46	1.91
MW-26VD	62 - 72	10.33	-0.15	8.71	1.47
MW-27-D1	22 - 32	9.73	-1.22	6.86	1.65
MW-27-D2	37 - 47	10.46	-1.12	7.32	2.02
MW-28-D1	22 - 32	11.22	-2.53	6.70	1.99
MW-28-D2R	37 - 47	9.65	0.25	7.80	2.10
MW-29-D1	21 - 31	6.85	-1.59	3.09	2.17
MW-29-D2	36 - 46	6.58	-1.22	3.20	2.16
MW-29-VD	57 - 67	5.30	-0.08	3.96	1.26
MW-30-D1	22 - 32	9.73	-0.66	6.96	2.11
MW-30-D2	37 - 47	9.81	-0.84	6.76	2.21
MW-30VD	77 - 87	9.28	0.02	6.44	2.86
MW-31-D1R	21 - 31	11.22	-2.47	6.78	1.97
MW-31-D2R	36 - 46	9.65	-1.03	6.50	2.12
MW-32D	28 - 38	9.90	-1.07	6.95	1.88
OW-2-D1	29 - 33	10.88	-1.01	8.02	1.85
OW-3-D1	33 - 43	10.31	-1.10	7.37	1.84

Notes:
1. Elevations are shown in feet above mean sea level (AMSL) relative to the NAVD datum of 1988 (NAVD88).
2. NA = not available.
3. TIC = top of inner casing.

Table 4
Summary of Pre-2010 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Historical Sample Depth (feet): / Current Estimated Sample Depth (feet) / Date Collected: / Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	G2-D1 3 - 3.5 7 - 7.5 11/16/04 Shallow Sand Fill - Shallow	G3-D1 3 - 3.5 7 - 7.5 11/16/04 Shallow Sand Fill - Shallow	G3-S1 1.5 - 2 5.5 - 6 11/16/04 Shallow Sand Fill - Shallow	G4-D1 3 - 3.5 7 - 7.5 11/16/04 Shallow Sand Fill - Shallow	G4-D2 3 - 3.5 7 - 7.5 11/18/04 Shallow Sand Fill - Shallow	G4-S1 1.5 - 2 5.5 - 6 11/16/04 Shallow Sand Fill - Shallow	G4-S2 1.5 - 2 5.5 - 6 11/18/04 Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	***4.1***	***8.3***	***5.7***	***4.7***	***4.2***	***3.5***	***3.2***
Toluene	0.7	0.7	500	mg/kg	0.16 J	ND	0.33	0.27	0.38	0.39	ND
Ethylbenzene	1	1	390	mg/kg	***7.3***	***40***	***28***	***20***	***41***	***40***	***41***
Xylenes (total)	0.26	1.6	500	mg/kg	***2.3***	***1.8***	***1.9***	***2.0***	***3.1***	***13***	***13***
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	0.22	ND	ND	0.64	ND	ND	ND
Naphthalene	12	12	500	mg/kg	***23***	***40***	***36***	***33***	***43***	***20***	***32***
Isopropylbenzene	- -	- -	- -	mg/kg	3.7	9.4	7.6	6.2	7.6	5.7	6.1
1,1-Dichloroethene	0.33	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	3.6	3.6	190	mg/kg	1.6	3.1	ND	1.5	1.0 J	***8.2***	***4.8***
1,3,5-Trimethylbenzene	8.4	8.4	190	mg/kg	1.8	1.3 J	1.6	0.73 J	1.5 J	6.1	6.1
Acetone	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	12	12	500	mg/kg	7.3	***14***	***13***	***12***	***13***	9.3	9.0
n-Propylbenzene	3.9	3.9	500	mg/kg	***10***	***24***	***20***	***16***	***20***	***15***	***16***
p-Isopropyltoluene	- -	- -	- -	mg/kg	0.56 J	2.3 J	0.55 J	0.97 J	0.75 J	0.69 J	0.81 J
sec-Butylbenzene	11	11	500	mg/kg	2.2	4.8	4.0	4.1	4.1	2.9	2.7
Styrene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	5.9	5.9	500	mg/kg	0.21 J	0.46 J	0.35 J	0.37 J	0.37 J	0.24 J	0.29 J
Tertiary butyl alcohol	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	1.3	1.3	150	mg/kg	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	0.47	0.47	200	mg/kg	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	0.02	0.02	13	mg/kg	NA	NA	NA	NA	NA	NA	NA
Total VOCs	- -	- -	- -	mg/kg	64 J	150 J	120 J	100 J	140 J	130 J	130 J
TPH											
Total Petroleum Hydrocarbons	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics											
2-Methylnaphthalene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	98	500	mg/kg	0.33	0.88	0.85	0.60	1.4	0.87	2.3
Acenaphthylene	100	107	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Anthracene	100	1,000	500	mg/kg	0.10	0.34	0.33	ND	0.72	0.32 J	1.1
Benzo(a)anthracene	1	1	5.6	mg/kg	0.031 J	0.087	0.11	0.042 J	0.17	0.39	0.34
Benzo(a)pyrene	1	22	1	mg/kg	ND	0.049 J	0.046 J	ND	0.072 J	0.27 J	0.22
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	ND	0.067 J	0.060 J	ND	0.10 J	0.35	0.45
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	ND	0.058	0.056 J	ND	0.10 J	0.46	0.21 J
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chrysene	1	1	56	mg/kg	0.040 J	0.12	0.12	0.051 J	0.18 J	0.46	0.48
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	100	1,000	500	mg/kg	0.13	0.36	0.52	0.19	0.88	0.85	1.6
Fluorene	30	386	500	mg/kg	0.85	2.2	1.7	1.7	2.1	1.8	3.2
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	ND	0.049 J	0.046 J	ND	ND	ND	ND
Phenanthrene	100	1,000	500	mg/kg	1.9	5.6	3.9	3.5	5.2	3.8	8.2
Pyrene	100	1,000	500	mg/kg	0.17	0.63	0.65	0.34	0.59	1.2	1.2
Total SVOCs	- -	- -	- -	mg/kg	3.5 J	10 J	8.4 J	6.4 J	12 J	11 J	19 J
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 23.

Table 4
Summary of Pre-2010 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Historical Sample Depth (feet): / Current Estimated Sample Depth (feet) / Date Collected: / Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	G5-D1 3 - 3.5 7 - 7.5 11/16/04 Shallow Sand Fill - Shallow	G5-D2 3 - 3.5 7 - 7.5 11/18/04 Shallow Sand Fill - Shallow	G5-S1 1.5 - 2 5.5 - 6 11/16/04 Shallow Sand Fill - Shallow	G5-S2 1.5 - 2 5.5 - 6 11/18/04 Shallow Sand Fill - Shallow	G6-D1 3 - 3.5 7 - 7.5 11/16/04 Shallow Sand Fill - Shallow	G6-D2 3 - 3.5 7 - 7.5 11/18/04 Shallow Sand Fill - Shallow	G6-S1 1.5 - 2 5.5 - 6 11/16/04 Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	***5.7***	***3.3***	***6.4***	***9.1***	***10***	***6.2***	***4.2***
Toluene	0.7	0.7	500	mg/kg	0.44	0.21	0.57	0.69	0.52	ND	0.57
Ethylbenzene	1	1	390	mg/kg	***9.1***	***4.4***	***46***	***58***	***3.3***	***3.4***	***13***
Xylenes (total)	0.26	1.6	500	mg/kg	***2.5***	*0.60*	***4.1***	***3.1***	*1.4*	*0.82*	***8.7***
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Naphthalene	12	12	500	mg/kg	4.9	9.6	***16***	***13***	1.3	***19***	4.5
Isopropylbenzene	- -	- -	- -	mg/kg	5.2	3.0	7.0	9.1	4.6	4.7	5.0
1,1-Dichloroethene	0.33	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	3.6	3.6	190	mg/kg	1.9	0.37	1.1 J	0.48 J	0.28 J	1.1 J	***7.4***
1,3,5-Trimethylbenzene	8.4	8.4	190	mg/kg	2.4	1.6	4.6	4.1	0.96 J	6.1	3.7
Acetone	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	12	12	500	mg/kg	7.5	5.0	10	***13***	6.6	6.6	9.4
n-Propylbenzene	3.9	3.9	500	mg/kg	***14***	***8.0***	***19***	***24***	***12***	***12***	***14***
p-Isopropyltoluene	- -	- -	- -	mg/kg	0.87 J	0.73 J	1.2	1.3 J	1.3 J	1.6 J	0.87 J
sec-Butylbenzene	11	11	500	mg/kg	2.4	1.6	3.2	3.9	2.2	2.5	2.7
Styrene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	5.9	5.9	500	mg/kg	0.22 J	0.19 J	0.28 J	0.38 J	0.40 J	0.28 J	0.28 J
Tertiary butyl alcohol	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	1.3	1.3	150	mg/kg	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	0.47	0.47	200	mg/kg	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	0.02	0.02	13	mg/kg	NA	NA	NA	NA	NA	NA	NA
Total VOCs	- -	- -	- -	mg/kg	57 J	39 J	120 J	140 J	45 J	64 J	74 J
TPH											
Total Petroleum Hydrocarbons	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics											
2-Methylnaphthalene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	98	500	mg/kg	1.2	0.80	ND	1.8	1.1	0.43	0.71
Acenaphthylene	100	107	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Anthracene	100	1,000	500	mg/kg	0.42	ND	0.34 J	ND	0.56	ND	0.25
Benzo(a)anthracene	1	1	5.6	mg/kg	0.16 J	ND	0.14 J	0.13 J	0.21	ND	0.17
Benzo(a)pyrene	1	22	1	mg/kg	ND	ND	ND	0.78 J	0.13	ND	0.19
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	ND	ND	0.28 J	0.079 J	0.19	ND	0.23
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	ND	ND	ND	ND	0.21	ND	0.20
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	ND	ND	ND	0.096 J	0.19	ND	0.19
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chrysene	1	1	56	mg/kg	0.15 J	0.11 J	0.29 J	0.11 J	0.28	ND	0.26
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	ND	ND	ND	0.21 J	ND	ND	ND
Fluoranthene	100	1,000	500	mg/kg	0.51	0.21 J	0.62	ND	0.60	0.085 J	0.44
Fluorene	30	386	500	mg/kg	2.7	1.4	2.6	0.53	2.4	0.71	2.0
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	ND	ND	ND	*3.1*	0.14	ND	0.17
Phenanthrene	100	1,000	500	mg/kg	5.9	3.4	5.3	8.3	7.7	1.7	6.5
Pyrene	100	1,000	500	mg/kg	0.60	0.30	0.65	0.50	1.0	ND	0.86
Total SVOCs	- -	- -	- -	mg/kg	12 J	6.3 J	10 J	16 J	15	2.9 J	12
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 23.

Table 4
Summary of Pre-2010 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Historical Sample Depth (feet): / Current Estimated Sample Depth (feet) / Date Collected: / Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	G6-S2 1.5 - 2 5.5 - 6 11/18/04 Shallow Sand Fill - Shallow	G8-D1 3 - 3.5 7 - 7.5 11/16/04 Shallow Sand Fill - Shallow	G8-D2 3 - 3.5 7 - 7.5 11/18/04 Shallow Sand Fill - Shallow	G8-S1 1.5 - 2 5.5 - 6 11/16/04 Shallow Sand Fill - Shallow	G8-S2 1.5 - 2 5.5 - 6 11/18/04 Shallow Sand Fill - Shallow	G9-D1 3 - 3.5 7 - 7.5 11/18/04 Shallow Sand Fill - Shallow	G9-D2 3 - 3.5 7 - 7.5 11/18/04 Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	***10***	***0.98***	***2.1***	***14***	***3.8***	***5.7***	***0.71***
Toluene	0.7	0.7	500	mg/kg	0.54	0.36	0.41	***0.80***	0.22	ND	ND
Ethylbenzene	1	1	390	mg/kg	***5.7***	***1.3***	***1.1***	***2.2***	***7.0***	***25***	***4.6***
Xylenes (total)	0.26	1.6	500	mg/kg	***1.6***	***5.8***	***6.2***	***4.3***	*0.84*	***66***	*0.39*
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Naphthalene	12	12	500	mg/kg	4.2	***12***	***21***	***15***	3.0	***21***	11
Isopropylbenzene	- -	- -	- -	mg/kg	4.1	7.0	8.5	17	2.8	8.5	2.9
1,1-Dichloroethene	0.33	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	3.6	3.6	190	mg/kg	0.54 J	***4.7***	***4.2***	1.7 J	0.19 J	***12***	0.19 J
1,3,5-Trimethylbenzene	8.4	8.4	190	mg/kg	2.4	2.6	2.8	0.85 J	0.38 J	7.0	0.53 J
Acetone	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	12	12	500	mg/kg	6.4	***13***	***15***	***30***	4.9	***12***	5.5
n-Propylbenzene	3.9	3.9	500	mg/kg	***10***	***17***	***20***	***40***	***7.3***	***23***	***7.7***
p-Isopropyltoluene	- -	- -	- -	mg/kg	1.1 J	0.49 J	0.48 J	0.53 J	0.36 J	1.8 J	0.64 J
sec-Butylbenzene	11	11	500	mg/kg	2.1	4.0	4.5	9.0	1.5	3.9	1.8
Styrene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	5.9	5.9	500	mg/kg	0.26 J	0.44 J	0.52 J	1.0 J	0.16 J	0.40 J	0.18 J
Tertiary butyl alcohol	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	1.3	1.3	150	mg/kg	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	0.47	0.47	200	mg/kg	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	0.02	0.02	13	mg/kg	NA	NA	NA	NA	NA	NA	NA
Total VOCs	- -	- -	- -	mg/kg	50 J	70 J	87 J	140 J	32 J	190 J	37 J
TPH											
Total Petroleum Hydrocarbons	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics											
2-Methylnaphthalene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	98	500	mg/kg	1.1	0.74	1.6	1.3	1.6	0.71	0.85
Acenaphthylene	100	107	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Anthracene	100	1,000	500	mg/kg	ND	0.33	ND	0.65	ND	0.41	0.43
Benzo(a)anthracene	1	1	5.6	mg/kg	0.20 J	0.25	0.35	0.55	0.47	0.37	0.095
Benzo(a)pyrene	1	22	1	mg/kg	0.14 J	0.24	0.26	0.39	0.31	0.25	0.043 J
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	0.23 J	0.26	0.39	0.47	0.41	0.27	0.054 J
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	0.13 J	0.21	0.15 J	0.51	0.35	0.15	ND
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	0.11 J	0.20	0.17 J	0.42	0.37	0.25	0.068 J
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chrysene	1	1	56	mg/kg	0.36	0.29	0.44	0.55	0.65	0.43	0.12
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	100	1,000	500	mg/kg	0.64	0.48	0.74	0.89	1.3	0.96	0.39
Fluorene	30	386	500	mg/kg	18	2.1	2.6	5.8	2.3	1.7	1.4
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	ND	0.17	0.15 J	*0.51*	0.28 J	0.15	ND
Phenanthrene	100	1,000	500	mg/kg	6.4	5.7	6.8	12	6.4	4.2	3.2
Pyrene	100	1,000	500	mg/kg	0.78	0.89	0.70	2.1	1.4	1.1	0.32
Total SVOCs	- -	- -	- -	mg/kg	28 J	12	14 J	26	16 J	11	7.0 J
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 23.

Table 4
Summary of Pre-2010 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth (feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	G9-S1 1.5 - 2 5.5 - 6 11/16/04 Shallow Sand Fill - Shallow	G9-S2 1.5 - 2 5.5 - 6 11/18/04 Shallow Sand Fill - Shallow	G10-D1 3 - 3.5 7 - 7.5 11/16/04 Shallow Sand Fill - Shallow	G10-D2 3 - 3.5 7 - 7.5 11/18/04 Shallow Sand Fill - Shallow	G10-S1 1.5 - 2 5.5 - 6 11/17/04 Shallow Sand Fill - Shallow	G10-S2 1.5 - 2 5.5 - 6 11/18/04 Shallow Sand Fill - Shallow	G11-D1 3 - 3.5 7 - 7.5 11/16/04 Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	***1.7***	***1.6***	***3.0***	ND	***0.16***	***0.25***	***1.6***
Toluene	0.7	0.7	500	mg/kg	0.26	0.37	ND	ND	ND	ND	ND
Ethylbenzene	1	1	390	mg/kg	***31***	***31***	***1.1***	0.27	0.24	***7.8***	***1.3***
Xylenes (total)	0.26	1.6	500	mg/kg	***3.5***	***11***	*0.97*	0.091	0.25	***6.3***	***2.1***
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Naphthalene	12	12	500	mg/kg	***15***	***17***	4.5	1.2	0.58	***17***	4.3
Isopropylbenzene	- -	- -	- -	mg/kg	4.5	4.7	9.7	1.5	0.23 J	2.3	4.2
1,1-Dichloroethene	0.33	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	3.6	3.6	190	mg/kg	0.86 J	***7.7***	ND	ND	0.27	***11***	2.0
1,3,5-Trimethylbenzene	8.4	8.4	190	mg/kg	8.2	6.9	1.1 J	0.15 J	0.67	4.8	1.3 J
Acetone	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	12	12	500	mg/kg	7.2	7.2	***16***	3.7	0.45	6.4	9.0
n-Propylbenzene	3.9	3.9	500	mg/kg	***13***	***14***	***25***	***4.5***	0.52	***6.7***	***11***
p-Isopropyltoluene	- -	- -	- -	mg/kg	1.2 J	1.1 J	0.34 J	0.26 J	0.092	1.2	0.34 J
sec-Butylbenzene	11	11	500	mg/kg	2.2	2.1	5.3	1.3	0.15 J	2.0	2.7
Styrene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	5.9	5.9	500	mg/kg	0.18 J	0.18 J	0.49 J	0.18 J	0.035 J	0.16 J	0.29 J
Tertiary butyl alcohol	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	1.3	1.3	150	mg/kg	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	0.47	0.47	200	mg/kg	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	0.02	0.02	13	mg/kg	NA	NA	NA	NA	NA	NA	NA
Total VOCs	- -	- -	- -	mg/kg	89 J	100 J	67 J	13 J	3.6 J	66 J	40 J
TPH											
Total Petroleum Hydrocarbons	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics											
2-Methylnaphthalene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	98	500	mg/kg	ND	0.60	0.47	0.21	ND	1.9	0.52
Acenaphthylene	100	107	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Anthracene	100	1,000	500	mg/kg	0.25 J	0.43	ND	ND	ND	0.80	0.16
Benzo(a)anthracene	1	1	5.6	mg/kg	0.23 J	0.13	0.054 J	0.036 J	0.040 J	0.44	0.084
Benzo(a)pyrene	1	22	1	mg/kg	0.34 J	0.079	0.035 J	0.047 J	0.035 J	0.43	0.074
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	0.47	0.11	0.050 J	0.032 J	0.046 J	0.80	0.16
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	0.34 J	0.032 J	ND	ND	0.046 J	0.15	ND
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	0.32 J	0.096	ND	0.047 J	0.039 J	0.37	0.043 J
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chrysene	1	1	56	mg/kg	0.35 J	0.16	0.074 J	0.058 J	0.062 J	0.68	0.085
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	100	1,000	500	mg/kg	0.99	0.44	0.20	0.14	0.088	1.3	0.20
Fluorene	30	386	500	mg/kg	1.9	0.79	1.3	0.42	0.18	1.8	1.3
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	0.33 J	ND	ND	ND	ND	0.14	0.056 J
Phenanthrene	100	1,000	500	mg/kg	3.3	3.0	2.9	1.0	0.37	8.0	2.9
Pyrene	100	1,000	500	mg/kg	1.3	0.40	0.29	0.12	0.21	1.2	0.39
Total SVOCs	- -	- -	- -	mg/kg	10 J	6.3 J	5.4 J	2.1 J	1.1 J	18	6.0 J
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 23.

Table 4
Summary of Pre-2010 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth (feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	GP-1(1995) 6 10 12/15/95 Shallow Sand Fill - Shallow	GP-1(2002) 6 10 05/02/02 Shallow Sand Fill - Shallow	GP-2(1995) 6 10 12/15/95 Shallow Sand Fill - Shallow	GP-2(2002) 6 10 05/02/02 Shallow Sand Fill - Shallow	GP-3(1995) 2 6 12/15/95 Shallow Sand Fill - Shallow	GP-3(2002) 2 6 05/02/02 Shallow Sand Fill - Shallow	GP-4(1995) 2 6 12/15/95 Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	NA	ND	NA	ND	NA	0.017	NA
Toluene	0.7	0.7	500	mg/kg	NA	ND	NA	ND	NA	ND	NA
Ethylbenzene	1	1	390	mg/kg	NA	0.052	NA	***8.8***	NA	ND	NA
Xylenes (total)	0.26	1.6	500	mg/kg	NA	ND	NA	***11***	NA	0.0082	NA
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Naphthalene	12	12	500	mg/kg	NA	0.44	NA	6.2	NA	ND	NA
Isopropylbenzene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.33	0.33	500	mg/kg	NA	ND	NA	ND	NA	ND	NA
1,2,4-Trimethylbenzene	3.6	3.6	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	8.4	8.4	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acetone	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	NA	ND	NA	ND	NA	ND	NA
Methylene Chloride	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	3.9	3.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	11	11	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Styrene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	5.9	5.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	1.3	1.3	150	mg/kg	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	NA	ND	NA	ND	NA	ND	NA
Trichloroethene	0.47	0.47	200	mg/kg	NA	ND	NA	ND	NA	ND	NA
Vinyl Chloride	0.02	0.02	13	mg/kg	NA	ND	NA	ND	NA	ND	NA
Total VOCs	- -	- -	- -	mg/kg	NA	0.49	NA	26	NA	0.025	NA
TPH											
Total Petroleum Hydrocarbons	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics											
2-Methylnaphthalene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	98	500	mg/kg	ND	NA	ND	NA	ND	NA	ND
Acenaphthylene	100	107	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Anthracene	100	1,000	500	mg/kg	ND	NA	ND	NA	ND	NA	0.38
Benzo(a)anthracene	1	1	5.6	mg/kg	ND	NA	ND	NA	0.37	NA	0.89
Benzo(a)pyrene	1	22	1	mg/kg	ND	NA	ND	NA	0.40	NA	*1.1*
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	ND	NA	ND	NA	0.46	NA	***2.2***
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	ND	NA	ND	NA	ND	NA	ND
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	ND	NA	ND	NA	ND	NA	0.68
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chrysene	1	1	56	mg/kg	0.81	NA	0.99	NA	0.40	NA	ND
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	ND	NA	ND	NA	ND	NA	ND
Fluoranthene	100	1,000	500	mg/kg	ND	NA	ND	NA	0.74	NA	ND
Fluorene	30	386	500	mg/kg	ND	NA	ND	NA	ND	NA	ND
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	ND	NA	ND	NA	ND	NA	ND
Phenanthrene	100	1,000	500	mg/kg	ND	NA	2.3	NA	0.42	NA	0.95
Pyrene	100	1,000	500	mg/kg	ND	NA	ND	NA	0.62	NA	ND
Total SVOCs	- -	- -	- -	mg/kg	0.81	NA	3.3	NA	3.4	NA	6.2
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 23.

Table 4
Summary of Pre-2010 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth (feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	GP-4(2002) 2 6 05/02/02 Shallow Sand Fill - Shallow	GP-4D(1995) 2 6 12/15/95 Shallow Sand Fill - Shallow	GP-5(2002) 2 - 4 6 - 8 05/02/02 Shallow Sand Fill - Shallow	GP-6(1995) 2 6 12/15/95 Shallow Sand Fill - Shallow	GP-7(2002) 3 - 4 7 - 8 05/02/02 Shallow Sand Fill - Shallow	GP-8(2002) 1 - 2 5 - 6 05/02/08 Shallow Sand Fill - Shallow	GP-9(2002) 2 - 3 6 - 7 05/02/02 Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	ND	NA	ND	NA	***2.8***	ND	***0.20***
Toluene	0.7	0.7	500	mg/kg	ND	NA	ND	NA	ND	ND	0.18
Ethylbenzene	1	1	390	mg/kg	ND	NA	ND	NA	***76***	0.0020	0.18
Xylenes (total)	0.26	1.6	500	mg/kg	ND	NA	ND	NA	***3.0***	0.0044	*0.53*
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Naphthalene	12	12	500	mg/kg	ND	NA	ND	NA	***44***	ND	1.8
Isopropylbenzene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.33	0.33	500	mg/kg	ND	NA	ND	NA	ND	ND	ND
1,2,4-Trimethylbenzene	3.6	3.6	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	8.4	8.4	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acetone	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	ND	NA	ND	NA	ND	ND	ND
Methylene Chloride	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	3.9	3.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	11	11	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Styrene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	5.9	5.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	1.3	1.3	150	mg/kg	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	ND	NA	ND	NA	ND	ND	ND
Trichloroethene	0.47	0.47	200	mg/kg	0.10	NA	0.0076	NA	ND	ND	ND
Vinyl Chloride	0.02	0.02	13	mg/kg	ND	NA	ND	NA	ND	ND	ND
Total VOCs	- -	- -	- -	mg/kg	0.10	NA	0.0076	NA	130	0.0064	2.9
TPH											
Total Petroleum Hydrocarbons	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics											
2-Methylnaphthalene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	98	500	mg/kg	NA	ND	NA	ND	NA	NA	NA
Acenaphthylene	100	107	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Anthracene	100	1,000	500	mg/kg	NA	ND	NA	ND	NA	NA	NA
Benzo(a)anthracene	1	1	5.6	mg/kg	NA	0.57	NA	ND	NA	NA	NA
Benzo(a)pyrene	1	22	1	mg/kg	NA	0.82	NA	ND	NA	NA	NA
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	NA	***1.7***	NA	ND	NA	NA	NA
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	NA	ND	NA	ND	NA	NA	NA
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	NA	0.55	NA	ND	NA	NA	NA
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chrysene	1	1	56	mg/kg	NA	ND	NA	ND	NA	NA	NA
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	NA	ND	NA	ND	NA	NA	NA
Fluoranthene	100	1,000	500	mg/kg	NA	ND	NA	ND	NA	NA	NA
Fluorene	30	386	500	mg/kg	NA	ND	NA	ND	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	NA	ND	NA	ND	NA	NA	NA
Phenanthrene	100	1,000	500	mg/kg	NA	0.75	NA	4.2	NA	NA	NA
Pyrene	100	1,000	500	mg/kg	NA	0.84	NA	ND	NA	NA	NA
Total SVOCs	- -	- -	- -	mg/kg	NA	5.2	NA	4.2	NA	NA	NA
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA

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Table 4
Summary of Pre-2010 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:					GP-10(2002)	HA-01	HA-02	LB-1	LB-2	LB-2	LB-3
Historical Sample Depth (feet):					2 - 3	0.5	0.5	17.5 - 18	4 - 4.5	16.5 - 17	2.5 - 3
Current Estimated Sample Depth (feet)					6 - 7	4.5	4.5	21.5 - 22	8 - 8.5	20.5 - 21	6.5 - 7
Date Collected:					05/02/02	02/29/96	02/29/96	03/10/04	03/10/04	03/10/04	03/10/04
Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Deep Sand Layer - D1 Unit	Shallow Sand Fill - Shallow	Deep Sand Layer - D1 Unit	Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	ND	NA	NA	0.0013	0.033	0.00071	ND
Toluene	0.7	0.7	500	mg/kg	0.12	NA	NA	0.0020	0.098	ND	ND
Ethylbenzene	1	1	390	mg/kg	***7.2***	NA	NA	0.0011	***7.5***	0.00087 J	0.32 J
Xylenes (total)	0.26	1.6	500	mg/kg	*0.64*	NA	NA	0.00072 J	***14***	0.0016	ND
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	NA	NA	NA	0.077	ND	0.017	ND
Naphthalene	12	12	500	mg/kg	0.64	NA	NA	NA	NA	NA	NA
Isopropylbenzene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.33	0.33	500	mg/kg	ND	NA	NA	0.00060 J	ND	0.0010 J	ND
1,2,4-Trimethylbenzene	3.6	3.6	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	8.4	8.4	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acetone	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	ND	NA	NA	***0.26 J***	0.040 J	0.098	ND
Methylene Chloride	0.05	0.05	500	mg/kg	NA	NA	NA	0.045	ND	ND	ND
n-Butylbenzene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	3.9	3.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	11	11	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Styrene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	5.9	5.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	- -	- -	mg/kg	NA	NA	NA	0.38	ND	0.11	ND
Tetrachloroethene	1.3	1.3	150	mg/kg	NA	NA	NA	ND	ND	ND	ND
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	ND	NA	NA	0.0050 J	ND	0.0039 J	ND
Trichloroethene	0.47	0.47	200	mg/kg	ND	NA	NA	***1.3***	ND	0.091	ND
Vinyl Chloride	0.02	0.02	13	mg/kg	ND	NA	NA	0.010	ND	0.0085	ND
Total VOCs	- -	- -	- -	mg/kg	8.6	NA	NA	2.0 J	22 J	0.33 J	0.32 J
TPH											
Total Petroleum Hydrocarbons	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics											
2-Methylnaphthalene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	98	500	mg/kg	NA	ND	ND	NA	NA	NA	NA
Acenaphthylene	100	107	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Anthracene	100	1,000	500	mg/kg	NA	ND	ND	NA	NA	NA	NA
Benzo(a)anthracene	1	1	5.6	mg/kg	NA	ND	ND	NA	NA	NA	NA
Benzo(a)pyrene	1	22	1	mg/kg	NA	ND	ND	NA	NA	NA	NA
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	NA	ND	ND	NA	NA	NA	NA
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	NA	ND	ND	NA	NA	NA	NA
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	NA	ND	ND	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chrysene	1	1	56	mg/kg	NA	ND	ND	NA	NA	NA	NA
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	NA	ND	ND	NA	NA	NA	NA
Fluoranthene	100	1,000	500	mg/kg	NA	ND	ND	NA	NA	NA	NA
Fluorene	30	386	500	mg/kg	NA	ND	ND	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	NA	ND	ND	NA	NA	NA	NA
Phenanthrene	100	1,000	500	mg/kg	NA	ND	ND	NA	NA	NA	NA
Pyrene	100	1,000	500	mg/kg	NA	ND	ND	NA	NA	NA	NA
Total SVOCs	- -	- -	- -	mg/kg	NA	ND	ND	NA	NA	NA	NA
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 23.

Table 4
Summary of Pre-2010 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth (feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	LB-3 13.5 - 14 17.5 - 18 03/10/04 Deep Sand Layer - D1 Unit	LB-3 18.5 - 19 22.5 - 23 03/10/04 Deep Sand Layer - D1 Unit	LB-4 4 - 4.5 8 - 8.5 03/10/04 Shallow Sand Fill - Shallow	LB-4 17.5 - 18 21.5 - 22 03/10/04 Deep Sand Layer - D1 Unit	LB-5 3.5 - 4 7.5 - 8 03/10/04 Shallow Sand Fill - Shallow	LB-5 16.5 - 17 20.5 - 21 03/10/04 Deep Sand Layer - D1 Unit	LB-6 18 - 18.5 22.5 - 23 03/11/04 Deep Sand Layer - D1 Unit
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	ND	ND	ND	ND	0.0021	ND	0.012
Toluene	0.7	0.7	500	mg/kg	ND	ND	ND	ND	ND	ND	0.028
Ethylbenzene	1	1	390	mg/kg	ND	ND	ND	ND	0.017	ND	0.011
Xylenes (total)	0.26	1.6	500	mg/kg	ND	ND	ND	ND	0.00078 J	ND	0.035
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	0.0031	0.22	ND	0.060	0.0012	0.043	0.18
Naphthalene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.33	0.33	500	mg/kg	ND	ND	ND	0.00085 J	ND	ND	0.0029 J
1,2,4-Trimethylbenzene	3.6	3.6	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	8.4	8.4	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acetone	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	ND	0.043	ND	0.24 J	0.0013 J	0.0011 J	***0.57***
Methylene Chloride	0.05	0.05	500	mg/kg	ND	ND	ND	ND	ND	ND	0.024
n-Butylbenzene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	3.9	3.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	11	11	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Styrene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	5.9	5.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	- -	- -	mg/kg	3.2 J	0.21	ND	0.16	ND	0.15	1.0 J
Tetrachloroethene	1.3	1.3	150	mg/kg	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	ND	ND	ND	0.011	ND	ND	0.032
Trichloroethene	0.47	0.47	200	mg/kg	ND	0.0075 J	ND	0.0027 J	0.0017 J	0.0026 J	***2.9***
Vinyl Chloride	0.02	0.02	13	mg/kg	ND	ND	ND	0.0021 J	ND	ND	0.0068
Total VOCs	- -	- -	- -	mg/kg	3.2 J	0.48 J	ND	0.47 J	0.024 J	0.20 J	4.9 J
TPH											
Total Petroleum Hydrocarbons	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics											
2-Methylnaphthalene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	98	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	100	107	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Anthracene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	1	1	5.6	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	22	1	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chrysene	1	1	56	mg/kg	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Fluorene	30	386	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Pyrene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Total SVOCs	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 23.

Table 4
Summary of Pre-2010 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:					LB-7	LB-7	LB-8	LB-8	LB-9	LB-9	LB-10
Historical Sample Depth (feet):					1.5 - 2	14 - 14.5	4 - 4.5	22 - 22.5	2.5 - 3	19.5 - 20	4 - 4.5
Current Estimated Sample Depth (feet)					5.5 - 6	18 - 18.5	8 - 8.5	26 - 26.5	6.5 - 7	23.5 - 24	8 - 8.5
Date Collected:					03/15/04	03/15/04	03/11/04	03/11/04	03/11/04	03/11/04	03/12/04
Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	Shallow Sand Fill - Shallow	Deep Sand Layer - D1 Unit	Shallow Sand Fill - Shallow	Deep Sand Layer - D1 Unit	Shallow Sand Fill - Shallow	Deep Sand Layer - D1 Unit	Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	ND	0.0041	***3.3***	ND	***0.18***	ND	ND
Toluene	0.7	0.7	500	mg/kg	ND	ND	0.30	ND	ND	ND	ND
Ethylbenzene	1	1	390	mg/kg	ND	ND	***38***	ND	0.078	ND	ND
Xylenes (total)	0.26	1.6	500	mg/kg	0.0025	ND	***13***	ND	0.086 J	ND	ND
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	ND	0.0060	ND	0.014	ND	0.0065	ND
Naphthalene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.33	0.33	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	3.6	3.6	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	8.4	8.4	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acetone	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	0.05	0.05	500	mg/kg	ND	ND	ND	ND	***0.078***	ND	ND
n-Butylbenzene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	3.9	3.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	11	11	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Styrene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	5.9	5.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	- -	- -	mg/kg	ND	0.23	ND	0.089	ND	0.11	ND
Tetrachloroethene	1.3	1.3	150	mg/kg	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	0.47	0.47	200	mg/kg	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	0.02	0.02	13	mg/kg	ND	ND	ND	ND	ND	ND	ND
Total VOCs	- -	- -	- -	mg/kg	0.0025	0.24	54	0.10	0.42 J	0.12	ND
TPH											
Total Petroleum Hydrocarbons	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics											
2-Methylnaphthalene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	98	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	100	107	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Anthracene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	1	1	5.6	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	22	1	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chrysene	1	1	56	mg/kg	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Fluorene	30	386	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Pyrene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Total SVOCs	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 23.

Table 4
Summary of Pre-2010 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth (feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	LB-10 24 - 24.5 28 - 28.5 03/12/04 Deep Sand Layer - D1 Unit	LB-11 3.5 - 4 7.5 - 8 03/12/04 Shallow Sand Fill - Shallow	LB-11 24 - 24.5 28 - 28.5 03/12/04 Deep Sand Layer - D1 Unit	LB-12 3.5 - 4 7.5 - 8 03/12/04 Shallow Sand Fill - Shallow	LB-12 11.5 - 12 15.5 - 16 03/12/04 Meadow Mat	LB-12 21 - 21.5 25 - 26.5 03/12/04 Deep Sand Layer - D1 Unit	LB-13 3.5 - 4 7.5 - 8 03/11/04 Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	ND	0.033	ND	ND	0.0013 J	ND	***0.16***
Toluene	0.7	0.7	500	mg/kg	ND	0.055	ND	ND	ND	ND	ND
Ethylbenzene	1	1	390	mg/kg	ND	0.0025	ND	0.23	ND	ND	ND
Xylenes (total)	0.26	1.6	500	mg/kg	ND	0.0087	ND	*0.33*	ND	ND	ND
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	0.00065 J	0.017	0.0042	ND	ND	0.0052	***0.99***
Naphthalene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.33	0.33	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	3.6	3.6	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	8.4	8.4	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acetone	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	0.05	0.05	500	mg/kg	ND	0.0025	ND	ND	ND	ND	ND
n-Butylbenzene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	3.9	3.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	11	11	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Styrene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	5.9	5.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	- -	- -	mg/kg	0.035 J	ND	0.062	ND	ND	0.030 J	ND
Tetrachloroethene	1.3	1.3	150	mg/kg	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	0.47	0.47	200	mg/kg	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	0.02	0.02	13	mg/kg	ND	ND	ND	ND	ND	ND	ND
Total VOCs	- -	- -	- -	mg/kg	0.035 J	0.12	0.066	0.56	0.0013 J	0.035 J	1.1
TPH											
Total Petroleum Hydrocarbons	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics											
2-Methylnaphthalene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	98	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	100	107	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Anthracene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	1	1	5.6	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	22	1	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chrysene	1	1	56	mg/kg	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Fluorene	30	386	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Pyrene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Total SVOCs	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 23.

Table 4
Summary of Pre-2010 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:					LB-13	MW-16	MW-17	MW-18	MW-19	MW-20	MW-24-VD
Historical Sample Depth (feet):					17.5 - 18	9	4	4	10	11	19 - 19.5
Current Estimated Sample Depth (feet)					21.5	13	8	8	14	15	23 - 23.5
Date Collected:					03/11/04	12/12/95	12/12/95	12/12/95	12/12/95	12/13/95	12/20/06
Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	Deep Sand Layer - D1 Unit	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Deep Sand Layer - D3 Unit
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	0.014	NA	NA	NA	NA	NA	ND
Toluene	0.7	0.7	500	mg/kg	ND	NA	NA	NA	NA	NA	ND
Ethylbenzene	1	1	390	mg/kg	ND	NA	NA	NA	NA	NA	ND
Xylenes (total)	0.26	1.6	500	mg/kg	0.0016 J	NA	NA	NA	NA	NA	ND
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	0.26	NA	NA	NA	NA	NA	ND
Naphthalene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.33	0.33	500	mg/kg	ND	NA	NA	NA	NA	NA	ND
1,2,4-Trimethylbenzene	3.6	3.6	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	8.4	8.4	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acetone	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	0.031
Carbon Disulfide	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	0.0073
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	ND	NA	NA	NA	NA	NA	ND
Methylene Chloride	0.05	0.05	500	mg/kg	ND	NA	NA	NA	NA	NA	0.019
n-Butylbenzene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	3.9	3.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	11	11	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Styrene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	ND
tert-Butylbenzene	5.9	5.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	- -	- -	mg/kg	0.030	NA	NA	NA	NA	NA	ND
Tetrachloroethene	1.3	1.3	150	mg/kg	ND	NA	NA	NA	NA	NA	ND
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	ND	NA	NA	NA	NA	NA	ND
Trichloroethene	0.47	0.47	200	mg/kg	ND	NA	NA	NA	NA	NA	0.0030 J
Vinyl Chloride	0.02	0.02	13	mg/kg	ND	NA	NA	NA	NA	NA	ND
Total VOCs	- -	- -	- -	mg/kg	0.30 J	NA	NA	NA	NA	NA	0.060 J
TPH											
Total Petroleum Hydrocarbons	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics											
2-Methylnaphthalene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	ND
Acenaphthene	20	98	500	mg/kg	NA	ND	0.66	ND	ND	ND	ND
Acenaphthylene	100	107	500	mg/kg	NA	NA	NA	NA	NA	NA	ND
Anthracene	100	1,000	500	mg/kg	NA	ND	1.8	ND	ND	ND	ND
Benzo(a)anthracene	1	1	5.6	mg/kg	NA	ND	***4.4***	ND	ND	ND	ND
Benzo(a)pyrene	1	22	1	mg/kg	NA	ND	*4.0*	ND	ND	ND	ND
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	NA	ND	***4.9***	ND	ND	ND	ND
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	NA	ND	0.76	ND	ND	ND	ND
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	NA	ND	***2.2***	ND	ND	ND	ND
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	ND
Chrysene	1	1	56	mg/kg	NA	ND	***4.2***	ND	ND	ND	ND
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	NA	ND	ND	ND	ND	ND	ND
Fluoranthene	100	1,000	500	mg/kg	NA	ND	13	ND	ND	ND	ND
Fluorene	30	386	500	mg/kg	NA	ND	0.71	4.8	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	NA	ND	*0.85*	ND	ND	ND	ND
Phenanthrene	100	1,000	500	mg/kg	NA	ND	6.5	9.1	ND	ND	0.024 J
Pyrene	100	1,000	500	mg/kg	NA	ND	10	ND	ND	ND	ND
Total SVOCs	- -	- -	- -	mg/kg	NA	ND	54	14	ND	ND	0.024 J
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	2,190

See Notes on Page 23.

Table 4
Summary of Pre-2010 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth (feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	MW-24-VD 68 - 68.5 72 - 72.5 12/21/06 Deep Sand Layer - D3 Unit	MW-24-VD 73 - 73.5 77 - 77.5 12/21/06 Deep Sand Layer - D3 Unit	MW-25-VD 18 - 18.5 22 - 22.5 12/14/06 Deep Sand Layer - D3 Unit	MW-25-VD 68 - 68.5 72 - 72.5 12/15/06 Deep Sand Layer - D3 Unit	MW-26-VD 19 - 21 23 - 25 12/28/06 Deep Sand Layer - D3 Unit	MW-26-VD 58 - 60 62 - 64 12/29/06 Deep Sand Layer - D3 Unit	MW-29-VD 19 - 21 23 - 25 12/26/06 Deep Sand Layer - D3 Unit
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	ND	ND	ND	ND	ND	ND	ND
Toluene	0.7	0.7	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	1	1	390	mg/kg	ND	ND	ND	ND	ND	ND	ND
Xylenes (total)	0.26	1.6	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	ND	ND	0.0087	ND	ND	ND	ND
Naphthalene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.33	0.33	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	3.6	3.6	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	8.4	8.4	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acetone	0.05	0.05	500	mg/kg	0.017	0.028	0.021	ND	ND	ND	ND
Carbon Disulfide	- -	- -	- -	mg/kg	ND	ND	0.0097	ND	0.0016 J	0.0014	ND
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	ND	ND	0.015	ND	ND	ND	ND
Methylene Chloride	0.05	0.05	500	mg/kg	ND	ND	0.031	ND	0.044	ND	***0.11***
n-Butylbenzene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	3.9	3.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	11	11	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Styrene	- -	- -	- -	mg/kg	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	5.9	5.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	- -	- -	mg/kg	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1.3	1.3	150	mg/kg	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	0.47	0.47	200	mg/kg	ND	ND	0.011	ND	ND	ND	ND
Vinyl Chloride	0.02	0.02	13	mg/kg	ND	ND	ND	ND	ND	ND	ND
Total VOCs	- -	- -	- -	mg/kg	0.017	0.028	0.097	ND	0.045 J	0.0014	0.11
TPH											
Total Petroleum Hydrocarbons	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics											
2-Methylnaphthalene	- -	- -	- -	mg/kg	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	20	98	500	mg/kg	ND	ND	0.020 J	ND	ND	ND	ND
Acenaphthylene	100	107	500	mg/kg	ND	ND	0.018 J	ND	ND	ND	ND
Anthracene	100	1,000	500	mg/kg	ND	ND	0.017 J	ND	ND	ND	ND
Benzo(a)anthracene	1	1	5.6	mg/kg	ND	ND	0.073 J	ND	ND	ND	ND
Benzo(a)pyrene	1	22	1	mg/kg	ND	ND	0.078 J	ND	ND	ND	ND
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	ND	ND	0.064 J	ND	ND	ND	ND
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	ND	ND	0.035	ND	ND	ND	ND
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	ND	ND	0.066 J	ND	ND	ND	ND
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	0.058 J	ND	ND	0.082 B	0.11	0.074	0.14
Chrysene	1	1	56	mg/kg	ND	ND	0.068 J	ND	ND	ND	ND
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	100	1,000	500	mg/kg	ND	ND	0.15	ND	ND	ND	ND
Fluorene	30	386	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	ND	ND	0.034 J	ND	ND	ND	ND
Phenanthrene	100	1,000	500	mg/kg	ND	ND	0.054 J	ND	ND	ND	ND
Pyrene	100	1,000	500	mg/kg	ND	ND	0.15	ND	ND	ND	ND
Total SVOCs	- -	- -	- -	mg/kg	0.058 J	ND	0.82 J	0.082	0.11	0.074	0.14
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	ND	8,120	ND	ND	ND	1,450	ND

See Notes on Page 23.

Table 4
Summary of Pre-2010 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	MW-29-VD	MW-30-VD	MW-30-VD	MW-32D	MW-32D	MW-33D	MW-33D
Historical Sample Depth (feet):					58 - 60	28 - 30	68 - 70	27 - 27.5	31 - 31.5	19 - 19.5	23 - 23.5
Current Estimated Sample Depth (feet)					62 - 64	32 - 34	72 - 74	31 - 31.5	35 - 35.5	23 - 23.5	27 - 27.5
Date Collected:					12/26/06	12/27/06	12/27/06	12/13/06	12/13/06	12/12/06	12/12/06
Sampling Event:					Deep Sand Layer - D3 Unit	Deep Sand Layer - D3 Unit	Deep Sand Layer - D3 Unit	Deep Sand Layer - D1 Unit	Deep Sand Layer - D1 Unit	Deep Sand Layer - D1 Unit	Deep Sand Layer - D1 Unit
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	ND	ND	0.0046	ND	ND	ND	ND
Toluene	0.7	0.7	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	1	1	390	mg/kg	ND	ND	ND	ND	ND	ND	ND
Xylenes (total)	0.26	1.6	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Naphthalene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.33	0.33	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	3.6	3.6	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	8.4	8.4	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acetone	0.05	0.05	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	- -	- -	- -	mg/kg	ND	0.0024 J	0.0022 J	0.0014 J	0.0029 J	0.0054	0.0018 J
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	0.05	0.05	500	mg/kg	ND	0.0083	***0.12***	ND	ND	ND	ND
n-Butylbenzene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	3.9	3.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	11	11	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Styrene	- -	- -	- -	mg/kg	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	5.9	5.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	- -	- -	mg/kg	ND	0.028	0.0089 J	ND	ND	ND	ND
Tetrachloroethene	1.3	1.3	150	mg/kg	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	0.47	0.47	200	mg/kg	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	0.02	0.02	13	mg/kg	ND	ND	ND	ND	ND	ND	ND
Total VOCs	- -	- -	- -	mg/kg	ND	0.039 J	0.13 J	0.0014 J	0.0029 J	0.0054	0.0018 J
TPH											
Total Petroleum Hydrocarbons	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics											
2-Methylnaphthalene	- -	- -	- -	mg/kg	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	20	98	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	100	107	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Anthracene	100	1,000	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	1	1	5.6	mg/kg	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	1	22	1	mg/kg	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	ND	ND	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	ND	ND	ND	ND	ND	ND	ND
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	0.072	0.12	0.15	0.070	0.091	0.13	0.063
Chrysene	1	1	56	mg/kg	ND	ND	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	100	1,000	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Fluorene	30	386	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	100	1,000	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Pyrene	100	1,000	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Total SVOCs	- -	- -	- -	mg/kg	0.072	0.12	0.15	0.070	0.091	0.13	0.063
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	ND	ND	ND	ND	ND	ND	ND

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Table 4
Summary of Pre-2010 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Historical Sample Depth (feet): / Current Estimated Sample Depth (feet) / Date Collected: / Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	MW-34D 25 - 25.5 29- 29.5 12/12/06 Deep Sand Layer - D1 Unit	MW-34D 29 - 29.5 33 - 33.5 12/12/06 Deep Sand Layer - D1 Unit	MW-35D 15 - 15.5 19 - 19.5 12/11/06 Deep Sand Layer - D1 Unit	MW-35D 20 - 20.5 24 - 24.5 12/11/06 Deep Sand Layer - D1 Unit	MW-36D 23 - 23.5 27 - 27.5 12/19/06 Deep Sand Layer - D1 Unit	MW-36D 31 - 31.5 35 - 35.5 12/19/06 Deep Sand Layer - D1 Unit	PX-A1 2 - 3 6 - 7 10/30/02 Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	ND	ND	ND	ND	ND	ND	***0.72***
Toluene	0.7	0.7	500	mg/kg	ND	ND	ND	ND	ND	ND	0.19
Ethylbenzene	1	1	390	mg/kg	ND	ND	ND	ND	ND	ND	***32***
Xylenes (total)	0.26	1.6	500	mg/kg	ND	ND	ND	ND	ND	ND	***4.2***
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Naphthalene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.33	0.33	500	mg/kg	ND	ND	ND	ND	ND	ND	NA
1,2,4-Trimethylbenzene	3.6	3.6	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	8.4	8.4	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acetone	0.05	0.05	500	mg/kg	ND	ND	0.0094 J	0.0057 J	ND	0.018	NA
Carbon Disulfide	- -	- -	- -	mg/kg	0.0074	0.011	0.0026 J	0.0027 J	0.0022 J	0.0015	NA
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	ND	ND	ND	ND	ND	ND	NA
Methylene Chloride	0.05	0.05	500	mg/kg	0.0029	0.023	0.0049	0.0051	0.012	ND	NA
n-Butylbenzene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	3.9	3.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	11	11	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Styrene	- -	- -	- -	mg/kg	ND	ND	ND	ND	ND	ND	NA
tert-Butylbenzene	5.9	5.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	- -	- -	mg/kg	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1.3	1.3	150	mg/kg	ND	ND	ND	ND	ND	ND	NA
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	ND	ND	ND	ND	ND	ND	NA
Trichloroethene	0.47	0.47	200	mg/kg	ND	ND	ND	ND	ND	ND	NA
Vinyl Chloride	0.02	0.02	13	mg/kg	ND	ND	ND	ND	ND	ND	NA
Total VOCs	- -	- -	- -	mg/kg	0.010	0.033	0.017 J	0.014 J	0.014 J	0.019	37
TPH											
Total Petroleum Hydrocarbons	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	7,300
Semivolatile Organics											
2-Methylnaphthalene	- -	- -	- -	mg/kg	ND	ND	ND	ND	ND	ND	NA
Acenaphthene	20	98	500	mg/kg	ND	ND	ND	ND	ND	ND	3.6
Acenaphthylene	100	107	500	mg/kg	ND	ND	ND	ND	ND	ND	NA
Anthracene	100	1,000	500	mg/kg	ND	ND	ND	ND	ND	ND	1.4
Benzo(a)anthracene	1	1	5.6	mg/kg	ND	ND	ND	ND	ND	ND	0.43 J
Benzo(a)pyrene	1	22	1	mg/kg	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	ND	ND	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	ND	ND	ND	ND	ND	ND	ND
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	0.11	ND	0.078	0.056	0.088	0.10	NA
Chrysene	1	1	56	mg/kg	ND	ND	ND	ND	ND	ND	0.46 J
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	100	1,000	500	mg/kg	ND	ND	ND	ND	ND	ND	1.9
Fluorene	30	386	500	mg/kg	ND	ND	ND	ND	ND	ND	5.5
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	100	1,000	500	mg/kg	ND	ND	ND	ND	ND	ND	61
Pyrene	100	1,000	500	mg/kg	ND	ND	ND	ND	ND	ND	1.6
Total SVOCs	- -	- -	- -	mg/kg	0.11	ND	0.078	0.056	0.088	0.10	76 J
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	ND	ND	1,500	ND	1,720	ND	17,700

See Notes on Page 23.

Table 4
Summary of Pre-2010 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth (feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	PX-A2 2 - 3 6 - 7 10/30/02 Shallow Sand Fill - Shallow	PX-A3 2 - 3 6 - 7 10/30/02 Shallow Sand Fill - Shallow	PX-A6 2 - 3 6 - 7 10/30/02 Shallow Sand Fill - Shallow	PX-A7 2 - 3 6 - 7 10/30/02 Shallow Sand Fill - Shallow	PX-A8 2 - 3 6 - 7 10/30/02 Shallow Sand Fill - Shallow	PX-A9 4 - 4.5 8 - 8.5 10/30/02 Shallow Sand Fill - Shallow	PX-B1 2 - 3 6 - 7 10/30/02 Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	***1.9***	***0.15***	***0.57***	***5.4***	***0.082***	ND	***1.2***
Toluene	0.7	0.7	500	mg/kg	0.42	0.099	0.17	***1.9***	0.38	ND	0.074
Ethylbenzene	1	1	390	mg/kg	***80***	***46***	***9.6***	***98***	***16***	ND	***2.5***
Xylenes (total)	0.26	1.6	500	mg/kg	***37***	*1.3*	***21***	***160***	***87***	0.10	*1.1*
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	ND	ND	ND	ND	ND	0.051	0.063
Naphthalene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.33	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	3.6	3.6	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	8.4	8.4	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acetone	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	3.9	3.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	11	11	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Styrene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	5.9	5.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	- -	- -	mg/kg	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1.3	1.3	150	mg/kg	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	0.47	0.47	200	mg/kg	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	0.02	0.02	13	mg/kg	NA	NA	NA	NA	NA	NA	NA
Total VOCs	- -	- -	- -	mg/kg	120	48	31	260	100	0.15	4.8
TPH											
Total Petroleum Hydrocarbons	- -	- -	- -	mg/kg	3,500	76	670	6,400	1,200	ND	4.8
Semivolatile Organics											
2-Methylnaphthalene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	98	500	mg/kg	1.2	0.74	0.49	0.55	ND	ND	ND
Acenaphthylene	100	107	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Anthracene	100	1,000	500	mg/kg	0.87	0.45 J	0.039 J	0.41 J	ND	ND	0.48
Benzo(a)anthracene	1	1	5.6	mg/kg	ND	ND	0.040 J	ND	ND	ND	0.37
Benzo(a)pyrene	1	22	1	mg/kg	ND	ND	ND	ND	ND	ND	0.26
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	ND	ND	0.045 J	ND	ND	ND	0.21
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	ND	ND	ND	ND	ND	ND	0.16
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	ND	ND	0.033 J	ND	ND	ND	0.19
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chrysene	1	1	56	mg/kg	0.31 J	ND	0.061 J	ND	ND	ND	0.33
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	100	1,000	500	mg/kg	1.2	0.66 J	0.15	0.40 J	ND	ND	1.2
Fluorene	30	386	500	mg/kg	2.4	1.2	0.34	1.5	0.78	ND	1.9
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	ND	ND	ND	ND	ND	ND	0.15
Phenanthrene	100	1,000	500	mg/kg	41	16	0.30	3.3	1.3	0.055	4.5
Pyrene	100	1,000	500	mg/kg	1.0	0.54 J	0.14	0.44	ND	ND	1.0
Total SVOCs	- -	- -	- -	mg/kg	48 J	20 J	1.6 J	6.6 J	2.1	0.055	11
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	6,680	4,480	5.03	6.76	2.38	ND	7,870

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Table 4
Summary of Pre-2010 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:					PX-B2	PX-B3	PX-B4	PX-B5	PX-B6	PX-B7	PX-C1
Historical Sample Depth (feet):					2 - 3	2 - 3	2 - 3	2 - 3	2 - 3	4 - 4.5	2 - 3
Current Estimated Sample Depth (feet)					6 - 7	6 - 7	6 - 7	6 - 7	6 - 7	8 - 8.5	6 - 7
Date Collected:					10/30/02	10/30/02	10/30/02	10/30/02	10/30/02	10/30/02	10/30/02
Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	ND	0.043	***0.12***	ND	***3.5***	***3.0***	0.050
Toluene	0.7	0.7	500	mg/kg	ND	0.10	ND	ND	0.22	0.11	ND
Ethylbenzene	1	1	390	mg/kg	ND	ND	***1.2***	ND	***73***	***22***	***1.4***
Xylenes (total)	0.26	1.6	500	mg/kg	ND	0.20	***1.9***	ND	***6.9***	***3.6***	*0.35*
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	0.022	0.026	0.026	ND	0.096	ND	0.026
Naphthalene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.33	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	3.6	3.6	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	8.4	8.4	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acetone	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	3.9	3.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	11	11	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Styrene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	5.9	5.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	- -	- -	mg/kg	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1.3	1.3	150	mg/kg	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	0.47	0.47	200	mg/kg	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	0.02	0.02	13	mg/kg	NA	NA	NA	NA	NA	NA	NA
Total VOCs	- -	- -	- -	mg/kg	0.022	0.37	3.2	ND	84	29	1.8
TPH											
Total Petroleum Hydrocarbons	- -	- -	- -	mg/kg	400	41	5,400	10,000	6,400	ND	4,200
Semivolatile Organics											
2-Methylnaphthalene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	98	500	mg/kg	0.077	ND	0.53	1.0	0.74	ND	2.8
Acenaphthylene	100	107	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Anthracene	100	1,000	500	mg/kg	ND	ND	0.35	1.0	0.87	ND	1.4
Benzo(a)anthracene	1	1	5.6	mg/kg	0.043 J	ND	0.60	0.45	0.91	ND	0.46
Benzo(a)pyrene	1	22	1	mg/kg	ND	ND	0.71	0.30	0.60	ND	0.20
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	0.038 J	ND	0.79	0.30	0.55	ND	0.22
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	ND	ND	0.27	0.12	0.15	ND	0.095 J
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	ND	ND	0.56	0.23	0.52	ND	0.18
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chrysene	1	1	56	mg/kg	0.041 J	ND	0.76	0.42	0.89	ND	0.47
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	ND	ND	ND	0.062 J	0.061 J	ND	ND
Fluoranthene	100	1,000	500	mg/kg	0.11	ND	1.7	1.3	3.1	ND	2.5
Fluorene	30	386	500	mg/kg	0.15	ND	0.61	2.5	1.7	ND	4.3
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	ND	ND	0.27	0.12	0.18	ND	ND
Phenanthrene	100	1,000	500	mg/kg	0.38	ND	1.8	5.9	6.4	ND	8.5
Pyrene	100	1,000	500	mg/kg	0.10	ND	1.6	1.4	2.1	ND	1.9
Total SVOCs	- -	- -	- -	mg/kg	0.94 J	ND	11	15 J	19 J	ND	23 J
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	2,180	2,500	15,200	15,200	8,330	3,670	5,990

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Table 4
Summary of Pre-2010 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Historical Sample Depth (feet): / Current Estimated Sample Depth (feet) / Date Collected: / Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	PX-C2 2 - 3 6 - 7 10/30/02 Shallow Sand Fill - Shallow	PX-C3 2 - 3 6 - 7 10/30/02 Shallow Sand Fill - Shallow	PX-C4 2 - 3 6 - 7 10/30/02 Shallow Sand Fill - Shallow	PX-C5 2 - 3 6 - 7 10/30/02 Shallow Sand Fill - Shallow	PX-C6 2 - 3 6 - 7 10/30/02 Shallow Sand Fill - Shallow	PX-C7 4 - 4.5 8 - 8.5 10/30/02 Shallow Sand Fill - Shallow	PX-D1 2 - 3 6 - 7 10/30/02 Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	0.042	ND	0.039	***0.23***	***0.066***	ND	***6.0***
Toluene	0.7	0.7	500	mg/kg	ND	ND	ND	ND	ND	ND	0.48
Ethylbenzene	1	1	390	mg/kg	***3.3***	0.70	***20***	***6.6***	***4.8***	ND	***53***
Xylenes (total)	0.26	1.6	500	mg/kg	*0.83*	ND	*0.38*	*1.1*	*0.27*	ND	***3.6***
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	0.031	0.031	0.029	ND	ND	0.035	ND
Naphthalene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.33	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	3.6	3.6	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	8.4	8.4	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acetone	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	3.9	3.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	11	11	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Styrene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	5.9	5.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	- -	- -	mg/kg	ND	ND	ND	ND	ND	ND	NA
Tetrachloroethene	1.3	1.3	150	mg/kg	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	0.47	0.47	200	mg/kg	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	0.02	0.02	13	mg/kg	NA	NA	NA	NA	NA	NA	NA
Total VOCs	- -	- -	- -	mg/kg	4.2	0.73	21	7.9	5.1	0.035	63
TPH											
Total Petroleum Hydrocarbons	- -	- -	- -	mg/kg	6,100	7,400	9,400	8,800	5,000	ND	720
Semivolatile Organics											
2-Methylnaphthalene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	98	500	mg/kg	1.2	1.5	ND	0.58	0.61	ND	0.66
Acenaphthylene	100	107	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Anthracene	100	1,000	500	mg/kg	0.59	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	1	1	5.6	mg/kg	0.22	0.14	0.12	0.051 J	0.047 J	ND	0.096
Benzo(a)pyrene	1	22	1	mg/kg	0.10	0.086	0.077	ND	ND	ND	0.082
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	0.10	0.10	0.11	0.040 J	ND	ND	0.12
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	0.055 J	ND	ND	ND	ND	ND	0.050
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	0.080	0.071	0.068 J	0.033 J	0.027 J	ND	0.10
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chrysene	1	1	56	mg/kg	0.023	0.17	0.14	0.063 J	0.061 J	ND	0.15
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	100	1,000	500	mg/kg	1.3	0.80	0.53	0.27	0.25	ND	0.37
Fluorene	30	386	500	mg/kg	2.2	2.0	3.5	0.90	1.2	ND	1.3
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	100	1,000	500	mg/kg	5.8	7.6	5.7	4.0	3.1	ND	3.0
Pyrene	100	1,000	500	mg/kg	0.95	0.64	0.50	0.24	0.23	ND	0.35
Total SVOCs	- -	- -	- -	mg/kg	12 J	13	11 J	6.1 J	5.5 J	ND	6.3
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	4,630	10,100	10,800	5,350	3,380	6,980	13,800

See Notes on Page 23.

Table 4
Summary of Pre-2010 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth (feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	PX-D2 2 - 3 6 - 7 10/30/02 Shallow Sand Fill - Shallow	PX-D3 2 - 3 6 - 7 10/30/02 Shallow Sand Fill - Shallow	PX-D4 2 - 3 6 - 7 10/30/02 Shallow Sand Fill - Shallow	PX-D5 4 - 4.5 8 - 8.5 10/30/02 Shallow Sand Fill - Shallow	PX-EAST 2 - 3 6 - 7 11/18/04 Shallow Sand Fill - Shallow	PX-SOUTH 2 - 3 6 - 7 11/18/04 Shallow Sand Fill - Shallow	T12-D1 3 - 3.5 7 - 7.5 11/17/04 Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	***14***	***0.52***	***7.9***	ND	***3.1***	***1.7***	***11***
Toluene	0.7	0.7	500	mg/kg	***2.1***	0.11	***0.72***	ND	0.33	ND	0.36
Ethylbenzene	1	1	390	mg/kg	***230***	***3.1***	***63***	ND	***17***	***3.3***	***6.7***
Xylenes (total)	0.26	1.6	500	mg/kg	***400***	*1.5*	***7.6***	ND	***3.1***	*0.60*	***2.1***
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	ND	0.034	ND	0.030	ND	ND	ND
Naphthalene	12	12	500	mg/kg	NA	NA	NA	NA	***16***	1.0	3.3
Isopropylbenzene	- -	- -	- -	mg/kg	NA	NA	NA	NA	4.7	1.8	2.4
1,1-Dichloroethene	0.33	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	3.6	3.6	190	mg/kg	NA	NA	NA	NA	1.9	0.23 J	0.70 J
1,3,5-Trimethylbenzene	8.4	8.4	190	mg/kg	NA	NA	NA	NA	2.9	0.38 J	0.90
Acetone	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	12	12	500	mg/kg	NA	NA	NA	NA	7.1	3.0	8.5
n-Propylbenzene	3.9	3.9	500	mg/kg	NA	NA	NA	NA	***13***	***4.6***	***5.1***
p-Isopropyltoluene	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.96 J	0.17 J	0.67 J
sec-Butylbenzene	11	11	500	mg/kg	NA	NA	NA	NA	2.1	0.99	1.9
Styrene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	5.9	5.9	500	mg/kg	NA	NA	NA	NA	0.28 J	0.097 J	0.36 J
Tertiary butyl alcohol	- -	- -	- -	mg/kg	ND	ND	ND	ND	NA	NA	NA
Tetrachloroethene	1.3	1.3	150	mg/kg	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	0.47	0.47	200	mg/kg	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	0.02	0.02	13	mg/kg	NA	NA	NA	NA	NA	NA	NA
Total VOCs	- -	- -	- -	mg/kg	650	5.2	79	0.030	73 J	18 J	44 J
TPH											
Total Petroleum Hydrocarbons	- -	- -	- -	mg/kg	18,000	7,400	13,000	12,000	NA	NA	NA
Semivolatile Organics											
2-Methylnaphthalene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	98	500	mg/kg	3.2	NA	4.1	NA	0.78	0.98	3.0
Acenaphthylene	100	107	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Anthracene	100	1,000	500	mg/kg	ND	NA	ND	NA	0.75	ND	1.1
Benzo(a)anthracene	1	1	5.6	mg/kg	ND	NA	ND	NA	0.25	0.46	0.82
Benzo(a)pyrene	1	22	1	mg/kg	ND	NA	ND	NA	0.15	0.60	0.56
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	ND	NA	ND	NA	0.17	0.95	0.87
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	ND	NA	ND	NA	0.038 J	0.13 J	0.51
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	ND	NA	ND	NA	0.21	0.68	0.48
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chrysene	1	1	56	mg/kg	ND	NA	0.37 J	NA	0.27	0.84	0.91
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	ND	NA	ND	NA	ND	ND	ND
Fluoranthene	100	1,000	500	mg/kg	0.60	NA	1.1	NA	0.83	1.2	2.7
Fluorene	30	386	500	mg/kg	5.4	NA	7.5	NA	1.3	1.6	4.3
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	ND	NA	ND	NA	ND	0.16 J	0.45
Phenanthrene	100	1,000	500	mg/kg	12	NA	15	NA	6.3	5.2	11
Pyrene	100	1,000	500	mg/kg	1.1	NA	1.3	NA	0.66	1.5	3.1
Total SVOCs	- -	- -	- -	mg/kg	22	NA	29 J	NA	12 J	14 J	30
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	11,400	3,880	14,700	ND	NA	NA	NA

See Notes on Page 23.

Table 4
Summary of Pre-2010 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Historical Sample Depth (feet): / Current Estimated Sample Depth (feet) / Date Collected: / Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	T12-D2 3 - 3.5 7 - 7.5 11/18/04 Shallow Sand Fill - Shallow	T12-S1 1.5 - 2 5.5 - 6 11/16/04 Shallow Sand Fill - Shallow	T12-S2 1.5 - 2 5.5 - 6 11/18/04 Shallow Sand Fill - Shallow	T-110 (NE) 1 - 2 5 - 6 01/31/03 Shallow Sand Fill - Shallow	T-110 (NW) 1 - 2 5 - 6 01/31/03 Shallow Sand Fill - Shallow	T-110 (SE) 1 - 2 5 - 6 01/31/03 Shallow Sand Fill - Shallow	T-110 (SW) 1 - 2 5 - 6 01/31/03 Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	***23***	***8.2***	***17***	ND	ND	ND	ND
Toluene	0.7	0.7	500	mg/kg	0.52	ND	0.54	ND	ND	ND	ND
Ethylbenzene	1	1	390	mg/kg	***13***	***3.6***	***13***	ND	ND	ND	0.0090
Xylenes (total)	0.26	1.6	500	mg/kg	***2.8***	*1.4*	***3.6***	0.042	0.024	0.022	0.098
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Naphthalene	12	12	500	mg/kg	3.5	2.4	6.5	ND	ND	ND	ND
Isopropylbenzene	- -	- -	- -	mg/kg	3.1	1.7	2.1	ND	ND	ND	ND
1,1-Dichloroethene	0.33	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	3.6	3.6	190	mg/kg	0.67 J	0.36 J	2.3	ND	ND	ND	ND
1,3,5-Trimethylbenzene	8.4	8.4	190	mg/kg	1.1 J	0.55 J	2.9	ND	ND	ND	ND
Acetone	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	12	12	500	mg/kg	6.3	4.2	3.9	ND	ND	ND	ND
n-Propylbenzene	3.9	3.9	500	mg/kg	***6.7***	3.4	***4.6***	ND	ND	ND	ND
p-Isopropyltoluene	- -	- -	- -	mg/kg	0.90	0.54 J	0.87 J	ND	ND	ND	ND
sec-Butylbenzene	11	11	500	mg/kg	2.0	1.2 J	1.2 J	ND	ND	ND	ND
Styrene	- -	- -	- -	mg/kg	NA	NA	NA	0.010	ND	ND	0.0070
tert-Butylbenzene	5.9	5.9	500	mg/kg	0.41 J	0.28 J	0.26 J	ND	ND	ND	ND
Tertiary butyl alcohol	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	1.3	1.3	150	mg/kg	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	0.47	0.47	200	mg/kg	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	0.02	0.02	13	mg/kg	NA	NA	NA	NA	NA	NA	NA
Total VOCs	- -	- -	- -	mg/kg	63 J	28 J	59 J	0.052	0.024	0.022	0.11
TPH											
Total Petroleum Hydrocarbons	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics											
2-Methylnaphthalene	- -	- -	- -	mg/kg	NA	NA	NA	ND	ND	ND	ND
Acenaphthene	20	98	500	mg/kg	2.3	1.4	1.9	NA	NA	NA	NA
Acenaphthylene	100	107	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Anthracene	100	1,000	500	mg/kg	1.2	0.47	0.92	NA	NA	NA	NA
Benzo(a)anthracene	1	1	5.6	mg/kg	0.50	0.34	0.62	NA	NA	NA	NA
Benzo(a)pyrene	1	22	1	mg/kg	0.39	0.23	0.45	NA	NA	NA	NA
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	0.42	0.27	0.56	NA	NA	NA	NA
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	0.29	0.20 J	0.16 J	NA	NA	NA	NA
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	0.30	0.25	0.39	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chrysene	1	1	56	mg/kg	0.64	0.35	0.74	NA	NA	NA	NA
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	ND	ND	ND	NA	NA	NA	NA
Fluoranthene	100	1,000	500	mg/kg	1.8	1.1	2.1	NA	NA	NA	NA
Fluorene	30	386	500	mg/kg	2.9	1.9	2.9	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	0.30	0.15 J	0.16 J	NA	NA	NA	NA
Phenanthrene	100	1,000	500	mg/kg	8.2	4.7	7.9	ND	ND	ND	ND
Pyrene	100	1,000	500	mg/kg	1.7	1.3	1.5	NA	NA	NA	NA
Total SVOCs	- -	- -	- -	mg/kg	21	13 J	20 J	ND	ND	ND	ND
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 23.

Table 4
Summary of Pre-2010 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth (feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	T-111 (NE) 1 - 2 5 - 6 01/31/03 Shallow Sand Fill - Shallow	T-111 (NW) 1 - 2 5 - 6 01/31/03 Shallow Sand Fill - Shallow	T-111 (SE) 1 - 2 5 - 6 01/31/03 Shallow Sand Fill - Shallow	T-111 (SW) 1 - 2 5 - 6 01/31/03 Shallow Sand Fill - Shallow	T-112 (NE) 1 - 2 5 - 6 01/28/03 Shallow Sand Fill - Shallow	T-112 (NW) 1 - 2 5 - 6 01/28/03 Shallow Sand Fill - Shallow	T-112 (SE) 1 - 2 5 - 6 01/28/03 Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	ND	ND	ND	ND	ND	ND	ND
Toluene	0.7	0.7	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	1	1	390	mg/kg	ND	ND	ND	ND	ND	ND	ND
Xylenes (total)	0.26	1.6	500	mg/kg	ND	ND	0.0060	ND	ND	ND	*0.56*
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Naphthalene	12	12	500	mg/kg	ND	ND	ND	ND	ND	ND	0.079
Isopropylbenzene	- -	- -	- -	mg/kg	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	0.33	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	3.6	3.6	190	mg/kg	ND	ND	ND	ND	ND	ND	0.27
1,3,5-Trimethylbenzene	8.4	8.4	190	mg/kg	ND	ND	ND	ND	ND	ND	4.2
Acetone	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	12	12	500	mg/kg	ND	ND	ND	ND	ND	ND	1.4
n-Propylbenzene	3.9	3.9	500	mg/kg	ND	ND	ND	ND	ND	ND	0.051
p-Isopropyltoluene	- -	- -	- -	mg/kg	ND	ND	ND	ND	ND	ND	0.056
sec-Butylbenzene	11	11	500	mg/kg	ND	ND	ND	ND	ND	ND	0.024
Styrene	- -	- -	- -	mg/kg	0.012	0.0050	0.0090	0.014	ND	ND	ND
tert-Butylbenzene	5.9	5.9	500	mg/kg	ND	ND	ND	ND	ND	ND	0.037
Tertiary butyl alcohol	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	1.3	1.3	150	mg/kg	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	0.47	0.47	200	mg/kg	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	0.02	0.02	13	mg/kg	NA	NA	NA	NA	NA	NA	NA
Total VOCs	- -	- -	- -	mg/kg	0.012	0.0050	0.015	0.014	ND	ND	6.7
TPH											
Total Petroleum Hydrocarbons	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics											
2-Methylnaphthalene	- -	- -	- -	mg/kg	ND	ND	ND	ND	ND	ND	2.8
Acenaphthene	20	98	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	100	107	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Anthracene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	1	1	5.6	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	22	1	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chrysene	1	1	56	mg/kg	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Fluorene	30	386	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	100	1,000	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Pyrene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Total SVOCs	- -	- -	- -	mg/kg	ND	ND	ND	ND	ND	ND	2.8
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 23.

Table 4
Summary of Pre-2010 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:					T-112 (SW)	VRU-4	VRU-4	VRU-4	VRU-7	VRU-7	VRU-7
Historical Sample Depth (feet):					1 - 2	9.5 - 10	10.5 - 11	17.5 - 18	7.5 - 8	12 - 12.5	14 - 14.5
Current Estimated Sample Depth (feet)					5 - 6	13.5 - 14	14.5 - 15	21.5 - 22	11.5 - 12	16 - 16.5	18 - 18.5
Date Collected:					01/28/03	09/22/04	09/22/04	09/22/04	09/22/04	09/22/04	09/22/04
Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	Shallow Sand Fill - Shallow	Meadow Mat	Meadow Mat	Meadow Mat	Meadow Mat	Meadow Mat	Meadow Mat
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	ND	0.042	***0.76***	ND	ND	0.0093	ND
Toluene	0.7	0.7	500	mg/kg	ND	0.19	0.32	ND	ND	0.0050	ND
Ethylbenzene	1	1	390	mg/kg	ND	0.20	0.21	ND	0.032	0.38	ND
Xylenes (total)	0.26	1.6	500	mg/kg	*0.43*	*0.68*	*0.61*	ND	0.071	*0.70*	ND
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	ND	***2.2***	***18***	ND	0.0088	0.48	0.0078
Naphthalene	12	12	500	mg/kg	0.38	NA	NA	NA	NA	NA	NA
Isopropylbenzene	- -	- -	- -	mg/kg	ND	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.33	0.33	500	mg/kg	NA	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	3.6	3.6	190	mg/kg	0.51	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	8.4	8.4	190	mg/kg	4.5	NA	NA	NA	NA	NA	NA
Acetone	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	NA	***2.2***	0.052	0.0054 J	0.13	***0.44***	ND
Methylene Chloride	0.05	0.05	500	mg/kg	NA	0.029	0.0099	***0.24***	***0.086***	***0.14***	0.030
n-Butylbenzene	12	12	500	mg/kg	1.4	NA	NA	NA	NA	NA	NA
n-Propylbenzene	3.9	3.9	500	mg/kg	0.091	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	- -	- -	mg/kg	0.11	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	11	11	500	mg/kg	0.028	NA	NA	NA	NA	NA	NA
Styrene	- -	- -	- -	mg/kg	ND	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	5.9	5.9	500	mg/kg	0.029	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	- -	- -	mg/kg	NA	2.8	22	5.5	ND	1.5	0.41
Tetrachloroethene	1.3	1.3	150	mg/kg	NA	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	NA	0.055	0.029	ND	ND	0.0049 J	ND
Trichloroethene	0.47	0.47	200	mg/kg	NA	0.0020 J	ND	ND	ND	ND	ND
Vinyl Chloride	0.02	0.02	13	mg/kg	NA	***0.052***	***0.20***	ND	ND	***1.4 E***	ND
Total VOCs	- -	- -	- -	mg/kg	7.5	8.5 J	43	5.7 J	0.33	5.0 J	0.44
TPH											
Total Petroleum Hydrocarbons	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics											
2-Methylnaphthalene	- -	- -	- -	mg/kg	4.4	NA	NA	NA	NA	NA	NA
Acenaphthene	20	98	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	100	107	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Anthracene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	1	1	5.6	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	22	1	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chrysene	1	1	56	mg/kg	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Fluorene	30	386	500	mg/kg	ND	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	100	1,000	500	mg/kg	ND	NA	NA	NA	NA	NA	NA
Pyrene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Total SVOCs	- -	- -	- -	mg/kg	4.4	NA	NA	NA	NA	NA	NA
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	NA	4.64	33	22.2	ND	10,800	18,100

See Notes on Page 23.

Table 4
Summary of Pre-2010 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth (feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	VRU-8 8 - 8.5 12 - 12.5 09/22/04 Meadow Mat	VRU-8 10.5 14.5 09/22/04 Meadow Mat	VRU-8 14 - 14.5 18 - 18.5 09/22/04 Meadow Mat	VRU-9 7.5 - 8 11.5 - 12 09/22/04 Meadow Mat	VRU-9 9.5 - 10 13.5 - 14 09/22/04 Meadow Mat	VRU-9 12.5 - 13 16.5 - 17 09/22/04 Meadow Mat
Volatile Organics										
Benzene	0.06	0.06	44	mg/kg	ND	***0.083***	ND	0.012	0.040	***0.083***
Toluene	0.7	0.7	500	mg/kg	ND	0.029	ND	0.0034	ND	ND
Ethylbenzene	1	1	390	mg/kg	ND	0.012	ND	ND	ND	ND
Xylenes (total)	0.26	1.6	500	mg/kg	ND	0.044	ND	0.0049	ND	ND
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	0.18	0.14	0.035	0.0060	0.32	0.56
Naphthalene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA
Isopropylbenzene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.33	0.33	500	mg/kg	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	3.6	3.6	190	mg/kg	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	8.4	8.4	190	mg/kg	NA	NA	NA	NA	NA	NA
Acetone	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	***0.40***	ND	0.051	0.12	0.13	***0.27***
Methylene Chloride	0.05	0.05	500	mg/kg	***0.056***	0.039	***0.19***	0.016	***0.051***	***0.12***
n-Butylbenzene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA
n-Propylbenzene	3.9	3.9	500	mg/kg	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	11	11	500	mg/kg	NA	NA	NA	NA	NA	NA
Styrene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	5.9	5.9	500	mg/kg	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	- -	- -	mg/kg	0.26	3.9	1.7	ND	3.0	3.3
Tetrachloroethene	1.3	1.3	150	mg/kg	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	ND	ND	ND	0.0016 J	ND	0.016 J
Trichloroethene	0.47	0.47	200	mg/kg	ND	ND	ND	0.0031 J	0.0059 J	0.036
Vinyl Chloride	0.02	0.02	13	mg/kg	ND	***0.026 J***	ND	0.016	***0.42***	***0.21***
Total VOCs	- -	- -	- -	mg/kg	0.89	4.2 J	1.9	0.18 J	3.9 J	4.6 J
TPH										
Total Petroleum Hydrocarbons	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA
Semivolatile Organics										
2-Methylnaphthalene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA
Acenaphthene	20	98	500	mg/kg	NA	NA	NA	NA	NA	NA
Acenaphthylene	100	107	500	mg/kg	NA	NA	NA	NA	NA	NA
Anthracene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	1	1	5.6	mg/kg	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	22	1	mg/kg	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA
Chrysene	1	1	56	mg/kg	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	NA	NA	NA	NA	NA	NA
Fluoranthene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA
Fluorene	30	386	500	mg/kg	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	NA	NA	NA	NA	NA	NA
Phenanthrene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA
Pyrene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA
Total SVOCs	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA
TOC										
Total Organic Carbon	- -	- -	- -	mg/kg	1,320	20,100	17,200	ND	27,100	16,500

See Notes on Page 23.

Table 4
Summary of pre-2010 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Notes:

1. Unrestricted Use SCO, Restricted use SCO for commercial use, and protection of groundwater are from 6 NYCRR Part 375-6.8.
2. Field duplicate sample results are presented in brackets, [ ].
3. Designations:
   - Gray font = Analyte was not detected.
   - Italic font = Analyte was detected above unrestricted use SCO.
   - Black Bold Italic font = Analyte detected above restricted - protection of groundwater SCO.
   - Gray Shading = Analyte detected above restricted - commercial use SCO.
4. Abbreviations:
   - - - = 6 NYCRR SCO not available.
   - 6 NYCRR = Title 6 of the Official Compilation of Codes, Rules, and Regulations of the State of New York.
   - ft = feet.
   - mg/kg = milligrams per kilogram or part per million.
   - NA = Not Analyzed.
   - ND = Not detected.
   - SCO = Soil Cleanup Objectives.
   - VOC = Volatile Organic Compounds.
   - SVOC = Semi-Volatile Organic Compounds.
5. Qualifier Definitions:
   - B = Analyte was detected in the blank and sample.
   - E = Analyte exceeded calibration range.
   - J = Estimated value. Result is greater than the RL but less than the MDL.
   - R = Rejected results.
   - U = Analyte not detected at listed reporting detection limit.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	AMW-3 0 - 2 4 - 6 11/30/10 Shallow Sand Fill - Shallow	AMW-3 2 - 4 6 - 8 11/30/10 Shallow Sand Fill - Shallow	AMW-3 4 - 6 8 - 10 11/30/10 Shallow Sand Fill - Shallow	AMW-4 2 - 4 6 - 8 11/18/10 Shallow Sand Fill - Shallow	AMW-4 4 - 6 8 - 10 11/18/10 Shallow Sand Fill - Shallow	AMW-4 6 - 8 10 - 12 11/18/10 Shallow Sand Fill - Shallow	AMW-6 2 - 4 6 - 8 11/18/10 Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	0.13 U	0.12 U	***0.11 J***	0.0053 U	0.23 U	0.10 U	0.0055 U
Toluene	0.7	0.7	500	mg/kg	0.11 J	0.20	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
Ethylbenzene	1	1	390	mg/kg	***2.4***	***6.7***	***2.0***	0.0053 U	0.20 J	0.088 J	0.0055 U
Xylenes (total)	0.26	1.6	500	mg/kg	***5.2***	***6.1***	*0.26*	0.011 U	0.46 U	0.20 U	0.011 U
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
Isopropylbenzene	- -	- -	- -	mg/kg	1.2	3.5	1.6	0.0053 U	0.39	0.22	0.0055 U
1,1,1-Trichloroethane	0.68	0.68	500	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
1,1,2,2-Tetrachloroethane	- -	- -	- -	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
1,1,2-trichloro-1,2,2-trifluoroethane	- -	- -	- -	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
1,1,2-Trichloroethane	- -	- -	- -	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
1,1-Dichloroethane	0.27	0.27	240	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
1,1-Dichloroethene	0.33	0.33	500	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
1,2,4-Trichlorobenzene	- -	- -	- -	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
1,2-Dibromo-3-chloropropane	- -	- -	- -	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
1,2-Dibromoethane	- -	- -	- -	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
1,2-Dichlorobenzene	1.1	1.1	500	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
1,2-Dichloroethane	0.02	0.02	30	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
1,2-Dichloropropane	- -	- -	- -	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
1,3-Dichlorobenzene	2.4	2.4	280	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
1,4-Dichlorobenzene	1.8	1.8	130	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
2-Butanone	0.12	0.12	500	mg/kg	0.64 U	0.59 U	0.62 U	0.027 U	1.2 U	0.51 U	0.027 U
2-Hexanone	- -	- -	- -	mg/kg	0.64 U	0.59 U	0.62 U	0.027 U	1.2 U	0.51 U	0.027 U
4-Methyl-2-pentanone	- -	- -	- -	mg/kg	0.64 U	0.59 U	0.62 U	0.027 U	1.2 U	0.51 U	0.027 U
Acetone	0.05	0.05	500	mg/kg	0.64 U	0.59 U	0.62 U	0.027 U	1.2 U	0.51 U	0.027 U
Bromodichloromethane	- -	- -	- -	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
Bromoform	- -	- -	- -	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
Bromomethane	- -	- -	- -	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
Carbon Disulfide	- -	- -	- -	mg/kg	0.13 UJ	0.12 UJ	0.12 UJ	0.0053 U	0.23 U	0.10 U	0.0055 U
Carbon Tetrachloride	0.76	0.76	22	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
Chlorobenzene	1.1	1.1	500	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
Chloroethane	- -	- -	- -	mg/kg	0.13 UJ	0.12 UJ	0.12 UJ	0.0053 U	0.23 U	0.10 U	0.0055 U
Chloroform	0.37	0.37	350	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
Chloromethane	- -	- -	- -	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
cis-1,3-Dichloropropene	- -	- -	- -	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
Cyclohexane	- -	- -	- -	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
Dibromochloromethane	- -	- -	- -	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
Dichlorodifluoromethane	- -	- -	- -	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
Methyl acetate	- -	- -	- -	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
Methylcyclohexane	- -	- -	- -	mg/kg	2.9	2.5	2.4	0.0053 U	3.2	1.3	0.0055 U
Methylene Chloride	0.05	0.05	500	mg/kg	0.13 UJ	0.12 UJ	***0.062 J***	0.0052 J	0.23 U	0.10 U	0.0062
Styrene	- -	- -	- -	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
Tetrachloroethene	1.3	1.3	150	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
Total VOCs	- -	- -	- -	mg/kg	12 J	19	6.4 J	0.0052 J	3.8 J	1.6 J	0.0062
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
trans-1,3-Dichloropropene	- -	- -	- -	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
Trichloroethene	0.47	0.47	200	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
Trichlorofluoromethane	- -	- -	- -	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
Vinyl Chloride	0.02	0.02	13	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	AMW-3 0 - 2 4 - 6 11/30/10 Shallow Sand Fill - Shallow	AMW-3 2 - 4 6 - 8 11/30/10 Shallow Sand Fill - Shallow	AMW-3 4 - 6 8 - 10 11/30/10 Shallow Sand Fill - Shallow	AMW-4 2 - 4 6 - 8 11/18/10 Shallow Sand Fill - Shallow	AMW-4 4 - 6 8 - 10 11/18/10 Shallow Sand Fill - Shallow	AMW-4 6 - 8 10 - 12 11/18/10 Shallow Sand Fill - Shallow	AMW-6 2 - 4 6 - 8 11/18/10 Shallow Sand Fill - Shallow
Semivolatile Organics											
Naphthalene	12	12	500	mg/kg	5.4	11	2.6 J	0.18 U	2.5	0.44 J	3.6 U
1,1'-Biphenyl	- -	- -	- -	mg/kg	0.58 J	0.61 J	0.029 J	0.18 U	1.0 U	0.88 U	3.6 U
2,2'-Oxybis(1-Chloropropane)	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
2,4,5-Trichlorophenol	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
2,4,6-Trichlorophenol	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
2,4-Dichlorophenol	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
2,4-Dimethylphenol	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
2,4-Dinitrophenol	- -	- -	- -	mg/kg	4.3 U	4.0 U	0.41 U	0.35 U	R	1.7 U	7.0 U
2,4-Dinitrotoluene	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
2,6-Dinitrotoluene	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
2-Chloronaphthalene	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
2-Chlorophenol	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
2-Methylnaphthalene	- -	- -	- -	mg/kg	16	27	4.2 J	0.18 U	9.5	1.2	3.6 U
2-Methylphenol	0.33	0.33	500	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
2-Nitroaniline	- -	- -	- -	mg/kg	4.3 U	4.0 U	0.41 U	0.35 U	1.9 U	1.7 U	7.0 U
2-Nitrophenol	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
3,3'-Dichlorobenzidine	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	R	0.88 U	3.6 U
3-Nitroaniline	- -	- -	- -	mg/kg	4.3 U	4.0 U	0.41 U	0.35 U	1.9 UJ	1.7 U	7.0 U
4,6-Dinitro-2-methylphenol	- -	- -	- -	mg/kg	4.3 U	4.0 U	0.41 U	0.35 U	1.9 UJ	1.7 U	7.0 U
4-Bromophenyl-phenylether	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
4-Chloro-3-Methylphenol	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
4-Chloroaniline	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
4-Chlorophenyl-phenylether	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
4-Methylphenol	0.33	0.33	500	mg/kg	4.3 U	4.0 U	0.41 U	0.35 U	1.9 U	1.7 U	7.0 U
4-Nitroaniline	- -	- -	- -	mg/kg	4.3 U	4.0 U	0.41 U	0.35 U	1.9 U	1.7 U	7.0 U
4-Nitrophenol	- -	- -	- -	mg/kg	4.3 U	4.0 U	0.41 U	0.35 U	1.9 UJ	1.7 U	7.0 U
Acenaphthene	20	98	500	mg/kg	0.99 J	0.81 J	0.12 J	0.18 U	1.1	0.46 J	3.6 U
Acenaphthylene	100	107	500	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
Acetophenone	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 UJ
Anthracene	100	1,000	500	mg/kg	0.37 J	0.43 J	0.050 J	0.18 U	1.0 U	0.88 U	3.6 U
Atrazine	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
Benzaldehyde	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
Benzo(a)anthracene	1	1	5.6	mg/kg	0.37 J	0.26 J	0.019 J	0.020 J	0.42 J	0.26 J	0.44 J
Benzo(a)pyrene	1	22	1	mg/kg	0.23 J	2.0 U	0.21 U	0.018 J	0.36 J	0.30 J	0.42 J
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	0.27 J	0.20 J	0.21 U	0.021 J	0.42 J	0.38 J	0.52 J
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	0.18 J	2.0 U	0.21 U	0.014 J	0.25 J	0.24 J	0.30 J
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	0.21 J	0.88 U	3.6 U
bis(2-Chloroethoxy)methane	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
bis(2-Chloroethyl)ether	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	2.2 UB	2.0 UB	0.21 UB	0.18 U	1.0 U	0.88 U	3.6 U
Butylbenzylphthalate	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
Caprolactam	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	R	0.88 U	3.6 U
Carbazole	- -	- -	- -	mg/kg	0.14 J	2.0 U	0.033 J	0.18 U	1.0 U	0.88 U	3.6 U
Chrysene	1	1	56	mg/kg	0.29 J	0.23 J	0.017 J	0.018 J	0.42 J	0.29 J	0.44 J
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
Dibenzofuran	7	210	350	mg/kg	0.79 J	0.76 J	0.13 J	0.18 U	0.79 J	0.88 U	3.6 U
Diethylphthalate	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
Dimethylphthalate	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U

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Oceanside, Town of Hempstead, NY

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Semivolatile Organics (Cont.)											
Di-n-Butylphthalate	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
Di-n-Octylphthalate	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 UJ	0.88 U	3.6 U
Fluoranthene	100	1,000	500	mg/kg	1.0 J	0.69 J	0.059 J	0.036 J	1.3	0.77 J	1.0 J
Fluorene	30	386	500	mg/kg	1.1 J	1.3 J	0.29 J	0.18 U	1.5	0.66 J	3.6 U
Hexachlorobenzene	0.33	3.2	6	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
Hexachlorobutadiene	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
Hexachlorocyclopentadiene	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
Hexachloroethane	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	0.20 J	0.16 J	3.6 U
Isophorone	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
Nitrobenzene	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
N-Nitroso-di-n-propylamine	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
N-Nitrosodiphenylamine	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
Pentachlorophenol	0.8	0.8	6.7	mg/kg	4.3 U	4.0 U	0.41 U	0.35 U	1.9 UJ	1.7 U	7.0 U
Phenanthrene	100	1,000	500	mg/kg	3.6	3.2	0.45	0.022 J	3.0	1.0	0.74 J
Phenol	0.33	0.33	500	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
Pyrene	100	1,000	500	mg/kg	0.94 J	0.67 J	0.058 J	0.029 J	1.3	1.0	0.83 J
Total SVOCs	- -	- -	- -	mg/kg	32 J	47 J	8.1 J	0.18 J	23 J	7.2 J	4.7 J
Inorganics											
Aluminum	- -	- -	- -	mg/kg	4,860 J	2,230 J	2,810 J	8,070 J	1,390 J	4,010 J	3,660 J
Antimony	- -	- -	- -	mg/kg	19.9 U	18.1 U	18.4 U	16.1 U	17.7 U	15.7 U	16.4 U
Arsenic	13	16	16	mg/kg	2.00 J	2.20 J	2.30 J	3.80	1.10 J	2.00 J	***16.2***
Barium	350	820	400	mg/kg	26.7	14.0	16.0	26.6	7.89	22.1	32.5
Beryllium	7.2	47	590	mg/kg	0.224 J	0.166 J	0.113 J	0.362	0.0530 J	0.186 J	0.174 J
Cadmium	2.5	7.5	9.3	mg/kg	0.282 J	0.231 J	0.246 UBJ	0.193 J	0.0550 J	0.0920 J	0.199 J
Calcium	- -	- -	- -	mg/kg	28,000	113,000	1,670	556	218	428	5,420
Chromium	- -	- -	- -	mg/kg	7.46	4.68	5.67	10.6	2.53	5.58	7.77
Cobalt	- -	- -	- -	mg/kg	2.44	1.76	1.76	4.27	0.924	2.64	2.04
Copper	50	1,720	270	mg/kg	14.5 J	7.00 J	7.40 J	4.80	1.50	4.00	11.5
Ferrous Iron	- -	- -	- -	mg/kg	0.600 J	1.60 J	0.500 J	R	R	1.70 J	R
Iron	- -	- -	- -	mg/kg	5,670 J	5,180 J	5,450 J	10,100 J	1,860 J	5,410 J	6,630 J
Lead	63	450	1,000	mg/kg	*69.6 J*	52.4 J	25.9 J	8.20 J	4.70 J	9.00 J	50.8 J
Magnesium	- -	- -	- -	mg/kg	5,250	63,000	1,330	1,070	309	638	2,300
Manganese	1,600	2,000	10,000	mg/kg	76.6 J	100 J	68.7 J	246	25.4	60.8	63.1
Mercury	0.18	0.73	2.8	mg/kg	0.0329	0.0525	0.0184 J	0.0173 J	0.0240 U	0.0226	0.0785
Nickel	30	130	310	mg/kg	7.11	4.78 J	5.19 J	6.07 J	1.58 J	4.47 J	4.81 J
Potassium	- -	- -	- -	mg/kg	548	490	498	305 J	202 J	298 J	432 J
Selenium	3.9	4	1,500	mg/kg	5.30 U	4.80 U	4.90 U	4.30 U	4.70 U	4.20 U	4.40 U
Silver	2	8.3	1,500	mg/kg	0.662 U	0.602 U	0.614 U	0.536 U	0.590 U	0.523 U	0.546 U
Sodium	- -	- -	- -	mg/kg	119 J	153 J	66.9 J	83.1 J	34.0 J	36.2 J	524
Thallium	- -	- -	- -	mg/kg	7.90 U	7.20 U	7.40 U	6.40 U	7.10 U	6.30 U	6.60 U
Vanadium	- -	- -	- -	mg/kg	8.76	11.5	8.45	13.6	3.38	7.78	9.48
Zinc	109	2,480	10,000	mg/kg	57.3 J	21.1 J	20.2 J	20.8	4.40	10.3	51.6
Miscellaneous											
Sulfate	- -	- -	- -	mg/kg	78 J	400	570 J	170	60 J	110 U	89 J
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	6,440	7,720	6,430 J	2,320	8,850	3,610	4,960

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	AMW-6 4 - 6 8 - 10 11/18/10 Shallow Sand Fill - Shallow	AMW-6 6 - 8 10 - 12 11/18/10 Shallow Sand Fill - Shallow	AMW-7 4 - 6 8 - 10 11/29/10 Shallow Sand Fill - Shallow	AMW-7 8 - 10 11/29/10 Shallow Sand Fill - Shallow	AMW-7 10 - 12 11/29/10 Shallow Sand Fill - Shallow	AMW-11 2 - 4 6 - 8 12/01/10 Shallow Sand Fill - Shallow	AMW-11 4 - 6 8 - 10 12/01/10 Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
Toluene	0.7	0.7	500	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
Ethylbenzene	1	1	390	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
Xylenes (total)	0.26	1.6	500	mg/kg	0.011 U	0.071 U	0.011 U	0.011 U	0.013 U	0.26 U	0.012 U
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0046 J	0.13 U	0.0058 U
Isopropylbenzene	- -	- -	- -	mg/kg	0.0057 U	0.016 J	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0019 J
1,1,1-Trichloroethane	0.68	0.68	500	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
1,1,2,2-Tetrachloroethane	- -	- -	- -	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
1,1,2-trichloro-1,2,2-trifluoroethane	- -	- -	- -	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
1,1,2-Trichloroethane	- -	- -	- -	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
1,1-Dichloroethane	0.27	0.27	240	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
1,1-Dichloroethene	0.33	0.33	500	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
1,2,4-Trichlorobenzene	- -	- -	- -	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
1,2-Dibromo-3-chloropropane	- -	- -	- -	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
1,2-Dibromoethane	- -	- -	- -	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
1,2-Dichlorobenzene	1.1	1.1	500	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
1,2-Dichloroethane	0.02	0.02	30	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
1,2-Dichloropropane	- -	- -	- -	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
1,3-Dichlorobenzene	2.4	2.4	280	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
1,4-Dichlorobenzene	1.8	1.8	130	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
2-Butanone	0.12	0.12	500	mg/kg	0.011 J	0.034 J	0.027 U	0.027 U	0.0052 J	0.66 U	0.029 U
2-Hexanone	- -	- -	- -	mg/kg	0.028 U	0.18 U	0.027 U	0.027 U	0.032 U	0.66 U	0.029 U
4-Methyl-2-pentanone	- -	- -	- -	mg/kg	0.028 U	0.18 U	0.027 U	0.027 U	0.032 U	0.66 U	0.029 U
Acetone	0.05	0.05	500	mg/kg	***0.059***	***0.18***	0.0063 J	0.037	***0.050***	0.66 U	0.019 J
Bromodichloromethane	- -	- -	- -	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
Bromoform	- -	- -	- -	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
Bromomethane	- -	- -	- -	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
Carbon Disulfide	- -	- -	- -	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0053 J	0.13 UJ	0.0058 U
Carbon Tetrachloride	0.76	0.76	22	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
Chlorobenzene	1.1	1.1	500	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
Chloroethane	- -	- -	- -	mg/kg	0.0057 U	0.036 U	0.0055 UJ	0.0055 UJ	0.0065 UJ	0.13 UJ	0.0058 U
Chloroform	0.37	0.37	350	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
Chloromethane	- -	- -	- -	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0015 J	0.13 U	0.0058 U
cis-1,3-Dichloropropene	- -	- -	- -	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
Cyclohexane	- -	- -	- -	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
Dibromochloromethane	- -	- -	- -	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
Dichlorodifluoromethane	- -	- -	- -	mg/kg	0.0057 U	0.036 U	0.0055 UJ	0.0055 UJ	0.0065 UJ	0.13 U	0.0058 U
Methyl acetate	- -	- -	- -	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
Methylcyclohexane	- -	- -	- -	mg/kg	0.0057 U	0.018 J	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0019 J
Methylene Chloride	0.05	0.05	500	mg/kg	0.0090	0.049	0.0076	0.016	0.023	0.13 UJ	0.0094 UB
Styrene	- -	- -	- -	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
Tetrachloroethene	1.3	1.3	150	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
Total VOCs	- -	- -	- -	mg/kg	0.079 J	0.30 J	0.014 J	0.053	0.093 J	ND	0.023 J
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
trans-1,3-Dichloropropene	- -	- -	- -	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
Trichloroethene	0.47	0.47	200	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
Trichlorofluoromethane	- -	- -	- -	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
Vinyl Chloride	0.02	0.02	13	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0032 J	0.13 U	0.0058 U

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	AMW-6 4 - 6 8 - 10 11/18/10 Shallow Sand Fill - Shallow	AMW-6 6 - 8 10 - 12 11/18/10 Shallow Sand Fill - Shallow	AMW-7 4 - 6 8 - 10 11/29/10 Shallow Sand Fill - Shallow	AMW-7 8 - 10 11/29/10 Shallow Sand Fill - Shallow	AMW-7 10 - 12 11/29/10 Shallow Sand Fill - Shallow	AMW-11 2 - 4 6 - 8 12/01/10 Shallow Sand Fill - Shallow	AMW-11 4 - 6 8 - 10 12/01/10 Shallow Sand Fill - Shallow
Semivolatile Organics											
Naphthalene	12	12	500	mg/kg	0.088 J	0.029 J	0.18 U	0.19 U	0.22 U	0.85	0.30
1,1'-Biphenyl	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.070 J	0.033 J
2,2'-Oxybis(1-Chloropropane)	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
2,4,5-Trichlorophenol	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
2,4,6-Trichlorophenol	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
2,4-Dichlorophenol	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
2,4-Dimethylphenol	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
2,4-Dinitrophenol	- -	- -	- -	mg/kg	0.74 U	0.47 U	0.36 U	0.37 U	0.42 U	0.44 U	0.38 U
2,4-Dinitrotoluene	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
2,6-Dinitrotoluene	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
2-Chloronaphthalene	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
2-Chlorophenol	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
2-Methylnaphthalene	- -	- -	- -	mg/kg	0.24 J	0.097 J	0.18 U	0.19 U	0.22 U	0.40	0.13 J
2-Methylphenol	0.33	0.33	500	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
2-Nitroaniline	- -	- -	- -	mg/kg	0.74 U	0.47 U	0.36 U	0.37 U	0.42 U	0.44 U	0.38 U
2-Nitrophenol	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
3,3'-Dichlorobenzidine	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
3-Nitroaniline	- -	- -	- -	mg/kg	0.74 U	0.47 U	0.36 U	0.37 U	0.42 U	0.44 U	0.38 U
4,6-Dinitro-2-methylphenol	- -	- -	- -	mg/kg	0.74 U	0.47 U	0.36 U	0.37 U	0.42 U	0.44 U	0.38 U
4-Bromophenyl-phenylether	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
4-Chloro-3-Methylphenol	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
4-Chloroaniline	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
4-Chlorophenyl-phenylether	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
4-Methylphenol	0.33	0.33	500	mg/kg	0.74 U	0.47 U	0.36 U	0.37 U	0.42 U	0.44 U	0.38 U
4-Nitroaniline	- -	- -	- -	mg/kg	0.74 U	0.47 U	0.36 U	0.37 U	0.42 U	0.44 U	0.38 U
4-Nitrophenol	- -	- -	- -	mg/kg	0.74 U	0.47 U	0.36 U	0.37 U	0.42 U	0.44 U	0.38 U
Acenaphthene	20	98	500	mg/kg	0.14 J	0.026 J	0.18 U	0.19 U	0.22 U	0.90	0.36
Acenaphthylene	100	107	500	mg/kg	0.38 U	0.025 J	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
Acetophenone	- -	- -	- -	mg/kg	0.38 UJ	0.24 UJ	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
Anthracene	100	1,000	500	mg/kg	0.27 J	0.052 J	0.017 J	0.017 J	0.22 U	0.16 J	0.081 J
Atrazine	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
Benzaldehyde	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
Benzo(a)anthracene	1	1	5.6	mg/kg	0.56	0.15 J	0.088 J	0.054 J	0.024 J	0.079 J	0.048 J
Benzo(a)pyrene	1	22	1	mg/kg	0.54	0.16 J	0.087 J	0.056 J	0.025 J	0.037 J	0.027 J
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	0.63	0.19 J	0.093 J	0.064 J	0.028 J	0.067 JY	0.040 J
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	0.39	0.12 J	0.061 J	0.043 J	0.021 J	0.016 J	0.024 J
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	0.25 J	0.074 J	0.033 J	0.19 U	0.22 U	0.069 JY	0.20 U
bis(2-Chloroethoxy)methane	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
bis(2-Chloroethyl)ether	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	0.96	0.63	0.42	0.11 J	0.098 J	0.23 UB	0.29 UB
Butylbenzylphthalate	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.15 J	0.19 U	0.22 U	0.23 U	0.20 U
Caprolactam	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
Carbazole	- -	- -	- -	mg/kg	0.13 J	0.029 J	0.18 U	0.19 U	0.22 U	0.32	0.075 J
Chrysene	1	1	56	mg/kg	0.64	0.17 J	0.082 J	0.050 J	0.021 J	0.065 J	0.041 J
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	0.11 J	0.036 J	0.017 J	0.19 U	0.22 U	0.23 U	0.20 U
Dibenzofuran	7	210	350	mg/kg	0.11 J	0.027 J	0.18 U	0.19 U	0.22 U	0.56	0.20
Diethylphthalate	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
Dimethylphthalate	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U

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Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	AMW-6 4 - 6 8 - 10 11/18/10 Shallow Sand Fill - Shallow	AMW-6 6 - 8 10 - 12 11/18/10 Shallow Sand Fill - Shallow	AMW-7 4 - 6 8 - 10 11/29/10 Shallow Sand Fill - Shallow	AMW-7 8 - 10 11/29/10 Shallow Sand Fill - Shallow	AMW-7 10 - 12 11/29/10 Shallow Sand Fill - Shallow	AMW-11 2 - 4 6 - 8 12/01/10 Shallow Sand Fill - Shallow	AMW-11 4 - 6 8 - 10 12/01/10 Shallow Sand Fill - Shallow
Semivolatile Organics (Cont.)											
Di-n-Butylphthalate	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
Di-n-Octylphthalate	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
Fluoranthene	100	1,000	500	mg/kg	1.1	0.28	0.17 J	0.11 J	0.041 J	0.48	0.25
Fluorene	30	386	500	mg/kg	0.28 J	0.064 J	0.18 U	0.19 U	0.22 U	0.53	0.20
Hexachlorobenzene	0.33	3.2	6	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
Hexachlorobutadiene	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
Hexachlorocyclopentadiene	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
Hexachloroethane	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	0.34 J	0.10 J	0.049 J	0.033 J	0.22 U	0.23 U	0.20 U
Isophorone	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
Nitrobenzene	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
N-Nitroso-di-n-propylamine	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
N-Nitrosodiphenylamine	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
Pentachlorophenol	0.8	0.8	6.7	mg/kg	0.74 U	0.47 U	0.36 U	0.37 U	0.42 U	0.44 U	0.38 U
Phenanthrene	100	1,000	500	mg/kg	1.1	0.27	0.090 J	0.041 J	0.22 U	1.3	0.58
Phenol	0.33	0.33	500	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
Pyrene	100	1,000	500	mg/kg	1.0	0.24	0.16 J	0.088 J	0.035 J	0.32	0.19 J
Total SVOCs	- -	- -	- -	mg/kg	8.9 J	2.8 J	1.5 J	0.67 J	0.29 J	6.2 J	2.6 J
Inorganics											
Aluminum	- -	- -	- -	mg/kg	3,620 J	8,470 J	4,490 J	3,290 J	4,510 J	5,460 J	4,040 J
Antimony	- -	- -	- -	mg/kg	17.1 U	20.9 U	16.4 U	16.8 U	19.3 U	20.0 U	17.6 U
Arsenic	13	16	16	mg/kg	***20.1***	10.6	3.10 J	2.00 J	4.10 J	4.70	4.50
Barium	350	820	400	mg/kg	44.4	44.6	26.0	28.5	13.2	26.3	18.6
Beryllium	7.2	47	590	mg/kg	0.185 J	0.448	0.200 J	0.142 J	0.195 J	0.264 J	0.173 J
Cadmium	2.5	7.5	9.3	mg/kg	0.356	0.468	0.463 J	0.224 UBJ	0.258 UBJ	0.267 UB	0.235 UBJ
Calcium	- -	- -	- -	mg/kg	1,520	2,140	875	743	1,450	1,770	1,560 B
Chromium	- -	- -	- -	mg/kg	6.12	22.7	7.94	7.96	12.1	12.9	9.82
Cobalt	- -	- -	- -	mg/kg	2.12	4.84	2.72	2.27	3.05	3.47	2.76
Copper	50	1,720	270	mg/kg	11.5	14.7	8.40	7.20	5.60	9.70 J	11.4 J
Ferrous Iron	- -	- -	- -	mg/kg	R	R	R	R	R	R	R
Iron	- -	- -	- -	mg/kg	5,890 J	18,200 J	10,600	5,780	9,990	12,000 J	9,160 J
Lead	63	450	1,000	mg/kg	*80.2 J*	43.8 J	22.4 J	18.5 J	6.60 J	15.1 J	14.0 J
Magnesium	- -	- -	- -	mg/kg	577	2,900	878	766	1,950	2,210	1,800
Manganese	1,600	2,000	10,000	mg/kg	52.6	180	119 J	55.2 J	82.8 J	111 J	92.4 J
Mercury	0.18	0.73	2.8	mg/kg	*0.199*	0.122	0.0492	*0.189*	0.0219 J	0.0285	0.0187 J
Nickel	30	130	310	mg/kg	4.56 J	13.0 J	5.49	4.87 J	7.91	9.80	7.78
Potassium	- -	- -	- -	mg/kg	332 J	1,630 J	541	420	1,010	1,210	825
Selenium	3.9	4	1,500	mg/kg	4.60 U	5.60 U	0.600 J	0.600 J	0.700 J	5.30 U	4.70 U
Silver	2	8.3	1,500	mg/kg	0.571 U	0.698 U	0.548 U	0.559 U	0.644 U	0.667 U	0.587 U
Sodium	- -	- -	- -	mg/kg	153 J	392	70.5 J	131 J	742	289	231
Thallium	- -	- -	- -	mg/kg	6.90 U	8.40 U	6.60 U	6.70 U	7.70 U	8.00 U	7.00 U
Vanadium	- -	- -	- -	mg/kg	7.67	24.8	9.26	7.66	13.7	17.9	12.9
Zinc	109	2,480	10,000	mg/kg	96.9	75.0	*120 J*	29.0 J	23.4 J	30.2 J	28.1 J
Miscellaneous											
Sulfate	- -	- -	- -	mg/kg	120 U	130 J	350	290	150	1,500	1,500
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	3,250	15,800	5,020	2,900	22,300	7,270	9,840

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	AMW-11 6 - 8 10 - 12 12/01/10 Shallow Sand Fill - Shallow	AMW-12A 2 - 2.5 6 - 6.5 02/21/13 Shallow Sand Fill - Shallow	ASB-1 23 - 25 - 06/07/16 Deep Sand Layer - D1 Unit	ASB-1 28 - 30 - 06/07/16 Deep Sand Layer - D1 Unit	ASB-2-SD 24 - 25 - 06/03/16 Deep Sand Layer - D1 Unit	ASB-2-SD 28 - 30 - 06/03/16 Deep Sand Layer - D1 Unit	ASB-3 20.5 - 21.5 - 06/08/16 Deep Sand Layer - D1 Unit
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	0.17 U	0.0027 J	0.0075 U	0.0077 U	0.00050 J	0.13 U	0.0011 J
Toluene	0.7	0.7	500	mg/kg	0.17 U	0.0027 JB	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0011 J
Ethylbenzene	1	1	390	mg/kg	0.17 U	0.016	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0011 J
Xylenes (total)	0.26	1.6	500	mg/kg	0.33 U	0.014	0.015 U	0.015 U	0.013 U	0.26 U	0.012 U
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	0.17 U	0.0049 U	0.027	0.022	0.083	0.050 J	0.0026 J
Isopropylbenzene	- -	- -	- -	mg/kg	0.17 U	0.0038 J	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
1,1,1-Trichloroethane	0.68	0.68	500	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
1,1,2,2-Tetrachloroethane	- -	- -	- -	mg/kg	0.17 U	0.0049 U	0.0075 UF1	0.0077 U	0.0065 U	0.13 U	0.0059 U
1,1,2-trichloro-1,2,2-trifluoroethane	- -	- -	- -	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
1,1,2-Trichloroethane	- -	- -	- -	mg/kg	0.17 U	0.0049 U	0.0075 UF1	0.0077 U	0.0065 U	0.13 U	0.0059 U
1,1-Dichloroethane	0.27	0.27	240	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
1,1-Dichloroethene	0.33	0.33	500	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
1,2,4-Trichlorobenzene	- -	- -	- -	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
1,2-Dibromo-3-chloropropane	- -	- -	- -	mg/kg	0.17 U	0.0048 J	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
1,2-Dibromoethane	- -	- -	- -	mg/kg	0.17 U	0.0049 U	0.0075 UF1	0.0077 U	0.0065 U	0.13 U	0.0059 U
1,2-Dichlorobenzene	1.1	1.1	500	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
1,2-Dichloroethane	0.02	0.02	30	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
1,2-Dichloropropane	- -	- -	- -	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
1,3-Dichlorobenzene	2.4	2.4	280	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
1,4-Dichlorobenzene	1.8	1.8	130	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
2-Butanone	0.12	0.12	500	mg/kg	0.83 U	0.025 U	0.037 UF1	0.038 U	0.033 U	0.66 U	0.029 U
2-Hexanone	- -	- -	- -	mg/kg	0.83 U	0.025 U	0.037 UF1	0.038 U	0.033 U	0.66 U	0.029 U
4-Methyl-2-pentanone	- -	- -	- -	mg/kg	0.83 U	0.025 U	0.037 UF1	0.038 U	0.033 U	0.66 U	0.029 U
Acetone	0.05	0.05	500	mg/kg	0.83 U	0.032	0.037 U	0.038 U	0.033 U	0.66 U	0.029 U
Bromodichloromethane	- -	- -	- -	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
Bromoform	- -	- -	- -	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
Bromomethane	- -	- -	- -	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
Carbon Disulfide	- -	- -	- -	mg/kg	0.17 UJ	0.0049 U	0.012	0.0077 U	0.0058 J	0.13 U	0.0078
Carbon Tetrachloride	0.76	0.76	22	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
Chlorobenzene	1.1	1.1	500	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
Chloroethane	- -	- -	- -	mg/kg	0.17 UJ	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
Chloroform	0.37	0.37	350	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
Chloromethane	- -	- -	- -	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
cis-1,3-Dichloropropene	- -	- -	- -	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
Cyclohexane	- -	- -	- -	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
Dibromochloromethane	- -	- -	- -	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
Dichlorodifluoromethane	- -	- -	- -	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
Methyl acetate	- -	- -	- -	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
Methylcyclohexane	- -	- -	- -	mg/kg	0.17 U	0.037	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
Methylene Chloride	0.05	0.05	500	mg/kg	0.17 UJ	0.0049 U	0.0075 U	0.0077 U	0.0099 B	0.13 U	0.049
Styrene	- -	- -	- -	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
Tetrachloroethene	1.3	1.3	150	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
Total VOCs	- -	- -	- -	mg/kg	ND	0.11 J	0.039	0.022	0.099 J	0.12 J	0.063 J
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
trans-1,3-Dichloropropene	- -	- -	- -	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
Trichloroethene	0.47	0.47	200	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
Trichlorofluoromethane	- -	- -	- -	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
Vinyl Chloride	0.02	0.02	13	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	***0.067 J***	0.0059 U

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	AMW-11 6 - 8 10 - 12 12/01/10 Shallow Sand Fill - Shallow	AMW-12A 2 - 2.5 6 - 6.5 02/21/13 Shallow Sand Fill - Shallow	ASB-1 23 - 25 - 06/07/16 Deep Sand Layer - D1 Unit	ASB-1 28 - 30 - 06/07/16 Deep Sand Layer - D1 Unit	ASB-2-SD 24 - 25 - 06/03/16 Deep Sand Layer - D1 Unit	ASB-2-SD 28 - 30 - 06/03/16 Deep Sand Layer - D1 Unit	ASB-3 20.5 - 21.5 - 06/08/16 Deep Sand Layer - D1 Unit
Semivolatile Organics											
Naphthalene	12	12	500	mg/kg	4.7	NA	0.24 U	NA	2.1 U	NA	NA
1,1'-Biphenyl	- -	- -	- -	mg/kg	0.50 J	NA	0.24 U	NA	2.1 UF1	NA	NA
2,2'-Oxybis(1-Chloropropane)	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 UF1	NA	NA
2,4,5-Trichlorophenol	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
2,4,6-Trichlorophenol	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
2,4-Dichlorophenol	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
2,4-Dimethylphenol	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
2,4-Dinitrophenol	- -	- -	- -	mg/kg	1.1 U	NA	2.3 U	NA	21 U	NA	NA
2,4-Dinitrotoluene	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
2,6-Dinitrotoluene	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
2-Chloronaphthalene	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
2-Chlorophenol	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
2-Methylnaphthalene	- -	- -	- -	mg/kg	2.3	NA	0.24 U	NA	2.1 U	NA	NA
2-Methylphenol	0.33	0.33	500	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
2-Nitroaniline	- -	- -	- -	mg/kg	1.1 U	NA	0.46 U	NA	4.1 U	NA	NA
2-Nitrophenol	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
3,3'-Dichlorobenzidine	- -	- -	- -	mg/kg	0.56 U	NA	0.46 U	NA	4.1 U	NA	NA
3-Nitroaniline	- -	- -	- -	mg/kg	1.1 U	NA	0.46 U	NA	4.1 U	NA	NA
4,6-Dinitro-2-methylphenol	- -	- -	- -	mg/kg	1.1 U	NA	0.46 U	NA	4.1 U	NA	NA
4-Bromophenyl-phenylether	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
4-Chloro-3-Methylphenol	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
4-Chloroaniline	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
4-Chlorophenyl-phenylether	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 UF2	NA	NA
4-Methylphenol	0.33	0.33	500	mg/kg	1.1 U	NA	0.46 U	NA	4.1 U	NA	NA
4-Nitroaniline	- -	- -	- -	mg/kg	1.1 U	NA	0.46 U	NA	4.1 U	NA	NA
4-Nitrophenol	- -	- -	- -	mg/kg	1.1 U	NA	0.46 U	NA	4.1 UF1	NA	NA
Acenaphthene	20	98	500	mg/kg	4.2	NA	0.24 U	NA	2.1 U	NA	NA
Acenaphthylene	100	107	500	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
Acetophenone	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
Anthracene	100	1,000	500	mg/kg	1.4	NA	0.24 U	NA	2.1 U	NA	NA
Atrazine	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
Benzaldehyde	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 UF1	NA	NA
Benzo(a)anthracene	1	1	5.6	mg/kg	0.54 J	NA	0.24 U	NA	2.1 U	NA	NA
Benzo(a)pyrene	1	22	1	mg/kg	0.20 J	NA	0.24 U	NA	2.1 U	NA	NA
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	0.28 J	NA	0.24 U	NA	2.1 UF2	NA	NA
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	0.094 J	NA	0.24 U	NA	2.1 U	NA	NA
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	0.086 J	NA	0.24 U	NA	2.1 U	NA	NA
bis(2-Chloroethoxy)methane	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 UF1F2	NA	NA
bis(2-Chloroethyl)ether	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	0.56 UB	NA	0.24 U	NA	2.1 U	NA	NA
Butylbenzylphthalate	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
Caprolactam	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
Carbazole	- -	- -	- -	mg/kg	1.6	NA	0.24 U	NA	2.1 U	NA	NA
Chrysene	1	1	56	mg/kg	0.46 J	NA	0.24 U	NA	2.1 U	NA	NA
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
Dibenzofuran	7	210	350	mg/kg	3.0	NA	0.24 U	NA	2.1 U	NA	NA
Diethylphthalate	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
Dimethylphthalate	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	AMW-11 6 - 8 10 - 12 12/01/10 Shallow Sand Fill - Shallow	AMW-12A 2 - 2.5 6 - 6.5 02/21/13 Shallow Sand Fill - Shallow	ASB-1 23 - 25 - 06/07/16 Deep Sand Layer - D1 Unit	ASB-1 28 - 30 - 06/07/16 Deep Sand Layer - D1 Unit	ASB-2-SD 24 - 25 - 06/03/16 Deep Sand Layer - D1 Unit	ASB-2-SD 28 - 30 - 06/03/16 Deep Sand Layer - D1 Unit	ASB-3 20.5 - 21.5 - 06/08/16 Deep Sand Layer - D1 Unit
Semivolatile Organics (Cont.)											
Di-n-Butylphthalate	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
Di-n-Octylphthalate	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
Fluoranthene	100	1,000	500	mg/kg	4.0	NA	0.24 U	NA	2.1 U	NA	NA
Fluorene	30	386	500	mg/kg	3.4	NA	0.24 U	NA	2.1 U	NA	NA
Hexachlorobenzene	0.33	3.2	6	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
Hexachlorobutadiene	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
Hexachlorocyclopentadiene	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
Hexachloroethane	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	0.074 J	NA	0.24 U	NA	2.1 U	NA	NA
Isophorone	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 UF2	NA	NA
Nitrobenzene	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
N-Nitroso-di-n-propylamine	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
N-Nitrosodiphenylamine	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 UF1	NA	NA
Pentachlorophenol	0.8	0.8	6.7	mg/kg	1.1 U	NA	0.46 U	NA	4.1 U	NA	NA
Phenanthrene	100	1,000	500	mg/kg	11	NA	0.24 U	NA	2.1 U	NA	NA
Phenol	0.33	0.33	500	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
Pyrene	100	1,000	500	mg/kg	2.6	NA	0.24 U	NA	2.1 U	NA	NA
Total SVOCs	- -	- -	- -	mg/kg	40 J	NA	ND	NA	ND	NA	NA
Inorganics											
Aluminum	- -	- -	- -	mg/kg	3,750 J	NA	2,810 F1	NA	3,130	NA	NA
Antimony	- -	- -	- -	mg/kg	25.1 U	NA	21.8 U	NA	18.8 U	NA	NA
Arsenic	13	16	16	mg/kg	8.40	NA	1.90 J	NA	0.950 J	NA	NA
Barium	350	820	400	mg/kg	32.7	NA	5.50	NA	10.1	NA	NA
Beryllium	7.2	47	590	mg/kg	0.254 J	NA	0.120 J	NA	0.0530 J	NA	NA
Cadmium	2.5	7.5	9.3	mg/kg	0.334 UBJ	NA	0.290 U	NA	0.250 U	NA	NA
Calcium	- -	- -	- -	mg/kg	1,500	NA	235	NA	286 B	NA	NA
Chromium	- -	- -	- -	mg/kg	17.2	NA	5.50	NA	6.30	NA	NA
Cobalt	- -	- -	- -	mg/kg	2.81	NA	0.930	NA	1.40	NA	NA
Copper	50	1,720	270	mg/kg	35.1 J	NA	2.60	NA	4.70	NA	NA
Ferrous Iron	- -	- -	- -	mg/kg	R	NA	NA	NA	NA	NA	NA
Iron	- -	- -	- -	mg/kg	15,500 J	NA	3,280 F1	NA	4,510	NA	NA
Lead	63	450	1,000	mg/kg	10.2 J	NA	2.60	NA	2.60	NA	NA
Magnesium	- -	- -	- -	mg/kg	1,330	NA	592	NA	878	NA	NA
Manganese	1,600	2,000	10,000	mg/kg	54.2 J	NA	28.5 BF1	NA	46.0	NA	NA
Mercury	0.18	0.73	2.8	mg/kg	0.0389	NA	0.0260 U	NA	0.0250 U	NA	NA
Nickel	30	130	310	mg/kg	5.83 J	NA	3.80 J	NA	4.20 J	NA	NA
Potassium	- -	- -	- -	mg/kg	801	NA	371	NA	595	NA	NA
Selenium	3.9	4	1,500	mg/kg	1.30 J	NA	0.940 JB	NA	5.00 U	NA	NA
Silver	2	8.3	1,500	mg/kg	0.835 U	NA	0.870 U	NA	0.750 U	NA	NA
Sodium	- -	- -	- -	mg/kg	406	NA	312	NA	325	NA	NA
Thallium	- -	- -	- -	mg/kg	10.0 U	NA	8.70 U	NA	7.50 U	NA	NA
Vanadium	- -	- -	- -	mg/kg	27.1	NA	7.30	NA	7.00	NA	NA
Zinc	109	2,480	10,000	mg/kg	19.7 J	NA	5.10	NA	7.60	NA	NA
Miscellaneous											
Sulfate	- -	- -	- -	mg/kg	2,600	NA	NA	NA	NA	NA	NA
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	4,430	NA	1,490 F2F1	NA	1,000 U	NA	NA

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	ASB-3 28 - 30 - 06/08/16 Deep Sand Layer - D1 Unit	ASB-4 24 - 25 - 06/06/16 Deep Sand Layer - D1 Unit	ASB-4 28 - 30 - 06/06/16 Deep Sand Layer - D1 Unit	ASB-5 20.5 - 21 - 06/02/16 Deep Sand Layer - D1 Unit	ASB-5 28 - 30 - 06/02/16 Deep Sand Layer - D1 Unit	ASB-6 26 - 28 - 06/13/16 Deep Sand Layer - D1 Unit	ASB-6 36 - 38 - 06/13/16 Deep Sand Layer - D1 Unit
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.00096 J*	0.0055 U*
Toluene	0.7	0.7	500	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.00054 J	0.00084 J	0.0055 U
Ethylbenzene	1	1	390	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.00051 J*	0.0055 U*
Xylenes (total)	0.26	1.6	500	mg/kg	0.012 U	0.012 U	0.29 U	0.25 U	0.012 U	0.011 U	0.011 U
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	0.018	0.0018 J	0.15 U	0.21	0.0049 J	0.057	0.00060 J
Isopropylbenzene	- -	- -	- -	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U*	0.0055 U*
1,1,1-Trichloroethane	0.68	0.68	500	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U	0.0055 U
1,1,2,2-Tetrachloroethane	- -	- -	- -	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U	0.0055 U
1,1,2-trichloro-1,2,2-trifluoroethane	- -	- -	- -	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U	0.0055 U
1,1,2-Trichloroethane	- -	- -	- -	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U	0.0055 U
1,1-Dichloroethane	0.27	0.27	240	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U	0.0055 U
1,1-Dichloroethene	0.33	0.33	500	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U	0.0055 U
1,2,4-Trichlorobenzene	- -	- -	- -	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U	0.0055 U
1,2-Dibromo-3-chloropropane	- -	- -	- -	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U	0.0055 U
1,2-Dibromoethane	- -	- -	- -	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U	0.0055 U
1,2-Dichlorobenzene	1.1	1.1	500	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U	0.0055 U
1,2-Dichloroethane	0.02	0.02	30	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U	0.0055 U
1,2-Dichloropropane	- -	- -	- -	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U	0.0055 U
1,3-Dichlorobenzene	2.4	2.4	280	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U	0.0055 U
1,4-Dichlorobenzene	1.8	1.8	130	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U	0.0055 U
2-Butanone	0.12	0.12	500	mg/kg	0.029 U	0.029 U	0.73 U	0.62 U	0.030 U	0.029 U	0.028 U
2-Hexanone	- -	- -	- -	mg/kg	0.029 U	0.029 U	0.73 U	0.62 U	0.030 U	0.029 U	0.028 U
4-Methyl-2-pentanone	- -	- -	- -	mg/kg	0.029 U	0.029 U	0.73 U	0.62 U	0.030 U	0.029 U	0.028 U
Acetone	0.05	0.05	500	mg/kg	0.029 U	0.029 U	0.73 U	0.62 U*	0.030 U	0.029 U	0.028 U
Bromodichloromethane	- -	- -	- -	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U	0.0055 U
Bromoform	- -	- -	- -	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U	0.0055 U
Bromomethane	- -	- -	- -	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U*	0.0055 U*
Carbon Disulfide	- -	- -	- -	mg/kg	0.0059 U	0.0029 J	0.15 U	0.12 U	0.0061 U	0.0057 U	0.0055 U
Carbon Tetrachloride	0.76	0.76	22	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U	0.0055 U
Chlorobenzene	1.1	1.1	500	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U*	0.0055 U*
Chloroethane	- -	- -	- -	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U*	0.0055 U*
Chloroform	0.37	0.37	350	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U	0.0055 U
Chloromethane	- -	- -	- -	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U*	0.0055 U*
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	0.027	0.0039 J	***0.96***	0.12 U	0.0017 J	0.0057 U*	0.0055 U*
cis-1,3-Dichloropropene	- -	- -	- -	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U*	0.0055 U*
Cyclohexane	- -	- -	- -	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U*	0.0055 U*
Dibromochloromethane	- -	- -	- -	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U	0.0055 U
Dichlorodifluoromethane	- -	- -	- -	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U*	0.0055 U*
Methyl acetate	- -	- -	- -	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U	0.0055 U
Methylcyclohexane	- -	- -	- -	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U	0.0055 U
Methylene Chloride	0.05	0.05	500	mg/kg	0.0048 J	0.0032 JB	***0.077 J***	0.12 U	0.0061 U	0.0057 U	0.0055 U
Styrene	- -	- -	- -	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U*	0.0055 U*
Tetrachloroethene	1.3	1.3	150	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U*	0.0055 U*
Total VOCs	- -	- -	- -	mg/kg	0.061 J	0.020 J	1.6 J	0.55	0.011 J	0.12 J	0.00060 J
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U*	0.0055 U*
trans-1,3-Dichloropropene	- -	- -	- -	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U	0.0055 U
Trichloroethene	0.47	0.47	200	mg/kg	0.010	0.0079	0.081 J	0.20	0.0061 U	0.0057 U	0.0055 U
Trichlorofluoromethane	- -	- -	- -	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U*	0.0055 U*
Vinyl Chloride	0.02	0.02	13	mg/kg	0.0013 J	0.0059 U	***0.45***	***0.14***	0.0040 J	***0.061 ****	0.0055 U*

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	ASB-3 28 - 30 - 06/08/16 Deep Sand Layer - D1 Unit	ASB-4 24 - 25 - 06/06/16 Deep Sand Layer - D1 Unit	ASB-4 28 - 30 - 06/06/16 Deep Sand Layer - D1 Unit	ASB-5 20.5 - 21 - 06/02/16 Deep Sand Layer - D1 Unit	ASB-5 28 - 30 - 06/02/16 Deep Sand Layer - D1 Unit	ASB-6 26 - 28 - 06/13/16 Deep Sand Layer - D1 Unit	ASB-6 36 - 38 - 06/13/16 Deep Sand Layer - D1 Unit
Semivolatile Organics											
Naphthalene	12	12	500	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
1,1'-Biphenyl	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
2,2'-Oxybis(1-Chloropropane)	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
2,4,5-Trichlorophenol	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
2,4,6-Trichlorophenol	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
2,4-Dichlorophenol	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
2,4-Dimethylphenol	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
2,4-Dinitrophenol	- -	- -	- -	mg/kg	2.0 U	2.0 U	NA	2.0 U	NA	1.9 U	NA
2,4-Dinitrotoluene	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
2,6-Dinitrotoluene	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
2-Chloronaphthalene	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
2-Chlorophenol	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
2-Methylnaphthalene	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
2-Methylphenol	0.33	0.33	500	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
2-Nitroaniline	- -	- -	- -	mg/kg	0.40 U	0.39 U	NA	0.40 U	NA	0.38 U	NA
2-Nitrophenol	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
3,3'-Dichlorobenzidine	- -	- -	- -	mg/kg	0.40 U	0.39 U	NA	0.40 U	NA	0.38 U	NA
3-Nitroaniline	- -	- -	- -	mg/kg	0.40 U	0.39 U	NA	0.40 U	NA	0.38 U	NA
4,6-Dinitro-2-methylphenol	- -	- -	- -	mg/kg	0.40 U	0.39 U	NA	0.40 U	NA	0.38 U	NA
4-Bromophenyl-phenylether	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
4-Chloro-3-Methylphenol	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
4-Chloroaniline	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
4-Chlorophenyl-phenylether	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
4-Methylphenol	0.33	0.33	500	mg/kg	0.40 U	0.39 U	NA	0.40 U	NA	0.38 U	NA
4-Nitroaniline	- -	- -	- -	mg/kg	0.40 U	0.39 U	NA	0.40 U	NA	0.38 U	NA
4-Nitrophenol	- -	- -	- -	mg/kg	0.40 U	0.39 U	NA	0.40 U*	NA	0.38 U	NA
Acenaphthene	20	98	500	mg/kg	0.21 U	0.051 J	NA	0.21 U	NA	0.20 U	NA
Acenaphthylene	100	107	500	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Acetophenone	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Anthracene	100	1,000	500	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Atrazine	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Benzaldehyde	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Benzo(a)anthracene	1	1	5.6	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Benzo(a)pyrene	1	22	1	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
bis(2-Chloroethoxy)methane	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
bis(2-Chloroethyl)ether	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Butylbenzylphthalate	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Caprolactam	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Carbazole	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Chrysene	1	1	56	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Dibenzofuran	7	210	350	mg/kg	0.21 U	0.044 J	NA	0.21 U	NA	0.20 U	NA
Diethylphthalate	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Dimethylphthalate	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA

See Notes on Page 34.

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Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	ASB-3 28 - 30 - 06/08/16 Deep Sand Layer - D1 Unit	ASB-4 24 - 25 - 06/06/16 Deep Sand Layer - D1 Unit	ASB-4 28 - 30 - 06/06/16 Deep Sand Layer - D1 Unit	ASB-5 20.5 - 21 - 06/02/16 Deep Sand Layer - D1 Unit	ASB-5 28 - 30 - 06/02/16 Deep Sand Layer - D1 Unit	ASB-6 26 - 28 - 06/13/16 Deep Sand Layer - D1 Unit	ASB-6 36 - 38 - 06/13/16 Deep Sand Layer - D1 Unit
Semivolatile Organics (Cont.)											
Di-n-Butylphthalate	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Di-n-Octylphthalate	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Fluoranthene	100	1,000	500	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Fluorene	30	386	500	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Hexachlorobenzene	0.33	3.2	6	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Hexachlorobutadiene	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Hexachlorocyclopentadiene	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Hexachloroethane	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Isophorone	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Nitrobenzene	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
N-Nitroso-di-n-propylamine	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
N-Nitrosodiphenylamine	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Pentachlorophenol	0.8	0.8	6.7	mg/kg	0.40 U	0.39 U	NA	0.40 U	NA	0.38 U	NA
Phenanthrene	100	1,000	500	mg/kg	0.21 U	0.12 J	NA	0.21 U	NA	0.20 U	NA
Phenol	0.33	0.33	500	mg/kg	0.21 U	0.20 U	NA	***0.58***	NA	0.20 U	NA
Pyrene	100	1,000	500	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Total SVOCs	- -	- -	- -	mg/kg	ND	0.22 J	NA	0.58	NA	ND	NA
Inorganics											
Aluminum	- -	- -	- -	mg/kg	1,610	NA	NA	5,540	NA	13,400	NA
Antimony	- -	- -	- -	mg/kg	17.8 U	NA	NA	17.9 U	NA	17.4 U	NA
Arsenic	13	16	16	mg/kg	1.10 J	NA	NA	1.00 J	NA	1.50 J	NA
Barium	350	820	400	mg/kg	8.50	NA	NA	4.70	NA	22.2	NA
Beryllium	7.2	47	590	mg/kg	0.0760 J	NA	NA	0.0420 J	NA	0.330	NA
Cadmium	2.5	7.5	9.3	mg/kg	0.240 U	NA	NA	0.240 U	NA	0.0560 J	NA
Calcium	- -	- -	- -	mg/kg	242	NA	NA	773 B	NA	295 B	NA
Chromium	- -	- -	- -	mg/kg	4.70	NA	NA	4.80	NA	18.8	NA
Cobalt	- -	- -	- -	mg/kg	1.10	NA	NA	0.350 J	NA	3.40	NA
Copper	50	1,720	270	mg/kg	2.20	NA	NA	1.20	NA	6.40	NA
Ferrous Iron	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Iron	- -	- -	- -	mg/kg	1,760	NA	NA	3,120	NA	6,590	NA
Lead	63	450	1,000	mg/kg	1.60	NA	NA	3.00	NA	3.60	NA
Magnesium	- -	- -	- -	mg/kg	512	NA	NA	671	NA	2,040 B	NA
Manganese	1,600	2,000	10,000	mg/kg	26.9 B	NA	NA	33.7	NA	68.8 B	NA
Mercury	0.18	0.73	2.8	mg/kg	0.0250 U	NA	NA	0.0230 U	NA	0.0220 U	NA
Nickel	30	130	310	mg/kg	3.60 J	NA	NA	1.90 J	NA	16.6	NA
Potassium	- -	- -	- -	mg/kg	430	NA	NA	310	NA	1,710	NA
Selenium	3.9	4	1,500	mg/kg	0.760 JB	NA	NA	4.80 U	NA	4.70 U	NA
Silver	2	8.3	1,500	mg/kg	0.710 U	NA	NA	0.720 U	NA	0.700 U	NA
Sodium	- -	- -	- -	mg/kg	211	NA	NA	1,070	NA	735 B	NA
Thallium	- -	- -	- -	mg/kg	7.10 U	NA	NA	7.20 U	NA	7.00 U	NA
Vanadium	- -	- -	- -	mg/kg	5.10	NA	NA	7.40	NA	15.2	NA
Zinc	109	2,480	10,000	mg/kg	6.90	NA	NA	2.80	NA	22.8	NA
Miscellaneous											
Sulfate	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	1,110	NA	NA	16,600	NA	1,710	NA

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	ASB-7 21 - 23 - 06/01/16 Deep Sand Layer - D1 Unit	ASB-7 30 - 32 - 06/01/16 Deep Sand Layer - D1 Unit	ASB-8 20 - 21 - 06/14/16 Deep Sand Layer - D1 Unit	ASB-8 26 - 28 - 06/14/16 Deep Sand Layer - D1 Unit	ASB-8 36 - 38 - 06/14/16 Deep Sand Layer - D1 Unit	MW-23-D2R 18 - 20 22 - 24 12/07/10 Deep Sand Layer - D2 Unit	MW-25-D3 21 - 23 25 - 27 12/09/10 Deep Sand Layer - D3 Unit
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	0.019	0.0048 U	0.00060 J	0.0059 U	0.0059 U	0.0060 U	0.0059 U
Toluene	0.7	0.7	500	mg/kg	0.018	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
Ethylbenzene	1	1	390	mg/kg	0.011	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 UJ	0.0059 U
Xylenes (total)	0.26	1.6	500	mg/kg	0.039	0.0096 U	0.011 U	0.012 U	0.012 U	0.012 U	0.012 U
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	0.052	0.0048 U	0.011	0.018	0.0059 U	0.0060 U	0.014
Isopropylbenzene	- -	- -	- -	mg/kg	0.0017 J	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
1,1,1-Trichloroethane	0.68	0.68	500	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
1,1,2,2-Tetrachloroethane	- -	- -	- -	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 UJ	0.0059 U
1,1,2-trichloro-1,2,2-trifluoroethane	- -	- -	- -	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
1,1,2-Trichloroethane	- -	- -	- -	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 UJ	0.0059 U
1,1-Dichloroethane	0.27	0.27	240	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
1,1-Dichloroethene	0.33	0.33	500	mg/kg	0.0016 J	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
1,2,4-Trichlorobenzene	- -	- -	- -	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 UJ	0.0059 U
1,2-Dibromo-3-chloropropane	- -	- -	- -	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 UJ	0.0059 U
1,2-Dibromoethane	- -	- -	- -	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
1,2-Dichlorobenzene	1.1	1.1	500	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 UJ	0.0059 U
1,2-Dichloroethane	0.02	0.02	30	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
1,2-Dichloropropane	- -	- -	- -	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
1,3-Dichlorobenzene	2.4	2.4	280	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 UJ	0.0059 U
1,4-Dichlorobenzene	1.8	1.8	130	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 UJ	0.0059 U
2-Butanone	0.12	0.12	500	mg/kg	0.027 U	0.024 U	0.028 U	0.030 U	0.030 U	0.030 UJ	0.029 U
2-Hexanone	- -	- -	- -	mg/kg	0.027 U	0.024 U	0.028 U	0.030 U	0.030 U	0.030 UJ	0.029 U
4-Methyl-2-pentanone	- -	- -	- -	mg/kg	0.027 U	0.024 U	0.028 U	0.030 U	0.030 U	0.030 UJ	0.029 U
Acetone	0.05	0.05	500	mg/kg	0.027 U	0.024 U	0.028 U	0.030 U	0.030 U	0.017 J	0.020 J
Bromodichloromethane	- -	- -	- -	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
Bromoform	- -	- -	- -	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 UJ	0.0059 U
Bromomethane	- -	- -	- -	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
Carbon Disulfide	- -	- -	- -	mg/kg	0.013	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.010
Carbon Tetrachloride	0.76	0.76	22	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
Chlorobenzene	1.1	1.1	500	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
Chloroethane	- -	- -	- -	mg/kg	0.0053 U*	0.0048 U*	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
Chloroform	0.37	0.37	350	mg/kg	0.0053 U	0.00047 J	0.0056 U	0.00045 JB	0.0059 U	0.0060 U	0.0059 U
Chloromethane	- -	- -	- -	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	***2.7***	0.0048 U	0.00079 J	0.0059 U	0.0059 U	0.0060 U	0.010
cis-1,3-Dichloropropene	- -	- -	- -	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
Cyclohexane	- -	- -	- -	mg/kg	0.0015 J	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
Dibromochloromethane	- -	- -	- -	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 UJ	0.0059 U
Dichlorodifluoromethane	- -	- -	- -	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
Methyl acetate	- -	- -	- -	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
Methylcyclohexane	- -	- -	- -	mg/kg	0.00096 J	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
Methylene Chloride	0.05	0.05	500	mg/kg	0.0053 U	0.0048 U	0.0028 JB	0.0065 B	0.0058 JB	0.019	***0.12 B***
Styrene	- -	- -	- -	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
Tetrachloroethene	1.3	1.3	150	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
Total VOCs	- -	- -	- -	mg/kg	3.5 J	0.00047 J	0.015 J	0.025 J	0.0058 J	0.036 J	0.18 J
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	0.019	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
trans-1,3-Dichloropropene	- -	- -	- -	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
Trichloroethene	0.47	0.47	200	mg/kg	0.016	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0031 J
Trichlorofluoromethane	- -	- -	- -	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
Vinyl Chloride	0.02	0.02	13	mg/kg	***0.58***	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0020 J

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Table 5
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Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	ASB-7 21 - 23 - 06/01/16 Deep Sand Layer - D1 Unit	ASB-7 30 - 32 - 06/01/16 Deep Sand Layer - D1 Unit	ASB-8 20 - 21 - 06/14/16 Deep Sand Layer - D1 Unit	ASB-8 26 - 28 - 06/14/16 Deep Sand Layer - D1 Unit	ASB-8 36 - 38 - 06/14/16 Deep Sand Layer - D1 Unit	MW-23-D2R 18 - 20 22 - 24 12/07/10 Deep Sand Layer - D2 Unit	MW-25-D3 21 - 23 25 - 27 12/09/10 Deep Sand Layer - D3 Unit
Semivolatile Organics											
Naphthalene	12	12	500	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
1,1'-Biphenyl	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
2,2'-Oxybis(1-Chloropropane)	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
2,4,5-Trichlorophenol	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
2,4,6-Trichlorophenol	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
2,4-Dichlorophenol	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
2,4-Dimethylphenol	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
2,4-Dinitrophenol	- -	- -	- -	mg/kg	NA	NA	NA	NA	1.9 U	0.39 U	0.39 U
2,4-Dinitrotoluene	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
2,6-Dinitrotoluene	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
2-Chloronaphthalene	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
2-Chlorophenol	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
2-Methylnaphthalene	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
2-Methylphenol	0.33	0.33	500	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
2-Nitroaniline	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.38 U	0.39 U	0.39 U
2-Nitrophenol	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
3,3'-Dichlorobenzidine	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.38 U	0.20 U	0.20 U
3-Nitroaniline	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.38 U	0.39 U	0.39 U
4,6-Dinitro-2-methylphenol	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.38 U	0.39 UJ	0.39 U
4-Bromophenyl-phenylether	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
4-Chloro-3-Methylphenol	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
4-Chloroaniline	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
4-Chlorophenyl-phenylether	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
4-Methylphenol	0.33	0.33	500	mg/kg	NA	NA	NA	NA	0.38 U	0.39 U	0.39 U
4-Nitroaniline	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.38 U	0.39 U	0.39 U
4-Nitrophenol	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.38 U	0.39 U	0.39 U
Acenaphthene	20	98	500	mg/kg	NA	NA	NA	NA	0.19 U	0.084 J	0.20 U
Acenaphthylene	100	107	500	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Acetophenone	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Anthracene	100	1,000	500	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Atrazine	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Benzaldehyde	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Benzo(a)anthracene	1	1	5.6	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Benzo(a)pyrene	1	22	1	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
bis(2-Chloroethoxy)methane	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
bis(2-Chloroethyl)ether	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.25 UB	0.49
Butylbenzylphthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Caprolactam	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Carbazole	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.078 J	0.20 U
Chrysene	1	1	56	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	NA	NA	NA	NA	0.19 U	0.20 UJ	0.20 U
Dibenzofuran	7	210	350	mg/kg	NA	NA	NA	NA	0.19 U	0.071 J	0.20 U
Diethylphthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Dimethylphthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U

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Remedial Investigation Report
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Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	ASB-7 21 - 23 - 06/01/16 Deep Sand Layer - D1 Unit	ASB-7 30 - 32 - 06/01/16 Deep Sand Layer - D1 Unit	ASB-8 20 - 21 - 06/14/16 Deep Sand Layer - D1 Unit	ASB-8 26 - 28 - 06/14/16 Deep Sand Layer - D1 Unit	ASB-8 36 - 38 - 06/14/16 Deep Sand Layer - D1 Unit	MW-23-D2R 18 - 20 22 - 24 12/07/10 Deep Sand Layer - D2 Unit	MW-25-D3 21 - 23 25 - 27 12/09/10 Deep Sand Layer - D3 Unit
Semivolatile Organics (Cont.)											
Di-n-Butylphthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Di-n-Octylphthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Fluoranthene	100	1,000	500	mg/kg	NA	NA	NA	NA	0.19 U	0.029 J	0.20 U
Fluorene	30	386	500	mg/kg	NA	NA	NA	NA	0.19 U	0.067 J	0.20 U
Hexachlorobenzene	0.33	3.2	6	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Hexachlorobutadiene	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Hexachlorocyclopentadiene	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Hexachloroethane	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Isophorone	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Nitrobenzene	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
N-Nitroso-di-n-propylamine	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
N-Nitrosodiphenylamine	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Pentachlorophenol	0.8	0.8	6.7	mg/kg	NA	NA	NA	NA	0.38 U	0.39 U	0.39 U
Phenanthrene	100	1,000	500	mg/kg	NA	NA	NA	NA	0.19 U	0.24	0.20 U
Phenol	0.33	0.33	500	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Pyrene	100	1,000	500	mg/kg	NA	NA	NA	NA	0.19 U	0.016 J	0.20 U
Total SVOCs	- -	- -	- -	mg/kg	NA	NA	NA	NA	ND	0.59 J	0.49
Inorganics											
Aluminum	- -	- -	- -	mg/kg	NA	NA	NA	NA	244	2,270	2,410
Antimony	- -	- -	- -	mg/kg	NA	NA	NA	NA	17.3 U	17.4 U	18.1 U
Arsenic	13	16	16	mg/kg	NA	NA	NA	NA	0.490 J	1.00 J	2.30 J
Barium	350	820	400	mg/kg	NA	NA	NA	NA	0.930	7.26	10.5
Beryllium	7.2	47	590	mg/kg	NA	NA	NA	NA	0.230 U	0.157 J	0.225 J
Cadmium	2.5	7.5	9.3	mg/kg	NA	NA	NA	NA	0.0350 J	0.232 U	0.0660 J
Calcium	- -	- -	- -	mg/kg	NA	NA	NA	NA	22.1 JB	526	553
Chromium	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.750	6.70	8.06
Cobalt	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.300 J	1.01	1.99
Copper	50	1,720	270	mg/kg	NA	NA	NA	NA	1.20 U	4.10	3.40
Ferrous Iron	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	0.900 J	2.40 UJ
Iron	- -	- -	- -	mg/kg	NA	NA	NA	NA	444	3,640	5,350
Lead	63	450	1,000	mg/kg	NA	NA	NA	NA	0.750 J	1.80 J	2.30
Magnesium	- -	- -	- -	mg/kg	NA	NA	NA	NA	29.3 B	641	928
Manganese	1,600	2,000	10,000	mg/kg	NA	NA	NA	NA	2.00 B	31.6	37.5
Mercury	0.18	0.73	2.8	mg/kg	NA	NA	NA	NA	0.0240 U	0.0235 U	0.0229 J
Nickel	30	130	310	mg/kg	NA	NA	NA	NA	0.430 J	3.31 J	4.37 J
Potassium	- -	- -	- -	mg/kg	NA	NA	NA	NA	52.0	387	607
Selenium	3.9	4	1,500	mg/kg	NA	NA	NA	NA	0.760 JB	4.60 U	4.80 U
Silver	2	8.3	1,500	mg/kg	NA	NA	NA	NA	0.690 U	0.581 U	0.604 U
Sodium	- -	- -	- -	mg/kg	NA	NA	NA	NA	161 U	205	752
Thallium	- -	- -	- -	mg/kg	NA	NA	NA	NA	6.90 U	7.00 U	7.20 U
Vanadium	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.750	5.91	10.7
Zinc	109	2,480	10,000	mg/kg	NA	NA	NA	NA	0.740 J	5.00	8.40
Miscellaneous											
Sulfate	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	320	400
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	NA	NA	NA	NA	1,950	1,210 U	1,220 U

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	MW-31-D1R 0 - 2 4 - 6 11/17/10 Shallow Sand Fill - Shallow	MW-31-D1R 2 - 4 6 - 8 11/17/10 Shallow Sand Fill - Shallow	MW-31-D1R 4 - 6 8 - 10 11/17/10 Shallow Sand Fill - Shallow	MW-31-D2R 2 - 4 6 - 8 11/17/10 Shallow Sand Fill - Shallow	MW-31-D2R 4 - 6 8 - 10 11/17/10 Shallow Sand Fill - Shallow	MW-31-D2R 6 - 8 10 - 12 11/17/10 Shallow Sand Fill - Shallow	MW-31-D2R 17 - 19 21 - 12/07/10 Deep Sand Layer - D1 Unit
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Toluene	0.7	0.7	500	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Ethylbenzene	1	1	390	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Xylenes (total)	0.26	1.6	500	mg/kg	0.010 U	0.0048 J	0.011 J	0.011 U	0.0046 J	0.0026 J	0.012 U
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Isopropylbenzene	- -	- -	- -	mg/kg	0.0052 U	0.0036 J	0.0057 J	0.0054 U	0.012 J	0.0045 J	0.0060 U
1,1,1-Trichloroethane	0.68	0.68	500	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
1,1,2,2-Tetrachloroethane	- -	- -	- -	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
1,1,2-trichloro-1,2,2-trifluoroethane	- -	- -	- -	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
1,1,2-Trichloroethane	- -	- -	- -	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
1,1-Dichloroethane	0.27	0.27	240	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
1,1-Dichloroethene	0.33	0.33	500	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
1,2,4-Trichlorobenzene	- -	- -	- -	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
1,2-Dibromo-3-chloropropane	- -	- -	- -	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
1,2-Dibromoethane	- -	- -	- -	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
1,2-Dichlorobenzene	1.1	1.1	500	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
1,2-Dichloroethane	0.02	0.02	30	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
1,2-Dichloropropane	- -	- -	- -	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
1,3-Dichlorobenzene	2.4	2.4	280	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
1,4-Dichlorobenzene	1.8	1.8	130	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
2-Butanone	0.12	0.12	500	mg/kg	0.026 U	0.031 U	0.030 U	0.027 U	0.031 U	0.027 U	0.030 U
2-Hexanone	- -	- -	- -	mg/kg	0.026 U	0.031 U	0.030 U	0.027 U	0.031 U	0.027 U	0.030 U
4-Methyl-2-pentanone	- -	- -	- -	mg/kg	0.026 U	0.031 U	0.030 U	0.027 U	0.031 U	0.027 U	0.030 U
Acetone	0.05	0.05	500	mg/kg	0.0049 J	0.013 J	0.017 J	0.027 U	0.017 J	0.014 J	0.020 J
Bromodichloromethane	- -	- -	- -	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Bromoform	- -	- -	- -	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Bromomethane	- -	- -	- -	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Carbon Disulfide	- -	- -	- -	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Carbon Tetrachloride	0.76	0.76	22	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Chlorobenzene	1.1	1.1	500	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Chloroethane	- -	- -	- -	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Chloroform	0.37	0.37	350	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Chloromethane	- -	- -	- -	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
cis-1,3-Dichloropropene	- -	- -	- -	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Cyclohexane	- -	- -	- -	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Dibromochloromethane	- -	- -	- -	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Dichlorodifluoromethane	- -	- -	- -	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Methyl acetate	- -	- -	- -	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Methylcyclohexane	- -	- -	- -	mg/kg	0.0052 U	0.011	0.015	0.0042 J	0.054 J	0.014	0.0019 J
Methylene Chloride	0.05	0.05	500	mg/kg	0.0080 J	0.031 UBJ	0.030 UBJ	0.025 UBJ	0.033 UBJ	0.022 UBJ	0.021
Styrene	- -	- -	- -	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Tetrachloroethene	1.3	1.3	150	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Total VOCs	- -	- -	- -	mg/kg	0.013 J	0.032 J	0.049 J	0.0042 J	0.088 J	0.035 J	0.043 J
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
trans-1,3-Dichloropropene	- -	- -	- -	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Trichloroethene	0.47	0.47	200	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Trichlorofluoromethane	- -	- -	- -	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Vinyl Chloride	0.02	0.02	13	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	MW-31-D1R 0 - 2 4 - 6 11/17/10 Shallow Sand Fill - Shallow	MW-31-D1R 2 - 4 6 - 8 11/17/10 Shallow Sand Fill - Shallow	MW-31-D1R 4 - 6 8 - 10 11/17/10 Shallow Sand Fill - Shallow	MW-31-D2R 2 - 4 6 - 8 11/17/10 Shallow Sand Fill - Shallow	MW-31-D2R 4 - 6 8 - 10 11/17/10 Shallow Sand Fill - Shallow	MW-31-D2R 6 - 8 10 - 12 11/17/10 Shallow Sand Fill - Shallow	MW-31-D2R 17 - 19 21 - 12/07/10 Deep Sand Layer - D1 Unit
Semivolatile Organics											
Naphthalene	12	12	500	mg/kg	0.18 U	0.21 U	0.036 J	0.37 U	0.21 U	1.9 U	0.21 U
1,1'-Biphenyl	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
2,2'-Oxybis(1-Chloropropane)	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
2,4,5-Trichlorophenol	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
2,4,6-Trichlorophenol	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
2,4-Dichlorophenol	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
2,4-Dimethylphenol	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
2,4-Dinitrophenol	- -	- -	- -	mg/kg	0.34 U	0.41 U	0.40 U	0.73 U	0.41 U	3.7 U	0.40 U
2,4-Dinitrotoluene	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
2,6-Dinitrotoluene	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
2-Chloronaphthalene	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
2-Chlorophenol	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
2-Methylnaphthalene	- -	- -	- -	mg/kg	0.18 U	0.057 J	0.049 J	0.13 J	0.29	1.9 U	0.21 U
2-Methylphenol	0.33	0.33	500	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
2-Nitroaniline	- -	- -	- -	mg/kg	0.34 U	0.41 U	0.40 U	0.73 U	0.41 U	3.7 U	0.40 U
2-Nitrophenol	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
3,3'-Dichlorobenzidine	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
3-Nitroaniline	- -	- -	- -	mg/kg	0.34 U	0.41 U	0.40 U	0.73 U	0.41 U	3.7 U	0.40 U
4,6-Dinitro-2-methylphenol	- -	- -	- -	mg/kg	0.34 U	0.41 U	0.40 U	0.73 U	0.41 U	3.7 U	0.40 U
4-Bromophenyl-phenylether	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
4-Chloro-3-Methylphenol	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
4-Chloroaniline	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
4-Chlorophenyl-phenylether	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
4-Methylphenol	0.33	0.33	500	mg/kg	0.34 U	0.41 U	0.40 U	0.73 U	0.41 U	3.7 U	0.40 U
4-Nitroaniline	- -	- -	- -	mg/kg	0.34 U	0.41 U	0.40 U	0.73 U	0.41 U	3.7 U	0.40 U
4-Nitrophenol	- -	- -	- -	mg/kg	0.34 U	0.41 U	0.40 U	0.73 U	0.41 U	3.7 U	0.40 U
Acenaphthene	20	98	500	mg/kg	0.18 U	0.066 J	0.085 J	0.29 J	0.41	0.19 J	0.046 J
Acenaphthylene	100	107	500	mg/kg	0.18 U	0.21 U	0.20 U	0.029 J	0.21 U	1.9 U	0.21 U
Acetophenone	- -	- -	- -	mg/kg	0.18 UJ	0.21 UJ	0.20 UJ	0.37 U	0.21 U	1.9 UJ	0.21 U
Anthracene	100	1,000	500	mg/kg	0.18 U	0.10 J	0.12 J	0.60	0.40	0.89 J	0.12 J
Atrazine	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
Benzaldehyde	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
Benzo(a)anthracene	1	1	5.6	mg/kg	0.18 U	0.13 J	0.14 J	***3.3***	0.64	***8.9***	0.25
Benzo(a)pyrene	1	22	1	mg/kg	0.18 U	0.095 J	0.094 J	*3.0*	0.61	*11*	0.19 J
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	0.014 J	0.10 J	0.11 J	***3.9***	0.74	***11***	0.21
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	0.18 U	0.040 J	0.037 J	1.2	0.22	6.3	0.13 J
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	0.18 U	0.038 J	0.035 J	*1.2*	0.26	***4.5***	0.061 J
bis(2-Chloroethoxy)methane	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
bis(2-Chloroethyl)ether	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.60	0.10 J	1.2 J	0.38 UB
Butylbenzylphthalate	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
Caprolactam	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
Carbazole	- -	- -	- -	mg/kg	0.18 U	0.017 J	0.045 J	0.050 J	0.044 J	1.9 U	0.072 J
Chrysene	1	1	56	mg/kg	0.18 U	0.094 J	0.096 J	***2.5***	0.50	***8.5***	0.19 J
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	0.18 U	0.21 U	0.20 U	0.27 J	0.053 J	*1.7 J*	0.029 J
Dibenzofuran	7	210	350	mg/kg	0.18 U	0.044 J	0.060 J	0.16 J	0.24	1.9 U	0.034 J
Diethylphthalate	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 UB
Dimethylphthalate	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U

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Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	MW-31-D1R 0 - 2 4 - 6 11/17/10 Shallow Sand Fill - Shallow	MW-31-D1R 2 - 4 6 - 8 11/17/10 Shallow Sand Fill - Shallow	MW-31-D1R 4 - 6 8 - 10 11/17/10 Shallow Sand Fill - Shallow	MW-31-D2R 2 - 4 6 - 8 11/17/10 Shallow Sand Fill - Shallow	MW-31-D2R 4 - 6 8 - 10 11/17/10 Shallow Sand Fill - Shallow	MW-31-D2R 6 - 8 10 - 12 11/17/10 Shallow Sand Fill - Shallow	MW-31-D2R 17 - 19 21 - 12/07/10 Deep Sand Layer - D1 Unit
Semivolatile Organics (Cont.)											
Di-n-Butylphthalate	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
Di-n-Octylphthalate	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
Fluoranthene	100	1,000	500	mg/kg	0.18 U	0.41	0.43	5.6	1.5	11	0.59
Fluorene	30	386	500	mg/kg	0.18 U	0.084 J	0.11 J	0.32 J	0.43	0.22 J	0.066 J
Hexachlorobenzene	0.33	3.2	6	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
Hexachlorobutadiene	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
Hexachlorocyclopentadiene	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
Hexachloroethane	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	0.18 U	0.037 J	0.035 J	*0.87*	0.16 J	*5.8*	0.091 J
Isophorone	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
Nitrobenzene	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
N-Nitroso-di-n-propylamine	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
N-Nitrosodiphenylamine	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
Pentachlorophenol	0.8	0.8	6.7	mg/kg	0.34 U	0.41 U	0.40 U	0.73 U	0.41 U	3.7 U	0.40 U
Phenanthrene	100	1,000	500	mg/kg	0.18 U	0.45	0.56	1.5	1.7	1.4 J	0.39
Phenol	0.33	0.33	500	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
Pyrene	100	1,000	500	mg/kg	0.18 U	0.34	0.36	4.6	1.2	12	0.53
Total SVOCs	- -	- -	- -	mg/kg	0.014 J	2.1 J	2.4 J	30 J	9.5 J	85 J	3.0 J
Inorganics											
Aluminum	- -	- -	- -	mg/kg	4,400 J	1,180 J	901 J	4,020 J	1,340 J	2,720 J	2,330
Antimony	- -	- -	- -	mg/kg	15.9 U	18.6 U	17.8 U	16.7 U	18.4 U	17.0 U	17.2 U
Arsenic	13	16	16	mg/kg	1.90 J	0.700 J	0.500 J	2.20	1.00 J	1.60 J	1.80 J
Barium	350	820	400	mg/kg	16.0 J	4.91 J	4.69 J	15.1 J	4.83 J	14.1 J	7.98
Beryllium	7.2	47	590	mg/kg	0.179 J	0.0530 J	0.0420 J	0.158 J	0.0420 J	0.130 J	0.181 J
Cadmium	2.5	7.5	9.3	mg/kg	0.100 J	0.0550 J	0.0490 J	0.120 J	0.0750 J	0.171 J	0.229 U
Calcium	- -	- -	- -	mg/kg	369 J	368 J	232 J	2,220 J	304 J	9,650 J	237
Chromium	- -	- -	- -	mg/kg	4.92	2.08	2.19	5.73	2.88	5.37	6.07
Cobalt	- -	- -	- -	mg/kg	2.61	0.641	0.388 J	2.33	0.667	1.49	0.797
Copper	50	1,720	270	mg/kg	5.10	1.50	1.10 J	6.10	1.60	4.90	1.60
Ferrous Iron	- -	- -	- -	mg/kg	R	R	R	R	R	R	1.40 J
Iron	- -	- -	- -	mg/kg	5,520 J	1,950 J	1,370 J	5,650 J	2,130 J	4,420 J	5,180
Lead	63	450	1,000	mg/kg	11.8	2.80	1.80	17.7	2.50	15.6	1.50 J
Magnesium	- -	- -	- -	mg/kg	777 J	334 J	281 J	920 J	370 J	2,450 J	691
Manganese	1,600	2,000	10,000	mg/kg	154 J	26.2 J	12.4 J	84.4 J	21.1 J	55.7 J	36.9
Mercury	0.18	0.73	2.8	mg/kg	0.0202	0.0237 U	0.0217 U	0.0377	0.0228 U	0.0119 J	0.0186 J
Nickel	30	130	310	mg/kg	4.71 J	1.59 J	1.17 J	4.44 J	1.90 J	3.88 J	1.97 J
Potassium	- -	- -	- -	mg/kg	382 J	220 J	226 J	510 J	247 J	324 J	392
Selenium	3.9	4	1,500	mg/kg	4.20 U	5.00 U	4.80 U	4.50 U	4.90 U	4.50 U	4.60 U
Silver	2	8.3	1,500	mg/kg	0.530 U	0.620 U	0.594 U	0.557 U	0.614 U	0.565 U	0.573 U
Sodium	- -	- -	- -	mg/kg	29.6 J	31.3 J	48.2 J	128 J	53.7 J	52.4 J	662
Thallium	- -	- -	- -	mg/kg	6.40 U	7.40 U	7.10 U	6.70 U	7.40 U	6.80 U	6.90 U
Vanadium	- -	- -	- -	mg/kg	7.37	2.91	2.69	7.66	3.78	6.16	7.85
Zinc	109	2,480	10,000	mg/kg	15.2	4.70	4.00	20.6	6.60	21.0	5.20
Miscellaneous											
Sulfate	- -	- -	- -	mg/kg	84 J	98 J	100 J	110 U	130	110 U	400
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	2,780	2,090	2,320	1,780	3,760	5,630	1,260 U

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	P-18R 0 - 2 4 - 6 12/02/10 Shallow Sand Fill - Shallow	P-18R 4 - 6 8 - 10 12/02/10 Shallow Sand Fill - Shallow	P-18R 6 - 8 10 - 12 12/02/10 Shallow Sand Fill - Shallow	TP-1-1 4 8 11/29/10 Shallow Sand Fill - Shallow	TP-1-2 3 7 11/30/10 Shallow Sand Fill - Shallow	TP-1-3 3.5 7.5 11/30/10 Shallow Sand Fill - Shallow	TP-2-1 5.5 9.5 11/30/10 Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	0.0056 U	0.0056 J	0.011	0.0059 U	0.0054 U	0.0057 U	0.0062 U
Toluene	0.7	0.7	500	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0014 J	0.0054 U	0.0057 U	0.0019 J
Ethylbenzene	1	1	390	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0016 J
Xylenes (total)	0.26	1.6	500	mg/kg	0.011 U	0.0022 J	0.0025 J	0.011 J	0.011 U	0.011 U	0.0095 J
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
Isopropylbenzene	- -	- -	- -	mg/kg	0.0056 U	0.0058 J	0.0072	0.0059 U	0.0054 U	0.0057 U	0.0062 U
1,1,1-Trichloroethane	0.68	0.68	500	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
1,1,2,2-Tetrachloroethane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
1,1,2-trichloro-1,2,2-trifluoroethane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
1,1,2-Trichloroethane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
1,1-Dichloroethane	0.27	0.27	240	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
1,1-Dichloroethene	0.33	0.33	500	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
1,2,4-Trichlorobenzene	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
1,2-Dibromo-3-chloropropane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
1,2-Dibromoethane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
1,2-Dichlorobenzene	1.1	1.1	500	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
1,2-Dichloroethane	0.02	0.02	30	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
1,2-Dichloropropane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
1,3-Dichlorobenzene	2.4	2.4	280	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
1,4-Dichlorobenzene	1.8	1.8	130	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
2-Butanone	0.12	0.12	500	mg/kg	0.028 U	0.031 U	0.031 U	0.030 U	0.027 U	0.029 U	0.0049 J
2-Hexanone	- -	- -	- -	mg/kg	0.028 U	0.031 U	0.031 U	0.030 U	0.027 U	0.029 U	0.031 U
4-Methyl-2-pentanone	- -	- -	- -	mg/kg	0.028 U	0.031 U	0.031 U	0.030 U	0.027 U	0.029 U	0.031 U
Acetone	0.05	0.05	500	mg/kg	0.028 U	0.038	0.030 J	0.018 J	0.020 J	0.015 J	0.035
Bromodichloromethane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
Bromoform	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
Bromomethane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
Carbon Disulfide	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0048 J
Carbon Tetrachloride	0.76	0.76	22	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
Chlorobenzene	1.1	1.1	500	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
Chloroethane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 UJ	0.0054 UJ	0.0057 UJ	0.0062 UJ
Chloroform	0.37	0.37	350	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
Chloromethane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
cis-1,3-Dichloropropene	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
Cyclohexane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
Dibromochloromethane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
Dichlorodifluoromethane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 UJ	0.0054 UJ	0.0057 UJ	0.0062 UJ
Methyl acetate	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
Methylcyclohexane	- -	- -	- -	mg/kg	0.0056 U	0.0065	0.0071	0.0059 U	0.0054 U	0.0057 U	0.0062 U
Methylene Chloride	0.05	0.05	500	mg/kg	0.0077 UB	0.013 UB	0.022	0.0085	0.0097	0.011	0.012
Styrene	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
Tetrachloroethene	1.3	1.3	150	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
Total VOCs	- -	- -	- -	mg/kg	ND	0.058 J	0.080 J	0.039 J	0.030 J	0.026 J	0.070 J
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
trans-1,3-Dichloropropene	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
Trichloroethene	0.47	0.47	200	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
Trichlorofluoromethane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
Vinyl Chloride	0.02	0.02	13	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	P-18R 0 - 2 4 - 6 12/02/10 Shallow Sand Fill - Shallow	P-18R 4 - 6 8 - 10 12/02/10 Shallow Sand Fill - Shallow	P-18R 6 - 8 10 - 12 12/02/10 Shallow Sand Fill - Shallow	TP-1-1 4 8 11/29/10 Shallow Sand Fill - Shallow	TP-1-2 3 7 11/30/10 Shallow Sand Fill - Shallow	TP-1-3 3.5 7.5 11/30/10 Shallow Sand Fill - Shallow	TP-2-1 5.5 9.5 11/30/10 Shallow Sand Fill - Shallow
Semivolatile Organics											
Naphthalene	12	12	500	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
1,1'-Biphenyl	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
2,2'-Oxybis(1-Chloropropane)	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
2,4,5-Trichlorophenol	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
2,4,6-Trichlorophenol	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
2,4-Dichlorophenol	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
2,4-Dimethylphenol	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
2,4-Dinitrophenol	- -	- -	- -	mg/kg	R	0.40 U	0.41 U	0.40 U	0.36 U	0.39 U	0.41 U
2,4-Dinitrotoluene	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
2,6-Dinitrotoluene	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
2-Chloronaphthalene	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
2-Chlorophenol	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
2-Methylnaphthalene	- -	- -	- -	mg/kg	0.96 U	0.031 J	0.033 J	0.031 J	0.19 U	0.20 U	0.21 U
2-Methylphenol	0.33	0.33	500	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
2-Nitroaniline	- -	- -	- -	mg/kg	1.9 U	0.40 U	0.41 U	0.40 U	0.36 U	0.39 U	0.41 U
2-Nitrophenol	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
3,3'-Dichlorobenzidine	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
3-Nitroaniline	- -	- -	- -	mg/kg	1.9 U	0.40 U	0.41 U	0.40 U	0.36 U	0.39 U	0.41 U
4,6-Dinitro-2-methylphenol	- -	- -	- -	mg/kg	1.9 U	0.40 U	0.41 U	0.40 U	0.36 U	0.39 U	0.41 U
4-Bromophenyl-phenylether	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
4-Chloro-3-Methylphenol	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
4-Chloroaniline	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
4-Chlorophenyl-phenylether	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
4-Methylphenol	0.33	0.33	500	mg/kg	1.9 U	0.40 U	0.41 U	0.40 U	0.36 U	0.39 U	0.41 U
4-Nitroaniline	- -	- -	- -	mg/kg	1.9 U	0.40 U	0.41 U	0.40 U	0.36 U	0.39 U	0.41 U
4-Nitrophenol	- -	- -	- -	mg/kg	1.9 U	0.40 U	0.41 U	0.40 U	0.36 U	0.39 U	0.41 U
Acenaphthene	20	98	500	mg/kg	7.1 J	0.092 J	0.15 J	0.018 J	0.19 U	0.20 U	0.21 U
Acenaphthylene	100	107	500	mg/kg	0.20 J	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Acetophenone	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Anthracene	100	1,000	500	mg/kg	0.76 J	0.022 J	0.038 J	0.060 J	0.19 U	0.20 U	0.21 U
Atrazine	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Benzaldehyde	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Benzo(a)anthracene	1	1	5.6	mg/kg	***2.0***	0.038 J	0.063 J	0.20	0.19 U	0.20 U	0.21 U
Benzo(a)pyrene	1	22	1	mg/kg	0.58 J	0.027 J	0.039 J	0.19 J	0.19 U	0.20 U	0.21 U
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	0.90 J	0.034 J	0.050 J	0.22	0.19 U	0.20 U	0.21 U
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	0.17 J	0.022 J	0.024 J	0.15 J	0.19 U	0.20 U	0.21 U
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	0.34 J	0.21 U	0.21 U	0.085 J	0.19 U	0.20 U	0.21 U
bis(2-Chloroethoxy)methane	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
bis(2-Chloroethyl)ether	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Butylbenzylphthalate	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Caprolactam	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Carbazole	- -	- -	- -	mg/kg	0.082 J	0.21 U	0.21 U	0.032 J	0.19 U	0.20 U	0.21 U
Chrysene	1	1	56	mg/kg	***1.8***	0.040 J	0.065 J	0.19 J	0.19 U	0.20 U	0.21 U
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	0.96 U	0.21 U	0.21 U	0.029 J	0.19 U	0.20 U	0.21 U
Dibenzofuran	7	210	350	mg/kg	0.53 J	0.031 J	0.039 J	0.20 U	0.19 U	0.20 U	0.21 U
Diethylphthalate	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Dimethylphthalate	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U

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Semivolatile Organics (Cont.)											
Di-n-Butylphthalate	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Di-n-Octylphthalate	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Fluoranthene	100	1,000	500	mg/kg	16	0.14 J	0.30	0.48	0.19 U	0.20 U	0.019 J
Fluorene	30	386	500	mg/kg	1.6 J	0.081 J	0.099 J	0.026 J	0.19 U	0.20 U	0.21 U
Hexachlorobenzene	0.33	3.2	6	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Hexachlorobutadiene	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Hexachlorocyclopentadiene	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Hexachloroethane	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	0.17 J	0.21 U	0.21 U	0.12 J	0.19 U	0.20 U	0.21 U
Isophorone	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Nitrobenzene	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
N-Nitroso-di-n-propylamine	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
N-Nitrosodiphenylamine	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Pentachlorophenol	0.8	0.8	6.7	mg/kg	1.9 U	0.40 U	0.41 U	0.40 U	0.36 U	0.39 U	0.41 U
Phenanthrene	100	1,000	500	mg/kg	3.8 J	0.15 J	0.26	0.29	0.19 U	0.20 U	0.024 J
Phenol	0.33	0.33	500	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.11 J
Pyrene	100	1,000	500	mg/kg	13	0.13 J	0.28	0.36	0.19 U	0.20 U	0.21 U
Total SVOCs	- -	- -	- -	mg/kg	49 J	0.84 J	1.4 J	2.5 J	ND	ND	0.15 J
Inorganics											
Aluminum	- -	- -	- -	mg/kg	7,410 J	505 J	1,770 J	1,830 J	2,370 J	1,250 J	1,320 J
Antimony	- -	- -	- -	mg/kg	16.9 UJ	17.9 UJ	17.6 UJ	17.5 U	16.4 U	17.6 U	18.5 U
Arsenic	13	16	16	mg/kg	3.80 J	2.40 UJ	0.900 J	1.40 J	1.50 J	2.30 UJ	1.30 J
Barium	350	820	400	mg/kg	21.7	2.37	8.06	18.4	9.88	6.17	10.1
Beryllium	7.2	47	590	mg/kg	0.299 J	0.238 UJ	0.0890 J	0.0580 J	0.104 J	0.234 U	0.246 U
Cadmium	2.5	7.5	9.3	mg/kg	0.123 J	0.238 U	0.0450 J	0.250 J	0.218 UBJ	0.234 UBJ	0.246 UBJ
Calcium	- -	- -	- -	mg/kg	2,080 J	91.1 J	455 J	5,090	1,440 B	687	306
Chromium	- -	- -	- -	mg/kg	8.36	0.961	3.62	4.59	6.17	3.51	3.69
Cobalt	- -	- -	- -	mg/kg	3.45	0.329 J	0.671	0.927	1.32	0.491 J	0.825
Copper	50	1,720	270	mg/kg	7.30	0.600 J	2.30	3.50	3.30	1.40	5.90
Ferrous Iron	- -	- -	- -	mg/kg	2.60 J	1.80 J	2.50 J	R	R	R	R
Iron	- -	- -	- -	mg/kg	9,100 J	805 J	3,130 J	3,540	4,430	2,380	3,240
Lead	63	450	1,000	mg/kg	28.5	1.30	8.90	12.0 J	3.80 J	1.60 J	2.10 J
Magnesium	- -	- -	- -	mg/kg	2,060 J	132 J	567 J	709	752	422	441
Manganese	1,600	2,000	10,000	mg/kg	138 J	7.50 J	27.1 J	40.4 J	26.0 J	15.2 J	27.5 J
Mercury	0.18	0.73	2.8	mg/kg	0.0269	0.0250 U	0.0239 U	0.0234 U	0.0218 U	0.0227 U	0.0119 J
Nickel	30	130	310	mg/kg	6.33	0.616 J	1.86 J	2.56 J	3.77 J	1.63 J	2.00 J
Potassium	- -	- -	- -	mg/kg	347	94.4	258	504	516	352	355
Selenium	3.9	4	1,500	mg/kg	4.50 U	4.80 U	4.70 U	4.70 U	4.40 U	4.70 U	4.90 U
Silver	2	8.3	1,500	mg/kg	0.563 U	0.596 U	0.586 U	0.585 U	0.546 U	0.586 U	0.616 U
Sodium	- -	- -	- -	mg/kg	49.9 J	16.8 J	35.0 J	87.6 J	58.2 J	38.8 J	65.0 J
Thallium	- -	- -	- -	mg/kg	6.80 U	7.10 U	7.00 U	7.00 U	6.60 U	7.00 U	7.40 U
Vanadium	- -	- -	- -	mg/kg	12.7	1.16	4.58	5.77	7.31	4.28	3.92
Zinc	109	2,480	10,000	mg/kg	22.1	1.60 J	8.10	32.6 J	10.5 J	4.90 J	6.10 J
Miscellaneous											
Sulfate	- -	- -	- -	mg/kg	87 J	67 J	140	850	480	270	310
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	3,800	2,420	5,560	3,800	1,320 U	1,200 U	1,250 U

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	TP-2-2 5.5 9.5 11/30/10 Shallow Sand Fill - Shallow	TP-3-1 5 9 12/01/10 Shallow Sand Fill - Shallow	TP-3-2 6.8 10.8 12/01/10 Shallow Sand Fill - Shallow	TP-3-3 6.5 10.5 12/01/10 Shallow Sand Fill - Shallow	TP-4-B-1 1.5 5.5 12/02/10 Shallow Sand Fill - Shallow	TP-4-D-1 7 11 12/02/10 Shallow Sand Fill - Shallow	TP-4-F-1 4 8 12/02/10 Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
Toluene	0.7	0.7	500	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
Ethylbenzene	1	1	390	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
Xylenes (total)	0.26	1.6	500	mg/kg	0.0014 J	0.015 U	0.014 U	0.015 U	0.011 U	0.011 U	0.012 U
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
Isopropylbenzene	--	--	--	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
1,1,1-Trichloroethane	0.68	0.68	500	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
1,1,2,2-Tetrachloroethane	--	--	--	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
1,1,2-trichloro-1,2,2-trifluoroethane	--	--	--	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
1,1,2-Trichloroethane	--	--	--	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
1,1-Dichloroethane	0.27	0.27	240	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
1,1-Dichloroethene	0.33	0.33	500	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
1,2,4-Trichlorobenzene	--	--	--	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 UJ	0.0055 U	0.0053 U	0.0059 U
1,2-Dibromo-3-chloropropane	--	--	--	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 UJ	0.0055 UJ	0.0053 UJ	0.0059 UJ
1,2-Dibromoethane	--	--	--	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 UJ	0.0055 U	0.0053 U	0.0059 U
1,2-Dichlorobenzene	1.1	1.1	500	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
1,2-Dichloroethane	0.02	0.02	30	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
1,2-Dichloropropane	--	--	--	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
1,3-Dichlorobenzene	2.4	2.4	280	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
1,4-Dichlorobenzene	1.8	1.8	130	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
2-Butanone	0.12	0.12	500	mg/kg	0.032 U	0.036 U	0.035 U	0.036 UJ	0.028 U	0.026 U	0.029 U
2-Hexanone	--	--	--	mg/kg	0.032 U	0.036 U	0.035 U	0.036 UJ	0.028 U	0.026 U	0.029 U
4-Methyl-2-pentanone	--	--	--	mg/kg	0.032 U	0.036 U	0.035 U	0.036 UJ	0.028 U	0.026 U	0.029 U
Acetone	0.05	0.05	500	mg/kg	0.015 J	0.032 J	0.026 J	0.017 J	0.0062 J	0.0067 J	0.022 J
Bromodichloromethane	--	--	--	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
Bromoform	--	--	--	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 UJ	0.0055 U	0.0053 U	0.0059 U
Bromomethane	--	--	--	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
Carbon Disulfide	--	--	--	mg/kg	0.0064 U	0.0073 U	0.0057 J	0.0073 U	0.0055 U	0.0053 U	0.0034 J
Carbon Tetrachloride	0.76	0.76	22	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
Chlorobenzene	1.1	1.1	500	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
Chloroethane	--	--	--	mg/kg	0.0064 UJ	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
Chloroform	0.37	0.37	350	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
Chloromethane	--	--	--	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
cis-1,3-Dichloropropene	--	--	--	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
Cyclohexane	--	--	--	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
Dibromochloromethane	--	--	--	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
Dichlorodifluoromethane	--	--	--	mg/kg	0.0064 UJ	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
Methyl acetate	--	--	--	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
Methylcyclohexane	--	--	--	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0013 J
Methylene Chloride	0.05	0.05	500	mg/kg	0.013	0.0094	0.012	0.0082	0.013	0.0097	0.017
Styrene	--	--	--	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
Tetrachloroethene	1.3	1.3	150	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
Total VOCs	--	--	--	mg/kg	0.029 J	0.041 J	0.044 J	0.025 J	0.019 J	0.016 J	0.044 J
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
trans-1,3-Dichloropropene	--	--	--	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
Trichloroethene	0.47	0.47	200	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
Trichlorofluoromethane	--	--	--	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
Vinyl Chloride	0.02	0.02	13	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:					TP-2-2	TP-3-1	TP-3-2	TP-3-3	TP-4-B-1	TP-4-D-1	TP-4-F-1
Historical Sample Depth(feet):					5.5	5	6.8	6.5	1.5	7	4
Current Estimated Sample Depth (feet)					9.5	9	10.8	10.5	5.5	11	8
Date Collected:					11/30/10	12/01/10	12/01/10	12/01/10	12/02/10	12/02/10	12/02/10
Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow
Semivolatile Organics											
Naphthalene	12	12	500	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
1,1'-Biphenyl	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
2,2'-Oxybis(1-Chloropropane)	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
2,4,5-Trichlorophenol	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
2,4,6-Trichlorophenol	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
2,4-Dichlorophenol	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
2,4-Dimethylphenol	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
2,4-Dinitrophenol	- -	- -	- -	mg/kg	0.43 U	0.47 U	0.47 U	0.49 U	0.36 U	0.34 U	0.38 U
2,4-Dinitrotoluene	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
2,6-Dinitrotoluene	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
2-Chloronaphthalene	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
2-Chlorophenol	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
2-Methylnaphthalene	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
2-Methylphenol	0.33	0.33	500	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
2-Nitroaniline	- -	- -	- -	mg/kg	0.43 U	0.47 U	0.47 U	0.49 U	0.36 U	0.34 U	0.38 U
2-Nitrophenol	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
3,3'-Dichlorobenzidine	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
3-Nitroaniline	- -	- -	- -	mg/kg	0.43 U	0.47 U	0.47 U	0.49 U	0.36 U	0.34 U	0.38 U
4,6-Dinitro-2-methylphenol	- -	- -	- -	mg/kg	0.43 U	0.47 U	0.47 U	0.49 U	0.36 U	0.34 U	0.38 U
4-Bromophenyl-phenylether	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
4-Chloro-3-Methylphenol	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
4-Chloroaniline	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
4-Chlorophenyl-phenylether	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
4-Methylphenol	0.33	0.33	500	mg/kg	0.43 U	0.47 U	0.47 U	0.49 U	0.36 U	0.34 U	0.38 U
4-Nitroaniline	- -	- -	- -	mg/kg	0.43 U	0.47 U	0.47 U	0.49 U	0.36 U	0.34 U	0.38 U
4-Nitrophenol	- -	- -	- -	mg/kg	0.43 U	0.47 U	0.47 U	0.49 U	0.36 U	0.34 U	0.38 U
Acenaphthene	20	98	500	mg/kg	0.22 U	0.11 J	0.24 U	0.25 U	0.057 J	0.18 U	0.20 U
Acenaphthylene	100	107	500	mg/kg	0.22 U	0.022 J	0.24 U	0.25 U	0.031 J	0.18 U	0.20 U
Acetophenone	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Anthracene	100	1,000	500	mg/kg	0.22 U	0.040 J	0.24 U	0.25 U	0.10 J	0.18 U	0.20 U
Atrazine	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Benzaldehyde	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Benzo(a)anthracene	1	1	5.6	mg/kg	0.22 U	0.16 J	0.24 U	0.25 U	0.34	0.18 U	0.20 U
Benzo(a)pyrene	1	22	1	mg/kg	0.22 U	0.16 J	0.24 U	0.25 U	0.41	0.18 U	0.20 U
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	0.22 U	0.17 J	0.24 U	0.25 U	0.50	0.18 U	0.20 U
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	0.22 U	0.11 J	0.24 U	0.25 U	0.24	0.18 U	0.20 U
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	0.22 U	0.055 J	0.24 U	0.25 U	0.17 J	0.18 U	0.20 U
bis(2-Chloroethoxy)methane	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
bis(2-Chloroethyl)ether	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	0.22 U	0.24 UB	0.24 UB	0.25 UB	0.21 UB	0.18 UB	0.20 UB
Butylbenzylphthalate	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Caprolactam	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Carbazole	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.042 J	0.18 U	0.20 U
Chrysene	1	1	56	mg/kg	0.22 U	0.15 J	0.24 U	0.25 U	0.35	0.18 U	0.20 U
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Dibenzofuran	7	210	350	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Diethylphthalate	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Dimethylphthalate	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	TP-2-2 5.5 9.5 11/30/10 Shallow Sand Fill - Shallow	TP-3-1 5 9 12/01/10 Shallow Sand Fill - Shallow	TP-3-2 6.8 10.8 12/01/10 Shallow Sand Fill - Shallow	TP-3-3 6.5 10.5 12/01/10 Shallow Sand Fill - Shallow	TP-4-B-1 1.5 5.5 12/02/10 Shallow Sand Fill - Shallow	TP-4-D-1 7 11 12/02/10 Shallow Sand Fill - Shallow	TP-4-F-1 4 8 12/02/10 Shallow Sand Fill - Shallow
Semivolatile Organics (Cont.)											
Di-n-Butylphthalate	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Di-n-Octylphthalate	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Fluoranthene	100	1,000	500	mg/kg	0.22 U	0.21 J	0.24 U	0.25 U	0.71	0.18 U	0.20 U
Fluorene	30	386	500	mg/kg	0.22 U	0.15 J	0.24 U	0.25 U	0.031 J	0.18 U	0.20 U
Hexachlorobenzene	0.33	3.2	6	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Hexachlorobutadiene	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Hexachlorocyclopentadiene	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Hexachloroethane	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	0.22 U	0.083 J	0.24 U	0.25 U	0.21	0.18 U	0.20 U
Isophorone	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Nitrobenzene	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
N-Nitroso-di-n-propylamine	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
N-Nitrosodiphenylamine	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Pentachlorophenol	0.8	0.8	6.7	mg/kg	0.43 U	0.47 U	0.47 U	0.49 U	0.36 U	0.34 U	0.38 U
Phenanthrene	100	1,000	500	mg/kg	0.22 U	0.049 J	0.24 U	0.25 U	0.29	0.037 J	0.019 J
Phenol	0.33	0.33	500	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Pyrene	100	1,000	500	mg/kg	0.22 U	0.23 J	0.24 U	0.25 U	0.70	0.18 U	0.20 U
Total SVOCs	- -	- -	- -	mg/kg	ND	1.7 J	ND	ND	4.2 J	0.037 J	0.019 J
Inorganics											
Aluminum	- -	- -	- -	mg/kg	927 J	2,710 J	11,000 J	1,600 J	3,710 J	404 J	745 J
Antimony	- -	- -	- -	mg/kg	18.9 U	21.7 U	20.6 U	22.5 U	15.9 UJ	14.7 UJ	17.2 UJ
Arsenic	13	16	16	mg/kg	2.50 UJ	1.50 J	10.1	1.00 J	4.10 J	0.400 J	2.30 UJ
Barium	350	820	400	mg/kg	8.32	15.9	25.2	8.27	17.6	1.28	2.18
Beryllium	7.2	47	590	mg/kg	0.252 U	0.124 J	0.513	0.0510 J	0.278 J	0.195 U	0.229 UJ
Cadmium	2.5	7.5	9.3	mg/kg	0.252 UBJ	0.289 UBJ	0.314 J	0.300 UBJ	0.284	0.0300 J	0.229 U
Calcium	- -	- -	- -	mg/kg	464	983	1,630	426	4,140 J	65.8 J	165 J
Chromium	- -	- -	- -	mg/kg	2.14	6.76	28.5	3.59	7.72	0.701	1.26
Cobalt	- -	- -	- -	mg/kg	0.331 J	1.54	5.86	1.14	2.42	0.142 J	0.468 J
Copper	50	1,720	270	mg/kg	0.700 J	3.60 J	12.5 J	2.60 J	14.2	0.600 J	1.10
Ferrous Iron	- -	- -	- -	mg/kg	R	R	R	R	1.90 J	1.40 J	R
Iron	- -	- -	- -	mg/kg	1,170	5,200 J	22,200 J	2,770 J	6,560 J	764 J	1,070 J
Lead	63	450	1,000	mg/kg	1.10 J	3.00 J	11.4 J	1.80 J	28.7	0.600 J	1.90
Magnesium	- -	- -	- -	mg/kg	269	1,040	4,380	632	2,230 J	56.2 J	122 J
Manganese	1,600	2,000	10,000	mg/kg	11.1 J	44.4 J	192 J	25.6 J	77.9 J	3.80 J	7.60 J
Mercury	0.18	0.73	2.8	mg/kg	0.0250 U	0.0270 U	0.0166 J	0.0273 U	*0.606*	0.0198 U	0.0226 U
Nickel	30	130	310	mg/kg	1.20 J	4.38 J	18.0	3.04 J	5.97	0.531 J	1.20 J
Potassium	- -	- -	- -	mg/kg	225	751	2,290	479	456	59.5	115
Selenium	3.9	4	1,500	mg/kg	5.00 U	5.80 U	0.800 J	6.00 U	4.20 U	3.90 U	4.60 U
Silver	2	8.3	1,500	mg/kg	0.629 U	0.722 U	0.688 U	0.751 U	*3.32*	0.489 U	0.574 U
Sodium	- -	- -	- -	mg/kg	39.2 J	117 J	1,150	161 J	121 J	15.6 J	19.2 J
Thallium	- -	- -	- -	mg/kg	7.60 U	8.70 U	8.30 U	9.00 U	6.40 U	5.90 U	6.90 U
Vanadium	- -	- -	- -	mg/kg	2.15	9.50	35.7	4.39	11.1	0.704	1.33
Zinc	109	2,480	10,000	mg/kg	3.70 J	12.5 J	43.6 J	7.20 J	62.8	1.40 J	2.10 J
Miscellaneous											
Sulfate	- -	- -	- -	mg/kg	260	810	2,300	520	220	110 U	140
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	1,200 U	1,900	7,750	1,410	2,740	1,100 U	1,160 U

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	TP-5-1 5 9 12/02/10 Shallow Sand Fill - Shallow	TP-5-2 5.5 9.5 12/02/10 Shallow Sand Fill - Shallow	TP-5-3 6 10 12/02/10 Shallow Sand Fill - Shallow	TP-6-1 5 9 12/03/10 Shallow Sand Fill - Shallow	TP-6-2 5.5 9.5 12/03/10 Shallow Sand Fill - Shallow	TP-6-3 5.5 9.5 12/03/10 Shallow Sand Fill - Shallow	TP-7-1 5 9 12/06/10 Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
Toluene	0.7	0.7	500	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
Ethylbenzene	1	1	390	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
Xylenes (total)	0.26	1.6	500	mg/kg	0.21 J	0.064 U	0.21 U	0.011 U	0.011 U	1.1 U	0.0031 J
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
Isopropylbenzene	- -	- -	- -	mg/kg	0.17	0.032 U	0.057 J	0.0053 U	0.0056 U	1.8	0.0055 U
1,1,1-Trichloroethane	0.68	0.68	500	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
1,1,2,2-Tetrachloroethane	- -	- -	- -	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
1,1,2-trichloro-1,2,2-trifluoroethane	- -	- -	- -	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
1,1,2-Trichloroethane	- -	- -	- -	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
1,1-Dichloroethane	0.27	0.27	240	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
1,1-Dichloroethene	0.33	0.33	500	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
1,2,4-Trichlorobenzene	- -	- -	- -	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
1,2-Dibromo-3-chloropropane	- -	- -	- -	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 UJ	0.0055 U
1,2-Dibromoethane	- -	- -	- -	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
1,2-Dichlorobenzene	1.1	1.1	500	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
1,2-Dichloroethane	0.02	0.02	30	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
1,2-Dichloropropane	- -	- -	- -	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
1,3-Dichlorobenzene	2.4	2.4	280	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
1,4-Dichlorobenzene	1.8	1.8	130	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
2-Butanone	0.12	0.12	500	mg/kg	0.77 U	0.16 U	0.52 U	0.0079 J	0.028 U	2.9 U	0.027 U
2-Hexanone	- -	- -	- -	mg/kg	0.77 U	0.16 U	0.52 U	0.026 U	0.028 U	2.9 U	0.027 U
4-Methyl-2-pentanone	- -	- -	- -	mg/kg	0.77 U	0.16 U	0.52 U	0.026 U	0.028 U	2.9 U	0.027 U
Acetone	0.05	0.05	500	mg/kg	0.77 U	0.16 U	0.52 U	***0.080***	0.018 J	2.9 U	0.026 J
Bromodichloromethane	- -	- -	- -	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
Bromoform	- -	- -	- -	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 UJ	0.0055 U
Bromomethane	- -	- -	- -	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
Carbon Disulfide	- -	- -	- -	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 UJ	0.0055 U
Carbon Tetrachloride	0.76	0.76	22	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 UJ	0.0055 U
Chlorobenzene	1.1	1.1	500	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
Chloroethane	- -	- -	- -	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
Chloroform	0.37	0.37	350	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
Chloromethane	- -	- -	- -	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
cis-1,3-Dichloropropene	- -	- -	- -	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
Cyclohexane	- -	- -	- -	mg/kg	0.17	0.032 U	0.10 U	0.0053 U	0.0056 U	4.0	0.0055 U
Dibromochloromethane	- -	- -	- -	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 UJ	0.0055 U
Dichlorodifluoromethane	- -	- -	- -	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
Methyl acetate	- -	- -	- -	mg/kg	0.28	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
Methylcyclohexane	- -	- -	- -	mg/kg	0.87	0.014 J	0.071 J	0.0053 U	0.0056 U	25 J	0.0020 J
Methylene Chloride	0.05	0.05	500	mg/kg	0.15 U	***0.11***	0.10 U	0.038 J	0.041 J	0.57 U	0.017
Styrene	- -	- -	- -	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
Tetrachloroethene	1.3	1.3	150	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
Total VOCs	- -	- -	- -	mg/kg	1.7 J	0.12 J	0.13 J	0.13 J	0.059 J	31 J	0.048 J
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
trans-1,3-Dichloropropene	- -	- -	- -	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
Trichloroethene	0.47	0.47	200	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
Trichlorofluoromethane	- -	- -	- -	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
Vinyl Chloride	0.02	0.02	13	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U

See Notes on Page 34.

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Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	TP-5-1 5 9 12/02/10 Shallow Sand Fill - Shallow	TP-5-2 5.5 9.5 12/02/10 Shallow Sand Fill - Shallow	TP-5-3 6 10 12/02/10 Shallow Sand Fill - Shallow	TP-6-1 5 9 12/03/10 Shallow Sand Fill - Shallow	TP-6-2 5.5 9.5 12/03/10 Shallow Sand Fill - Shallow	TP-6-3 5.5 9.5 12/03/10 Shallow Sand Fill - Shallow	TP-7-1 5 9 12/06/10 Shallow Sand Fill - Shallow
Semivolatile Organics											
Naphthalene	12	12	500	mg/kg	0.19 J	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
1,1'-Biphenyl	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
2,2'-Oxybis(1-Chloropropane)	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
2,4,5-Trichlorophenol	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
2,4,6-Trichlorophenol	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
2,4-Dichlorophenol	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
2,4-Dimethylphenol	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
2,4-Dinitrophenol	- -	- -	- -	mg/kg	0.52 U	0.38 U	3.5 U	3.5 UJ	0.36 UJ	9.4 UJ	0.36 UJ
2,4-Dinitrotoluene	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
2,6-Dinitrotoluene	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
2-Chloronaphthalene	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
2-Chlorophenol	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
2-Methylnaphthalene	- -	- -	- -	mg/kg	0.092 J	0.14 J	1.8 U	1.8 U	0.19 U	4.8 U	0.025 J
2-Methylphenol	0.33	0.33	500	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
2-Nitroaniline	- -	- -	- -	mg/kg	0.52 U	0.38 U	3.5 U	3.5 U	0.36 U	9.4 U	0.36 U
2-Nitrophenol	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
3,3'-Dichlorobenzidine	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
3-Nitroaniline	- -	- -	- -	mg/kg	0.52 U	0.38 U	3.5 U	3.5 U	0.36 U	9.4 U	0.36 U
4,6-Dinitro-2-methylphenol	- -	- -	- -	mg/kg	0.52 U	0.38 U	3.5 U	3.5 U	0.36 U	9.4 U	0.36 U
4-Bromophenyl-phenylether	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
4-Chloro-3-Methylphenol	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
4-Chloroaniline	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
4-Chlorophenyl-phenylether	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
4-Methylphenol	0.33	0.33	500	mg/kg	0.52 U	0.38 U	3.5 U	3.5 U	0.36 U	9.4 U	0.36 U
4-Nitroaniline	- -	- -	- -	mg/kg	0.52 U	0.38 U	3.5 U	3.5 U	0.36 U	9.4 U	0.36 U
4-Nitrophenol	- -	- -	- -	mg/kg	0.52 U	0.38 U	3.5 U	3.5 U	0.36 U	9.4 U	0.36 U
Acenaphthene	20	98	500	mg/kg	0.27 U	0.11 J	0.22 J	1.8 U	0.19 U	0.94 J	0.020 J
Acenaphthylene	100	107	500	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.021 J
Acetophenone	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
Anthracene	100	1,000	500	mg/kg	0.27 U	0.086 J	1.8 U	0.17 J	0.19 U	0.82 J	0.035 J
Atrazine	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
Benzaldehyde	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
Benzo(a)anthracene	1	1	5.6	mg/kg	0.27 U	0.27	1.8 U	0.50 J	0.019 J	***2.7 J***	0.099 J
Benzo(a)pyrene	1	22	1	mg/kg	0.27 U	0.27	1.8 U	0.48 J	0.019 J	*2.7 J*	0.10 J
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	0.27 U	0.34	1.8 U	0.50 J	0.023 J	***2.8 J***	0.12 J
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	0.27 U	0.13 J	1.8 U	0.44 J	0.017 J	1.5 J	0.081 J
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	0.27 U	0.11 J	1.8 U	1.8 U	0.19 U	*1.2 J*	0.034 J
bis(2-Chloroethoxy)methane	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
bis(2-Chloroethyl)ether	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	0.27 UB	0.20 UB	1.8 UB	1.8 UB	0.19 UB	4.8 U	0.19 UB
Butylbenzylphthalate	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
Caprolactam	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
Carbazole	- -	- -	- -	mg/kg	0.27 U	0.046 J	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
Chrysene	1	1	56	mg/kg	0.27 U	0.27	1.8 U	0.52 J	0.024 J	***2.3 J***	0.11 J
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
Dibenzofuran	7	210	350	mg/kg	0.27 U	0.081 J	1.8 U	1.8 U	0.19 U	4.8 U	0.021 J
Diethylphthalate	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 UB	4.8 U	0.19 UB
Dimethylphthalate	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	TP-5-1 5 9 12/02/10 Shallow Sand Fill - Shallow	TP-5-2 5.5 9.5 12/02/10 Shallow Sand Fill - Shallow	TP-5-3 6 10 12/02/10 Shallow Sand Fill - Shallow	TP-6-1 5 9 12/03/10 Shallow Sand Fill - Shallow	TP-6-2 5.5 9.5 12/03/10 Shallow Sand Fill - Shallow	TP-6-3 5.5 9.5 12/03/10 Shallow Sand Fill - Shallow	TP-7-1 5 9 12/06/10 Shallow Sand Fill - Shallow
Semivolatile Organics (Cont.)											
Di-n-Butylphthalate	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
Di-n-Octylphthalate	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
Fluoranthene	100	1,000	500	mg/kg	0.27 U	0.66	0.20 J	1.2 J	0.046 J	4.8	0.19
Fluorene	30	386	500	mg/kg	0.27 U	0.13 J	0.21 J	1.8 U	0.19 U	1.1 J	0.025 J
Hexachlorobenzene	0.33	3.2	6	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
Hexachlorobutadiene	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
Hexachlorocyclopentadiene	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
Hexachloroethane	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	0.27 U	0.12 J	1.8 U	0.31 J	0.19 U	*1.1 J*	0.059 J
Isophorone	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
Nitrobenzene	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
N-Nitroso-di-n-propylamine	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
N-Nitrosodiphenylamine	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
Pentachlorophenol	0.8	0.8	6.7	mg/kg	0.52 U	0.38 U	3.5 U	3.5 U	0.36 U	9.4 U	0.36 U
Phenanthrene	100	1,000	500	mg/kg	0.039 J	0.63	0.40 J	1.2 J	0.042 J	1.7 J	0.14 J
Phenol	0.33	0.33	500	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.035 J
Pyrene	100	1,000	500	mg/kg	0.27 U	0.69	0.23 J	1.1 J	0.039 J	4.8	0.19
Total SVOCs	- -	- -	- -	mg/kg	0.32 J	4.1 J	1.3 J	6.4 J	0.23 J	28 J	1.3 J
Inorganics											
Aluminum	- -	- -	- -	mg/kg	9,740 J	3,430 J	4,230 J	4,640	637	3,000	3,500
Antimony	- -	- -	- -	mg/kg	23.0 UJ	17.0 UJ	15.5 UJ	15.7 U	16.7 U	16.4 U	16.2 U
Arsenic	13	16	16	mg/kg	11.0 J	2.70 J	1.50 J	***28.1***	0.500 J	1.90 J	6.50
Barium	350	820	400	mg/kg	34.4	113	16.8	43.2	6.25	14.0	22.7
Beryllium	7.2	47	590	mg/kg	0.595 J	0.228 J	0.225 J	0.241	0.223 U	0.157 J	0.278
Cadmium	2.5	7.5	9.3	mg/kg	0.366	0.218 J	0.115 J	0.660	0.223 U	0.0790 J	0.0760 J
Calcium	- -	- -	- -	mg/kg	3,570 J	5,800 J	140 J	10,800	490	1,040	3,010
Chromium	- -	- -	- -	mg/kg	26.4	7.41	6.06	9.72	1.57	6.88	4.99
Cobalt	- -	- -	- -	mg/kg	6.33	2.08	3.48	2.68	0.285 J	2.26	2.62
Copper	50	1,720	270	mg/kg	11.3	6.10	4.50	11.9	0.700 J	4.00	5.70
Ferrous Iron	- -	- -	- -	mg/kg	1.70 J	1.30 J	4.40 J	22.1 J	R	0.700 J	R
Iron	- -	- -	- -	mg/kg	25,100 J	6,100 J	6,640 J	8,290	917	4,740	6,380
Lead	63	450	1,000	mg/kg	13.1	28.3	3.60	57.9	0.600 J	9.70	17.8 J
Magnesium	- -	- -	- -	mg/kg	3,850 J	1,870 J	694 J	2,270	230	1,170	714
Manganese	1,600	2,000	10,000	mg/kg	240 J	76.0 J	49.2 J	110	8.30	36.9	91.7
Mercury	0.18	0.73	2.8	mg/kg	0.0306 U	0.0155 J	0.0209 U	0.0732	0.0220 U	0.0224 U	0.0256
Nickel	30	130	310	mg/kg	15.7	4.59 J	4.67 J	5.61	0.810 J	5.40 J	3.98 J
Potassium	- -	- -	- -	mg/kg	2,170	521	299	436	259	705	436
Selenium	3.9	4	1,500	mg/kg	6.10 U	4.50 U	4.10 U	4.20 U	4.50 U	4.40 U	4.30 U
Silver	2	8.3	1,500	mg/kg	0.767 U	0.568 U	0.518 U	0.524 U	0.556 U	0.546 U	0.541 U
Sodium	- -	- -	- -	mg/kg	171 J	107 J	60.9 J	303	44.3 J	107 J	132 J
Thallium	- -	- -	- -	mg/kg	9.20 U	6.80 U	6.20 U	6.30 U	6.70 U	6.60 U	6.50 U
Vanadium	- -	- -	- -	mg/kg	31.4	9.55	8.11	12.1	1.75	7.97	7.37
Zinc	109	2,480	10,000	mg/kg	48.6	68.6	10.5	67.6	2.00 J	15.9	31.4
Miscellaneous											
Sulfate	- -	- -	- -	mg/kg	620	65 J	370	380	110 U	70 J	110 U
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	19,100	26,100	6,310	12,800	1,210 U	14,000	1,700

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	TP-7-2 5 9 12/06/10 Shallow Sand Fill - Shallow	TP-8-1 4.5 8.5 12/06/10 Shallow Sand Fill - Shallow	TP-8-2 4 8 12/06/10 Shallow Sand Fill - Shallow	TP-9-1 6.5 10.5 12/07/10 Shallow Sand Fill - Shallow	TP-9-2 6 10 12/07/10 Shallow Sand Fill - Shallow	TP-9-3 6.5 10.5 12/07/10 Shallow Sand Fill - Shallow	TP-10-1 6 10 12/07/10 Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
Toluene	0.7	0.7	500	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
Ethylbenzene	1	1	390	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
Xylenes (total)	0.26	1.6	500	mg/kg	1.1 U	0.21 U	0.011 U	0.44 U	0.45 U	0.016 U	0.011 U
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
Isopropylbenzene	- -	- -	- -	mg/kg	0.35 J	0.87	0.0054 U	0.22 U	0.37	0.0079 U	0.0056 U
1,1,1-Trichloroethane	0.68	0.68	500	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
1,1,2,2-Tetrachloroethane	- -	- -	- -	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
1,1,2-trichloro-1,2,2-trifluoroethane	- -	- -	- -	mg/kg	0.54 U	0.10 UJ	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
1,1,2-Trichloroethane	- -	- -	- -	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
1,1-Dichloroethane	0.27	0.27	240	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
1,1-Dichloroethene	0.33	0.33	500	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
1,2,4-Trichlorobenzene	- -	- -	- -	mg/kg	0.33 J	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
1,2-Dibromo-3-chloropropane	- -	- -	- -	mg/kg	0.54 UJ	0.10 UJ	0.0054 U	0.22 UJ	0.23 UJ	0.0079 U	0.0056 U
1,2-Dibromoethane	- -	- -	- -	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
1,2-Dichlorobenzene	1.1	1.1	500	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
1,2-Dichloroethane	0.02	0.02	30	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
1,2-Dichloropropane	- -	- -	- -	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
1,3-Dichlorobenzene	2.4	2.4	280	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
1,4-Dichlorobenzene	1.8	1.8	130	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
2-Butanone	0.12	0.12	500	mg/kg	2.7 U	0.51 U	0.027 U	1.1 U	1.1 U	0.011 J	0.028 U
2-Hexanone	- -	- -	- -	mg/kg	2.7 U	0.51 U	0.027 U	1.1 U	1.1 U	0.040 U	0.028 U
4-Methyl-2-pentanone	- -	- -	- -	mg/kg	2.7 U	0.51 U	0.027 U	1.1 U	1.1 U	0.040 U	0.028 U
Acetone	0.05	0.05	500	mg/kg	2.7 U	0.51 U	0.010 J	1.1 U	1.1 U	***0.055***	0.025 J
Bromodichloromethane	- -	- -	- -	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
Bromoform	- -	- -	- -	mg/kg	0.54 UJ	0.10 UJ	0.0054 U	0.22 UJ	0.23 UJ	0.0079 U	0.0056 U
Bromomethane	- -	- -	- -	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
Carbon Disulfide	- -	- -	- -	mg/kg	0.54 UJ	0.10 UJ	0.0054 U	0.22 UJ	0.23 UJ	0.0079 U	0.0056 U
Carbon Tetrachloride	0.76	0.76	22	mg/kg	0.54 UJ	0.10 UJ	0.0054 U	0.22 UJ	0.23 UJ	0.0079 U	0.0056 U
Chlorobenzene	1.1	1.1	500	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
Chloroethane	- -	- -	- -	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
Chloroform	0.37	0.37	350	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
Chloromethane	- -	- -	- -	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
cis-1,3-Dichloropropene	- -	- -	- -	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
Cyclohexane	- -	- -	- -	mg/kg	1.9	0.10 U	0.0054 U	0.22 U	0.12 J	0.0079 U	0.0056 U
Dibromochloromethane	- -	- -	- -	mg/kg	0.54 UJ	0.10 UJ	0.0054 U	0.22 UJ	0.23 UJ	0.0079 U	0.0056 U
Dichlorodifluoromethane	- -	- -	- -	mg/kg	0.54 UJ	0.10 UJ	0.0054 U	0.22 UJ	0.23 UJ	0.0079 U	0.0056 U
Methyl acetate	- -	- -	- -	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
Methylcyclohexane	- -	- -	- -	mg/kg	17	2.8 J	0.0054 U	0.17 J	0.60	0.0018 J	0.0056 U
Methylene Chloride	0.05	0.05	500	mg/kg	0.54 U	***0.082 J***	0.016	0.22 U	0.23 U	0.020	0.017
Styrene	- -	- -	- -	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
Tetrachloroethene	1.3	1.3	150	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
Total VOCs	- -	- -	- -	mg/kg	20 J	3.8 J	0.026 J	0.17 J	1.1 J	0.088 J	0.042 J
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
trans-1,3-Dichloropropene	- -	- -	- -	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
Trichloroethene	0.47	0.47	200	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
Trichlorofluoromethane	- -	- -	- -	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
Vinyl Chloride	0.02	0.02	13	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:					TP-7-2	TP-8-1	TP-8-2	TP-9-1	TP-9-2	TP-9-3	TP-10-1
Historical Sample Depth(feet):					5	4.5	4	6.5	6	6.5	6
Current Estimated Sample Depth (feet)					9	8.5	8	10.5	10	10.5	10
Date Collected:					12/06/10	12/06/10	12/06/10	12/07/10	12/07/10	12/07/10	12/07/10
Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow
Semivolatile Organics											
Naphthalene	12	12	500	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
1,1'-Biphenyl	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
2,2'-Oxybis(1-Chloropropane)	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
2,4,5-Trichlorophenol	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
2,4,6-Trichlorophenol	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
2,4-Dichlorophenol	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
2,4-Dimethylphenol	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
2,4-Dinitrophenol	- -	- -	- -	mg/kg	9.1 UJ	1.8 UJ	0.36 UJ	1.9 UJ	1.8 UJ	0.51 UJ	1.9 UJ
2,4-Dinitrotoluene	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
2,6-Dinitrotoluene	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
2-Chloronaphthalene	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
2-Chlorophenol	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
2-Methylnaphthalene	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
2-Methylphenol	0.33	0.33	500	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
2-Nitroaniline	- -	- -	- -	mg/kg	9.1 U	1.8 U	0.36 U	1.9 U	1.8 U	0.51 U	1.9 U
2-Nitrophenol	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
3,3'-Dichlorobenzidine	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
3-Nitroaniline	- -	- -	- -	mg/kg	9.1 U	1.8 U	0.36 U	1.9 U	1.8 U	0.51 U	1.9 U
4,6-Dinitro-2-methylphenol	- -	- -	- -	mg/kg	9.1 U	1.8 U	0.36 U	1.9 U	1.8 U	0.51 U	1.9 U
4-Bromophenyl-phenylether	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
4-Chloro-3-Methylphenol	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
4-Chloroaniline	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
4-Chlorophenyl-phenylether	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
4-Methylphenol	0.33	0.33	500	mg/kg	9.1 U	1.8 U	0.36 U	1.9 U	1.8 U	0.51 U	1.9 U
4-Nitroaniline	- -	- -	- -	mg/kg	9.1 U	1.8 U	0.36 U	1.9 U	1.8 U	0.51 U	1.9 U
4-Nitrophenol	- -	- -	- -	mg/kg	9.1 U	1.8 U	0.36 U	1.9 U	1.8 U	0.51 U	1.9 U
Acenaphthene	20	98	500	mg/kg	1.7 J	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Acenaphthylene	100	107	500	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Acetophenone	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Anthracene	100	1,000	500	mg/kg	1.5 J	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Atrazine	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Benzaldehyde	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Benzo(a)anthracene	1	1	5.6	mg/kg	***3.7 J***	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	0.18 J
Benzo(a)pyrene	1	22	1	mg/kg	*3.7 J*	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	0.17 J
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	***4.1 J***	0.072 J	0.18 U	0.99 U	0.94 U	0.26 U	0.15 J
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	2.1 J	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	0.13 J
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	*1.1 J*	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
bis(2-Chloroethoxy)methane	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
bis(2-Chloroethyl)ether	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	4.7 UB	0.95 UB	0.18 UB	0.99 UB	0.94 U	0.26 UB	1.0 UB
Butylbenzylphthalate	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Caprolactam	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Carbazole	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Chrysene	1	1	56	mg/kg	***3.5 J***	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	0.13 J
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Dibenzofuran	7	210	350	mg/kg	1.1 J	0.95 U	0.18 U	0.99 U	0.88 J	0.26 U	1.0 U
Diethylphthalate	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 UB	0.99 U	0.94 U	0.26 UB	1.0 U
Dimethylphthalate	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	TP-7-2 5 9 12/06/10 Shallow Sand Fill - Shallow	TP-8-1 4.5 8.5 12/06/10 Shallow Sand Fill - Shallow	TP-8-2 4 8 12/06/10 Shallow Sand Fill - Shallow	TP-9-1 6.5 10.5 12/07/10 Shallow Sand Fill - Shallow	TP-9-2 6 10 12/07/10 Shallow Sand Fill - Shallow	TP-9-3 6.5 10.5 12/07/10 Shallow Sand Fill - Shallow	TP-10-1 6 10 12/07/10 Shallow Sand Fill - Shallow
Semivolatile Organics (Cont.)											
Di-n-Butylphthalate	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Di-n-Octylphthalate	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Fluoranthene	100	1,000	500	mg/kg	7.0	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	0.23 J
Fluorene	30	386	500	mg/kg	1.9 J	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Hexachlorobenzene	0.33	3.2	6	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Hexachlorobutadiene	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Hexachlorocyclopentadiene	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Hexachloroethane	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	*1.8 J*	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	0.094 J
Isophorone	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Nitrobenzene	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
N-Nitroso-di-n-propylamine	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
N-Nitrosodiphenylamine	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Pentachlorophenol	0.8	0.8	6.7	mg/kg	9.1 U	1.8 U	0.36 U	1.9 U	1.8 U	0.51 U	1.9 U
Phenanthrene	100	1,000	500	mg/kg	4.2 J	0.95 U	0.18 U	0.99 U	1.5	0.26 U	0.11 J
Phenol	0.33	0.33	500	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Pyrene	100	1,000	500	mg/kg	7.7	0.11 J	0.18 U	0.077 J	0.94 U	0.26 U	0.30 J
Total SVOCs	- -	- -	- -	mg/kg	45 J	0.18 J	ND	0.077 J	2.4 J	ND	1.5 J
Inorganics											
Aluminum	- -	- -	- -	mg/kg	2,280	728	545	4,520	564	11,200	1,730
Antimony	- -	- -	- -	mg/kg	16.1 U	17.7 U	16.5 U	17.5 U	16.0 U	23.2 U	16.8 U
Arsenic	13	16	16	mg/kg	3.60	2.40 U	2.20 U	2.40	2.10 U	10.3	7.90
Barium	350	820	400	mg/kg	21.4	3.31	2.64	19.5	2.12	32.4	37.4
Beryllium	7.2	47	590	mg/kg	0.218	0.0470 J	0.0430 J	0.283	0.0440 J	0.822	0.155 J
Cadmium	2.5	7.5	9.3	mg/kg	0.258	0.235 U	0.220 U	0.234 U	0.213 U	0.362	0.109 J
Calcium	- -	- -	- -	mg/kg	9,740	229	150	800	106	2,480	1,890
Chromium	- -	- -	- -	mg/kg	5.83	1.82	1.27	13.4	1.35	31.9	3.01
Cobalt	- -	- -	- -	mg/kg	1.36	0.406 J	0.247 J	1.95	0.411 J	5.96	1.38
Copper	50	1,720	270	mg/kg	13.4	1.00 J	0.700 J	22.3	0.700 J	11.4	6.00
Ferrous Iron	- -	- -	- -	mg/kg	8.30 J	0.900 J	R	1.10 J	0.400 J	2.20 J	0.700 J
Iron	- -	- -	- -	mg/kg	3,860	973	628	6,920	778	27,900	5,430
Lead	63	450	1,000	mg/kg	35.0 J	2.80 J	0.700 J	4.70 J	0.700 J	7.70 J	*200 J*
Magnesium	- -	- -	- -	mg/kg	2,320	214	165	1,610	108	4,700	570
Manganese	1,600	2,000	10,000	mg/kg	49.7	9.50	6.60	61.6	6.70	361	50.4
Mercury	0.18	0.73	2.8	mg/kg	0.104	0.0220 U	0.0216 U	0.0213 U	0.0230 U	0.0313 U	0.0325
Nickel	30	130	310	mg/kg	5.85	1.08 J	0.792 J	5.55 J	0.964 J	18.5	2.78 J
Potassium	- -	- -	- -	mg/kg	359	196	148	1,170	110	2,680	243
Selenium	3.9	4	1,500	mg/kg	4.30 U	4.70 U	4.40 U	4.70 U	4.30 U	6.20 U	4.50 U
Silver	2	8.3	1,500	mg/kg	0.537 U	0.589 U	0.549 U	0.584 U	0.533 U	0.774 U	0.561 U
Sodium	- -	- -	- -	mg/kg	115 J	41.6 J	48.9 J	148 J	32.3 J	351	840
Thallium	- -	- -	- -	mg/kg	6.40 U	7.10 U	6.60 U	7.00 U	6.40 U	9.30 U	6.70 U
Vanadium	- -	- -	- -	mg/kg	7.57	2.72	1.40	14.4	1.42	38.4	4.74
Zinc	109	2,480	10,000	mg/kg	75.1	2.40	1.80 J	24.0	1.50 J	47.1	60.6
Miscellaneous											
Sulfate	- -	- -	- -	mg/kg	110 U	94 J	110 U	120 U	110 U	810	440
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	8,210	1,160 U	1,100 U	1,120 U	1,090 U	21,200	2,730

See Notes on Page 34.

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Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	TP-10-2 6 10 12/07/10 Shallow Sand Fill - Shallow	TP-10-3 6.5 10.5 12/07/10 Shallow Sand Fill - Shallow	TP-11-1 5 9 12/07/10 Shallow Sand Fill - Shallow	TP-12-1 4.7 8.7 12/07/10 Shallow Sand Fill - Shallow
Volatile Organics								
Benzene	0.06	0.06	44	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
Toluene	0.7	0.7	500	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
Ethylbenzene	1	1	390	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
Xylenes (total)	0.26	1.6	500	mg/kg	0.011 U	0.012 U	0.020 J	0.23 U
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
Isopropylbenzene	- -	- -	- -	mg/kg	0.0056 U	0.0013 J	0.026 J	0.97
1,1,1-Trichloroethane	0.68	0.68	500	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
1,1,2,2-Tetrachloroethane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
1,1,2-trichloro-1,2,2-trifluoroethane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
1,1,2-Trichloroethane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
1,1-Dichloroethane	0.27	0.27	240	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
1,1-Dichloroethene	0.33	0.33	500	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
1,2,4-Trichlorobenzene	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
1,2-Dibromo-3-chloropropane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 UJ
1,2-Dibromoethane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
1,2-Dichlorobenzene	1.1	1.1	500	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
1,2-Dichloroethane	0.02	0.02	30	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
1,2-Dichloropropane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
1,3-Dichlorobenzene	2.4	2.4	280	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
1,4-Dichlorobenzene	1.8	1.8	130	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
2-Butanone	0.12	0.12	500	mg/kg	0.028 U	0.031 U	0.20 U	0.58 U
2-Hexanone	- -	- -	- -	mg/kg	0.028 U	0.031 U	0.20 U	0.58 U
4-Methyl-2-pentanone	- -	- -	- -	mg/kg	0.028 U	0.031 U	0.20 U	0.58 U
Acetone	0.05	0.05	500	mg/kg	0.028 U	0.018 J	***0.058 J***	0.58 U
Bromodichloromethane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
Bromoform	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 UJ
Bromomethane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
Carbon Disulfide	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 UJ
Carbon Tetrachloride	0.76	0.76	22	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 UJ
Chlorobenzene	1.1	1.1	500	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
Chloroethane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
Chloroform	0.37	0.37	350	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
Chloromethane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
cis-1,3-Dichloropropene	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
Cyclohexane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 UJ
Dibromochloromethane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 UJ
Dichlorodifluoromethane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 UJ
Methyl acetate	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
Methylcyclohexane	- -	- -	- -	mg/kg	0.0056 U	0.0045 J	0.10	0.97 J
Methylene Chloride	0.05	0.05	500	mg/kg	0.018	0.015	***0.086***	0.12 U
Styrene	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
Tetrachloroethene	1.3	1.3	150	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
Total VOCs	- -	- -	- -	mg/kg	0.018	0.039 J	0.29 J	1.9 J
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
trans-1,3-Dichloropropene	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
Trichloroethene	0.47	0.47	200	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
Trichlorofluoromethane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
Vinyl Chloride	0.02	0.02	13	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U

See Notes on Page 34.

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Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	TP-10-2 6 10 12/07/10 Shallow Sand Fill - Shallow	TP-10-3 6.5 10.5 12/07/10 Shallow Sand Fill - Shallow	TP-11-1 5 9 12/07/10 Shallow Sand Fill - Shallow	TP-12-1 4.7 8.7 12/07/10 Shallow Sand Fill - Shallow
Semivolatile Organics								
Naphthalene	12	12	500	mg/kg	0.94 U	0.21 U	0.23 U	0.27 J
1,1'-Biphenyl	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.020 J	0.78 U
2,2'-Oxybis(1-Chloropropane)	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
2,4,5-Trichlorophenol	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
2,4,6-Trichlorophenol	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
2,4-Dichlorophenol	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
2,4-Dimethylphenol	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
2,4-Dinitrophenol	- -	- -	- -	mg/kg	1.8 UJ	0.41 U	0.45 U	1.5 U
2,4-Dinitrotoluene	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
2,6-Dinitrotoluene	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
2-Chloronaphthalene	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
2-Chlorophenol	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
2-Methylnaphthalene	- -	- -	- -	mg/kg	0.94 U	0.034 J	0.44	13
2-Methylphenol	0.33	0.33	500	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
2-Nitroaniline	- -	- -	- -	mg/kg	1.8 U	0.41 U	0.45 U	1.5 U
2-Nitrophenol	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
3,3'-Dichlorobenzidine	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
3-Nitroaniline	- -	- -	- -	mg/kg	1.8 U	0.41 U	0.45 U	1.5 U
4,6-Dinitro-2-methylphenol	- -	- -	- -	mg/kg	1.8 U	0.41 U	0.45 U	1.5 U
4-Bromophenyl-phenylether	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
4-Chloro-3-Methylphenol	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
4-Chloroaniline	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
4-Chlorophenyl-phenylether	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
4-Methylphenol	0.33	0.33	500	mg/kg	1.8 U	0.41 U	0.45 U	1.5 U
4-Nitroaniline	- -	- -	- -	mg/kg	1.8 U	0.41 U	0.45 U	1.5 U
4-Nitrophenol	- -	- -	- -	mg/kg	1.8 U	0.41 U	0.45 U	1.5 U
Acenaphthene	20	98	500	mg/kg	0.94 U	0.31	0.10 J	0.69 J
Acenaphthylene	100	107	500	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Acetophenone	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Anthracene	100	1,000	500	mg/kg	0.068 J	0.11 J	0.099 J	0.78 U
Atrazine	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Benzaldehyde	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Benzo(a)anthracene	1	1	5.6	mg/kg	0.24 J	0.026 J	0.039 J	0.26 J
Benzo(a)pyrene	1	22	1	mg/kg	0.26 J	0.21 U	0.024 J	0.23 J
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	0.25 J	0.017 J	0.029 J	0.39 JY
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	0.14 J	0.21 U	0.23 U	0.19 J
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	0.94 U	0.21 U	0.23 U	0.48 JY
bis(2-Chloroethoxy)methane	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
bis(2-Chloroethyl)ether	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	0.94 UB	0.21 UB	0.23 UB	0.34 J
Butylbenzylphthalate	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Caprolactam	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Carbazole	- -	- -	- -	mg/kg	0.94 U	0.020 J	0.033 J	0.78 U
Chrysene	1	1	56	mg/kg	0.23 J	0.024 J	0.030 J	0.22 J
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Dibenzofuran	7	210	350	mg/kg	0.94 U	0.19 J	0.093 J	0.78 U
Diethylphthalate	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 UB	0.78 U
Dimethylphthalate	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	TP-10-2 6 10 12/07/10 Shallow Sand Fill - Shallow	TP-10-3 6.5 10.5 12/07/10 Shallow Sand Fill - Shallow	TP-11-1 5 9 12/07/10 Shallow Sand Fill - Shallow	TP-12-1 4.7 8.7 12/07/10 Shallow Sand Fill - Shallow
Semivolatile Organics (Cont.)								
Di-n-Butylphthalate	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Di-n-Octylphthalate	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Fluoranthene	100	1,000	500	mg/kg	0.42 J	0.21 U	0.13 J	0.58 J
Fluorene	30	386	500	mg/kg	0.94 U	0.23	0.15 J	1.6
Hexachlorobenzene	0.33	3.2	6	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Hexachlorobutadiene	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Hexachlorocyclopentadiene	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Hexachloroethane	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	0.11 J	0.21 U	0.23 U	0.16 J
Isophorone	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Nitrobenzene	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
N-Nitroso-di-n-propylamine	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
N-Nitrosodiphenylamine	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Pentachlorophenol	0.8	0.8	6.7	mg/kg	1.8 U	0.41 U	0.45 U	1.5 U
Phenanthrene	100	1,000	500	mg/kg	0.94 U	0.21	0.27	3.3
Phenol	0.33	0.33	500	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Pyrene	100	1,000	500	mg/kg	0.41 J	0.15 J	0.11 J	0.75 J
Total SVOCs	- -	- -	- -	mg/kg	2.1 J	1.3 J	1.6 J	22 J
Inorganics								
Aluminum	- -	- -	- -	mg/kg	2,440	5,570	3,760	3,550
Antimony	- -	- -	- -	mg/kg	15.7 U	17.7 U	20.4 U	17.6 U
Arsenic	13	16	16	mg/kg	***20.7***	1.00 J	3.00	1.70 J
Barium	350	820	400	mg/kg	44.9	16.8	14.6	13.0
Beryllium	7.2	47	590	mg/kg	0.182 J	0.369	0.304	0.277
Cadmium	2.5	7.5	9.3	mg/kg	0.222	0.0400 J	0.382	0.0870 J
Calcium	- -	- -	- -	mg/kg	8,390	387	1,190	4,180
Chromium	- -	- -	- -	mg/kg	4.57	6.72	10.4	9.55
Cobalt	- -	- -	- -	mg/kg	1.61	1.70	2.72	1.69
Copper	50	1,720	270	mg/kg	9.40	5.00	8.10	5.60
Ferrous Iron	- -	- -	- -	mg/kg	2.70 J	2.10 J	1.00 J	1.20 J
Iron	- -	- -	- -	mg/kg	4,600	6,830	7,510	6,210
Lead	63	450	1,000	mg/kg	41.8 J	8.30 J	13.4 J	7.70 J
Magnesium	- -	- -	- -	mg/kg	2,420	823	1,480	2,050
Manganese	1,600	2,000	10,000	mg/kg	74.6	50.0	73.7	46.6
Mercury	0.18	0.73	2.8	mg/kg	0.0675	0.0251 U	0.0279 U	***1.35***
Nickel	30	130	310	mg/kg	3.98 J	5.02 J	6.14 J	6.08
Potassium	- -	- -	- -	mg/kg	268	365	910	853
Selenium	3.9	4	1,500	mg/kg	4.20 U	4.70 U	5.40 U	4.70 U
Silver	2	8.3	1,500	mg/kg	0.523 U	0.589 U	0.679 U	0.587 U
Sodium	- -	- -	- -	mg/kg	83.2 J	116 J	57.9 J	78.5 J
Thallium	- -	- -	- -	mg/kg	6.30 U	7.10 U	8.20 U	7.00 U
Vanadium	- -	- -	- -	mg/kg	6.75	9.88	12.5	11.6
Zinc	109	2,480	10,000	mg/kg	80.7	14.0	24.2	17.1
Miscellaneous								
Sulfate	- -	- -	- -	mg/kg	230	390	140 U	220
TOC								
Total Organic Carbon	- -	- -	- -	mg/kg	3,350	1,730	1,250 U	1,470

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Notes:

1. Unrestricted use SCO, Restricted use SCO for commercial use and protection of groundwater are from 6 NYCRR Part 375-6.8.
2. Field duplicate sample results are presented in brackets, [ ].
3. Designations:
   Gray font = Analyte was not detected.
   Italic font = Analyte was detected above unrestricted use SCO.
   Black Bold Italic font = Analyte detected above restricted - protection of groundwater SCO.
   Gray Shading = Analyte detected above restricted - commercial use SCO.
4. Abbreviations:
   - - = 6 NYCRR SCO not available.
   6 NYCRR = Title 6 of the Official Compilation of Codes, Rules, and Regulations of the State of New York.
   ft = feet.
   LCS/LCSD = Laboratory Control Sample/Laboratory Control Sample Duplicate.
   mg/kg = milligrams per kilogram or part per million.
   NA = Not Analyzed.
   SCO = Soil Cleanup Objectives.
   VOC = Volatile Organic Compounds.
   SVOC = Semi-Volatile Organic Compounds.
5. Qualifier Definitions:
   B = Analyte was detected in the blank and sample.
   E = Analyte exceeded calibration range.
   J = Estimated value. Result is greater than the RL but less than the MDL.
   R = Rejected results.
   U = Analyte not detected at listed reporting detection limit.
   * = LCS/LCSD or relative percent difference of LCS/LCSD exceeds the control limits.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			AMW-3	AMW-3	AMW-3	AMW-3	AMW-4	AMW-4	AMW-5	AMW-5	AMW-7	AMW-7	AMW-7	AMW-7	AMW-11	AMW-11	AMW-12
Historical Screen Interval (feet below ground surface)			4 - 9	4 - 9	4 - 9	4 - 9	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	3 - 8
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		8 - 13	8 - 13	8 - 13	8 - 13	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	7 - 12
Date Collected:		Units	01/20/11	09/11/13	01/13/16	06/21/16	01/26/11	09/11/13	01/26/11	09/11/13	01/26/11	09/10/13	01/12/16	06/21/16	01/26/11	09/11/13	02/20/13
Volatile Organics																	
1,1,1-Trichloroethane	5	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
1,1,2,2-Tetrachloroethane	5	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
1,1,2-Trichloroethane	1	ug/L	8.0 U	8.0 U	**4.8 J**	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
1,1-Dichloroethane	5	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
1,1-Dichloroethene	5	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
1,2,4-Trichlorobenzene	5	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
1,2-Dibromo-3-chloropropane	0.04	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
1,2-Dibromoethane	0.0006	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
1,2-Dichlorobenzene	3	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
1,2-Dichloroethane	0.6	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
1,2-Dichloropropane	1	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
1,3-Dichlorobenzene	3	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
1,4-Dichlorobenzene	3	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
2-Butanone	50	ug/L	80 U	80 U	50 U	**3.4 J**	50 U	50 U	50 U	50 U	50 U	10 U	50 U	10 U	50 U	50 U	100 U
2-Hexanone	50	ug/L	40 U	40 U	25 U	5.0 U	25 U	25 U	25 U	25 U	25 U	5.0 U	25 U	5.0 U	25 U	25 U	50 U
4-Methyl-2-pentanone	- -	ug/L	40 U	40 U	25 U	5.0 U	25 U	25 U	25 U	25 U	25 U	5.0 U	25 U	5.0 U	25 U	25 U	50 U
Acetone	50	ug/L	**34 J**	80 U	50 U*	**21**	50 U	50 U	**46 J**	**17 J**	**20 J**	10 U	**30 J**	**6.2 J**	50 U	50 U	100 U
Benzene	1	ug/L	**510**	**93**	**280**	1.0 U	**22**	**97**	**7.0**	**2.5 J**	**6.4**	1.0 U	**5.7**	**1.1**	**68**	**26**	**440**
Bromodichloromethane	50	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
Bromoform	50	ug/L	8.0 U	8.0 UJ	5.0 U	1.0 U	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 UJ	10 U
Bromomethane	5	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
Carbon Disulfide	60	ug/L	8.0 U	8.0 U	5.0 U	**0.51 J**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	**0.43 J**	5.0 U	5.0 U	10 U
Carbon Tetrachloride	5	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
Chlorobenzene	5	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
Chloroethane	5	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
Chloroform	7	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
Chloromethane	5	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
cis-1,2-Dichloroethene	5	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
cis-1,3-Dichloropropene	0.4	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
Cyclohexane	- -	ug/L	**130**	**17**	**57**	1.0 U	**38**	**52**	**6.8**	**5.2**	**3.5 J**	1.0 U	5.0 U	**18**	**49**	**29**	**13**
Dibromochloromethane	50	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
Dichlorodifluoromethane	5	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
Ethylbenzene	5	ug/L	**140**	8.0 U	**29**	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	**5.7**	**13**	10 U
Isopropylbenzene	5	ug/L	**110**	**32**	**65**	1.0 U	**11**	**21**	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	**2.8**	**15**	**15**	**38**
Methyl acetate	- -	ug/L	8.0 U	8.0 U	13 U	2.5 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	13 U	2.5 U	5.0 U	5.0 U	10 U
Methyl tert-butyl ether	10	ug/L	**26**	**95**	5.0 U	**0.40 J**	5.0 U	5.0 U	5.0 U	**3.7 J**	**3.5 J**	**0.87 J**	**1.4 J**	**0.23 J**	5.0 U	**5.5**	**80**
Methylcyclohexane	- -	ug/L	**50**	**8.6**	**27**	1.0 U	**33**	**33**	**3.2 J**	**3.4 J**	5.0 U	1.0 U	**1.5 J**	**9.4**	**11**	**8.3**	**6.8 J**
Methylene Chloride	5	ug/L	8.0 U	8.0 U	**15**	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
Styrene	5	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
Tetrachloroethene	5	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
Toluene	5	ug/L	**36**	8.0 U	**6.9**	1.0 U	**3.0 J**	**4.5 J**	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	**4.8 J**	**9.6**	**7.2 J**
trans-1,2-Dichloroethene	5	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
trans-1,3-Dichloropropene	0.4	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 UF1	1.0 U	5.0 U	5.0 U	10 U
Trichloroethene	5	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
Trichlorofluoromethane	5	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
Vinyl Chloride	2	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
Xylenes (total)	5	ug/L	**100**	16 U	**20**	2.0 U	**13**	**6.9 J**	**4.0 J**	10 U	**4.1 J**	2.0 U	10 U	**0.79 J**	**18**	**32**	**6.9 J**

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			AMW-3	AMW-3	AMW-3	AMW-3	AMW-4	AMW-4	AMW-5	AMW-5	AMW-7	AMW-7	AMW-7	AMW-7	AMW-11	AMW-11	AMW-12
Historical Screen Interval (feet below ground surface)			4 - 9	4 - 9	4 - 9	4 - 9	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	3 - 8
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		8 - 13	8 - 13	8 - 13	8 - 13	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	7 - 12
Date Collected:		Units	01/20/11	09/11/13	01/13/16	06/21/16	01/26/11	09/11/13	01/26/11	09/11/13	01/26/11	09/10/13	01/12/16	06/21/16	01/26/11	09/11/13	02/20/13
Semivolatile Organics																	
1,1'-Biphenyl	5	ug/L	4.7 U	4.8 U	46 U	97 U	**0.71 J**	5.3 U	**1.5 J**	5.4 U	4.7 U	5.0 U	50 U	25 U	**11**	**0.85 J**	NA
2,2'-Oxybis(1-Chloropropane)	5	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
2,4,5-Trichlorophenol	1	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 UF2	25 U	5.0 U	5.1 U	NA
2,4,6-Trichlorophenol	1	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
2,4-Dichlorophenol	5	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
2,4-Dimethylphenol	50	ug/L	4.7 U	**0.77 J**	46 U	97 U	4.8 U	5.3 U	4.7 U	**1.7 J**	**3.0 J**	5.0 U	50 U	25 U	**7.2**	**6.6**	NA
2,4-Dinitrophenol	10	ug/L	9.4 U	9.6 U	93 U	190 U	9.6 U	11 U	9.5 U	11 U	9.5 U	10 U	99 UF1	49 U	10 U	10 U	NA
2,4-Dinitrotoluene	5	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
2,6-Dinitrotoluene	5	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
2-Chloronaphthalene	10	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
2-Chlorophenol	1	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
2-Methylnaphthalene	- -	ug/L	**99**	4.8 U	**21 J**	97 U	**15**	**0.87 J**	**19**	**5.5**	**4.1 J**	**2.0 J**	50 U	25 U	**90**	**10**	NA
2-Methylphenol	- -	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	**2.2 J**	**1.2 J**	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
2-Nitroaniline	5	ug/L	9.4 U	9.6 U	93 U	190 U	9.6 U	11 U	9.5 U	11 U	9.5 U	10 U	99 U	49 U	10 U	10 U	NA
2-Nitrophenol	- -	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
3,3'-Dichlorobenzidine	5	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 UF1	25 U	5.0 U	5.1 U	NA
3-Nitroaniline	5	ug/L	9.4 U	9.6 U	93 U	190 U	9.6 U	11 U	9.5 U	11 U	9.5 U	10 U	99 U	49 U	10 U	10 U	NA
4,6-Dinitro-2-methylphenol	- -	ug/L	9.4 U	9.6 U	93 U	190 U	9.6 U	11 U	9.5 U	11 U	9.5 U	10 U	99 UF1	49 U	10 U	10 U	NA
4-Bromophenyl-phenylether	- -	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
4-Chloro-3-Methylphenol	- -	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
4-Chloroaniline	5	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 UF1	25 U	5.0 U	5.1 U	NA
4-Chlorophenyl-phenylether	- -	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
4-Methylphenol	- -	ug/L	**12**	9.6 U	93 U	190 U	**3.2 J**	11 U	**7.1 J**	**6.6 J**	**6.4 J**	**2.4 J**	99 U	**2.5 J**	**1.3 J**	10 U	NA
4-Nitroaniline	5	ug/L	9.4 U	9.6 U	93 U	190 U	9.6 U	11 U	9.5 U	11 U	9.5 U	10 U	99 U	49 U	10 U	10 U	NA
4-Nitrophenol	- -	ug/L	9.4 U	9.6 U	93 U	190 U	9.6 U	11 U	9.5 U	11 U	9.5 U	10 U	99 U	49 U	10 U	10 U	NA
Acenaphthene	20	ug/L	**2.4 J**	**2.6 J**	46 U	97 U	**2.5 J**	**3.4 J**	**2.6 J**	**0.97 J**	**2.7 J**	**1.5 J**	50 U	**9.2 J**	**160**	**96 D**	NA
Acenaphthylene	- -	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	**0.52 J**	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	**1.0 J**	NA
Acetophenone	- -	ug/L	4.7 U	**5.6**	**18 J**	97 U	4.8 U	5.3 U	**2.6 J**	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
Anthracene	50	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	**0.45 J**	4.7 U	**0.42 J**	50 UF2	25 U	**16**	**5.5**	NA
Atrazine	7.5	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
Benzaldehyde	- -	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 UB	4.7 U	**1.1 J**	50 U	25 U	5.0 U	**1.0 JB**	NA
Benzo(a)anthracene	0.002	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	**2.9 J**	5.1 U	NA
Benzo(a)pyrene	- -	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	**0.91 J**	5.1 U	NA
Benzo(b)fluoranthene	0.002	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	**1.1 J**	5.1 U	NA
Benzo(g,h,i)perylene	- -	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 UJ	50 U	25 U	5.0 U	5.1 U	NA
Benzo(k)fluoranthene	0.002	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
bis(2-Chloroethoxy)methane	5	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
bis(2-Chloroethyl)ether	1	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
Butylbenzylphthalate	50	ug/L	4.7 U	**0.62 J**	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
Caprolactam	- -	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 UF1	25 U	5.0 U	5.1 U	NA
Carbazole	- -	ug/L	**1.0 J**	4.8 U	46 U	97 U	**1.2 J**	5.3 U	**3.5 J**	**1.8 J**	**1.3 J**	**2.4 J**	50 U	**3.2 J**	**45**	**27**	NA
Chrysene	0.002	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	**2.7 J**	5.1 U	NA
Dibenzo(a,h)anthracene	- -	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
Dibenzofuran	- -	ug/L	9.4 U	**0.75 J**	93 U	190 U	**1.3 J**	**1.9 J**	**2.3 J**	**0.79 J**	**0.81 J**	**0.60 J**	99 U	**5.4 J**	**110**	**58**	NA
Diethylphthalate	50	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 UF2	25 U	5.0 U	**2.4 J**	NA
Dimethylphthalate	50	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 UF2	25 U	5.0 U	5.1 U	NA
Di-n-Butylphthalate	50	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	**0.78 J**	**0.33 J**	**0.44 J**	50 UF2	25 U	5.0 U	5.1 U	NA

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	AMW-3	AMW-3	AMW-3	AMW-3	AMW-4	AMW-4	AMW-5	AMW-5	AMW-7	AMW-7	AMW-7	AMW-7	AMW-11	AMW-11	AMW-12
Historical Screen Interval (feet below ground surface)			4 - 9	4 - 9	4 - 9	4 - 9	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	3 - 8
Current Screen Interval (Feet below current ground surface):			8 - 13	8 - 13	8 - 13	8 - 13	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	7 - 12
Date Collected:			01/20/11	09/11/13	01/13/16	06/21/16	01/26/11	09/11/13	01/26/11	09/11/13	01/26/11	09/10/13	01/12/16	06/21/16	01/26/11	09/11/13	02/20/13
Semivolatile Organics (Cont.)																	
Di-n-Octylphthalate	50	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	**2.4 J**	5.1 U	NA
Fluoranthene	50	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	**28**	**11**	NA
Fluorene	50	ug/L	**3.0 J**	**1.5 J**	46 U	97 U	**11**	**4.2 J**	**1.7 J**	**2.4 J**	**2.5 J**	**1.9 J**	50 UF2	**6.4 J**	**110**	**55**	NA
Hexachlorobenzene	0.04	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
Hexachlorobutadiene	0.5	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
Hexachlorocyclopentadiene	5	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
Hexachloroethane	5	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
Isophorone	50	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	**1.4 J**	**0.61 J**	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
naphthalene	10	ug/L	**120**	**11**	**45 J**	97 U	**18**	**4.2 J**	**45**	**18**	**50**	**8.8**	**10 J**	**8.8 J**	**400**	**170 D**	NA
Nitrobenzene	0.4	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
N-Nitroso-di-n-propylamine	- -	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
N-Nitrosodiphenylamine	50	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 UF2	25 U	5.0 U	**1.9 J**	NA
Pentachlorophenol	- -	ug/L	9.4 U	9.6 U	93 U	190 U	9.6 U	11 U	9.5 U	11 U	9.5 U	10 U	99 U	49 U	10 U	10 U	NA
Phenanthrene	50	ug/L	**2.1 J**	4.8 U	46 U	97 U	**0.82 J**	5.3 U	**1.5 J**	**0.47 J**	4.7 U	5.0 U	50 U	**4.1 J**	**140**	**18**	NA
Phenol	1	ug/L	**15**	**1.1 J**	**4.5 J**	97 U	**42**	**6.3**	**110**	**150 D**	**84**	**90 D**	**64**	**73**	5.0 U	5.1 U	NA
Pyrene	50	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	**18**	**3.8 J**	NA
Inorganics - Total																	
Aluminum	- -	mg/L	**0.370**	NA	NA	NA	**0.20**	NA	**3.80**	NA	0.00300 U	NA	NA	NA	**4.30**	NA	0.200 U
Antimony	0.003	mg/L	NA	NA	NA	NA	0.020 U	NA	0.020 U	NA	0.00300 U	NA	NA	NA	0.020 U	NA	0.0200 U
Arsenic	0.025	mg/L	**0.0056 J**	NA	NA	NA	0.0100 U	NA	0.0100 U	NA	0.00300 U	NA	NA	NA	**0.0062 J**	NA	0.0100 U
Barium	1	mg/L	**0.0270**	NA	NA	NA	**0.00970**	NA	**0.0130**	NA	0.00300 U	NA	NA	NA	**48.0**	NA	**0.0760**
Beryllium	0.003	mg/L	0.00200 U	NA	NA	NA	0.00200 U	NA	0.00200 U	NA	0.00300 U	NA	NA	NA	0.00200 U	NA	0.00200 U
Cadmium	0.005	mg/L	0.00100 U	NA	NA	NA	**0.00520 J**	NA	**0.00450 J**	NA	0.00300 U	NA	NA	NA	**0.00630 J**	NA	0.00100 U
Calcium	- -	mg/L	**104**	NA	NA	NA	**81.5**	NA	**142**	NA	0.00300 U	NA	NA	NA	**87.4**	NA	**122**
Chromium	0.05	mg/L	**0.025**	NA	NA	NA	0.00400 U	NA	**0.0011 J**	NA	0.00300 U	NA	NA	NA	**0.00780**	NA	**0.00110 J**
Cobalt	- -	mg/L	**0.00690 J**	NA	NA	NA	0.00400 U	NA	**0.00760 J**	NA	0.00300 U	NA	NA	NA	**0.00170 J**	NA	0.00400 U
Copper	0.2	mg/L	0.0100 U	NA	NA	NA	0.0100 U	NA	**0.00530 J**	NA	0.00300 U	NA	NA	NA	**0.00330 J**	NA	0.0100 U
Iron	0.3	mg/L	**6.300**	NA	NA	**16.2**	**3.600**	NA	**0.160**	NA	0.00300 U	NA	NA	**0.170**	**13.800**	NA	**27.9**
Lead	0.025	mg/L	**0.00100**	NA	NA	NA	0.00500 U	NA	0.00500 U	NA	0.00300 U	NA	NA	NA	**0.00820**	NA	**0.00670**
Magnesium	35	mg/L	**13.4 J**	NA	NA	NA	**12.7**	NA	**0.470**	NA	0.00300 U	NA	NA	NA	**38.7**	NA	**19.7**
Manganese	0.3	mg/L	**0.300**	NA	NA	**1.40 B**	**0.440**	NA	**0.00420**	NA	0.00300 U	NA	NA	**0.0740 B**	**0.560**	NA	**0.640**
Mercury	0.0007	mg/L	**0.00130 J**	NA	NA	NA	0.000200 U	NA	0.000200 U	NA	0.00300 U	NA	NA	NA	0.000200 U	NA	0.000200 U
Nickel	0.1	mg/L	**0.0160**	NA	NA	NA	**0.00530 J**	NA	**0.0190**	NA	0.00300 U	NA	NA	NA	**0.00520 J**	NA	**0.00270 J**
Potassium	- -	mg/L	**18.3**	NA	NA	NA	**25.1**	NA	**42.3**	NA	0.00300 U	NA	NA	NA	**13.5**	NA	**14.5**
Selenium	0.01	mg/L	0.0150 U	NA	NA	NA	0.0150 U	NA	0.0150 U	NA	0.00300 U	NA	NA	NA	0.0150 U	NA	0.0150 U
Silver	0.05	mg/L	0.00300 U	NA	NA	NA	**0.00170 J**	NA	0.00300 U	NA	0.00300 U	NA	NA	NA	0.00300 U	NA	0.00300 U
Sodium	20	mg/L	**90.8**	NA	NA	NA	**277**	NA	**259**	NA	**491**	NA	NA	NA	**164**	NA	**149**
Thallium	0.0005	mg/L	0.0200 U	NA	NA	NA	0.0200 U	NA	0.0200 U	NA	0.0200 U	NA	NA	NA	0.0200 U	NA	0.0200 U
Vanadium	- -	mg/L	**0.00610**	NA	NA	NA	**0.00610**	NA	**0.00640**	NA	**0.00630**	NA	NA	NA	**0.0140**	NA	**0.00190 J**
Zinc	2	mg/L	0.0100 U	NA	NA	NA	0.0100 U	NA	0.0100 U	NA	0.0100 U	NA	NA	NA	**0.035**	NA	**0.00590 J**

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	AMW-3	AMW-3	AMW-3	AMW-3	AMW-4	AMW-4	AMW-5	AMW-5	AMW-7	AMW-7	AMW-7	AMW-7	AMW-11	AMW-11	AMW-12
Historical Screen Interval (feet below ground surface)			4 - 9	4 - 9	4 - 9	4 - 9	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	3 - 8
Current Screen Interval (Feet below current ground surface):			8 - 13	8 - 13	8 - 13	8 - 13	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	7 - 12
Date Collected:			01/20/11	09/11/13	01/13/16	06/21/16	01/26/11	09/11/13	01/26/11	09/11/13	01/26/11	09/10/13	01/12/16	06/21/16	01/26/11	09/11/13	02/20/13
Inorganics-Dissolved																	
Aluminum	- -	mg/L	0.200 UB	NA	NA	NA	**0.220**	NA	**3.800**	NA	0.200 U	NA	NA	NA	**0.260**	NA	0.200 U
Antimony	0.003	mg/L	0.0200 U	NA	NA	NA	0.0200 U	NA	0.0200 U	NA	0.0200 U	NA	NA	NA	0.0200 U	NA	0.0200 U
Arsenic	0.025	mg/L	**0.00830 J**	NA	NA	NA	0.0100 U	NA	**0.00650 J**	NA	0.0100 U	NA	NA	NA	0.0100 U	NA	**0.00650 J**
Barium	1	mg/L	**0.0260**	NA	NA	NA	**0.00970**	NA	**0.0110**	NA	**0.0140**	NA	NA	NA	**0.0360**	NA	**0.0770**
Beryllium	0.003	mg/L	0.00200 U	NA	NA	NA	0.00200 U	NA	0.00200 U	NA	0.00200 U	NA	NA	NA	0.00200 U	NA	0.00200 U
Cadmium	0.005	mg/L	0.00100 U	NA	NA	NA	**0.000510 J**	NA	**0.000450 J**	NA	**0.000640 J**	NA	NA	NA	**0.000530 J**	NA	0.00100 U
Calcium	- -	mg/L	**101**	NA	NA	NA	**83.6**	NA	**142**	NA	**46.7**	NA	NA	NA	**89.9**	NA	**122**
Chromium	0.05	mg/L	**0.00190 J**	NA	NA	NA	0.00400 U	NA	0.00400 U	NA	**0.00120 J**	NA	NA	NA	**0.000940 J**	NA	**0.00130 J**
Cobalt	- -	mg/L	0.00400 U	NA	NA	NA	0.00400 U	NA	**0.000660 J**	NA	0.00400 U	NA	NA	NA	0.00400 U	NA	0.00400 U
Copper	0.2	mg/L	0.0100 U	NA	NA	NA	0.0100 U	NA	**0.00280 J**	NA	**0.00210 J**	NA	NA	NA	**0.00170 J**	NA	0.0100 UB
Iron	0.3	mg/L	**5.900**	NA	NA	**0.000550**	**2.700**	NA	**0.0610**	NA	**0.0420 J**	NA	NA	**0.0850**	**8.700**	NA	**24.8**
Lead	0.025	mg/L	**0.00690**	NA	NA	NA	0.00500 U	NA	0.00500 U	NA	0.00500 U	NA	NA	NA	0.00500 U	NA	**0.00550**
Magnesium	35	mg/L	**14.90 J**	NA	NA	NA	**12.90**	NA	**0.490**	NA	**33.30**	NA	NA	NA	**41.60**	NA	**19.3**
Manganese	0.3	mg/L	**0.290**	NA	NA	**1.40 B**	**0.460**	NA	**0.00190 J**	NA	**0.0330**	NA	NA	**0.0850 B**	**0.0560**	NA	**0.610**
Mercury	0.0007	mg/L	0.000200 U	NA	NA	NA	0.000200 U	NA	0.000200 U	NA	0.000200 U	NA	NA	NA	0.000200 U	NA	0.000200 U
Nickel	0.1	mg/L	**0.00340 J**	NA	NA	NA	**0.00490 J**	NA	**0.0200**	NA	**0.00630 J**	NA	NA	NA	0.0100 U	NA	**0.00370 J**
Potassium	- -	mg/L	**18.2**	NA	NA	NA	**25.40**	NA	**43.90**	NA	**46.40**	NA	NA	NA	**13.70**	NA	**15.1**
Selenium	0.01	mg/L	0.0150 UJ	NA	NA	NA	0.0150 U	NA	0.0150 U	NA	0.0150 U	NA	NA	NA	0.0150 U	NA	0.0150 U
Silver	0.05	mg/L	0.00300 U	NA	NA	NA	0.00300 U	NA	0.00300 U	NA	0.00300 U	NA	NA	NA	0.00300 U	NA	0.00300 U
Sodium	20	mg/L	**964**	NA	NA	NA	**280**	NA	**266**	NA	**479**	NA	NA	NA	**167**	NA	**142**
Thallium	0.0005	mg/L	0.0200 U	NA	NA	NA	0.0200 U	NA	0.0200 U	NA	0.0200 U	NA	NA	NA	0.0200 U	NA	0.0200 U
Vanadium	- -	mg/L	**0.00400 J**	NA	NA	NA	**0.00630**	NA	**0.00520**	NA	**0.00540**	NA	NA	NA	**0.00580**	NA	**0.00220 J**
Zinc	2	mg/L	0.0100 U	NA	NA	NA	0.0100 U	NA	0.0100 U	NA	**0.00190 J**	NA	NA	NA	**0.00440 J**	NA	**0.00350 J**
General Chemistry																	
Alkalinity	- -	mg/L	**425**	NA	NA	**351**	**292**	NA	**338**	NA	**309**	NA	NA	**199 B**	**414**	NA	NA
Alkalinity, Bicarbonate	- -	mg/L	**425**	NA	NA	**351**	**292**	NA	**338**	NA	**309**	NA	NA	**199 B**	**414**	NA	NA
Ammonia Nitrogen	- -	mg/L	**11**	NA	NA	NA	**13.9**	NA	**18.7**	NA	**17**	NA	NA	NA	**3.9**	NA	NA
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	mg/L	0.75 U	NA	NA	NA	1.5 UJ	NA	1.5 UJ	NA	1.5 UJ	NA	NA	NA	1.5 UJ	NA	NA
Ethene	- -	mg/L	0.75 U	NA	NA	NA	1.5 UJ	NA	1.5 UJ	NA	1.5 UJ	NA	NA	NA	1.5 UJ	NA	NA
Methane	- -	mg/L	**12 D**	NA	NA	NA	**14 J**	NA	**9.6 J**	NA	**16 J**	NA	NA	NA	**11 J**	NA	NA
Nitrate Nitrogen	- -	mg/L	0.05 U	NA	NA	NA	0.05 U	NA	0.05 U	NA	0.05 U	NA	NA	NA	0.05 U	NA	NA
Nitrite Nitrogen	- -	mg/L	0.05 U	NA	NA	NA	0.05 U	NA	**0.16**	NA	0.05 U	NA	NA	NA	0.05 U	NA	NA
Orthophosphate	- -	mg/L	**0.4**	NA	NA	NA	**0.54 J**	NA	**0.28 J**	NA	**1.5 J**	NA	NA	NA	**0.84 J**	NA	NA
Soluble Organic Carbon	- -	mg/L	**37.4**	NA	NA	NA	**36.8**	NA	**41.5**	NA	**37.2**	NA	NA	NA	**28.2**	NA	NA
Sulfate	250	mg/L	5 UB	NA	NA	**970**	5 UB	NA	11 UB	NA	5 UB	NA	NA	**82.3**	6.5 UB	NA	NA
Sulfide	- -	mg/L	0.1 U	NA	NA	**5.3**	0.1 U	NA	0.1 U	NA	**0.31**	NA	NA	**5.2**	0.1 U	NA	NA
Total Dissolved Solids	- -	mg/L	**628**	NA	NA	NA	**1,010**	NA	**1,170**	NA	**1,600**	NA	NA	NA	**829**	NA	**976**

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Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			AMW-12	AMW-12	AMW-13-D1	AMW-13-D1	AMW-13-D2	AMW-13-D2	AMW-13-VD	AMW-13-VD	AMW-14-D1	AMW-14-D1	AMW-14-D2	AMW-14-D2	AMW-14-VD
Historical Screen Interval (feet below ground surface)			3 - 8	3 - 8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		7 - 12	7 - 12	22 - 32	22 - 32	32 - 42	32 - 42	60 - 70	60 - 70	22 - 32	22 - 32	32 - 42	32 - 42	64 - 74
Date Collected:		Units	09/13/13	01/14/16	06/24/16	07/27/16	06/23/16	07/27/16	06/23/16	07/27/16	06/24/16	07/26/16	06/23/16	07/26/16	06/23/16
Volatile Organics															
1,1,1-Trichloroethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	1	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**0.91 J**	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**0.46 J**	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	0.04	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	0.0006	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	3	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	1	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	3	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	50	ug/L	50 U	50 U	10 U	10 U	10 U	10 U	**3.2 J**	**5.8 J**	10 U	10 U	10 U	10 U	**3.9 J**
2-Hexanone	50	ug/L	25 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone	- -	ug/L	25 U	25 U	5.0 U	5.0 U	**3.3 J**	5.0 U	5.0 U	**2.4 J**	5.0 U	5.0 U	**3.2 J**	5.0 U	**2.1 J**
Acetone	50	ug/L	**43 J**	**25 J**	**6.5 J**	**3.4 J**	**3.2 J**	**4.8 J**	**18**	**46**	**4.6 J**	**3.9 J**	**3.3 J**	**3.1 J**	**22**
Benzene	1	ug/L	**280**	**80**	1.0 U	**4.5**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**4.3**	1.0 U	**0.88 J**	1.0 U
Bromodichloromethane	50	ug/L	5.0 U	5.0 U	**0.99 J**	1.0 U	**0.97 J**	1.0 U	1.0 U	1.0 U	**0.85 J**	1.0 U	**0.99 J**	1.0 U	**0.87 J**
Bromoform	50	ug/L	5.0 U	5.0 U	**3.4**	**1.1**	**4.2**	**0.62 J**	**3.1**	1.0 U	**2.5**	1.0 U	**4.6**	**1.3**	**3.0**
Bromomethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	60	ug/L	5.0 U	5.0 U	**2.7**	**2.8**	**0.66 J**	**12**	**1.5**	**7.9**	**2.6**	**2.8**	**5.5**	**12**	**0.63 J**
Carbon Tetrachloride	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	7	ug/L	5.0 U	5.0 U	**0.37 J**	1.0 U	**0.36 J**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**1.0**	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	0.4	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	- -	ug/L	**16 J**	**12**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**1.9**	1.0 U	1.0 U	**0.32 J**
Dibromochloromethane	50	ug/L	5.0 U	5.0 U	**2.4**	**0.82 J**	**2.6**	**0.41 J**	**2.1**	1.0 U	**2.0**	1.0 U	**2.6**	**0.79 J**	**2.0**
Dichlorodifluoromethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	5	ug/L	**4.3 J**	5.0 U	1.0 U	**1.8**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**3.6**	1.0 U	1.0 U	1.0 U
Isopropylbenzene	5	ug/L	**44**	**24**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	- -	ug/L	5.0 U	13 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl tert-butyl ether	10	ug/L	**52**	**32**	**10**	**63 F1**	**3.5**	**41**	**5.0**	**3.4**	**12**	**140**	**3.1**	**24**	**0.91 J**
Methylcyclohexane	- -	ug/L	**12**	**5.4**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**0.97 J**	1.0 U	1.0 U	**0.36 J**
Methylene Chloride	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 UF1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	5	ug/L	5.0 U	5.0 U	**0.38 J**	1.0 U	**0.57 J**	1.0 U	**1.5**	**1.0**	1.0 U	1.0 U	1.0 U	1.0 U	**0.59 J**
Toluene	5	ug/L	**5.1**	5.0 U	1.0 U	1.0 U	**1.3**	1.0 U	**1.6**	**1.3**	1.0 U	**7.1**	**0.81 J**	**0.64 J**	**10**
trans-1,2-Dichloroethene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**7.8**	1.0 U	**0.90 J**	1.0 U
trans-1,3-Dichloropropene	0.4	ug/L	5.0 U	5.0 U	1.0 U	1.0 UF1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl Chloride	2	ug/L	5.0 U	5.0 U	**1.3**	**9.9**	1.0 U	1.0 U	1.0 U	1.0 U	**1.4**	**2,100**	1.0 U	**3.6**	1.0 U
Xylenes (total)	5	ug/L	**7.1 J**	10 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	**11**	2.0 U	2.0 U	**0.79 J**

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Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			AMW-12	AMW-12	AMW-13-D1	AMW-13-D1	AMW-13-D2	AMW-13-D2	AMW-13-VD	AMW-13-VD	AMW-14-D1	AMW-14-D1	AMW-14-D2	AMW-14-D2	AMW-14-VD
Historical Screen Interval (feet below ground surface)			3 - 8	3 - 8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		7 - 12	7 - 12	22 - 32	22 - 32	32 - 42	32 - 42	60 - 70	60 - 70	22 - 32	22 - 32	32 - 42	32 - 42	64 - 74
Date Collected:		Units	09/13/13	01/14/16	06/24/16	07/27/16	06/23/16	07/27/16	06/23/16	07/27/16	06/24/16	07/26/16	06/23/16	07/26/16	06/23/16
Semivolatile Organics															
1,1'-Biphenyl	5	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
2,2'-Oxybis(1-Chloropropane)	5	ug/L	4.9 U	53 U	5.2 U*	NA	5.0 U	NA	5.1 U	NA	4.9 U*	NA	4.9 U	NA	4.8 U
2,4,5-Trichlorophenol	1	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
2,4,6-Trichlorophenol	1	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
2,4-Dichlorophenol	5	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
2,4-Dimethylphenol	50	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
2,4-Dinitrophenol	10	ug/L	9.8 U	110 U	10 U	NA	10 U	NA	10 U	NA	9.7 U	NA	9.7 U	NA	9.7 U
2,4-Dinitrotoluene	5	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
2,6-Dinitrotoluene	5	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
2-Chloronaphthalene	10	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
2-Chlorophenol	1	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
2-Methylnaphthalene	- -	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
2-Methylphenol	- -	ug/L	4.9 U	53 U	5.2 U*	NA	5.0 U	NA	5.1 U	NA	4.9 U*	NA	4.9 U	NA	4.8 U
2-Nitroaniline	5	ug/L	9.8 U	110 U	**0.45 J**	NA	10 U	NA	10 U	NA	9.7 U	NA	9.7 U	NA	9.7 U
2-Nitrophenol	- -	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
3,3'-Dichlorobenzidine	5	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
3-Nitroaniline	5	ug/L	9.8 U	110 U	10 U	NA	10 U	NA	10 U	NA	9.7 U	NA	9.7 U	NA	9.7 U
4,6-Dinitro-2-methylphenol	- -	ug/L	9.8 U	110 U	10 U	NA	10 U	NA	10 U	NA	9.7 U	NA	9.7 U	NA	9.7 U
4-Bromophenyl-phenylether	- -	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
4-Chloro-3-Methylphenol	- -	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
4-Chloroaniline	5	ug/L	R	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
4-Chlorophenyl-phenylether	- -	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
4-Methylphenol	- -	ug/L	9.8 U	110 U	10 U*	NA	10 U	NA	10 U	NA	9.7 U*	NA	9.7 U	NA	9.7 U
4-Nitroaniline	5	ug/L	9.8 U	110 U	10 U	NA	10 U	NA	10 U	NA	9.7 U	NA	9.7 U	NA	9.7 U
4-Nitrophenol	- -	ug/L	9.8 U	110 U	10 U	NA	10 U	NA	10 U	NA	9.7 U	NA	9.7 U	NA	9.7 U
Acenaphthene	20	ug/L	4.9 U	53 U	**2.8 J**	NA	5.0 U	NA	5.1 U	NA	**0.90 J**	NA	4.9 U	NA	4.8 U
Acenaphthylene	- -	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Acetophenone	- -	ug/L	4.9 U	53 U	5.2 U*	NA	5.0 U	NA	5.1 U	NA	4.9 U*	NA	4.9 U	NA	4.8 U
Anthracene	50	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Atrazine	7.5	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Benzaldehyde	- -	ug/L	4.9 U	53 U	5.2 U*	NA	5.0 U	NA	5.1 U	NA	4.9 U*	NA	4.9 U	NA	4.8 U
Benzo(a)anthracene	0.002	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Benzo(a)pyrene	- -	ug/L	4.9 UJ	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Benzo(b)fluoranthene	0.002	ug/L	4.9 UJ	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Benzo(g,h,i)perylene	- -	ug/L	4.9 UJ	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Benzo(k)fluoranthene	0.002	ug/L	4.9 UJ	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
bis(2-Chloroethoxy)methane	5	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
bis(2-Chloroethyl)ether	1	ug/L	4.9 U	53 U	5.2 U*	NA	5.0 U	NA	5.1 U	NA	4.9 U*	NA	4.9 U	NA	4.8 U
bis(2-Ethylhexyl)phthalate	5	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	**3.9 J**	NA	4.9 U	NA	**3.0 J**	NA	**4.0 J**
Butylbenzylphthalate	50	ug/L	**0.42 J**	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Caprolactam	- -	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Carbazole	- -	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	**0.39 J**	NA	4.9 U	NA	4.8 U
Chrysene	0.002	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Dibenzo(a,h)anthracene	- -	ug/L	4.9 UJ	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Dibenzofuran	- -	ug/L	9.8 U	110 U	10 U	NA	10 U	NA	10 U	NA	9.7 U	NA	9.7 U	NA	9.7 U
Diethylphthalate	50	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Dimethylphthalate	50	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Di-n-Butylphthalate	50	ug/L	4.9 UB	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U

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Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	AMW-12	AMW-12	AMW-13-D1	AMW-13-D1	AMW-13-D2	AMW-13-D2	AMW-13-VD	AMW-13-VD	AMW-14-D1	AMW-14-D1	AMW-14-D2	AMW-14-D2	AMW-14-VD
Historical Screen Interval (feet below ground surface)			3 - 8	3 - 8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Current Screen Interval (Feet below current ground surface):			7 - 12	7 - 12	22 - 32	22 - 32	32 - 42	32 - 42	60 - 70	60 - 70	22 - 32	22 - 32	32 - 42	32 - 42	64 - 74
Date Collected:			09/13/13	01/14/16	06/24/16	07/27/16	06/23/16	07/27/16	06/23/16	07/27/16	06/24/16	07/26/16	06/23/16	07/26/16	06/23/16
Semivolatile Organics (Cont.)															
Di-n-Octylphthalate	50	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Fluoranthene	50	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Fluorene	50	ug/L	4.9 U	53 U	**0.42 J**	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Hexachlorobenzene	0.04	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Hexachlorobutadiene	0.5	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Hexachlorocyclopentadiene	5	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Hexachloroethane	5	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Indeno(1,2,3-cd)pyrene	0.002	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Isophorone	50	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
naphthalene	10	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Nitrobenzene	0.4	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
N-Nitroso-di-n-propylamine	- -	ug/L	4.9 U	53 U	5.2 U*	NA	5.0 U	NA	5.1 U	NA	4.9 U*	NA	4.9 U	NA	4.8 U
N-Nitrosodiphenylamine	50	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Pentachlorophenol	- -	ug/L	9.8 U	110 U	10 U	NA	10 U	NA	10 U	NA	9.7 U	NA	9.7 U	NA	9.7 U
Phenanthrene	50	ug/L	4.9 UB	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	**0.98 J**	NA	4.9 U	NA	4.8 U
Phenol	1	ug/L	**4.1 J**	53 U	5.2 U*	NA	5.0 U	NA	5.1 U	NA	4.9 U*	NA	4.9 U	NA	4.8 U
Pyrene	50	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Inorganics - Total															
Aluminum	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	0.003	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.025	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	1	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.003	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.05	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	0.2	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	mg/L	NA	NA	**4.40 B**	NA	**2.70**	NA	**26.1**	NA	**1.30 B**	NA	**6.60**	NA	**37.8**
Lead	0.025	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	35	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.3	mg/L	NA	NA	**0.510 B**	NA	**0.740 B**	NA	**1.10 B**	NA	**0.400 B**	NA	**0.510 B**	NA	**0.720 B**
Mercury	0.0007	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.01	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	0.05	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	20	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.0005	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	2	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Table 6
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Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	AMW-12	AMW-12	AMW-13-D1	AMW-13-D1	AMW-13-D2	AMW-13-D2	AMW-13-VD	AMW-13-VD	AMW-14-D1	AMW-14-D1	AMW-14-D2	AMW-14-D2	AMW-14-VD
Historical Screen Interval (feet below ground surface)			3 - 8	3 - 8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Current Screen Interval (Feet below current ground surface):			7 - 12	7 - 12	22 - 32	22 - 32	32 - 42	32 - 42	60 - 70	60 - 70	22 - 32	22 - 32	32 - 42	32 - 42	64 - 74
Date Collected:			09/13/13	01/14/16	06/24/16	07/27/16	06/23/16	07/27/16	06/23/16	07/27/16	06/24/16	07/26/16	06/23/16	07/26/16	06/23/16
Inorganics-Dissolved															
Aluminum	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	0.003	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.025	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	1	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.003	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.05	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	0.2	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	mg/L	NA	NA	**3.50**	NA	**14.0**	NA	**23.7**	NA	**0.410**	NA	**2.90**	NA	**35.3**
Lead	0.025	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	35	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.3	mg/L	NA	NA	**0.510 B**	NA	**0.740 B**	NA	**1.10 B**	NA	**0.370 B**	NA	**0.480 B**	NA	**0.720 B**
Mercury	0.0007	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.01	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	0.05	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	20	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.0005	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	2	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
General Chemistry															
Alkalinity	- -	mg/L	NA	NA	**569 B**	NA	**732 B**	NA	**732 B**	NA	**886 B**	NA	**740 B**	NA	**427**
Alkalinity, Bicarbonate	- -	mg/L	NA	NA	**569 B**	NA	**732 B**	NA	**732 B**	NA	**886 B**	NA	**740 B**	NA	**427**
Ammonia Nitrogen	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite Nitrogen	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Orthophosphate	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soluble Organic Carbon	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	250	mg/L	NA	NA	**170**	NA	**250**	NA	**1,860**	NA	**103**	NA	**263**	NA	**1,780**
Sulfide	- -	mg/L	NA	NA	**11.9**	NA	**2.6**	NA	0.1 U	NA	**48**	NA	**22.5**	NA	0.1 U
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	AMW-14-VD	AMW-15-D1	AMW-15-D1	AMW-15-D2	AMW-15-D2	AMW-15-D3	AMW-15-D3	AMW-15-VD	AMW-15-VD	ASB-2	ASB-3
Historical Screen Interval (feet below ground surface)			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Current Screen Interval (Feet below current ground surface):			64 - 74	23.5 - 33.5	23.5 - 33.5	30 - 40	30 - 40	40 - 50	40 - 50	60 - 70	60 - 70	20 - 25	27 - 32
Date Collected:			07/27/16	06/23/16	07/27/16	06/23/16	07/27/16	06/23/16	07/27/16	06/23/16	07/27/16	06/06/16	06/08/16
Volatile Organics													
1,1,1-Trichloroethane	5	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	5	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	1	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	5	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	5	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	5	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	0.04	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	0.0006	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	3	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	1	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	3	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	50	ug/L	10 U [10 U]	10 U	50 U	**1.3 J** [10 U]	10 U	10 U [10 U]	10 U	10 U	10 U	10 U	10 U
2-Hexanone	50	ug/L	5.0 U [5.0 U]	5.0 U	25 U	5.0 U [5.0 U]	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone	- -	ug/L	5.0 U [5.0 U]	**2.1 J**	25 U	5.0 U [5.0 U]	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	**6.0**	5.0 U
Acetone	50	ug/L	**8.9 J [9.6 J]**	**4.2 J**	50 U	**11 [9.3 J]**	**3.8 J**	**7.3 J [6.9 J]**	**3.6 J**	**3.2 J**	**8.3 J**	**20**	**5.5 J**
Benzene	1	ug/L	1.0 U [1.0 U]	**0.48 J**	**3.9 J**	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	**1.8**	1.0 U
Bromodichloromethane	50	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	**1.9**	**0.75 J**
Bromoform	50	ug/L	1.0 U [1.0 U]	**2.2**	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	**2.4**	1.0 U	**2.4**
Bromomethane	5	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	60	ug/L	**9.9 [8.4]**	**0.46 J**	5.0 U	**1.6 [1.8]**	**0.42 J**	**4.6 [4.4]**	**1.4**	1.0 U	1.0 U	**1.1**	**0.27 J**
Carbon Tetrachloride	5	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	5	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	7	ug/L	**0.37 J** [1.0 U]	**0.51 J**	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	**0.74 J**	**14**	**0.92 J**
Chloromethane	5	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5	ug/L	1.0 U [1.0 U]	**20**	**220**	**3.0 [3.3]**	**1.7**	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	**5.6**	**2.8**
cis-1,3-Dichloropropene	0.4	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	- -	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	50	ug/L	1.0 U [1.0 U]	**1.1**	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	**1.0**	**0.35 J**	**1.5**
Dichlorodifluoromethane	5	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	5	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropylbenzene	5	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	- -	ug/L	2.5 U [2.5 U]	2.5 U	13 U	2.5 U [2.5 U]	2.5 U	2.5 U [2.5 U]	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl tert-butyl ether	10	ug/L	**0.59 J [0.58 J]**	**29**	**51**	**66 [68]**	**43**	**2.6 [2.4]**	**23**	**1.1**	1.0 U	**55**	**8.5**
Methylcyclohexane	- -	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene Chloride	5	ug/L	1.0 U [1.0 U]	**9.9**	**140**	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	**0.60 J**
Styrene	5	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	5	ug/L	**0.41 J [0.38 J]**	**0.43 J**	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	**1.4**	**1.3**
Toluene	5	ug/L	**8.2 [7.7]**	**3.0**	**7.5**	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	**0.52 J**	**15**	**0.87 J**	1.0 U
trans-1,2-Dichloroethene	5	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	0.4	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	5	ug/L	1.0 U [1.0 U]	**5.5**	**73**	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	**4.4**	**1.2**
Trichlorofluoromethane	5	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl Chloride	2	ug/L	1.0 U [1.0 U]	**70**	**410**	**1.7 [1.8]**	**3.5**	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	**6.0**	**81**
Xylenes (total)	5	ug/L	2.0 U [2.0 U]	2.0 U	**6.5 J**	2.0 U [2.0 U]	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U

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Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			AMW-14-VD	AMW-15-D1	AMW-15-D1	AMW-15-D2	AMW-15-D2	AMW-15-D3	AMW-15-D3	AMW-15-VD	AMW-15-VD	ASB-2	ASB-3
Historical Screen Interval (feet below ground surface)			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		64 - 74	23.5 - 33.5	23.5 - 33.5	30 - 40	30 - 40	40 - 50	40 - 50	60 - 70	60 - 70	20 - 25	27 - 32
Date Collected:		Units	07/27/16	06/23/16	07/27/16	06/23/16	07/27/16	06/23/16	07/27/16	06/23/16	07/27/16	06/06/16	06/08/16
Semivolatile Organics													
1,1'-Biphenyl	5	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	5	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
2,4,5-Trichlorophenol	1	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
2,4,6-Trichlorophenol	1	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
2,4-Dichlorophenol	5	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
2,4-Dimethylphenol	50	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
2,4-Dinitrophenol	10	ug/L	NA	9.4 U	NA	9.3 U [9.9 U]	NA	9.3 U [9.3 U]	NA	9.2 U	NA	NA	NA
2,4-Dinitrotoluene	5	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
2,6-Dinitrotoluene	5	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
2-Chloronaphthalene	10	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
2-Chlorophenol	1	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
2-Methylnaphthalene	- -	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
2-Methylphenol	- -	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
2-Nitroaniline	5	ug/L	NA	9.4 U	NA	9.3 U [9.9 U]	NA	9.3 U [9.3 U]	NA	9.2 U	NA	NA	NA
2-Nitrophenol	- -	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
3,3'-Dichlorobenzidine	5	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
3-Nitroaniline	5	ug/L	NA	9.4 U	NA	9.3 U [9.9 U]	NA	9.3 U [9.3 U]	NA	9.2 U	NA	NA	NA
4,6-Dinitro-2-methylphenol	- -	ug/L	NA	9.4 U	NA	9.3 U [9.9 U]	NA	9.3 U [9.3 U]	NA	9.2 U	NA	NA	NA
4-Bromophenyl-phenylether	- -	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
4-Chloro-3-Methylphenol	- -	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
4-Chloroaniline	5	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
4-Chlorophenyl-phenylether	- -	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
4-Methylphenol	- -	ug/L	NA	9.4 U	NA	9.3 U [9.9 U]	NA	9.3 U [9.3 U]	NA	9.2 U	NA	NA	NA
4-Nitroaniline	5	ug/L	NA	9.4 U	NA	9.3 U [9.9 U]	NA	9.3 U [9.3 U]	NA	9.2 U	NA	NA	NA
4-Nitrophenol	- -	ug/L	NA	9.4 U	NA	9.3 U [9.9 U]	NA	9.3 U [9.3 U]	NA	9.2 U	NA	NA	NA
Acenaphthene	20	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Acenaphthylene	- -	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Acetophenone	- -	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Anthracene	50	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Atrazine	7.5	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Benzaldehyde	- -	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Benzo(a)anthracene	0.002	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Benzo(a)pyrene	- -	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Benzo(b)fluoranthene	0.002	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Benzo(g,h,i)perylene	- -	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Benzo(k)fluoranthene	0.002	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
bis(2-Chloroethoxy)methane	5	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
bis(2-Chloroethyl)ether	1	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Butylbenzylphthalate	50	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Caprolactam	- -	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Carbazole	- -	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Chrysene	0.002	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Dibenzo(a,h)anthracene	- -	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Dibenzofuran	- -	ug/L	NA	9.4 U	NA	9.3 U [9.9 U]	NA	9.3 U [9.3 U]	NA	9.2 U	NA	NA	NA
Diethylphthalate	50	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Dimethylphthalate	50	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Di-n-Butylphthalate	50	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	AMW-14-VD	AMW-15-D1	AMW-15-D1	AMW-15-D2	AMW-15-D2	AMW-15-D3	AMW-15-D3	AMW-15-VD	AMW-15-VD	ASB-2	ASB-3
Historical Screen Interval (feet below ground surface)			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Current Screen Interval (Feet below current ground surface):			64 - 74	23.5 - 33.5	23.5 - 33.5	30 - 40	30 - 40	40 - 50	40 - 50	60 - 70	60 - 70	20 - 25	27 - 32
Date Collected:			07/27/16	06/23/16	07/27/16	06/23/16	07/27/16	06/23/16	07/27/16	06/23/16	07/27/16	06/06/16	06/08/16
Semivolatile Organics (Cont.)													
Di-n-Octylphthalate	50	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Fluoranthene	50	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Fluorene	50	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Hexachlorobenzene	0.04	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Hexachlorobutadiene	0.5	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Hexachlorocyclopentadiene	5	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Hexachloroethane	5	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Isophorone	50	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
naphthalene	10	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Nitrobenzene	0.4	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
N-Nitroso-di-n-propylamine	- -	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
N-Nitrosodiphenylamine	50	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Pentachlorophenol	- -	ug/L	NA	9.4 U	NA	9.3 U [9.9 U]	NA	9.3 U [9.3 U]	NA	9.2 U	NA	NA	NA
Phenanthrene	50	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Phenol	1	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Pyrene	50	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Inorganics - Total													
Aluminum	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	0.003	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.025	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	1	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.003	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.05	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	0.2	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	mg/L	NA	**2.20**	NA	**0.120 [0.110]**	NA	**0.120 [0.0980]**	NA	**4.20**	NA	NA	NA
Lead	0.025	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	35	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.3	mg/L	NA	**0.500 B**	NA	**0.00630 B [0.00580 B]**	NA	**0.240 B [0.250 B]**	NA	**0.200 B**	NA	NA	NA
Mercury	0.0007	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.01	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	0.05	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	20	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.0005	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	2	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	AMW-14-VD	AMW-15-D1	AMW-15-D1	AMW-15-D2	AMW-15-D2	AMW-15-D3	AMW-15-D3	AMW-15-VD	AMW-15-VD	ASB-2	ASB-3
Historical Screen Interval (feet below ground surface)			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Current Screen Interval (Feet below current ground surface):			64 - 74	23.5 - 33.5	23.5 - 33.5	30 - 40	30 - 40	40 - 50	40 - 50	60 - 70	60 - 70	20 - 25	27 - 32
Date Collected:			07/27/16	06/23/16	07/27/16	06/23/16	07/27/16	06/23/16	07/27/16	06/23/16	07/27/16	06/06/16	06/08/16
Inorganics-Dissolved													
Aluminum	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	0.003	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.025	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	1	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.003	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.05	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	0.2	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	mg/L	NA	**1.60**	NA	0.0500 U **[0.0230 J]**	NA	0.0500 U [0.0500 U]	NA	**4.10**	NA	NA	NA
Lead	0.025	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	35	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.3	mg/L	NA	**0.480 B**	NA	**0.00770 B [0.000740 JB]**	NA	**0.100 B [0.130 B]**	NA	**0.210 B**	NA	NA	NA
Mercury	0.0007	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.01	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	0.05	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	20	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.0005	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	2	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
General Chemistry													
Alkalinity	- -	mg/L	NA	**602**	NA	**185 [181 B]**	NA	**12.2 B [617 B]**	NA	**303**	NA	NA	NA
Alkalinity, Bicarbonate	- -	mg/L	NA	**602**	NA	**185 [181 B]**	NA	**12.2 B [617 B]**	NA	**303**	NA	NA	NA
Ammonia Nitrogen	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite Nitrogen	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Orthophosphate	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soluble Organic Carbon	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	250	mg/L	NA	**166**	NA	**165 [166]**	NA	**784 [1,790]**	NA	**1,810**	NA	NA	NA
Sulfide	- -	mg/L	NA	**20.5**	NA	**1.9 F1 [1.8]**	NA	0.1 U [0.1 U]	NA	0.1 U	NA	NA	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	ASB-4	ASB-5	ASB-7	IW-1	IW-2-D1	IW-2-D1	IW-2-D1	MW-18R	MW-18R	MW-18R	MW-23-D1R	MW-23-D1R	MW-23-D1R	MW-23-D1R
Historical Screen Interval (feet below ground surface)			NA	NA	NA	19 - 24	19 - 29	19 - 29	19 - 29	2 - 7	2 - 7	9	16.5 - 26.5	16.5 - 26.5	16.5 - 26.5	16.5 - 26.5
Current Screen Interval (Feet below current ground surface):			27 - 32	20 - 25	20 - 25	23 - 28	23 - 33	23 - 33	23 - 33	6 - 11	6 - 11	6 - 11	20.5 - 30.5	20.5 - 30.5	20.5 - 30.5	20.5 - 30.5
Date Collected:			06/07/16	06/02/16	06/02/16	08/21/13	02/20/13	09/12/13	01/13/16	02/20/13	09/13/13	06/22/16	01/19/11	09/10/13	01/12/16	06/20/16
Volatile Organics																
1,1,1-Trichloroethane	5	ug/L	5.0 U	1.0 U	2.0 U	1.0 U	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
1,1,2,2-Tetrachloroethane	5	ug/L	5.0 U	1.0 U	2.0 U	1.0 U	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	5.0 U	1.0 U	2.0 U	1.0 U	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
1,1,2-Trichloroethane	1	ug/L	5.0 U	1.0 U	2.0 U	1.0 U	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
1,1-Dichloroethane	5	ug/L	5.0 U	1.0 U	2.0 U	**1.6**	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
1,1-Dichloroethene	5	ug/L	**4.2 J**	1.0 U	2.0 U	**2.8**	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
1,2,4-Trichlorobenzene	5	ug/L	5.0 U	1.0 U	2.0 U	1.0 U	4.0 U	1.0 UJ	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
1,2-Dibromo-3-chloropropane	0.04	ug/L	5.0 U	1.0 U	2.0 U	**2.8**	4.0 U	1.0 UJ	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
1,2-Dibromoethane	0.0006	ug/L	5.0 U	1.0 U	2.0 U	1.0 U	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
1,2-Dichlorobenzene	3	ug/L	5.0 U	1.0 U	2.0 U	1.0 U	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
1,2-Dichloroethane	0.6	ug/L	5.0 U	1.0 U	2.0 U	1.0 U	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
1,2-Dichloropropane	1	ug/L	5.0 U	1.0 U	2.0 U	1.0 U	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
1,3-Dichlorobenzene	3	ug/L	5.0 U	1.0 U	2.0 U	1.0 U	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
1,4-Dichlorobenzene	3	ug/L	5.0 U	1.0 U	2.0 U	1.0 U	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
2-Butanone	50	ug/L	50 U	**1.4 J**	20 U	10 U	40 U	10 U	100 U	50 U	50 U	100 U	10 U	50 U	50 U	10 U
2-Hexanone	50	ug/L	25 U	5.0 U	10 U	5.0 U	20 U	5.0 U	50 U	25 U	25 U	50 U	5.0 U	25 U	25 U	5.0 U
4-Methyl-2-pentanone	- -	ug/L	25 U	**5.0**	**5.3 J**	5.0 U	20 U	5.0 U	50 U	25 U	25 U	50 U	5.0 U	25 U	25 U	5.0 U
Acetone	50	ug/L	50 U	**12**	20 U	**7.4 J**	**19 J**	10 U	100 U*	50 U	50 U	100 U	10 U	50 U	50 U*	**6.4 J**
Benzene	1	ug/L	**3.0 J**	1.0 U	2.0 U	**8.5**	**3.0 J**	1.0 U	**9.0 J**	**74**	**230**	**310**	**21**	5.0 U	5.0 U	1.0 U
Bromodichloromethane	50	ug/L	5.0 U	**1.5**	**3.3**	1.0 U	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
Bromoform	50	ug/L	5.0 U	1.0 U	2.0 U	1.0 U	4.0 U	1.0 UJ	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
Bromomethane	5	ug/L	5.0 U	1.0 U	2.0 U	1.0 U	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
Carbon Disulfide	60	ug/L	**0.95 J**	**0.53 J**	**1.1 J**	11 UB	4.0 U	1.0 U	10 U	5.0 U	**3.1 J**	10 U	1.0 U	5.0 U	5.0 U	1.0 U
Carbon Tetrachloride	5	ug/L	5.0 U	1.0 U	2.0 U	1.0 U	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
Chlorobenzene	5	ug/L	5.0 U	1.0 U	2.0 U	1.0 U	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
Chloroethane	5	ug/L	5.0 U	1.0 U	2.0 U	1.0 U	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
Chloroform	7	ug/L	5.0 U	**19**	**21**	1.0 U	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
Chloromethane	5	ug/L	5.0 U	1.0 U	2.0 U	1.0 U	4.0 U	1.0 UJ	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
cis-1,2-Dichloroethene	5	ug/L	**1,900**	**2.2**	**67**	**1,900 D**	**34**	1.0 U	**140**	5.0 U	5.0 U	**14**	1.0 U	5.0 U	5.0 U	1.0 U
cis-1,3-Dichloropropene	0.4	ug/L	5.0 U	1.0 U	2.0 U	1.0 U	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
Cyclohexane	- -	ug/L	**5.0**	1.0 U	2.0 U	**2.1**	4.0 U	1.0 U	10 U	**5.2**	**19 J**	**20**	**1.8**	5.0 U	5.0 U	1.0 U
Dibromochloromethane	50	ug/L	5.0 U	1.0 U	**0.65 J**	1.0 U	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
Dichlorodifluoromethane	5	ug/L	5.0 U	1.0 U	2.0 U	1.0 UJ	4.0 UJ	1.0 U	10 U	5.0 UJ	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
Ethylbenzene	5	ug/L	**6.7**	1.0 U	2.0 U	**5.2**	4.0 U	1.0 U	10 U	**5.5**	**20**	10 U	**2.4**	5.0 U	5.0 U	1.0 U
Isopropylbenzene	5	ug/L	5.0 U	1.0 U	2.0 U	1.0 U	4.0 U	1.0 U	10 U	5.0 U	**16**	**14**	**18**	5.0 U	5.0 U	1.0 U
Methyl acetate	- -	ug/L	13 U	2.5 U	5.0 U	1.0 U	**24**	1.0 U	25 U	5.0 U	5.0 U	25 U	1.0 U	5.0 U	13 U	2.5 U
Methyl tert-butyl ether	10	ug/L	**13**	**4.6**	**5.5**	**360 D**	**190**	**27**	**540**	**16**	**49**	**65**	**100 D**	**9.5**	**210**	**30**
Methylcyclohexane	- -	ug/L	**4.5 J**	1.0 U	2.0 U	**2.1**	4.0 U	1.0 U	10 U	**7.2**	**14**	**4.4 J**	**2.3**	5.0 U	5.0 U	1.0 U
Methylene Chloride	5	ug/L	**330**	1.0 U	2.0 U	**1.6**	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
Styrene	5	ug/L	5.0 U	1.0 U	2.0 U	1.0 U	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
Tetrachloroethene	5	ug/L	**6.7**	**1.2**	**1.2 J**	1.0 U	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
Toluene	5	ug/L	**9.0**	1.0 U	2.0 U	**14**	**3.1 J**	1.0 U	**6.4 J**	5.0 U	**3.4 J**	10 U	1.0 U	5.0 U	5.0 U	1.0 U
trans-1,2-Dichloroethene	5	ug/L	**13**	1.0 U	2.0 U	**32**	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
trans-1,3-Dichloropropene	0.4	ug/L	5.0 U	1.0 U	2.0 U	1.0 U	4.0 U	1.0 UJ	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 UF1	1.0 U
Trichloroethene	5	ug/L	**2,100**	**4.8**	**1.7 J**	**6.1**	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	**2.6**	5.0 U	5.0 U	1.0 U
Trichlorofluoromethane	5	ug/L	5.0 U	1.0 U	2.0 U	1.0 U	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
Vinyl Chloride	2	ug/L	**400**	**11**	**31**	**2,100 D**	4.0 U	1.0 U	**35**	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
Xylenes (total)	5	ug/L	**36**	**0.89 J**	4.0 U	**18**	**5.7 J**	2.0 U	**21**	10 U	**3.8 J**	20 U	**1.3 J**	10 U	10 U	2.0 U

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Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	ASB-4	ASB-5	ASB-7	IW-1	IW-2-D1	IW-2-D1	IW-2-D1	MW-18R	MW-18R	MW-18R	MW-23-D1R	MW-23-D1R	MW-23-D1R	MW-23-D1R
Historical Screen Interval (feet below ground surface)			NA	NA	NA	19 - 24	19 - 29	19 - 29	19 - 29	2 - 7	2 - 7	9	16.5 - 26.5	16.5 - 26.5	16.5 - 26.5	16.5 - 26.5
Current Screen Interval (Feet below current ground surface):			27 - 32	20 - 25	20 - 25	23 - 28	23 - 33	23 - 33	23 - 33	6 - 11	6 - 11	6 - 11	20.5 - 30.5	20.5 - 30.5	20.5 - 30.5	20.5 - 30.5
Date Collected:			06/07/16	06/02/16	06/02/16	08/21/13	02/20/13	09/12/13	01/13/16	02/20/13	09/13/13	06/22/16	01/19/11	09/10/13	01/12/16	06/20/16
Semivolatile Organics																
1,1'-Biphenyl	5	ug/L	NA	NA	NA	24 U	NA	5.3 U	**2.6 J**	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
2,2'-Oxybis(1-Chloropropane)	5	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
2,4,5-Trichlorophenol	1	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
2,4,6-Trichlorophenol	1	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
2,4-Dichlorophenol	5	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
2,4-Dimethylphenol	50	ug/L	NA	NA	NA	**3.7 J**	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
2,4-Dinitrophenol	10	ug/L	NA	NA	NA	47 U	NA	11 U	9.9 U	NA	9.6 U	47 U	10 U	9.7 U	92 UF1	200 U
2,4-Dinitrotoluene	5	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
2,6-Dinitrotoluene	5	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
2-Chloronaphthalene	10	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
2-Chlorophenol	1	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
2-Methylnaphthalene	- -	ug/L	NA	NA	NA	**9.9 J**	NA	**4.3 J**	**1.6 J**	NA	**22**	23 U	**0.94 J**	4.9 U	46 U	100 U
2-Methylphenol	- -	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
2-Nitroaniline	5	ug/L	NA	NA	NA	47 U	NA	11 U	9.9 U	NA	9.6 U	47 U	10 U	9.7 U	92 U	200 U
2-Nitrophenol	- -	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
3,3'-Dichlorobenzidine	5	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 UF1	100 U
3-Nitroaniline	5	ug/L	NA	NA	NA	47 UJ	NA	11 U	9.9 U	NA	9.6 U	47 U	10 U	9.7 U	92 U	200 U
4,6-Dinitro-2-methylphenol	- -	ug/L	NA	NA	NA	47 U	NA	11 U	9.9 U	NA	9.6 U	47 U	10 U	9.7 U	92 UF1	200 U
4-Bromophenyl-phenylether	- -	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
4-Chloro-3-Methylphenol	- -	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	**0.54 J**	23 U	5.2 U	4.9 U	46 U	100 U
4-Chloroaniline	5	ug/L	NA	NA	NA	24 UJ	NA	5.3 UJ	4.9 U	NA	R	23 U	5.2 U	4.9 U	46 U	100 U
4-Chlorophenyl-phenylether	- -	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
4-Methylphenol	- -	ug/L	NA	NA	NA	47 U	NA	11 U	9.9 U	NA	9.6 U	47 U	10 U	9.7 U	92 U	200 U
4-Nitroaniline	5	ug/L	NA	NA	NA	47 U	NA	11 U	9.9 U	NA	9.6 U	47 U	10 U	9.7 U	92 U	200 U
4-Nitrophenol	- -	ug/L	NA	NA	NA	47 U	NA	11 U	9.9 U	NA	9.6 U	47 U	10 U	9.7 U	92 U	200 U
Acenaphthene	20	ug/L	NA	NA	NA	**22 J**	NA	**4.9 J**	**47**	NA	**2.0 J**	23 U	**1.3 J**	**1.6 J**	46 U	100 U
Acenaphthylene	- -	ug/L	NA	NA	NA	24 U	NA	**1.5 J**	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
Acetophenone	- -	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
Anthracene	50	ug/L	NA	NA	NA	24 U	NA	5.3 U	**0.31 J**	NA	**0.43 J**	23 U	5.2 U	4.9 U	46 U	100 U
Atrazine	7.5	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
Benzaldehyde	- -	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	**0.63 J**	23 U	5.2 U	4.9 U	46 U	100 U
Benzo(a)anthracene	0.002	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
Benzo(a)pyrene	- -	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 UJ	23 U	5.2 U	4.9 U	46 U	100 U
Benzo(b)fluoranthene	0.002	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 UJ	23 U	5.2 U	4.9 U	46 U	100 U
Benzo(g,h,i)perylene	- -	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 UJ	23 U	5.2 U	4.9 UJ	46 UF1	100 U
Benzo(k)fluoranthene	0.002	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 UJ	23 U	5.2 U	4.9 U	46 U	100 U
bis(2-Chloroethoxy)methane	5	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
bis(2-Chloroethyl)ether	1	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
Butylbenzylphthalate	50	ug/L	NA	NA	NA	24 U	NA	5.3 U	**0.47 JB**	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
Caprolactam	- -	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 UF1	100 U
Carbazole	- -	ug/L	NA	NA	NA	**21 J**	NA	**2.7 J**	**17**	NA	**2.2 J**	23 U	5.2 U	4.9 U	46 U	100 U
Chrysene	0.002	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 UF1	100 U
Dibenzo(a,h)anthracene	- -	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 UJ	23 U	5.2 U	4.9 U	46 UF1	100 U
Dibenzofuran	- -	ug/L	NA	NA	NA	**8.9 J**	NA	**1.7 J**	**15**	NA	**1.7 J**	47 U	10 U	9.7 U	92 U	200 U
Diethylphthalate	50	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
Dimethylphthalate	50	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
Di-n-Butylphthalate	50	ug/L	NA	NA	NA	24 U	NA	**0.38 J**	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U

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Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	ASB-4	ASB-5	ASB-7	IW-1	IW-2-D1	IW-2-D1	IW-2-D1	MW-18R	MW-18R	MW-18R	MW-23-D1R	MW-23-D1R	MW-23-D1R	MW-23-D1R
Historical Screen Interval (feet below ground surface)			NA	NA	NA	19 - 24	19 - 29	19 - 29	19 - 29	2 - 7	2 - 7	9	16.5 - 26.5	16.5 - 26.5	16.5 - 26.5	16.5 - 26.5
Current Screen Interval (Feet below current ground surface):			27 - 32	20 - 25	20 - 25	23 - 28	23 - 33	23 - 33	23 - 33	6 - 11	6 - 11	6 - 11	20.5 - 30.5	20.5 - 30.5	20.5 - 30.5	20.5 - 30.5
Date Collected:			06/07/16	06/02/16	06/02/16	08/21/13	02/20/13	09/12/13	01/13/16	02/20/13	09/13/13	06/22/16	01/19/11	09/10/13	01/12/16	06/20/16
Semivolatile Organics (Cont.)																
Di-n-Octylphthalate	50	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
Fluoranthene	50	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
Fluorene	50	ug/L	NA	NA	NA	**3.3 J**	NA	**1.1 J**	**8.1**	NA	**2.6 J**	23 U	5.2 U	4.9 U	46 U	100 U
Hexachlorobenzene	0.04	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
Hexachlorobutadiene	0.5	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
Hexachlorocyclopentadiene	5	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 UF1	100 U
Hexachloroethane	5	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 UJ	23 U	5.2 U	4.9 U	46 UF1	100 U
Isophorone	50	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
naphthalene	10	ug/L	NA	NA	NA	**5.1 J**	NA	**12**	**46**	NA	**1.5 J**	23 U	**1.3 J**	4.9 U	46 U	100 U
Nitrobenzene	0.4	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
N-Nitroso-di-n-propylamine	- -	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
N-Nitrosodiphenylamine	50	ug/L	NA	NA	NA	24 U	NA	5.3 U	**0.71 J**	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
Pentachlorophenol	- -	ug/L	NA	NA	NA	47 U	NA	11 U	9.9 U	NA	9.6 U	47 U	10 U	9.7 U	92 U	200 U
Phenanthrene	50	ug/L	NA	NA	NA	24 UB	NA	5.3 UB	**5.0**	NA	**5.0**	23 U	5.2 U	4.9 U	46 U	100 U
Phenol	1	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	**1.3 J**	**1.9 J**	5.2 U	4.9 U	46 U	100 U
Pyrene	50	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
Inorganics - Total																
Aluminum	- -	mg/L	NA	NA	NA	NA	**0.510**	NA	NA	**0.340**	NA	NA	**0.380**	NA	NA	NA
Antimony	0.003	mg/L	NA	NA	NA	NA	0.0200 U	NA	NA	0.0200 U	NA	NA	0.020 U	NA	NA	NA
Arsenic	0.025	mg/L	NA	NA	NA	NA	**0.00560 J**			**0.0130**			0.0100 U	NA	NA	NA
Barium	1	mg/L	NA	NA	NA	NA	**0.0450**	NA	NA	**0.0380**	NA	NA	**0.0790**	NA	NA	NA
Beryllium	0.003	mg/L	NA	NA	NA	NA	0.00200 U	NA	NA	0.00200 U	NA	NA	0.00200 U	NA	NA	NA
Cadmium	0.005	mg/L	NA	NA	NA	NA	**0.000520 J**	NA	NA	0.00100 U	NA	NA	**0.00410 J**	NA	NA	NA
Calcium	- -	mg/L	NA	NA	NA	NA	**77.8**	NA	NA	**104**	NA	NA	**145**	NA	NA	NA
Chromium	0.05	mg/L	NA	NA	NA	NA	**0.00900**	NA	NA	**0.00430**	NA	NA	0.00400 U	NA	NA	NA
Cobalt	- -	mg/L	NA	NA	NA	NA	0.00400 U	NA	NA	0.00400 U	NA	NA	**0.00640 J**	NA	NA	NA
Copper	0.2	mg/L	NA	NA	NA	NA	**0.00570 J**	NA	NA	**0.0150**	NA	NA	**0.00220 J**	NA	NA	NA
Iron	0.3	mg/L	NA	NA	NA	NA	**0.780**	NA	NA	**7.50**	NA	**11.2**	**4.000**	NA	NA	**0.660**
Lead	0.025	mg/L	NA	NA	NA	NA	**0.00340 J**	NA	NA	**0.0500**	NA	NA	0.00500 U	NA	NA	NA
Magnesium	35	mg/L	NA	NA	NA	NA	**96.0**	NA	NA	**18.2**	NA	NA	**49.3**	NA	NA	NA
Manganese	0.3	mg/L	NA	NA	NA	NA	**0.110**	NA	NA	**0.200**	NA	**0.450 B**	**3.300**	NA	NA	**0.690 B**
Mercury	0.0007	mg/L	NA	NA	NA	NA	0.000200 U	NA	NA	0.000200 U	NA	NA	0.000200 U	NA	NA	NA
Nickel	0.1	mg/L	NA	NA	NA	NA	**0.00450 J**	NA	NA	**0.00460 J**	NA	NA	**0.00270 J**	NA	NA	NA
Potassium	- -	mg/L	NA	NA	NA	NA	**58.2**	NA	NA	**20.8**	NA	NA	**23.6**	NA	NA	NA
Selenium	0.01	mg/L	NA	NA	NA	NA	0.0150 U	NA	NA	0.0150 U	NA	NA	0.0150 U	NA	NA	NA
Silver	0.05	mg/L	NA	NA	NA	NA	0.00300 U	NA	NA	0.00300 U	NA	NA	0.00300 U	NA	NA	NA
Sodium	20	mg/L	NA	NA	NA	NA	**896**	NA	NA	**299**	NA	NA	**349**	NA	NA	NA
Thallium	0.0005	mg/L	NA	NA	NA	NA	0.0200 U	NA	NA	0.0200 U	NA	NA	0.0200 U	NA	NA	NA
Vanadium	- -	mg/L	NA	NA	NA	NA	**0.00820**	NA	NA	**0.0280**	NA	NA	**0.011**	NA	NA	NA
Zinc	2	mg/L	NA	NA	NA	NA	**0.00710 J**	NA	NA	**0.0100**	NA	NA	**0.00420 J**	NA	NA	NA

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Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	ASB-4	ASB-5	ASB-7	IW-1	IW-2-D1	IW-2-D1	IW-2-D1	MW-18R	MW-18R	MW-18R	MW-23-D1R	MW-23-D1R	MW-23-D1R	MW-23-D1R
Historical Screen Interval (feet below ground surface)			NA	NA	NA	19 - 24	19 - 29	19 - 29	19 - 29	2 - 7	2 - 7	9	16.5 - 26.5	16.5 - 26.5	16.5 - 26.5	16.5 - 26.5
Current Screen Interval (Feet below current ground surface):			27 - 32	20 - 25	20 - 25	23 - 28	23 - 33	23 - 33	23 - 33	6 - 11	6 - 11	6 - 11	20.5 - 30.5	20.5 - 30.5	20.5 - 30.5	20.5 - 30.5
Date Collected:			06/07/16	06/02/16	06/02/16	08/21/13	02/20/13	09/12/13	01/13/16	02/20/13	09/13/13	06/22/16	01/19/11	09/10/13	01/12/16	06/20/16
Inorganics-Dissolved																
Aluminum	- -	mg/L	NA	NA	NA	NA	**0.150 J**	NA	NA	**0.0780 J**	NA	NA	0.200 U	NA	NA	NA
Antimony	0.003	mg/L	NA	NA	NA	NA	0.0200 U	NA	NA	0.0200 U	NA	NA	0.0200 U	NA	NA	NA
Arsenic	0.025	mg/L	NA	NA	NA	NA	0.0100 U	NA	NA	**0.0150**	NA	NA	0.0100 U	NA	NA	NA
Barium	1	mg/L	NA	NA	NA	NA	**0.0450**	NA	NA	**0.0400**	NA	NA	**0.0660**	NA	NA	NA
Beryllium	0.003	mg/L	NA	NA	NA	NA	0.00200 U	NA	NA	0.00200 U	NA	NA	0.00200 U	NA	NA	NA
Cadmium	0.005	mg/L	NA	NA	NA	NA	**0.000530 J**	NA	NA	**0.000610 J**	NA	NA	**0.000440 J**	NA	NA	NA
Calcium	- -	mg/L	NA	NA	NA	NA	**80.3**	NA	NA	**113**	NA	NA	**145**	NA	NA	NA
Chromium	0.05	mg/L	NA	NA	NA	NA	**0.00610**	NA	NA	**0.00350 J**	NA	NA	0.00400 U	NA	NA	NA
Cobalt	- -	mg/L	NA	NA	NA	NA	0.00400 U	NA	NA	0.00400 U	NA	NA	0.00400 U	NA	NA	NA
Copper	0.2	mg/L	NA	NA	NA	NA	0.0100 UB	NA	NA	0.0100 UB	NA	NA	0.0100 U	NA	NA	NA
Iron	0.3	mg/L	NA	NA	NA	NA	**0.270**	NA	NA	**7.10**	NA	**11.5 B**	**3.00**	NA	NA	**0.230**
Lead	0.025	mg/L	NA	NA	NA	NA	0.00500 U	NA	NA	**0.0100**	NA	NA	0.00500 U	NA	NA	NA
Magnesium	35	mg/L	NA	NA	NA	NA	**94.5**	NA	NA	**19.1**	NA	NA	**44.70**	NA	NA	NA
Manganese	0.3	mg/L	NA	NA	NA	NA	**0.100**	NA	NA	**0.210**	NA	**0.470 B**	**2.50**	NA	NA	**0.690 B**
Mercury	0.0007	mg/L	NA	NA	NA	NA	0.000200 U	NA	NA	0.000200 U	NA	NA	0.000200 U	NA	NA	NA
Nickel	0.1	mg/L	NA	NA	NA	NA	**0.00270 J**	NA	NA	**0.00650 J**	NA	NA	**0.00200 J**	NA	NA	NA
Potassium	- -	mg/L	NA	NA	NA	NA	**59.4**	NA	NA	**22.4**	NA	NA	**23.70**	NA	NA	NA
Selenium	0.01	mg/L	NA	NA	NA	NA	0.0150 U	NA	NA	0.0150 U	NA	NA	0.0150 U	NA	NA	NA
Silver	0.05	mg/L	NA	NA	NA	NA	0.00300 U	NA	NA	0.00300 U	NA	NA	0.00300 U	NA	NA	NA
Sodium	20	mg/L	NA	NA	NA	NA	**872**	NA	NA	**304**	NA	NA	**286**	NA	NA	NA
Thallium	0.0005	mg/L	NA	NA	NA	NA	0.0200 U	NA	NA	0.0200 U	NA	NA	0.0200 U	NA	NA	NA
Vanadium	- -	mg/L	NA	NA	NA	NA	**0.00700**	NA	NA	**0.0280**	NA	NA	**0.00780**	NA	NA	NA
Zinc	2	mg/L	NA	NA	NA	NA	0.0100 U	NA	NA	**0.00280 J**	NA	NA	**0.00200 J**	NA	NA	NA
General Chemistry																
Alkalinity	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	**515 B**	**308**	NA	NA	**485**
Alkalinity, Bicarbonate	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	**515 B**	**308**	NA	NA	**485**
Ammonia Nitrogen	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**2.7**	NA	NA	NA
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0015 U	NA	NA	NA
Ethene	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0015 U	NA	NA	NA
Methane	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**7.8 DJ**	NA	NA	NA
Nitrate Nitrogen	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA
Nitrite Nitrogen	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA
Orthophosphate	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.17**	NA	NA	NA
Soluble Organic Carbon	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**14.7**	NA	NA	NA
Sulfate	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	**27.8**	**260**	NA	NA	**180**
Sulfide	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	**0.22**	NA	NA	**16.9 F1**
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	**2,950**	NA	NA	**1,230**	NA	NA	**1,740**	NA	NA	NA

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Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			MW-23-D2R	MW-23-D2R	MW-23-D2R	MW-23-D2R	MW-24-D1	MW-24-D1	MW-24-D1	MW-24-D1	MW-24-D2	MW-24-D2	MW-24-D2
Historical Screen Interval (feet below ground surface)			31 - 41	31 - 41	31 - 41	31 - 41	17 - 27	17 - 27	17 - 27	17 - 27	32 - 42	32 - 42	32 - 42
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		35 - 45	35 - 45	35 - 45	35 - 45	21 - 31	21 - 31	21 - 31	21 - 31	36 - 46	36 - 46	36 - 46
Date Collected:		Units	01/20/11	09/11/13	01/12/16	06/20/16	01/19/11	09/12/13	01/13/16	06/21/16	01/19/11	09/11/13	01/13/16
Volatile Organics													
1,1,1-Trichloroethane	5	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
1,1,2,2-Tetrachloroethane	5	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
1,1,2-Trichloroethane	1	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
1,1-Dichloroethane	5	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
1,1-Dichloroethene	5	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	**23**	25 U [25 U]	5.0 U	4.0 U	**3.8**	20 U	5.0 U [5.0 U]
1,2,4-Trichlorobenzene	5	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 UJ [25 UJ]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
1,2-Dibromo-3-chloropropane	0.04	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 UJ [25 UJ]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
1,2-Dibromoethane	0.0006	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
1,2-Dichlorobenzene	3	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
1,2-Dichloroethane	0.6	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
1,2-Dichloropropane	1	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
1,3-Dichlorobenzene	3	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
1,4-Dichlorobenzene	3	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
2-Butanone	50	ug/L	10 U [10 U]	40 U	50 U	10 U	10 U	250 U [250 U]	50 U	40 U	10 U	200 U	50 U [50 U]
2-Hexanone	50	ug/L	5.0 U [5.0 U]	20 U	25 U	5.0 U	5.0 U	130 U [130 U]	25 U	20 U	5.0 U	100 U	25 U [25 U]
4-Methyl-2-pentanone	- -	ug/L	5.0 U [5.0 U]	20 U	25 U	5.0 U	5.0 U	130 U [130 U]	25 U	20 U	5.0 U	100 U	25 U [25 U]
Acetone	50	ug/L	10 U [10 U]	40 U	50 U*	**23**	10 U	250 U [250 U]	50 U*	40 U	10 U	200 U	50 U* [50 U*]
Benzene	1	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	**22**	25 U [25 U]	5.0 U	**5.4**	**3.5**	20 U	**3.1 J [3.3 J]**
Bromodichloromethane	50	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
Bromoform	50	ug/L	1.0 U [1.0 U]	4.0 UJ	5.0 U	1.0 U	1.0 UJ	25 UJ [25 UJ]	5.0 U	4.0 U	1.0 UJ	20 UJ	5.0 U [5.0 U]
Bromomethane	5	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	4.0 UF2	1.0 U	20 U	5.0 U [5.0 U]
Carbon Disulfide	60	ug/L	**1.3 [1.2]**	**1.2 J**	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	**1.6 J**	1.0 U	20 U	5.0 U [5.0 U]
Carbon Tetrachloride	5	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 UJ	25 U [25 U]	5.0 U	4.0 U	1.0 UJ	20 U	5.0 U [5.0 U]
Chlorobenzene	5	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
Chloroethane	5	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
Chloroform	7	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
Chloromethane	5	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 UJ [25 UJ]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
cis-1,2-Dichloroethene	5	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	**7,400 D**	**2,200 [2,200]**	**10**	**4.9**	**1,200 D**	20 U	5.0 U [5.0 U]
cis-1,3-Dichloropropene	0.4	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 UJ	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
Cyclohexane	- -	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	**1.9 J**	1.0 U	20 U	5.0 U [5.0 U]
Dibromochloromethane	50	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
Dichlorodifluoromethane	5	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
Ethylbenzene	5	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	**11**	25 U [25 U]	5.0 U	**3.1 J**	**1.9**	20 U	5.0 U [5.0 U]
Isopropylbenzene	5	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	**1.1**	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
Methyl acetate	- -	ug/L	1.0 U [1.0 U]	4.0 U	13 U	2.5 U	1.0 U	25 U [25 U]	13 U	10 U	1.0 U	20 U	13 U [13 U]
Methyl tert-butyl ether	10	ug/L	**200 D [190 D]**	**200**	**130**	**26**	**1,100 D**	**430 [430]**	**220**	**160**	**280 D**	**130**	**250 [260]**
Methylcyclohexane	- -	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	**1.3 J**	1.0 U	20 U	5.0 U [5.0 U]
Methylene Chloride	5	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	**0.76 J**	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
Styrene	5	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
Tetrachloroethene	5	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
Toluene	5	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	**19**	**13 J [13 J]**	5.0 U	4.0 U	**3.0**	20 U	5.0 U [5.0 U]
trans-1,2-Dichloroethene	5	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	**44**	**34 [34]**	5.0 U	**11**	**6.7**	20 U	5.0 U [5.0 U]
trans-1,3-Dichloropropene	0.4	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 UJ [25 UJ]	5.0 U	4.0 U	1.0 UJ	20 U	5.0 U [5.0 U]
Trichloroethene	5	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	**65**	25 U [25 U]	5.0 U	4.0 U	**2.5**	20 U	5.0 U [5.0 U]
Trichlorofluoromethane	5	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
Vinyl Chloride	2	ug/L	**7.8 [6.5]**	4.0 U	5.0 U	1.0 U	**1,800 D**	**1,600 [1,600]**	**99**	**35**	**300 D**	20 U	**170 [180]**
Xylenes (total)	5	ug/L	2.0 U [2.0 U]	8.0 U	10 U	2.0 U	**31**	50 U [50 U]	10 U	**9.3**	**4.8**	40 U	10 U [10 U]

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Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			MW-23-D2R	MW-23-D2R	MW-23-D2R	MW-23-D2R	MW-24-D1	MW-24-D1	MW-24-D1	MW-24-D1	MW-24-D2	MW-24-D2	MW-24-D2
Historical Screen Interval (feet below ground surface)			31 - 41	31 - 41	31 - 41	31 - 41	17 - 27	17 - 27	17 - 27	17 - 27	32 - 42	32 - 42	32 - 42
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		35 - 45	35 - 45	35 - 45	35 - 45	21 - 31	21 - 31	21 - 31	21 - 31	36 - 46	36 - 46	36 - 46
Date Collected:		Units	01/20/11	09/11/13	01/12/16	06/20/16	01/19/11	09/12/13	01/13/16	06/21/16	01/19/11	09/11/13	01/13/16
Semivolatile Organics													
1,1'-Biphenyl	5	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	**2.5 J**	**1.3 J [1.3 J]**	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
2,2'-Oxybis(1-Chloropropane)	5	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
2,4,5-Trichlorophenol	1	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
2,4,6-Trichlorophenol	1	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
2,4-Dichlorophenol	5	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
2,4-Dimethylphenol	50	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	**0.49 J** [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
2,4-Dinitrophenol	10	ug/L	9.7 U [9.8 U]	9.6 U	110 U	190 U	10 U	9.7 U [9.6 U]	9.8 U	490 U	9.9 U	9.7 U	9.9 U [9.7 U]
2,4-Dinitrotoluene	5	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
2,6-Dinitrotoluene	5	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
2-Chloronaphthalene	10	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
2-Chlorophenol	1	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
2-Methylnaphthalene	- -	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	**25 [24]**	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
2-Methylphenol	- -	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
2-Nitroaniline	5	ug/L	9.7 U [9.8 U]	9.6 U	110 U	190 U	10 U	9.7 U [9.6 U]	9.8 U	490 U	9.9 U	9.7 U	9.9 U [9.7 U]
2-Nitrophenol	- -	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
3,3'-Dichlorobenzidine	5	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
3-Nitroaniline	5	ug/L	9.7 U [9.8 U]	9.6 U	110 U	190 U	10 U	9.7 U [9.6 U]	9.8 U	490 U	9.9 U	9.7 U	9.9 U [9.7 U]
4,6-Dinitro-2-methylphenol	- -	ug/L	9.7 U [9.8 U]	9.6 U	110 U	190 U	10 U	9.7 U [9.6 U]	9.8 U	490 U	9.9 U	9.7 U	9.9 U [9.7 U]
4-Bromophenyl-phenylether	- -	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
4-Chloro-3-Methylphenol	- -	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
4-Chloroaniline	5	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 UJ [4.8 UJ]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
4-Chlorophenyl-phenylether	- -	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
4-Methylphenol	- -	ug/L	9.7 U [9.8 U]	9.6 U	110 U	190 U	10 U	**0.81 J [0.79 J]**	9.8 U	490 U	9.9 U	9.7 U	9.9 U [9.7 U]
4-Nitroaniline	5	ug/L	9.7 U [9.8 U]	9.6 U	110 U	190 U	10 U	9.7 U [9.6 U]	9.8 U	490 U	9.9 U	9.7 U	9.9 U [9.7 U]
4-Nitrophenol	- -	ug/L	9.7 U [9.8 U]	9.6 U	110 U	190 U	10 U	9.7 U [9.6 U]	9.8 U	490 U	9.9 U	9.7 U	9.9 U [9.7 U]
Acenaphthene	20	ug/L	**1.3 J [1.2 J]**	4.8 U	53 U	96 U	**53**	**53 [55]**	**11**	250 U	**7.8**	**0.54 J**	**10 [11]**
Acenaphthylene	- -	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U **[16]**	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Acetophenone	- -	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Anthracene	50	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	**0.50 J**	**0.55 J [0.65 J]**	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Atrazine	7.5	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Benzaldehyde	- -	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Benzo(a)anthracene	0.002	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Benzo(a)pyrene	- -	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Benzo(b)fluoranthene	0.002	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Benzo(g,h,i)perylene	- -	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Benzo(k)fluoranthene	0.002	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
bis(2-Chloroethoxy)methane	5	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
bis(2-Chloroethyl)ether	1	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
bis(2-Ethylhexyl)phthalate	5	ug/L	4.9 UB [4.9 UB]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Butylbenzylphthalate	50	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	**0.73 JB**	250 U	5.0 U	4.8 U	**0.50 JB [0.45 JB]**
Caprolactam	- -	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Carbazole	- -	ug/L	**0.50 J [0.52 J]**	4.8 U	53 U	96 U	**22**	**23 [23]**	**3.7 J**	250 U	**3.2 J**	4.8 U	**2.4 J [2.7 J]**
Chrysene	0.002	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Dibenzo(a,h)anthracene	- -	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Dibenzofuran	- -	ug/L	**0.53 J [0.54 J]**	9.6 U	110 U	190 U	**19**	**18 [18]**	**2.1 J**	490 U	**0.56 J**	9.7 U	**0.68 J [0.75 J]**
Diethylphthalate	50	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Dimethylphthalate	50	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Di-n-Butylphthalate	50	ug/L	**0.41 J [0.53 J]**	**0.53 J**	53 U	96 U	**0.51 J**	**0.31 J [0.35 J]**	4.9 U	250 U	**0.33 J**	**0.43 J**	5.0 U [4.9 U]

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			MW-23-D2R	MW-23-D2R	MW-23-D2R	MW-23-D2R	MW-24-D1	MW-24-D1	MW-24-D1	MW-24-D1	MW-24-D2	MW-24-D2	MW-24-D2
Historical Screen Interval (feet below ground surface)			31 - 41	31 - 41	31 - 41	31 - 41	17 - 27	17 - 27	17 - 27	17 - 27	32 - 42	32 - 42	32 - 42
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		35 - 45	35 - 45	35 - 45	35 - 45	21 - 31	21 - 31	21 - 31	21 - 31	36 - 46	36 - 46	36 - 46
Date Collected:		Units	01/20/11	09/11/13	01/12/16	06/20/16	01/19/11	09/12/13	01/13/16	06/21/16	01/19/11	09/11/13	01/13/16
Semivolatile Organics (Cont.)													
Di-n-Octylphthalate	50	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Fluoranthene	50	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Fluorene	50	ug/L	**0.54 J [0.58 J]**	4.8 U	53 U	96 U	**6.9**	**6.4 [6.4]**	**0.43 J**	250 U	5.0 U	4.8 U	**0.74 J [0.84 J]**
Hexachlorobenzene	0.04	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Hexachlorobutadiene	0.5	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Hexachlorocyclopentadiene	5	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Hexachloroethane	5	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Indeno(1,2,3-cd)pyrene	0.002	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Isophorone	50	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
naphthalene	10	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	**21**	**13 [12]**	**3.8 J**	250 U	**2.9 J**	4.8 U	**2.8 J [3.2 J]**
Nitrobenzene	0.4	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
N-Nitroso-di-n-propylamine	- -	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
N-Nitrosodiphenylamine	50	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Pentachlorophenol	- -	ug/L	9.7 U [9.8 U]	9.6 U	110 U	190 U	10 U	9.7 U [9.6 U]	9.8 U	490 U	9.9 U	9.7 U	9.9 U [9.7 U]
Phenanthrene	50	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	**6.7**	**6.2 [6.4]**	**1.3 J**	250 U	**0.87 J**	4.8 U	5.0 U [4.9 U]
Phenol	1	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Pyrene	50	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Inorganics - Total													
Aluminum	- -	mg/L	0.200 U [0.200 U]	NA	NA	NA	0.200 U	NA	NA	NA	0.200 U	NA	NA
Antimony	0.003	mg/L	0.020 U [0.020 U]	NA	NA	NA	0.020 U	NA	NA	NA	0.020 U	NA	NA
Arsenic	0.025	mg/L	0.010 U [0.010 U]	NA	NA	NA	0.010 U	NA	NA	NA	0.010 U	NA	NA
Barium	1	mg/L	**0.110 [0.110]**	NA	NA	NA	**0.0200**	NA	NA	NA	**0.0200**	NA	NA
Beryllium	0.003	mg/L	0.00200 U [0.00200 U]	NA	NA	NA	0.00200 U	NA	NA	NA	0.00200 U	NA	NA
Cadmium	0.005	mg/L	**0.00580 J [0.00640 J]**	NA	NA	NA	**0.00860 J**	NA	NA	NA	**0.00860 J**	NA	NA
Calcium	- -	mg/L	**166 J [163 J]**	NA	NA	NA	**109**	NA	NA	NA	**106**	NA	NA
Chromium	0.05	mg/L	**0.00200 J [0.00190 J]**	NA	NA	NA	**0.00240 J**	NA	NA	NA	**0.00250 J**	NA	NA
Cobalt	- -	mg/L	0.00400 U [0.00400 U]	NA	NA	NA	**0.00760 J**	NA	NA	NA	0.00400 U	NA	NA
Copper	0.2	mg/L	0.0100 U [0.0100 U]	NA	NA	NA	**0.00200 J**	NA	NA	NA	**0.00170 J**	NA	NA
Iron	0.3	mg/L	**0.0650 [0.0600]**	NA	NA	**0.0400 J**	0.0500 U	NA	NA	**0.0320 J**	**0.0650**	NA	NA
Lead	0.025	mg/L	0.00500 U [0.00500 U]	NA	NA	NA	0.00500 U	NA	NA	NA	0.00500 U	NA	NA
Magnesium	35	mg/L	**286 J [284 J]**	NA	NA	NA	**365**	NA	NA	NA	**297**	NA	NA
Manganese	0.3	mg/L	**0.890 [0.850]**	NA	NA	**0.110 B**	**0.043**	NA	NA	**0.0600 B**	**0.0630**	NA	NA
Mercury	0.0007	mg/L	0.00200 U [0.00200 U]	NA	NA	NA	0.000200 U	NA	NA	NA	0.000200 U	NA	NA
Nickel	0.1	mg/L	0.0100 U [0.0100 U]	NA	NA	NA	0.0100 U	NA	NA	NA	0.0100 U	NA	NA
Potassium	- -	mg/L	**95.1 J [95.4 J]**	NA	NA	NA	**101**	NA	NA	NA	**98.7**	NA	NA
Selenium	0.01	mg/L	0.0150 U [0.0150 U]	NA	NA	NA	0.0150 U	NA	NA	NA	0.0150 U	NA	NA
Silver	0.05	mg/L	0.00300 U [0.00300 U]	NA	NA	NA	0.00300 U	NA	NA	NA	0.00300 U	NA	NA
Sodium	20	mg/L	**2,570 J [2,550 J]**	NA	NA	NA	**2,530**	NA	NA	NA	**2,330**	NA	NA
Thallium	0.0005	mg/L	0.0200 U [0.0200 U]	NA	NA	NA	0.0200 U	NA	NA	NA	0.0200 U	NA	NA
Vanadium	- -	mg/L	**0.0110 [0.0100]**	NA	NA	NA	**0.00590**	NA	NA	NA	**0.00710**	NA	NA
Zinc	2	mg/L	0.0100 U [0.0100 U]	NA	NA	NA	0.0100 U	NA	NA	NA	**0.00170 J**	NA	NA

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Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-23-D2R	MW-23-D2R	MW-23-D2R	MW-23-D2R	MW-24-D1	MW-24-D1	MW-24-D1	MW-24-D1	MW-24-D2	MW-24-D2	MW-24-D2
Historical Screen Interval (feet below ground surface)			31 - 41	31 - 41	31 - 41	31 - 41	17 - 27	17 - 27	17 - 27	17 - 27	32 - 42	32 - 42	32 - 42
Current Screen Interval (Feet below current ground surface):			35 - 45	35 - 45	35 - 45	35 - 45	21 - 31	21 - 31	21 - 31	21 - 31	36 - 46	36 - 46	36 - 46
Date Collected:			01/20/11	09/11/13	01/12/16	06/20/16	01/19/11	09/12/13	01/13/16	06/21/16	01/19/11	09/11/13	01/13/16
Inorganics-Dissolved													
Aluminum	- -	mg/L	0.200 UB [0.200 UB]	NA	NA	NA	0.200 U	NA	NA	NA	0.200 U	NA	NA
Antimony	0.003	mg/L	0.0200 U [0.0200 U]	NA	NA	NA	0.0200 U	NA	NA	NA	0.0200 U	NA	NA
Arsenic	0.025	mg/L	**0.00950 J [0.00720 J]**	NA	NA	NA	0.0100 U	NA	NA	NA	0.0100 U	NA	NA
Barium	1	mg/L	**0.120 [0.120]**	NA	NA	NA	**0.0200**	NA	NA	NA	**0.0200**	NA	NA
Beryllium	0.003	mg/L	0.00200 U [0.00200 U]	NA	NA	NA	0.00200 U	NA	NA	NA	0.00200 U	NA	NA
Cadmium	0.005	mg/L	**0.000620 J [0.000650 J]**	NA	NA	NA	**0.000800 J**	NA	NA	NA	**0.000640 J**	NA	NA
Calcium	- -	mg/L	**185 J [186 J]**	NA	NA	NA	**108**	NA	NA	NA	**102**	NA	NA
Chromium	0.05	mg/L	**0.00380 J [0.00400]**	NA	NA	NA	**0.00240 J**	NA	NA	NA	**0.000210 J**	NA	NA
Cobalt	- -	mg/L	**0.00110 J [0.000770 J]**	NA	NA	NA	0.00400 U	NA	NA	NA	0.00400 U	NA	NA
Copper	0.2	mg/L	0.0100 U [0.0100 U]	NA	NA	NA	0.0100 U	NA	NA	NA	0.0100 U	NA	NA
Iron	0.3	mg/L	**0.0750 [0.0870]**	NA	NA	0.0500 U	0.0500 U	NA	NA	0.0500 U	0.0500 U	NA	NA
Lead	0.025	mg/L	0.00500 U [0.00500 U]	NA	NA	NA	0.00500 U	NA	NA	NA	0.00500 U	NA	NA
Magnesium	35	mg/L	**319.00 J [326.00 J]**	NA	NA	NA	**365.00**	NA	NA	NA	**289.00**	NA	NA
Manganese	0.3	mg/L	**0.880 [0.910]**	NA	NA	**0.120 B**	**0.0430**	NA	NA	**0.0590 B**	**0.0620**	NA	NA
Mercury	0.0007	mg/L	0.000200 U [0.000200 U]	NA	NA	NA	0.000200 U	NA	NA	NA	0.000200 U	NA	NA
Nickel	0.1	mg/L	0.0100 U [0.0100 U]	NA	NA	NA	0.0100 U	NA	NA	NA	0.0100 U	NA	NA
Potassium	- -	mg/L	**107.0 J [108. J]**	NA	NA	NA	**101.0**	NA	NA	NA	**97.0**	NA	NA
Selenium	0.01	mg/L	0.0150 U [0.0150 U]	NA	NA	NA	0.0150 U	NA	NA	NA	0.0150 U	NA	NA
Silver	0.05	mg/L	0.00300 U [0.00300 U]	NA	NA	NA	0.00300 U	NA	NA	NA	0.00300 U	NA	NA
Sodium	20	mg/L	**2,990 J [3,030J]**	NA	NA	NA	**2,460**	NA	NA	NA	**2,150**	NA	NA
Thallium	0.0005	mg/L	0.0200 U [0.0200 U]	NA	NA	NA	0.0200 U	NA	NA	NA	0.0200 U	NA	NA
Vanadium	- -	mg/L	**0.00680 [0.00670]**	NA	NA	NA	**0.00550**	NA	NA	NA	**0.00560**	NA	NA
Zinc	2	mg/L	0.0100 U [0.0100 U]	NA	NA	NA	0.0100 U	NA	NA	NA	NA	NA	NA
General Chemistry													
Alkalinity	- -	mg/L	**717 [725]**	NA	NA	**543**	**1,400**	NA	NA	**642 B**	**931**	NA	NA
Alkalinity, Bicarbonate	- -	mg/L	**717 [725]**	NA	NA	**543**	**1,400**	NA	NA	**642 B**	**931**	NA	NA
Ammonia Nitrogen	- -	mg/L	**3.3 [3.7]**	NA	NA	NA	**5.5**	NA	NA	NA	**4.9**	NA	NA
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	mg/L	0.3 U [0.3 U]	NA	NA	NA	**0.021**	NA	NA	NA	**0.0041**	NA	NA
Ethene	- -	mg/L	0.3 U [0.3 U]	NA	NA	NA	**0.11 D**	NA	NA	NA	**0.023**	NA	NA
Methane	- -	mg/L	**0.42 J [1.4 J]**	NA	NA	NA	**1.9 DJ**	NA	NA	NA	**1.1 DJ**	NA	NA
Nitrate Nitrogen	- -	mg/L	0.05 U [0.05 U]	NA	NA	NA	0.05 U	NA	NA	NA	**0.12**	NA	NA
Nitrite Nitrogen	- -	mg/L	0.05 U [0.05 U]	NA	NA	NA	0.05 U	NA	NA	NA	0.05 U	NA	NA
Orthophosphate	- -	mg/L	**0.52 [0.43]**	NA	NA	NA	**0.89**	NA	NA	NA	**0.58**	NA	NA
Soluble Organic Carbon	- -	mg/L	**11.2 [11]**	NA	NA	NA	**18.1**	NA	NA	NA	**12.5**	NA	NA
Sulfate	250	mg/L	**436 [438]**	NA	NA	**317**	**128**	NA	NA	**189**	**359**	NA	NA
Sulfide	- -	mg/L	**18.8 [19.2]**	NA	NA	**0.7**	**0.078 J**	NA	NA	**79.3**	**0.3**	NA	NA
Total Dissolved Solids	- -	mg/L	**9,010 [8,600]**	NA	NA	NA	**8,300**	NA	NA	NA	**8,080**	NA	NA

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Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			MW-24-D2	MW-24-VD	MW-24-VD	MW-25-D1	MW-25-D1	MW-25-D2	MW-25-D2	MW-25-D2	MW-25-D3	MW-25-D3	MW-25-VD	MW-25-VD
Historical Screen Interval (feet below ground surface)			32 - 42	63 - 73	63 - 73	16 - 26	16 - 26	31 - 41	31 - 41	31 - 41	40 - 50	40 - 50	63 - 73	63 - 73
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		36 - 46	67 - 77	67 - 77	20 - 30	20 - 30	35 - 45	35 - 45	35 - 45	44 - 54	44 - 54	67 - 77	67 - 77
Date Collected:		Units	06/21/16	01/19/11	08/21/13	01/19/11	08/21/13	01/19/11	06/26/13	08/21/13	01/21/11	08/21/13	01/19/11	08/21/13
Volatile Organics														
1,1,1-Trichloroethane	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	100 U [5.0 U]	1.0 U	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	100 U [5.0 U]	1.0 U	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	100 U [5.0 U]	1.0 U	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	1	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	100 U [5.0 U]	**0.57 J**	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	5	ug/L	1.0 U	1.0 U	1.0 U	**2.3**	100 U **[3.2 J]**	**2.0**	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	5	ug/L	1.0 U	1.0 U	1.0 U	**23**	100 U **[19]**	**5.7**	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	100 U [5.0 U]	1.0 U	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	0.04	ug/L	1.0 U	1.0 U	1.0 UJ	1.0 U	100 UJ [5.0 UJ]	1.0 U	8,000 U	8,000 UJ	1.0 U	1.0 UJ	1.0 U	1.0 UJ
1,2-Dibromoethane	0.0006	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	100 U [5.0 U]	1.0 U	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	3	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	100 U [5.0 U]	1.0 U	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6	ug/L	1.0 U	**0.61 J**	1.0 U	1.0 U	100 U [5.0 U]	1.0 U	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	1	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	100 U [5.0 U]	1.0 U	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	100 U [5.0 U]	1.0 U	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	3	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	100 U [5.0 U]	1.0 U	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	50	ug/L	10 U	10 U	10 U	10 U	1,000 U [50 U]	10 U	80,000 U	80,000 U	10 U	**12**	10 U	10 U
2-Hexanone	50	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	500 U [25 U]	5.0 U	40,000 U	40,000 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone	- -	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	500 U [25 U]	5.0 U	40,000 U	40,000 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	50	ug/L	10 U	10 U	**6.5 J**	10 U	1,000 U [50 U]	10 U	80,000 U	80,000 U	**5.3 J**	**49**	10 U	10 U
Benzene	1	ug/L	**0.97 J**	1.0 U	1.0 U	**25**	100 U **[25]**	**9.5**	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	50	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	100 U [5.0 U]	1.0 U	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	50	ug/L	1.0 U	1.0 U	1.0 U	1.0 UJ	100 U [5.0 U]	1.0 UJ	8,000 U	8,000 U	1.0 U	1.0 U	1.0 UJ	1.0 U
Bromomethane	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	100 U [5.0 U]	1.0 U	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	60	ug/L	**0.31 J**	1.0 U	84 UB	**12**	100 UB [26 UB]	**1.2**	8,000 U	8,000 U	**2.0**	**62 D**	**13**	3.3 UB
Carbon Tetrachloride	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 UJ	100 U [5.0 U]	1.0 UJ	8,000 U	8,000 U	1.0 U	1.0 U	1.0 UJ	1.0 U
Chlorobenzene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	100 U [5.0 U]	1.0 U	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	100 U [5.0 U]	1.0 U	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	7	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	100 U [5.0 U]	1.0 U	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	100 U [5.0 U]	1.0 U	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5	ug/L	**1.6**	1.0 U	**1.7**	**5,100 D**	**6,500 [7,600 D]**	**3,500 D**	**120,000**	**83,000**	**1.3**	**2.5**	**11**	1.0 U
cis-1,3-Dichloropropene	0.4	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	100 U [5.0 U]	1.0 UJ	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	- -	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	100 U **[6.8]**	**1.8**	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	50	ug/L	1.0 U	1.0 U	1.0 UJ	1.0 U	100 U [5.0 U]	1.0 U	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	100 UJ [5.0 UJ]	1.0 U	8,000 U	8,000 UJ	1.0 U	1.0 UJ	1.0 U	1.0 UJ
Ethylbenzene	5	ug/L	**0.84 J**	1.0 U	1.0 U	**12**	100 U **[14]**	**3.9**	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropylbenzene	5	ug/L	1.0 U	1.0 U	1.0 U	**1.5**	100 U [5.0 U]	**0.86 J**	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	- -	ug/L	2.5 U	1.0 U	1.0 U	1.0 U	100 U [5.0 U]	1.0 U	8,000 UJ	8,000 U	**1.3**	1.0 U	1.0 U	1.0 U
Methyl tert-butyl ether	10	ug/L	**130**	1.0 U	**1.9**	**960 D**	**820 [890 D]**	**130 E**	**2,500 J**	**2,300 J**	1.0 U	**1.9**	1.0 U	**0.16 J**
Methylcyclohexane	- -	ug/L	1.0 U	1.0 U	1.0 UJ	**5.0**	100 U **[6.0]**	**0.94 J**	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 UJ
Methylene Chloride	5	ug/L	1.0 U	1.0 U	1.0 U	**340 D**	**540 [450]**	**3,700 D**	**110,000**	**100,000**	**43**	**53**	**3.4**	1.0 U
Styrene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	100 U [5.0 U]	1.0 U	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	100 U [5.0 U]	**4.5**	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	5	ug/L	1.0 U	1.0 U	1.0 U	**31**	100 U **[34]**	**24**	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	5	ug/L	**0.98 J**	1.0 U	1.0 U	**58**	100 UJ **[62]**	1.0 U	8,000 U	8,000 UJ	1.0 U	1.0 UJ	1.0 U	1.0 U
trans-1,3-Dichloropropene	0.4	ug/L	1.0 U	1.0 U	1.0 U	1.0 UJ	100 U [5.0 U]	1.0 U	8,000 U	8,000 U	1.0 U	1.0 U	1.0 UJ	1.0 U
Trichloroethene	5	ug/L	1.0 U	1.0 U	**1.4**	**110 D**	**96 J [96]**	**17,000 D**	**450,000**	**340,000**	**4.5**	**8.7**	**180 D**	1.0 U
Trichlorofluoromethane	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	100 U [5.0 U]	1.0 U	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl Chloride	2	ug/L	**38**	1.0 U	1.0 U	**5,900 D**	**6,300 [6,100 D]**	**140 EJ**	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	5	ug/L	2.0 U	2.0 U	2.0 U	**40**	200 U **[49]**	**16**	16,000 U	16,000 U	2.0 U	2.0 U	2.0 U	2.0 U

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Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			MW-24-D2	MW-24-VD	MW-24-VD	MW-25-D1	MW-25-D1	MW-25-D2	MW-25-D2	MW-25-D2	MW-25-D3	MW-25-D3	MW-25-VD	MW-25-VD
Historical Screen Interval (feet below ground surface)			32 - 42	63 - 73	63 - 73	16 - 26	16 - 26	31 - 41	31 - 41	31 - 41	40 - 50	40 - 50	63 - 73	63 - 73
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		36 - 46	67 - 77	67 - 77	20 - 30	20 - 30	35 - 45	35 - 45	35 - 45	44 - 54	44 - 54	67 - 77	67 - 77
Date Collected:		Units	06/21/16	01/19/11	08/21/13	01/19/11	08/21/13	01/19/11	06/26/13	08/21/13	01/21/11	08/21/13	01/19/11	08/21/13
Semivolatile Organics														
1,1'-Biphenyl	5	ug/L	250 U	4.8 U	4.6 U	**3.4 J**	**13 [13 J]**	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
2,2'-Oxybis(1-Chloropropane)	5	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
2,4,5-Trichlorophenol	1	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
2,4,6-Trichlorophenol	1	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
2,4-Dichlorophenol	5	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
2,4-Dimethylphenol	50	ug/L	250 U	4.8 U	4.6 U	**1.1 J**	**10 [7.4 J]**	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
2,4-Dinitrophenol	10	ug/L	500 U	9.6 U	9.2 U	9.5 U	9.5 U [93 U]	48 U	NA	9.3 U	10 U	9.2 U	9.5 U	9.1 U
2,4-Dinitrotoluene	5	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
2,6-Dinitrotoluene	5	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
2-Chloronaphthalene	10	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
2-Chlorophenol	1	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
2-Methylnaphthalene	- -	ug/L	250 U	4.8 U	4.6 U	4.7 U	**3.7 J** [46 U]	24 U	NA	**0.82 J**	5.0 U	4.6 U	4.7 U	4.5 U
2-Methylphenol	- -	ug/L	250 U	4.8 U	4.6 U	4.7 U	**6.4 [7.3 J]**	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
2-Nitroaniline	5	ug/L	500 U	9.6 U	9.2 U	9.5 U	9.5 U [93 U]	48 U	NA	9.3 U	10 U	9.2 U	9.5 U	9.1 U
2-Nitrophenol	- -	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
3,3'-Dichlorobenzidine	5	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
3-Nitroaniline	5	ug/L	500 U	9.6 U	9.2 UJ	9.5 U	9.5 UJ [93 UJ]	48 U	NA	9.3 UJ	10 U	9.2 UJ	9.5 U	9.1 UJ
4,6-Dinitro-2-methylphenol	- -	ug/L	500 U	9.6 U	9.2 U	9.5 U	9.5 U [93 U]	48 U	NA	9.3 U	10 U	9.2 U	9.5 U	9.1 U
4-Bromophenyl-phenylether	- -	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
4-Chloro-3-Methylphenol	- -	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
4-Chloroaniline	5	ug/L	250 U	4.8 U	4.6 UJ	4.7 U	4.7 UJ [46 UJ]	24 U	NA	4.7 UJ	5.0 U	4.6 UJ	4.7 U	4.5 UJ
4-Chlorophenyl-phenylether	- -	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
4-Methylphenol	- -	ug/L	500 U	9.6 U	9.2 U	9.5 U	9.5 U [93 U]	48 U	NA	9.3 U	**0.53 J**	9.2 U	9.5 U	9.1 U
4-Nitroaniline	5	ug/L	500 U	9.6 U	9.2 U	9.5 U	9.5 U [93 U]	48 U	NA	9.3 U	10 U	9.2 U	9.5 U	9.1 U
4-Nitrophenol	- -	ug/L	500 U	9.6 U	9.2 U	9.5 U	9.5 U [93 U]	48 U	NA	9.3 U	10 U	9.2 U	9.5 U	9.1 U
Acenaphthene	20	ug/L	250 U	4.8 U	4.6 U	**76**	**100 D [76]**	**7.7 J**	NA	**1.1 J**	5.0 U	4.6 U	4.7 U	4.5 U
Acenaphthylene	- -	ug/L	250 U	4.8 U	4.6 U	4.7 U	**0.49 J** [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
Acetophenone	- -	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	**0.59 J**	4.7 U	4.5 U
Anthracene	50	ug/L	250 U	4.8 U	4.6 U	**1.6 J**	**1.2 J [19 J]**	24 U	NA	**0.39 J**	5.0 U	4.6 U	4.7 U	4.5 U
Atrazine	7.5	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
Benzaldehyde	- -	ug/L	250 U	4.8 U	4.6 U	4.7 U	**1.0 J** [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
Benzo(a)anthracene	0.002	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
Benzo(a)pyrene	- -	ug/L	250 U	4.8 U	4.6 UJ	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
Benzo(b)fluoranthene	0.002	ug/L	250 U	4.8 U	4.6 UJ	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
Benzo(g,h,i)perylene	- -	ug/L	250 U	4.8 U	4.6 UJ	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
Benzo(k)fluoranthene	0.002	ug/L	250 U	4.8 U	4.6 UJ	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
bis(2-Chloroethoxy)methane	5	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
bis(2-Chloroethyl)ether	1	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
bis(2-Ethylhexyl)phthalate	5	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 UJ	4.6 U	4.7 U	4.5 U
Butylbenzylphthalate	50	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
Caprolactam	- -	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
Carbazole	- -	ug/L	250 U	4.8 U	4.6 U	**42**	**57 D [46]**	24 U	NA	**0.35 J**	5.0 U	**0.57 J**	4.7 U	4.5 U
Chrysene	0.002	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
Dibenzo(a,h)anthracene	- -	ug/L	250 U	4.8 U	4.6 UJ	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
Dibenzofuran	- -	ug/L	500 U	9.6 U	9.2 U	**40**	**46 DJ [33 J]**	48 U	NA	**0.70 J**	10 U	9.2 U	9.5 U	9.1 U
Diethylphthalate	50	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
Dimethylphthalate	50	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
Di-n-Butylphthalate	50	ug/L	250 U	4.8 U	**0.34 J**	**0.50 J**	**0.62 J** [46 U]	24 U	NA	**0.41 J**	**0.36 J**	**0.58 J**	4.7 U	**0.51 J**

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Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			MW-24-D2	MW-24-VD	MW-24-VD	MW-25-D1	MW-25-D1	MW-25-D2	MW-25-D2	MW-25-D2	MW-25-D3	MW-25-D3	MW-25-VD	MW-25-VD
Historical Screen Interval (feet below ground surface)			32 - 42	63 - 73	63 - 73	16 - 26	16 - 26	31 - 41	31 - 41	31 - 41	40 - 50	40 - 50	63 - 73	63 - 73
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		36 - 46	67 - 77	67 - 77	20 - 30	20 - 30	35 - 45	35 - 45	35 - 45	44 - 54	44 - 54	67 - 77	67 - 77
Date Collected:		Units	06/21/16	01/19/11	08/21/13	01/19/11	08/21/13	01/19/11	06/26/13	08/21/13	01/21/11	08/21/13	01/19/11	08/21/13
Semivolatile Organics (Cont.)														
Di-n-Octylphthalate	50	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
Fluoranthene	50	ug/L	250 U	4.8 U	4.6 U	**0.52 J**	4.7 U [46 U]	24 U	NA	**1.1 J**	5.0 U	4.6 U	4.7 U	4.5 U
Fluorene	50	ug/L	250 U	4.8 U	4.6 U	**20**	**33 [20 J]**	24 U	NA	**0.73 J**	5.0 U	4.6 U	4.7 U	4.5 U
Hexachlorobenzene	0.04	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
Hexachlorobutadiene	0.5	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
Hexachlorocyclopentadiene	5	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
Hexachloroethane	5	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
Indeno(1,2,3-cd)pyrene	0.002	ug/L	250 U	4.8 U	4.6 UJ	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
Isophorone	50	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
naphthalene	10	ug/L	250 U	4.8 U	4.6 U	**23**	**240 D [180]**	24 U	NA	**3.3 J**	5.0 U	4.6 U	4.7 U	4.5 U
Nitrobenzene	0.4	ug/L	250 U	4.8 U	4.6 U	4.7 U	**3.2 J** [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
N-Nitroso-di-n-propylamine	- -	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
N-Nitrosodiphenylamine	50	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
Pentachlorophenol	- -	ug/L	500 U	9.6 U	9.2 U	9.5 U	9.5 U [93 U]	48 U	NA	9.3 U	10 U	9.2 U	9.5 U	9.1 U
Phenanthrene	50	ug/L	250 U	4.8 U	4.6 U	**26**	**27** [46 UB]	24 U	NA	4.7 UB	5.0 U	4.6 UB	4.7 U	4.5 UB
Phenol	1	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	**6.5**	4.6 U	4.7 U	4.5 U
Pyrene	50	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	**0.40 J**	5.0 U	4.6 U	4.7 U	4.5 U
Inorganics - Total														
Aluminum	- -	mg/L	NA	0.200 U	NA	0.200 U	NA	**0.076 J**	NA	NA	0.200 U	NA	**0.055 J**	NA
Antimony	0.003	mg/L	NA	0.020 U	NA	0.020 U	NA	0.020 U	NA	NA	0.020 U	NA	0.020 U	NA
Arsenic	0.025	mg/L	NA	0.010 U	NA	**0.006 J**	NA	0.010 U	NA	NA	0.010 U	NA	**0.006 J**	NA
Barium	1	mg/L	NA	**0.0670**	NA	**0.0180**	NA	**0.0230**	NA	NA	**0.140**	NA	**0.110**	NA
Beryllium	0.003	mg/L	NA	0.00200 U	NA	0.00200 U	NA	0.00200 U	NA	NA	0.00200 U	NA	0.00200 U	NA
Cadmium	0.005	mg/L	NA	**0.00990 J**	NA	**0.00770 J**	NA	**0.00850 J**	NA	NA	**0.00800 J**	NA	**0.00840 J**	NA
Calcium	- -	mg/L	NA	**342**	NA	**102**	NA	**137**	NA	NA	**334**	NA	**359**	NA
Chromium	0.05	mg/L	NA	0.00400 U	NA	**0.00290 J**	NA	**0.00250 J**	NA	NA	**0.00840**	NA	0.00400 U	NA
Cobalt	- -	mg/L	NA	0.00400 U	NA	0.00400 U	NA	**0.00770 J**	NA	NA	**0.00150 J**	NA	0.00400 U	NA
Copper	0.2	mg/L	NA	0.0100 U	NA	0.0100 U	NA	0.0100 U	NA	NA	0.0100 U	NA	0.0100 U	NA
Iron	0.3	mg/L	**0.0400 J**	**29.300**	NA	0.0500 U	NA	**0.140**	NA	NA	**0.880**	NA	**14.500**	NA
Lead	0.025	mg/L	NA	0.00500 U	NA	0.00500 U	NA	0.00500 U	NA	NA	0.00500 U	NA	0.00500 U	NA
Magnesium	35	mg/L	NA	**1,210**	NA	**362.0**	NA	**331.0**	NA	NA	**797.0 J**	NA	**1,090.0**	NA
Manganese	0.3	mg/L	**0.0550 B**	**0.670**	NA	**0.0580**	NA	**0.120**	NA	NA	**0.740**	NA	**0.810**	NA
Mercury	0.0007	mg/L	NA	0.000200 U	NA	0.000200 U	NA	0.000200 U	NA	NA	0.000200 U	NA	0.000200 U	NA
Nickel	0.1	mg/L	NA	**0.00150 J**	NA	0.0100 U	NA	0.0100 U	NA	NA	**0.00380 J**	NA	**0.00210 J**	NA
Potassium	- -	mg/L	NA	**306**	NA	**105**	NA	**112**	NA	NA	**270**	NA	**283**	NA
Selenium	0.01	mg/L	NA	0.0150 U	NA	0.0150 U	NA	0.0150 U	NA	NA	0.0150 U	NA	0.0150 U	NA
Silver	0.05	mg/L	NA	NA	NA	0.00300 U	NA	0.00300 U	NA	NA	0.00300 U	NA	0.00300 U	NA
Sodium	20	mg/L	NA	**8,710**	NA	**2,530**	NA	**2,670**	NA	NA	**6,280 J**	NA	**7,760**	NA
Thallium	0.0005	mg/L	NA	0.0200 U	NA	0.0200 U	NA	0.0200 U	NA	NA	0.0200 U	NA	0.0200 U	NA
Vanadium	- -	mg/L	NA	**0.00670**	NA	**0.00620**	NA	**0.00800**	NA	NA	**0.00580**	NA	**0.00520**	NA
Zinc	2	mg/L	NA	0.0100 U	NA	0.0100 U	NA	**0.00300 J**	NA	NA	0.0100 U	NA	0.0100 U	NA

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Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-24-D2	MW-24-VD	MW-24-VD	MW-25-D1	MW-25-D1	MW-25-D2	MW-25-D2	MW-25-D2	MW-25-D3	MW-25-D3	MW-25-VD	MW-25-VD
Historical Screen Interval (feet below ground surface)			32 - 42	63 - 73	63 - 73	16 - 26	16 - 26	31 - 41	31 - 41	31 - 41	40 - 50	40 - 50	63 - 73	63 - 73
Current Screen Interval (Feet below current ground surface):			36 - 46	67 - 77	67 - 77	20 - 30	20 - 30	35 - 45	35 - 45	35 - 45	44 - 54	44 - 54	67 - 77	67 - 77
Date Collected:			06/21/16	01/19/11	08/21/13	01/19/11	08/21/13	01/19/11	06/26/13	08/21/13	01/21/11	08/21/13	01/19/11	08/21/13
Inorganics-Dissolved														
Aluminum	- -	mg/L	NA	0.200 U	NA	0.200 U	NA	0.200 U	NA	NA	0.200 U	NA	0.200 U	NA
Antimony	0.003	mg/L	NA	0.0200 U	NA	0.0200 U	NA	0.0200 U	NA	NA	0.0200 U	NA	0.0200 U	NA
Arsenic	0.025	mg/L	NA	0.0100 U	NA	0.0100 U	NA	0.0100 U	NA	NA	0.0100 U	NA	0.0100 U	NA
Barium	1	mg/L	NA	**0.0650**	NA	**0.0180**	NA	**0.0240**	NA	NA	**0.140**	NA	**0.0960**	NA
Beryllium	0.003	mg/L	NA	0.00200 U	NA	0.00200 U	NA	0.00200 U	NA	NA	0.00200 U	NA	0.00200 U	NA
Cadmium	0.005	mg/L	NA	**0.000770 J**	NA	**0.000790 J**	NA	**0.000700 J**	NA	NA	**0.000820 J**	NA	**0.000890 J**	NA
Calcium	- -	mg/L	NA	**333**	NA	**102**	NA	**139**	NA	NA	**317**	NA	**324**	NA
Chromium	0.05	mg/L	NA	0.00400 U	NA	**0.00300 J**	NA	**0.00220 J**	NA	NA	**0.00410**	NA	0.00400 U	NA
Cobalt	- -	mg/L	NA	**0.009930 J**	NA	0.00400 U	NA	0.00400 U	NA	NA	**0.00100 J**	NA	0.00400 U	NA
Copper	0.2	mg/L	NA	0.0100 U	NA	0.0100 U	NA	0.0100 U	NA	NA	0.0100 UB	NA	0.0100 U	NA
Iron	0.3	mg/L	**0.0760**	**27.40**	NA	0.0500 U	NA	0.0500 U	NA	NA	**0.640**	NA	**1.70**	NA
Lead	0.025	mg/L	NA	0.00500 U	NA	0.00500 U	NA	0.00500 U	NA	NA	0.00500 U	NA	0.00500 U	NA
Magnesium	35	mg/L	NA	**1,180**	NA	**370.00**	NA	**339.00**	NA	NA	**859.00**	NA	**865.00**	NA
Manganese	0.3	mg/L	**0.0550 B**	**0.600**	NA	**0.0590**	NA	**0.120**	NA	NA	**0.720**	NA	**0.880**	NA
Mercury	0.0007	mg/L	NA	0.000200 U	NA	0.000200 U	NA	0.000200 U	NA	NA	0.000200 U	NA	NA	NA
Nickel	0.1	mg/L	NA	**0.00220 J**	NA	0.0100 U	NA	0.0100 U	NA	NA	**0.00250 J**	NA	0.0100 U	NA
Potassium	- -	mg/L	NA	**317.0**	NA	**109**	NA	**117**	NA	NA	**244**	NA	**234**	NA
Selenium	0.01	mg/L	NA	0.0150 U	NA	0.0150 U	NA	0.0150 U	NA	NA	0.0150 U	NA	0.0150 U	NA
Silver	0.05	mg/L	NA	0.00300 U	NA	0.00300 U	NA	0.00300 U	NA	NA	0.00300 U	NA	0.00300 U	NA
Sodium	20	mg/L	NA	**8,550**	NA	**2,720**	NA	**2,780**	NA	NA	**6,940**	NA	**6,250**	NA
Thallium	0.0005	mg/L	NA	0.0200 U	NA	0.0200 U	NA	0.0200 U	NA	NA	0.0200 U	NA	0.0200 U	NA
Vanadium	- -	mg/L	NA	**0.00510**	NA	**0.00580**	NA	**0.00730**	NA	NA	**0.00800**	NA	**0.00460 J**	NA
Zinc	2	mg/L	NA	0.0100 U	NA	0.0100 U	NA	0.0100 U	NA	NA	0.0100 U	NA	**0.00170 J**	NA
General Chemistry														
Alkalinity	- -	mg/L	**741 B**	**408**	NA	**1,160**	NA	**866**	NA	NA	**1,100**	NA	**564**	NA
Alkalinity, Bicarbonate	- -	mg/L	**741 B**	**408**	NA	**1,160**	NA	**866**	NA	NA	**1,100**	NA	**564**	NA
Ammonia Nitrogen	- -	mg/L	NA	**3.7**	NA	**6.1**	NA	**6.4**	NA	NA	**1.2**	NA	**3.9**	NA
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	mg/L	NA	**0.0046**	NA	**0.029**	NA	**0.0064**	NA	NA	0.3 U	NA	0.0015 U	NA
Ethene	- -	mg/L	NA	0.0015 U	NA	**0.097**	NA	**0.021**	NA	NA	0.3 U	NA	0.0015 U	NA
Methane	- -	mg/L	NA	**0.17 DJ**	NA	**4.2 DJ**	NA	**2.7 DJ**	NA	NA	**0.27**	NA	**0.33 DJ**	NA
Nitrate Nitrogen	- -	mg/L	NA	0.05 U	NA	0.05 U	NA	0.05 U	NA	NA	0.05 U	NA	0.05 U	NA
Nitrite Nitrogen	- -	mg/L	NA	0.05 U	NA	0.05 U	NA	0.05 U	NA	NA	0.05 U	NA	0.05 U	NA
Orthophosphate	- -	mg/L	NA	**0.11**	NA	**0.44**	NA	**0.59**	NA	NA	**0.27**	NA	**0.39**	NA
Soluble Organic Carbon	- -	mg/L	NA	**5**	NA	**15.6**	NA	**12.7**	NA	NA	**29.2 J**	NA	**4.9**	NA
Sulfate	250	mg/L	**270**	**1,800**	NA	**434**	NA	**404**	NA	NA	**1,850**	NA	**1,310**	NA
Sulfide	- -	mg/L	**92.2**	0.1 U	NA	**0.053 J**	NA	**0.3**	NA	NA	**7.1**	NA	**0.21**	NA
Total Dissolved Solids	- -	mg/L	NA	**30,100**	NA	**8,670**	NA	**9,670**	NA	NA	**23,300**	NA	**25,200**	NA

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			MW-26-D1	MW-26-D1	MW-26-D1	MW-26-D1	MW-26-D2	MW-26-D2	MW-26-D2	MW-26-D2	MW-26-VD	MW-26-VD	MW-26-VD	MW-26-VD	MW-27-D1
Historical Screen Interval (feet below ground surface)			15 - 25	15 - 25	15 - 25	15 - 25	30 - 40	30 - 40	30 - 40	30 - 40	58 - 68	58 - 68	58 - 68	58 - 68	18 - 28
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		19 - 29	19 - 29	19 - 29	19 - 29	34 - 44	34 - 44	34 - 44	34 - 44	62 - 72	62 - 72	62 - 72	62 - 72	22 - 32
Date Collected:		Units	01/25/11	09/10/13	01/12/16	06/22/16	01/25/11	09/10/13	01/12/16	06/22/16	01/18/11	09/10/13	01/13/16	06/22/16	01/18/11
Volatile Organics															
1,1,1-Trichloroethane	5	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	5	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	1	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	5	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	**0.51 J**	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	5	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	5	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	0.04	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	0.0006	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	3	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	1	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	3	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
2-Butanone	50	ug/L	**31 J**	50 U [50 U]	50 U	40 U	10 U	50 U	50 U	10 U	**53**	100 U	10 U	10 U	10 U
2-Hexanone	50	ug/L	25 U	25 U [25 U]	25 U	20 U	5.0 U	25 U	25 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone	- -	ug/L	25 U	25 U [25 U]	25 U	20 U	5.0 U	25 U	25 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
Acetone	50	ug/L	**74 J**	50 U [50 U]	50 U*	40 U	10 U	50 U	50 U*	10 U	**84**	100 U	10 U*	**170**	10 U
Benzene	1	ug/L	5.0 U	**7.7 [7.3]**	**9.1**	**9.3**	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	50	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Bromoform	50	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Bromomethane	5	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	60	ug/L	**37**	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	**1.4**	**59**	10 U	1.0 U	**0.19 J**	1.0 U
Carbon Tetrachloride	5	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Chloroethane	5	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 UJ	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Chloroform	7	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Chloromethane	5	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	**0.86 J**	1.0 U	10 U	1.0 U	1.0 U	**29**
cis-1,3-Dichloropropene	0.4	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Cyclohexane	- -	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	50	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane	5	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	5	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Isopropylbenzene	5	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Methyl acetate	- -	ug/L	5.0 U	5.0 U [5.0 U]	13 U	10 U	1.0 U	5.0 U	13 U	2.5 U	**5.5**	10 U	2.5 U	2.5 U	1.0 U
Methyl tert-butyl ether	10	ug/L	5.0 U	**420 [410]**	**380**	**340**	1.0 U	**47**	5.0 U	**59**	**1.5**	10 U	1.0 U	**0.96 J**	**26**
Methylcyclohexane	- -	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Methylene Chloride	5	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Styrene	5	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	5	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Toluene	5	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	**0.93 J**	10 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	5	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	0.4	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Trichloroethene	5	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	5	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Vinyl Chloride	2	ug/L	5.0 U	**13 [11]**	**16**	**20**	1.0 U	5.0 U	5.0 U	**1.2**	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	5	ug/L	10 U	10 U [10 U]	10 U	8.0 U	2.0 U	10 U	10 U	2.0 U	2.0 U	20 U	2.0 U	2.0 U	2.0 U

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			MW-26-D1	MW-26-D1	MW-26-D1	MW-26-D1	MW-26-D2	MW-26-D2	MW-26-D2	MW-26-D2	MW-26-VD	MW-26-VD	MW-26-VD	MW-26-VD	MW-27-D1
Historical Screen Interval (feet below ground surface)			15 - 25	15 - 25	15 - 25	15 - 25	30 - 40	30 - 40	30 - 40	30 - 40	58 - 68	58 - 68	58 - 68	58 - 68	18 - 28
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		19 - 29	19 - 29	19 - 29	19 - 29	34 - 44	34 - 44	34 - 44	34 - 44	62 - 72	62 - 72	62 - 72	62 - 72	22 - 32
Date Collected:		Units	01/25/11	09/10/13	01/12/16	06/22/16	01/25/11	09/10/13	01/12/16	06/22/16	01/18/11	09/10/13	01/13/16	06/22/16	01/18/11
Semivolatile Organics															
1,1'-Biphenyl	5	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
2,2'-Oxybis(1-Chloropropane)	5	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
2,4,5-Trichlorophenol	1	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
2,4,6-Trichlorophenol	1	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
2,4-Dichlorophenol	5	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
2,4-Dimethylphenol	50	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
2,4-Dinitrophenol	10	ug/L	10 U	9.6 U [10 U]	9.5 U	9.3 U	9.8 U	9.6 UJ	97 U	9.3 U	9.5 U	9.7 U	120 U	9.7 U	11 U
2,4-Dinitrotoluene	5	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
2,6-Dinitrotoluene	5	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
2-Chloronaphthalene	10	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
2-Chlorophenol	1	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
2-Methylnaphthalene	- -	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
2-Methylphenol	- -	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
2-Nitroaniline	5	ug/L	10 U	9.6 U [10 U]	9.5 U	9.3 U	9.8 U	9.6 U	97 U	9.3 U	9.5 U	9.7 U	120 U	9.7 U	11 U
2-Nitrophenol	- -	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
3,3'-Dichlorobenzidine	5	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 UF1	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
3-Nitroaniline	5	ug/L	10 U	9.6 U [10 U]	9.5 U	9.3 U	9.8 U	9.6 U	97 U	9.3 U	9.5 U	9.7 U	120 U	9.7 U	11 U
4,6-Dinitro-2-methylphenol	- -	ug/L	10 U	9.6 U [10 U]	9.5 U	9.3 U	9.8 U	9.6 U	97 U	9.3 U	9.5 U	9.7 U	120 U	9.7 U	11 U
4-Bromophenyl-phenylether	- -	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
4-Chloro-3-Methylphenol	- -	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
4-Chloroaniline	5	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
4-Chlorophenyl-phenylether	- -	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
4-Methylphenol	- -	ug/L	**45**	9.6 U [10 U]	9.5 U	9.3 U	9.8 U	9.6 U	97 U	9.3 U	**47**	9.7 U	120 U	9.7 U	11 U
4-Nitroaniline	5	ug/L	10 U	9.6 U [10 U]	9.5 U	9.3 U	9.8 U	9.6 U	97 U	9.3 U	9.5 U	9.7 U	120 U	9.7 U	11 U
4-Nitrophenol	- -	ug/L	10 U	9.6 U [10 U]	9.5 U	9.3 U	9.8 U	9.6 U	97 U	9.3 U	9.5 U	9.7 U	120 U	9.7 U	11 U
Acenaphthene	20	ug/L	5.0 U	**3.0 J [3.4 J]**	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Acenaphthylene	- -	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Acetophenone	- -	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	**1.1 J**	4.8 U	59 U	4.8 U	5.3 U
Anthracene	50	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Atrazine	7.5	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Benzaldehyde	- -	ug/L	5.0 U	4.8 U [5.0 U]	**0.30 J**	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Benzo(a)anthracene	0.002	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Benzo(a)pyrene	- -	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Benzo(b)fluoranthene	0.002	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Benzo(g,h,i)perylene	- -	ug/L	5.0 U	4.8 UJ [5.0 U]	4.8 U	4.6 UF1	4.9 U	4.8 UJ	49 U	4.7 U	4.8 U	4.8 UJ	59 U	4.8 U	5.3 U
Benzo(k)fluoranthene	0.002	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
bis(2-Chloroethoxy)methane	5	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
bis(2-Chloroethyl)ether	1	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
bis(2-Ethylhexyl)phthalate	5	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	**11 BF1**	4.9 U	4.8 UJ	49 U	**4.4 JB**	4.8 U	4.8 U	59 U	**7.0 B**	5.3 U
Butylbenzylphthalate	50	ug/L	5.0 U	4.8 U [5.0 U]	**0.43 JB**	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	**96 B**	4.8 U	5.3 U
Caprolactam	- -	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	**14**
Carbazole	- -	ug/L	5.0 U	**3.0 J [3.3 J]**	4.8 U	**0.87 J**	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Chrysene	0.002	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Dibenzo(a,h)anthracene	- -	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 UF1	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Dibenzofuran	- -	ug/L	10 U	9.6 U [10 U]	9.5 U	9.3 U	9.8 U	9.6 U	97 U	9.3 U	9.5 U	9.7 U	120 U	9.7 U	11 U
Diethylphthalate	50	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Dimethylphthalate	50	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Di-n-Butylphthalate	50	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	**0.43 J**	49 U	4.7 U	**0.48 J**	**0.40 J**	59 U	4.8 U	**0.44 J**

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Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			MW-26-D1	MW-26-D1	MW-26-D1	MW-26-D1	MW-26-D2	MW-26-D2	MW-26-D2	MW-26-D2	MW-26-VD	MW-26-VD	MW-26-VD	MW-26-VD	MW-27-D1
Historical Screen Interval (feet below ground surface)			15 - 25	15 - 25	15 - 25	15 - 25	30 - 40	30 - 40	30 - 40	30 - 40	58 - 68	58 - 68	58 - 68	58 - 68	18 - 28
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		19 - 29	19 - 29	19 - 29	19 - 29	34 - 44	34 - 44	34 - 44	34 - 44	62 - 72	62 - 72	62 - 72	62 - 72	22 - 32
Date Collected:		Units	01/25/11	09/10/13	01/12/16	06/22/16	01/25/11	09/10/13	01/12/16	06/22/16	01/18/11	09/10/13	01/13/16	06/22/16	01/18/11
Semivolatile Organics (Cont.)															
Di-n-Octylphthalate	50	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Fluoranthene	50	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Fluorene	50	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Hexachlorobenzene	0.04	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Hexachlorobutadiene	0.5	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Hexachlorocyclopentadiene	5	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 UF1	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Hexachloroethane	5	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Indeno(1,2,3-cd)pyrene	0.002	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 UF1	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Isophorone	50	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
naphthalene	10	ug/L	**0.80 J**	**1.0 J [1.1 J]**	4.8 U	**0.96 J**	4.9 U	4.8 U	49 U	4.7 U	**1.7 J**	4.8 U	59 U	4.8 U	5.3 U
Nitrobenzene	0.4	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
N-Nitroso-di-n-propylamine	- -	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
N-Nitrosodiphenylamine	50	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Pentachlorophenol	- -	ug/L	10 U	9.6 U [10 U]	9.5 U	9.3 UF1	9.8 U	9.6 U	97 U	9.3 U	9.5 U	9.7 U	120 U	9.7 U	11 U
Phenanthrene	50	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Phenol	1	ug/L	**14**	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	**8.4**	4.8 U	59 U	4.8 U	5.3 U
Pyrene	50	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 UJ	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Inorganics - Total															
Aluminum	- -	mg/L	**4.00**	NA	NA	NA	**1.10**	NA	NA	NA	0.20 U	NA	NA	NA	**0.097 J**
Antimony	0.003	mg/L	0.020 U	NA	NA	NA	0.020 U	NA	NA	NA	0.020 UJ	NA	NA	NA	0.020 UJ
Arsenic	0.025	mg/L	**0.0092 J**	NA	NA	NA	0.010 U	NA	NA	NA	0.010 U	NA	NA	NA	0.010 U
Barium	1	mg/L	**0.270**	NA	NA	NA	**0.0480**	NA	NA	NA	**0.390**	NA	NA	NA	**0.0340**
Beryllium	0.003	mg/L	0.00200 U	NA	NA	NA	0.00200 U	NA	NA	NA	0.00200 U	NA	NA	NA	0.00200 U
Cadmium	0.005	mg/L	**0.00940 J**	NA	NA	NA	**0.00160**	NA	NA	NA	0.00100 UB	NA	NA	NA	**0.00450 J**
Calcium	- -	mg/L	**662**	NA	NA	NA	**299**	NA	NA	NA	**996**	NA	NA	NA	**97.8**
Chromium	0.05	mg/L	**0.00910**	NA	NA	NA	**0.00830**	NA	NA	NA	**0.00480**	NA	NA	NA	**0.00450**
Cobalt	- -	mg/L	**0.00300 J**	NA	NA	NA	**0.00150 J**	NA	NA	NA	**0.00470**	NA	NA	NA	**0.00650 J**
Copper	0.2	mg/L	**0.00440 J**	NA	NA	NA	**0.0130**	NA	NA	NA	**0.00700 J**	NA	NA	NA	**0.00380 J**
Iron	0.3	mg/L	**2.400**	NA	NA	**0.0350 J**	**1.300**	NA	NA	**0.510**	**0.0900**	NA	NA	**81.5**	**0.110**
Lead	0.025	mg/L	**0.00590**	NA	NA	NA	0.00500 U	NA	NA	NA	0.00500 U	NA	NA	NA	0.00500 U
Magnesium	35	mg/L	**234.0**	NA	NA	NA	**681.000**	NA	NA	NA	**13.300**	NA	NA	NA	**294.000**
Manganese	0.3	mg/L	**0.390**	NA	NA	**0.0350 B**	**0.140**	NA	NA	**0.690 B**	0.00390 UB	NA	NA	**3.00 B**	**0.0770**
Mercury	0.0007	mg/L	0.000200 U	NA	NA	NA	0.000200 U	NA	NA	NA	0.000200 U	NA	NA	NA	0.000200 U
Nickel	0.1	mg/L	**0.0200**	NA	NA	NA	**0.00150 J**	NA	NA	NA	**0.0430**	NA	NA	NA	0.0100 U
Potassium	- -	mg/L	**184**	NA	NA	NA	**235**	NA	NA	NA	**216**	NA	NA	NA	**103**
Selenium	0.01	mg/L	0.0150 U	NA	NA	NA	0.0150 U	NA	NA	NA	0.0150 U	NA	NA	NA	0.0150 U
Silver	0.05	mg/L	0.00300 U	NA	NA	NA	0.00300 U	NA	NA	NA	0.00300 U	NA	NA	NA	0.00300 U
Sodium	20	mg/L	**3,700**	NA	NA	NA	**5,620**	NA	NA	NA	**4,670**	NA	NA	NA	**2,230**
Thallium	0.0005	mg/L	0.0200 U	NA	NA	NA	0.0200 U	NA	NA	NA	0.0200 U	NA	NA	NA	0.0200 U
Vanadium	- -	mg/L	**0.00620**	NA	NA	NA	**0.00970**	NA	NA	NA	0.005 U	NA	NA	NA	**0.00470 J**
Zinc	2	mg/L	**0.0150**	NA	NA	NA	**0.0330**	NA	NA	NA	**0.00440 J**	NA	NA	NA	**0.00220 J**

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Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-26-D1	MW-26-D1	MW-26-D1	MW-26-D1	MW-26-D2	MW-26-D2	MW-26-D2	MW-26-D2	MW-26-VD	MW-26-VD	MW-26-VD	MW-26-VD	MW-27-D1
Historical Screen Interval (feet below ground surface)			15 - 25	15 - 25	15 - 25	15 - 25	30 - 40	30 - 40	30 - 40	30 - 40	58 - 68	58 - 68	58 - 68	58 - 68	18 - 28
Current Screen Interval (Feet below current ground surface):			19 - 29	19 - 29	19 - 29	19 - 29	34 - 44	34 - 44	34 - 44	34 - 44	62 - 72	62 - 72	62 - 72	62 - 72	22 - 32
Date Collected:			01/25/11	09/10/13	01/12/16	06/22/16	01/25/11	09/10/13	01/12/16	06/22/16	01/18/11	09/10/13	01/13/16	06/22/16	01/18/11
Inorganics-Dissolved															
Aluminum	- -	mg/L	0.200 UB	NA	NA	NA	0.200 UB	NA	NA	NA	0.200 U	NA	NA	NA	0.200 U
Antimony	0.003	mg/L	0.0200 U	NA	NA	NA	0.0200 U	NA	NA	NA	0.0200 U	NA	NA	NA	0.0200 U
Arsenic	0.025	mg/L	0.0100 U	NA	NA	NA	0.0100 U	NA	NA	NA	0.0100 U	NA	NA	NA	0.0100 U
Barium	1	mg/L	**0.250**	NA	NA	NA	**0.0480**	NA	NA	NA	**0.370**	NA	NA	NA	**0.0330**
Beryllium	0.003	mg/L	0.00200 U	NA	NA	NA	0.00200 U	NA	NA	NA	0.00200 U	NA	NA	NA	0.00200 U
Cadmium	0.005	mg/L	**0.000880 J**	NA	NA	NA	**0.00110**	NA	NA	NA	0.000100 U	NA	NA	NA	**0.000530 J**
Calcium	- -	mg/L	**614**	NA	NA	NA	**286**	NA	NA	NA	**987**	NA	NA	NA	**102**
Chromium	0.05	mg/L	**0.00360 J**	NA	NA	NA	**0.00490**	NA	NA	NA	**0.00240 J**	NA	NA	NA	**0.00380 J**
Cobalt	- -	mg/L	**0.00150 J**	NA	NA	NA	**0.00140 J**	NA	NA	NA	**0.00420**	NA	NA	NA	**0.000680 J**
Copper	0.2	mg/L	0.0100 U	NA	NA	NA	**0.00210 J**	NA	NA	NA	**0.00290 J**	NA	NA	NA	0.0100 U
Iron	0.3	mg/L	0.0500 U	NA	NA	0.0500 U	**0.250**	NA	NA	**0.490 B**	0.0500 U	NA	NA	**74.0 B**	0.0500 U
Lead	0.025	mg/L	0.00500 U	NA	NA	NA	0.00500 U	NA	NA	NA	0.00500 U	NA	NA	NA	0.00500 U
Magnesium	35	mg/L	**252.00**	NA	NA	NA	**729.00**	NA	NA	NA	**12.40**	NA	NA	NA	**291**
Manganese	0.3	mg/L	**0.400**	NA	NA	**0.0350 B**	**0.130**	NA	NA	**0.700 B**	0.00300 U	NA	NA	**2.60 B**	**0.0720**
Mercury	0.0007	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.000200 U
Nickel	0.1	mg/L	**0.0120**	NA	NA	NA	0.0100 U	NA	NA	NA	**0.0410**	NA	NA	NA	0.0100 U
Potassium	- -	mg/L	**185**	NA	NA	NA	**235**	NA	NA	NA	**210**	NA	NA	NA	**105**
Selenium	0.01	mg/L	0.0150 U	NA	NA	NA	0.0150 U	NA	NA	NA	0.0150 U	NA	NA	NA	0.0150 U
Silver	0.05	mg/L	0.00300 U	NA	NA	NA	0.00300 U	NA	NA	NA	0.00300 U	NA	NA	NA	0.00300 U
Sodium	20	mg/L	**3,530**	NA	NA	NA	**5,920**	NA	NA	NA	**4,710**	NA	NA	NA	**2,220**
Thallium	0.0005	mg/L	0.0200 U	NA	NA	NA	0.0200 U	NA	NA	NA	0.0200 U	NA	NA	NA	0.0200 U
Vanadium	- -	mg/L	0.005 U	NA	NA	NA	**0.00660**	NA	NA	NA	0.005 U	NA	NA	NA	**0.00450 J**
Zinc	2	mg/L	**0.110**	NA	NA	NA	0.0100 U	NA	NA	NA	0.0100 U	NA	NA	NA	0.0100 U
General Chemistry															
Alkalinity	- -	mg/L	**455**	NA	NA	**569 B**	**487**	NA	NA	**344**	**219**	NA	NA	**176 B**	**897**
Alkalinity, Bicarbonate	- -	mg/L	**455**	NA	NA	**569 B**	**487**	NA	NA	**344**	**219**	NA	NA	**176 B**	**897**
Ammonia Nitrogen	- -	mg/L	**1.3**	NA	NA	NA	**3.5**	NA	NA	NA	**4.7**	NA	NA	NA	**6.7**
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	mg/L	0.0015 U	NA	NA	NA	0.15 U	NA	NA	NA	0.0015 U	NA	NA	NA	0.0015 U
Ethene	- -	mg/L	0.0015 U	NA	NA	NA	0.15 U	NA	NA	NA	**0.013**	NA	NA	NA	0.0015 U
Methane	- -	mg/L	**0.0016 J**	NA	NA	NA	**0.27 J**	NA	NA	NA	**0.26 D**	NA	NA	NA	**9.3 D**
Nitrate Nitrogen	- -	mg/L	0.05 U	NA	NA	NA	0.05 U	NA	NA	NA	0.05 U	NA	NA	NA	0.05 U
Nitrite Nitrogen	- -	mg/L	0.05 U	NA	NA	NA	0.05 U	NA	NA	NA	0.05 U	NA	NA	NA	0.05 U
Orthophosphate	- -	mg/L	**0.23**	NA	NA	NA	**0.44**	NA	NA	NA	**0.059**	NA	NA	NA	**0.44**
Soluble Organic Carbon	- -	mg/L	**46.7**	NA	NA	NA	**6.7**	NA	NA	NA	**193**	NA	NA	NA	**13.8**
Sulfate	250	mg/L	**466**	NA	NA	**139**	**1,420**	NA	NA	**1,200**	**708**	NA	NA	**497**	**311**
Sulfide	- -	mg/L	**0.85**	NA	NA	**70.6 F1**	**1.3**	NA	NA	**1.7**	**8**	NA	NA	**6**	**0.25 J**
Total Dissolved Solids	- -	mg/L	**12,500**	NA	NA	NA	**19,000**	NA	NA	NA	**17,700**	NA	NA	NA	**6,870**

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Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			MW-27-D1	MW-27-D1	MW-27-D1	MW-27-D2	MW-27-D2	MW-27-D2	MW-27-D2	MW-28-D1	MW-28-D1	MW-28-D1	MW-28-D2	MW-28-D2R	MW-28-D2R
Historical Screen Interval (feet below ground surface)			18 - 28	18 - 28	18 - 28	33 - 43	33 - 43	33 - 43	33 - 43	17.5 - 27.5	17.5 - 27.5	17.5 - 27.5	32.5 - 42.5	32.5 - 42.5	32.5 - 42.5
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		22 - 32	22 - 32	22 - 32	37 - 47	37 - 47	37 - 47	37 - 47	21.5 - 31.5	21.5 - 31.5	21.5 - 31.5	36.5 - 46.5	36.5 - 46.5	36.5 - 46.5
Date Collected:		Units	09/11/13	01/13/16	06/21/16	01/18/11	09/11/13	01/13/16	06/21/16	01/25/11	06/24/16	07/28/16	01/25/11	06/24/16	07/28/16
Volatile Organics															
1,1,1-Trichloroethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	1	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	5	ug/L	5.0 U	5.0 U	1.0 U	**0.44 J**	5.0 U	5.0 U	4.0 U	**1.1**	**0.76 J**	10 U	**0.87 J**	**0.48 J**	1.0 U
1,1-Dichloroethene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	0.04	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	0.0006	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	3	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	**0.21 J**	1.0 U
1,2-Dichloropropane	1	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	3	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
2-Butanone	50	ug/L	50 U	50 U	**1.7 J**	10 U	50 U	50 U	**8.2 J**	10 U	**2.3 J**	100 U	10 U	10 U	10 U
2-Hexanone	50	ug/L	25 U	25 U	5.0 U	5.0 U	25 U	25 U	20 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone	- -	ug/L	25 U	25 U	5.0 U	5.0 U	25 U	25 U	20 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
Acetone	50	ug/L	50 U	**53**	**5.0 J**	10 U	50 U	50 U*	**38 J**	**4.2 J**	**45**	**280**	**4.2 J**	**3.3 J**	**4.4 J**
Benzene	1	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	**160**	**12**	**2.1**	10 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	50	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	**1.2**
Bromoform	50	ug/L	5.0 UJ	5.0 U	1.0 U	1.0 U	5.0 UJ	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	**5.6**
Bromomethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	60	ug/L	**1.0 J**	5.0 U	**0.66 J**	1.0 U	**1.0 J**	5.0 U	4.0 U	1.0 U	**1.0**	10 U	1.0 U	1.0 U	**0.52 J**
Carbon Tetrachloride	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Chloroethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 UJ	1.0 U	10 U	1.0 UJ	1.0 U	1.0 U
Chloroform	7	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	**0.51 J**
Chloromethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5	ug/L	5.0 U	5.0 U	**1.0**	1.0 U	5.0 U	5.0 U	4.0 U	**1.1**	1.0 U	10 U	**6.6**	1.0 U	1.0 U
cis-1,3-Dichloropropene	0.4	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Cyclohexane	- -	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	**22**	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	50	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	**3.2**
Dichlorodifluoromethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	**92**	**4.2**	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Isopropylbenzene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	**38**	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Methyl acetate	- -	ug/L	5.0 U	13 U	2.5 U	1.0 U	5.0 U	13 U	10 U	1.0 U	2.5 U	25 U	1.0 U	2.5 U	2.5 U
Methyl tert-butyl ether	10	ug/L	**18**	5.0 U	**10**	1.0 U	**4.8 J**	5.0 U	**8.1**	**38**	**6.2**	**4.7 J**	**2.7**	1.0 U	**0.25 J**
Methylcyclohexane	- -	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	**26**	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Methylene Chloride	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	**5.7**	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Styrene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Toluene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	**17**	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	0.4	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Trichloroethene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	**0.51 J**	1.0 U	1.0 U
Trichlorofluoromethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Vinyl Chloride	2	ug/L	5.0 U	5.0 U	**0.97 J**	1.0 U	5.0 U	5.0 U	4.0 U	**1.4**	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	5	ug/L	10 U	10 U	2.0 U	2.0 U	10 U	10 U	**68**	**0.91 J**	2.0 U	20 U	2.0 U	2.0 U	2.0 U

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			MW-27-D1	MW-27-D1	MW-27-D1	MW-27-D2	MW-27-D2	MW-27-D2	MW-27-D2	MW-28-D1	MW-28-D1	MW-28-D1	MW-28-D2	MW-28-D2R	MW-28-D2R
Historical Screen Interval (feet below ground surface)			18 - 28	18 - 28	18 - 28	33 - 43	33 - 43	33 - 43	33 - 43	17.5 - 27.5	17.5 - 27.5	17.5 - 27.5	32.5 - 42.5	32.5 - 42.5	32.5 - 42.5
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		22 - 32	22 - 32	22 - 32	37 - 47	37 - 47	37 - 47	37 - 47	21.5 - 31.5	21.5 - 31.5	21.5 - 31.5	36.5 - 46.5	36.5 - 46.5	36.5 - 46.5
Date Collected:		Units	09/11/13	01/13/16	06/21/16	01/18/11	09/11/13	01/13/16	06/21/16	01/25/11	06/24/16	07/28/16	01/25/11	06/24/16	07/28/16
Semivolatile Organics															
1,1'-Biphenyl	5	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
2,2'-Oxybis(1-Chloropropane)	5	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U*	NA	5.0 U	4.7 U*	NA
2,4,5-Trichlorophenol	1	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
2,4,6-Trichlorophenol	1	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
2,4-Dichlorophenol	5	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
2,4-Dimethylphenol	50	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
2,4-Dinitrophenol	10	ug/L	9.8 U	99 U	470 U	10 U	9.4 U	9.5 U	46 U	10 U	48 U	NA	9.9 U	9.4 U	NA
2,4-Dinitrotoluene	5	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
2,6-Dinitrotoluene	5	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
2-Chloronaphthalene	10	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
2-Chlorophenol	1	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
2-Methylnaphthalene	- -	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	**76**	5.0 U	24 U	NA	5.0 U	4.7 U	NA
2-Methylphenol	- -	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U*	NA	5.0 U	4.7 U*	NA
2-Nitroaniline	5	ug/L	9.8 U	99 U	470 U	10 U	9.4 U	9.5 U	46 U	10 U	48 U	NA	9.9 U	9.4 U	NA
2-Nitrophenol	- -	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
3,3'-Dichlorobenzidine	5	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
3-Nitroaniline	5	ug/L	9.8 U	99 U	470 U	10 U	9.4 U	9.5 U	46 U	10 U	48 U	NA	9.9 U	9.4 U	NA
4,6-Dinitro-2-methylphenol	- -	ug/L	9.8 U	99 U	470 U	10 U	9.4 U	9.5 U	46 U	10 U	48 U	NA	9.9 U	9.4 U	NA
4-Bromophenyl-phenylether	- -	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
4-Chloro-3-Methylphenol	- -	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
4-Chloroaniline	5	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
4-Chlorophenyl-phenylether	- -	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
4-Methylphenol	- -	ug/L	9.8 U	99 U	470 U	10 U	9.4 U	9.5 U	**9.9 J**	10 U	48 U*	NA	9.9 U	9.4 U*	NA
4-Nitroaniline	5	ug/L	9.8 U	99 U	470 U	10 U	9.4 U	9.5 U	46 U	10 U	48 U	NA	9.9 U	9.4 U	NA
4-Nitrophenol	- -	ug/L	9.8 U	99 U	470 U	10 U	9.4 U	9.5 U	46 U	10 U	48 U	NA	9.9 U	9.4 U	NA
Acenaphthene	20	ug/L	**1.4 J**	50 U	240 U	5.2 U	4.7 U	4.7 U	**1.9 J**	**13**	**4.1 J**	NA	5.0 U	4.7 U	NA
Acenaphthylene	- -	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
Acetophenone	- -	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U*	NA	5.0 U	4.7 U*	NA
Anthracene	50	ug/L	**0.42 J**	50 U	240 U	5.2 U	**0.32 J**	4.7 U	23 U	**1.4 J**	24 U	NA	5.0 U	4.7 U	NA
Atrazine	7.5	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
Benzaldehyde	- -	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U*	NA	5.0 U	4.7 U*	NA
Benzo(a)anthracene	0.002	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
Benzo(a)pyrene	- -	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
Benzo(b)fluoranthene	0.002	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
Benzo(g,h,i)perylene	- -	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
Benzo(k)fluoranthene	0.002	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
bis(2-Chloroethoxy)methane	5	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
bis(2-Chloroethyl)ether	1	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U*	NA	5.0 U	4.7 U*	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	**2.1 J**	NA
Butylbenzylphthalate	50	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	**0.48 JB**	23 U	5.0 U	24 U	NA	5.0 U	**0.98 J**	NA
Caprolactam	- -	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
Carbazole	- -	ug/L	**0.86 J**	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	**4.4 J**	24 U	NA	5.0 U	4.7 U	NA
Chrysene	0.002	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
Dibenzo(a,h)anthracene	- -	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
Dibenzofuran	- -	ug/L	9.8 U	99 U	470 U	10 U	9.4 U	9.5 U	46 U	**0.85 J**	48 U	NA	9.9 U	9.4 U	NA
Diethylphthalate	50	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
Dimethylphthalate	50	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
Di-n-Butylphthalate	50	ug/L	**0.33 J**	50 U	240 U	5.2 U	**0.37 J**	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA

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Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			MW-27-D1	MW-27-D1	MW-27-D1	MW-27-D2	MW-27-D2	MW-27-D2	MW-27-D2	MW-28-D1	MW-28-D1	MW-28-D1	MW-28-D2	MW-28-D2R	MW-28-D2R
Historical Screen Interval (feet below ground surface)			18 - 28	18 - 28	18 - 28	33 - 43	33 - 43	33 - 43	33 - 43	17.5 - 27.5	17.5 - 27.5	17.5 - 27.5	32.5 - 42.5	32.5 - 42.5	32.5 - 42.5
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		22 - 32	22 - 32	22 - 32	37 - 47	37 - 47	37 - 47	37 - 47	21.5 - 31.5	21.5 - 31.5	21.5 - 31.5	36.5 - 46.5	36.5 - 46.5	36.5 - 46.5
Date Collected:		Units	09/11/13	01/13/16	06/21/16	01/18/11	09/11/13	01/13/16	06/21/16	01/25/11	06/24/16	07/28/16	01/25/11	06/24/16	07/28/16
Semivolatile Organics (Cont.)															
Di-n-Octylphthalate	50	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
Fluoranthene	50	ug/L	4.9 U	50 U	240 U	5.2 U	**0.43 J**	4.7 U	23 U	**3.6 J**	24 U	NA	5.0 U	4.7 U	NA
Fluorene	50	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	**2.6 J**	5.0 U	24 U	NA	5.0 U	4.7 U	NA
Hexachlorobenzene	0.04	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
Hexachlorobutadiene	0.5	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
Hexachlorocyclopentadiene	5	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
Hexachloroethane	5	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
Isophorone	50	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
naphthalene	10	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	**88**	**2.0 J**	24 U	NA	5.0 U	4.7 U	NA
Nitrobenzene	0.4	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
N-Nitroso-di-n-propylamine	- -	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U*	NA	5.0 U	4.7 U*	NA
N-Nitrosodiphenylamine	50	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
Pentachlorophenol	- -	ug/L	9.8 U	99 U	470 U	10 U	9.4 U	9.5 U	46 U	10 U	48 U	NA	9.9 U	9.4 U	NA
Phenanthrene	50	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	**2.8 J**	**9.6**	24 U	NA	5.0 U	**0.58 J**	NA
Phenol	1	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	**56**	5.0 U	**14 J***	NA	5.0 U	4.7 U*	NA
Pyrene	50	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	**1.8 J**	24 U	NA	5.0 U	4.7 U	NA
Inorganics - Total															
Aluminum	- -	mg/L	NA	NA	NA	**0.120 J**	NA	NA	NA	0.280 UB	NA	NA	**0.370**	NA	NA
Antimony	0.003	mg/L	NA	NA	NA	0.020 UJ	NA	NA	NA	0.020 U	NA	NA	0.020 U	NA	NA
Arsenic	0.025	mg/L	NA	NA	NA	0.010 U	NA	NA	NA	0.010 U	NA	NA	0.010 U	NA	NA
Barium	1	mg/L	NA	NA	NA	**0.0490**	NA	NA	NA	**0.0370**	NA	NA	**0.0460**	NA	NA
Beryllium	0.003	mg/L	NA	NA	NA	0.00200 U	NA	NA	NA	0.00200 U	NA	NA	0.00200 U	NA	NA
Cadmium	0.005	mg/L	NA	NA	NA	**0.00790 J**	NA	NA	NA	**0.00700 J**	NA	NA	**0.00780 J**	NA	NA
Calcium	- -	mg/L	NA	NA	NA	**293**	NA	NA	NA	**96.8**	NA	NA	**276**	NA	NA
Chromium	0.05	mg/L	NA	NA	NA	**0.00540**	NA	NA	NA	**0.00380 J**	NA	NA	**0.00520**	NA	NA
Cobalt	- -	mg/L	NA	NA	NA	**0.00110 J**	NA	NA	NA	**0.00940 J**	NA	NA	**0.00120 J**	NA	NA
Copper	0.2	mg/L	NA	NA	NA	**0.00210 J**	NA	NA	NA	**0.00270 J**	NA	NA	**0.00220 J**	NA	NA
Iron	0.3	mg/L	NA	NA	**0.430**	**0.170**	NA	NA	**1.30**	**0.220**	**0.350 B**	NA	**0.530**	**50.4 B**	NA
Lead	0.025	mg/L	NA	NA	NA	0.00500 U	NA	NA	NA	0.00500 U	NA	NA	0.00500 U	NA	NA
Magnesium	35	mg/L	NA	NA	NA	**731.000**	NA	NA	NA	**275.000**	NA	NA	**609.000**	NA	NA
Manganese	0.3	mg/L	NA	NA	**0.200 B**	**0.600**	NA	NA	**0.0380 B**	**0.110**	**0.0680 B**	NA	**0.190**	**1.10 B**	NA
Mercury	0.0007	mg/L	NA	NA	NA	0.000200 U	NA	NA	NA	0.000200 U	NA	NA	0.000200 U	NA	NA
Nickel	0.1	mg/L	NA	NA	NA	**0.00200 J**	NA	NA	NA	0.0100 U	NA	NA	0.0100 U	NA	NA
Potassium	- -	mg/L	NA	NA	NA	**226**	NA	NA	NA	**108**	NA	NA	**215**	NA	NA
Selenium	0.01	mg/L	NA	NA	NA	0.0150 U	NA	NA	NA	0.0150 U	NA	NA	0.0150 U	NA	NA
Silver	0.05	mg/L	NA	NA	NA	0.00300 U	NA	NA	NA	0.00300 U	NA	NA	0.00300 U	NA	NA
Sodium	20	mg/L	NA	NA	NA	**5,750**	NA	NA	NA	**2,310**	NA	NA	**5,020**	NA	NA
Thallium	0.0005	mg/L	NA	NA	NA	0.0200 U	NA	NA	NA	0.0200 U	NA	NA	0.0200 U	NA	NA
Vanadium	- -	mg/L	NA	NA	NA	**0.00710**	NA	NA	NA	**0.00510**	NA	NA	**0.0066**	NA	NA
Zinc	2	mg/L	NA	NA	NA	0.0100 U	NA	NA	NA	0.0100 U	NA	NA	**0.00180 J**	NA	NA

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Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-27-D1	MW-27-D1	MW-27-D1	MW-27-D2	MW-27-D2	MW-27-D2	MW-27-D2	MW-28-D1	MW-28-D1	MW-28-D1	MW-28-D2	MW-28-D2R	MW-28-D2R
Historical Screen Interval (feet below ground surface)			18 - 28	18 - 28	18 - 28	33 - 43	33 - 43	33 - 43	33 - 43	17.5 - 27.5	17.5 - 27.5	17.5 - 27.5	32.5 - 42.5	32.5 - 42.5	32.5 - 42.5
Current Screen Interval (Feet below current ground surface):			22 - 32	22 - 32	22 - 32	37 - 47	37 - 47	37 - 47	37 - 47	21.5 - 31.5	21.5 - 31.5	21.5 - 31.5	36.5 - 46.5	36.5 - 46.5	36.5 - 46.5
Date Collected:			09/11/13	01/13/16	06/21/16	01/18/11	09/11/13	01/13/16	06/21/16	01/25/11	06/24/16	07/28/16	01/25/11	06/24/16	07/28/16
Inorganics-Dissolved															
Aluminum	- -	mg/L	NA	NA	NA	0.200 U	NA	NA	NA	0.200 UB	NA	NA	0.200 U	NA	NA
Antimony	0.003	mg/L	NA	NA	NA	0.0200 U	NA	NA	NA	0.0200 U	NA	NA	0.0200 U	NA	NA
Arsenic	0.025	mg/L	NA	NA	NA	0.0100 U	NA	NA	NA	0.0100 U	NA	NA	0.0100 U	NA	NA
Barium	1	mg/L	NA	NA	NA	**0.0470**	NA	NA	NA	**0.0370**	NA	NA	**0.0440**	NA	NA
Beryllium	0.003	mg/L	NA	NA	NA	0.00200 U	NA	NA	NA	0.00200 U	NA	NA	0.00200 U	NA	NA
Cadmium	0.005	mg/L	NA	NA	NA	**0.000420 J**	NA	NA	NA	**0.000880 J**	NA	NA	**0.000970 J**	NA	NA
Calcium	- -	mg/L	NA	NA	NA	**290**	NA	NA	NA	**98.1**	NA	NA	**265**	NA	NA
Chromium	0.05	mg/L	NA	NA	NA	**0.00460**	NA	NA	NA	**0.00350 J**	NA	NA	**0.00420**	NA	NA
Cobalt	- -	mg/L	NA	NA	NA	**0.00130 J**	NA	NA	NA	**0.000840 J**	NA	NA	**0.000840 J**	NA	NA
Copper	0.2	mg/L	NA	NA	NA	0.0100 U	NA	NA	NA	**0.00260 J**	NA	NA	**0.00200 J**	NA	NA
Iron	0.3	mg/L	NA	NA	0.0500 U	0.0500 U	NA	NA	**0.490**	**0.0400 J**	**0.0790**	NA	**0.290**	**52.8**	NA
Lead	0.025	mg/L	NA	NA	NA	0.00500 U	NA	NA	NA	0.00500 U	NA	NA	0.00500 U	NA	NA
Magnesium	35	mg/L	NA	NA	NA	**693**	NA	NA	NA	**283**	NA	NA	**563**	NA	NA
Manganese	0.3	mg/L	NA	NA	**0.200 B**	**0.570**	NA	NA	**0.0410 B**	**0.110**	**0.0680 B**	NA	**0.190**	**1.10 B**	NA
Mercury	0.0007	mg/L	NA	NA	NA	0.000200 U	NA	NA	NA	0.000200 U	NA	NA	0.000200 U	NA	NA
Nickel	0.1	mg/L	NA	NA	NA	0.0100 U	NA	NA	NA	0.0100 U	NA	NA	0.0100 U	NA	NA
Potassium	- -	mg/L	NA	NA	NA	**221**	NA	NA	NA	**115**	NA	NA	**217**	NA	NA
Selenium	0.01	mg/L	NA	NA	NA	0.0150 U	NA	NA	NA	0.0150 U	NA	NA	0.0150 U	NA	NA
Silver	0.05	mg/L	NA	NA	NA	0.00300 U	NA	NA	NA	0.00300 U	NA	NA	0.00300 U	NA	NA
Sodium	20	mg/L	NA	NA	NA	**5,620**	NA	NA	NA	**2,280**	NA	NA	**4,650**	NA	NA
Thallium	0.0005	mg/L	NA	NA	NA	0.0200 U	NA	NA	NA	0.0200 U	NA	NA	0.0200 U	NA	NA
Vanadium	- -	mg/L	NA	NA	NA	**0.00580**	NA	NA	NA	**0.00450 J**	NA	NA	**0.00620**	NA	NA
Zinc	2	mg/L	NA	NA	NA	0.0100 U	NA	NA	NA	0.0100 U	NA	NA	0.0100 U	NA	NA
General Chemistry															
Alkalinity	- -	mg/L	NA	NA	**795 B**	**451**	NA	NA	**279 B**	**882**	**745 B**	NA	**503**	**182**	NA
Alkalinity, Bicarbonate	- -	mg/L	NA	NA	**795 B**	**451**	NA	NA	**279 B**	**882**	**745 B**	NA	**503**	**182**	NA
Ammonia Nitrogen	- -	mg/L	NA	NA	NA	**2.9**	NA	NA	NA	**6.3**	NA	NA	**3.8**	NA	NA
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	mg/L	NA	NA	NA	0.0015 U	NA	NA	NA	0.00015 U	NA	NA	0.00015 U	NA	NA
Ethene	- -	mg/L	NA	NA	NA	0.0015 U	NA	NA	NA	0.00015 U	NA	NA	0.00015 U	NA	NA
Methane	- -	mg/L	NA	NA	NA	**0.21 D**	NA	NA	NA	**0.0012 J**	NA	NA	**0.00026 J**	NA	NA
Nitrate Nitrogen	- -	mg/L	NA	NA	NA	0.05 U	NA	NA	NA	0.05 U	NA	NA	0.05 U	NA	NA
Nitrite Nitrogen	- -	mg/L	NA	NA	NA	0.05 U	NA	NA	NA	0.05 UJ	NA	NA	0.05 UJ	NA	NA
Orthophosphate	- -	mg/L	NA	NA	NA	**0.33**	NA	NA	NA	**0.37**	NA	NA	**0.49**	NA	NA
Soluble Organic Carbon	- -	mg/L	NA	NA	NA	**6.7**	NA	NA	NA	**12.2**	NA	NA	**7.2**	NA	NA
Sulfate	250	mg/L	NA	NA	**290**	**1,350**	NA	NA	**49.2**	**134**	**155**	NA	**1,290**	**1,080**	NA
Sulfide	- -	mg/L	NA	NA	**97.3**	**0.14**	NA	NA	**0.16**	**0.14**	**54.4**	NA	**0.85**	0.1 U	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	**19,000**	NA	NA	NA	**7,380**	NA	NA	**18,700**	NA	NA

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			MW-29-D1	MW-29-D1	MW-29-D1	MW-29-D1	MW-29-D2	MW-29-D2	MW-29-D2	MW-29-D2	MW-29-VD	MW-29-VD	MW-29-VD	MW-29-VD
Historical Screen Interval (feet below ground surface)			17 - 27	17 - 27	17 - 27	17 - 27	32 - 42	32 - 42	32 - 42	32 - 42	54 - 63	54 - 63	54 - 63	54 - 63
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		21 - 31	21 - 31	21 - 31	21 - 31	36 - 46	36 - 46	36 - 46	36 - 46	57 - 67	57 - 67	57 - 67	57 - 67
Date Collected:		Units	01/25/11	09/10/13	01/14/16	06/21/16	01/25/11	09/10/13	01/14/16	06/21/16	01/25/11	09/10/13	01/14/16	06/21/16
Volatile Organics														
1,1,1-Trichloroethane	5	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
1,1,2,2-Tetrachloroethane	5	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
1,1,2-Trichloroethane	1	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
1,1-Dichloroethane	5	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	**7.3**	**4.8**	**2.6**	**4.9 J**	10 U	1.0 U
1,1-Dichloroethene	5	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
1,2,4-Trichlorobenzene	5	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
1,2-Dibromo-3-chloropropane	0.04	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
1,2-Dibromoethane	0.0006	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
1,2-Dichlorobenzene	3	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
1,2-Dichloroethane	0.6	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
1,2-Dichloropropane	1	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
1,3-Dichlorobenzene	3	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
1,4-Dichlorobenzene	3	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
2-Butanone	50	ug/L	10 U	50 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	100 U	10 U
2-Hexanone	50	ug/L	5.0 U	25 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	50 U	5.0 U
4-Methyl-2-pentanone	- -	ug/L	5.0 U	25 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	50 U	5.0 U
Acetone	50	ug/L	**8.9 J**	50 U	**25 J**	**9.5 J**	**4.8 J**	10 U	10 U	10 U	10 U	100 U	100 U	10 U
Benzene	1	ug/L	**130 D**	**87**	**81**	**6.3**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Bromodichloromethane	50	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Bromoform	50	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Bromomethane	5	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Carbon Disulfide	60	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	**2.4**	1.0 U	1.0 U	**0.62 J**	1.0 U	10 U	10 U	1.0 U
Carbon Tetrachloride	5	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Chlorobenzene	5	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Chloroethane	5	ug/L	1.0 UJ	5.0 U	5.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 UJ	10 U	10 U	1.0 U
Chloroform	7	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Chloromethane	5	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
cis-1,2-Dichloroethene	5	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
cis-1,3-Dichloropropene	0.4	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Cyclohexane	- -	ug/L	**26**	**22**	**13**	**8.0**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Dibromochloromethane	50	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Dichlorodifluoromethane	5	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Ethylbenzene	5	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Isopropylbenzene	5	ug/L	**16**	**18**	**24**	**5.4**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Methyl acetate	- -	ug/L	**27 J**	5.0 U	13 U	2.5 U	1.0 U	1.0 U	2.5 U	2.5 U	1.0 U	10 U	25 U	2.5 U
Methyl tert-butyl ether	10	ug/L	**550 D**	**85**	**34**	**23**	1.0 U	1.0 U	**66**	**51**	**15**	**140**	10 U	**0.42 J**
Methylcyclohexane	- -	ug/L	**13**	**16**	**5.5**	**3.8**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Methylene Chloride	5	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Styrene	5	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Tetrachloroethene	5	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Toluene	5	ug/L	**3.7**	**3.8 J**	5.0 U	**1.0**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
trans-1,2-Dichloroethene	5	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
trans-1,3-Dichloropropene	0.4	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 UF1	1.0 U
Trichloroethene	5	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	**0.86 J**	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Trichlorofluoromethane	5	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Vinyl Chloride	2	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Xylenes (total)	5	ug/L	**16**	**11**	10 U	**2.0**	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	20 U	20 U	2.0 U

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Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			MW-29-D1	MW-29-D1	MW-29-D1	MW-29-D1	MW-29-D2	MW-29-D2	MW-29-D2	MW-29-D2	MW-29-VD	MW-29-VD	MW-29-VD	MW-29-VD
Historical Screen Interval (feet below ground surface)			17 - 27	17 - 27	17 - 27	17 - 27	32 - 42	32 - 42	32 - 42	32 - 42	54 - 63	54 - 63	54 - 63	54 - 63
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		21 - 31	21 - 31	21 - 31	21 - 31	36 - 46	36 - 46	36 - 46	36 - 46	57 - 67	57 - 67	57 - 67	57 - 67
Date Collected:		Units	01/25/11	09/10/13	01/14/16	06/21/16	01/25/11	09/10/13	01/14/16	06/21/16	01/25/11	09/10/13	01/14/16	06/21/16
Semivolatile Organics														
1,1'-Biphenyl	5	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
2,2'-Oxybis(1-Chloropropane)	5	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
2,4,5-Trichlorophenol	1	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
2,4,6-Trichlorophenol	1	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
2,4-Dichlorophenol	5	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
2,4-Dimethylphenol	50	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
2,4-Dinitrophenol	10	ug/L	9.8 U	9.4 U	97 U	10 U	9.4 U	9.3 U	200 U	48 U	9.7 U	9.4 U	9.6 U	9.4 U
2,4-Dinitrotoluene	5	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
2,6-Dinitrotoluene	5	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
2-Chloronaphthalene	10	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
2-Chlorophenol	1	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
2-Methylnaphthalene	- -	ug/L	**1.9 J**	**4.7**	49 U	**2.9 J**	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
2-Methylphenol	- -	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
2-Nitroaniline	5	ug/L	9.8 U	9.4 U	97 U	10 U	9.4 U	9.3 U	200 U	48 U	9.7 U	9.4 U	9.6 U	9.4 U
2-Nitrophenol	- -	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
3,3'-Dichlorobenzidine	5	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
3-Nitroaniline	5	ug/L	9.8 U	9.4 U	97 U	10 U	9.4 U	9.3 U	200 U	48 U	9.7 U	9.4 U	9.6 U	9.4 U
4,6-Dinitro-2-methylphenol	- -	ug/L	9.8 U	9.4 U	97 U	10 U	9.4 U	9.3 U	200 U	48 U	9.7 U	9.4 U	9.6 U	9.4 U
4-Bromophenyl-phenylether	- -	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
4-Chloro-3-Methylphenol	- -	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
4-Chloroaniline	5	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
4-Chlorophenyl-phenylether	- -	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
4-Methylphenol	- -	ug/L	9.8 U	9.4 U	97 U	10 U	9.4 U	9.3 U	200 U	48 U	9.7 U	9.4 U	9.6 U	9.4 U
4-Nitroaniline	5	ug/L	9.8 U	9.4 U	97 U	10 U	9.4 U	9.3 U	200 U	48 U	9.7 U	9.4 U	9.6 U	9.4 U
4-Nitrophenol	- -	ug/L	9.8 U	9.4 U	97 U	10 U	9.4 U	9.3 U	200 U	48 U	9.7 U	9.4 U	9.6 U	9.4 U
Acenaphthene	20	ug/L	**0.89 J**	**2.2 J**	49 U	**1.7 J**	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Acenaphthylene	- -	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Acetophenone	- -	ug/L	4.9 U	**1.2 J**	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Anthracene	50	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Atrazine	7.5	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Benzaldehyde	- -	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Benzo(a)anthracene	0.002	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Benzo(a)pyrene	- -	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Benzo(b)fluoranthene	0.002	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Benzo(g,h,i)perylene	- -	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Benzo(k)fluoranthene	0.002	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
bis(2-Chloroethoxy)methane	5	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
bis(2-Chloroethyl)ether	1	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
bis(2-Ethylhexyl)phthalate	5	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Butylbenzylphthalate	50	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Caprolactam	- -	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Carbazole	- -	ug/L	4.9 U	**0.59 J**	49 U	**0.39 J**	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Chrysene	0.002	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Dibenzo(a,h)anthracene	- -	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Dibenzofuran	- -	ug/L	9.8 U	9.4 U	97 U	10 U	9.4 U	9.3 U	200 U	48 U	9.7 U	9.4 U	9.6 U	9.4 U
Diethylphthalate	50	ug/L	4.9 U	**1.0 J**	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Dimethylphthalate	50	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Di-n-Butylphthalate	50	ug/L	4.9 U	**0.34 J**	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	**0.31 J**	4.8 U	4.7 U

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Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			MW-29-D1	MW-29-D1	MW-29-D1	MW-29-D1	MW-29-D2	MW-29-D2	MW-29-D2	MW-29-D2	MW-29-VD	MW-29-VD	MW-29-VD	MW-29-VD
Historical Screen Interval (feet below ground surface)			17 - 27	17 - 27	17 - 27	17 - 27	32 - 42	32 - 42	32 - 42	32 - 42	54 - 63	54 - 63	54 - 63	54 - 63
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		21 - 31	21 - 31	21 - 31	21 - 31	36 - 46	36 - 46	36 - 46	36 - 46	57 - 67	57 - 67	57 - 67	57 - 67
Date Collected:		Units	01/25/11	09/10/13	01/14/16	06/21/16	01/25/11	09/10/13	01/14/16	06/21/16	01/25/11	09/10/13	01/14/16	06/21/16
Semivolatile Organics (Cont.)														
Di-n-Octylphthalate	50	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Fluoranthene	50	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Fluorene	50	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Hexachlorobenzene	0.04	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Hexachlorobutadiene	0.5	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Hexachlorocyclopentadiene	5	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Hexachloroethane	5	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Indeno(1,2,3-cd)pyrene	0.002	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Isophorone	50	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
naphthalene	10	ug/L	4.9 U	**0.83 J**	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Nitrobenzene	0.4	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
N-Nitroso-di-n-propylamine	- -	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
N-Nitrosodiphenylamine	50	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Pentachlorophenol	- -	ug/L	9.8 U	9.4 U	97 U	10 U	9.4 U	9.3 U	200 U	48 U	9.7 U	9.4 U	9.6 U	9.4 U
Phenanthrene	50	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Phenol	1	ug/L	4.9 U	**1.9 J**	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Pyrene	50	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Inorganics - Total														
Aluminum	- -	mg/L	0.20 UB	NA	NA	NA	0.20 UB	NA	NA	NA	0.20 UB	NA	NA	NA
Antimony	0.003	mg/L	0.020 U	NA	NA	NA	0.020 U	NA	NA	NA	0.020 U	NA	NA	NA
Arsenic	0.025	mg/L	0.010 U	NA	NA	NA	0.010 U	NA	NA	NA	0.010 U	NA	NA	NA
Barium	1	mg/L	**0.0150**	NA	NA	NA	**0.110**	NA	NA	NA	**0.050**	NA	NA	NA
Beryllium	0.003	mg/L	0.00200 U	NA	NA	NA	0.00200 U	NA	NA	NA	0.00200 U	NA	NA	NA
Cadmium	0.005	mg/L	**0.00530 J**	NA	NA	NA	**0.00840 J**	NA	NA	NA	**0.00910 J**	NA	NA	NA
Calcium	- -	mg/L	**52.5**	NA	NA	NA	**1,190**	NA	NA	NA	**265**	NA	NA	NA
Chromium	0.05	mg/L	**0.00330 J**	NA	NA	NA	**0.00200 J**	NA	NA	NA	**0.00400**	NA	NA	NA
Cobalt	- -	mg/L	0.00400 U	NA	NA	NA	**0.00120 J**	NA	NA	NA	**0.00130 J**	NA	NA	NA
Copper	0.2	mg/L	**0.00220 J**	NA	NA	NA	0.0100 U	NA	NA	NA	0.0100 U	NA	NA	NA
Iron	0.3	mg/L	**0.290**	NA	NA	**0.520**	**0.0220 J**	NA	NA	**0.0640**	**0.0630**	NA	NA	**0.390**
Lead	0.025	mg/L	0.00500 U	NA	NA	NA	0.00500 U	NA	NA	NA	0.00500 U	NA	NA	NA
Magnesium	35	mg/L	**112.000**	NA	NA	NA	**288.000 J**	NA	NA	NA	**639.000**	NA	NA	NA
Manganese	0.3	mg/L	**0.220**	NA	NA	**0.270 B**	**0.00860**	NA	NA	**0.150 B**	**0.200**	NA	NA	**0.0620 B**
Mercury	0.0007	mg/L	0.000200 U	NA	NA	NA	0.000200 U	NA	NA	NA	0.000200 U	NA	NA	NA
Nickel	0.1	mg/L	0.0100 U	NA	NA	NA	**0.00570 J**	NA	NA	NA	0.0100 U	NA	NA	NA
Potassium	- -	mg/L	**58.8**	NA	NA	NA	**339**	NA	NA	NA	**213**	NA	NA	NA
Selenium	0.01	mg/L	0.0150 U	NA	NA	NA	0.0150 U		NA	NA	0.0150 U	NA	NA	NA
Silver	0.05	mg/L	0.00300 U	NA	NA	NA	0.00300 U	NA	NA	NA	0.00300 U	NA	NA	NA
Sodium	20	mg/L	**903**	NA	NA	NA	**7,780**	NA	NA	NA	**5,430**	NA	NA	NA
Thallium	0.0005	mg/L	0.0200 U	NA	NA	NA	0.0200 U	NA	NA	NA	0.0200 U	NA	NA	NA
Vanadium	- -	mg/L	**0.00320 J**	NA	NA	NA	0.00500 U	NA	NA	NA	**0.00470 J**	NA	NA	NA
Zinc	2	mg/L	**0.00570 J**	NA	NA	NA	0.0100 U	NA	NA	NA	0.0100 U	NA	NA	NA

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Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-29-D1	MW-29-D1	MW-29-D1	MW-29-D1	MW-29-D2	MW-29-D2	MW-29-D2	MW-29-D2	MW-29-VD	MW-29-VD	MW-29-VD	MW-29-VD
Historical Screen Interval (feet below ground surface)			17 - 27	17 - 27	17 - 27	17 - 27	32 - 42	32 - 42	32 - 42	32 - 42	54 - 63	54 - 63	54 - 63	54 - 63
Current Screen Interval (Feet below current ground surface):			21 - 31	21 - 31	21 - 31	21 - 31	36 - 46	36 - 46	36 - 46	36 - 46	57 - 67	57 - 67	57 - 67	57 - 67
Date Collected:			01/25/11	09/10/13	01/14/16	06/21/16	01/25/11	09/10/13	01/14/16	06/21/16	01/25/11	09/10/13	01/14/16	06/21/16
Inorganics-Dissolved														
Aluminum	- -	mg/L	0.200 U	NA	NA	NA	0.200 U	NA	NA	NA	0.200 UB	NA	NA	NA
Antimony	0.003	mg/L	0.0200 U	NA	NA	NA	0.0200 U	NA	NA	NA	0.0200 U	NA	NA	NA
Arsenic	0.025	mg/L	0.0100 U	NA	NA	NA	0.0100 U	NA	NA	NA	0.0100 U	NA	NA	NA
Barium	1	mg/L	**0.0150**	NA	NA	NA	**0.110**	NA	NA	NA	**0.050**	NA	NA	NA
Beryllium	0.003	mg/L	0.00200 U	NA	NA	NA	0.00200 U	NA	NA	NA	0.00200 U	NA	NA	NA
Cadmium	0.005	mg/L	**0.000500 J**	NA	NA	NA	**0.000680 J**	NA	NA	NA	**0.000860 J**	NA	NA	NA
Calcium	- -	mg/L	**51.3**	NA	NA	NA	**1,080**	NA	NA	NA	**257**	NA	NA	NA
Chromium	0.05	mg/L	**0.00350 J**	NA	NA	NA	**0.00130 J**	NA	NA	NA	**0.00370 J**	NA	NA	NA
Cobalt	- -	mg/L	0.00400 U	NA	NA	NA	**0.00120 J**	NA	NA	NA	**0.00140 J**	NA	NA	NA
Copper	0.2	mg/L	**0.00250 J**	NA	NA	NA	0.0100 U	NA	NA	NA	0.0100 U	NA	NA	NA
Iron	0.3	mg/L	**0.200**	NA	NA	**0.440**	**0.0190 J**	NA	NA	0.0500 U	**0.0230 J**	NA	NA	**0.410**
Lead	0.025	mg/L	0.00500 U	NA	NA	NA	0.00500 U	NA	NA	NA	0.00500 U	NA	NA	NA
Magnesium	35	mg/L	**113**	NA	NA	NA	**392 J**	NA	NA	NA	**617**	NA	NA	NA
Manganese	0.3	mg/L	**0.210**	NA	NA	**0.270 B**	**0.0210**	NA	NA	**0.140 B**	**0.200**	NA	NA	**0.0690 B**
Mercury	0.0007	mg/L	0.000200 U	NA	NA	NA	**0.000120 J**	NA	NA	NA	**0.000140 J**	NA	NA	NA
Nickel	0.1	mg/L	0.0100 U	NA	NA	NA	**0.00380 J**	NA	NA	NA	0.0100 U	NA	NA	NA
Potassium	- -	mg/L	**61.2**	NA	NA	NA	**349**	NA	NA	NA	**215**	NA	NA	NA
Selenium	0.01	mg/L	0.0150 U	NA	NA	NA	0.0150 U	NA	NA	NA	0.0150 U	NA	NA	NA
Silver	0.05	mg/L	0.00300 U	NA	NA	NA	0.00300 U	NA	NA	NA	0.00300 U	NA	NA	NA
Sodium	20	mg/L	**907**	NA	NA	NA	**7,510**	NA	NA	NA	**5,050**	NA	NA	NA
Thallium	0.0005	mg/L	0.0200 U	NA	NA	NA	0.0200 U	NA	NA	NA	0.0200 U	NA	NA	NA
Vanadium	- -	mg/L	**0.00360 J**	NA	NA	NA	0.005 U	NA	NA	NA	**0.00450 J**	NA	NA	NA
Zinc	2	mg/L	**0.00370 J**	NA	NA	NA	0.0100 U	NA	NA	NA	0.0100 U	NA	NA	NA
General Chemistry														
Alkalinity	- -	mg/L	**519**	NA	NA	**567 B**	12.6 UB	NA	NA	**453 B**	**637**	NA	NA	**229 B**
Alkalinity, Bicarbonate	- -	mg/L	**519**	NA	NA	**567 B**	12.6 UB	NA	NA	**453 B**	**637**	NA	NA	**229 B**
Ammonia Nitrogen	- -	mg/L	**7.3**	NA	NA	NA	**4.9**	NA	NA	NA	**5.1**	NA	NA	NA
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	mg/L	0.00015 U	NA	NA	NA	0.015 U	NA	NA	NA	0.15 UJ	NA	NA	NA
Ethene	- -	mg/L	0.00015 U	NA	NA	NA	0.015 U	NA	NA	NA	0.15 UJ	NA	NA	NA
Methane	- -	mg/L	**16 D**	NA	NA	NA	**0.019 J**	NA	NA	NA	**0.42 J**	NA	NA	NA
Nitrate Nitrogen	- -	mg/L	0.05 U	NA	NA	NA	0.05 U	NA	NA	NA	0.05 U	NA	NA	NA
Nitrite Nitrogen	- -	mg/L	0.05 UJ	NA	NA	NA	0.05 U	NA	NA	NA	0.05 U	NA	NA	NA
Orthophosphate	- -	mg/L	**0.14**	NA	NA	NA	**0.06**	NA	NA	NA	**0.43**	NA	NA	NA
Soluble Organic Carbon	- -	mg/L	**15**	NA	NA	NA	**1.7**	NA	NA	NA	**7.9**	NA	NA	NA
Sulfate	250	mg/L	5 U	NA	NA	5 U	**1,850**	NA	NA	**939**	**1,170**	NA	NA	**1,890**
Sulfide	- -	mg/L	**0.078 J**	NA	NA	**0.23**	0.1 U	NA	NA	**17**	**17.2**	NA	NA	0.1 UF1
Total Dissolved Solids	- -	mg/L	**2,840**	NA	NA	NA	**30,100**	NA	NA	NA	**16,900**	NA	NA	NA

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Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-30-D1	MW-30-D1	MW-30-D1	MW-30-D1	MW-30-D2	MW-30-D2	MW-30-D2	MW-30-D2	MW-30-VD	MW-30-VD	MW-30-VD
Historical Screen Interval (feet below ground surface)			18 - 28	18 - 28	18 - 28	18 - 28	33 - 43	33 - 43	33 - 43	33 - 43	73 - 83	73 - 83	73 - 83
Current Screen Interval (Feet below current ground surface):			22 - 32	22 - 32	22 - 32	22 - 32	37 - 47	37 - 47	37 - 47	37 - 47	77 - 87	77 - 87	77 - 87
Date Collected:			01/24/11	09/09/13	01/14/16	06/22/16	04/07/11	09/10/13	01/14/16	06/22/16	01/25/11	09/10/13	01/14/16
Volatile Organics													
1,1,1-Trichloroethane	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
1,1,2,2-Tetrachloroethane	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
1,1,2-Trichloroethane	1	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
1,1-Dichloroethane	5	ug/L	**2.0 [2.0]**	1.0 U	**1.9**	**2.1**	1.0 U [1.0 U]	2.0 U	**2.9 [3.2 J]**	**0.87 J**	1.0 U	10 U	10 U
1,1-Dichloroethene	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
1,2,4-Trichlorobenzene	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
1,2-Dibromo-3-chloropropane	0.04	ug/L	1.0 U [1.0 U]	1.0 UJ	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
1,2-Dibromoethane	0.0006	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
1,2-Dichlorobenzene	3	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	**5.0**	10 U	10 U
1,2-Dichloroethane	0.6	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	**1.5 J**	10 U	10 U
1,2-Dichloropropane	1	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
1,3-Dichlorobenzene	3	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
1,4-Dichlorobenzene	3	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
2-Butanone	50	ug/L	10 U [10 U]	10 U	10 U	10 U	10 U [10 U]	20 U	20 U [50 U]	10 U	10 U	100 U	100 U
2-Hexanone	50	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	10 U	10 U [25 U]	5.0 U	5.0 U	50 U	50 U
4-Methyl-2-pentanone	- -	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	10 U	10 U [25 U]	5.0 U	5.0 U	50 U	50 U
Acetone	50	ug/L	10 U [10 U]	10 U	10 U	10 U	10 U [10 U]	20 U	20 U [50 U]	10 U	10 U	100 U	100 U
Benzene	1	ug/L	**81 [87]**	**2.2**	**1.1**	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	**7.2 J**	10 U
Bromodichloromethane	50	ug/L	1.0 U [1.0 U]	1.0 UJ	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
Bromoform	50	ug/L	1.0 U [1.0 U]	1.0 UJ	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
Bromomethane	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
Carbon Disulfide	60	ug/L	1.0 U [1.0 U]	1.0 UJ	1.0 U	**0.19 J**	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	**7.1**	10 U	10 U
Carbon Tetrachloride	5	ug/L	1.0 U [1.0 U]	1.0 UJ	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
Chlorobenzene	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
Chloroethane	5	ug/L	1.0 UJ [1.0 UJ]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 UJ	10 U	10 U
Chloroform	7	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
Chloromethane	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
cis-1,2-Dichloroethene	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
cis-1,3-Dichloropropene	0.4	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
Cyclohexane	- -	ug/L	**1.4 [1.6]**	1.0 U	**0.39 J**	**0.27 J**	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	**4.7 J**	10 U
Dibromochloromethane	50	ug/L	1.0 U [1.0 U]	1.0 UJ	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
Dichlorodifluoromethane	5	ug/L	1.0 U [1.0 U]	1.0 UJ	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
Ethylbenzene	5	ug/L	**1.8 [1.8]**	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
Isopropylbenzene	5	ug/L	**0.97 J [1.1]**	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
Methyl acetate	- -	ug/L	1.0 U [1.0 U]	1.0 U	2.5 U	2.5 U	1.0 U [1.0 U]	2.0 U	5.0 U [13 U]	2.5 U	1.0 U	10 U	25 U
Methyl tert-butyl ether	10	ug/L	**680 D [680 D]**	**15**	**94**	**53**	1.0 U **[0.42 J]**	**0.84 J**	**8.1 [7.3]**	**3.0**	**90**	**2.6 J**	10 U
Methylcyclohexane	- -	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	**2.8 J**	10 U
Methylene Chloride	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
Styrene	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
Tetrachloroethene	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
Toluene	5	ug/L	**0.55 J [0.56 J]**	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
trans-1,2-Dichloroethene	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
trans-1,3-Dichloropropene	0.4	ug/L	1.0 U [1.0 U]	1.0 UJ	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
Trichloroethene	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	**4.1**	10 U	10 U
Trichlorofluoromethane	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
Vinyl Chloride	2	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
Xylenes (total)	5	ug/L	2.0 U [2.0 U]	2.0 U	2.0 U	2.0 U	2.0 U [2.0 U]	4.0 U	4.0 U [10 U]	2.0 U	2.0 U	20 U	20 U

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			MW-30-D1	MW-30-D1	MW-30-D1	MW-30-D1	MW-30-D2	MW-30-D2	MW-30-D2	MW-30-D2	MW-30-VD	MW-30-VD	MW-30-VD
Historical Screen Interval (feet below ground surface)			18 - 28	18 - 28	18 - 28	18 - 28	33 - 43	33 - 43	33 - 43	33 - 43	73 - 83	73 - 83	73 - 83
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		22 - 32	22 - 32	22 - 32	22 - 32	37 - 47	37 - 47	37 - 47	37 - 47	77 - 87	77 - 87	77 - 87
Date Collected:		Units	01/24/11	09/09/13	01/14/16	06/22/16	04/07/11	09/10/13	01/14/16	06/22/16	01/25/11	09/10/13	01/14/16
Semivolatile Organics													
1,1'-Biphenyl	5	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
2,2'-Oxybis(1-Chloropropane)	5	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
2,4,5-Trichlorophenol	1	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
2,4,6-Trichlorophenol	1	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
2,4-Dichlorophenol	5	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
2,4-Dimethylphenol	50	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
2,4-Dinitrophenol	10	ug/L	9.6 U [9.7 U]	10 U	210 U	9.4 U	NA	11 U	93 U [92 U]	9.3 U	9.6 U	10 U	9.2 U
2,4-Dinitrotoluene	5	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
2,6-Dinitrotoluene	5	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
2-Chloronaphthalene	10	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
2-Chlorophenol	1	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
2-Methylnaphthalene	- -	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
2-Methylphenol	- -	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
2-Nitroaniline	5	ug/L	9.6 U [9.7 U]	10 U	210 U	9.4 U	NA	11 U	93 U [92 U]	9.3 U	9.6 U	10 U	9.2 U
2-Nitrophenol	- -	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
3,3'-Dichlorobenzidine	5	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 UF2	4.8 U	5.2 U	4.6 U
3-Nitroaniline	5	ug/L	9.6 U [9.7 U]	10 U	210 U	9.4 U	NA	11 U	93 U [92 U]	9.3 U	9.6 U	10 U	9.2 U
4,6-Dinitro-2-methylphenol	- -	ug/L	9.6 U [9.7 U]	10 U	210 U	9.4 U	NA	11 U	93 U [92 U]	9.3 U	9.6 U	10 U	9.2 U
4-Bromophenyl-phenylether	- -	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
4-Chloro-3-Methylphenol	- -	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
4-Chloroaniline	5	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
4-Chlorophenyl-phenylether	- -	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
4-Methylphenol	- -	ug/L	9.6 U [9.7 U]	10 U	210 U	9.4 U	NA	11 U	93 U [92 U]	9.3 U	9.6 U	10 U	9.2 U
4-Nitroaniline	5	ug/L	9.6 U [9.7 U]	10 U	210 U	9.4 U	NA	11 U	93 U [92 U]	9.3 U	9.6 U	10 U	9.2 U
4-Nitrophenol	- -	ug/L	9.6 U [9.7 U]	10 U	210 U	9.4 U	NA	11 U	93 U [92 U]	9.3 U	9.6 U	10 U	9.2 U
Acenaphthene	20	ug/L	**15 [15]**	**2.5 J**	110 U	**3.5 J**	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Acenaphthylene	- -	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Acetophenone	- -	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Anthracene	50	ug/L	**0.74 J [0.63 J]**	**0.29 J**	110 U	**0.40 J**	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Atrazine	7.5	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Benzaldehyde	- -	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Benzo(a)anthracene	0.002	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Benzo(a)pyrene	- -	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 UJ	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Benzo(b)fluoranthene	0.002	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 UJ	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Benzo(g,h,i)perylene	- -	ug/L	4.8 U [4.9 U]	5.1 UJ	110 U	4.7 U	NA	5.3 UJ	46 U [46 U]	4.6 UF1	4.8 U	5.2 UJ	4.6 U
Benzo(k)fluoranthene	0.002	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 UJ	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
bis(2-Chloroethoxy)methane	5	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
bis(2-Chloroethyl)ether	1	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
bis(2-Ethylhexyl)phthalate	5	ug/L	4.8 U [4.9 U]	5.1 U	110 U	**7.5 B**	NA	5.3 U	46 U [46 U]	**8.0 B**	4.8 U	5.2 U	4.6 U
Butylbenzylphthalate	50	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Caprolactam	- -	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Carbazole	- -	ug/L	**7.5 [7.7]**	**1.0 J**	110 U	**0.57 J**	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Chrysene	0.002	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 UF1	4.8 U	5.2 U	4.6 U
Dibenzo(a,h)anthracene	- -	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 UJ	46 U [46 U]	4.6 UF1	4.8 U	5.2 U	4.6 U
Dibenzofuran	- -	ug/L	**2.1 J [2.3 J]**	10 U	210 U	9.4 U	NA	11 U	93 U [92 U]	9.3 U	9.6 U	10 U	9.2 U
Diethylphthalate	50	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Dimethylphthalate	50	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Di-n-Butylphthalate	50	ug/L	**0.39 J [0.33 J]**	5.1 U	110 U	4.7 U	NA	**0.70 J**	46 U [46 U]	4.6 U	4.8 U	**0.75 J**	4.6 U

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Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-30-D1	MW-30-D1	MW-30-D1	MW-30-D1	MW-30-D2	MW-30-D2	MW-30-D2	MW-30-D2	MW-30-VD	MW-30-VD	MW-30-VD
Historical Screen Interval (feet below ground surface)			18 - 28	18 - 28	18 - 28	18 - 28	33 - 43	33 - 43	33 - 43	33 - 43	73 - 83	73 - 83	73 - 83
Current Screen Interval (Feet below current ground surface):			22 - 32	22 - 32	22 - 32	22 - 32	37 - 47	37 - 47	37 - 47	37 - 47	77 - 87	77 - 87	77 - 87
Date Collected:			01/24/11	09/09/13	01/14/16	06/22/16	04/07/11	09/10/13	01/14/16	06/22/16	01/25/11	09/10/13	01/14/16
Semivolatile Organics (Cont.)													
Di-n-Octylphthalate	50	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 UF1	4.8 U	5.2 U	4.6 U
Fluoranthene	50	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Fluorene	50	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Hexachlorobenzene	0.04	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Hexachlorobutadiene	0.5	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Hexachlorocyclopentadiene	5	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 UF1	4.8 U	5.2 U	4.6 U
Hexachloroethane	5	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Indeno(1,2,3-cd)pyrene	0.002	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 UJ	46 U [46 U]	4.6 UF1	4.8 U	5.2 U	4.6 U
Isophorone	50	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
naphthalene	10	ug/L	**0.92 J [1.0 J]**	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Nitrobenzene	0.4	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
N-Nitroso-di-n-propylamine	- -	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
N-Nitrosodiphenylamine	50	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Pentachlorophenol	- -	ug/L	9.6 U [9.7 U]	10 U	210 U	9.4 U	NA	11 U	93 U [92 U]	9.3 UF1	9.6 U	10 U	9.2 U
Phenanthrene	50	ug/L	**6.5 [6.6]**	**0.59 J**	110 U	**1.2 J**	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Phenol	1	ug/L	4.8 U [4.9 U]	**2.9 J**	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Pyrene	50	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Inorganics - Total													
Aluminum	- -	mg/L	0.200 UB [0.200 UB]	NA	NA	NA	**0.550 [0.380]**	NA	NA	NA	0.200 UB	NA	NA
Antimony	0.003	mg/L	0.020 U [0.020 U]	NA	NA	NA	0.020 U [0.020 U]	NA	NA	NA	0.020 U	NA	NA
Arsenic	0.025	mg/L	0.010 U [0.010 U]	NA	NA	NA	**0.0061 J** [0.010 U]	NA	NA	NA	**0.0061 J**	NA	NA
Barium	1	mg/L	**0.0440 [0.0440]**	NA	NA	NA	**0.0470 [0.0470]**	NA	NA	NA	**0.0990**	NA	NA
Beryllium	0.003	mg/L	0.00200 U [0.00200 U]	NA	NA	NA	0.00200 U [0.00200 U]	NA	NA	NA	0.00200 U	NA	NA
Cadmium	0.005	mg/L	**0.00600 J [0.00790 J]**	NA	NA	NA	**0.00100 [0.00120]**	NA	NA	NA	**0.00110**	NA	NA
Calcium	- -	mg/L	**107 [107]**	NA	NA	NA	**133 [134]**	NA	NA	NA	**289**	NA	NA
Chromium	0.05	mg/L	**0.00390 J [0.00370 J]**	NA	NA	NA	**0.00560 [0.00510]**	NA	NA	NA	**0.00430**	NA	NA
Cobalt	- -	mg/L	**0.00110 J [0.00930 J]**	NA	NA	NA	**0.00860 J [0.00100 J]**	NA	NA	NA	**0.00160 J**	NA	NA
Copper	0.2	mg/L	**0.00300 J [0.00250 J]**	NA	NA	NA	**0.00320 J [0.00160 J]**	NA	NA	NA	0.0100 U	NA	NA
Iron	0.3	mg/L	**0.100 [0.130]**	NA	NA	**1.60**	**0.500 [0.380]**	NA	NA	**0.160**	**0.0950**	NA	NA
Lead	0.025	mg/L	0.00500 U [0.00500 U]	NA	NA	NA	**0.00360 J** [0.00500 U]	NA	NA	NA	0.00500 U	NA	NA
Magnesium	35	mg/L	**283.000 [279.000]**	NA	NA	NA	**304.000 [303.000]**	NA	NA	NA	**707.000**	NA	NA
Manganese	0.3	mg/L	**0.0940 [0.093]**	NA	NA	**0.0920 B**	**0.150 [0.150]**	NA	NA	**0.120 B**	**0.150**	NA	NA
Mercury	0.0007	mg/L	0.00200 U [0.00200 U]	NA	NA	NA	0.00200 U [0.00200 U]	NA	NA	NA	0.000200 U	NA	NA
Nickel	0.1	mg/L	0.0100 U [0.0100 U]	NA	NA	NA	**0.00140 J** [0.010 U]	NA	NA	NA	**0.00390 J**	NA	NA
Potassium	- -	mg/L	**113 [114]**	NA	NA	NA	**123 [123]**	NA	NA	NA	**258**	NA	NA
Selenium	0.01	mg/L	0.0150 U [0.0150 U]	NA	NA	NA	0.0150 U [0.0150 U]	NA	NA	NA	0.0150 U	NA	NA
Silver	0.05	mg/L	0.00300 U [0.00300 U]	NA	NA	NA	0.00300 U [0.00300 U]	NA	NA	NA	0.00300 U	NA	NA
Sodium	20	mg/L	**2,400,000400]**	NA	NA	NA	**2,900 [2,870]**	NA	NA	NA	**6,100**	NA	NA
Thallium	0.0005	mg/L	0.0200 U [0.0200 U]	NA	NA	NA	0.0200 U [0.0200 U]	NA	NA	NA	0.0200 U	NA	NA
Vanadium	- -	mg/L	**0.00520 [0.00540]**	NA	NA	NA	**0.00420 J [0.00470 J]**	NA	NA	NA	**0.00800**	NA	NA
Zinc	2	mg/L	**0.00370 J [0.00180 J]**	NA	NA	NA	**0.00440 J [0.00230 J]**	NA	NA	NA	**0.00230 J**	NA	NA

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Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-30-D1	MW-30-D1	MW-30-D1	MW-30-D1	MW-30-D2	MW-30-D2	MW-30-D2	MW-30-D2	MW-30-VD	MW-30-VD	MW-30-VD
Historical Screen Interval (feet below ground surface)			18 - 28	18 - 28	18 - 28	18 - 28	33 - 43	33 - 43	33 - 43	33 - 43	73 - 83	73 - 83	73 - 83
Current Screen Interval (Feet below current ground surface):			22 - 32	22 - 32	22 - 32	22 - 32	37 - 47	37 - 47	37 - 47	37 - 47	77 - 87	77 - 87	77 - 87
Date Collected:			01/24/11	09/09/13	01/14/16	06/22/16	04/07/11	09/10/13	01/14/16	06/22/16	01/25/11	09/10/13	01/14/16
Inorganics-Dissolved													
Aluminum	- -	mg/L	0.200 UB [0.200 UB]	NA	NA	NA	0.200 U [0.200 U]	NA	NA	NA	0.200 UB	NA	NA
Antimony	0.003	mg/L	0.0200 U [0.0200 U]	NA	NA	NA	0.0200 U [0.0200 U]	NA	NA	NA	0.020.0 U	NA	NA
Arsenic	0.025	mg/L	0.0100 U [0.0100 U]	NA	NA	NA	0.0100 U [0.0100 U]	NA	NA	NA	**0.00780 J**	NA	NA
Barium	1	mg/L	**0.0440 [0.0440]**	NA	NA	NA	**0.047 [0.047]**	NA	NA	NA	**0.100**	NA	NA
Beryllium	0.003	mg/L	0.00200 U [0.00200 U]	NA	NA	NA	0.00200 U [0.00200 U]	NA	NA	NA	0.00200 U	NA	NA
Cadmium	0.005	mg/L	**0.000730 J [0.000600 J]**	NA	NA	NA	**0.000890 J [0.000660 J]**	NA	NA	NA	**0.00100**	NA	NA
Calcium	- -	mg/L	**107 [107]**	NA	NA	NA	**138 [137]**	NA	NA	NA	**280**	NA	NA
Chromium	0.05	mg/L	**0.00320 J [0.00360 J]**	NA	NA	NA	**0.00310 J [0.00260 J]**	NA	NA	NA	**0.0038 J**	NA	NA
Cobalt	- -	mg/L	**0.000840 J** [0.00400 U]	NA	NA	NA	0.00400 U [0.00400 U]	NA	NA	NA	**0.00150 J**	NA	NA
Copper	0.2	mg/L	**0.00150 J [0.00210 J]**	NA	NA	NA	0.0100 U [0.0100 U]	NA	NA	NA	0.0100 U	NA	NA
Iron	0.3	mg/L	0.0500 U [0.0500 U]	NA	NA	**0.360 B**	0.0500 U [0.0500 U]	NA	NA	0.0500 U	0.0500 U	NA	NA
Lead	0.025	mg/L	0.00500 U [0.00500 U]	NA	NA	NA	0.00500 U [0.00500 U]	NA	NA	NA	0.00500 U	NA	NA
Magnesium	35	mg/L	**277 [281]**	NA	NA	NA	**315 [310]**	NA	NA	NA	**703**	NA	NA
Manganese	0.3	mg/L	**0.0860 [0.0860]**	NA	NA	**0.0930 B**	**0.150 [0.150]**	NA	NA	**0.110 B**	**0.160**	NA	NA
Mercury	0.0007	mg/L	0.000200 U [0.000200 U]	NA	NA	NA	0.000200 U [0.000200 U]	NA	NA	NA	0.000200 U	NA	NA
Nickel	0.1	mg/L	0.0100 U [0.0100 U]	NA	NA	NA	0.0100 U **[0.0013 J]**	NA	NA	NA	**0.00320 J**	NA	NA
Potassium	- -	mg/L	**114 [114]**	NA	NA	NA	**138[138]**	NA	NA	NA	**270**	NA	NA
Selenium	0.01	mg/L	0.0150 U [0.0150 U]	NA	NA	NA	0.0150 U [0.0150 U]	NA	NA	NA	0.0150 U	NA	NA
Silver	0.05	mg/L	0.00300 U [0.00300 U]	NA	NA	NA	0.00300 U [0.00300 U]	NA	NA	NA	0.00300 U	NA	NA
Sodium	20	mg/L	**2,230[2,450]**	NA	NA	NA	**2,940 [2,890]**	NA	NA	NA	**5,830**	NA	NA
Thallium	0.0005	mg/L	0.0200 U [0.0200 U]	NA	NA	NA	0.0200 U [0.0200 U]	NA	NA	NA	0.0200 U	NA	NA
Vanadium	- -	mg/L	**0.00550 [0.00450 J]**	NA	NA	NA	**0.00350 J [0.00360 J]**	NA	NA	NA	**0.00650**	NA	NA
Zinc	2	mg/L	0.0100 U [0.0100 U]	NA	NA	NA	**0.00250 J [0.00190 J]**	NA	NA	NA	0.0100 U	NA	NA
General Chemistry													
Alkalinity	- -	mg/L	**939 [898]**	NA	NA	**841 B**	NA	NA	NA	**755 B**	**778**	NA	NA
Alkalinity, Bicarbonate	- -	mg/L	**939 [898]**	NA	NA	**841 B**	NA	NA	NA	**755 B**	**778**	NA	NA
Ammonia Nitrogen	- -	mg/L	**8 [7.7]**	NA	NA	NA	NA	NA	NA	NA	**2.6**	NA	NA
Chloride	250	mg/L	NA	NA	NA	NA	**5,720 [5,620]**	NA	NA	NA	NA	NA	NA
Ethane	- -	mg/L	0.15 U [1.5 U]	NA	NA	NA	NA	NA	NA	NA	0.0015 UJ	NA	NA
Ethene	- -	mg/L	0.15 U [1.5 U]	NA	NA	NA	NA	NA	NA	NA	0.0015 UJ	NA	NA
Methane	- -	mg/L	**1.7 J [1.2 J]**	NA	NA	NA	NA	NA	NA	NA	**0.057 DJ**	NA	NA
Nitrate Nitrogen	- -	mg/L	0.05 U [0.05 U]	NA	NA	NA	NA	NA	NA	NA	0.05 U	NA	NA
Nitrite Nitrogen	- -	mg/L	0.05 U [0.05 U]	NA	NA	NA	NA	NA	NA	NA	0.05 U	NA	NA
Orthophosphate	- -	mg/L	**0.29 J [0.27 J]**	NA	NA	NA	NA	NA	NA	NA	**0.29**	NA	NA
Soluble Organic Carbon	- -	mg/L	**12.3 [12.8]**	NA	NA	NA	NA	NA	NA	NA	**6**	NA	NA
Sulfate	250	mg/L	25 U [25 UB]	NA	NA	**90**	NA	NA	NA	**241**	**1,280**	NA	NA
Sulfide	- -	mg/L	**0.19 J [0.52 J]**	NA	NA	**92.7**	NA	NA	NA	**64.1 F1**	**0.17**	NA	NA
Total Dissolved Solids	- -	mg/L	**7,950 [7,550]**	NA	NA	NA	NA	NA	NA	NA	**19,900**	NA	NA

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Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			MW-30-VD	MW-31-D1R	MW-31-D1R	MW-31-D1R	MW-31-D1R	MW-31-D2R	MW-31-D2R	MW-31-D2R	MW-31-D2R	MW-32D	MW-32D	MW-33D	MW-35D
Historical Screen Interval (feet below ground surface)			73 - 83	17 - 27	17 - 27	17 - 27	17 - 27	32 - 42	32 - 42	32 - 42	32 - 42	24 - 34	24 - 34	18 - 28	16 - 26
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		77 - 87	21 - 31	21 - 31	21 - 31	21 - 31	36 - 46	36 - 46	36 - 46	36 - 46	28 - 38	28 - 38	22 - 32	20 - 30
Date Collected:		Units	06/22/16	01/21/11	09/13/13	01/14/16	06/22/16	01/21/11	09/13/13	01/14/16	06/22/16	01/19/11	09/13/13	01/27/11	01/27/11
Volatile Organics															
1,1,1-Trichloroethane	5	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	5	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	1	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
1,1-Dichloroethane	5	ug/L	1.0 U	**1.1**	5.0 U	1.0 U	1.0 U	**0.99 J**	5.0 U	1.0 U	**0.94 J**	1.0 U	5.0 U	1.0 U	1.0 U
1,1-Dichloroethene	5	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	5	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	0.04	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
1,2-Dibromoethane	0.0006	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	3	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
1,2-Dichloropropane	1	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	3	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
2-Butanone	50	ug/L	10 U	10 U	50 U	10 U	10 U	10 U	50 U	10 U	10 U	10 U	50 U	10 U	10 U
2-Hexanone	50	ug/L	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U
4-Methyl-2-pentanone	- -	ug/L	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U
Acetone	50	ug/L	**5.9 J**	10 U	50 U	10 U	**11**	**3.9 J**	50 U	10 U	10 U	10 U	50 U	10 U	10 U
Benzene	1	ug/L	1.0 U	**5.6**	**98**	1.0 U	**1.1**	1.0 U	**11**	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	**3.7**
Bromodichloromethane	50	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
Bromoform	50	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
Bromomethane	5	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
Carbon Disulfide	60	ug/L	1.0 U	**0.83 J**	5.0 U	1.0 U	**0.32 J**	**0.58 J**	5.0 U	1.0 U	1.0 U	1.0 U	**1.9 J**	1.0 U	**0.87 J**
Carbon Tetrachloride	5	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
Chlorobenzene	5	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
Chloroethane	5	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
Chloroform	7	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
Chloromethane	5	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5	ug/L	1.0 U	**2.1**	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	0.4	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
Cyclohexane	- -	ug/L	1.0 U	1.0 U	R	1.0 U	1.0 U	1.0 U	R	1.0 U	1.0 U	1.0 U	R	1.0 U	**13**
Dibromochloromethane	50	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
Dichlorodifluoromethane	5	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
Ethylbenzene	5	ug/L	1.0 U	**5.3**	**4.5 J**	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	**1.0**	5.0 U	1.0 U	1.0 U
Isopropylbenzene	5	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	**1.3**	5.0 U	1.0 U	**17**
Methyl acetate	- -	ug/L	2.5 U	1.0 U	5.0 U	2.5 U	2.5 U	1.0 U	5.0 U	2.5 U	2.5 U	1.0 U	5.0 U	1.0 U	1.0 U
Methyl tert-butyl ether	10	ug/L	**0.47 J**	**20**	**12**	1.0 U	**3.3**	1.0 U	5.0 U	1.0 U	**0.32 J**	**13**	**8.0**	**4.2**	**3.0**
Methylcyclohexane	- -	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	**2.1**
Methylene Chloride	5	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
Styrene	5	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
Tetrachloroethene	5	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
Toluene	5	ug/L	1.0 U	**2.4**	**8.6**	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	5	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	0.4	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
Trichloroethene	5	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	**3.1 J**	1.0 U	1.0 U	**0.65 J**	5.0 U	1.0 U	1.0 U
Trichlorofluoromethane	5	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
Vinyl Chloride	2	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
Xylenes (total)	5	ug/L	2.0 U	**12**	**7.8 J**	2.0 U	2.0 U	2.0 U	10 U	2.0 U	2.0 U	2.0 U	10 U	2.0 U	**0.66 J**

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Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			MW-30-VD	MW-31-D1R	MW-31-D1R	MW-31-D1R	MW-31-D1R	MW-31-D2R	MW-31-D2R	MW-31-D2R	MW-31-D2R	MW-32D	MW-32D	MW-33D	MW-35D
Historical Screen Interval (feet below ground surface)			73 - 83	17 - 27	17 - 27	17 - 27	17 - 27	32 - 42	32 - 42	32 - 42	32 - 42	24 - 34	24 - 34	18 - 28	16 - 26
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		77 - 87	21 - 31	21 - 31	21 - 31	21 - 31	36 - 46	36 - 46	36 - 46	36 - 46	28 - 38	28 - 38	22 - 32	20 - 30
Date Collected:		Units	06/22/16	01/21/11	09/13/13	01/14/16	06/22/16	01/21/11	09/13/13	01/14/16	06/22/16	01/19/11	09/13/13	01/27/11	01/27/11
Semivolatile Organics															
1,1'-Biphenyl	5	ug/L	4.6 U	**9.4**	**3.0 J**	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
2,2'-Oxybis(1-Chloropropane)	5	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
2,4,5-Trichlorophenol	1	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
2,4,6-Trichlorophenol	1	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
2,4-Dichlorophenol	5	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
2,4-Dimethylphenol	50	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
2,4-Dinitrophenol	10	ug/L	9.1 U	9.5 U	10 U	9.9 U	47 U	10 U	10 U	9.5 U	9.3 U	9.5 U	9.4 U	9.6 U	9.6 U
2,4-Dinitrotoluene	5	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
2,6-Dinitrotoluene	5	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
2-Chloronaphthalene	10	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
2-Chlorophenol	1	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
2-Methylnaphthalene	- -	ug/L	4.6 U	**2.8 J**	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
2-Methylphenol	- -	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
2-Nitroaniline	5	ug/L	9.1 U	9.5 U	10 U	9.9 U	47 U	10 U	10 U	9.5 U	9.3 U	9.5 U	9.4 U	9.6 U	9.6 U
2-Nitrophenol	- -	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
3,3'-Dichlorobenzidine	5	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
3-Nitroaniline	5	ug/L	9.1 U	9.5 U	10 U	9.9 U	47 U	10 U	10 U	9.5 U	9.3 U	9.5 U	9.4 U	9.6 U	9.6 U
4,6-Dinitro-2-methylphenol	- -	ug/L	9.1 U	9.5 U	10 U	9.9 U	47 U	10 U	10 U	9.5 U	9.3 U	9.5 U	9.4 U	9.6 U	9.6 U
4-Bromophenyl-phenylether	- -	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
4-Chloro-3-Methylphenol	- -	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
4-Chloroaniline	5	ug/L	4.6 U	4.8 U	R	4.9 U	23 U	5.1 U	R	4.8 U	4.7 U	4.7 U	R	4.8 U	4.8 U
4-Chlorophenyl-phenylether	- -	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
4-Methylphenol	- -	ug/L	9.1 U	9.5 U	**0.59 J**	9.9 U	47 U	10 U	10 U	9.5 U	9.3 U	9.5 U	9.4 U	9.6 U	9.6 U
4-Nitroaniline	5	ug/L	9.1 U	9.5 U	10 U	9.9 U	47 U	10 U	10 U	9.5 U	9.3 U	9.5 U	9.4 U	9.6 U	9.6 U
4-Nitrophenol	- -	ug/L	9.1 U	9.5 U	10 U	9.9 U	47 U	10 U	10 U	9.5 U	9.3 U	9.5 U	9.4 U	9.6 U	9.6 U
Acenaphthene	20	ug/L	4.6 U	**90**	**44**	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	**1.5 J**	**0.54 J**	4.8 U	**2.3 J**
Acenaphthylene	- -	ug/L	4.6 U	**1.8 J**	**0.74 J**	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
Acetophenone	- -	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
Anthracene	50	ug/L	4.6 U	**1.3 J**	**1.8 J**	4.9 U	23 U	5.1 U	**0.52 J**	4.8 U	4.7 U	**1.8 J**	**1.7 J**	4.8 U	4.8 U
Atrazine	7.5	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
Benzaldehyde	- -	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
Benzo(a)anthracene	0.002	ug/L	4.6 U	4.8 U	5.1 UJ	4.9 U	23 U	5.1 U	5.2 UJ	4.8 U	4.7 U	4.7 U	4.7 UJ	4.8 U	4.8 U
Benzo(a)pyrene	- -	ug/L	4.6 U	4.8 U	5.1 UJ	4.9 U	23 U	5.1 U	5.2 UJ	4.8 U	4.7 U	4.7 U	4.7 UJ	4.8 U	4.8 U
Benzo(b)fluoranthene	0.002	ug/L	4.6 U	4.8 U	5.1 UJ	4.9 U	23 U	5.1 U	5.2 UJ	4.8 U	4.7 U	4.7 U	4.7 UJ	4.8 U	4.8 U
Benzo(g,h,i)perylene	- -	ug/L	4.6 U	4.8 U	5.1 UJ	4.9 U	23 U	5.1 U	5.2 UJ	4.8 U	4.7 U	4.7 U	4.7 UJ	4.8 U	4.8 U
Benzo(k)fluoranthene	0.002	ug/L	4.6 U	4.8 U	5.1 UJ	4.9 U	23 U	5.1 U	5.2 UJ	4.8 U	4.7 U	4.7 U	4.7 UJ	4.8 U	4.8 U
bis(2-Chloroethoxy)methane	5	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
bis(2-Chloroethyl)ether	1	ug/L	**0.38 J**	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
bis(2-Ethylhexyl)phthalate	5	ug/L	**11 B**	4.8 U	5.1 UJ	4.9 U	23 U	5.1 U	**2.0 J**	4.8 U	**3.7 JB**	4.7 U	4.7 UJ	**1.8 J**	4.8 U
Butylbenzylphthalate	50	ug/L	4.6 U	4.8 U	5.1 UJ	4.9 U	23 U	5.1 U	**0.48 J**	4.8 U	4.7 U	4.7 U	4.7 UJ	4.8 U	4.8 U
Caprolactam	- -	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
Carbazole	- -	ug/L	4.6 U	**49**	**26**	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	**21**	**14**	4.8 U	4.8 U
Chrysene	0.002	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 UJ	4.8 U	4.7 U	4.7 U	4.7 UJ	4.8 U	4.8 U
Dibenzo(a,h)anthracene	- -	ug/L	4.6 U	4.8 U	5.1 UJ	4.9 U	23 U	5.1 U	5.2 UJ	4.8 U	4.7 U	4.7 U	4.7 UJ	4.8 U	4.8 U
Dibenzofuran	- -	ug/L	9.1 U	**32**	**9.0 J**	9.9 U	47 U	10 U	10 U	9.5 U	9.3 U	9.5 U	9.4 U	9.6 U	**0.69 J**
Diethylphthalate	50	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
Dimethylphthalate	50	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	**1.9 J**	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
Di-n-Butylphthalate	50	ug/L	4.6 U	**0.39 J**	5.1 UB	4.9 U	23 U	5.1 U	5.2 UB	4.8 U	4.7 U	4.7 U	4.7 UB	4.8 U	**0.37 J**

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Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-30-VD	MW-31-D1R	MW-31-D1R	MW-31-D1R	MW-31-D1R	MW-31-D2R	MW-31-D2R	MW-31-D2R	MW-31-D2R	MW-32D	MW-32D	MW-33D	MW-35D
Historical Screen Interval (feet below ground surface)			73 - 83	17 - 27	17 - 27	17 - 27	17 - 27	32 - 42	32 - 42	32 - 42	32 - 42	24 - 34	24 - 34	18 - 28	16 - 26
Current Screen Interval (Feet below current ground surface):			77 - 87	21 - 31	21 - 31	21 - 31	21 - 31	36 - 46	36 - 46	36 - 46	36 - 46	28 - 38	28 - 38	22 - 32	20 - 30
Date Collected:			06/22/16	01/21/11	09/13/13	01/14/16	06/22/16	01/21/11	09/13/13	01/14/16	06/22/16	01/19/11	09/13/13	01/27/11	01/27/11
Semivolatile Organics (Cont.)															
Di-n-Octylphthalate	50	ug/L	4.6 U	4.8 U	5.1 UJ	4.9 U	23 U	5.1 U	5.2 UJ	4.8 U	4.7 U	4.7 U	4.7 UJ	4.8 U	4.8 U
Fluoranthene	50	ug/L	4.6 U	**1.0 J**	**0.94 J**	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	**1.2 J**	**1.2 J**	4.8 U	4.8 U
Fluorene	50	ug/L	4.6 U	**19**	**5.5**	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	**0.40 J**	4.8 U	4.8 U
Hexachlorobenzene	0.04	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
Hexachlorobutadiene	0.5	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
Hexachlorocyclopentadiene	5	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
Hexachloroethane	5	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
Indeno(1,2,3-cd)pyrene	0.002	ug/L	4.6 U	4.8 U	5.1 UJ	4.9 U	23 U	5.1 U	5.2 UJ	4.8 U	4.7 U	4.7 U	4.7 UJ	4.8 U	4.8 U
Isophorone	50	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
naphthalene	10	ug/L	4.6 U	**130**	**48**	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
Nitrobenzene	0.4	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
N-Nitroso-di-n-propylamine	- -	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
N-Nitrosodiphenylamine	50	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
Pentachlorophenol	- -	ug/L	9.1 U	9.5 U	10 U	9.9 U	47 U	10 U	10 U	9.5 U	9.3 U	9.5 U	9.4 U	9.6 U	9.6 U
Phenanthrene	50	ug/L	4.6 U	**25**	**15**	4.9 U	23 U	5.1 U	5.2 UB	4.8 U	4.7 U	**25**	**17**	4.8 U	4.8 U
Phenol	1	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	**29**	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
Pyrene	50	ug/L	4.6 U	**0.39 J**	**1.5 J**	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	**0.46 J**	**0.49 J**	4.8 U	4.8 U
Inorganics - Total															
Aluminum	- -	mg/L	NA	**0.130 J**	NA	NA	NA	**0.210**	NA	NA	NA	0.200 U	NA	**0.690**	**6.200**
Antimony	0.003	mg/L	NA	0.020 U	NA	NA	NA	0.020 U	NA	NA	NA	0.020 U	NA	0.020 U	0.020 U
Arsenic	0.025	mg/L	NA	**0.0081 J**	NA	NA	NA	0.010 U	NA	NA	NA	0.010 U	NA	0.010 U	**0.0076 J**
Barium	1	mg/L	NA	**0.0590**	NA	NA	NA	**0.140**	NA	NA	NA	**0.0290**	NA	**0.0190**	**0.0330**
Beryllium	0.003	mg/L	NA	0.00200 U	NA	NA	NA	0.00200 U	NA	NA	NA	0.00200 U	NA	0.00200 U	0.00200 U
Cadmium	0.005	mg/L	NA	**0.00610 J**	NA	NA	NA	**0.00760 J**	NA	NA	NA	**0.00780 J**	NA	**0.00940 J**	**0.00650 J**
Calcium	- -	mg/L	NA	**120**	NA	NA	NA	**371**	NA	NA	NA	**89.9**	NA	**74.4**	**111**
Chromium	0.05	mg/L	NA	**0.00390 J**	NA	NA	NA	**0.00350 J**	NA	NA	NA	**0.00240 J**	NA	**0.00320 J**	**0.0150**
Cobalt	- -	mg/L	NA	**0.00800 J**	NA	NA	NA	**0.00170 J**	NA	NA	NA	0.00400 U	NA	0.00400 U	**0.00270 J**
Copper	0.2	mg/L	NA	**0.00230 J**	NA	NA	NA	**0.00160 J**	NA	NA	NA	0.0100 U	NA	**0.00250 J**	**0.00770 J**
Iron	0.3	mg/L	**6.60**	**0.170**	NA	NA	**0.320**	**0.0990**	NA	NA	**2.40**	**0.0440 J**	NA	**0.650**	**8.100**
Lead	0.025	mg/L	NA	0.00500 U	NA	NA	NA	0.00500 U	NA	NA	NA	0.00500 U	NA	0.00500 U	**0.00840**
Magnesium	35	mg/L	NA	**273.000 J**	NA	NA	NA	**540.00 J**	NA	NA	NA	**209.000**	NA	**182.000**	**30.500**
Manganese	0.3	mg/L	**0.290 B**	**0.430**	NA	NA	**0.0220 B**	**0.120**	NA	NA	**0.430 B**	**0.0400**	NA	**0.0480**	**0.160**
Mercury	0.0007	mg/L	NA	0.000200 U	NA	NA	NA	0.000200 U	NA	NA	NA	0.000200 U	NA	0.000200 U	0.000200 U
Nickel	0.1	mg/L	NA	0.0100 U	NA	NA	NA	**0.00270 J**	NA	NA	NA	0.0100 U	NA	**0.00130 J**	**0.00770 J**
Potassium	- -	mg/L	NA	**118**	NA	NA	NA	**222**	NA	NA	NA	**84.5**	NA	**74**	**21.3**
Selenium	0.01	mg/L	NA	0.0150 U	NA	NA	NA	0.0150 U	NA	NA	NA	0.0150 U	NA	0.0150 U	0.0150 U
Silver	0.05	mg/L	NA	0.00300 U	NA	NA	NA	0.00300 U	NA	NA	NA	0.00300 U	NA	0.00300 U	0.00300 U
Sodium	20	mg/L	NA	**2,370 J**	NA	NA	NA	**5,180 J**	NA	NA	NA	**1,840**	NA	**1,690**	**273**
Thallium	0.0005	mg/L	NA	0.0200 U	NA	NA	NA	0.0200 U	NA	NA	NA	0.0200 U	NA	0.0200 U	0.0200 U
Vanadium	- -	mg/L	NA	**0.00580**	NA	NA	NA	**0.00390 J**	NA	NA	NA	**0.00530**	NA	**0.00560**	**0.0170**
Zinc	2	mg/L	NA	**0.00330 J**	NA	NA	NA	0.0100 U	NA	NA	NA	0.0100 U	NA	**0.00380 J**	**0.0260**

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Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			MW-30-VD	MW-31-D1R	MW-31-D1R	MW-31-D1R	MW-31-D1R	MW-31-D2R	MW-31-D2R	MW-31-D2R	MW-31-D2R	MW-32D	MW-32D	MW-33D	MW-35D
Historical Screen Interval (feet below ground surface)			73 - 83	17 - 27	17 - 27	17 - 27	17 - 27	32 - 42	32 - 42	32 - 42	32 - 42	24 - 34	24 - 34	18 - 28	16 - 26
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		77 - 87	21 - 31	21 - 31	21 - 31	21 - 31	36 - 46	36 - 46	36 - 46	36 - 46	28 - 38	28 - 38	22 - 32	20 - 30
Date Collected:		Units	06/22/16	01/21/11	09/13/13	01/14/16	06/22/16	01/21/11	09/13/13	01/14/16	06/22/16	01/19/11	09/13/13	01/27/11	01/27/11
Inorganics-Dissolved															
Aluminum	- -	mg/L	NA	0.0500 U	NA	NA	NA	**0.0670 J**	NA	NA	NA	0.200 U	NA	**0.0730 J**	**0.200**
Antimony	0.003	mg/L	NA	0.0500 U	NA	NA	NA	0.020.0 U	NA	NA	NA	0.020.0 U	NA	0.020.0 U	0.020.0 U
Arsenic	0.025	mg/L	NA	0.0500 U	NA	NA	NA	0.0100 U	NA	NA	NA	0.0100 U	NA	0.0100 U	0.0100 U
Barium	1	mg/L	NA	0.0500 U	NA	NA	NA	**0.130**	NA	NA	NA	**0.0280**	NA	**0.0190**	**0.0110**
Beryllium	0.003	mg/L	NA	0.0500 U	NA	NA	NA	0.00200 U	NA	NA	NA	0.00200 U	NA	0.00200 U	0.00200 U
Cadmium	0.005	mg/L	NA	0.0500 U	NA	NA	NA	**0.00110**	NA	NA	NA	**0.000950 J**	NA	**0.000770 J**	**0.000480 J**
Calcium	- -	mg/L	NA	0.0500 U	NA	NA	NA	**363**	NA	NA	NA	**90.5**	NA	**73**	**97.1**
Chromium	0.05	mg/L	NA	0.0500 U	NA	NA	NA	**0.00220 J**	NA	NA	NA	**0.00250 J**	NA	**0.00140 J**	**0.00100 J**
Cobalt	- -	mg/L	NA	0.0500 U	NA	NA	NA	**0.00100 J**	NA	NA	NA	0.00400 U	NA	0.00400 U	0.00400 U
Copper	0.2	mg/L	NA	0.0500 U	NA	NA	NA	0.0100 UB	NA	NA	NA	**0.00170 J**	NA	**0.00360 J**	**0.00230 J**
Iron	0.3	mg/L	**4.90 B**	0.0500 U	NA	NA	**0.230 B**	**0.0250 J**	NA	NA	**2.20 B**	0.0500 U	NA	0.0500 U	**0.250**
Lead	0.025	mg/L	NA	0.00500 U	NA	NA	NA	0.00500 U	NA	NA	NA	0.00500 U	NA	0.00500 U	0.00500 U
Magnesium	35	mg/L	NA	**268**	NA	NA	NA	**595**	NA	NA	NA	**215**	NA	**186**	**27.3**
Manganese	0.3	mg/L	**0.260 B**	**0.420**	NA	NA	**0.0250 B**	**0.120**	NA	NA	**0.430 B**	**0.0370**	NA	**0.0400**	**0.0630**
Mercury	0.0007	mg/L	NA	0.000200 U	NA	NA	NA	0.000200 U	NA	NA	NA	0.000200 U	NA	0.000200 U	0.000200 U
Nickel	0.1	mg/L	NA	0.0100 U	NA	NA	NA	**0.00320 J**	NA	NA	NA	0.0100 U	NA	0.0100 U	0.0100 U
Potassium	- -	mg/L	NA	**106**	NA	NA	NA	**204**	NA	NA	NA	**92.4**	NA	**75.3**	**20.6**
Selenium	0.01	mg/L	NA	0.0150 U	NA	NA	NA	0.0150 U	NA	NA	NA	0.0150 U	NA	0.0150 U	0.0150 U
Silver	0.05	mg/L	NA	0.00300 U	NA	NA	NA	0.00300 U	NA	NA	NA	0.00300 U	NA	0.00300 U	0.00300 U
Sodium	20	mg/L	NA	**2,460**	NA	NA	NA	**4,800**	NA	NA	NA	**1,890**	NA	**1,660**	**281**
Thallium	0.0005	mg/L	NA	0.0200 U	NA	NA	NA	0.0200 U	NA	NA	NA	0.0200 U	NA	0.0200 U	0.0200 U
Vanadium	- -	mg/L	NA	**0.006**	NA	NA	NA	**0.00380 J**	NA	NA	NA	**0.00480 J**	NA	**0.00270 J**	**0.00180 J**
Zinc	2	mg/L	NA	0.0100 U	NA	NA	NA	0.0100 U	NA	NA	NA	0.0100 U	NA	0.0100 U	**0.00200 J**
General Chemistry															
Alkalinity	- -	mg/L	**713 B**	**854**	NA	NA	**221 B**	**537**	NA	NA	**508 B**	**924**	NA	**597**	**282**
Alkalinity, Bicarbonate	- -	mg/L	**713 B**	**854**	NA	NA	**221 B**	**537**	NA	NA	**508 B**	**924**	NA	**597**	**282**
Ammonia Nitrogen	- -	mg/L	NA	**5.1**	NA	NA	NA	**1.9**	NA	NA	NA	**5.8**	NA	**2.9**	**5.1**
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	mg/L	NA	0.3 U	NA	NA	NA	0.3 U	NA	NA	NA	0.0015 U	NA	0.15 UJ	1.5 UJ
Ethene	- -	mg/L	NA	0.3 U	NA	NA	NA	0.3 U	NA	NA	NA	0.0015 U	NA	0.15 UJ	1.5 UJ
Methane	- -	mg/L	NA	**0.59**	NA	NA	NA	**0.27**	NA	NA	NA	**1.7 DJ**	NA	**0.31 J**	**12 J**
Nitrate Nitrogen	- -	mg/L	NA	0.05 U	NA	NA	NA	0.05 U	NA	NA	NA	0.05 U	NA	0.05 U	0.05 U
Nitrite Nitrogen	- -	mg/L	NA	0.05 U	NA	NA	NA	0.05 U	NA	NA	NA	0.05 U	NA	0.05 U	0.05 U
Orthophosphate	- -	mg/L	NA	1 U	NA	NA	NA	**0.27**	NA	NA	NA	**0.38**	NA	**0.59**	**1.3**
Soluble Organic Carbon	- -	mg/L	NA	**13.1**	NA	NA	NA	**20.9**	NA	NA	NA	**13.3**	NA	**11**	**19.1**
Sulfate	250	mg/L	**1,770**	**149**	NA	NA	**47.2**	**1,360**	NA	NA	**750**	**15.2**	NA	**181**	**6.1**
Sulfide	- -	mg/L	0.1 U	**0.12**	NA	NA	**0.6**	**5.5**	NA	NA	**2.8**	**0.47**	NA	**13.2**	**1**
Total Dissolved Solids	- -	mg/L	NA	**7,590**	NA	NA	NA	**17,300**	NA	NA	NA	**6,040**	NA	**4,920**	**1,050**

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Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			MW-DR	MW-DR	OW-1-D1	OW-1-D1	OW-1-D1	OW-2-D1	OW-2-D1	OW-2-D1	OW-3-D1	OW-3-D1	OW-3-D1	P-10	P-10
Historical Screen Interval (feet below ground surface)			NA	NA	19 - 24	19 - 24	19 - 24	25 - 29	25 - 29	25 - 29	19 - 29	19 - 29	19 - 29	NA	NA
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		NA	NA	23 - 28	23 - 28	23 - 28	29 - 33	29 - 33	29 - 33	23 - 33	23 - 33	23 - 33	NA	NA
Date Collected:		Units	01/26/11	09/12/13	02/20/13	09/12/13	01/13/16	02/21/13	09/11/13	01/12/16	02/21/13	09/13/13	01/13/16	04/07/11	09/17/13
Volatile Organics															
1,1,1-Trichloroethane	5	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	5	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	1	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
1,1-Dichloroethane	5	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
1,1-Dichloroethene	5	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	5	ug/L	5.0 U	10 U	10 U	2.0 UJ	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	0.04	ug/L	5.0 U	10 UJ	10 U	2.0 UJ	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
1,2-Dibromoethane	0.0006	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	3	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
1,2-Dichloropropane	1	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	3	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
2-Butanone	50	ug/L	50 U	100 U	100 U	**19 J**	200 U	50 U [50 U]	50 U	50 U	50 U	**36 J**	50 U	10 U	10 U
2-Hexanone	50	ug/L	25 U	50 U	50 U	10 U	100 U	25 U [25 U]	25 U	25 U	25 U	25 U	25 U	5.0 U	5.0 U
4-Methyl-2-pentanone	- -	ug/L	25 U	50 U	50 U	10 U	100 U	25 U [25 U]	25 U	25 U	25 U	25 U	25 U	5.0 U	5.0 U
Acetone	50	ug/L	50 U	100 U	100 U	**37**	200 U*	**29 J [34 J]**	50 U	50 U*	50 U	**220**	50 U*	**23**	**5.8 J**
Benzene	1	ug/L	**9.5**	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	**5.7**	5.0 U	5.0 U	5.0 U	**3.1**	1.0 U
Bromodichloromethane	50	ug/L	5.0 U	10 UJ	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Bromoform	50	ug/L	5.0 U	10 UJ	10 U	2.0 UJ	20 U	5.0 U [5.0 U]	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Bromomethane	5	ug/L	5.0 U	10 UJ	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Carbon Disulfide	60	ug/L	5.0 U	10 UJ	**6.8 J**	**8.8**	20 U	**1.2 J [1.2 J]**	**66**	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	**15**
Carbon Tetrachloride	5	ug/L	5.0 U	10 UJ	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Chlorobenzene	5	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Chloroethane	5	ug/L	5.0 U	10 UJ	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	R
Chloroform	7	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Chloromethane	5	ug/L	5.0 U	10 UJ	10 U	2.0 UJ	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5	ug/L	5.0 U	10 U	**55**	**27**	**100**	**5.2 [4.8 J]**	5.0 U	**50**	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	0.4	ug/L	5.0 U	10 UJ	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Cyclohexane	- -	ug/L	**6.9**	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	R	5.0 U	**8.6**	**0.99 J**
Dibromochloromethane	50	ug/L	5.0 U	10 UJ	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Dichlorodifluoromethane	5	ug/L	5.0 U	10 UJ	10 UJ	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 UJ
Ethylbenzene	5	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Isopropylbenzene	5	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	**2.6**	1.0 U
Methyl acetate	- -	ug/L	5.0 U	10 U	**17**	2.0 U	50 U	5.0 U [5.0 U]	5.0 U	13 U	5.0 U	5.0 U	13 U	1.0 U	1.0 U
Methyl tert-butyl ether	10	ug/L	**7.6**	**2.7 J**	**860**	**130**	**640**	**160 [160]**	**34**	**240**	**150**	**65**	**250**	1.0 U	**0.67 J**
Methylcyclohexane	- -	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	**11**	**1.1**
Methylene Chloride	5	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Styrene	5	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Tetrachloroethene	5	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Toluene	5	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	**0.72 J**	1.0 U
trans-1,2-Dichloroethene	5	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	0.4	ug/L	5.0 U	10 UJ	10 U	2.0 UJ	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Trichloroethene	5	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	**10**	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Trichlorofluoromethane	5	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Vinyl Chloride	2	ug/L	5.0 U	10 U	10 U	**1.8 J**	**500**	5.0 U [5.0 U]	5.0 U	**32**	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Xylenes (total)	5	ug/L	10 U	20 U	20 U	4.0 U	40 U	10 U [10 U]	10 U	**4.1 J**	10 U	10 U	10 U	**0.86 J**	2.0 U

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Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-DR	MW-DR	OW-1-D1	OW-1-D1	OW-1-D1	OW-2-D1	OW-2-D1	OW-2-D1	OW-3-D1	OW-3-D1	OW-3-D1	P-10	P-10
Historical Screen Interval (feet below ground surface)			NA	NA	19 - 24	19 - 24	19 - 24	25 - 29	25 - 29	25 - 29	19 - 29	19 - 29	19 - 29	NA	NA
Current Screen Interval (Feet below current ground surface):			NA	NA	23 - 28	23 - 28	23 - 28	29 - 33	29 - 33	29 - 33	23 - 33	23 - 33	23 - 33	NA	NA
Date Collected:			01/26/11	09/12/13	02/20/13	09/12/13	01/13/16	02/21/13	09/11/13	01/12/16	02/21/13	09/13/13	01/13/16	04/07/11	09/17/13
Semivolatile Organics															
1,1'-Biphenyl	5	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
2,2'-Oxybis(1-Chloropropane)	5	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
2,4,5-Trichlorophenol	1	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
2,4,6-Trichlorophenol	1	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
2,4-Dichlorophenol	5	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
2,4-Dimethylphenol	50	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	**6.2 J**	NA	4.9 U	4.6 U	NA	4.8 U
2,4-Dinitrophenol	10	ug/L	9.4 U	10 U	NA	9.9 U	9.7 U	NA	9.9 U	100 U	NA	9.9 UJ	9.3 U	NA	9.5 U
2,4-Dinitrotoluene	5	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
2,6-Dinitrotoluene	5	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
2-Chloronaphthalene	10	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
2-Chlorophenol	1	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
2-Methylnaphthalene	- -	ug/L	4.7 U	**2.3 J**	NA	**3.2 J**	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	**1.9 J**
2-Methylphenol	- -	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
2-Nitroaniline	5	ug/L	9.4 U	10 U	NA	9.9 U	9.7 U	NA	9.9 U	100 U	NA	9.9 U	9.3 U	NA	9.5 U
2-Nitrophenol	- -	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
3,3'-Dichlorobenzidine	5	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	R
3-Nitroaniline	5	ug/L	9.4 U	10 U	NA	9.9 U	9.7 U	NA	9.9 U	100 U	NA	9.9 U	9.3 U	NA	9.5 UJ
4,6-Dinitro-2-methylphenol	- -	ug/L	9.4 U	10 U	NA	9.9 U	9.7 U	NA	9.9 U	100 U	NA	9.9 U	9.3 U	NA	9.5 U
4-Bromophenyl-phenylether	- -	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
4-Chloro-3-Methylphenol	- -	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
4-Chloroaniline	5	ug/L	4.7 U	5.2 UJ	NA	5.0 UJ	4.8 U	NA	5.0 U	52 U	NA	R	4.6 U	NA	4.8 UJ
4-Chlorophenyl-phenylether	- -	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
4-Methylphenol	- -	ug/L	9.4 U	10 U	NA	**0.36 J**	9.7 U	NA	9.9 U	100 U	NA	**0.65 J**	9.3 U	NA	**0.62 J**
4-Nitroaniline	5	ug/L	9.4 U	10 U	NA	9.9 U	9.7 U	NA	9.9 U	100 U	NA	9.9 U	9.3 U	NA	9.5 U
4-Nitrophenol	- -	ug/L	9.4 U	10 U	NA	9.9 U	9.7 U	NA	9.9 U	100 U	NA	9.9 U	9.3 U	NA	9.5 U
Acenaphthene	20	ug/L	4.7 U	**0.85 J**	NA	**11**	**22**	NA	**2.5 J**	**14 J**	NA	4.9 U	4.6 U	NA	**2.0 J**
Acenaphthylene	- -	ug/L	4.7 U	5.2 U	NA	**3.2 J**	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
Acetophenone	- -	ug/L	4.7 U	**0.76 J**	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
Anthracene	50	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
Atrazine	7.5	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	R
Benzaldehyde	- -	ug/L	4.7 U	**0.41 J**	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	**0.56 J**
Benzo(a)anthracene	0.002	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 UJ	4.6 U	NA	**0.39 J**
Benzo(a)pyrene	- -	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	**0.50 J**
Benzo(b)fluoranthene	0.002	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	**1.0 J**
Benzo(g,h,i)perylene	- -	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
Benzo(k)fluoranthene	0.002	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
bis(2-Chloroethoxy)methane	5	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
bis(2-Chloroethyl)ether	1	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
bis(2-Ethylhexyl)phthalate	5	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 UJ	4.6 U	NA	**120 D**
Butylbenzylphthalate	50	ug/L	4.7 U	5.2 U	NA	5.0 U	**0.51 JB**	NA	5.0 U	52 U	NA	4.9 UJ	**0.58 JB**	NA	4.8 U
Caprolactam	- -	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 UJ
Carbazole	- -	ug/L	4.7 U	5.2 U	NA	**5.2**	**6.5**	NA	**0.84 J**	**4.1 J**	NA	4.9 U	4.6 U	NA	4.8 U
Chrysene	0.002	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 UJ	4.6 U	NA	**0.75 J**
Dibenzo(a,h)anthracene	- -	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
Dibenzofuran	- -	ug/L	9.4 U	10 U	NA	**2.9 J**	**4.6 J**	NA	9.9 U	100 U	NA	9.9 U	9.3 U	NA	9.5 U
Diethylphthalate	50	ug/L	4.7 U	**1.9 J**	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
Dimethylphthalate	50	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
Di-n-Butylphthalate	50	ug/L	4.7 U	5.2 U	NA	**0.31 J**	4.8 U	NA	**0.43 J**	52 U	NA	4.9 UB	4.6 U	NA	4.8 U

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Remedial Investigation Report
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Oceanside, Town of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-DR	MW-DR	OW-1-D1	OW-1-D1	OW-1-D1	OW-2-D1	OW-2-D1	OW-2-D1	OW-3-D1	OW-3-D1	OW-3-D1	P-10	P-10
Historical Screen Interval (feet below ground surface)			NA	NA	19 - 24	19 - 24	19 - 24	25 - 29	25 - 29	25 - 29	19 - 29	19 - 29	19 - 29	NA	NA
Current Screen Interval (Feet below current ground surface):			NA	NA	23 - 28	23 - 28	23 - 28	29 - 33	29 - 33	29 - 33	23 - 33	23 - 33	23 - 33	NA	NA
Date Collected:			01/26/11	09/12/13	02/20/13	09/12/13	01/13/16	02/21/13	09/11/13	01/12/16	02/21/13	09/13/13	01/13/16	04/07/11	09/17/13
Semivolatile Organics (Cont.)															
Di-n-Octylphthalate	50	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 UJ	4.6 U	NA	4.8 U
Fluoranthene	50	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	**7.8**	52 U	NA	4.9 U	4.6 U	NA	**1.1 J**
Fluorene	50	ug/L	4.7 U	5.2 U	NA	**1.6 J**	**2.0 J**	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
Hexachlorobenzene	0.04	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
Hexachlorobutadiene	0.5	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
Hexachlorocyclopentadiene	5	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
Hexachloroethane	5	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
Indeno(1,2,3-cd)pyrene	0.002	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
Isophorone	50	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
naphthalene	10	ug/L	4.7 U	5.2 U	NA	**4.2 J**	**3.5 J**	NA	**3.3 J**	**24 J**	NA	4.9 U	4.6 U	NA	**1.3 J**
Nitrobenzene	0.4	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
N-Nitroso-di-n-propylamine	- -	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
N-Nitrosodiphenylamine	50	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	R
Pentachlorophenol	- -	ug/L	9.4 U	10 U	NA	9.9 U	9.7 U	NA	9.9 U	100 U	NA	9.9 U	9.3 U	NA	9.5 U
Phenanthrene	50	ug/L	4.7 U	5.2 U	NA	5.0 U	**0.45 J**	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
Phenol	1	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	**1.3 J**
Pyrene	50	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	**3.7 J**	52 U	NA	4.9 UJ	4.6 U	NA	**1.4 J**
Inorganics - Total															
Aluminum	- -	mg/L	**1.700**	NA	**0.290**	NA	NA	**0.140 J [0.110 J]**	NA	NA	**0.220**	NA	NA	**0.110 J**	NA
Antimony	0.003	mg/L	0.020 U	NA	0.0200 U	NA	NA	0.0200 U [0.0200 U]	NA	NA	0.0200 U	NA	NA	0.0200 U	NA
Arsenic	0.025	mg/L	**0.039**	NA	**0.0110**	NA	NA	0.0100 U **[0.00670 J]**	NA	NA	**0.00590 J**	NA	NA	0.010 U	NA
Barium	1	mg/L	**0.0310**	NA	**0.0900**	NA	NA	**0.0630 [0.0600]**	NA	NA	**0.0290**	NA	NA	**0.0220**	NA
Beryllium	0.003	mg/L	0.00200 U	NA	0.00200 U	NA	NA	0.00200 U [0.00200 U]	NA	NA	0.00200 U	NA	NA	0.00200 U	NA
Cadmium	0.005	mg/L	**0.00110**		**0.000850 J**	NA	NA	0.00100 U **[0.000660 J]**	NA	NA	**0.000670 J**	NA	NA	0.00100 U	NA
Calcium	- -	mg/L	**46 J**	NA	**171**	NA	NA	**116 [109]**	NA	NA	**90.2**	NA	NA	**138**	NA
Chromium	0.05	mg/L	**0.00580**	NA	**0.00690**	NA	NA	**0.00780 [0.00750]**	NA	NA	**0.00520**	NA	NA	**0.00720**	NA
Cobalt	- -	mg/L	**0.00990 J**	NA	0.00400 U	NA	NA	0.00400 U [0.00400 U]	NA	NA	0.00400 U	NA	NA	0.00400 U	NA
Copper	0.2	mg/L	**0.00930 J**	NA	**0.00320 J**	NA	NA	**0.00650 JB [0.00580 JB]**	NA	NA	**0.00440 JB**	NA	NA	0.0100 U	NA
Iron	0.3	mg/L	**3.200**	NA	**0.610**	NA	NA	**0.580 [0.530]**	NA	NA	**0.480**	NA	NA	**3.500**	NA
Lead	0.025	mg/L	**0.00940**	NA	**0.00300 J**	NA	NA	**0.00360 J [0.00460 J]**	NA	NA	0.00500 U	NA	NA	**0.00490 J**	NA
Magnesium	35	mg/L	**20.400**	NA	**371**	NA	NA	**186 [178]**	NA	NA	**185**	NA	NA	**10.700**	NA
Manganese	0.3	mg/L	**0.0660**	NA	**0.130**	NA	NA	**0.220 [0.200]**	NA	NA	**0.0940**	NA	NA	**0.260**	NA
Mercury	0.0007	mg/L	0.000200 U	NA	0.000200 U	NA	NA	0.000200 U [0.000200 U]	NA	NA	0.000200 U	NA	NA	0.000200 U	NA
Nickel	0.1	mg/L	**0.00370 J**	NA	0.0100 U	NA	NA	**0.00130 J** [0.0100 U]	NA	NA	0.0100 U	NA	NA	**0.00610 J**	NA
Potassium	- -	mg/L	**16.5**	NA	**110**	NA	NA	**75.7 [73.5]**	NA	NA	**76.6**	NA	NA	**8.6**	NA
Selenium	0.01	mg/L	0.0150 U	NA	0.0150 U	NA	NA	0.0150 U [0.0150 U]	NA	NA	0.0150 U	NA	NA	0.0150 U	NA
Silver	0.05	mg/L	0.00300 U	NA	0.00300 U	NA	NA	0.00300 U [0.00300 U]	NA	NA	0.00300 U	NA	NA	0.00300 U	NA
Sodium	20	mg/L	**186**	NA	**2,840**	NA	NA	**1.67 [1.52]**	NA	NA	**1.57**	NA	NA	**53.6**	NA
Thallium	0.0005	mg/L	0.0200 U	NA	0.0200 U	NA	NA	0.0200 U [0.0200 U]	NA	NA	0.0200 U	NA	NA	0.0200 U	NA
Vanadium	- -	mg/L	**0.0070**	NA	**0.0100**	NA	NA	**0.0100 [0.0100]**	NA	NA	**0.00790**	NA	NA	**0.00340 J**	NA
Zinc	2	mg/L	**0.0320**	NA	**0.00670 J**	NA	NA	0.0100 U [0.0100 U]	NA	NA	0.0100 U	NA	NA	**0.00630 J**	NA

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			MW-DR	MW-DR	OW-1-D1	OW-1-D1	OW-1-D1	OW-2-D1	OW-2-D1	OW-2-D1	OW-3-D1	OW-3-D1	OW-3-D1	P-10	P-10
Historical Screen Interval (feet below ground surface)			NA	NA	19 - 24	19 - 24	19 - 24	25 - 29	25 - 29	25 - 29	19 - 29	19 - 29	19 - 29	NA	NA
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		NA	NA	23 - 28	23 - 28	23 - 28	29 - 33	29 - 33	29 - 33	23 - 33	23 - 33	23 - 33	NA	NA
Date Collected:		Units	01/26/11	09/12/13	02/20/13	09/12/13	01/13/16	02/21/13	09/11/13	01/12/16	02/21/13	09/13/13	01/13/16	04/07/11	09/17/13
Inorganics-Dissolved															
Aluminum	- -	mg/L	0.200 U	NA	0.200 U	NA	NA	0.200 U	NA	NA	0.200 U	NA	NA	0.200 U	NA
Antimony	0.003	mg/L	0.020.0 U	NA	0.0200 U	NA	NA	0.0200 U	NA	NA	0.0200 U	NA	NA	0.020.0 U	NA
Arsenic	0.025	mg/L	**0.020**	NA	**0.00820 J**	NA	NA	0.0100 U	NA	NA	0.0100 U	NA	NA	0.0100 U	NA
Barium	1	mg/L	**0.0300**	NA	**0.0970**	NA	NA	**0.0500**	NA	NA	**0.0280**	NA	NA	**0.0220**	NA
Beryllium	0.003	mg/L	0.00200 U	NA	0.00200 U	NA	NA	0.00200 U	NA	NA	0.00200 U	NA	NA	0.00200 U	NA
Cadmium	0.005	mg/L	**0.000550 J**	NA	**0.000820 J**	NA	NA	**0.000610 J**	NA	NA	**0.000510 J**	NA	NA	0.00100 U	NA
Calcium	- -	mg/L	**54 J**	NA	**172**	NA	NA	**101**	NA	NA	**86.7**	NA	NA	**136**	NA
Chromium	0.05	mg/L	**0.00120 J**	NA	**0.00550**	NA	NA	**0.00590**	NA	NA	**0.00340 J**	NA	NA	0.00400 U	NA
Cobalt	- -	mg/L	0.00400 U	NA	0.00400 U	NA	NA	0.00400 U	NA	NA	0.00400 U	NA	NA	0.00400 U	NA
Copper	0.2	mg/L	**0.00170 J**	NA	0.0100 UB	NA	NA	**0.00480 JB**	NA	NA	**0.00450 JB**	NA	NA	**0.00170 J**	NA
Iron	0.3	mg/L	**1.70**	NA	0.0500 U	NA	NA	**0.310**	NA	NA	**0.0490 J**	NA	NA	**2.80**	NA
Lead	0.025	mg/L	0.00500 U	NA	**0.00330 J**	NA	NA	0.00500 U	NA	NA	0.00500 U	NA	NA	0.00500 U	NA
Magnesium	35	mg/L	**25.8**	NA	**353**	NA	NA	**182**	NA	NA	**184**	NA	NA	**10**	NA
Manganese	0.3	mg/L	**0.0850**	NA	**0.130**	NA	NA	**0.160**	NA	NA	**0.0890**	NA	NA	**0.250**	NA
Mercury	0.0007	mg/L	0.000200 U	NA	0.000200 U	NA	NA	0.000200 U	NA	NA	0.000200 U	NA	NA	0.000200 U	NA
Nickel	0.1	mg/L	**0.00170 J**	NA	**0.00340 J**	NA	NA	**0.00140 J**	NA	NA	**0.00270 J**	NA	NA	0.0100 U	NA
Potassium	- -	mg/L	**18.5**	NA	**117**	NA	NA	**75.7 B**	NA	NA	**75.4 B**	NA	NA	**7.9**	NA
Selenium	0.01	mg/L	0.0150 U	NA	0.0150 U	NA	NA	0.0150 U	NA	NA	0.0150 U	NA	NA	0.0150 U	NA
Silver	0.05	mg/L	0.00300 U	NA	0.00300 U	NA	NA	0.00300 U	NA	NA	0.00300 U	NA	NA	0.00300 U	NA
Sodium	20	mg/L	**206**	NA	**2,890**	NA	NA	**1,540**	NA	NA	**1,570**	NA	NA	**44.5**	NA
Thallium	0.0005	mg/L	0.0200 U	NA	0.0200 U	NA	NA	0.0200 U	NA	NA	0.0200 U	NA	NA	0.0200 U	NA
Vanadium	- -	mg/L	**0.00320 J**	NA	**0.0100**	NA	NA	**0.00850**	NA	NA	**0.00650**	NA	NA	**0.00150 J**	NA
Zinc	2	mg/L	0.0100 U	NA	0.0100 U	NA	NA	0.0100 U	NA	NA	0.0100 U	NA	NA	**0.00200 J**	NA
General Chemistry															
Alkalinity	- -	mg/L	**228**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Bicarbonate	- -	mg/L	**228**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	- -	mg/L	**1.1**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**59.3**	NA
Ethane	- -	mg/L	0.15 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	- -	mg/L	0.15 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	- -	mg/L	**1.4 J**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen	- -	mg/L	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite Nitrogen	- -	mg/L	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Orthophosphate	- -	mg/L	**0.33 J**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soluble Organic Carbon	- -	mg/L	**14.7**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	250	mg/L	**31.4**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	- -	mg/L	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	**730**	NA	**9,720**	NA	NA	**5,600 [5,530]**	NA	NA	**5,800**	NA	NA	NA	NA

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			P-18R	P-18R	TW-1	TW-2	TW-3
Historical Screen Interval (feet below ground surface)			2 - 8	2 - 8	NA	NA	NA
Current Screen Interval (Feet below current ground surface):			6 - 12	6 - 12	6 - 16	6 - 16	6 - 16
Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	01/27/11	01/12/16	06/16/16	06/16/16	06/16/16
Volatile Organics							
1,1,1-Trichloroethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
1,1,2,2-Tetrachloroethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
1,1,2-Trichloroethane	1	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
1,1-Dichloroethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
1,1-Dichloroethene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
1,2,4-Trichlorobenzene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
1,2-Dibromo-3-chloropropane	0.04	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
1,2-Dibromoethane	0.0006	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
1,2-Dichlorobenzene	3	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
1,2-Dichloroethane	0.6	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
1,2-Dichloropropane	1	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
1,3-Dichlorobenzene	3	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
1,4-Dichlorobenzene	3	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
2-Butanone	50	ug/L	50 U	50 U	10 U	**16**	1,000 U
2-Hexanone	50	ug/L	25 U	25 U	5.0 U	5.0 U	500 U
4-Methyl-2-pentanone	- -	ug/L	25 U	25 U	5.0 U	5.0 U	500 U
Acetone	50	ug/L	50 U	**40 J***	**9.6 J**	**98**	1,000 U
Benzene	1	ug/L	**160**	**42**	**4.7**	**6.8**	100 U
Bromodichloromethane	50	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
Bromoform	50	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
Bromomethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
Carbon Disulfide	60	ug/L	5.0 U	5.0 U	1.0 U	**1.8**	100 U
Carbon Tetrachloride	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
Chlorobenzene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
Chloroethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
Chloroform	7	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
Chloromethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
cis-1,2-Dichloroethene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
cis-1,3-Dichloropropene	0.4	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
Cyclohexane	- -	ug/L	**30**	**9.3**	**19**	**30**	100 U
Dibromochloromethane	50	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
Dichlorodifluoromethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
Ethylbenzene	5	ug/L	**3.8 J**	5.0 U	**1.1**	**1.3**	**930**
Isopropylbenzene	5	ug/L	**36**	**16**	**6.3**	**10**	100 U
Methyl acetate	- -	ug/L	5.0 U	13 U	2.5 U	2.5 U	250 U
Methyl tert-butyl ether	10	ug/L	5.0 U	**19**	1.0 U	1.0 U	100 U
Methylcyclohexane	- -	ug/L	**14**	**3.6 J**	**21**	**60**	100 U
Methylene Chloride	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
Styrene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
Tetrachloroethene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
Toluene	5	ug/L	**4.0 J**	5.0 U	**1.9**	**1.0**	100 U
trans-1,2-Dichloroethene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
trans-1,3-Dichloropropene	0.4	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
Trichloroethene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
Trichlorofluoromethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
Vinyl Chloride	2	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
Xylenes (total)	5	ug/L	**9.0 J**	10 U	**6.2**	**7.1**	**5,600**

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Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	P-18R	P-18R	TW-1	TW-2	TW-3
Historical Screen Interval (feet below ground surface)			2 - 8	2 - 8	NA	NA	NA
Current Screen Interval (Feet below current ground surface):			6 - 12	6 - 12	6 - 16	6 - 16	6 - 16
Date Collected:			01/27/11	01/12/16	06/16/16	06/16/16	06/16/16
Semivolatile Organics							
1,1'-Biphenyl	5	ug/L	5.3 U	47 U	47 U	19 U	47 U
2,2'-Oxybis(1-Chloropropane)	5	ug/L	5.3 U	47 U	47 U	19 U	47 U
2,4,5-Trichlorophenol	1	ug/L	5.3 U	47 U	47 U	19 U	47 U
2,4,6-Trichlorophenol	1	ug/L	5.3 U	47 U	47 U	19 U	47 U
2,4-Dichlorophenol	5	ug/L	5.3 U	47 U	47 U	19 U	47 U
2,4-Dimethylphenol	50	ug/L	5.3 U	47 U	47 U	19 U	47 U
2,4-Dinitrophenol	10	ug/L	11 U	95 U	94 U	38 U	93 U
2,4-Dinitrotoluene	5	ug/L	5.3 U	47 U	47 U	19 U	47 U
2,6-Dinitrotoluene	5	ug/L	5.3 U	47 U	47 U	19 U	47 U
2-Chloronaphthalene	10	ug/L	5.3 U	47 U	47 U	19 U	47 U
2-Chlorophenol	1	ug/L	5.3 U	47 U	47 U	19 U	47 U
2-Methylnaphthalene	- -	ug/L	**22**	47 U	**8.6 J**	**48**	**14 J**
2-Methylphenol	- -	ug/L	5.3 U	47 U	47 U	19 U	47 U
2-Nitroaniline	5	ug/L	11 U	95 U	94 U	38 U	93 U
2-Nitrophenol	- -	ug/L	5.3 U	47 U	47 U	19 U	47 U
3,3'-Dichlorobenzidine	5	ug/L	5.3 U	47 U	47 U	19 U	47 U
3-Nitroaniline	5	ug/L	11 U	95 U	94 U	38 U	93 U
4,6-Dinitro-2-methylphenol	- -	ug/L	11 U	95 U	94 U	38 U	93 U
4-Bromophenyl-phenylether	- -	ug/L	5.3 U	47 U	47 U	19 U	47 U
4-Chloro-3-Methylphenol	- -	ug/L	5.3 U	47 U	47 U	19 U	47 U
4-Chloroaniline	5	ug/L	5.3 U	47 U	47 U	19 U	47 U
4-Chlorophenyl-phenylether	- -	ug/L	5.3 U	47 U	47 U	19 U	47 U
4-Methylphenol	- -	ug/L	**1.2 J**	95 U	94 U	**11 J**	**12 J**
4-Nitroaniline	5	ug/L	11 U	95 U	94 U	38 U	93 U
4-Nitrophenol	- -	ug/L	11 U	95 U	94 U	38 U	93 U
Acenaphthene	20	ug/L	**9.8**	47 U	47 U	**3.1 J**	**6.2 J**
Acenaphthylene	- -	ug/L	5.3 U	47 U	47 U	19 U	47 U
Acetophenone	- -	ug/L	5.3 U	47 U	47 U	19 U	**6.3 J**
Anthracene	50	ug/L	**0.63 J**	47 U	47 U	19 U	47 U
Atrazine	7.5	ug/L	5.3 U	47 U	47 U	19 U	47 U
Benzaldehyde	- -	ug/L	5.3 U	47 U	47 U	19 U	**4.0 J**
Benzo(a)anthracene	0.002	ug/L	5.3 U	47 U	47 U	19 U	47 U
Benzo(a)pyrene	- -	ug/L	5.3 U	47 U	47 U	19 U	47 U
Benzo(b)fluoranthene	0.002	ug/L	5.3 U	47 U	47 U	19 U	47 U
Benzo(g,h,i)perylene	- -	ug/L	5.3 U	47 U	47 U	19 U	47 U
Benzo(k)fluoranthene	0.002	ug/L	5.3 U	47 U	47 U	19 U	47 U
bis(2-Chloroethoxy)methane	5	ug/L	5.3 U	47 U	47 U	19 U	47 U
bis(2-Chloroethyl)ether	1	ug/L	5.3 U	47 U	47 U	19 U	47 U
bis(2-Ethylhexyl)phthalate	5	ug/L	5.3 U	47 U	47 U	19 U	47 U
Butylbenzylphthalate	50	ug/L	5.3 U	47 U	47 U	19 U	47 U
Caprolactam	- -	ug/L	5.3 U	47 U	47 U	19 U	47 U
Carbazole	- -	ug/L	**1.7 J**	47 U	**7.2 J**	**2.0 J**	**9.5 J**
Chrysene	0.002	ug/L	5.3 U	47 U	47 U	19 U	47 U
Dibenzo(a,h)anthracene	- -	ug/L	5.3 U	47 U	47 U	19 U	47 U
Dibenzofuran	- -	ug/L	**2.2 J**	95 U	94 U	**1.9 J**	93 U
Diethylphthalate	50	ug/L	5.3 U	47 U	47 U	19 U	47 U
Dimethylphthalate	50	ug/L	5.3 U	47 U	47 U	19 U	47 U
Di-n-Butylphthalate	50	ug/L	5.3 U	47 U	47 U	19 U	47 U

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			P-18R	P-18R	TW-1	TW-2	TW-3
Historical Screen Interval (feet below ground surface)			2 - 8	2 - 8	NA	NA	NA
Current Screen Interval (Feet below current ground surface):			6 - 12	6 - 12	6 - 16	6 - 16	6 - 16
Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	01/27/11	01/12/16	06/16/16	06/16/16	06/16/16
Semivolatile Organics (Cont.)							
Di-n-Octylphthalate	50	ug/L	5.3 U	47 U	47 U	19 U	47 U
Fluoranthene	50	ug/L	**0.65 J**	47 U	**6.2 J**	19 U	47 U
Fluorene	50	ug/L	**4.0 J**	47 U	47 U	**3.5 J**	**5.3 J**
Hexachlorobenzene	0.04	ug/L	5.3 U	47 U	47 U	19 U	47 U
Hexachlorobutadiene	0.5	ug/L	5.3 U	47 U	47 U	19 U	47 U
Hexachlorocyclopentadiene	5	ug/L	5.3 U	47 U	47 U	19 U	47 U
Hexachloroethane	5	ug/L	5.3 U	47 U	47 U	19 U	47 U
Indeno(1,2,3-cd)pyrene	0.002	ug/L	5.3 U	47 U	47 U	19 U	47 U
Isophorone	50	ug/L	5.3 U	47 U	47 U	19 U	47 U
naphthalene	10	ug/L	**6.3**	47 U	**13 J**	**15 J**	**49**
Nitrobenzene	0.4	ug/L	5.3 U	47 U	47 U	19 U	47 U
N-Nitroso-di-n-propylamine	- -	ug/L	5.3 U	47 U	47 U	19 U	47 U
N-Nitrosodiphenylamine	50	ug/L	5.3 U	47 U	47 U	19 U	47 U
Pentachlorophenol	- -	ug/L	11 U	95 U	94 U	38 U	93 U
Phenanthrene	50	ug/L	**2.3 J**	47 U	**7.5 J**	**2.5 J**	**5.9 J**
Phenol	1	ug/L	5.3 U	47 U	**9.3 J**	**55**	**200**
Pyrene	50	ug/L	**0.46 J**	47 U	**6.0 J**	19 U	47 U
Inorganics - Total							
Aluminum	- -	mg/L	**0.270**	NA	**3.90**	**3.00**	**4.70**
Antimony	0.003	mg/L	0.0200 U	NA	0.0200 U	0.0200 U	0.0200 U
Arsenic	0.025	mg/L	**0.0056 J**	NA	**0.0130 J**	**0.00990 J**	**0.0350**
Barium	1	mg/L	**0.043**	NA	**0.0830**	**0.0150**	**0.0550**
Beryllium	0.003	mg/L	0.00200 U	NA	0.00200 U	0.00200 U	0.00200 U
Cadmium	0.005	mg/L	**0.00500 J**	NA	0.00200 U	0.00200 U	0.00200 U
Calcium	- -	mg/L	**81**	NA	**122 B**	**138 B**	**166 B**
Chromium	0.05	mg/L	**0.00110 J**	NA	**0.0150**	**0.00800**	**0.00530**
Cobalt	- -	mg/L	**0.00150 J**	NA	**0.00190 J**	**0.000900 J**	**0.00210 J**
Copper	0.2	mg/L	**0.00180 J**	NA	**0.0110**	**0.00270 J**	**0.0120**
Iron	0.3	mg/L	**8.700**	NA	**5.90 ^**	**1.80**	**2.70**
Lead	0.025	mg/L	0.00500 U	NA	**0.0540**	**0.0160**	**0.0460**
Magnesium	35	mg/L	**16.100**	NA	**8.60**	**3.50**	**1.70**
Manganese	0.3	mg/L	**0.420**	NA	**0.100 ^**	**0.0180**	**0.0380**
Mercury	0.0007	mg/L	0.000200 U	NA	0.000200 U	0.000200 U	**0.000150 J**
Nickel	0.1	mg/L	**0.00360 J**	NA	**0.00850 J**	**0.0170**	**0.0290**
Potassium	- -	mg/L	**15.5**	NA	**30.1**	**21.5**	**58.4**
Selenium	0.01	mg/L	0.0150 U	NA	0.0250 U	0.0250 U	0.0250 U
Silver	0.05	mg/L	0.00300 U	NA	0.00600 U	0.00600 U	0.00600 U
Sodium	20	mg/L	**73.9**	NA	**296**	**191**	**383**
Thallium	0.0005	mg/L	0.0200 U	NA	0.0200 U	0.0200 U	0.0200 U
Vanadium	- -	mg/L	**0.00590**	NA	**0.0130**	**0.00670**	**0.0310**
Zinc	2	mg/L	**0.00850 J**	NA	**0.120 B**	**0.00780 JB**	**0.0380 B**

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	P-18R	P-18R	TW-1	TW-2	TW-3
Historical Screen Interval (feet below ground surface)			2 - 8	2 - 8	NA	NA	NA
Current Screen Interval (Feet below current ground surface):			6 - 12	6 - 12	6 - 16	6 - 16	6 - 16
Date Collected:			01/27/11	01/12/16	06/16/16	06/16/16	06/16/16
Inorganics-Dissolved							
Aluminum	- -	mg/L	**0.0600 J**	NA	NA	NA	NA
Antimony	0.003	mg/L	0.020.0 U	NA	NA	NA	NA
Arsenic	0.025	mg/L	**0.00610 J**	NA	NA	NA	NA
Barium	1	mg/L	**0.0420**	NA	NA	NA	NA
Beryllium	0.003	mg/L	0.00200 U	NA	NA	NA	NA
Cadmium	0.005	mg/L	**0.000530 J**	NA	NA	NA	NA
Calcium	- -	mg/L	**80.9**	NA	NA	NA	NA
Chromium	0.05	mg/L	**0.00100 J**	NA	NA	NA	NA
Cobalt	- -	mg/L	**0.00140 J**	NA	NA	NA	NA
Copper	0.2	mg/L	**0.00220 J**	NA	NA	NA	NA
Iron	0.3	mg/L	**9.50**	NA	NA	NA	NA
Lead	0.025	mg/L	0.00500 U	NA	NA	NA	NA
Magnesium	35	mg/L	**16.8**	NA	NA	NA	NA
Manganese	0.3	mg/L	**0.450**	NA	NA	NA	NA
Mercury	0.0007	mg/L	0.000200 U	NA	NA	NA	NA
Nickel	0.1	mg/L	**0.00340 J**	NA	NA	NA	NA
Potassium	- -	mg/L	**15.2**	NA	NA	NA	NA
Selenium	0.01	mg/L	0.0150 U	NA	NA	NA	NA
Silver	0.05	mg/L	0.00300 U	NA	NA	NA	NA
Sodium	20	mg/L	**80.4**	NA	NA	NA	NA
Thallium	0.0005	mg/L	0.0200 U	NA	NA	NA	NA
Vanadium	- -	mg/L	**0.00510**	NA	NA	NA	NA
Zinc	2	mg/L	**0.00650 J**	NA	NA	NA	NA
General Chemistry							
Alkalinity	- -	mg/L	**270**	NA	NA	NA	NA
Alkalinity, Bicarbonate	- -	mg/L	**270**	NA	NA	NA	NA
Ammonia Nitrogen	- -	mg/L	**5.1**	NA	NA	NA	NA
Chloride	250	mg/L	NA	NA	NA	NA	NA
Ethane	- -	mg/L	1.5 UJ	NA	NA	NA	NA
Ethene	- -	mg/L	1.5 UJ	NA	NA	NA	NA
Methane	- -	mg/L	**12 J**	NA	NA	NA	NA
Nitrate Nitrogen	- -	mg/L	0.05 U	NA	NA	NA	NA
Nitrite Nitrogen	- -	mg/L	0.05 U	NA	NA	NA	NA
Orthophosphate	- -	mg/L	**0.39**	NA	NA	NA	NA
Soluble Organic Carbon	- -	mg/L	**14.3**	NA	NA	NA	NA
Sulfate	250	mg/L	5 UB	NA	NA	NA	NA
Sulfide	- -	mg/L	0.1 U	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	**493**	NA	NA	NA	NA

See Notes on Page 53.

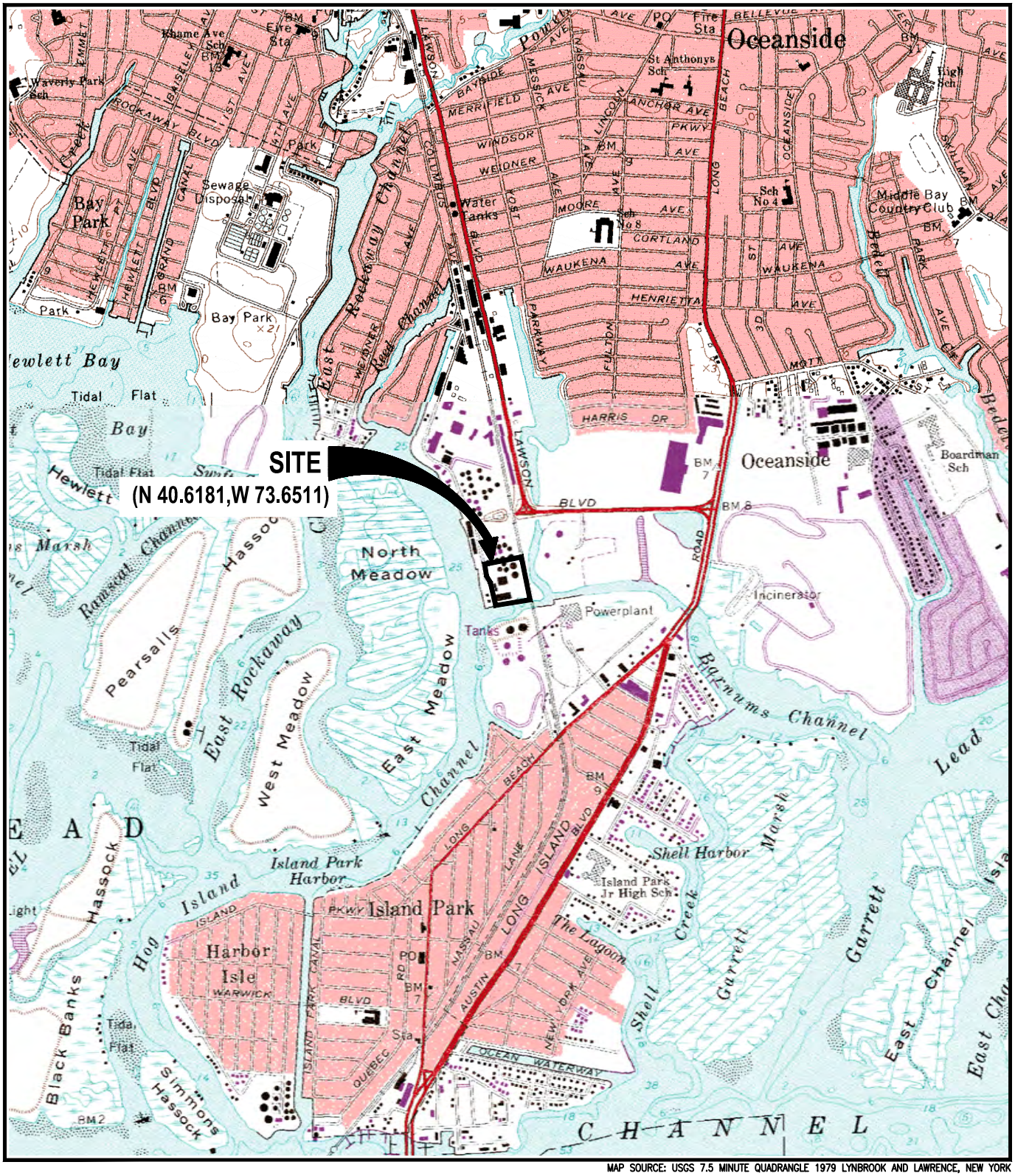
Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

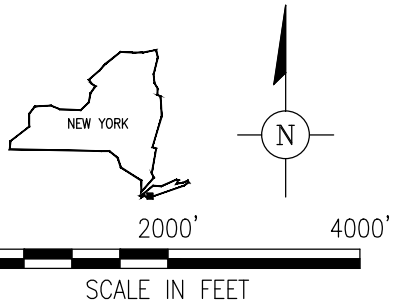
Notes:

1. Results compared to NYSDEC Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1, Ambient Water Quality Standards and Guidance Values.
2. Field duplicate sample results are presented in brackets, [ ].
   Gray font = not detected. Bold font = detected. Bold font with Gray shading = Result detected above NYSDEC TOGS 1.1.1.
3. Abbreviations:
   - - = NYSDEC TOGS 1.1.1 not available.
   ug/L = micrograms per Liter.
   NA = Not analyzed.
   ND = Not detected.
   NYSDEC = New York State Department of Environmental Conservation.
   VOC = Volatile Organic Compounds.
   SVOC = Semi-Volatile Organic Compounds.
4. Qualifier Definitions:
   B = Compound quantitated using a secondary dilution. Indicates an estimated value between the instrument detection limit and the Reporting Limit (RL).
   D = Compound quantitated using a secondary dilution.
   E = Estimated value. Result exceeds calibration limit.
   J = Estimated value. Result is greater than the RL but less than the MDL.
   R = Data was rejected as part of validation.
   U = Analyte not detected at listed reporting detection limit.
   F1 = MS and/or MSD Recovery is outside acceptance limits.

FIGURES



MAP SOURCE: USGS 7.5 MINUTE QUADRANGLE 1979 LYNBROOK AND LAWRENCE, NEW YORK



FORMER GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

SITE LOCATION MAP

ARCADIS Design & Consultancy for natural and built assets

FIGURE
1

CITY:SYRACUSE-NY DIV/GROUP:ENVCAD DB:G.STEINBERGER LD: PIC:A. HEBERT PM:B. MCCUNE TM:J.ROBERTSON LYR:ON=*;OFF=*REF*
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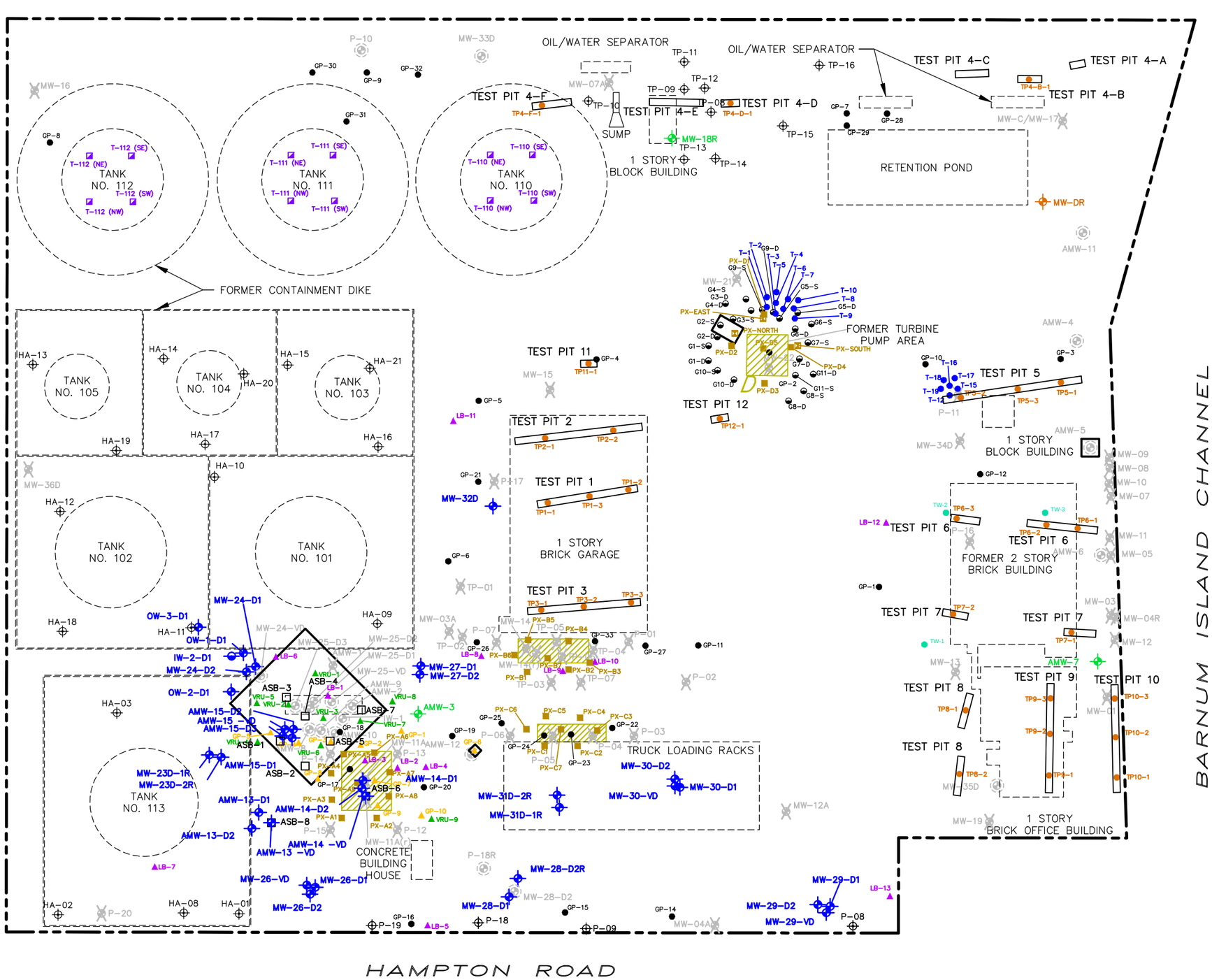

LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- HISTORIC TEMPORARY PIEZOMETER
- HISTORIC EXISTING MONITORING WELL
- HISTORIC ABANDONED/DESTROYED MONITORING POINT
- 2000 LBG GEOPROBE SOIL BORING LOCATION
- 2000 BBL SOIL BORING LOCATION
- 2002 BBL SOIL BORING LOCATION
- 2002 BBL POST EXCAVATION BORING LOCATION
- 2003 LBG SOIL SAMPLING TANK LOCATION
- 2004 LANGAN SOIL BORING LOCATION
- 2004 CEDAR CREEK TEMPORARY WELL
- 2005 BBL BORING LOCATION
- 2005 BBL POST EXCAVATION BORING LOCATION
- 2005 BBL PAIRED WELL LOCATION
- 2010 TEST PIT SOIL SAMPLE LOCATION
- 2016 SOIL BORING
- LIMITS OF 2003/2004 IRM EXCAVATIONS
- LIMITS OF 2013/2014 IRM EXCAVATIONS
- HISTORICAL SITE FEATURE

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN–GULF OIL COMPANY–U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. HISTORICAL SITE LAYOUT AND SAMPLE LOCATIONS ARE APPROXIMATE.
3. MONITORING WELL LOCATIONS SURVEYED BY AMERICAN ENGINEERING AND SURVEY.

0 60' 120'

GRAPHIC SCALE

GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

SITE PLAN

ARCADIS Design & Consultancy for natural and built assets

FIGURE 2

CITY: SYRACUSE, NY DIV/GROUP: ENV/IM-DV DB: L.FORAKER, R.ALLEN LD: PIC: J.VOGELEY PM: W.McCUNE TM: W.McCUNE LYR: ON=*;OFF=*REF*
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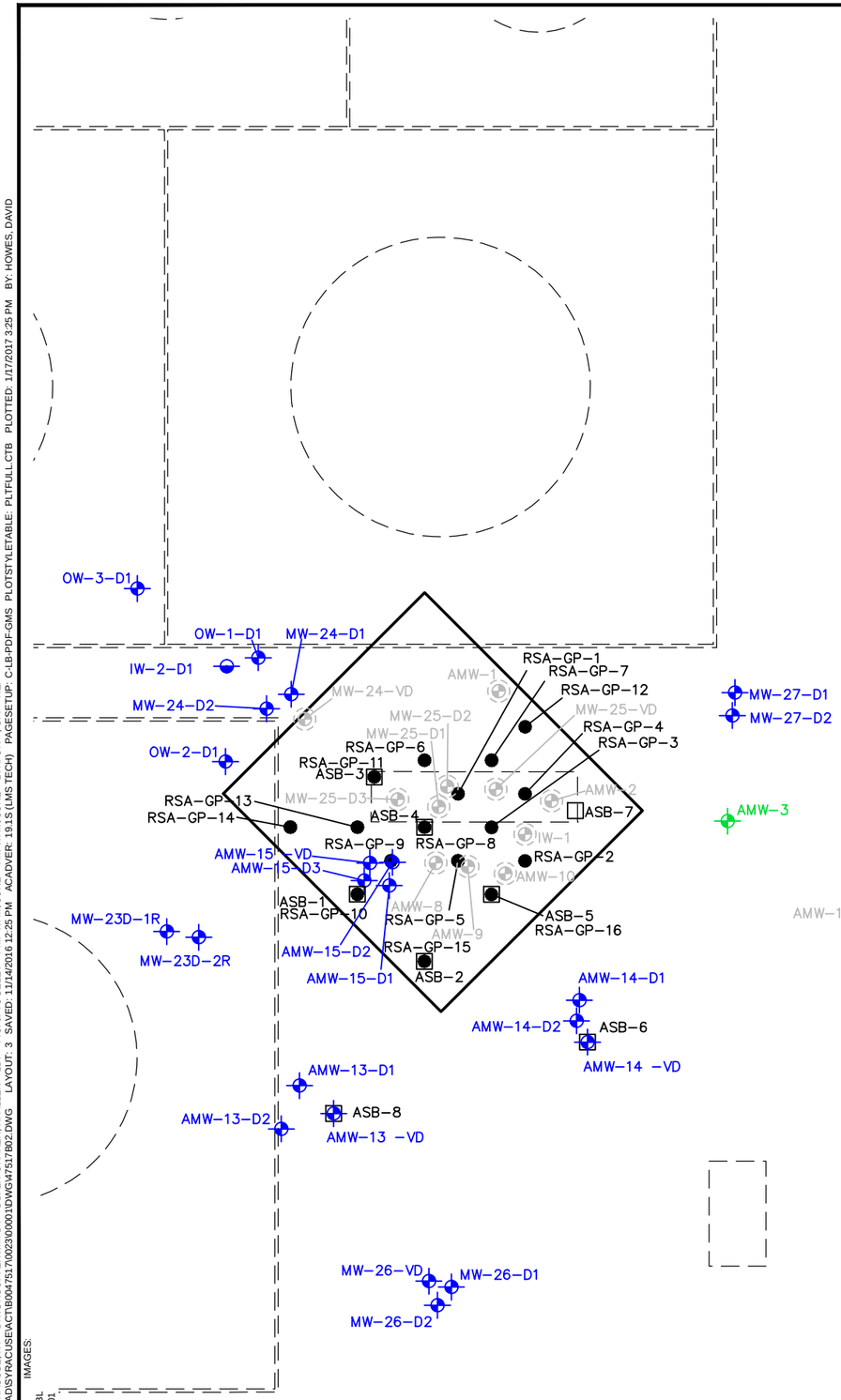

LEGEND:

- 2016 SOIL BORINGS
- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- MIPS POINTS
- LIMIT OF FORMER VRU AREA EXCAVATION
- FORMER SITE FEATURE

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN–GULF OIL COMPANY–U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. HISTORICAL SITE LAYOUT IS APPROXIMATE.
3. MONITORING WELL LOCATIONS SURVEYED BY AMERICAN ENGINEERING AND SURVEY.

0 30' 60'

GRAPHIC SCALE

GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

RESIDUAL SOURCE ASSESSMENT LOCATIONS

ARCADIS Design & Consultancy for natural and built assets

FIGURE 3

CITY: SYRACUSE, NY DIV/GROUP: ENV/IM-DV DB: L. FORAKER, R. ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*; OFF=*REF*
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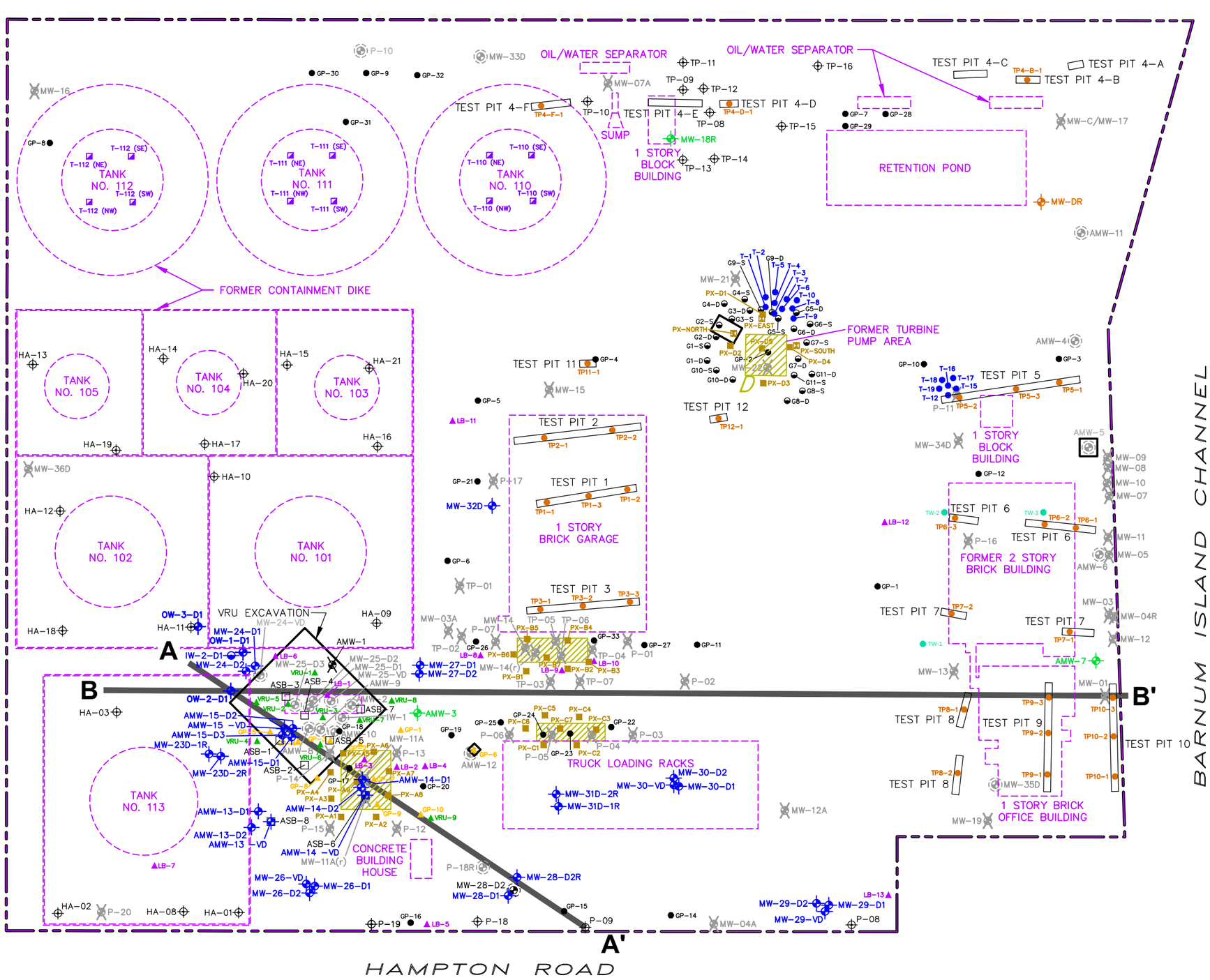

LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- HISTORIC TEMPORARY PIEZOMETER
- HISTORIC EXISTING MONITORING WELL
- HISTORIC ABANDONED/DESTROYED MONITORING POINT
- 2000 LBG GEOPROBE SOIL BORING LOCATION
- 2000 BBL SOIL BORING LOCATION
- 2002 BBL SOIL BORING LOCATION
- 2002 BBL POST EXCAVATION BORING LOCATION
- 2003 LBG SOIL SAMPLING TANK LOCATION
- 2004 LANGAN SOIL BORING LOCATION
- 2004 CEDAR CREEK TEMPORARY WELL
- 2005 BBL BORING LOCATION
- 2005 BBL POST EXCAVATION BORING LOCATION
- 2005 BBL PAIRED WELL LOCATION
- 2010 TEST PIT SOIL SAMPLE LOCATION
- 2016 SOIL BORING
- LIMITS OF 2003/2004 IRM EXCAVATIONS
- LIMITS OF 2013/2014 IRM EXCAVATIONS
- A—A' LINE OF CROSS SECTION

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN–GULF OIL COMPANY–U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. HISTORICAL SITE LAYOUT AND SAMPLE LOCATIONS ARE APPROXIMATE.
3. MONITORING WELL LOCATIONS SURVEYED BY AMERICAN ENGINEERING AND SURVEY.

0 60' 120'

GRAPHIC SCALE

GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

CROSS-SECTION LOCATION MAP

ARCADIS Design & Consultancy for natural and built assets

FIGURE 4

CITY: SYRACUSE, NY DIV/GROUP: ENV/IM-DV DB: L.FORAKER, R. ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*; OFF=*REF*
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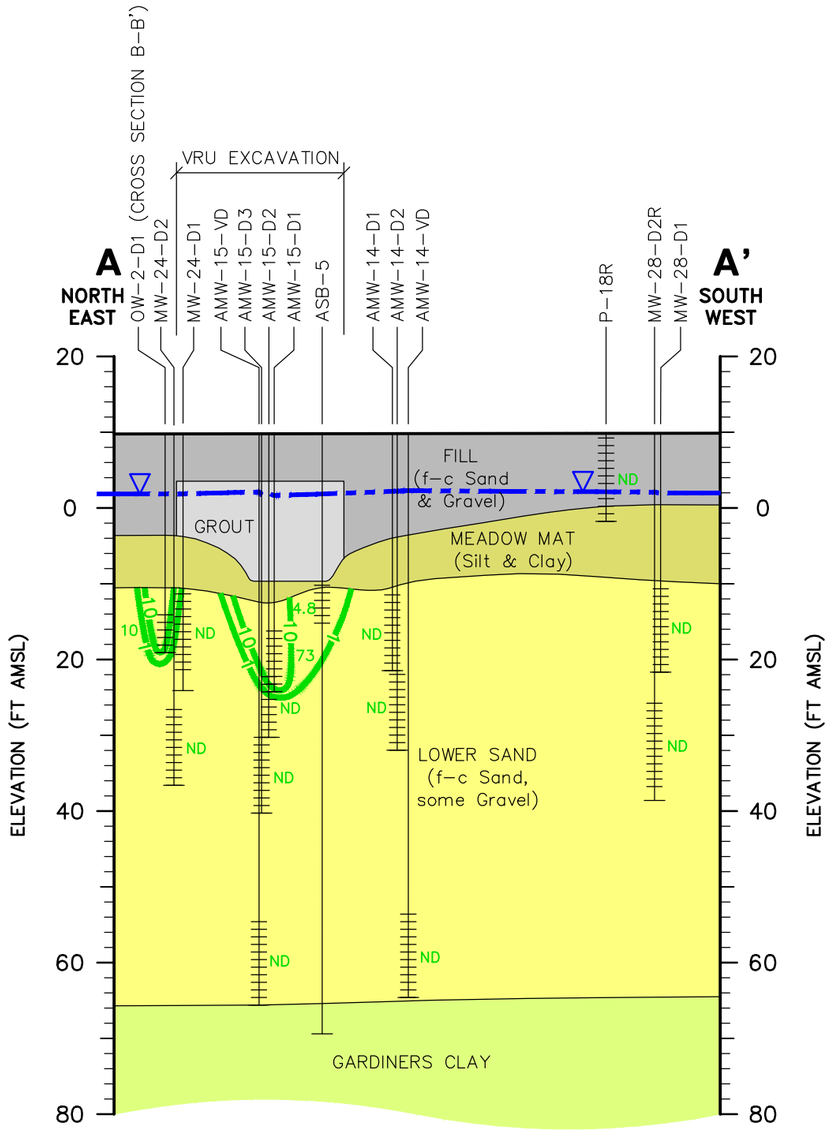

OW-2-D1

LEGEND:

- WELL OR BORING ID
- GROUND SURFACE
- LITHOLOGIC CONTACT (DASHED WHERE INFERRED)
- GROUNDWATER ELEVATION AT HIGH TIDE JULY 2016
- SCREEN
- 4.8 — TRICHLOROETHENE CONCENTRATION (µg/L)
- 10 — TRICHLOROETHENE CONCENTRATION CONTOUR
- BOTTOM OF BORING
- FILL
- GROUT
- MEADOW MAT
- LOWER SAND
- GARDINERS CLAY

NOTES:

1. CONCENTRATIONS SHOWN ARE FROM THE MOST RECENT GROUNDWATER SAMPLES COLLECTED IN 2016.
2. ND – NOT DETECTED.

VERTICAL EXAGGERATION = 3X

0 20' 40'

VERTICAL SCALE

0 60' 120'

HORIZONTAL SCALE

GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

GEOLOGIC CROSS SECTION A - A' WITH TRICHLOROETHENE (TCE) CONCENTRATIONS - 2016

ARCADIS Design & Consultancy for natural and built assets

FIGURE 5

CITY: SYRACUSE, N.Y. DIV/GROUP: ENVCAD-141 DB: L. FORAKER, R.ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*;OFF=*REF*
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47517XBL
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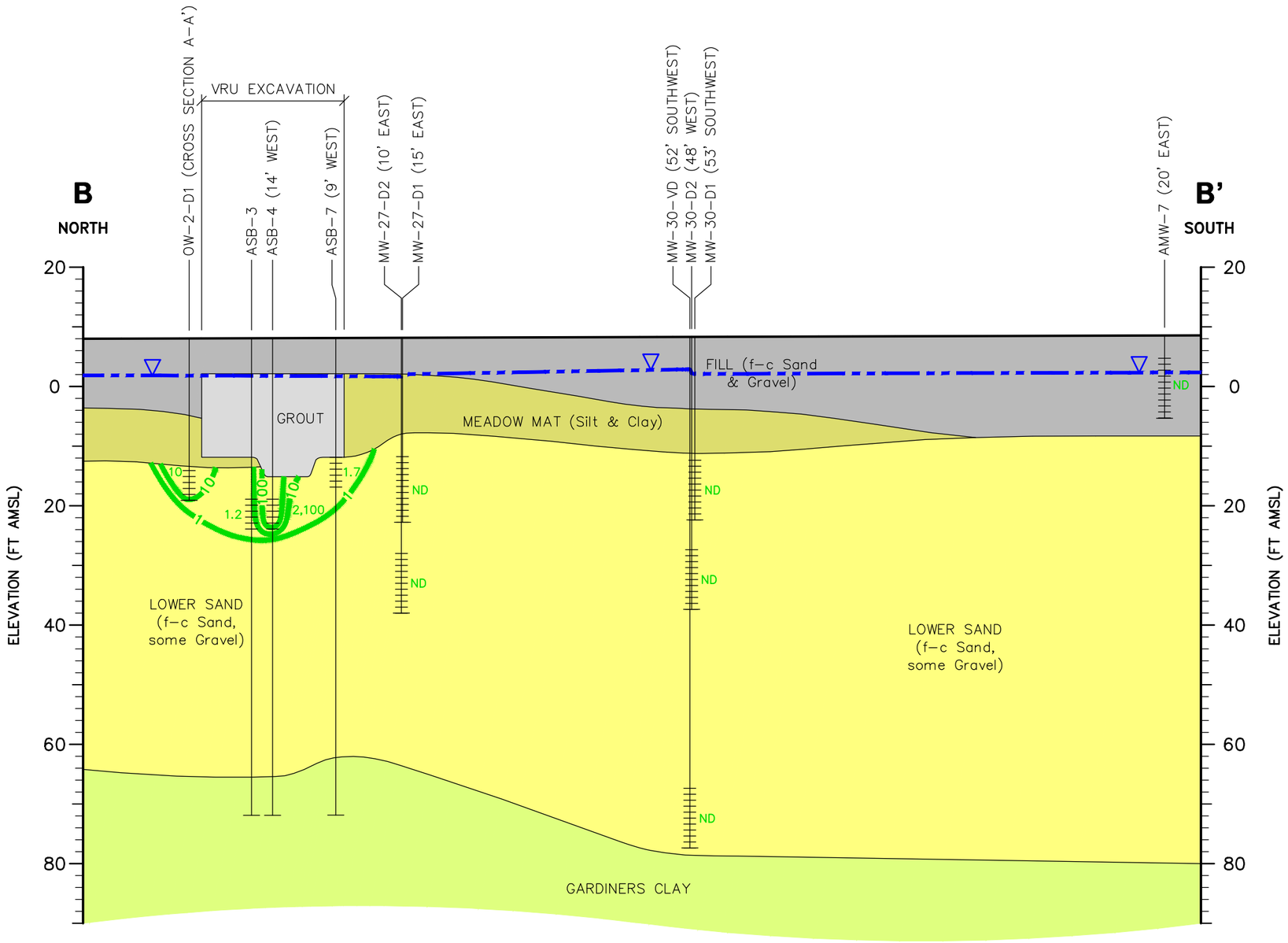

LEGEND:

- OW-2-D1 — WELL OR BORING ID
- GROUND SURFACE
- LITHOLOGIC CONTACT (DASHED WHERE INFERRED)
- GROUNDWATER ELEVATION AT HIGH TIDE JULY 2016
- SCREEN
- 1.7 — TRICHLOROETHENE CONCENTRATION (µg/L)
- 10 — TRICHLOROETHENE CONCENTRATION CONTOUR
- BOTTOM OF BORING
- FILL
- GROUT
- MEADOW MAT
- LOWER SAND
- GARDINERS CLAY

NOTES:

1. CONCENTRATIONS SHOWN ARE FROM THE MOST RECENT GROUNDWATER SAMPLES COLLECTED IN 2016.
2. ND – NOT DETECTED.

VERTICAL EXAGGERATION = 3X

0 20' 40'

VERTICAL SCALE

0 60' 120'

HORIZONTAL SCALE

GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

GEOLOGIC CROSS SECTION B - B' WITH TRICHLOROETHENE (TCE) CONCENTRATIONS - 2016

ARCADIS Design & Consultancy for natural and built assets

FIGURE 6

CITY: SYRACUSE, N.Y. DIV/GROUP: ENVCAD-141 DB: R.ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*; OFF=*REF*
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XREFS:
475117X01
475117X00

G10-S1	
Historical Depth(feet)	(1.5 - 2)
Current Depth(feet)	(5.5 - 6)
Date	11/17/2004
VOCs	
Benzene	**0.16**

G10-D2	
Historical Depth(feet)	(3 - 3.5)
Current Depth(feet)	(7 - 7.5)
Date	11/18/2004
VOCs	
n-Propylbenzene	**4.5**

G10-S2	
Historical Depth(feet)	(1.5 - 2)
Current Depth(feet)	(5.5 - 6)
Date	11/18/2004
VOCs	
Benzene	**0.25**
Ethylbenzene	**7.8**
Xylenes (total)	**6.3**
Naphthalene	**17**
1,2,4-TrimEthylbenzene	**11**
n-Propylbenzene	**6.7**

G10-D1	
Historical Depth(feet)	(3 - 3.5)
Current Depth(feet)	(7 - 7.5)
Date	11/16/2004
VOCs	
Benzene	**3.0**
Xylenes (total)	**1.1**
n-Butylbenzene	**16**
n-Propylbenzene	**25**

PX-D2	
Historical Depth(feet)	(2 - 3)
Current Depth(feet)	(6 - 7)
Date	10/30/2002
VOCs	
Benzene	**14**
Toluene	**2.1**
Ethylbenzene	**230**
Xylenes (total)	**400**

G2-D1	
Historical Depth(feet)	(3 - 3.5)
Current Depth(feet)	(7 - 7.5)
Date	11/16/2004
VOCs	
Benzene	**4.1**
Ethylbenzene	**7.3**
Xylenes (total)	**2.3**
Naphthalene	**23**
n-Propylbenzene	**10**
sec-Butylbenzene	**2.2**

G3-S1	
Historical Depth(feet)	(1.5 - 2)
Current Depth(feet)	(5.5 - 6)
Date	11/16/2004
VOCs	
Benzene	**5.7**
Ethylbenzene	**28**
Xylenes (total)	**1.9**
Naphthalene	**36**
n-Butylbenzene	**13**
n-Propylbenzene	**20**

G4-D1	
Historical Depth(feet)	(3 - 3.5)
Current Depth(feet)	(7 - 7.5)
Date	11/16/2004
VOCs	
Benzene	**4.7**
Ethylbenzene	**20**
Xylenes (total)	**2.0**
Naphthalene	**33**
n-Butylbenzene	**12**
n-Propylbenzene	**16**

G4-D2	
Historical Depth(feet)	(3 - 3.5)
Current Depth(feet)	(7 - 7.5)
Date	11/18/2004
VOCs	
Benzene	**4.2**
Ethylbenzene	**41**
Xylenes (total)	**3.1**
Naphthalene	**43**
n-Butylbenzene	**13**
n-Propylbenzene	**20**

G4-S1	
Historical Depth(feet)	(1.5 - 2)
Current Depth(feet)	(5.5 - 6)
Date	11/16/2004
VOCs	
Benzene	**3.5**
Ethylbenzene	**40**
Xylenes (total)	**13**
Naphthalene	**20**
1,2,4-TrimEthylbenzene	**8.2**
n-Propylbenzene	**15**

G4-S2	
Historical Depth(feet)	(1.5 - 2)
Current Depth(feet)	(5.5 - 6)
Date	11/18/2004
VOCs	
Benzene	**3.2**
Ethylbenzene	**41**
Xylenes (total)	**13**
Naphthalene	**32**
1,2,4-TrimEthylbenzene	**4.8**
n-Propylbenzene	**16**

G3-D1	
Historical Depth(feet)	(3 - 3.5)
Current Depth(feet)	(7 - 7.5)
Date	11/16/2004
VOCs	
Benzene	**8.3**
Ethylbenzene	**40**
Xylenes (total)	**1.8**
Naphthalene	**40**
n-Butylbenzene	**14**
n-Propylbenzene	**24**

G9-S2	
Historical Depth(feet)	(1.5 - 2)
Current Depth(feet)	(5.5 - 6)
Date	11/18/2004
VOCs	
Benzene	**1.6**
Ethylbenzene	**31**
Xylenes (total)	**11**
Naphthalene	**17**
1,2,4-TrimEthylbenzene	**7.7**
n-Propylbenzene	**14**

G8-S1	
Historical Depth(feet)	(1.5 - 2)
Current Depth(feet)	(5.5 - 6)
Date	11/16/2004
VOCs	
Benzene	**1.7**
Ethylbenzene	**31**
Xylenes (total)	**3.5**
Naphthalene	**15**
n-Propylbenzene	**13**

PX-D1	
Historical Depth(feet)	(2 - 3)
Current Depth(feet)	(6 - 7)
Date	10/30/2002
VOCs	
Xylenes (total)	**6.0**
Ethylbenzene	**53**
Xylenes (total)	**3.6**

PX-EAST	
Historical Depth(feet)	(2 - 3)
Current Depth(feet)	(6 - 7)
Date	11/18/2004
VOCs	
Benzene	**3.1**
Ethylbenzene	**17**
Xylenes (total)	**3.1**
Naphthalene	**16**
n-Propylbenzene	**13**

G9-D2	
Historical Depth(feet)	(3 - 3.5)
Current Depth(feet)	(7 - 7.5)
Date	11/18/2004
VOCs	
Benzene	**0.71**
Ethylbenzene	**4.6**
n-Propylbenzene	**7.7**

G9-D1	
Historical Depth(feet)	(3 - 3.5)
Current Depth(feet)	(7 - 7.5)
Date	11/18/2004
VOCs	
Benzene	**5.7**
Ethylbenzene	**25**
Xylenes (total)	**66**
Naphthalene	**21**
1,2,4-TrimEthylbenzene	**12**
n-Butylbenzene	**12**
n-Propylbenzene	**23**

G8-S1	
Historical Depth(feet)	(1.5 - 2)
Current Depth(feet)	(5.5 - 6)
Date	11/16/2004
VOCs	
Benzene	**6.4**
Ethylbenzene	**46**
Xylenes (total)	**4.1**
Naphthalene	**16**
n-Propylbenzene	**19**

G5-S2	
Historical Depth(feet)	(1.5 - 2)
Current Depth(feet)	(5.5 - 6)
Date	11/18/2004
VOCs	
Benzene	**9.1**
Ethylbenzene	**58**
Xylenes (total)	**3.1**
Naphthalene	**13**
n-Butylbenzene	**13**
n-Propylbenzene	**24**

G5-D2	
Historical Depth(feet)	(3 - 3.5)
Current Depth(feet)	(7 - 7.5)
Date	11/18/2004
VOCs	
Benzene	**3.3**
Ethylbenzene	**4.4**
n-Propylbenzene	**8.0**

MW-17	
Historical Depth(feet)	(4)
Current Depth(feet)	(8)
Date	12/12/1995
SVOCs	
Benzo(a)anthracene	**4.4**
Benzo(b)fluoranthene	**4.9**
Benzo(k)fluoranthene	**2.2**
Chrysene	**4.2**

G5-D1	
Depth(feet)	(3 - 3.5)
Current Depth(feet)	(7 - 7.5)
Date	11/16/2004
VOCs	
Benzene	**5.7**
Ethylbenzene	**9.1**
Xylenes (total)	**2.5**
n-Propylbenzene	**14**

TP11-1	
Historical Depth(feet)	(5')
Current Depth(feet)	(9')
Date	12/7/2010
VOCs	
Acetone	**0.058 J**
Methylene Chloride	**0.086**

PX-B4	
Historical Depth(feet)	(2 - 3)
Current Depth(feet)	(6 - 7)
Date	10/30/2002
VOCs	
Benzene	**0.12**
Ethylbenzene	**1.2**
Xylenes (total)	**1.9**

PX-B7	
Historical Depth(feet)	(4 - 4.5)
Current Depth(feet)	(8 - 8.5)
Date	10/30/2002
VOCs	
Benzene	**3.0**
Ethylbenzene	**22**
Xylenes (total)	**3.6**

LB-9	
Historical Depth(feet)	(2.5 - 3)
Current Depth(feet)	(6.5 - 7)
Date	3/11/2004
VOCs	
Benzene	**0.18**
Methylene Chloride	**0.078**

PX-B6	
Historical Depth(feet)	(2 - 3)
Current Depth(feet)	(6 - 7)
Date	10/30/2002
VOCs	
Benzene	**3.5**
Ethylbenzene	**73**
Xylenes (total)	**6.9**

PX-B1	
Historical Depth(feet)	(2 - 3)
Current Depth(feet)	(6 - 7)
Date	10/30/2002
VOCs	
Benzene	**1.2**
Ethylbenzene	**2.5**

PX-C4	
Historical Depth(feet)	(2 - 3)
Current Depth(feet)	(6 - 7)
Date	10/30/2002
VOCs	
Ethylbenzene	**20**

LB-8	
Historical Depth(feet)	(4 - 4.5)
Current Depth(feet)	(8 - 8.5)
Date	3/11/2004
VOCs	
Benzene	**3.3**
Ethylbenzene	**38**
Xylenes (total)	**13**

PX-C5	
Historical Depth(feet)	(2 - 3)
Current Depth(feet)	(6 - 7)
Date	10/30/2002
VOCs	
Benzene	**0.23**
Ethylbenzene	**6.6**

PX-C6	
Historical Depth(feet)	(2 - 3)
Current Depth(feet)	(6 - 7)
Date	10/30/2002
VOCs	
Benzene	**0.066**
Ethylbenzene	**4.8**

AMW-3			
Historical Depth(feet)	(0 - 2)	(2 - 4)	(4 - 6)
Current Depth(feet)	(4 - 6)	(6 - 8)	(8 - 10)
Date	11/30/2010	11/30/2010	11/30/2010
VOCs			
Benzene	0.13 U	**0.12 U [0.11 J]**	**0.11 J**
Ethylbenzene	**2.4**	**6.7 [10]**	**2.0**
Xylenes (total)	**5.2**	**6.1 [8.2]**	**0.26**
Methylene Chloride	0.13 UJ	0.12 UJ [0.19 UJ]	**0.062 J**
SVOCs			
Naphthalene	**5.4**	**11 [29]**	**2.6 J**

GP-2(2002)	
Historical Depth(feet)	(6)
Current Depth(feet)	(10)
Date	5/2/2002
VOCs	
Ethylbenzene	**8.8**
Xylenes (total)	**11**

PX-A6	
Historical Depth(feet)	(2 - 3)
Current Depth(feet)	(6 - 7)
Date	10/30/2002
VOCs	
Benzene	**0.57**
Ethylbenzene	**9.6**
Xylenes (total)	**21**

LB-2	
Historical Depth(feet)	(4 - 4.5)
Current Depth(feet)	(8 - 8.5)
Date	3/10/2004
VOCs	
Ethylbenzene	**7.5**
Xylenes (total)	**14**

PX-A5	
Historical Depth(feet)	(2 - 3)
Current Depth(feet)	(6 - 7)
Date	10/30/2002
VOCs	
Benzene	**0.15**
Ethylbenzene	**26**
Xylenes (total)	**6.9**

PX-A7	
Historical Depth(feet)	(2 - 3)
Current Depth(feet)	(6 - 7)
Date	10/30/2002
VOCs	
Benzene	**5.4**
Toluene	**1.9**
Ethylbenzene	**98**
Xylenes (total)	**160**

GP-7(2002)	
Historical Depth(feet)	(3 - 4)
Current Depth(feet)	(7 - 8)
Date	5/2/2002
VOCs	
Benzene	**2.8**
Ethylbenzene	**76**
Xylenes (total)	**3.0**
Naphthalene	**44**

PX-A3	
Historical Depth(feet)	(2 - 3)
Current Depth(feet)	(6 - 7)
Date	10/30/2002
VOCs	
Benzene	**0.15 [0.18]**
Ethylbenzene	**46 [38]**

PX-A8	
Historical Depth(feet)	(2 - 3)
Current Depth(feet)	(6 - 7)
Date	10/30/2002
VOCs	
Benzene	**0.082**
Ethylbenzene	**16**
Xylenes (total)	**87**

GP-9(2002)	
Historical Depth(feet)	(2 - 3)
Current Depth(feet)	(6 - 7)
Date	5/2/2002
VOCs	
Benzene	**0.20**

PX-A1	
Historical Depth(feet)	(2 - 3)
Current Depth(feet)	(6 - 7)
Date	10/30/2002
VOCs	
Benzene	**0.72**
Ethylbenzene	**32**
Xylenes (total)	**4.2**

PX-A2	
Historical Depth(feet)	(2 - 3)
Current Depth(feet)	(6 - 7)
Date	10/30/2002
VOCs	
Benzene	**1.9**
Ethylbenzene	**80**
Xylenes (total)	**37**

GP-10(2002)	
Historical Depth(feet)	(2 - 3)
Current Depth(feet)	(6 - 7)
Date	5/2/2002
VOCs	
Ethylbenzene	**7.2**

PX-C1	
Historical Depth(feet)	(2 - 3)
Current Depth(feet)	(6 - 7)
Date	10/30/2002
VOCs	
Ethylbenzene	**1.4**

PX-C2	
Historical Depth(feet)	(2 - 3)
Current Depth(feet)	(6 - 7)
Date	10/30/2002
VOCs	
Ethylbenzene	**3.3**

MW-31D-2R			
Historical Depth(feet)	(2 - 4)	(4 - 6)	(6 - 8)
Current Depth(feet)	(6 - 8)	(8 - 10)	(10 - 12)
Date	11/17/2010	11/17/2010	11/17/2010
SVOCs			
Benzo(a)anthracene	**3.3**	**0.64 [0.78]**	**8.9**
Benzo(b)fluoranthene	**3.9**	**0.74 [0.75]**	**11**
Benzo(k)fluoranthene	**1.2**	**0.26 [0.28]**	**4.5**
Chrysene	**2.5**	**0.50 [0.61]**	**8.5**

P-18R			
Historical Depth(feet)	(0 - 2)	(4 - 6)	(6 - 8)
Current Depth(feet)	(4 - 6)	(8 - 10)	(10 - 12)
Date	12/2/2010	12/2/2010	12/2/2010
SVOCs			
Benzo(a)anthracene	**2.0**	**0.038 J**	**0.063 J**
Chrysene	**1.8**	**0.040 J**	**0.065 J**

G6-D2	
Historical Depth(feet)	(3 - 3.5)
Current Depth(feet)	(7 - 7.5)
Date	11/18/2004
VOCs	
Benzene	**6.2**
Ethylbenzene	**3.4**
Naphthalene	**19**
n-Propylbenzene	**12**

G6-D1	
Historical Depth(feet)	(3 - 3.5)
Current Depth(feet)	(7 - 7.5)
Date	11/16/2004
VOCs	
Benzene	**10**
Ethylbenzene	**3.3**
n-Propylbenzene	**12**

G6-S2	
Historical Depth(feet)	(1.5 - 2)
Current Depth(feet)	(5.5 - 6)
Date	11/16/2004
VOCs	
Benzene	**10**
Ethylbenzene	**5.7**
Xylenes (total)	**1.6**
n-Propylbenzene	**10**

G6-S1	
Historical Depth(feet)	(1.5 - 2)
Current Depth(feet)	(5.5 - 6)
Date	11/16/2004
VOCs	
Benzene	**4.2**
Ethylbenzene	**13**
Xylenes (total)	**8.7**
1,2,4-TrimEthylbenzene	**7.4**
n-Propylbenzene	**14**

PX-SOUTH	
Historical Depth(feet)	(2 - 3)
Current Depth(feet)	(6 - 7)
Date	11/18/2004
VOCs	
Benzene	**1.7**
Ethylbenzene	**3.3**
n-Propylbenzene	**4.6**

PX-D4	
Historical Depth(feet)	(2 - 3)
Current Depth(feet)	(6 - 7)
Date	10/30/2002
VOCs	
Benzene	**7.9**
Toluene	**0.72**
Ethylbenzene	**63**
Xylenes (total)	**7.6**

G11-D1	
Historical Depth(feet)	(3 - 3.5)
Current Depth(feet)	(7 - 7.5)
Date	11/16/2004
VOCs	
Benzene	**1.6**
Ethylbenzene	**1.3**
Xylenes (total)	**2.1**
n-Propylbenzene	**11**

TP5-2	
Historical Depth(feet)	(5.5)
Current Depth(feet)	(9.5)
Date	12/2/2010
VOCs	
Methylene Chloride	**0.11**

T12-D1	
Historical Depth(feet)	(3 - 3.5)
Current Depth(feet)	(7 - 7.5)
Date	11/17/2004
VOCs	
Benzene	**11**
Ethylbenzene	**6.7**
Xylenes (total)	**2.1**
n-Propylbenzene	**5.1**

T12-S1	
Historical Depth(feet)	(1.5 - 2)
Current Depth(feet)	(5.5 - 6)
Date	11/16/2004
VOCs	
Benzene	**8.2**
Ethylbenzene	**3.6**

T12-D2	
Historical Depth(feet)	(3 - 3.5)
Current Depth(feet)	(7 - 7.5)
Date	11/18/2004
VOCs	
Benzene	**23**
Ethylbenzene	**13**
Xylenes (total)	**2.8**
n-Propylbenzene	**6.7**

T12-S2	
Historical Depth(feet)	(1.5 - 2)
Current Depth(feet)	(5.5 - 6)
Date	11/18/2004
VOCs	
Benzene	**17**
Ethylbenzene	**13**
Xylenes (total)	**3.6**
n-Propylbenzene	**4.6**

AMW-6			
Historical Depth(feet)	(2 - 4)	(4 - 6)	(6 - 8)
Current Depth(feet)	(6 - 8)	(8 - 10)	(10 - 12)
Date	11/18/2010	11/18/2010	11/18/2010
VOCs			
Acetone	0.027 U	**0.059**	**0.18**
Inorganics			
Arsenic	**16.2**	**20.1**	**10.6**

TP6-1	
Historical Depth(feet)	(5)
Current Depth(feet)	(9)
Date	12/3/2010
VOCs	
Acetone	**0.080**
Inorganics	
Arsenic	**28.1**

TP6-3	
Historical Depth(feet)	(5.5)
Current Depth(feet)	(9.5)
Date	12/3/2010
SVOCs	
Benzo(a)anthracene	**2.7 J**
Benzo(b)fluoranthene	**2.8 J**
Chrysene	**2.3 J**

TP10-2	
Historical Depth(feet)	(6)
Current Depth(feet)	(10)
Date	12/7/2010
Inorganics	
Arsenic	**20.7**

Protection of Groundwater SCO	(mg/kg)
1,2,4 Trimethylbenzene	3.6
Acetone	0.05
Arsenic	16
Benzene	0.06
Benzo(a)pyrene	22
Benzo(b)fluoranthene	1.7
Benzo(k)fluoranthene	1.7
Chrysene	1
Ethylbenzene	1.1
Mercury	0.73
Methylene Chloride	0.05
MTBE	0.93
Naphthalene	12
n-Butylbenzene	12
n-Propylbenzene	3.9
Toluene	0.7
Xylenes	1.6

G8-D1	
Historical Depth(feet)	(3 - 3.5)
Current Depth(feet)	(7 - 7.5)
Date	11/16/2004
VOCs	
Benzene	**0.98**
Ethylbenzene	**1.3**
Xylenes (total)	**5.8**
Naphthalene	**12**
1,2,4-TrimEthylbenzene	**4.7**
n-Butylbenzene	**13**
n-Propylbenzene	**17**

G8-S1	
Historical Depth(feet)	(1.5 - 2)
Current Depth(feet)	(5.5 - 6)
Date	11/16/2004
VOCs	
Benzene	**14**
Toluene	**0.80**
Ethylbenzene	**2.2**
Xylenes (total)	**4.3**
Naphthalene	**15**
n-Butylbenzene	**30**
n-Propylbenzene	**40**

G8-D2	
Historical Depth(feet)	(3 - 3.5)
Current Depth(feet)	(7 - 7.5)
Date	11/18/2004
VOCs	
Benzene	**2.1**
Ethylbenzene	**1.1**
Xylenes (total)	**6.2**
Naphthalene	**21**
1,2,4-TrimEthylbenzene	**4.2**
n-Butylbenzene	**15**
n-Propylbenzene	**20**

G8-S2	
Historical Depth(feet)	(1.5 - 2)
Current Depth(feet)	(5.5 - 6)
Date	11/18/2004
VOCs	
Benzene	**3.8**
Ethylbenzene	**7.0**
n-Propylbenzene	**7.3**

TP12-1	
Historical Depth(feet)	(4.7)
Current Depth(feet)	(8.7)
Date	12/7/2010
Inorganics	
Mercury	**1.35**

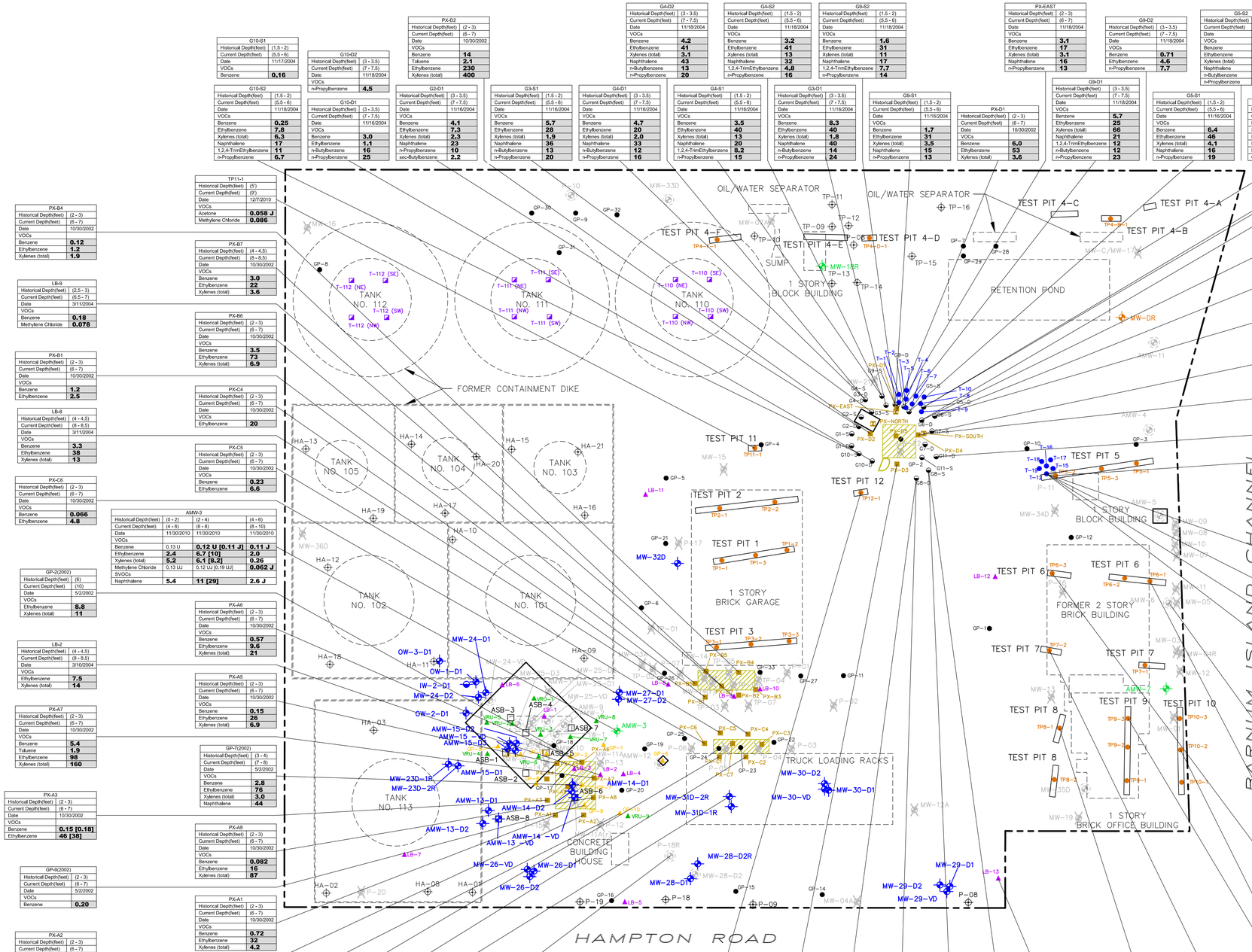
PX-D3	
Historical Depth(feet)	(2 - 3)
Current Depth(feet)	(6 - 7)
Date	10/30/2002
VOCs	
Benzene	**0.52**
Ethylbenzene	**3.1**

LB-13	
Historical Depth(feet)	(3.5 - 4)
Current Depth(feet)	(7.5 - 8)
Date	3/11/2004
VOCs	
Benzene	**0.16**
Methyl tert-butyl ether	**0.99**

TP8-1	
Historical Depth(feet)	(4.5)
Current Depth(feet)	(8.5)
Date	12/6/2010
VOCs	
Methylene Chloride	**0.082 J**

TP7-2	
Historical Depth(feet)	(9)
Current Depth(feet)	(13)
Date	12/6/2010
SVOCs	
Benzo(a)anthracene	**3.7 J**
Benzo(b)fluoranthene	**4.1 J**
Chrysene	**3.5 J**

TP9-3	
Historical Depth(feet)	(6.5)
Current Depth(feet)	(10.5)
Date	12/7/2010
VOCs	
Acetone	**0.055**



LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- HISTORIC TEMPORARY PIEZOMETER
- HISTORIC EXISTING MONITORING WELL
- HISTORIC ABANDONED/DESTROYED MONITORING POINT
- 2000 LBG GEOPROBE SOIL BORING LOCATION
- 2000 BBL SOIL BORING LOCATION
- 2002 BBL SOIL BORING LOCATION
- 2002 BBL POST EXCAVATION BORING LOCATION
- 2003 LBG SOIL SAMPLING TANK LOCATION
- 2004 LANGAN SOIL BORING LOCATION
- 2004 CEDAR CREEK TEMPORARY WELL
- 2005 BBL BORING LOCATION
- 2005 BBL POST EXCAVATION BORING LOCATION
- 2005 BBL PAIRED WELL LOCATION
- 2010 TEST PIT SOIL SAMPLE LOCATION
- 2016 SOIL BORING
- LIMITS OF 2003/2004 IRM EXCAVATIONS
- LIMITS OF 2013/2014 IRM EXCAVATIONS
- HISTORICAL SITE FEATURE

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN-GULF OIL COMPANY-U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. HISTORICAL SITE LAYOUT AND SAMPLE LOCATIONS ARE APPROXIMATE.
3. MONITORING WELL LOCATIONS SURVEYED BY AMERICAN ENGINEERING AND SURVEY.
4. ALL CONCENTRATIONS ARE IN MILLIGRAMS PER KILOGRAM (MG/KG) AND DEPTH INTERVALS ARE IN FEET BELOW CURRENT GROUNDSURFACE.
5. BOLDED VALUES ARE DETECTIONS AND SHADED VALUES EXCEED PART 375 PROTECTION OF GROUNDWATER CLEAN-UP OBJECTIVES (SCOS).
6. ONLY EXCEEDANCES OF COMMERCIAL SCOS ARE SHOWN IN DATABOXES.
7. DUPLICATE RESULTS ARE SHOWN IN BRACKETS.
8. J = INDICATES AN ESTIMATED VALUE.
9. U = CONSTITUENT NOT DETECTED. LISTED VALUE IS ASSOCIATED DETECTION LIMIT.

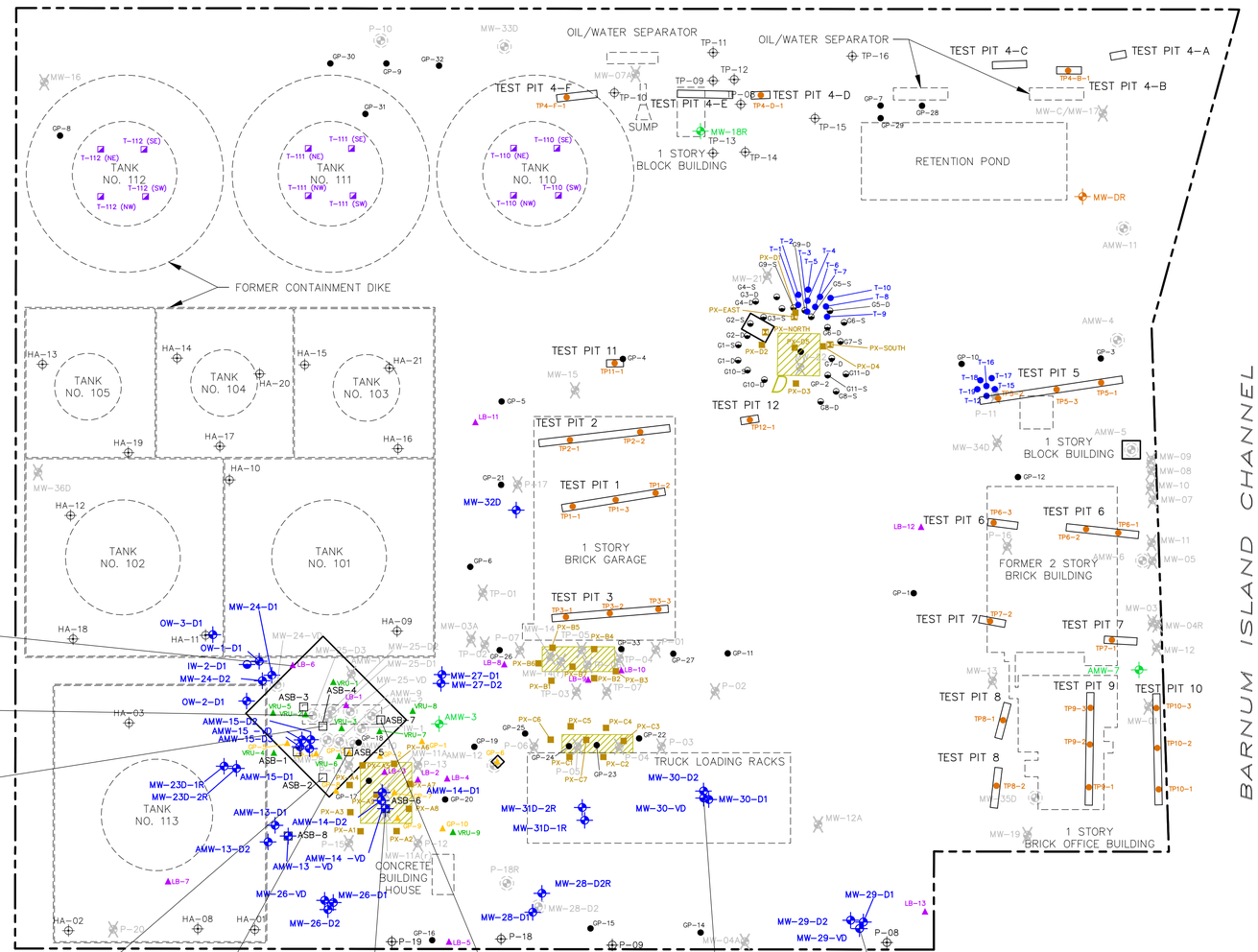
0 40' 80'
GRAPHIC SCALE

GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

PROTECTION OF GROUNDWATER SCO EXCEEDANCES - FILL UNIT

ARCADIS Design & Consultancy for natural and built assets

FIGURE 7



LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
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- 2004 CEDAR CREEK TEMPORARY WELL
- 2005 BBL BORING LOCATION
- 2005 BBL POST EXCAVATION BORING LOCATION
- 2005 BBL PAIRED WELL LOCATION
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- LIMITS OF 2003/2004 IRM EXCAVATIONS
- LIMITS OF 2013/2014 IRM EXCAVATIONS
- HISTORICAL SITE FEATURE

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2. HISTORICAL SITE LAYOUT AND SAMPLE LOCATIONS ARE APPROXIMATE.
3. MONITORING WELL LOCATIONS SURVEYED BY AMERICAN ENGINEERING AND SURVEY.
4. ALL CONCENTRATIONS ARE IN MILLIGRAMS PER KILOGRAM (MG/KG) AND DEPTH INTERVALS ARE IN FEET BELOW CURRENT GROUNDSURFACE.
5. BOLDED VALUES ARE DETECTIONS AND SHADED VALUES EXCEED PART 375 PROTECTION OF GROUNDWATER CLEAN UP OBJECTIVES (SCOS).
6. ONLY EXCEEDANCES OF PROTECTION OF GROUNDWATER SCOs ARE SHOWN IN DATABOXES.
7. DUPLICATE RESULTS ARE SHOWN IN BRACKETS.
8. * = LCS OR LSCD EXCEEDS CONTROL LIMIT.
9. B = CONSISTUENT DETECTED IN METHOD BLANK.
10. J = INDICATES AN ESTIMATED VALUE.
11. NA = NOT ANALYZED.
12. ND = NOT DETECTED.
13. U = CONSTITUENT NOT DETECTED. LISTED VALUE IS ASSOCIATED DETECTION LIMIT.

Protection of Groundwater SCO	(mg/kg)
Cis 1-2-dichloroethene	0.25
Methylene Chloride	0.05
TCE	0.47
Vinyl Chloride	0.02
Phenol	0.33

0 40' 80'
GRAPHIC SCALE

LB-6	
Historical Depth(feet)	(18 - 18.5)
Current Depth(feet)	(22 - 22.5)
Date	3/11/2004
VOCs	
cis-1,2-Dichloroethene	**0.57**
Trichloroethene	**2.9**

MW-25-D3	
Historical Depth(feet)	(21 - 23)
Current Depth(feet)	(24 - 27)
Date	12/9/2010
VOCs	
Methylene Chloride	**0.12 B**

ASB-4		
Current Depth(Feet)	(24 - 25)	(28 - 30)
Date	6/6/2016	6/6/2016
VOCs		
cis-1,2-Dichloroethene	**0.0039 J**	**0.96**
Methylene Chloride	**0.0032 JB**	**0.077 J**
Vinyl Chloride	0.0059 U	**0.45**

ASB-2		
Current Depth(Feet)	(24 - 25)	(28 - 30)
Date	6/3/2016	6/3/2016
VOCs		
Vinyl Chloride	0.0065 U	**0.067 J**

ASB-5		
Current Depth(Feet)	(20.5 - 21)	(28 - 30)
Date	6/2/2016	6/2/2016
VOCs		
Vinyl Chloride	**0.14**	**0.0040 J [0.0039 J]**
SVOCs		
Phenol	**0.58**	NA

ASB-6		
Current Depth(Feet)	(26 - 28)	(36 - 38)
Date	6/13/2016	6/13/2016
VOCs		
Vinyl Chloride	**0.061 ***	0.0055 U*

ASB-7		
Current Depth(Feet)	(21 - 23)	(30 - 32)
Date	6/1/2016	6/1/2016
VOCs		
cis-1,2-Dichloroethene	**2.7**	0.0048 U
Vinyl Chloride	**0.58**	0.0048 U

MW-30-VD		
Historical Depth(feet)	(28 - 30)	(68 - 70)
Current Depth(feet)	(32 - 34)	(72 - 74)
Date	12/27/2006	12/27/2006
VOCs		
Methylene Chloride	**0.0083**	**0.12**

MW-29-VD		
Historical Depth(feet)	(19 - 21)	(58 - 60)
Current Depth(feet)	(23 - 25)	(62 - 64)
Date	12/26/2006	12/26/2006
VOCs		
Methylene Chloride	**0.11**	ND

GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

PROTECTION OF GROUNDWATER SCO EXCEEDANCES - LOWER SAND UNIT

ARCADIS Design & Consultancy for natural and built assets

FIGURE 8

CITY: SYRACUSE, NY DIV/GROUP: ENV/IM-DV DB: L. FORAKER, R. ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*; OFF=*REF*
Z:\ENVCAD\SYRACUSE\ACTIB\00475170023000001\DWG\47517C03.DWG LAYOUT: 8 SAVED: 11/23/2016 4:06 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: C-LD-PDF-GMS PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 1/17/2017 3:40 PM BY: HOWES, DAVID
XREFS:
47517X01
47517X00

MW-31D-2R			
Historical Depth(feet)	(2 - 4)	(4 - 6)	(6 - 8)
Current Depth(feet)	(6 - 8)	(8 - 10)	(10 - 12)
Date	11/17/2010	11/17/2010	11/17/2010
SVOCs			
Benzo(a)anthracene	**3.3**	**0.64 [0.78]**	**8.9**
Benzo(a)pyrene	**3.0**	**0.61 [0.63]**	**11**
Benzo(b)fluoranthene	**3.9**	**0.74 [0.75]**	**11**
Dibenzo(a,h)anthracene	**0.27 J**	**0.053 J [0.057 J]**	**1.7 J**
Indeno(1,2,3-cd)pyrene	**0.87**	**0.16 J [0.19 J]**	**5.8**

TP7-2	
Historical Depth(feet)	(5)
Current Depth(feet)	(9)
Date	12/6/2010
SVOCs	
Benzo(a)pyrene	**3.7 J**

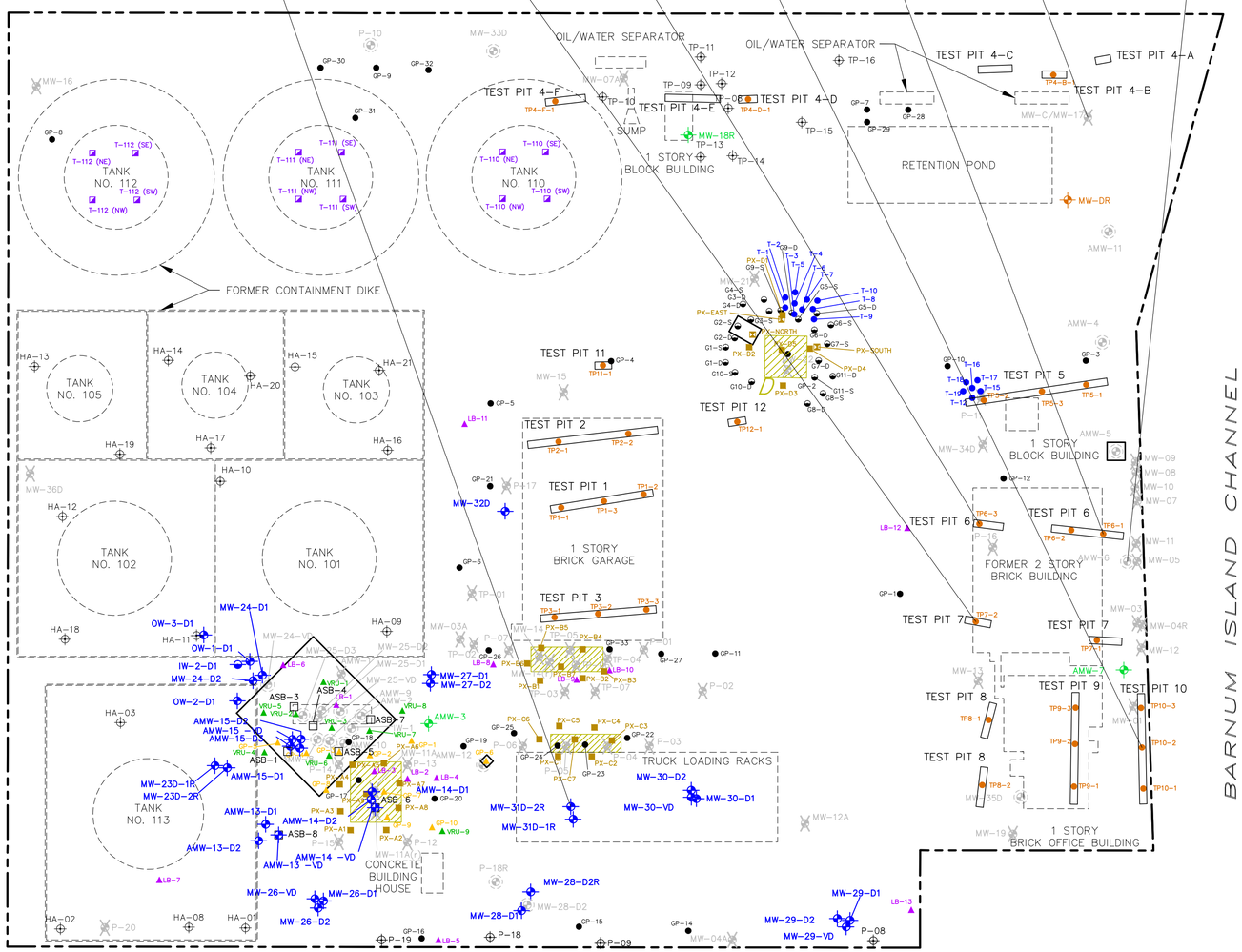
TP6-3	
Historical Depth(feet)	(5,5)
Current Depth(feet)	(9.5)
Date	12/3/2010
SVOCs	
Benzo(a)pyrene	**2.7 J**

TP10-2	
Historical Depth(feet)	(6)
Current Depth(feet)	(10)
Date	12/7/2010
Inorganics	
Arsenic	**20.7**

TP6-1	
Historical Depth(feet)	(5)
Current Depth(feet)	(9)
Date	12/3/2010
Inorganics	
Arsenic	**28.1**

MW-17	
Historical Depth(feet)	(4)
Current Depth(feet)	(8)
Date	12/12/1995
SVOCs	
Benzo(a)pyrene	**4.0**

AMW-6			
Historical Depth(feet)	(2 - 4)	(4 - 6)	(6 - 8)
Current Depth(feet)	(6 - 8)	(8 - 10)	(10 - 12)
Date	11/18/2010	11/18/2010	11/18/2010
Inorganics			
Arsenic	**16.2**	**20.1**	**10.6**



LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- HISTORIC TEMPORARY PIEZOMETER
- HISTORIC EXISTING MONITORING WELL
- HISTORIC ABANDONED/DESTROYED MONITORING POINT
- 2000 LBG GEOPROBE SOIL BORING LOCATION
- 2000 BBL SOIL BORING LOCATION
- 2002 BBL SOIL BORING LOCATION
- 2002 BBL POST EXCAVATION BORING LOCATION
- 2003 LBG SOIL SAMPLING TANK LOCATION
- 2004 LANGAN SOIL BORING LOCATION
- 2004 CEDAR CREEK TEMPORARY WELL
- 2005 BBL BORING LOCATION
- 2005 BBL POST EXCAVATION BORING LOCATION
- 2005 BBL PAIRED WELL LOCATION
- 2010 TEST PIT SOIL SAMPLE LOCATION
- 2016 SOIL BORING
- LIMITS OF 2003/2004 IRM EXCAVATIONS
- LIMITS OF 2013/2014 IRM EXCAVATIONS
- HISTORICAL SITE FEATURE

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN-GULF OIL COMPANY-U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. HISTORICAL SITE LAYOUT AND SAMPLE LOCATIONS ARE APPROXIMATE.
3. MONITORING WELL LOCATIONS SURVEYED BY AMERICAN ENGINEERING AND SURVEY.
4. ALL CONCENTRATIONS ARE IN MILLIGRAMS PER KILOGRAM (MG/KG) AND DEPTH INTERVALS ARE IN FEET BELOW CURRENT GROUNDSURFACE.
5. BOLDED VALUES ARE DETECTIONS AND SHADED VALUES EXCEED PART 375 COMMERCIAL USE CLEAN UP OBJECTIVES (SCOS).
6. ONLY EXCEEDANCES OF COMMERCIAL SCOS ARE SHOWN IN DATABOXES.
7. DUPLICATE RESULTS ARE SHOWN IN BRACKETS.
8. J = INDICATES AN ESTIMATED VALUE.

Commercial Use SCOs	(mg/kg)
Arsenic	16
Benzo(a)anthracene	5.6
Benzo(a)pyrene	1
Benzo(b)fluoranthene	5.6
Dibenzo(a,h)anthracene	0.56
Indeno(1,2,3-cd)pyrene	5.6

0 40' 80'
GRAPHIC SCALE

GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

COMMERCIAL SCO EXCEEDANCES IN SOIL - FILL UNIT

ARCADIS Design & Consultancy for natural and built assets

FIGURE
9

CITY: SYRACUSE, NY DIV/GROUP: ENV/IM-DV DB: L. FORAKER, R. ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*; OFF=*REF*
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XREFS:
47517X01
47517X00

P-18R		
Depth(Feet)	6 - 12	
Date	1/27/2011	1/12/2016
VOCs		
Benzene	**160**	**42**
Toluene	**4.0 J**	5.0 U
Ethylbenzene	**3.8 J**	5.0 U
Xylenes (total)	**9.0 J**	10 U
Methyl tert-butyl ether	5.0 U	**19**
Isopropylbenzene	**36**	**16**
Acetone	50 U	**40 J***
cis-1,2-Dichloroethene	5.0 U	5.0 U
1,1,2-Trichloroethane	5.0 U	5.0 U
Methylene Chloride	5.0 U	5.0 U

AMW-3				
Depth(Feet)	8 - 13			
Date	1/20/2011	9/11/2013	1/13/2016	6/21/2016
VOCs				
Benzene	**510**	**93**	**280**	1.0 U
Toluene	**36**	8.0 U	**6.9**	1.0 U
Ethylbenzene	**140**	8.0 U	**29**	1.0 U
Xylenes (total)	**100**	16 U	**20**	2.0 U
Methyl tert-butyl ether	**26**	**95**	5.0 U	**0.40 J**
Isopropylbenzene	**110**	**32**	**65**	1.0 U
Acetone	**34 J**	80 U	50 U*	**21**
cis-1,2-Dichloroethene	8.0 U	8.0 U	5.0 U	1.0 U
1,1,2-Trichloroethane	8.0 U	8.0 U	**4.8 J**	1.0 U
Methylene Chloride	8.0 U	8.0 U	**15**	1.0 U

AMW-12			
Depth(Feet)	7 - 12		
Date	2/20/2013	9/13/2013	1/14/2016
VOCs			
Benzene	**440**	**280**	**80**
Toluene	**7.2 J**	**5.1**	5.0 U
Ethylbenzene	**6.9 J**	**4.3 J**	5.0 U
Xylenes (total)	**6.9 J**	**7.1 J**	10 U
Methyl tert-butyl ether	**80**	**52**	**32**
Isopropylbenzene	**38**	**44**	**24**
Acetone	100 U	**43 J**	**25 J**
cis-1,2-Dichloroethene	10 U	5.0 U	5.0 U
1,1,2-Trichloroethane	10 U	5.0 U	5.0 U
Methylene Chloride	10 U	5.0 U	5.0 U

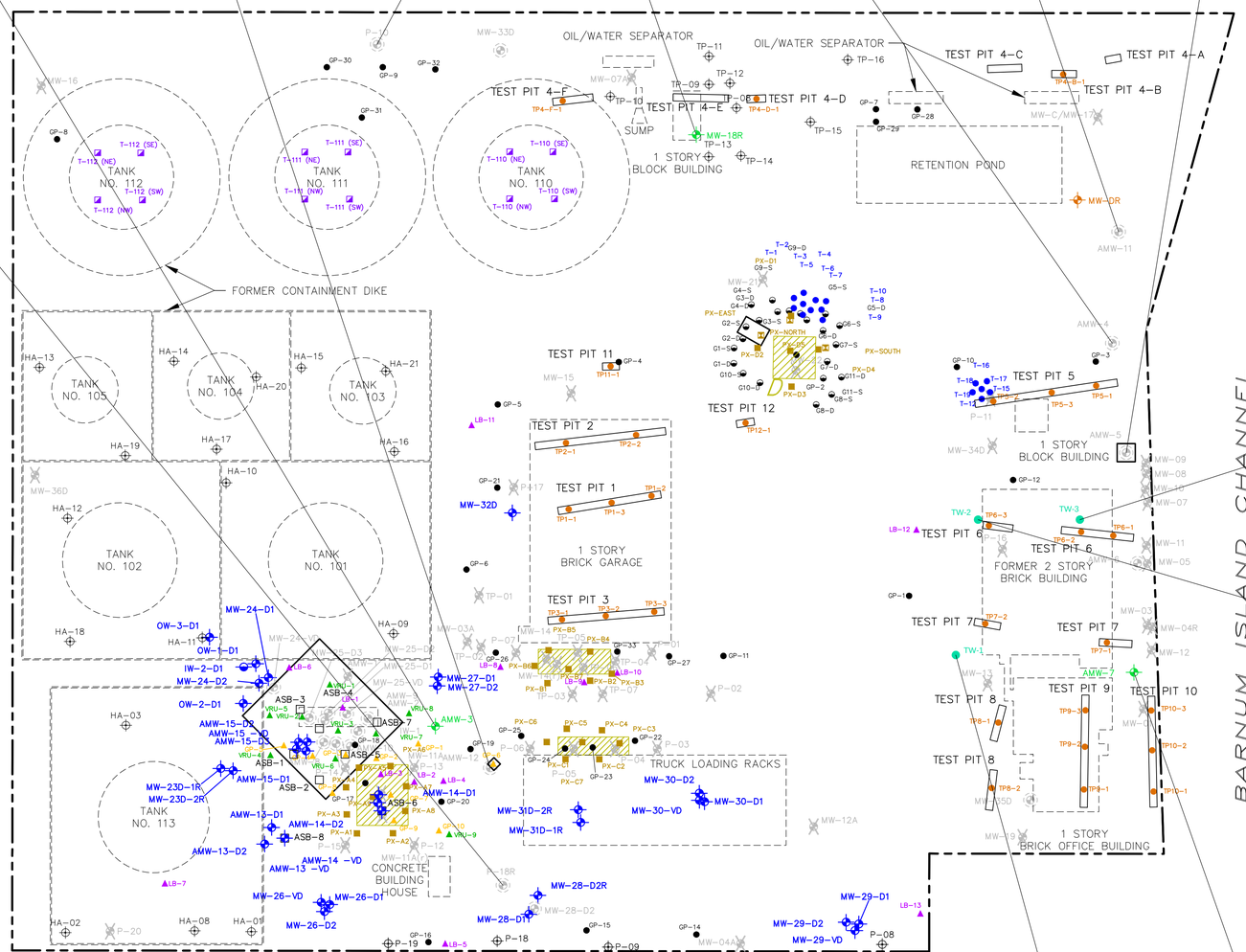
P-10		
Depth(Feet)	NA	
Date	4/7/2011	9/17/2013
VOCs		
Benzene	**3.1**	1.0 U
Toluene	**0.72 J**	1.0 U
Ethylbenzene	1.0 U	1.0 U
Xylenes (total)	**0.86 J**	2.0 U
Methyl tert-butyl ether	1.0 U	**0.67 J**
Isopropylbenzene	**2.6**	1.0 U
Acetone	**23**	**5.8 J**
cis-1,2-Dichloroethene	1.0 U	1.0 U
1,1,2-Trichloroethane	1.0 U	1.0 U
Methylene Chloride	1.0 U	1.0 U

MW-18R			
Depth(Feet)	6 - 11		
Date	2/20/2013	9/13/2013	6/22/2016
VOCs			
Benzene	**74**	**230**	**310**
Toluene	5.0 U	**3.4 J**	10 U
Ethylbenzene	**5.5**	**20**	10 U
Xylenes (total)	10 U	**3.8 J**	20 U
Methyl tert-butyl ether	**16**	**49**	**65**
Isopropylbenzene	5.0 U	**16**	**14**
Acetone	50 U	50 U	100 U
cis-1,2-Dichloroethene	5.0 U	5.0 U	**14**
1,1,2-Trichloroethane	5.0 U	5.0 U	10 U
Methylene Chloride	5.0 U	5.0 U	10 U

AMW-4		
Depth(Feet)	6 - 16	
Date	1/26/2011	9/11/2013
VOCs		
Benzene	**22**	**97**
Toluene	**3.0 J**	**4.5 J**
Ethylbenzene	5.0 U	5.0 U
Xylenes (total)	**13**	**6.9 J**
Methyl tert-butyl ether	5.0 U	5.0 U
Isopropylbenzene	**11**	**21**
Acetone	50 U	50 U
cis-1,2-Dichloroethene	5.0 U	5.0 U
1,1,2-Trichloroethane	5.0 U	5.0 U
Methylene Chloride	5.0 U	5.0 U

AMW-11		
Depth(Feet)	6 - 16	
Date	1/26/2011	9/11/2013
VOCs		
Benzene	**68**	**26**
Toluene	**4.8 J**	**9.6**
Ethylbenzene	**5.7**	**13**
Xylenes (total)	**18**	**32**
Methyl tert-butyl ether	5.0 U	**5.5**
Isopropylbenzene	**15**	**15**
Acetone	50 U	50 U
cis-1,2-Dichloroethene	5.0 U	5.0 U
1,1,2-Trichloroethane	5.0 U	5.0 U
Methylene Chloride	5.0 U	5.0 U

AMW-5		
Depth(Feet)	6 - 16	
Date	1/26/2011	9/11/2013
VOCs		
Benzene	**7.0**	**2.5 J**
Toluene	5.0 U	5.0 U
Ethylbenzene	5.0 U	5.0 U
Xylenes (total)	**4.0 J**	10 U
Methyl tert-butyl ether	5.0 U	**3.7 J**
Isopropylbenzene	5.0 U	5.0 U
Acetone	**46 J**	**17 J**
cis-1,2-Dichloroethene	5.0 U	5.0 U
1,1,2-Trichloroethane	5.0 U	5.0 U
Methylene Chloride	5.0 U	5.0 U



TW-3	
Depth(Feet)	6 - 16
Date	6/16/2016
VOCs	
Benzene	100 U
Toluene	100 U
Ethylbenzene	**930**
Xylenes (total)	**5,600**
Methyl tert-butyl ether	100 U
Isopropylbenzene	100 U
Acetone	1,000 U
cis-1,2-Dichloroethene	100 U
1,1,2-Trichloroethane	100 U
Methylene Chloride	100 U

TW-2	
Depth(Feet)	6 - 16
Date	6/16/2016
VOCs	
Benzene	**6.8**
Toluene	**1**
Ethylbenzene	**1.3**
Xylenes (total)	**7.1**
Methyl tert-butyl ether	1.0 U
Isopropylbenzene	**10**
Acetone	**98**
cis-1,2-Dichloroethene	1.0 U
1,1,2-Trichloroethane	1.0 U
Methylene Chloride	1.0 U

TW-1	
Depth(Feet)	6 - 16
Date	6/16/2016
VOCs	
Benzene	**4.7**
Toluene	**1.9**
Ethylbenzene	**1.1**
Xylenes (total)	**6.2**
Methyl tert-butyl ether	1.0 U
Isopropylbenzene	**6.3**
Acetone	**9.6 J**
cis-1,2-Dichloroethene	1.0 U
1,1,2-Trichloroethane	1.0 U
Methylene Chloride	1.0 U

AMW-7				
Depth(Feet)	6 - 16	(6 - 16')		
Date	1/26/2011	9/10/2013	1/12/2016	6/21/2016
VOCs				
Benzene	**6.4**	1.0 U	**5.7**	**1.1**
Toluene	5.0 U	1.0 U	5.0 U	1.0 U
Ethylbenzene	5.0 U	1.0 U	5.0 U	1.0 U
Xylenes (total)	**4.1 J**	2.0 U	10 U	**0.79 J**
Methyl tert-butyl ether	**3.5 J**	**0.87 J**	**1.4 J**	**0.23 J**
Isopropylbenzene	5.0 U	1.0 U	5.0 U	**2.8**
Acetone	**20 J**	10 U	**30 J**	**6.2 J**
cis-1,2-Dichloroethene	5.0 U	1.0 U	5.0 U	1.0 U
1,1,2-Trichloroethane	5.0 U	1.0 U	5.0 U	1.0 U
Methylene Chloride	5.0 U	1.0 U	5.0 U	1.0 U

LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- HISTORIC TEMPORARY PIEZOMETER
- HISTORIC EXISTING MONITORING WELL
- HISTORIC ABANDONED/DESTROYED MONITORING POINT
- 2000 LBG GEOPROBE SOIL BORING LOCATION
- 2000 BBL SOIL BORING LOCATION
- 2002 BBL SOIL BORING LOCATION
- 2002 BBL POST EXCAVATION BORING LOCATION
- 2003 LBG SOIL SAMPLING TANK LOCATION
- 2004 LANGAN SOIL BORING LOCATION
- 2004 CEDAR CREEK TEMPORARY WELL
- 2005 BBL BORING LOCATION
- 2005 BBL POST EXCAVATION BORING LOCATION
- 2005 BBL PAIRED WELL LOCATION
- 2010 TEST PIT SOIL SAMPLE LOCATION
- 2016 SOIL BORING
- 2016 TEMPORARY MONITORING WELL
- LIMITS OF 2003/2004 IRM EXCAVATIONS
- LIMITS OF 2013/2014 IRM EXCAVATIONS
- HISTORICAL SITE FEATURE

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN-GULF OIL COMPANY-U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. HISTORICAL SITE LAYOUT AND SAMPLE LOCATIONS ARE APPROXIMATE.
3. MONITORING WELL LOCATIONS SURVEYED BY AMERICAN ENGINEERING AND SURVEY.
4. ALL CONCENTRATIONS ARE IN MICROGRAMS PER LITER (ug/L) AND DEPTH INTERVALS ARE IN FEET BELOW CURRENT GROUNDSURFACE.
5. BOLDED VALUES ARE DETECTIONS AND SHADED VALUES EXCEED NYSDEC TECHNICAL AND OPERATIONS GUIDANCE VALUES SERIES (TOGS) 1.1.1 AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES ARE SHOWN.
6. ONLY EXCEEDANCES OF TOGS ARE SHOWN IN DATABOXES.
7. DUPLICATE RESULTS ARE SHOWN IN BRACKETS.
8. * = LCS OR LSCD EXCEEDS CONTROL LIMIT.
9. J = INDICATES AN ESTIMATED VALUE.
10. U = CONSTITUENT NOT DETECTED. LISTED VALUE IS ASSOCIATED DETECTION LIMIT.

TOGs guidance value	(ug/L)
1,1,2-Trichloroethane	1
Acenaphthalene	20
Benzene	1
Benzo (a) anthracene	0.002
Benzo (b) fluoranthene	0.002
Bis(2-ethylhexyl)phthalate	5
Chrysene	0.002
cis-1,2-Dichloroethene	5
Ethylbenzene	5
Fluorene	50
Isopropylbenzene	5
Methylene Chloride	5
MTBE	10
Naphthalene	10
Phenathrene	50
Phenol	1
Toluene	5
Xylenes	5

0 40' 80'
GRAPHIC SCALE

GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

TOGS EXCEEDANCES IN GROUNDWATER - FILL UNIT

ARCADIS Design & Consultancy for natural and built assets

FIGURE 10

CITY: SYRACUSE, NY DIV/GROUP: ENV/IM-DV DB: L. FORAKER, R. ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*; OFF=*REF*
Z:\ENVCAD\SYRACUSE\ACTIVE\B0047517\00230000\1DWG\47517C04.DWG LAYOUT: 10 SAVED: 11/23/2016 4:32 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: C-LD-PDF-GMS PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 1/17/2017 3:47 PM BY: HOWES, DAVID
XREFS:
47517X01
47517X00

CITY: SYRACUSE, NY DIV/GROUP: ENV/IM-DV DB: L. FORAKER, R. ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*; OFF=*REF*
Z:\ENVCAD\SYRACUSE\ACT\B0047517\0023\00001\DWG\47517C05.DWG LAYOUT: 11 SAVED: 11/23/2016 4:19 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: C-LD-PDF-GMS PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 1/17/2017 3:54 PM BY: HOWES, DAVID
XREFS: 47517X01 47517X00

MW-24 CLUSTER	MW-24-D1				MW-24-D2				MW-24-VD	
Depth(Feet)	(21 - 31)				(36 - 46)				(67 - 77)	
Date	1/19/2011	9/12/2013	1/13/2016	6/21/2016	1/19/2011	9/11/2013	1/13/2016	6/21/2016	1/19/2011	8/21/2013
Benzene	**22**	25 U [25 U]	5.0 U	**5.4**	**3.5**	20 U	**3.1 J [3.3 J]**	**0.97 J**	1.0 U	1.0 U
Toluene	**19**	**13 J [13 J]**	5.0 U	4.0 U	**3**	20 U	5.0 U [5.0 U]	1.0 U	1.0 U	1.0 U
Ethylbenzene	**11**	25 U [25 U]	5.0 U	**3.1 J**	**1.9**	20 U	5.0 U [5.0 U]	**0.84 J**	1.0 U	1.0 U
Xylenes (total)	**31**	50 U [50 U]	10 U	**9.3**	**4.8**	40 U	10 U [10 U]	2.0 U	2.0 U	2.0 U
Methyl tert-butyl ether	**1,100 D**	**430 [430]**	**220**	**160**	**280 D**	**130**	**250 [260]**	**130**	1.0 U	**1.9**
Isopropylbenzene	**1.1**	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]	1.0 U	1.0 U	1.0 U

AMW-15 CLUSTER	AMW-15-D1		AMW-15-D2		AMW-15-D3		AMW-15-VD	
Depth(Feet)	(23.5 - 33.5)		(30 - 40)		(40 - 50)		(60 - 70)	
Date	6/23/2016	7/27/2016	6/23/2016	7/27/2016	6/23/2016	7/27/2016	6/23/2016	7/27/2016
Benzene	**0.48 J**	**3.9 J**	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Toluene	**3**	**7.5**	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	**0.52 J**	**15**
Ethylbenzene	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Xylenes (total)	2.0 U	**6.5 J**	2.0 U [2.0 U]	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	2.0 U
Methyl tert-butyl ether	**29**	**51**	**66 [68]**	**43**	**2.6 [2.4]**	**23**	**1.1**	1.0 U
Isopropylbenzene	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U

MW-25 CLUSTER	MW-25-D1		MW-25-D2			MW-25-D3		MW-25-VD	
Depth(feet)	(20 - 30)		(35 - 45)			(44 - 54)		(67 - 77)	
Date	1/19/2011	8/21/2013	1/19/2011	6/26/2013	8/21/2013	1/21/2011	8/21/2013	1/19/2011	8/21/2013
Benzene	**25**	**100 U [25]**	**9.5**	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	**31**	**100 U [34]**	**24**	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	**12**	**100 U [14]**	**3.9**	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	**40**	**200 U [49]**	**16**	16,000 U	16,000 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl tert-butyl ether	**960 D**	**820 [890 D]**	**130 E**	**2,500 J**	**2,300 J**	1.0 U	**1.9**	1.0 U	**0.16 J**
Isopropylbenzene	**1.5**	100 U [5.0 U]	**0.86 J**	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U

ASB-3	
Depth (ft bgs)	(27 - 32)
Date	6/8/2016
Benzene	1.0 U
Toluene	1.0 U
Ethylbenzene	1.0 U
Xylenes (total)	2.0 U
Methyl tert-butyl ether	**8.5**
Isopropylbenzene	1.0 U

ASB-4	
Depth (ft bgs)	(27 - 32)
Date	6/7/2016
Benzene	**3.0 J**
Toluene	**9.0**
Ethylbenzene	**6.7**
Xylenes (total)	**36**
Methyl tert-butyl ether	**13**
Isopropylbenzene	5.0 U

MW-33D	
Depth(feet)	(22 - 32)
Date	1/27/2011
Benzene	1.0 U
Toluene	1.0 U
Ethylbenzene	1.0 U
Xylenes (total)	2.0 U
Methyl tert-butyl ether	**4.2**
Isopropylbenzene	1.0 U

MW-32D		
Depth (ft bgs)	(28 - 38)	
Date	1/19/2011	9/13/2013
Benzene	1.0 U	5.0 U
Toluene	1.0 U	5.0 U
Ethylbenzene	**1**	5.0 U
Xylenes (total)	2.0 U	10 U
Methyl tert-butyl ether	**13**	**8**
Isopropylbenzene	**1.3**	5.0 U

IW-1	
Depth (ft bgs)	(23 - 28)
Date	8/21/2013
Benzene	**8.5**
Toluene	**14**
Ethylbenzene	**5.2**
Xylenes (total)	**18**
Methyl tert-butyl ether	**360 D**
Isopropylbenzene	1.0 U

ASB-7	
Depth (ft bgs)	(20 - 25)
Date	6/2/2016
Benzene	2.0 U
Toluene	2.0 U
Ethylbenzene	2.0 U
Xylenes (total)	4.0 U
Methyl tert-butyl ether	**5.5**
Isopropylbenzene	2.0 U

OW-1-D1			
Depth (ft bgs)	(28 - 33)		
Date	2/20/2013	9/12/2013	1/13/2016
Benzene	10 U	2.0 U	20 U
Toluene	10 U	2.0 U	20 U
Ethylbenzene	10 U	2.0 U	20 U
Xylenes (total)	20 U	4.0 U	40 U
Methyl tert-butyl ether	**860**	**130**	**640**
Isopropylbenzene	10 U	2.0 U	20 U

IW-2-D1			
Depth (ft bgs)	(23 - 33)		
Date	2/20/2013	9/12/2013	1/13/2016
Benzene	**3.0 J**	1.0 U	**9.0 J**
Toluene	**3.1 J**	1.0 U	**6.4 J**
Ethylbenzene	4.0 U	1.0 U	10 U
Xylenes (total)	**5.7 J**	2.0 U	**21**
Methyl tert-butyl ether	**190**	**27**	**540**
Isopropylbenzene	4.0 U	1.0 U	10 U

OW-3-D1			
Depth (ft bgs)	(33 - 43)		
Date	2/21/2013	9/13/2013	1/13/2016
Benzene	5.0 U	5.0 U	5.0 U
Toluene	5.0 U	5.0 U	5.0 U
Ethylbenzene	5.0 U	5.0 U	5.0 U
Xylenes (total)	10 U	10 U	10 U
Methyl tert-butyl ether	**150**	**65**	**250**
Isopropylbenzene	5.0 U	5.0 U	5.0 U

OW-2-D1			
Depth (ft bgs)	(29 - 33)		
Date	2/21/2013	9/11/2013	1/12/2016
Benzene	5.0 U [5.0 U]	5.0 U	**5.7**
Toluene	5.0 U [5.0 U]	5.0 U	5.0 U
Ethylbenzene	5.0 U [5.0 U]	5.0 U	5.0 U
Xylenes (total)	10 U [10 U]	10 U	**4.1 J**
Methyl tert-butyl ether	**160 [160]**	**34**	**240**
Isopropylbenzene	5.0 U [5.0 U]	5.0 U	5.0 U

MW-DR		
Depth(Feet)	(19 - 29)	
Date	1/26/2011	9/12/2013
Benzene	**9.5**	10 U
Toluene	5.0 U	10 U
Ethylbenzene	5.0 U	10 U
Xylenes (total)	10 U	20 U
Methyl tert-butyl ether	**7.6**	**2.7 J**
Isopropylbenzene	5.0 U	10 U

MW-27 CLUSTER	MW-27-D1				MW-27-D2			
Depth(feet)	(22 - 32)				(37 - 47)			
Date	1/18/2011	9/11/2013	1/13/2016	6/21/2016	1/18/2011	9/11/2013	1/13/2016	6/21/2016
Benzene	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	**160**
Toluene	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	**17**
Ethylbenzene	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	**92**
Xylenes (total)	2.0 U	10 U	10 U	2.0 U	2.0 U	10 U	10 U	**68**
Methyl tert-butyl ether	**26**	**18**	5.0 U	**10**	1.0 U	**4.8 J**	5.0 U	**8.1**
Isopropylbenzene	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	**38**

ASB-5	
Depth (ft bgs)	(20 - 25)
Date	6/2/2016
Benzene	1.0 U
Toluene	1.0 U
Ethylbenzene	1.0 U
Xylenes (total)	**0.89 J**
Methyl tert-butyl ether	**4.6**
Isopropylbenzene	1.0 U

AMW-14 CLUSTER	AMW-14-D1		AMW-14-D2		AMW-14-VD	
Depth(Feet)	(22 - 32)		(32 - 42)		(64 - 74)	
Date	6/24/2016	7/26/2016	6/23/2016	7/26/2016	6/23/2016	7/27/2016
Benzene	1.0 U	**4.3**	1.0 U	**0.88 J**	1.0 U	1.0 U [1.0 U]
Toluene	1.0 U	**7.1**	**0.81 J**	**0.64 J**	**10**	**8.2 [7.7]**
Ethylbenzene	1.0 U	**3.6**	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Xylenes (total)	2.0 U	**11**	2.0 U	2.0 U	**0.79 J**	2.0 U [2.0 U]
Methyl tert-butyl ether	**12**	**140**	**3.1**	**24**	**0.91 J**	**0.59 J [0.58 J]**
Isopropylbenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]

MW-30 CLUSTER	MW-30-D1				MW-30-D2				MW-30-VD			
Depth(feet)	(22 - 32)				(37 - 47)				(77 - 87)			
Date	1/24/2011	9/9/2013	1/14/2016	6/22/2016	4/7/2011	9/10/2013	1/14/2016	6/22/2016	1/25/2011	9/10/2013	1/14/2016	6/22/2016
Benzene	**81 [87]**	**2.2**	**1.1**	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	**7.2 J**	10 U	1.0 U
Toluene	**0.55 J [0.56 J]**	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U	1.0 U
Ethylbenzene	**1.8 [1.8]**	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U	1.0 U
Xylenes (total)	2.0 U [2.0 U]	2.0 U	2.0 U	2.0 U	2.0 U [2.0 U]	4.0 U	4.0 U [10 U]	2.0 U	2.0 U	20 U	20 U	2.0 U
Methyl tert-butyl ether	**680 D [680 D]**	**15**	**94**	**53**	**1.0 U [0.42 J]**	**0.84 J**	**8.1 [7.3]**	**3**	**90**	**2.6 J**	10 U	**0.47 J**
Isopropylbenzene	**0.97 J [1.1]**	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U	1.0 U

MW-35D	
Depth(feet)	(20 - 30)
Date	1/27/2011
Benzene	**3.7**
Toluene	1.0 U
Ethylbenzene	1.0 U
Xylenes (total)	**0.66 J**
Methyl tert-butyl ether	**3**
Isopropylbenzene	**17**

MW-23 CLUSTER	MW-23-D1R				MW-23-D2R			
Depth(Feet)	(20.5 - 30.5)				(35 - 45)			
Date	1/19/2011	9/10/2013	1/12/2016	6/20/2016	1/20/2011	9/11/2013	1/12/2016	6/20/2016
Benzene	**21**	5.0 U	5.0 U	1.0 U	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U
Toluene	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U
Ethylbenzene	**2.4**	5.0 U	5.0 U	1.0 U	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U
Xylenes (total)	**1.3 J**	10 U	10 U	2.0 U	2.0 U [2.0 U]	8.0 U	10 U	2.0 U
Methyl tert-butyl ether	**100 D**	**9.5**	**210**	**30**	**200 D [190 D]**	**200**	**130**	**26**
Isopropylbenzene	**18**	5.0 U	5.0 U	1.0 U	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U

ASB-2	
Depth (ft bgs)	(20 - 25)
Date	6/6/2016
Benzene	**1.8**
Toluene	**0.87 J**
Ethylbenzene	1.0 U
Xylenes (total)	2.0 U
Methyl tert-butyl ether	**55**
Isopropylbenzene	1.0 U

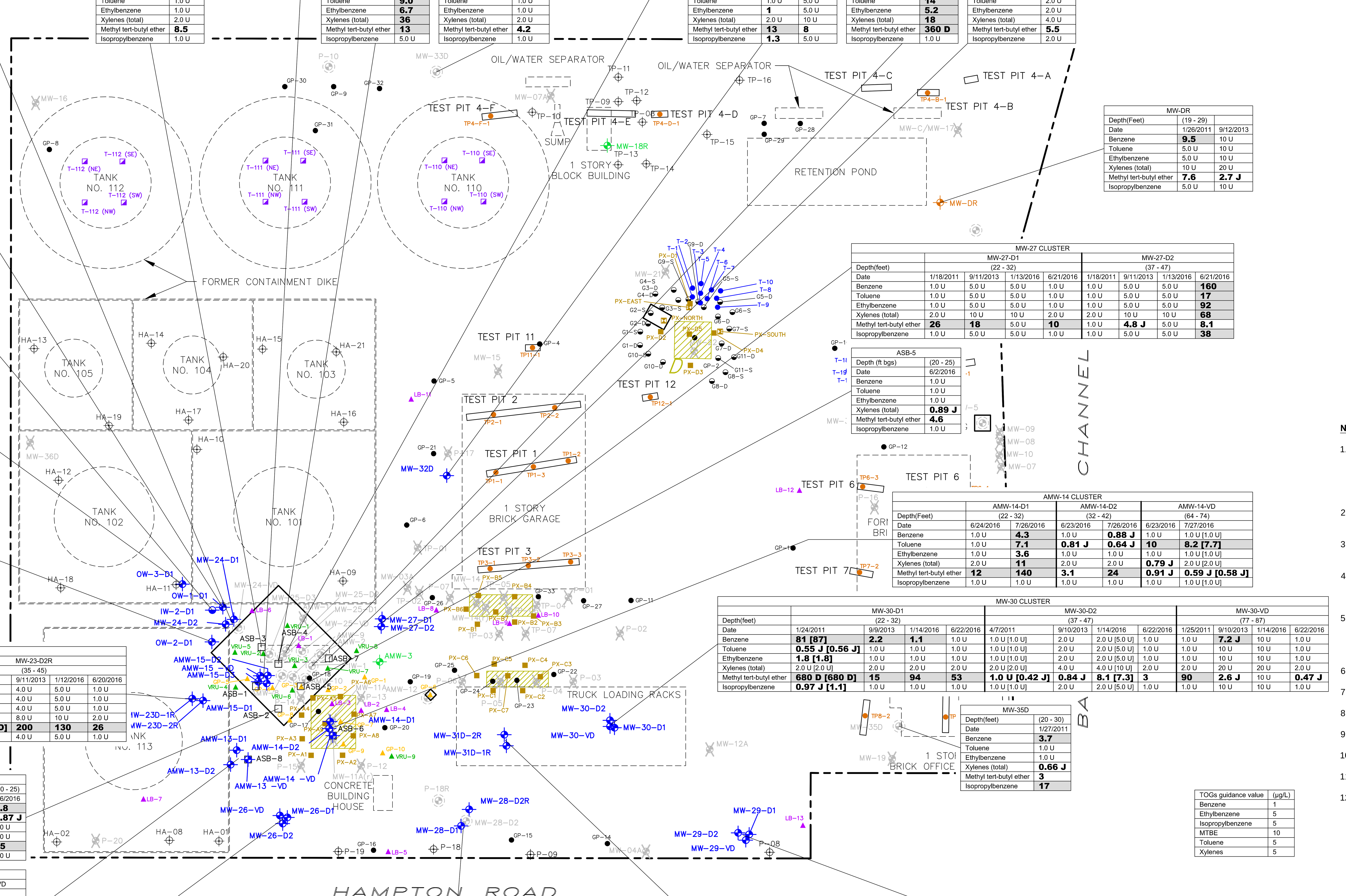
AMW-13 CLUSTER	AMW-13-D1		AMW-13-D2		AMW-13-VD	
Depth(Feet)	(22 - 32)		(32 - 42)		(60 - 70)	
Date	6/24/2016	7/27/2016	6/23/2016	7/27/2016	6/23/2016	7/27/2016
Benzene	1.0 U	**4.5**	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	1.0 U	1.0 U	**1.3**	1.0 U	**1.6**	**1.3**
Ethylbenzene	1.0 U	**1.8**	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl tert-butyl ether	**10**	**63 F1**	**3.5**	**41**	**5**	**3.4**
Isopropylbenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

MW-31 CLUSTER	MW-31-D1R				MW-31-D2R			
Depth(Feet)	(21 - 31)				(36 - 46)			
Date	1/21/2011	9/13/2013	1/14/2016	6/22/2016	1/21/2011	9/13/2013	1/14/2016	6/22/2016
Benzene	**5.6**	**98**	1.0 U	**1.1**	1.0 U	**11**	1.0 U	1.0 U
Toluene	**2.4**	**8.6**	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
Ethylbenzene	**5.3**	**4.5 J**	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
Xylenes (total)	**12**	**7.8 J**	2.0 U	2.0 U	2.0 U	10 U	2.0 U	2.0 U
Methyl tert-butyl ether	**20**	**12**	1.0 U	**3.3**	1.0 U	5.0 U	1.0 U	**0.32 J**
Isopropylbenzene	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U

MW-26 CLUSTER	MW-26-D1				MW-26-D2				MW-26-VD			
Depth(feet)	(21 - 31)				(34 - 44)				(62 - 72)			
Date	1/25/2011	9/10/2013	1/12/2016	6/22/2016	1/25/2011	9/10/2013	1/12/2016	6/22/2016	1/18/2011	9/10/2013	1/13/2016	6/22/2016
Benzene	5.0 U	**7.7 [7.3]**	**9.1**	**9.3**	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
Toluene	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	**0.93 J**	10 U	1.0 U	1.0 U
Ethylbenzene	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
Xylenes (total)	10 U	10 U [10 U]	10 U	8.0 U	2.0 U	10 U	10 U	2.0 U	2.0 U	20 U	2.0 U	2.0 U
Methyl tert-butyl ether	5.0 U	**420 [410]**	**380**	**340**	1.0 U	**47**	5.0 U	**59**	**1.5**	10 U	1.0 U	**0.96 J**
Isopropylbenzene	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U

MW-28 CLUSTER	MW-28-D1			MW-28-D2	MW-28-D2R	
Depth(feet)	(21.5 - 31.5)			(36.5 - 46.5)	(36.5 - 46.5)	
Date	1/25/2011	6/24/2016	7/28/2016	1/25/2011	6/24/2016	7/28/2016
Benzene	**12**	**2.1**	10 U	1.0 U	1.0 U	1.0 U
Toluene	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	**4.2**	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	**0.91 J**	2.0 U	20 U	2.0 U	2.0 U	2.0 U
Methyl tert-butyl ether	**38**	**6.2**	**4.7 J**	**2.7**	1.0 U	**0.25 J**
Isopropylbenzene	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U

MW-29 CLUSTER	MW-29-D1				MW-29-D2				MW-29-VD			
Depth(feet)	(21 - 31)				(36 - 46)				(57 - 67)			
Date	1/25/2011	9/10/2013	1/14/2016	6/21/2016	1/25/2011	9/10/2013	1/14/2016	6/21/2016	1/25/2011	9/10/2013	1/14/2016	6/21/2016
Benzene	**130 D**	**87**	**81**	**6.3**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Toluene	**3.7**	**3.8 J**	5.0 U	**1**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Ethylbenzene	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Xylenes (total)	**16**	**11**	10 U	**2**	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	20 U	20 U	2.0 U
Methyl tert-butyl ether	**550 D**	**85**	**34**	**23**	1.0 U	1.0 U	**66**	**51**	**15**	**140**	10 U	**0.42 J**
Isopropylbenzene	**16**	**18**	**24**	**5.4**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U



LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- HISTORIC TEMPORARY PIEZOMETER
- HISTORIC EXISTING MONITORING WELL
- HISTORIC ABANDONED/DESTROYED MONITORING POINT
- 2000 LBG GEOPROBE SOIL BORING LOCATION
- 2000 BBL SOIL BORING LOCATION
- 2002 BBL SOIL BORING LOCATION
- 2002 BBL POST EXCAVATION BORING LOCATION
- 2003 LBG SOIL SAMPLING TANK LOCATION
- 2004 LANGAN SOIL BORING LOCATION
- 2004 CEDAR CREEK TEMPORARY WELL
- 2005 BBL BORING LOCATION
- 2005 BBL POST EXCAVATION BORING LOCATION
- 2005 BBL PAIRED WELL LOCATION
- 2010 TEST PIT SOIL SAMPLE LOCATION
- 2016 SOIL BORING
- LIMITS OF 2003/2004 IRM EXCAVATIONS
- LIMITS OF 2013/2014 IRM EXCAVATIONS
- HISTORICAL SITE FEATURE

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN-GULF OIL COMPANY-U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. HISTORICAL SITE LAYOUT AND SAMPLE LOCATIONS ARE APPROXIMATE.
3. MONITORING WELL LOCATIONS SURVEYED BY AMERICAN ENGINEERING AND SURVEY.
4. ALL CONCENTRATIONS ARE IN MICROGRAMS PER LITER (ug/L) AND DEPTH INTERVALS ARE IN FEET BELOW CURRENT GROUNDSURFACE.
5. BOLDED VALUES ARE DETECTIONS AND SHADED VALUES EXCEED NYSDEC TECHNICAL AND OPERATIONS GUIDANCE VALUES SERIES (TOGS) 1.1.1 AMBIENT WATER QUALITY STANDARDS AD GUIDANCE VALUES ARE SHOWN.
6. ONLY EXCEEDANCES OF TOGS ARE SHOWN IN DATABOXES.
7. DUPLICATE RESULTS ARE SHOWN IN BRACKETS.
8. B = CONSISTUENT DETECTED IN METHOD BLANK.
9. D = CONCENTRAIONS BASED ON A DILUTED ANALYSIS.
10. E = INDICATES AN ESTIMATED VALUE.
11. J = INDICATES AN ESTIMATED VALUE.
12. U = CONSTITUENT NOT DETECTED. LISTED VALUE IS ASSOCIATED DETECTION LIMIT.

TOGs guidance value	(µg/L)
Benzene	1
Ethylbenzene	5
Isopropylbenzene	5
MTBE	10
Toluene	5
Xylenes	5

0 40' 80'
GRAPHIC SCALE

GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

TOGS EXCEEDANCES IN GROUNDWATER - LOWER SAND UNIT (BTEX)

ARCADIS Design & Consultancy for natural and built assets

FIGURE 11

MW-24 CLUSTER	MW-24-D1				W-24-D2				MW-24-VD	
Depth(Feet)	21 - 31				36 - 46				67 - 77	
Date	1/19/2011	9/12/2013	1/13/2016	6/21/2016	1/19/2011	9/11/2013	1/13/2016	6/21/2016	1/19/2011	8/21/2013
1,1,2-Trichloroethane	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	23	25 U [25 U]	5.0 U	4.0 U	3.8	20 U	5.0 U [5.0 U]	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	1.0 U	25 UJ [25 UJ]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]	1.0 U	1.0 U	1.0 UJ
1,2-Dichlorobenzene	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]	1.0 U	0.61 J	1.0 U
2-Butanone	10 U	250 U [250 U]	50 U	40 U	10 U	200 U	50 U [50 U]	10 U	10 U	10 U
Acetone	10 U	250 U [250 U]	50 U*	40 U	10 U	200 U	50 U* [50 U*]	10 U	10 U	6.5 J
Carbon Disulfide	1.0 U	25 U [25 U]	5.0 U	1.6 J	1.0 U	20 U	5.0 U [5.0 U]	0.31 J	1.0 U	84 UB
Chloroform	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	7,400 D	2,200 [2,200]	10	4.9	1,200 D	20 U	5.0 U [5.0 U]	1.6	1.0 U	1.7
Methylene Chloride	0.76 J	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]	1.0 U	1.0 U	1.0 U
Tetrachloroethene	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	44	34 [34]	5.0 U	11	6.7	20 U	5.0 U [5.0 U]	0.98 J	1.0 U	1.0 U
Trichloroethene	65	25 U [25 U]	5.0 U	4.0 U	2.5	20 U	5.0 U [5.0 U]	1.0 U	1.0 U	1.4
Vinyl Chloride	1,800 D	1,600 [1,600]	99	35	300 D	20 U	170 [180]	38	1.0 U	1.0 U

AMW-15 CLUSTER	AMW-15-D1		AMW-15-D2		AMW-15-D3		AMW-15-VD	
Depth(Feet)	23.5 - 33.5		30 - 40		40 - 50		60 - 70	
Date	6/23/2016	7/27/2016	6/23/2016	7/27/2016	6/23/2016	7/27/2016	6/23/2016	7/27/2016
1,1,2-Trichloroethane	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
2-Butanone	10 U	50 U	1.3 J [10 U]	10 U	10 U [10 U]	10 U	10 U	10 U
Acetone	4.2 J	50 U	11 [9.3 J]	3.8 J	7.3 J [6.9 J]	3.6 J	3.2 J	8.3 J
Carbon Disulfide	0.46 J	5.0 U	1.6 [1.8]	0.42 J	4.6 [4.4]	1.4	1.0 U	1.0 U
Chloroform	0.51 J	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	0.74 J
cis-1,2-Dichloroethene	20	220	3.0 [3.3]	1.7	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Methylene Chloride	9.9	140	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Tetrachloroethene	0.43 J	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Trichloroethene	5.5	73	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Vinyl Chloride	70	410	1.7 [1.8]	3.5	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U

MW-33D	
Depth(feet): 22 - 33	
Date	1/27/2011
1,1,2-Trichloroethane	1.0 U
1,1-Dichloroethane	1.0 U
1,1-Dichloroethene	1.0 U
1,2-Dibromo-3-chloropropane	1.0 U
1,2-Dichlorobenzene	1.0 U
1,2-Dichloroethane	1.0 U
2-Butanone	10 U
Acetone	10 U
Carbon Disulfide	1.0 U
Chloroform	1.0 U
cis-1,2-Dichloroethene	1.0 U
Methylene Chloride	1.0 U
Tetrachloroethene	1.0 U
trans-1,2-Dichloroethene	1.0 U
Trichloroethene	1.0 U
Vinyl Chloride	1.0 U

MW-25 CLUSTER	MW-25-D1		MW-25-D2			MW-25-D3		MW-25-VD	
Depth(feet)	20 - 30		35 - 45			44 - 54		67 - 77	
Date	1/19/2011	8/21/2013	1/19/2011	6/26/2013	8/21/2013	1/21/2011	8/21/2013	1/19/2011	8/21/2013
1,1,2-Trichloroethane	1.0 U	100 U [5.0 U]	0.57 J	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	2.3	100 U [3.2J]	2	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	23	100 U [19]	5.7	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	1.0 U	100 UJ [5.0 UJ]	1.0 U	8,000 U	8,000 UJ	1.0 U	1.0 UJ	1.0 U	1.0 UJ
1,2-Dichlorobenzene	1.0 U	100 U [5.0 U]	1.0 U	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	1.0 U	100 U [5.0 U]	1.0 U	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	10 U	1,000 U [50 U]	10 U	80,000 U	80,000 U	10 U	12	10 U	10 U
Acetone	10 U	1,000 U [50 U]	10 U	80,000 U	80,000 U	5.3 J	49	10 U	10 U
Carbon Disulfide	12	100 UB [26 UB]	1.2	8,000 U	8,000 U	2	62 D	13	3.3 UB
Chloroform	1.0 U	100 U [5.0 U]	1.0 U	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5,100 D	6,500 [7,600 D]	3,500 D	120,000	83,000	1.3	2.5	11	1.0 U
Methylene Chloride	340 D	540 [450]	3,700 D	110,000	100,000	43	53	3.4	1.0 U
Tetrachloroethene	1.0 U	100 U [5.0 U]	4.5	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	58	100 UJ [62]	1.0 U	8,000 U	8,000 UJ	1.0 U	1.0 UJ	1.0 U	1.0 U
Trichloroethene	110 D	96 J [96]	17,000 D	450,000	340,000	4.5	8.7	180 D	1.0 U
Vinyl Chloride	5,900 D	6,300 [6,100 D]	140 EJ	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U

MW-DR		
Depth(Feet): 19 - 29		
Date	1/26/2011	9/12/2013
1,1,2-Trichloroethane	5.0 U	10 U
1,1-Dichloroethane	5.0 U	10 U
1,1-Dichloroethene	5.0 U	10 U
1,2-Dibromo-3-chloropropane	5.0 U	10 UJ
1,2-Dichlorobenzene	5.0 U	10 U
1,2-Dichloroethane	5.0 U	10 U
2-Butanone	50 U	100 U
Acetone	50 U	100 U
Carbon Disulfide	5.0 U	10 UJ
Chloroform	5.0 U	10 U
cis-1,2-Dichloroethene	5.0 U	10 U
Methylene Chloride	5.0 U	10 U
Tetrachloroethene	5.0 U	10 U
trans-1,2-Dichloroethene	5.0 U	10 U
Trichloroethene	5.0 U	10 U
Vinyl Chloride	5.0 U	10 U

OW-1-D1			
Depth (ft bgs): 24 - 29			
Date	2/20/2013	9/12/2013	1/13/2016
1,1,2-Trichloroethane	10 U	2.0 U	20 U
1,1-Dichloroethane	10 U	2.0 U	20 U
1,1-Dichloroethene	10 U	2.0 U	20 U
1,2-Dibromo-3-chloropropane	10 U	2.0 UJ	20 U
1,2-Dichlorobenzene	10 U	2.0 U	20 U
1,2-Dichloroethane	10 U	2.0 U	20 U
2-Butanone	100 U	19 J	200 U
Acetone	100 U	37	200 U*
Carbon Disulfide	6.8 J	8.8	20 U
Chloroform	10 U	2.0 U	20 U
cis-1,2-Dichloroethene	55	27	100
Methylene Chloride	10 U	2.0 U	20 U
Tetrachloroethene	10 U	2.0 U	20 U
trans-1,2-Dichloroethene	10 U	2.0 U	20 U
Trichloroethene	10 U	2.0 U	20 U
Vinyl Chloride	10 U	1.8 J	500

IW-2-D1			
Depth (Feet): 23 - 33			
Date	2/20/2013	9/12/2013	1/13/2016
1,1,2-Trichloroethane	4.0 U	1.0 U	10 U
1,1-Dichloroethane	4.0 U	1.0 U	10 U
1,1-Dichloroethene	4.0 U	1.0 U	10 U
1,2-Dibromo-3-chloropropane	4.0 U	1.0 UJ	10 U
1,2-Dichlorobenzene	4.0 U	1.0 U	10 U
1,2-Dichloroethane	4.0 U	1.0 U	10 U
2-Butanone	40 U	10 U	100 U
Acetone	19 J	10 U	100 U*
Carbon Disulfide	4.0 U	1.0 U	10 U
Chloroform	4.0 U	1.0 U	10 U
cis-1,2-Dichloroethene	34	1.0 U	140
Methylene Chloride	4.0 U	1.0 U	10 U
Tetrachloroethene	4.0 U	1.0 U	10 U
trans-1,2-Dichloroethene	4.0 U	1.0 U	10 U
Trichloroethene	4.0 U	1.0 U	10 U
Vinyl Chloride	4.0 U	1.0 U	35

OW-3-D1			
Depth (ft bgs): 33 - 43			
Date	2/21/2013	9/13/2013	1/13/2016
1,1,2-Trichloroethane	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	5.0 U	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	5.0 U	5.0 U	5.0 U
2-Butanone	50 U	36 J	50 U
Acetone	50 U	220	50 U*
Carbon Disulfide	5.0 U	5.0 U	5.0 U
Chloroform	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	5.0 U	5.0 U	5.0 U
Methylene Chloride	5.0 U	5.0 U	5.0 U
Tetrachloroethene	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	5.0 U	5.0 U	5.0 U
Trichloroethene	5.0 U	5.0 U	5.0 U
Vinyl Chloride	5.0 U	5.0 U	5.0 U

OW-2-D1			
Depth (ft bgs): 29 - 33			
Date	2/21/2013	9/11/2013	1/12/2016
1,1,2-Trichloroethane	5.0 U [5.0 U]	5.0 U	5.0 U
1,1-Dichloroethane	5.0 U [5.0 U]	5.0 U	5.0 U
1,1-Dichloroethene	5.0 U [5.0 U]	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane	5.0 U [5.0 U]	5.0 U	5.0 U
1,2-Dichlorobenzene	5.0 U [5.0 U]	5.0 U	5.0 U
1,2-Dichloroethane	5.0 U [5.0 U]	5.0 U	5.0 U
2-Butanone	50 U [50 U]	50 U	50 U
Acetone	29 J [34 J]	50 U	50 U*
Carbon Disulfide	1.2 J [1.2 J]	66	5.0 U
Chloroform	5.0 U [5.0 U]	5.0 U	5.0 U
cis-1,2-Dichloroethene	5.2 [4.8 J]	5.0 U	50
Methylene Chloride	5.0 U [5.0 U]	5.0 U	5.0 U
Tetrachloroethene	5.0 U [5.0 U]	5.0 U	5.0 U
trans-1,2-Dichloroethene	5.0 U [5.0 U]	5.0 U	5.0 U
Trichloroethene	5.0 U [5.0 U]	5.0 U	10
Vinyl Chloride	5.0 U [5.0 U]	5.0 U	32

ASB-2	
Depth (Feet): 20 - 25	
Date	6/6/2016
1,1,2-Trichloroethane	1.0 U
1,1-Dichloroethane	1.0 U
1,1-Dichloroethene	1.0 U
1,2-Dibromo-3-chloropropane	1.0 U
1,2-Dichlorobenzene	1.0 U
1,2-Dichloroethane	1.0 U
2-Butanone	10 U
Acetone	20
Carbon Disulfide	1.1
Chloroform	14
cis-1,2-Dichloroethene	5.6
Methylene Chloride	1.0 U
Tetrachloroethene	1.4
trans-1,2-Dichloroethene	1.0 U
Trichloroethene	4.4
Vinyl Chloride	6.0

ASB-3	
Depth (Feet): 27 - 32	
Date	6/8/2016
1,1,2-Trichloroethane	1.0 U
1,1-Dichloroethane	1.0 U
1,1-Dichloroethene	1.0 U
1,2-Dibromo-3-chloropropane	1.0 U
1,2-Dichlorobenzene	1.0 U
1,2-Dichloroethane	1.0 U
2-Butanone	10 U
Acetone	5.5 J
Carbon Disulfide	0.27 J
Chloroform	0.92 J
cis-1,2-Dichloroethene	2.8
Methylene Chloride	0.60 J
Tetrachloroethene	1.3
trans-1,2-Dichloroethene	1.0 U
Trichloroethene	1.2
Vinyl Chloride	81

ASB-4	
Depth (Feet): 27 - 32	
Date	6/7/2016
1,1,2-Trichloroethane	5.0 U
1,1-Dichloroethane	5.0 U
1,1-Dichloroethene	4.2 J
1,2-Dibromo-3-chloropropane	5.0 U
1,2-Dichlorobenzene	5.0 U
1,2-Dichloroethane	5.0 U
2-Butanone	50 U
Acetone	50 U
Carbon Disulfide	0.95 J
Chloroform	5.0 U
cis-1,2-Dichloroethene	1,900
Methylene Chloride	330
Tetrachloroethene	6.7
trans-1,2-Dichloroethene	13
Trichloroethene	2,100
Vinyl Chloride	400

MW-32D		
Depth (ft bgs): 28 - 38		
Date	1/19/2011	9/13/2013
1,1,2-Trichloroethane	1.0 U	5.0 U
1,1-Dichloroethane	1.0 U	5.0 U
1,1-Dichloroethene	1.0 U	5.0 U
1,2-Dibromo-3-chloropropane	1.0 U	5.0 U
1,2-Dichlorobenzene	1.0 U	5.0 U
1,2-Dichloroethane	1.0 U	5.0 U
2-Butanone	10 U	50 U
Acetone	10 U	50 U
Carbon Disulfide	1.0 U	1.9 J
Chloroform	1.0 U	5.0 U
cis-1,2-Dichloroethene	1.0 U	5.0 U
Methylene Chloride	1.0 U	5.0 U
Tetrachloroethene	1.0 U	5.0 U
trans-1,2-Dichloroethene	1.0 U	5.0 U
Trichloroethene	0.65 J	5.0 U
Vinyl Chloride	1.0 U	5.0 U

IW-1	
Depth (Feet): 23 - 28	
Date	8/21/2013
1,1,2-Trichloroethane	1.0 U
1,1-Dichloroethane	1.6
1,1-Dichloroethene	2.8
1,2-Dibromo-3-chloropropane	2.8
1,2-Dichlorobenzene	1.0 U
1,2-Dichloroethane	1.0 U
2-Butanone	10 U
Acetone	7.4 J
Carbon Disulfide	11 UB
Chloroform	1.0 U
cis-1,2-Dichloroethene	1,900 D
Methylene Chloride	1.6
Tetrachloroethene	1.0 U
trans-1,2-Dichloroethene	32
Trichloroethene	6.1
Vinyl Chloride	2,100 D

MW-27 CLUSTER	MW-27-D1				MW-27-D2			
Depth(feet)	22 - 32				37 - 47			
Date	1/18/2011	9/11/2013	1/13/2016	6/21/2016	1/18/2011	9/11/2013	1/13/2016	6/21/2016
1,1,2-Trichloroethane	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U
1,1-Dichloroethane	1.0 U	5.0 U	5.0 U	1.0 U	0.44 J	5.0 U	5.0 U	4.0 U
1,1-Dichloroethene	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U
1,2-Dibromo-3-chloropropane	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U
1,2-Dichlorobenzene	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U
1,2-Dichloroethane	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U
2-Butanone	10 U	50 U	50 U	1.7 J	10 U	50 U	50 U	8.2 J
Acetone	10 U	50 U	53	5.0 J	10 U	50 U	50 U*	38 J
Carbon Disulfide	1.0 U	1.0 J	5.0 U	0.66 J	1.0 U	1.0 J	5.0 U	4.0 U
Chloroform	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U
cis-1,2-Dichloroethene	29	5.0 U	5.0 U	1	1.0 U	5.0 U	5.0 U	4.0 U
Methylene Chloride	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.7
Tetrachloroethene	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U
trans-1,2-Dichloroethene	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U
Trichloroethene	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U
Vinyl Chloride	1.0 U	5.0 U	5.0 U	0.97 J	1.0 U	5.0 U	5.0 U	4.0 U

ASB-7	
Depth (Feet): 20 - 25	
Date	6/2/2016
1,1,2-Trichloroethane	2.0 U
1,1-Dichloroethane	2.0 U
1,1-Dichloroethene	2.0 U
1,2-Dibromo-3-chloropropane	2.0 U
1,2-Dichlorobenzene	2.0 U
1,2-Dichloroethane	2.0 U
2-Butanone	20 U
Acetone	20 U
Carbon Disulfide	1.1 J
Chloroform	21
cis-1,2-Dichloroethene	67
Methylene Chloride	2.0 U
Tetrachloroethene	1.2 J
trans-1,2-Dichloroethene	2.0 U
Trichloroethene	1.7 J
Vinyl Chloride	31

ASB-5	
Depth (Feet): 20 - 25	
Date	6/2/2016
1,1,2-Trichloroethane	1.0 U
1,1-Dichloroethane	1.0 U
1,1-Dichloroethene	1.0 U
1,2-Dibromo-3-chloropropane	1.0 U
1,2-Dichlorobenzene	1.0 U
1,2-Dichloroethane	1.0 U
2-Butanone	1.4 J
Acetone	12
Carbon Disulfide	0.53 J
Chloroform	19
cis-1,2-Dichloroethene	2.2
Methylene Chloride	1.0 U
Tetrachloroethene	1.2
trans-1,2-Dichloroethene	1.0 U
Trichloroethene	4.8
Vinyl Chloride	11

MW-30 CLUSTER	MW-30-D1				MW-30-D2				MW-30-VD			
Depth(feet)	22 - 32				37 - 47				77 - 87			
Date	1/24/2011	9/9/2013	1/14/2016	6/22/2016	4/7/2011	9/10/2013	1/14/2016	6/22/2016	1/25/2011	9/10/2013	1/14/2016	6/22/2016
1,1,2-Trichloroethane	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U	1.0 U
1,1-Dichloroethane	2.0 [2.0]	1.0 U	1.9	2.1	1.0 U [1.0 U]	2.0 U	2.9 [3.2 J]	0.87 J	1.0 U	10 U	10 U	1.0 U
1,1-Dichloroethene	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U	1.0 U
1,2-Dibromo-3-chloropropane	1.0 U [1.0 U]	1.0 UJ	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U	1.0 U
1,2-Dichlorobenzene	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	5.0	10 U	10 U	1.0 U
1,2-Dichloroethane	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.5 J	10 U	10 U	1.0 U
2-Butanone	10 U [10 U]	10 U	10 U	10 U	10 U [10 U]	20 U	20 U [50 U]	10 U	10 U	100 U	100 U	10 U
Acetone	10 U [10 U]	10 U	10 U	10 U	10 U [10 U]	20 U	20 U [50 U]	10 U	10 U	100 U	100 U	5.9 J
Carbon Disulfide	1.0 U [1.0 U]	1.0 UJ	1.0 U	0.19 J	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	7.1	10 U	10 U	1.0 U
Chloroform	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U	1.0 U
cis-1,2-Dichloroethene	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U	1.0 U
Methylene Chloride	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U	1.0 U
Tetrachloroethene	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U	1.0 U
trans-1,2-Dichloroethene	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U	1.0 U
Trichloroethene	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	4.1	10 U	10 U	1.0 U
Vinyl Chloride	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U	1.0 U

MW-35D	
Depth(feet): 20 - 30	
Date	1/27/2011
1,1,2-Trichloroethane	1.0 U
1,1-Dichloroethane	1.0 U
1,1-Dichloroethene	1.0 U
1,2-Dibromo-3-chloropropane	1.0 U
1,2-Dichlorobenzene	1.0 U
1,2-Dichloroethane	1.0 U
2-Butanone	10 U
Acetone	10 U
Carbon Disulfide	0.87 J
Chloroform	1.0 U
cis-1,2-Dichloroethene	1.0 U
Methylene Chloride	1.0 U
Tetrachloroethene	1.0 U
trans-1,2-Dichloroethene	1.0 U
Trichloroethene	1.0 U
Vinyl Chloride	1.0 U

TOGs guidance value	(µg/L)
Acenaphthalene	20
Acetone	50
Bis(2-ethylhexyl)phthalate	5
Butylbenzylphthalate	50
Chloroform	7
cis-1,2-Dichloroethene	5
Methylene Chloride	5
Naphthalene	10
Phenol	1
TCE	5
Tetrachloroethene	5
trans-1,2-Dichloroethene	5
Vinyl Chloride	2

MW-23 CLUSTER	MW-23-D1R				MW-23-D2R			
Depth(Feet)	20.5 - 30.5				35 - 45			
Date	1/19/2011	9/10/2013	1/12/2016	6/20/2016	1/20/2011	9/11/2013	1/12/2016	6/20/2016
1,1,2-Trichloroethane	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U
1,1-Dichloroethane	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U
1,1-Dichloroethene	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U
1,2-Dibromo-3-chloropropane	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U
1,2-Dichlorobenzene	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U
1,2-Dichloroethane	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U
2-Butanone	10 U	50 U	50 U	10 U	10 U [10 U]	40 U	50 U	10 U
Acetone	10 U	50 U	50 U*	6.4 J	10 U [10 U]	40 U	50 U*	23
Carbon Disulfide	1.0 U	5.0 U	5.0 U	1.0 U	1.3 [1.2]	1.2 J	5.0 U	1.0 U
Chloroform	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U
cis-1,2-Dichloroethene	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U
Methylene Chloride	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U
Tetrachloroethene	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U
trans-1,2-Dichloroethene	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U
Trichloroethene	2.6	5.0 U	5.0 U	1.0 U	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U
Vinyl Chloride	1.0 U	5.0 U	5.0 U	1.0 U	7.8 [6.5]	4.0 U	5.0 U	1.0 U

AMW-13 CLUSTER	AMW-13-D1		AMW-13-D2		AMW-13-VD	
Depth(Feet)	22 - 32		32 - 42		60 - 70	
Date	6/24/2016	7/27/2016	6/23/2016	7/27/2016	6/23/2016	7/27/2016
1,1,2-Trichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	10 U	10 U	10 U	10 U	3.2 J	5.8 J
Acetone	6.5 J	3.4 J	3.2 J	4.8 J	18	46
Carbon Disulfide	2.7	2.8	0.66 J	12	1.5	7.9
Chloroform	0.37 J	1.0 U	0.36 J	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene Chloride	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	0.38 J	1.0 U	0.57 J	1.0 U	1.5	1
trans-1,2-Dichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl Chloride	1.3	9.9	1.0 U	1.0 U	1.0 U	1.0 U

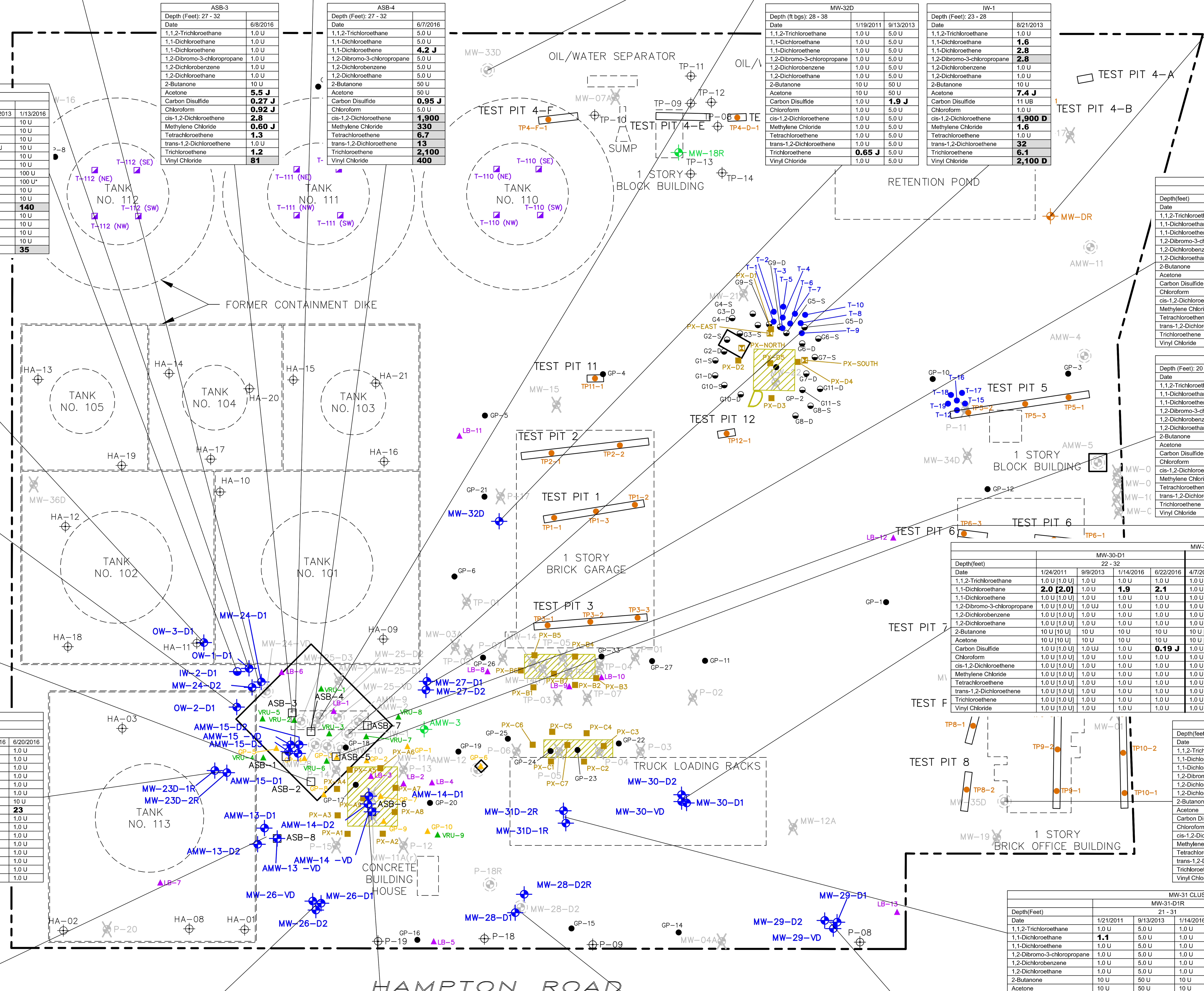
MW-31 CLUSTER	MW-31-D1R				MW-31-D2R			
Depth(Feet)	21 - 31				36 - 46			
Date	1/21/2011	9/13/2013	1/14/2016	6/22/2016	1/21/2011	9/13/2013	1/14/2016	6/22/2016
1,1,2-Trichloroethane	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
1,1-Dichloroethane	1.1	5.0 U	1.0 U	1.0 U	0.99 J	5.0 U	1.0 U	0.94 J
1,1-Dichloroethene	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
1,2-Dichloroethane	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
2-Butanone	10 U	50 U	10 U	10 U	10 U	50 U	10 U	10 U
Acetone	10 U	50 U	10 U	11	3.9 J	50 U	10 U	10 U
Carbon Disulfide	0.83 J	5.0 U	1.0 U	0.32 J	0.58 J	5.0 U	1.0 U	1.0 U
Chloroform	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	2.1	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
Methylene Chloride	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
Tetrachloroethene	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
Trichloroethene	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	3.1 J	1.0 U	1.0 U
Vinyl Chloride	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U

MW-26 CLUSTER	MW-26-D1				MW-26-D2				MW-26-VD			
Depth(feet)	21 - 31				34 - 44				62 - 72			
Date	1/25/2011	9/10/2013	1/12/2016	6/22/2016	1/25/2011	9/10/2013	1/12/2016	6/22/2016	1/18/2011	9/10/2013	1/13/2016	6/22/2016
1,1,2-Trichloroethane	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
1,1-Dichloroethane	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	0.51 J	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
1,1-Dichloroethene	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
1,2-Dichlorobenzene	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
1,2-Dichloroethane	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
2-Butanone	31 J	50 U [50 U]	50 U	40 U	10 U	50 U	50 U	10 U	53	100 U	10 U	10 U
Acetone	74 J	50 U [50 U]	50 U*	40 U	10 U	50 U	50 U*	10 U	84	100 U	10 U*	170
Carbon Disulfide	37	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.4	59	10 U	1.0 U	0.19 J
Chloroform	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	0.86 J	1.0 U	10 U	1.0 U	1.0 U
Methylene Chloride	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
Tetrachloroethene	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
Trichloroethene	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
Vinyl Chloride	5.0 U	13 [11]	16	20	1.0 U	5.0 U	5.0 U	1.2	1.0 U	10 U	1.0 U	1.0 U

AMW-14 CLUSTER	AMW-14-D1		AMW-14-D2		AMW-14-VD	
Depth(Feet)	22 - 32		32 - 42		64 - 74	
Date	6/24/2016	7/26/2016	6/23/2016	7/26/2016	6/23/2016	7/27/2016
1,1,2-Trichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
1,1-Dichloroethane	1.0 U	0.91 J	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
1,1-Dichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
1,2-Dibromo-3-chloropropane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
1,2-Dichlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
1,2-Dichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
2-Butanone	10 U	10 U	10 U	10 U	3.9 J	10 U [10 U]
Acetone	4.6 J	3.9 J	3.3 J	3.1 J	22	8.9 J [9.6 J]
Carbon Disulfide	2.6	2.8	5.5	12	0.63 J	9.9 [8.4]
Chloroform	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.37 J [1.0 U]
cis-1,2-Dichloroethene	1.0 U	1	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Methylene Chloride	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Tetrachloroethene	1.0 U	1.0 U	1.0 U	1.0 U	0.59 J	0.41 J [0.38 J]
trans-1,2-Dichloroethene	1.0 U	7.8	1.0 U	0.90 J	1.0 U	1.0 U [1.0 U]
Trichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Vinyl Chloride	1.4	2,100	1.0 U	3.6	1.0 U	1.0 U [1.0 U]

MW-28 CLUSTER	MW-28-D1			MW-28-D2	MW-28-D2R	
Depth(feet)	21.5 - 31.5			36.5 - 46.5	36.5 - 46.5	
Date	1/25/2011	6/24/2016	7/28/2016	1/25/2011	6/24/2016	7/28/2016
1,1,2-Trichloroethane	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	1.1	0.76 J	10 U	0.87 J	0.48 J	1.0 U
1,1-Dichloroethene	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	1.0 U	1.0 U	10 U	1.0 U	0.21 J	1.0 U
2-Butanone	10 U	2.3 J	100 U	10 U	10 U	10 U
Acetone	4.2 J	45	280	4.2 J	3.3 J	4.4 J
Carbon Disulfide	1.0 U	1	10 U	1.0 U	1.0 U	0.52 J
Chloroform	1.0 U	1.0 U	10 U	1.0 U	1.0 U	0.51 J
cis-1,2-Dichloroethene	1.1	1.0 U	10 U	6.6	1.0 U	1.0 U
Methylene Chloride	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Trichloroethene	1.0 U	1.0 U	10 U	0.51 J	1.0 U	1.0 U
Vinyl Chloride	1.4	1.0 U	10 U	1.0 U	1.0 U	1.0 U

MW-29 CLUSTER	MW-29-D1				MW-29-D2				MW-29-VD			
Depth(feet)	21 - 31				36 - 46				57 - 67			
Date	1/25/2011	9/10/2013	1/14/2016	6/21/2016	1/25/2011	9/10/2013	1/14/2016	6/21/2016	1/25/2011	9/10/2013	1/14/2016	6/21/2016
1,1,2-Trichloroethane	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
1,1-Dichloroethane	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	7.3	4.8	2.6	4.9 J	10 U	1.0 U
1,1-Dichloroethene	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
1,2-Dibromo-3-chloropropane	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
1,2-Dichlorobenzene	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
1,2-Dichloroethane	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
2-Butanone	10 U	50 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	100 U	10 U
Acetone	8.9 J	50 U	25 J	9.5 J	4.8 J	10 U	10 U	10 U	10 U	100 U	100 U	10 U
Carbon Disulfide	1.0 U	5.0 U	5.0 U	1.0 U	2.4	1.0 U	1.0 U	0.62 J	1.0 U	10 U	10 U	1.0 U
Chloroform	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
cis-1,2-Dichloroethene	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Methylene Chloride	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Tetrachloroethene	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
trans-1,2-Dichloroethene	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Trichloroethene	1.0 U	5.0 U	5.0 U	1.0 U	0.86 J	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Vinyl Chloride	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U



LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- HISTORIC TEMPORARY PIEZOMETER
- HISTORIC EXISTING MONITORING WELL
- HISTORIC ABANDONED/DESTROYED MONITORING POINT
- 2000 LBG GEOPROBE SOIL BORING LOCATION
- 2000 BBL SOIL BORING LOCATION
- 2002 BBL SOIL BORING LOCATION
- 2002 BBL POST EXCAVATION BORING LOCATION
- 2003 LBG SOIL SAMPLING TANK LOCATION
- 2004 LANGAN SOIL BORING LOCATION
- 2004 CEDAR CREEK TEMPORARY WELL
- 2005 BBL BORING LOCATION
- 2005 BBL POST EXCAVATION BORING LOCATION
- 2005 BBL PAIRED WELL LOCATION
- 2010 TEST PIT SOIL SAMPLE LOCATION
- 2016 SOIL BORING
- LIMITS OF 2003/2004 IRM EXCAVATIONS
- LIMITS OF 2013/2014 IRM EXCAVATIONS
- HISTORICAL SITE FEATURES

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN-GULF OIL COMPANY-U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. HISTORICAL SITE LAYOUT AND SAMPLE LOCATIONS ARE APPROXIMATE.
3. MONITORING WELL LOCATIONS SURVEYED BY AMERICAN ENGINEERING AND SURVEY.
4. ALL CONCENTRATIONS ARE IN MICROGRAMS PER LITER (ug/L) AND DEPTH INTERVALS ARE IN FEET BELOW CURRENT GROUNDSURFACE.
5. BOLDED VALUES ARE DETECTIONS AND SHADED VALUES EXCEED NYSDEC TECHNICAL AND OPERATIONS GUIDANCE VALUES SERIES (TOGS) 1.1.1 AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES ARE SHOWN.
6. ONLY EXCEEDANCES OF TOGS ARE SHOWN IN DATABOXES.
7. DUPLICATE RESULTS ARE SHOWN IN BRACKETS.
8. B = CONSISTUENT DETECTED IN METHOD BLANK.
9. D = CONCENTRAIONS BASED ON A DILUTED ANALYSIS.
10. E = INDICATES AN ESTIMATED VALUE.
11. F1 =MS AND/OR MSD RECOVERY IS OUTSIDE ACCEPTANCE LIMITS.
12. J = INDICATES AN ESTIMATED VALUE.
13. U = CONSTITUENT NOT DETECTED. LISTED VALUE IS ASSOCIATED DETECTION LIMIT.

0 40' 80'
GRAPHIC SCALE

GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

TOGS EXCEEDANCES IN GROUNDWATER - LOWER SAND UNIT (CVOCs)

ARCADIS Design & Consultancy for natural and built assets

FIGURE 12

CITY: SYRACUSE, NY DIV/GROUP: ENV/IM-DV DB: L. FORAKER, R. ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*; OFF=*REF*
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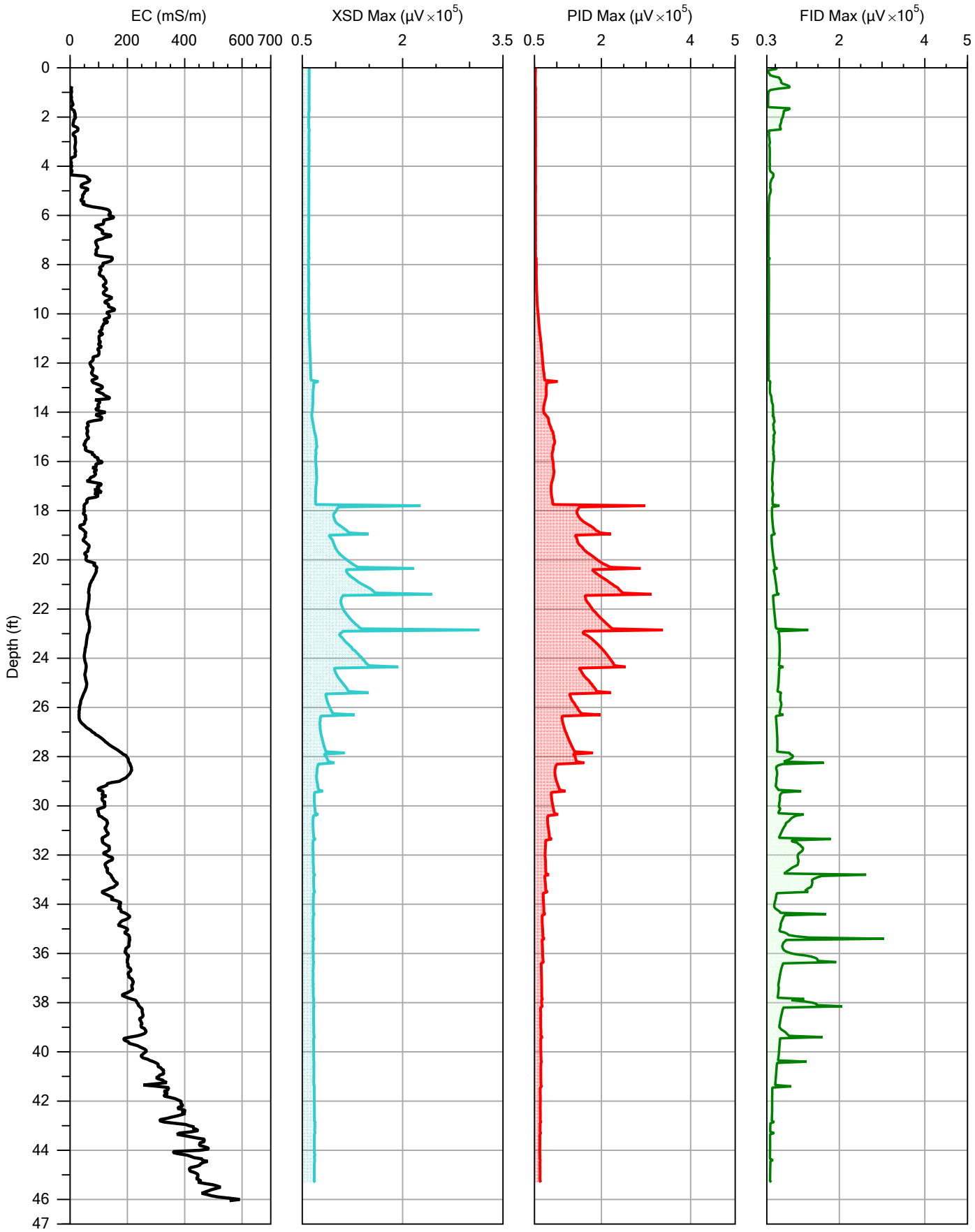
XREFS: 47517X01 47517X00

APPENDIX A

MIPs Data



CASCADE
DRILLING | TECHNICAL SERVICES

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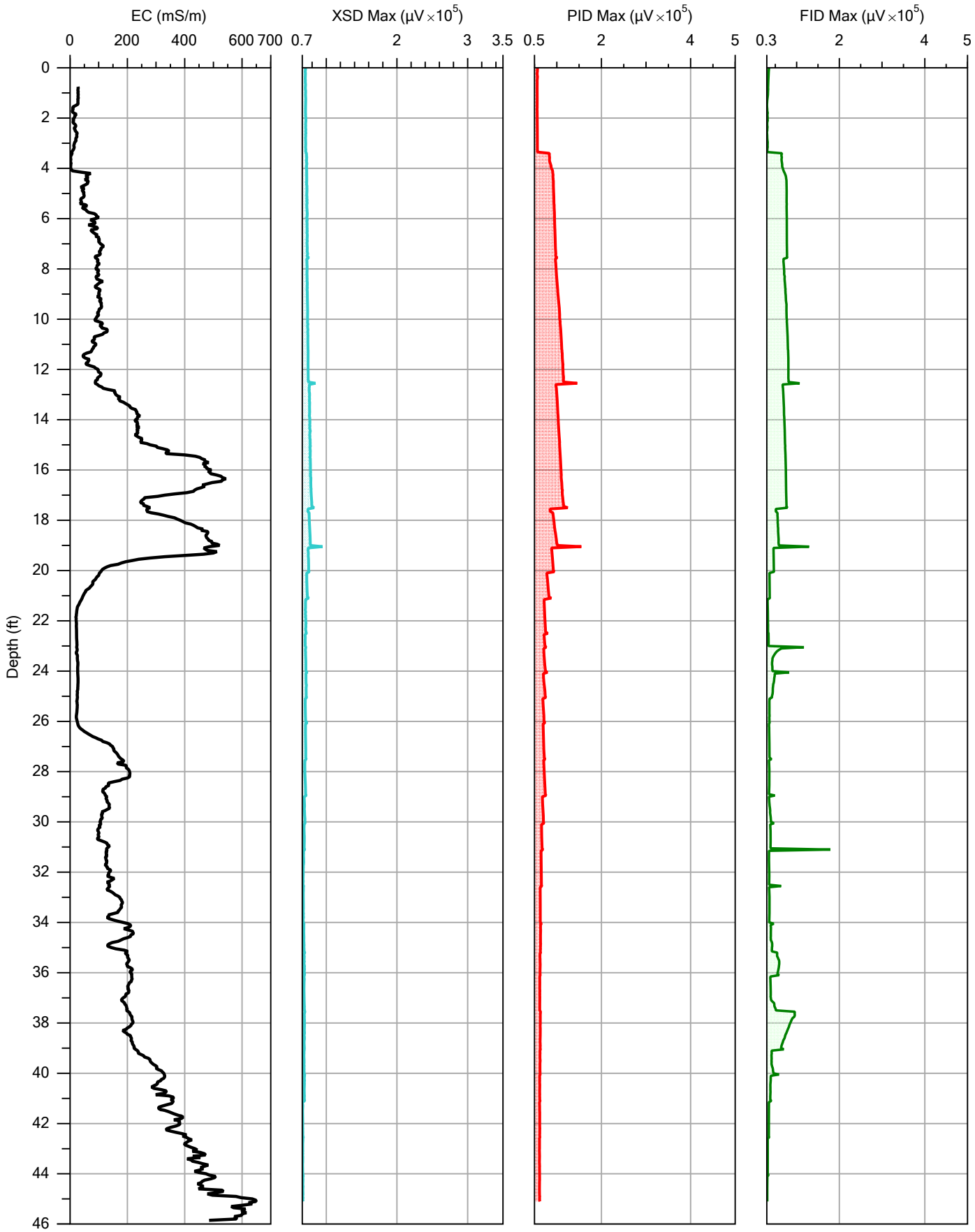

CASCADE
DRILLING | TECHNICAL SERVICES

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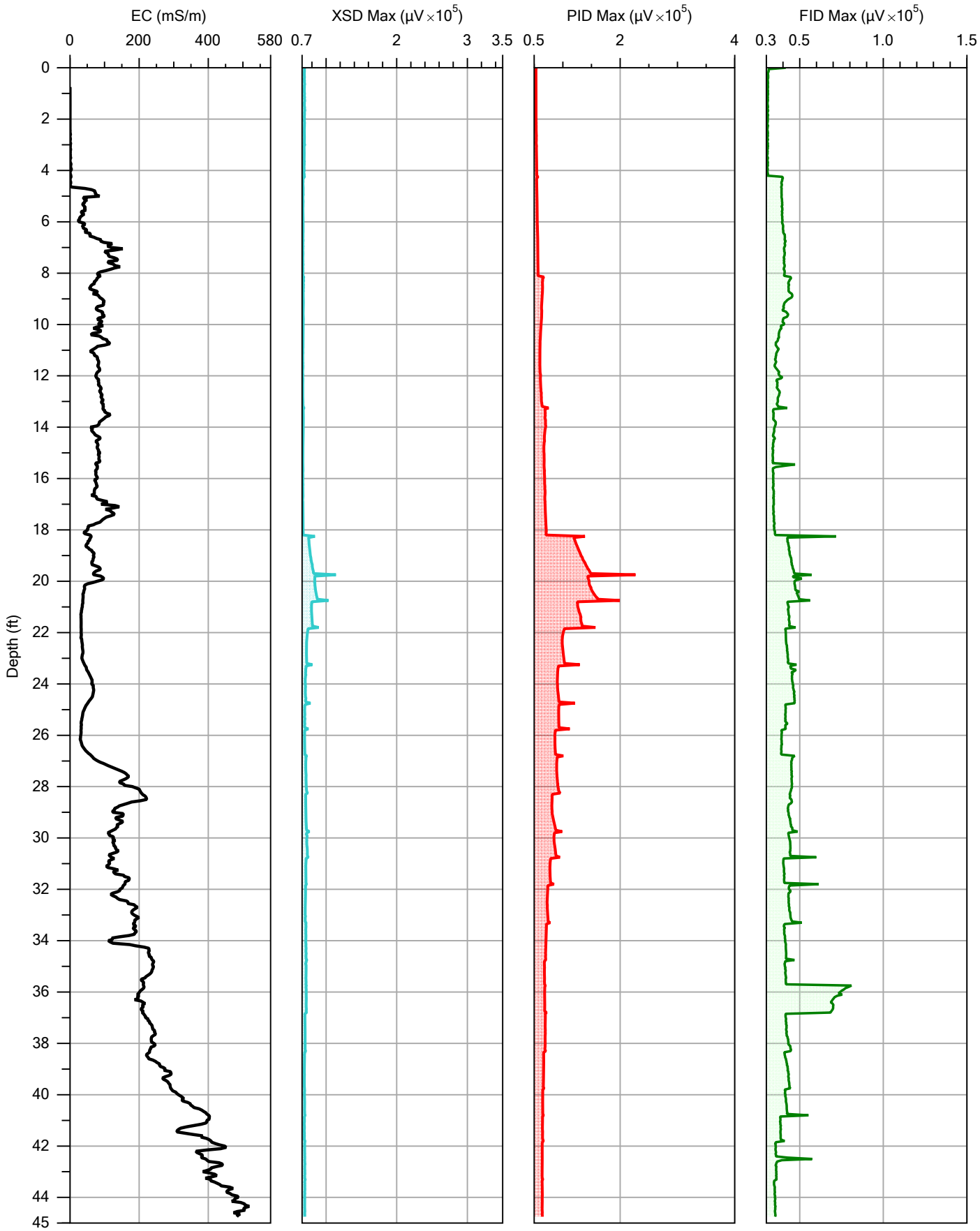

CASCADE
DRILLING | TECHNICAL SERVICES

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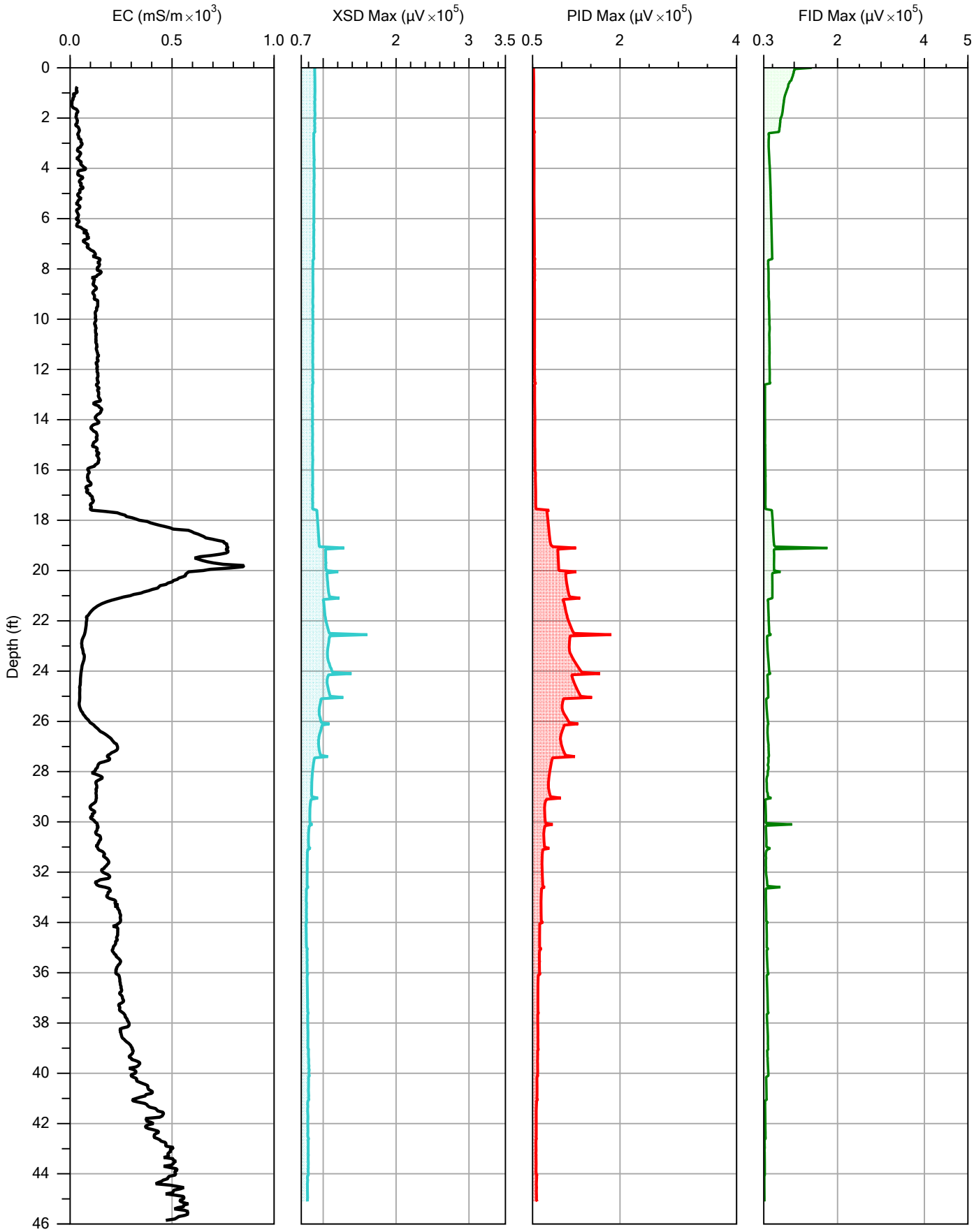
Project ID: 201-15-6180	Client: ARCADIS	Location:



CASCADE
DRILLING | TECHNICAL SERVICES

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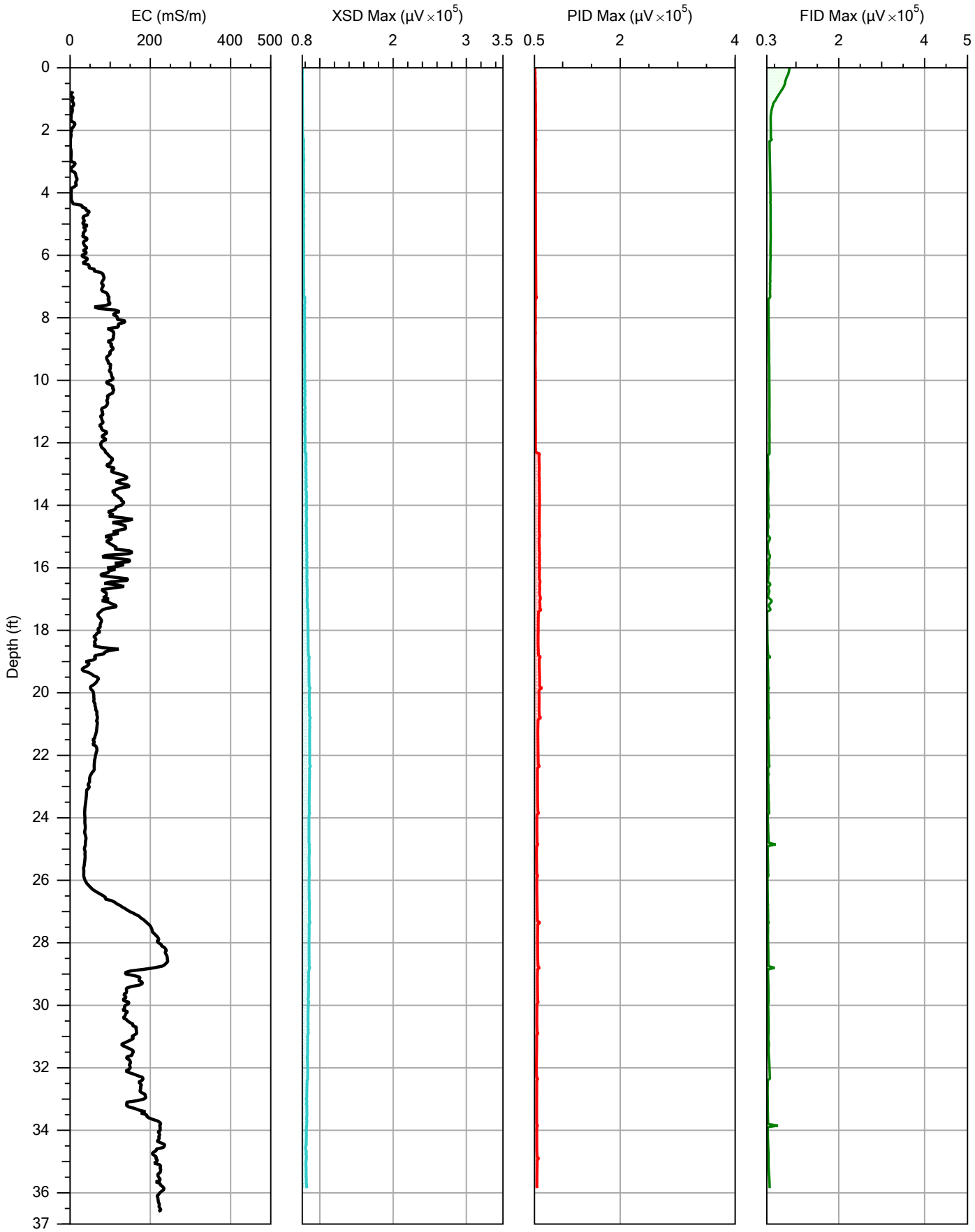
Company: Cascade Technical Services	Operator: John Diamond	Date: 2/17/2016
Project ID: 201-15-6180	Client: ARCADIS	Location:



CASCADE
DRILLING | TECHNICAL SERVICES

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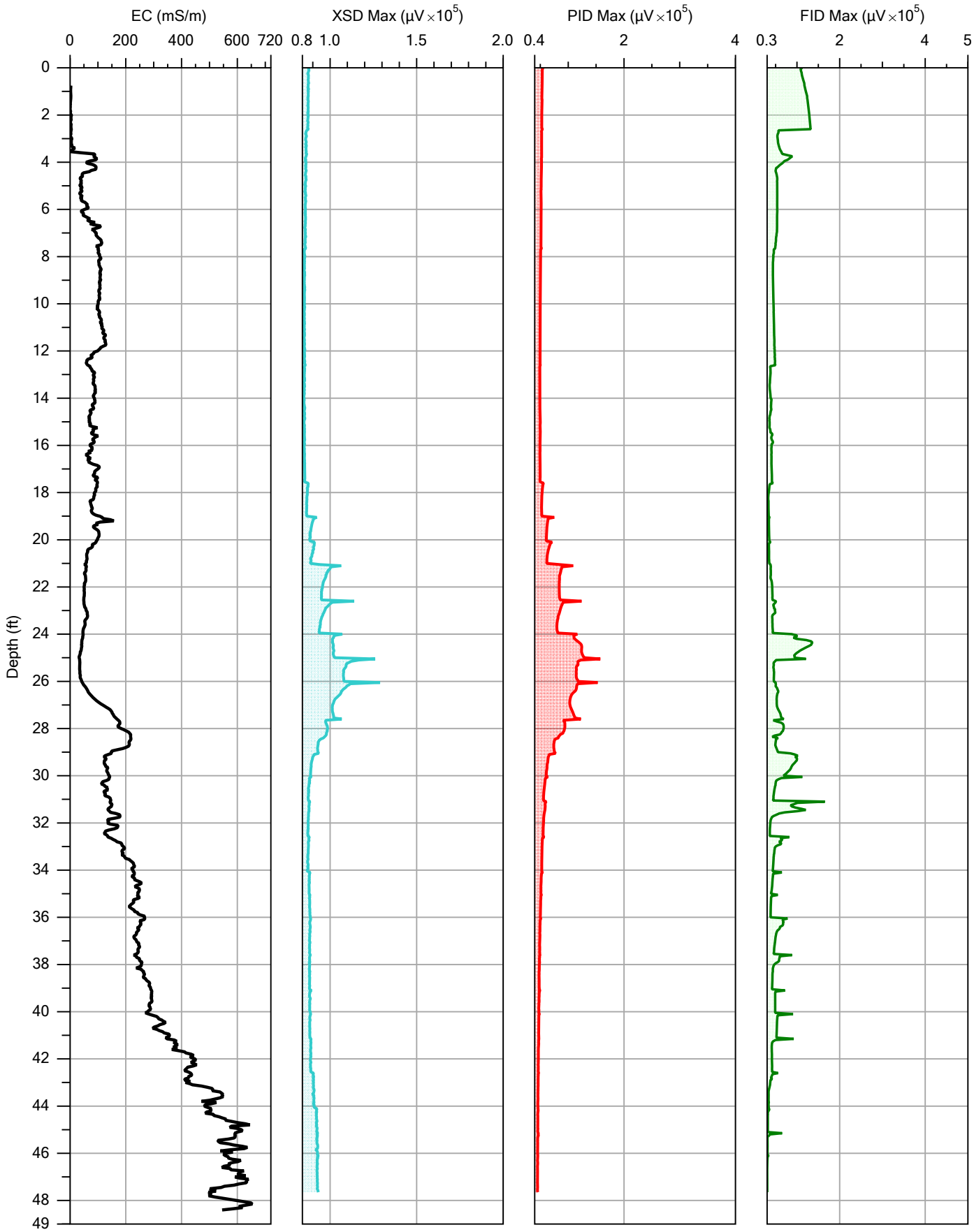
Company: Cascade Technical Services	Operator: John Diamond	Date: 2/17/2016
Project ID: 201-15-6180	Client: ARCADIS	Location:



CASCADE
DRILLING | TECHNICAL SERVICES

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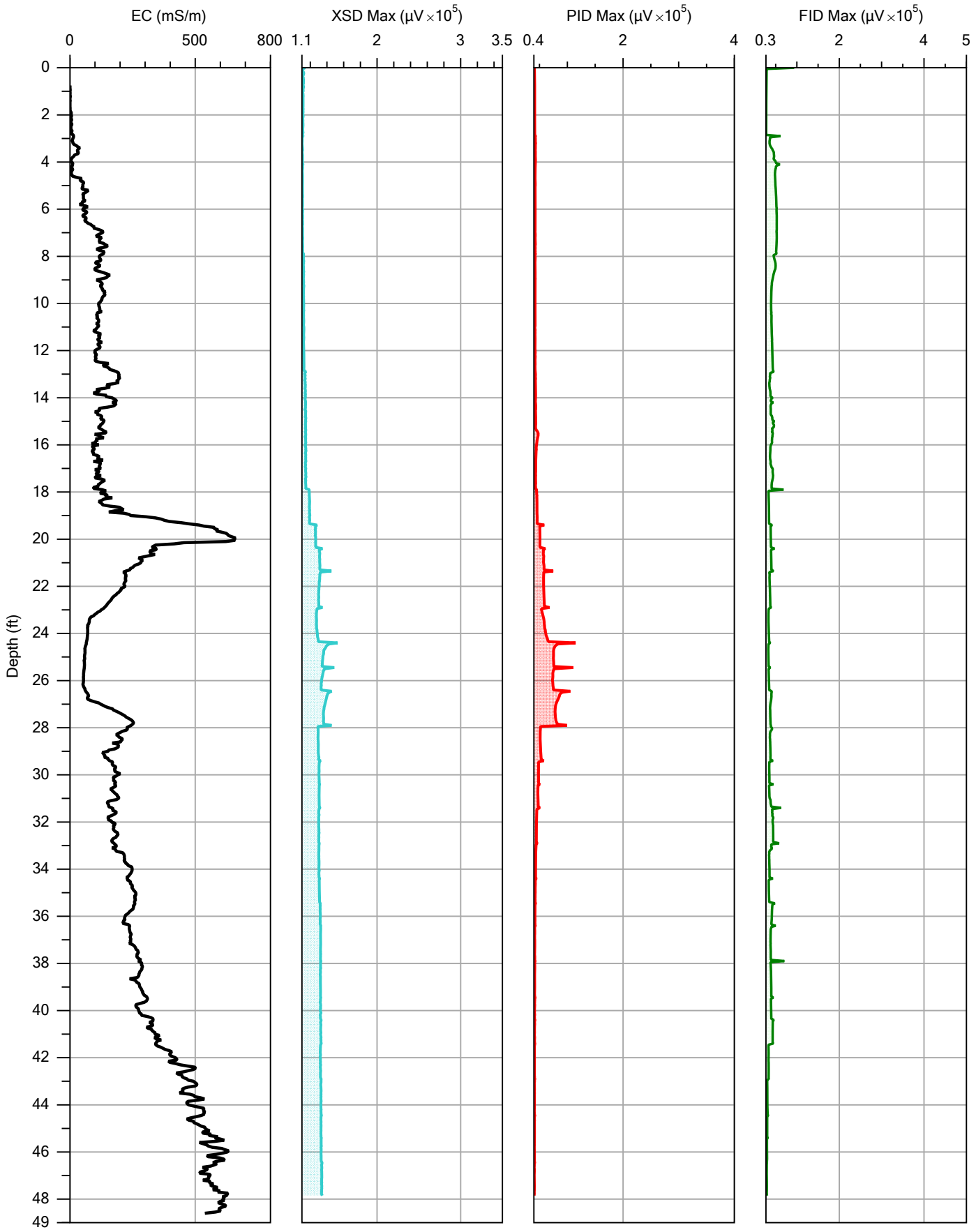
Company: Cascade Technical Services	Operator: John Diamond	Date: 2/18/2016
Project ID: 201-15-6180	Client: ARCADIS	Location:



CASCADE
DRILLING | TECHNICAL SERVICES

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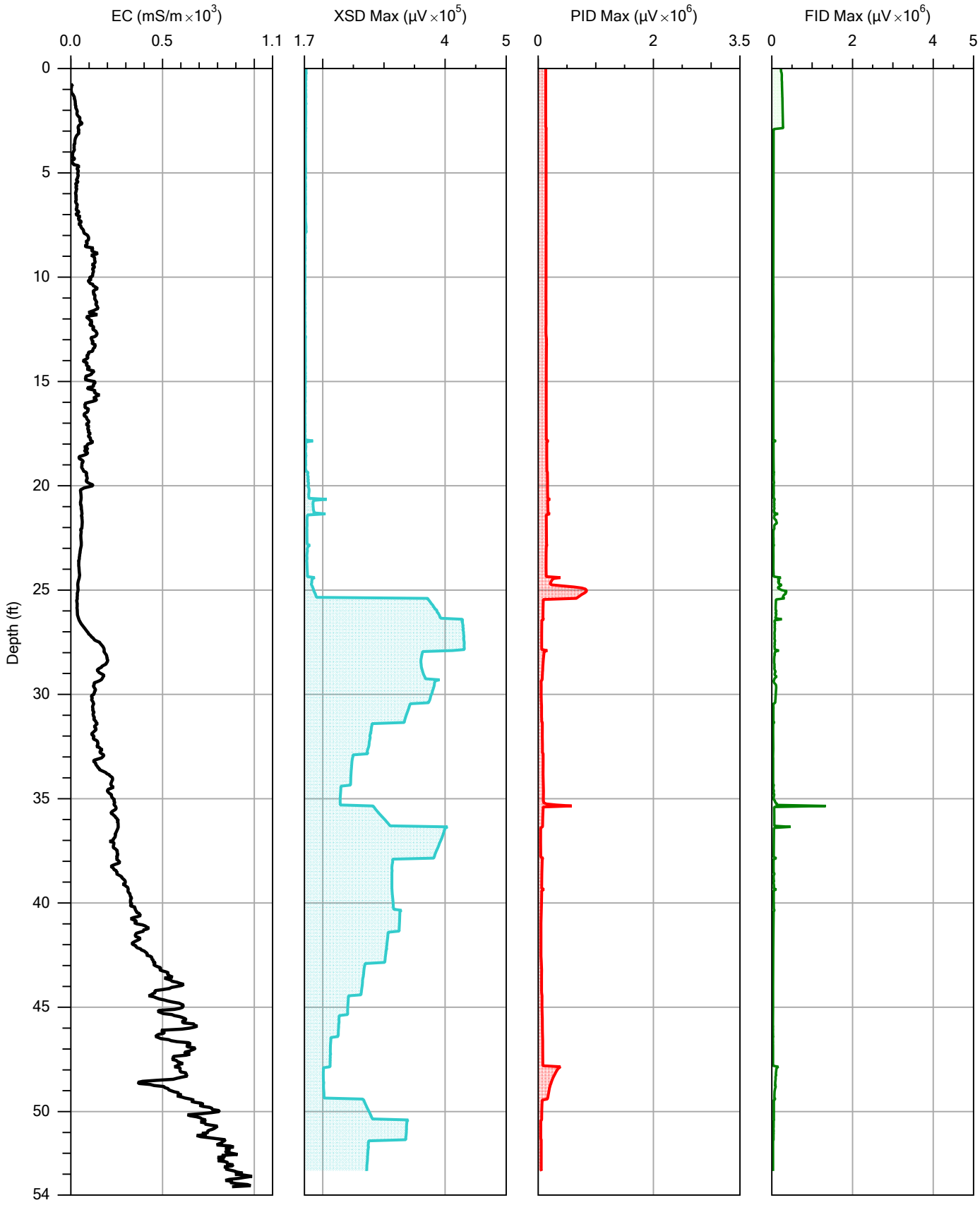
Company:	Operator:	Date: 2/18/2016
Project ID:	Client:	Location:



CASCADE
DRILLING | TECHNICAL SERVICES

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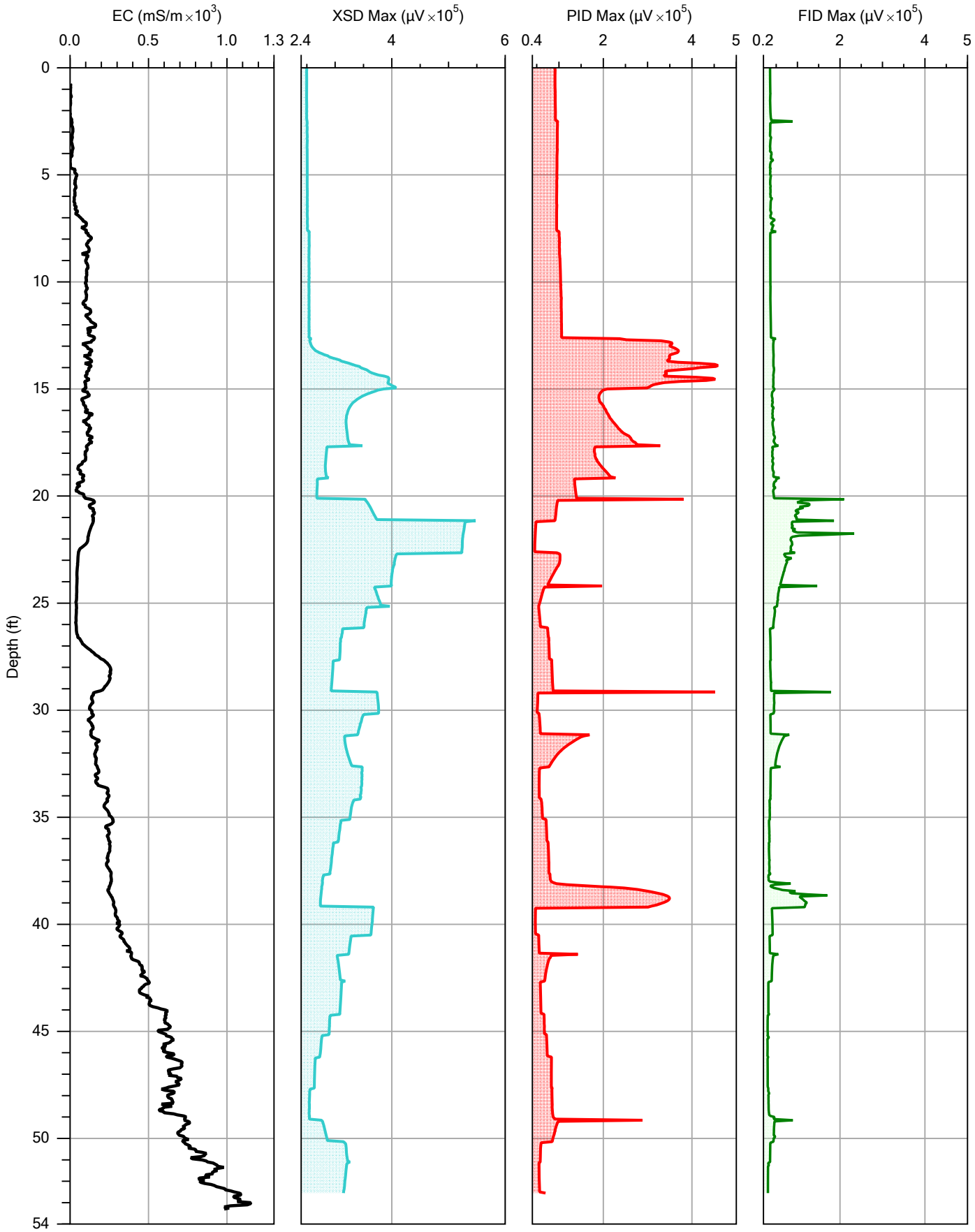
Company: Cascade Technical Services	Operator: John Diamond	Date: 2/18/2016
Project ID: 201-15-6180	Client: ARCADIS	Location:



CASCADE
DRILLING | TECHNICAL SERVICES

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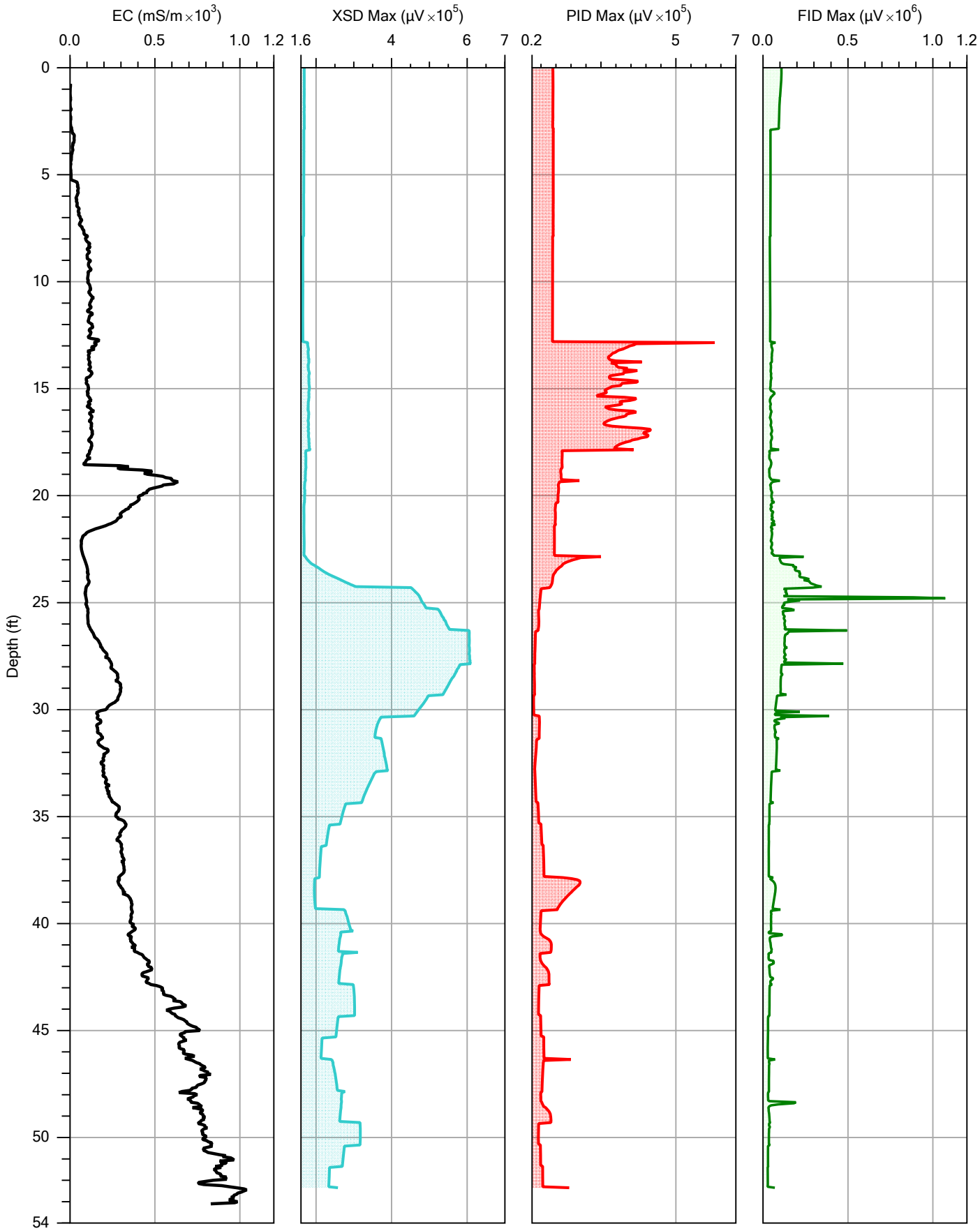
Company: Cascade Technical Services	Operator: John Diamond	Date: 2/18/2016
Project ID: 201-15-6180	Client: ARCADIS	Location:



CASCADE
DRILLING | TECHNICAL SERVICES

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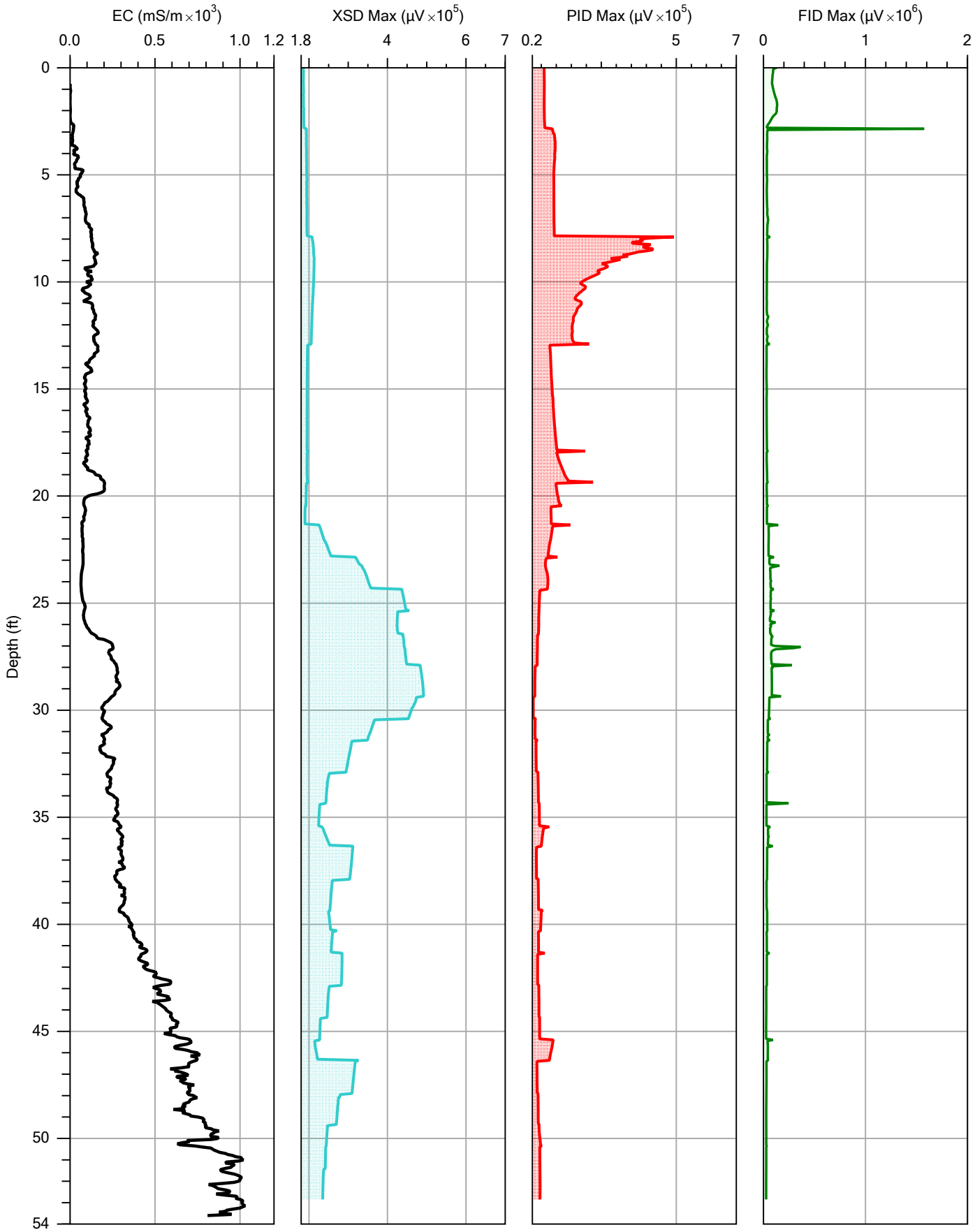
Company: Cascade Technical Services	Operator: John Diamond	Date: 2/19/2016
Project ID: 201-15-6180	Client: ARCADIS	Location:



CASCADE
DRILLING | TECHNICAL SERVICES

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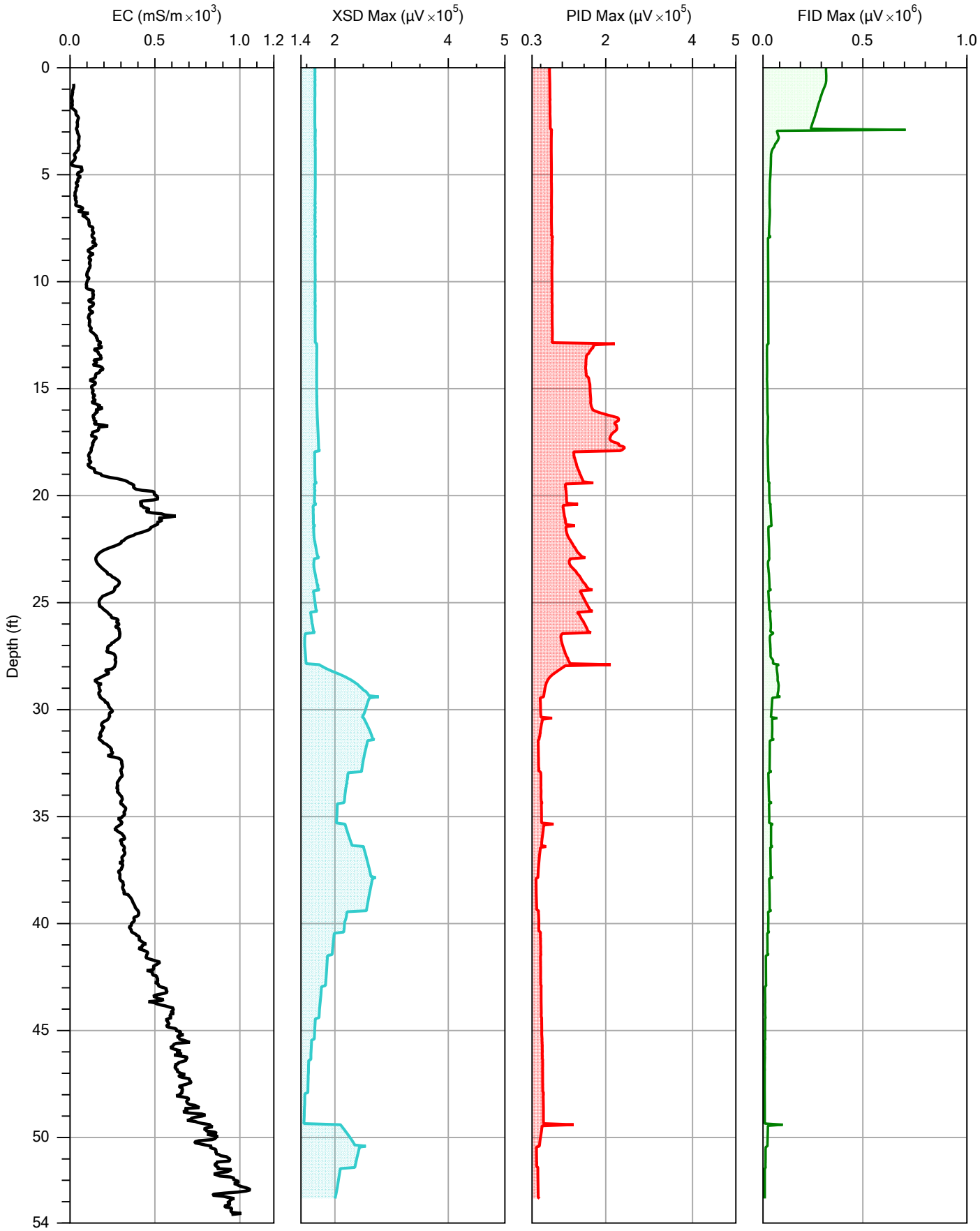
Project ID: 201-15-6180	Client: ARCADIS	Location:



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DRILLING | TECHNICAL SERVICES

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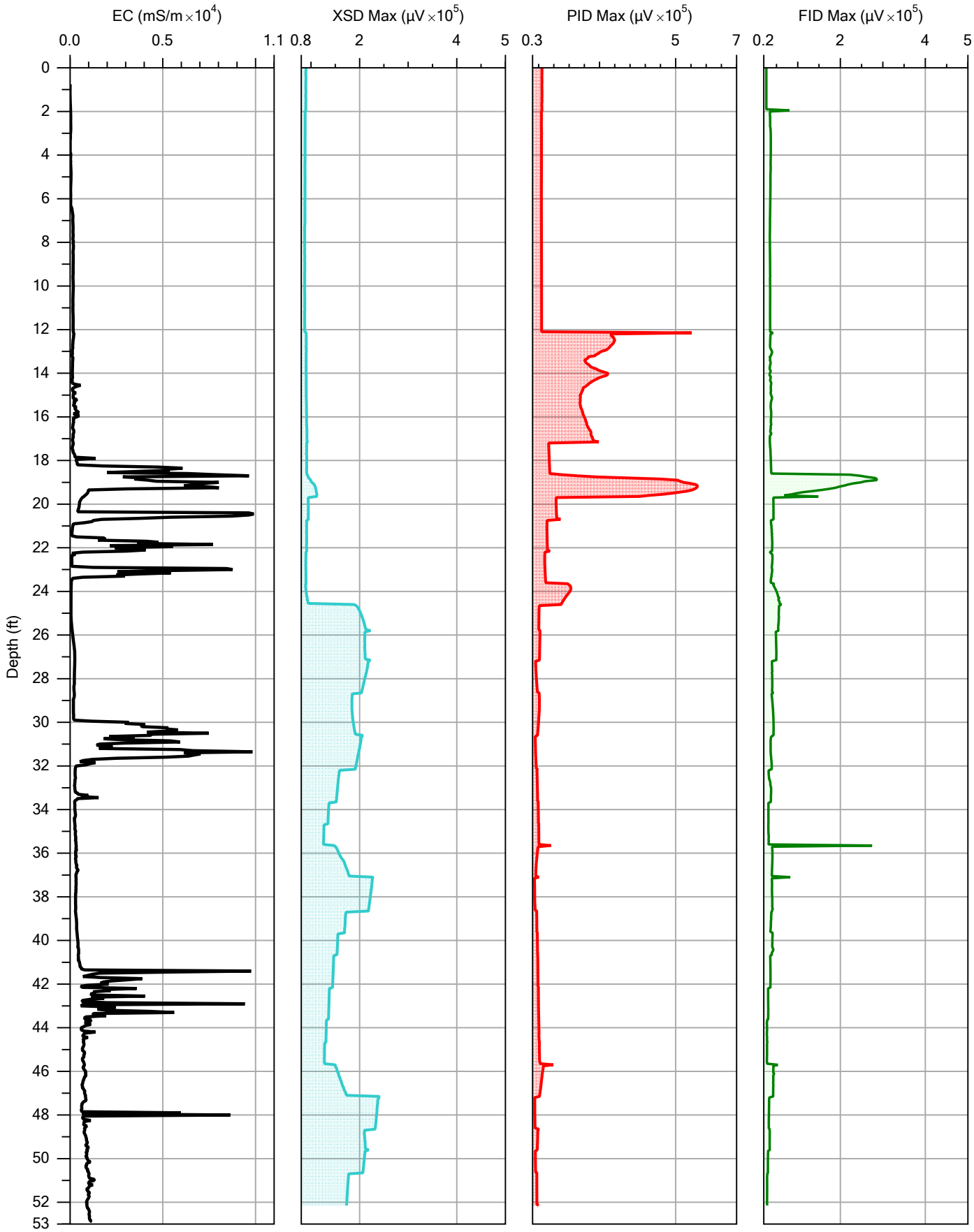
Project ID: 201-15-6180	Client: ARCADIS	Location:



CASCADE
DRILLING | TECHNICAL SERVICES

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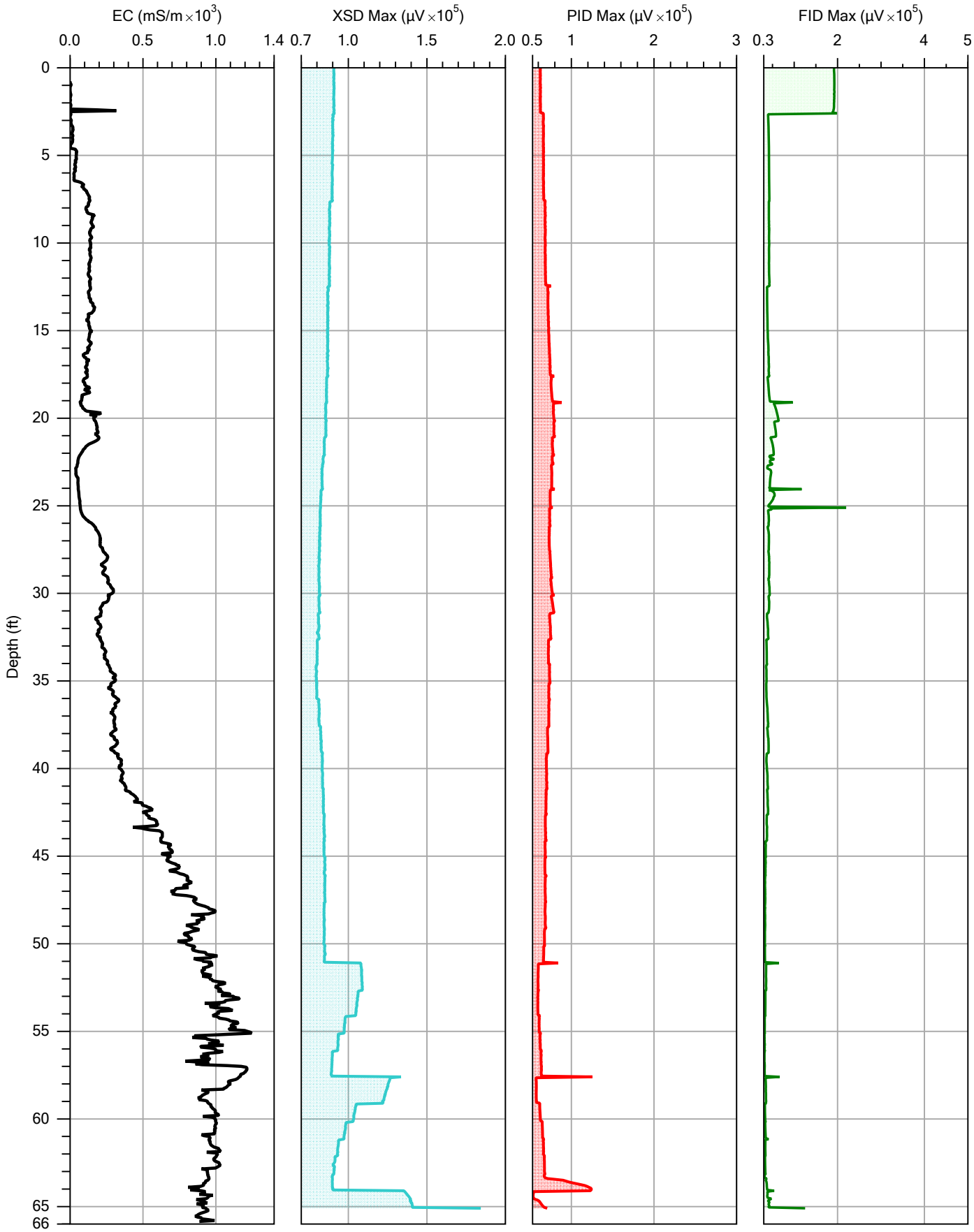
Company: Cascade Technical Services	Operator: John Diamond	Date: 2/19/2016
Project ID: 201-15-6180	Client: ARCADIS	Location:



CASCADE
DRILLING | TECHNICAL SERVICES

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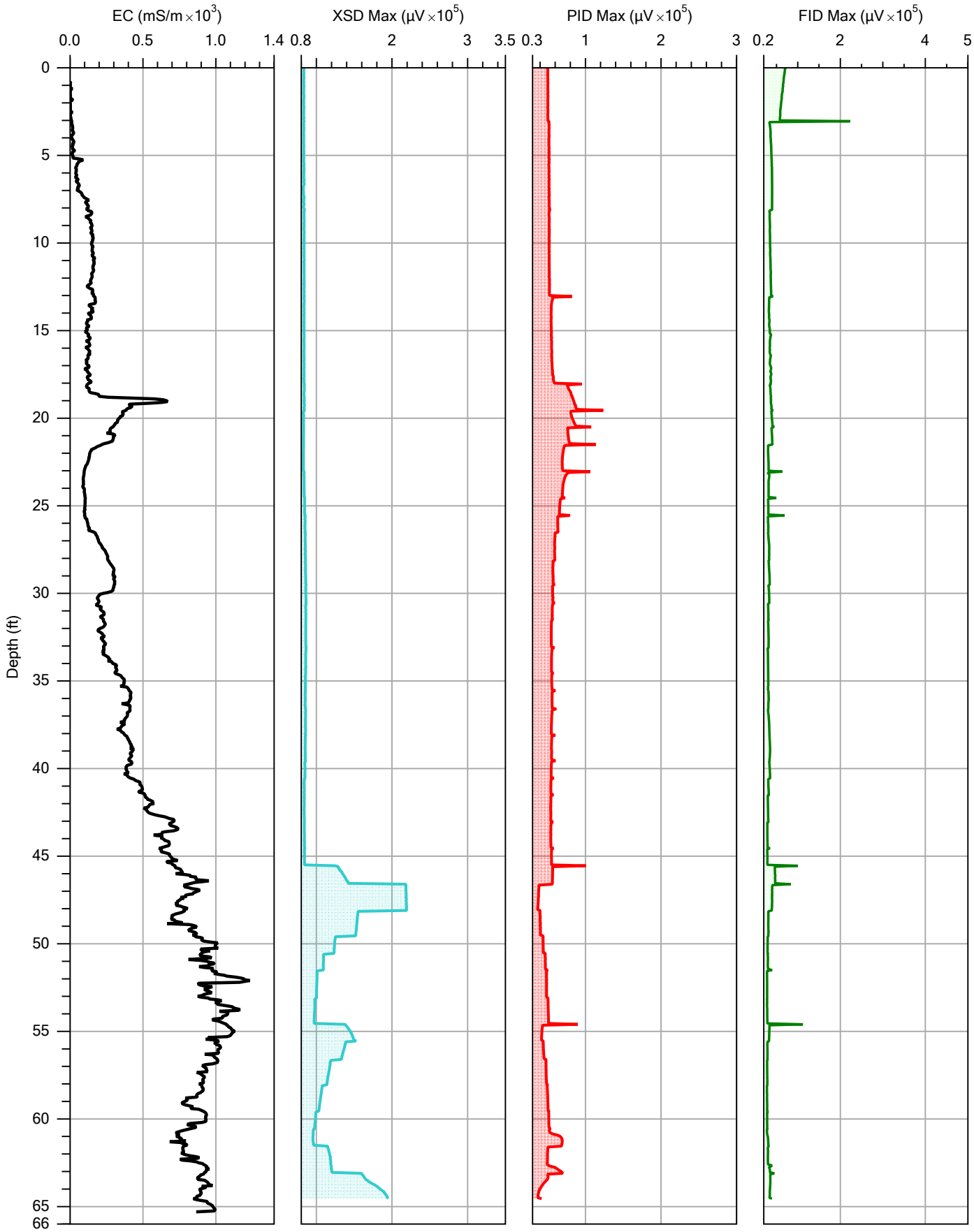
Company: Cascade Technical Services	Operator: John Diamond	Date: 2/22/2016
Project ID: 201-15-6180	Client: ARCADIS	Location:



CASCADE
DRILLING | TECHNICAL SERVICES

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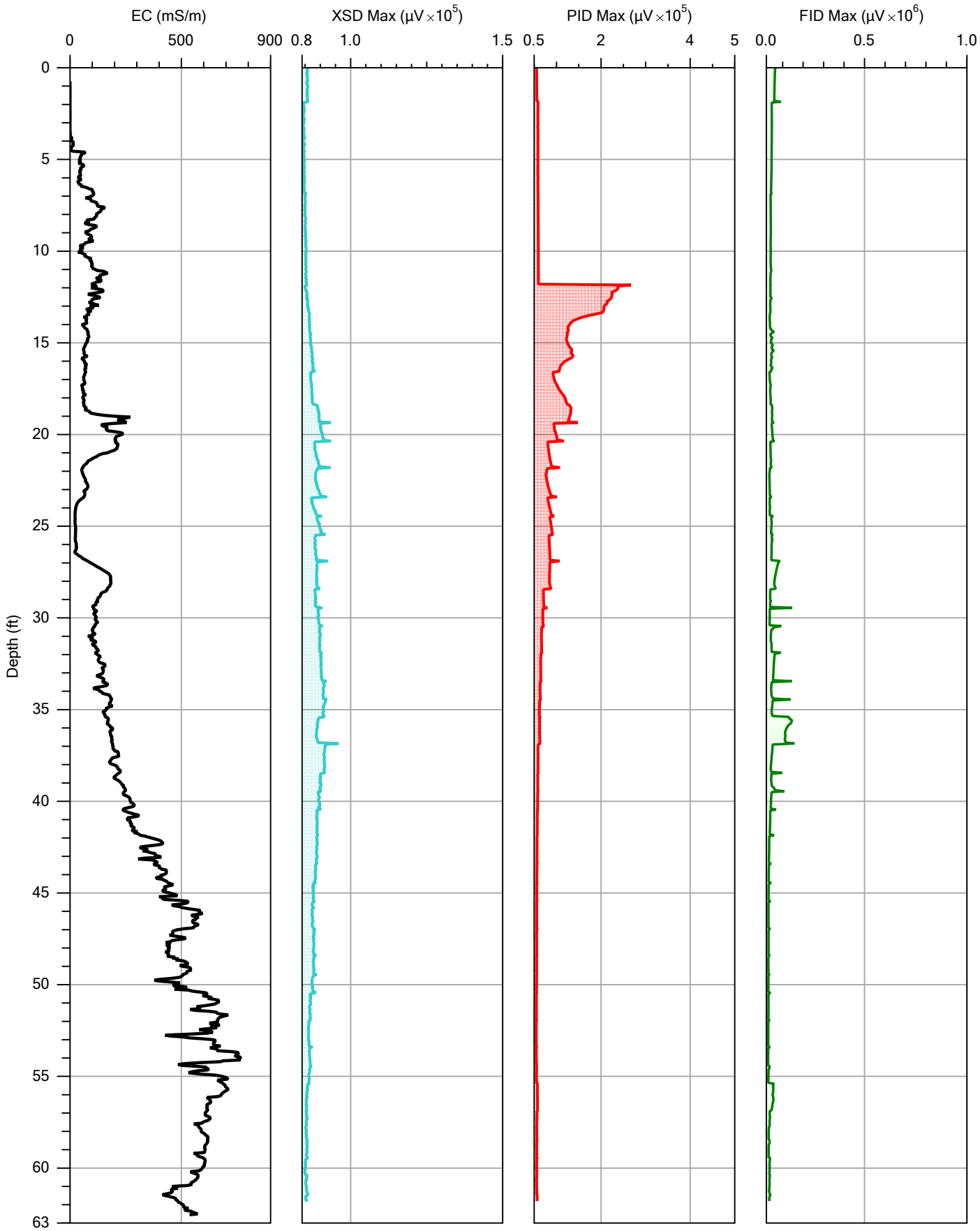
Company: Cascade Technical Services	Operator: John Diamond	Date: 2/22/2016
Project ID: 201-15-6180	Client: ARCADIS	Location:



CASCADE
DRILLING | TECHNICAL SERVICES

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Company: Cascade Technical Services	Operator: John Diamond	Date: 2/22/2016
Project ID: 201-15-6180	Client: ARCADIS	Location:

APPENDIX B

Boring Logs

Date Start/Finish: 6/7 - 6/8/2016
Drilling Company: Summit Drilling
Driller's Name: Ninevski, Mobus, Crandall
Drilling Method: Rotary Sonic
Sampling Method: 5'x3" Rotary Sonic Sampler
Rig Type: Track-mounted Fraste Rotary Sonic

Northing: 1080910.2730
Easting: 164763.4419
Casing Elevation: NA
Surface Elevation: 9.00' AMSL
Borehole Depth: 80' bgs
Descriptions By: Levia Terrell

Well/Boring ID: **ASB-1**
Client: Chevron Environmental Management Company
Location: Former Gulf Oil Terminal Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
10 / 0									
0 / 9	1	0-5	3	0.0	0.0			Dark brown SILT and SAND, little fine to coarse angular to round Gravel, trace medium to coarse Sand and red Brick, moist. [FILL]	
				0.1	0.0				
				0.2	0.0				
5 / 4				0.2	0.0				
				0.1	0.0				
5 / 4	2	5-10	5	0.0	0.0			Gray angular fine to coarse GRAVEL, trace fine to coarse SAND, wet. [FILL]	
				0.0	0.0				
				0.0	0.0			Green SILT, trace fine to coarse Sand, wet. [GROUT]	
0 / 9				0.0	0.0				
				0.0	0.0				
10 / -1	3	10-15	5	0.0	0.0				
				0.0	0.0				
				0.0	0.0				
-5 / 14				0.0	0.0				
				0.0	0.0				
15 / -6				0.0	0.0				

Grouted from 80' bgs to grade.

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million; NR = no recovery.

Analytical soil samples collected at 23-25' and 28-30' bgs.

ARCADIS Design & Consultancy for natural and built assets

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-1**

Borehole Depth: 80' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
					0.0	0.0				
		4	15-20	5	0.0	0.0				
					0.0	0.0				
	-10				0.0	0.0				
20										
					0.0	0.0				
					0.0	6.0				
		5	20-25	4.7	6.6	2.0			Brown and gray CLAY and PEAT, sulfur-like odor, moist.	
									Gray fine to medium SAND, sulfur-like odor, wet.	
					0.4	8.1			Brown fine to medium SAND, trace coarse Sand and fine round Gravel.	
	-15									
					11.8	0.1			Light brownish gray fine SAND, trace Mica and medium to coarse Sand, sulfur-like odor, wet.	
25										
					0.0	0.0			Grayish brown fine SAND, trace fine round Gravel and Mica, sulfur-like odor, wet.	
					0.4	0.0				
		6	25-30	3.8	5.1	0.0				
					0.0	0.0				
	-20									
					6.6	6.6				
30										
					3.2	1.6				
						0.0				
					1.4					
		7	30-35	3.5		0.9			Light gray fine to coarse SAND, little fine round Gravel, trace medium Gravel, wet.	
					1.8	0.0				
	-25									
					1.8	0.0				
35										
					0.0	0.0			Light gray fine to coarse SAND, trace fine round Gravel, wet.	

Grouted from 80' bgs to grade.

Grouted from 80' bgs to grade.

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million; NR = no recovery.

Analytical soil samples collected at 23-25' and 28-30' bgs.

ARCADIS Design & Consultancy for natural and built assets

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-1**

Borehole Depth: 80' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
				0.0	0.0				
	8	35-40	4.2	0.0	0.0				
-30				0.0	0.0				
40				16.7	2.3				
				0.0	0.0				
				0.1	0.0				
	9	40-45	4.5					Light brownish gray fine to coarse SAND, little fine round Gravel, trace medium round Gravel, wet. Gray SILT lens at 43' bgs.	
-35				0.1	0.0				
				0.2	0.0				
45				0.0	0.0			Light brownish gray fine SAND, trace medium to coarse Sand and fine to medium round Gravel, wet.	
				0.0	0.0				
	10	45-50	4.4	0.0	0.0			Light gray fine to coarse SAND, little fine round Gravel, trace medium Gravel, wet.	
-40				0.0	0.0				
				0.0	0.0			Trace medium round Gravel.	Grouted from 80' bgs to grade.
50				0.0	0.0				
				0.0	0.0				
	11	50-55	4.2	0.0	0.0				
				0.0	0.0			Light fine to coarse SAND, trace fine to medium round Gravel, wet.	
-45				0.0	0.0				
55				0.0	0.0			Light gray fine to coarse SAND, little fine round Gravel, trace medium round Gravel, wet.	

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million; NR = no recovery.

Analytical soil samples collected at 23-25' and 28-30' bgs.

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-1**

Borehole Depth: 80' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
				0.0	0.0				
				0.0	0.0			Light brownish gray fine to medium SAND, grading to fine Sand, trace fine to medium round Gravel, wet.	
	12	55-60	5	0.0	0.0				
-50				0.0	0.0				
60				0.0	0.0				
				0.0	0.0			Light greenish gray fine to medium SAND, trace Mica and fine to medium round Gravel, wet.	
				0.0	0.0				
	13	60-65	5	0.0	0.0				
-55				0.0	0.0			Light yellowish brown fine to coarse SAND, trace fine to coarse round Gravel, wet.	
65				0.0	0.0				
				0.0	0.0			Light greenish gray fine to coarse SAND, trace fine to medium round Gravel and Mica, wet.	
				0.0	0.0			Light greenish gray fine to medium SAND, trace coarse Sand and fine to medium round Gravel, wet.	
	14	65-70	5	0.0	0.0				
-60				0.0	0.0				
				0.0	0.0			Light greenish gray fine SAND, trace fine round Gravel and Mica.	
70				0.0	0.0			Light greenish gray fine SAND, trace medium to coarse Sand, fine to medium round Gravel and Mica.	Grouted from 80' bgs to grade.
				0.0	0.0				
	15	70-75	5	0.0	0.0			Grades to light greenish gray fine SAND, trace Mica and fine to medium round Gravel, wet.	
-65				0.0	0.0				
75				0.0	0.0			Light greenish gray fine to medium SAND, trace coarse Sand, Mica, and fine to medium round Gravel, wet.	

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Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million; NR = no recovery.

Analytical soil samples collected at 23-25' and 28-30' bgs.

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-1**

Borehole Depth: 80' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
				0.0	0.0				
	16	75-80	NR	0.0	0.0				
				0.0	0.0			Orange brown SILT and CLAY, trace fine to medium angular Gravel.	Grouted from 80' bgs to grade.
-70								Greenish gray CLAY and SILT, trace Mica, stiff to very stiff, moist.	
				0.0	0.0				
80								End of boring 80' bgs.	

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million; NR = no recovery.

Analytical soil samples collected at 23-25' and 28-30' bgs.

ARCADIS Design & Consultancy for natural and built assets

Date Start/Finish: 6/3 - 6/4/2016
Drilling Company: Summit Drilling
Driller's Name: Ninevski, Mobus, Crandall
Drilling Method: Rotary Sonic
Sampling Method: 5'x3" Rotary Sonic Sampler
Rig Type: Track-mounted Fraste Rotary Sonic

Northing: 1080899.3650
Easting: 164746.6786
Casing Elevation: NA
Surface Elevation: 9.40' AMSL
Borehole Depth: 79.5' bgs
Descriptions By: Levia Terrell

Well/Boring ID: **ASB-2**
Client: Chevron Environmental Management Company
Location: Former Gulf Oil Terminal Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
10 / 0									
5 / 5	1	0-5	3.0	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0			Dark brown fine to coarse SAND and SILT, some fine to coarse angular to round Gravel, trace red Brick, moist. [FILL]	
0 / 10	2	5-10	5.0	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0			Gray angular fine to coarse GRAVEL, little fine to coarse Sand, wet. [GROUT] Dark green SILT, trace fine to coarse Sand and fine to coarse Gravel, wet. [GROUT]	Grouted from 25' bgs to grade.
-5 / 15	3	10-15	5.0	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0				

ARCADIS Design & Consultancy for natural and built assets

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Analytical soil samples collected at 24-25' and 28-30' bgs.
Temporary well screen set at 20-25' bgs. Groundwater sample collected at 23' bgs.

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-2**

Borehole Depth: 79.5' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
				0.0	0.0				
	4	15-20	5.0	0.0	0.0				
				0.0	0.0				
-10				0.0	0.0				
20								Dark brown PEAT, sulfur-like odor, wet.	
				0.4	0.0			Gray fine to medium SAND, little Silt, trace coarse Sand, fine round Gravel and Peat, sulfur-like odor, wet.	
				13.1	2.8			Brown fine to medium SAND, trace coarse Sand and fine ground Gravel, sulfur-like odor, wet.	
	5	20-25	4.7	85.6	22.5				
				169	60.1			Brown fine SAND, trace round Gravel and Mica, sulfur-like odor, wet.	
-15				78.3	0.0				
25				0.0	0.0			Brown fine to medium SAND, trace coarse Sand, Mica, and fine to medium round Gravel, wet.	
				0.0	0.0			Grayish brown fine SAND, trace Mica and fine round Gravel, trace Silt layers between 26-27' bgs (~1mm thick).	
	6	25-30	3.8	0.0	0.0				
				4.0	0.0				
-20				11.6	0.0				
30				0.0	0.0			Grayish brown fine to medium SAND, trace coarse Sand and fine round Gravel, wet.	
				0.0	0.0			Light grayish brown fine to coarse SAND, some fine round Gravel, wet. Light gray.	
	7	30-35	3.5	0.4	0.0				
				1.2	0.0			Gray silt lenses at 34' bgs.	
-25				0.6	0.0				
35								Light gray fine to coarse SAND, trace fine to medium round Gravel, wet.	
				0.0	0.0				

Grouted from 25' bgs to grade.

Native collapse from 25-79.5' bgs.

ARCADIS Design & Consultancy for natural and built assets

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Analytical soil samples collected at 24-25' and 28-30' bgs.
Temporary well screen set at 20-25' bgs. Groundwater sample collected at 23' bgs.

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-2**

Borehole Depth: 79.5' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
				0.0	0.0				
	8	35-40	4.2	0.0	0.0			2-inch SILT lenses.	
				0.0	0.0				
-30				0.0	0.0				
40				0.0	0.0			Light gray fine to coarse SAND, little fine round Gravel, wet. Gray SILT lens at 40.5' bgs.	
				0.0	0.0				
	9	40-45	4.5	0.0	0.0			Gray SILT lens.	
				0.0	0.0			Bands of yellowish brown.	
-35				0.0	0.0			Gray SILT lens.	
45				0.0	0.0			Light gray fine to coarse SAND, some fine round multicolored GRAVEL, trace medium round Gravel, wet. Gray SILT lens at 45.5' bgs. Gray SILT lens at 49' bgs.	
				0.0	0.0				
	10	45-50	4.4	0.0	0.0				
				0.0	0.0				
-40				0.0	0.0			Light gray fine to coarse SAND, little fine round Gravel, wet.	
50				0.0	0.0				Native collapse from 25-79.5' bgs.
				0.0	0.0				
	11	50-55	4.2	0.0	0.0				
				0.0	0.0				
-45				0.0	0.0				
55				0.0	0.0			Light grayish brown fine to medium SAND, trace coarse Sand and fine to medium round Gravel, wet.	

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Analytical soil samples collected at 24-25' and 28-30' bgs.
Temporary well screen set at 20-25' bgs. Groundwater sample collected at 23' bgs.

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-2**

Borehole Depth: 79.5' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
				0.0	0.0				
	12	55-60	5.0	0.0	0.0			Light grayish brown fine SAND, wet.	
				0.0	0.0				
-50				0.0	0.0				
60									
				0.0	0.0			Light grayish brown fine SAND, trace fine to medium round Gravel, wet.	
				0.0	0.0				
	13	60-65	5.0	0.0	0.0			Light grayish brown fine to medium SAND, trace coarse Sand and fine to medium round Gravel, wet.	
				0.0	0.0				
-55				0.0	0.0				
65									
				0.0	0.0			Light gray fine SAND, trace Mica, wet.	
				0.0	0.0				
	14	65-70	5.0	0.0	0.0				
				0.0	0.0				
-60				0.0	0.0			Light grayish brown SILT, wet. Dark gray to black lines.	
70									Native collapse from 25-79.5' bgs.
				0.0	0.0			Light grayish brown fine to medium SAND, trace Mica and fine to medium round Gravel, wet.	
				0.0	0.0				
	15	70-75	5.0	0.0	0.0				
				0.0	0.0			Light grayish brown fine SAND, wet.	
-65				0.0	0.0				
75									
				0.0	0.0				

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Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Analytical soil samples collected at 24-25' and 28-30' bgs.
Temporary well screen set at 20-25' bgs. Groundwater sample collected at 23' bgs.

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-2**

Borehole Depth: 79.5' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
-70				0.0	0.0			Orange brown SILT and CLAY, very stiff, moist.	
								Dark greenish gray CLAY and SILT.	
	16	75-80		0.0	0.0				Native collapse from 25-79.5' bgs.
				0.0	0.0				
80								End of boring at 79.5' bgs.	

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Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Analytical soil samples collected at 24-25' and 28-30' bgs.
Temporary well screen set at 20-25' bgs. Groundwater sample collected at 23' bgs.

Date Start/Finish: 6/8 - 6/9/2016
Drilling Company: Summit Drilling
Driller's Name: Ninevski, Mobus, Crandall
Drilling Method: Rotary Sonic
Sampling Method: 5'x3" Rotary Sonic Sampler
Rig Type: Track-mounted Fraste Rotary Sonic

Northing: 1080935.2180
Easting: 164765.1062
Casing Elevation: NA
Surface Elevation: 9.40' AMSL
Borehole Depth: 80' bgs
Descriptions By: Levia Terrell

Well/Boring ID: **ASB-3**
Client: Chevron Environmental Management Company
Location: Former Gulf Oil Terminal Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
10 / 0								Dark brown SILT and fine SAND, trace angular to round Gravel, medium to coarse Sand, and red Brick, moist. [FILL]	
				0.0	0.0				
				0.1	0.0				
	1	0-5	4.4	0.2	0.0				
				0.2	0.0				
5 / -5				0.1	0.0				
5								Grayish brown fine to coarse SAND, little fine to coarse round angular Gravel, trace Silt, moist. [FILL]	
				0.0	0.0			Gray fine to coarse angular GRAVEL, trace fine to coarse Sand, moist. [Fill/GROUT]	
				0.0	0.0				
	2	5-10	5.0	0.0	0.0			Green SILT, moist. [GROUT]	
				0.0	0.0				
0 / -10				0.0	0.0				
10								Green SILT, trace fine to coarse Sand and fine to medium round Gravel, wet. [GROUT]	Grouted from 32' bgs to grade.
				0.0	0.0				
				0.0	0.0				
	3	10-15	5.0	0.0	0.0				
				0.0	0.0				
-5 / -15				0.0	0.0				
15				0.0	0.0			Gray CLAY, sulfur-like odor. (15.4-15.5' bgs)	

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million; NR = no recovery.

Northern and easting coordinates and ground surface elevation data are approximate.

Analytical soil samples collected at 20.5-21.5' and 28-30' bgs.
Temporary well screen set at 27-32' bgs. Groundwater sample collected at 27' bgs

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-3**

Borehole Depth: 80' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
					0.0	0.0				
		4	15-20	5.0	0.0	0.0				Grouted from 32' bgs to grade.
					0.0	0.0				
	-10				0.0	0.0			Gray CLAY, sulfur-like odor, wet.	
20					0.0	0.0			Dark brown PEAT, little fine to medium SAND, trace fine round Gravel, sulfur-like odor, wet.	
					2.6	0.9			Brownish gray fine to medium SAND, trace fine round Gravel, sulfur-like odor, wet.	
		5	20-25	3.4	2.1	0.0				
					0.0	0.0				
	-15				0.0	0.0				
25					0.0	0.0			Gray fine to medium SAND, trace Mica, wet.	
					0.0	0.0				
		6	25-30	4.4	0.3	0.0			Brown fine to medium SAND, trace Mica, wet.	
					1.1	0.0				
	-20				4.6	0.7				
30					0.0	0.0			Gray fine to coarse SAND, little fine round Gravel, trace medium round Gravel, wet.	
					0.0	0.0				
		7	30-35	4.5	0.0	0.0				
					0.0	0.0				Native collapse from 32-80' bgs.
	-25				2.8	0.0			Gray fine to medium SAND, trace coarse Sand, and fine to medium round Gravel, wet.	
35					0.0	0.0				

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Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million; NR = no recovery.

Northern and easting coordinates and ground surface elevation data are approximate.

Analytical soil samples collected at 20.5-21.5' and 28-30' bgs.
Temporary well screen set at 27-32' bgs. Groundwater sample collected at 27' bgs

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-3**

Borehole Depth: 80' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
				0.0	0.0				
	8	35-40	3.2	0.0	0.0				
				0.0	0.0				
-30				0.0	2.3				
40									
				0.0	0.0				
				0.0	0.0			Gray CLAY layer, soft, wet.	
	9	40-45	4.0					Light gray fine to coarse SAND, little fine round Gravel, trace round medium to coarse Gravel, wet.	
				0.0	0.0				
-35				0.7	0.0				
45									
				0.0	0.0				
				0.0	0.0			Yellowish fine round GRAVEL, trace fine to coarse Sand, wet.	
	10	45-50	4.2	0.0	0.0			Gray SILT later.	
				0.0	0.0			Light gray fine to coarse SAND, little fine round Gravel, trace round medium to coarse Gravel, wet.	
-40				0.0	0.0				
50									Native collapse from 32-80' bgs.
				0.0	0.0			Gray fine round GRAVEL, some fine to coarse Sand, trace medium round Gravel, wet.	
				0.0	0.0				
	11	50-55	4.4	0.0	0.0			Brownish gray fine to coarse SAND, little fine round Gravel, trace medium round Gravel, wet.	
				0.0	0.0				
-45				0.0	0.0				
55									
				0.0	0.0			Light brownish gray fine round GRAVEL, little fine to coarse Sand and medium round Gravel, wet.	

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Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million; NR = no recovery.

Northern and easting coordinates and ground surface elevation data are approximate.

Analytical soil samples collected at 20.5-21.5' and 28-30' bgs.
Temporary well screen set at 27-32' bgs. Groundwater sample collected at 27' bgs

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-3**

Borehole Depth: 80' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
				0.0	0.0				
	12	55-60	5.0	0.0	0.0			Light brownish gray fine SAND, trace fine to coarse round Gravel, wet.	
				0.0	0.0				
-50				0.0	0.0				
60									
				0.0	0.0			Light brownish gray fine to medium SAND, trace Mica and fine round Gravel.	
	13	60-65	5.0	0.0	0.0				
				0.0	0.0			Light grayish brown fine to coarse SAND, trace fine to medium round Gravel and Mica, wet.	
-55				0.0	0.0				
65				0.0	0.0			Light greenish gray fine to medium SAND, trace fine to medium round Gravel and Mica, wet.	
				0.0	0.0				
	14	65-70	4.5	0.0	0.0				
				0.0	0.0				
-60				0.0	0.0				
70				0.0	0.0				Native collapse from 32-80' bgs.
				0.0	0.0				
	15	70-75	4.8	0.0	0.0				
				0.0	0.0			Light greenish gray fine SAND, trace Mica, wet.	
-65				0.0	0.0				
75								Orange brown SILT, CLAY, and angular COBBLE.	
				0.0	0.0			Greenish gray CLAY and SILT, very stiff.	

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Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million; NR = no recovery.

Northern and easting coordinates and ground surface elevation data are approximate.

Analytical soil samples collected at 20.5-21.5' and 28-30' bgs.
Temporary well screen set at 27-32' bgs. Groundwater sample collected at 27' bgs

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-3**

Borehole Depth: 80' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
				0.0	0.0				
	16	75-80	5.0	0.0	0.0				Grouted from 32' bgs to grade.
				0.0	0.0				
-70				0.0	0.0				
80								End of boring 80' bgs.	

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Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million; NR = no recovery.

Northern and easting coordinates and ground surface elevation data are approximate.

Analytical soil samples collected at 20.5-21.5' and 28-30' bgs.
Temporary well screen set at 27-32' bgs. Groundwater sample collected at 27' bgs

Date Start/Finish: 6/6 - 6/7/2016
Drilling Company: Summit Drilling
Driller's Name: Ninevski, Mobus, Crandall
Drilling Method: Rotary Sonic
Sampling Method: 5'x3" Rotary Sonic Sampler
Rig Type: Track-mounted Fraste Rotary Sonic

Northing: 1080927.0360
Easting: 164752.5337
Casing Elevation: NA
Surface Elevation: 9.40' AMSL
Borehole Depth: 80' bgs
Descriptions By: Levia Terrell

Well/Boring ID: **ASB-4**
Client: Chevron Environmental Management Company
Location: Former Gulf Oil Terminal Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description
10								
0								
	1	0-5	3	0.0	0.0			Dark brown fine to medium SAND and SILT, little fine to coarse angular to round Gravel, trace coarse Sand, moist. [FILL]
				0.0	0.0			
				0.0	0.0			
5				0.0	0.0			
5				0.0	0.0			
	2	5-10	5	0.3	0.0			Gray fine to coarse angular GRAVEL, trace fine to coarse SAND, moist. [GROUT]
				0.4	0.0			
0				0.3	0.0			Green SILT, moist. [GROUT]
				0.3	0.0			
10				0.4	0.0			Trace fine to coarse Sand and fine round Gravel, moist to wet.
				0.3	0.0			
				0.3	0.0			
	3	10-15	5	0.4	0.0			
				0.4	0.0			
-5				0.4	0.0			
15				0.3	0.0			

Well/Boring Construction: Grouted from 32' bgs to grade.

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million; NR = no recovery.

Northern and easting coordinates and ground surface elevation data are approximate.

Analytical soil samples collected at 24-25' and 28-30' bgs.
Temporary well screen set at 27-32' bgs. Groundwater sample collected at 27' bgs.

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-4**

Borehole Depth: 80' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
					0.3	0.0				
		4	15-20	5	0.3	0.0				Grouted from 32' bgs to grade.
					0.4	0.0				
	-10				0.4	0.0				
20					0.4	0.0				
					0.5	0.0				
		5	20-25	4.7	0.7	0.0				
					0.6	0.0				
	-15				0.5	0.0			Brown fine to medium SAND, wet.	
25									Grayish brown fine SAND, trace Mica and fine round Gravel, wet.	
					0.3	0.0			Grayish brown fine SAND, trace Mica and fine to medium round Gravel, wet.	
					0.6	0.0				
		6	25-30	3.8	1.1	0.0				
					4.2	0.0				
	-20				20.9	0.0				
30					0.0	0.0			Gray to light gray fine to coarse SAND, little fine round Gravel, wet.	
					0.1	0.0				
					0.3	0.0				
		7	30-35	3.5	0.4	0.0				
					0.5	0.0				
	-25				0.2	0.0				Native collapse from 32-80' bgs.
35									Gray SILT lens, about 3-inch long by 0.5-inch thick.	
						0.0			Light gray fine to coarse SAND, trace fine to medium round Gravel, wet.	

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Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million; NR = no recovery.

Northern and easting coordinates and ground surface elevation data are approximate.

Analytical soil samples collected at 24-25' and 28-30' bgs.
Temporary well screen set at 27-32' bgs. Groundwater sample collected at 27' bgs.

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-4**

Borehole Depth: 80' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
				0.0	0.0				
	8	35-40	4.2	0.0	0.0				
				0.0	0.0				
-30				0.0	0.0			Light gray fine to medium SAND, trace fine to medium round Gravel, wet.	
40				0.0	0.0				
				0.0	0.0				
	9	40-45	4.5	0.0	0.0			Light gray fine to coarse SAND, little to trace fine round Gravel, wet. 2-inch thick x 2-inch wide gray SILT lens at 42.5' and 43' bgs.	
				0.0	0.0				
-35				0.0	0.0				
45				0.0	0.0			Yellowish gray fine to coarse SAND, little to trace fine round Gravel, wet. Gray SILT lens at 45.6' bgs.	
				0.0	0.0			Light gray fine to coarse SAND, little fine round Gravel, trace medium to coarse round Gravel, wet.	
	10	45-50	4.4	0.0	0.0				
				0.0	0.0				
-40				0.0	0.0				
50				0.0	0.0				Native collapse from 32-80' bgs.
				0.0	0.0				
	11	50-55	4.2	0.0	0.0				
				0.0	0.0				
-45				0.0	0.0			Yellowish gray.	
55				0.0	0.0			Light gray fine to coarse SAND, little fine round Gravel, trace medium to coarse round Gravel, wet.	

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million; NR = no recovery.

Northern and easting coordinates and ground surface elevation data are approximate.

Analytical soil samples collected at 24-25' and 28-30' bgs.
Temporary well screen set at 27-32' bgs. Groundwater sample collected at 27' bgs.

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-4**

Borehole Depth: 80' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
				0.0	0.0				
				0.0	0.0			Light gray fine SAND, trace fine to medium round Gravel, wet.	
	12	55-60	5	0.0	0.0				
				0.0	0.0				
-50				0.0	0.0				
60				0.0	0.0			Light brownish gray, trace coarse Gravel.	
				0.0	0.0				
	13	60-65	5	0.0	0.0			Gray fine to medium SAND, trace coarse Sand, Mica, and fine to medium round Gravel, wet.	
				0.0	0.0				
-55				0.0	0.0				
65				0.0	0.0			Light brownish gray fine to medium SAND, trace coarse Sand and fine to medium round Gravel, wet.	
				0.0	0.0				
	14	65-70	5	0.0	0.0			Light brownish gray fine SAND, trace fine to medium and Gravel, wet.	
				0.0	0.0			Little Silt.	
-60				0.0	0.0				
70				0.0	0.0			Light greenish gray fine SAND, trace medium to coarse Sand, Mica, and fine to medium round Gravel, wet.	Native collapse from 32-80' bgs.
				0.0	0.0				
	15	70-75	5	0.0	0.0				
				0.0	0.0				
-65				0.0	0.0				
75				0.0	0.0			No recovery.	

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million; NR = no recovery.

Northern and easting coordinates and ground surface elevation data are approximate.

Analytical soil samples collected at 24-25' and 28-30' bgs.
Temporary well screen set at 27-32' bgs. Groundwater sample collected at 27' bgs.

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-4**

Borehole Depth: 80' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
				0.0	0.0				
	16	75-80	NR	0.0	0.0				Native collapse from 32-80' bgs.
				0.0	0.0				
-70				0.0	0.0				
80								End of boring at 80' bgs.	

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Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million; NR = no recovery.

Northern and easting coordinates and ground surface elevation data are approximate.

Analytical soil samples collected at 24-25' and 28-30' bgs.
Temporary well screen set at 27-32' bgs. Groundwater sample collected at 27' bgs.

Date Start/Finish: 6/2 - 6/3/2016
Drilling Company: Summit Drilling
Driller's Name: Ninevski, Mobus, Crandall
Drilling Method: Rotary Sonic
Sampling Method: 5'x3" Rotary Sonic Sampler
Rig Type: Track-mounted Fraste Rotary Sonic

Northing: 1080916.1280
Easting: 164735.7703
Casing Elevation: NA
Surface Elevation: 9.40' AMSL
Borehole Depth: 80' bgs
Descriptions By: Levia Terrell

Well/Boring ID: **ASB-5**
Client: Chevron Environmental Management Company
Location: Former Gulf Oil Terminal Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
10 / 0									
0 / 10	1	0-5	5.0	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0			Brown fine to medium SAND and SILT, little fine to coarse angular to round Gravel and coarse Sand, trace red Brick, moist.	
5 / 5	2	5-10	5.0	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0			Gray fine to medium angular GRAVEL, trace fine to coarse Sand, wet. [GROUT] Green SILT, trace fine to coarse Sand and fine to coarse round Gravel, wet.	Grouted from 25' bgs to grade.
0 / 10	3	10-15	5.0	0.0 0.0 0.9 0.0 0.3	0.0 0.0 0.0 0.0 0.0				
-5 / 15				0.0	0.0				

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Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Analytical soil samples collected at 20.5-21' and 28-30' bgs.
Temporary well screen set at 20-25' bgs. Groundwater sample collected at 23' bgs.

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-5**

Borehole Depth: 80' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
					1.8	0.0				
		4	15-20	5.0	1.4	0.0				
					0.8	0.0				
	-10				0.2	0.0			Brownish gray CLAY, trace Wood and Leaf.	
20										
					1.37	64			Brown PEAT, little fine Sand, sulfur-like odor, wet.	
						0.0			Brown PEAT and fine to medium SAND, trace fine round white Gravel, sulfur-like odor, wet.	
					107					
		5	20-25	4.5		13			Grayish brown fine to medium SAND, trace Mica, wet.	
					85	50				
	-15				37	29				
25										
					0.6	0.0				
					1.1	0.0			Grayish brown fine SAND, trace fine round white Gravel and Mica, wet.	
		6	25-30	4.6	2.5	0.0				
					0.6	0.0				
	-20				7.3	0.6				
30										Native collapse from 25-80' bgs.
					0.0	0.0			Light grayish brown fine to coarse SAND, little to trace round fine multi-colored Gravel, wet.	
					0.0	0.0				
		7	30-35	4.4	0.0	0.0				
					0.0	0.0			Light gray fine to coarse SAND, trace round fine Gravel, wet.	
	-25				0.0	0.0				
35										
					0.0	0.0			Light gray fine to medium SAND, trace coarse SAND and round white fine Gravel, wet. Gray SILT lens at 36' bgs.	

Grouted from 25' bgs to grade.

ARCADIS Design & Consultancy for natural and built assets

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Analytical soil samples collected at 20.5-21' and 28-30' bgs.
Temporary well screen set at 20-25' bgs. Groundwater sample collected at 23' bgs.

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-5**

Borehole Depth: 80' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
				0.0	0.0				
	8	35-40	4.0	0.0	0.0				
				0.0	0.0				
-30				0.0	0.0				
40				0.0	0.0				
				0.0	0.0				
	9	40-45	4.0	0.6	1.2				
				0.0	0.3			Light grayish brown fine SAND, trace medium to coarse Sand and fine round Gravel, wet. Gray SILT seam (~2mm thick) at 43.2' bgs.	
-35				0.0	0.0				
45				0.0	0.0			Light gray fine to coarse SAND, trace round fine to medium Gravel, wet.	
				0.0	0.0				
	10	45-50	4.3	0.0	0.0			Trace yellow brown Silt at 47.5.	
				0.0	0.0				
-40				0.0	0.0				
50				0.0	0.0			Light grayish brown multicolored fine to coarse SAND, little fine round Gravel, trace medium round Gravel, wet. Gray SILT lenses ~0.05' thick at 51', 52', 52.5', and 54' bgs.	Native collapse from 25-80' bgs.
				0.0	0.0				
	11	50-55	4.1	0.0	0.0				
				0.0	0.0				
-45				0.0	0.0			Light grayish brown fine to coarse SAND, trace fine to medium round Gravel, wet.	
55				0.0	0.0			Light grayish brown fine to coarse SAND, trace fine to medium and Gravel, wet.	

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Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Analytical soil samples collected at 20.5-21' and 28-30' bgs.
Temporary well screen set at 20-25' bgs. Groundwater sample collected at 23' bgs.

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-5**

Borehole Depth: 80' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
				0.0	0.0			Light gray fine SAND, trace fine to medium, wet. Grayish brown between 56.6-56.8' bgs.	
	12	55-60	4.0	0.0	0.0				
				0.0	0.0				
-50				0.0	0.0				
60				0.0	0.0				
				0.0	0.0			Light gray brown fine to medium SAND, trace coarse Sand and fine to coarse round Gravel, wet.	
	13	60-65	4.3	0.0	0.0			Light gray fine SAND, trace medium to coarse and fine to medium round Gravel, wet.	
				0.0	0.0				
-55				0.0	0.0				
65				0.0	0.0			Light gray fine SAND, grading to fine to medium SAND, trace fine to medium round Gravel, ewt.	
				0.0	0.0				
	14	65-70	5.0	0.0	0.0			Gray SILT, some fine Sand, trace Mica, wet.	
				0.0	0.0			Light greenish gray fine SAND, trace fine to medium round Gravel, trace Clay sphere at 69.3' bgs ~4mm diameters, trace Mica, wet.	
-60				0.0	0.0				
70				0.0	0.0			Light greenish gray fine SAND, trace medium to coarse SAND and Mica. Light green Clay lenses at 70-70.1' bgs, wet.	Native collapse from 25-80' bgs.
				0.0	0.0				
	15	70-75	5.0	0.0	0.0				
				0.0	0.0				
-65				0.0	0.0				
75				0.0	0.0			Dark grayish green CLAY and SILT, trace Mica, very stiff, yellowish brown first 0.05' of sample, moist.	

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Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Analytical soil samples collected at 20.5-21' and 28-30' bgs.
Temporary well screen set at 20-25' bgs. Groundwater sample collected at 23' bgs.

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-5**

Borehole Depth: 80' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
				0.0	0.0				
	16	75-80		0.0	0.0				Native collapse from 25-80' bgs.
				0.0	0.0				
-70				0.0	0.0				
80								End of boring at 80' bgs.	

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Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Analytical soil samples collected at 20.5-21' and 28-30' bgs.
Temporary well screen set at 20-25' bgs. Groundwater sample collected at 23' bgs.

Date Start/Finish: 6/13 - 6/14/2016
Drilling Company: Summit Drilling
Driller's Name: Ninevski, Mobus, Crandall
Drilling Method: Rotary Sonic
Sampling Method: 5'x3" Rotary Sonic Sampler
Rig Type: Track-mounted Fraste Rotary Sonic

Northing: 1080889.8500
Easting: 164709.4700
Casing Elevation: NA
Surface Elevation: 9.40' AMSL
Borehole Depth: 75' bgs
Descriptions By: Levia Terrell

Well/Boring ID: **ASB-6**
Client: Chevron Environmental Management Company
Location: Former Gulf Oil Terminal Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
10									
0									
	1	0-8	NA	0.0	0.0			Brown fine to medium SAND, little fine to coarse subangular to angular Gravel, trace Silt, moist.	
				0.0	0.0				
				0.0	0.0				
				0.0	0.0				
5				0.0	0.0				
5				0.0	0.0			Gray fine to coarse GRAVEL, little fine to coarse Sand, trace Silt, wet, hard.	
				0.0	0.0				
				0.0	0.0			Dark green SILT, firm, moist to wet.	
0				0.0	0.0				
10				0.0	0.0			Trace fine to coarse Sand.	Converted to monitoring well. See well construction for AMW-14-VD.
	2	8-15	4.0	0.0	0.0				
				0.0	0.0				
-5				0.0	0.0				
15				0.0	0.0				
				0.3	0.3				

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Soil samples collected at 26-28' and 36-38' bgs.

Boring was converted to monitoring well AMW-14-VD.

ARCADIS Design & Consultancy for natural and built assets

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-6**

Borehole Depth: 75' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
					0.5	0.5				
		3	15-20	4.7	0.3	0.3				
					0.7	0.7				
	-10				0.7	0.7				
20									Gray CLAY, soft, sulfur-like odor, wet.	
					0.0	0.0			Brown PEAT, soft, sulfur-like odor, wet.	
					0.0	0.0			Dark brown fine SAND, trace fine to medium round white Gravel, trace Mica, sulfur-like odor, wet.	
		4	20-25	4.0	0.7	0.7			Yellowish-brown medium SAND, trace fine to medium round Gravel and Mica, wet.	
					0.0	0.0			Light gray fine SAND, trace fine white Gravel and Mica, wet.	
	-15				0.0	0.0				
25									Light gray fine to medium SAND, trace Mica.	
					0.0	0.0				
					0.2	0.2			Brown fine to medium SAND, trace fine to medium white round Gravel and Mica, wet.	
									Brown fine SAND, trace Silt bands, wet.	
		5	25-30	4.0	0.0	0.0			Grayish brown fine SAND, trace Mica, wet.	
					0.7	0.7				
	-20				0.0	0.0			Grayish brown fine to medium SAND, trace white round fine Gravel and Mica, wet.	
30									Grayish brown fine to coarse SAND, little to trace fine round white Gravel, wet.	Converted to monitoring well. See well construction for AMW-14-VD.
					0.0	0.0				
					0.0	0.0				
		6	30-35	4.2						
					0.0	0.0				
	-25				0.0	0.0				
35										
					0.0	0.0			Light gray fine to coarse SAND, trace fine to coarse round white Gravel, wet. Lens of gray SILT ~2mm thick x 5 cm long at 36' bgs.	

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Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Soil samples collected at 26-28' and 36-38' bgs.

Boring was converted to monitoring well AMW-14-VD.

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-6**

Borehole Depth: 75' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
				0.0	0.0			Light brown fine SAND, trace medium to coarse Sand, trace white fine round Gravel, wet. Gray SILT layer ~0.3' thick at 37.5 bgs.	
	7	35-40	4.5	0.0	0.0				
				0.1	0.1				
-30				0.0	0.0				
40				0.1	0.0			Light gray fine to coarse SAND, trace fine to coarse round multi-colored Gravel, wet. Gray SILT lens ~4 mm thick x 4mm wide at 42.5' bgs.	
				0.1	0.0				
	8	40-45	4.5	0.1	0.0				
				0.0	0.0				
-35				0.0	0.0				
45				0.1	0.2			Light gray fine to coarse SAND, trace fine to medium round multi-colored Gravel and Wood, wet. Gray SILT layer ~1 in. thick at 45.5' bgs.	
				0.1	0.2				
	9	45-50	4.4	0.1	0.2				
-40				0.1	0.4				
50				0.0	0.2			Light gray to multicolored fine to coarse SAND, trace fine to medium round Gravel, wet.	Converted to monitoring well. See well construction for AMW-14-VD.
				0.0	0.1				
	10	50-55	4.5	0.0	0.0				
				0.0	0.0				
-45				0.0	0.1				
55									

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Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Soil samples collected at 26-28' and 36-38' bgs.

Boring was converted to monitoring well AMW-14-VD.

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-6**

Borehole Depth: 75' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
					0.0	0.0				
					0.0	0.0				
		11	55-60	4.8					Light gray fine to medium SAND, trace fine round Gravel, and coarse Sand, wet.	
					0.0	0.0				
	-50				0.0	0.2				
60										
					0.0	0.2				
					0.0	0.0				
		12	60-65	5.0	0.0	0.0				
					0.0	0.0				
	-55				0.0	0.0				
65										
					0.0	0.0				
					0.0	0.0				
		13	65-70	5.0	0.0	0.0				
					0.0	0.0			Light greenish gray fine SAND.	
									Gray SILT, trace fine to medium round Gravel, wet.	
	-60				0.0	0.0			Light gray fine SAND, trace round fine to medium Gravel, light green SILT lens around 69' bgs, 0.05' thick, wet.	
70										Converted to monitoring well. See well construction for AMW-14-VD.
					0.0	0.0			Light gray fine SAND, trace fine to medium round Gravel and Mica, wet.	
									Reddish brown CLAY and SILT, trace angular Cobble, moist.	
					0.0	0.0				
		14	70-75	5.0	0.0	0.0			Dark grayish green CLAY and SILT, trace Mica, very stiff, moist.	
					0.0	0.0				
	-65				0.0	0.0				
75										
									End of boring at 75' bgs.	

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Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Soil samples collected at 26-28' and 36-38' bgs.

Boring was converted to monitoring well AMW-14-VD.

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-6**

Borehole Depth: 75' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
-70 80									

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Soil samples collected at 26-28' and 36-38' bgs.

Boring was converted to monitoring well AMW-14-VD.

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Date Start/Finish: 6/1 - 6/2/2016
Drilling Company: Summit Drilling
Driller's Name: Ninevski, Mobus, Crandall
Drilling Method: Rotary Sonic
Sampling Method: 5'x3" Rotary Sonic Sampler
Rig Type: Track-mounted Fraste Rotary Sonic

Northing: 1080937.0820
Easting: 164722.1350
Casing Elevation: NA
Surface Elevation: 9.40' AMSL
Borehole Depth: 75' bgs
Descriptions By: Levia Terrell

Well/Boring ID: **ASB-7**
Client: Chevron Environmental Management Company
Location: Former Gulf Oil Terminal Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
10 / 0	1	0-5	4.3	0.0	0.0			Brown fine to medium SAND, little fine to coarse subangular to angular Gravel, trace Silt, moist.	
				0.0	0.0				
				0.0	0.0				
				0.0	0.0				
5 / -5				0.0	0.0				
	2	5-10	5.0	0.0	0.0			Gray fine to coarse GRAVEL, little fine to coarse Sand, trace Silt, wet, hard. [GROUT/SLURRY]	
				0.0	0.0				
				0.0	0.0				
				0.0	0.0			Dark green SILT, firm, moist to wet. [GROUT - SLURRY]	
0 / -10				0.0	0.0				
				0.0	0.0			Trace fine to coarse Sand.	Grouted from 25' bgs to grade.
10 / -15	3	10-15	5.0	0.0	0.0				
				0.0	0.0				
				0.0	0.0				
				0.8	0.0				
15 / -20				0.0	0.0				

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Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Temporary well screen set at 20-25' bgs. Groundwater sample collected at 23' bgs.

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-7**

Borehole Depth: 75' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
					0.0	0.0				Grouted from 25' bgs to grade.
		4	15-20	5.0	0.0	0.0				
	-10				0.0	0.0				
20									Gray CLAY, soft, sulfur-like odor, wet.	
					20.7	0.0			Brown PEAT, soft, sulfur-like odor, wet.	
						0.0			Dark brown fine SAND, trace fine to medium round white Gravel, trace Mica, sulfur-like odor, wet.	
					6.7					
		5	20-25	5.0		0.0			Yellowish-brown medium SAND, trace fine to medium round Gravel and Mica, wet.	
					5.5	0.0			Light gray fine SAND, trace fine white Gravel and Mica, wet.	
	-15				5.6	0.0				
25					0.0	0.0			Light gray fine to medium SAND, trace Mica.	
					0.7	0.2			Brown fine to medium SAND, trace fine to medium white round Gravel and Mica, wet.	
									Brown fine SAND, trace Silt bands, wet.	
		6	25-30	5.0	0.1	0.3			Grayish brown fine SAND, trace Mica, wet.	
					1.7	0.3				
	-20				14.7	0.5			Grayish brown fine to medium SAND, trace white round fine Gravel and Mica, wet.	Native collapse from 25-75' bgs.
30									Grayish brown fine to coarse SAND, little to trace fine round white Gravel, wet.	
					0.0	0.0				
						0.0				
		7	30-35	4.5	0.0	0.0				
	-25				0.0	0.0				
35									Light gray fine to coarse SAND, trace fine to coarse round white Gravel, wet. Lens of gray SILT ~2mm thick x 5 cm long at 36' bgs.	
						0.0				

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Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Temporary well screen set at 20-25' bgs. Groundwater sample collected at 23' bgs.

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-7**

Borehole Depth: 75' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
				0.6	0.0			Light brown fine SAND, trace medium to coarse Sand, trace white fine round Gravel, wet. Gray SILT layer ~0.3' thick at 37.5 bgs.	
	8	35-40	4.0	0.1	0.0				
-30				12.7	0.0				
40				17.6	0.0				
				0.0	0.0			Light gray fine to coarse SAND, trace fine to coarse round multi-colored Gravel, wet. Gray SILT lens ~4 mm thick x 4mm wide at 42.5' bgs.	
	9	40-45	4.5	0.0	0.0				
-35				0.0	0.0				
45				0.0	0.0				
				0.1	0.0			Light gray fine to coarse SAND, trace fine to medium round multi-colored Gravel and Wood, wet. Gray SILT layer ~1 in. thick at 45.5' bgs.	
	10	45-50	3.0	0.5	0.0				
-40				0.4	0.0				
50				0.1	0.0				Native collapse from 25-75' bgs.
				0.0	0.0			Light gray to multicolored fine to coarse SAND, trace fine to medium round Gravel, wet.	
	11	50-55	4.5	0.0	0.0				
-45				0.0	0.0				
55				0.0	0.0				

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Temporary well screen set at 20-25' bgs. Groundwater sample collected at 23' bgs.

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-7**

Borehole Depth: 75' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
					0.0	0.0				
					0.0	0.0				
		12	55-60	4.6	0.0	0.0			Light gray fine to medium SAND, trace fine round Gravel, and coarse Sand, wet.	
	-50				0.0	0.0				
60					0.0	0.0				
		13	60-65	5.0	0.0	0.0				
					0.0	0.0				
	-55				0.0	0.0				
65					0.0	0.0				
		14	65-70	5.0	0.0	0.0			Light greenish gray fine SAND.	
					0.0	0.0			Gray SILT, trace fine to medium round Gravel, wet.	
	-60				0.0	0.0			Light gray fine SAND, trace round fine to medium Gravel, light green SILT lens around 69' bgs, 0.05' thick, wet.	
70					0.0	0.0			Light gray fine SAND, trace fine to medium round Gravel and Mica, wet.	Native collapse from 25-75' bgs.
					0.0	0.0			Reddish brown CLAY and SILT, trace angular Cobble, moist.	
		15	70-75	5.0	0.0	0.0			Dark grayish green CLAY and SILT, trace Mica, very stiff, moist.	
	-65				0.0	0.0				
75									End of boring at 75' bgs.	

ARCADIS Design & Consultancy for natural and built assets

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Temporary well screen set at 20-25' bgs. Groundwater sample collected at 23' bgs.

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-7**

Borehole Depth: 75' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
-70 80									

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Temporary well screen set at 20-25' bgs. Groundwater sample collected at 23' bgs.

ARCADIS Design & Consultancy for natural and built assets

Date Start/Finish: 6/14 - 6/15/2016
Drilling Company: Summit Drilling
Driller's Name: Ninevski, Mobus, Crandall
Drilling Method: Rotary Sonic
Sampling Method: 5'x3" Rotary Sonic Sampler
Rig Type: Track-mounted Fraste Rotary Sonic

Northing: 1080863.9800
Easting: 164758.7100
Casing Elevation: NA
Surface Elevation: 9.40' AMSL
Borehole Depth: 75' bgs
Descriptions By: Levia Terrell

Well/Boring ID: **ASB-8**
Client: Chevron Environmental Management Company
Location: Former Gulf Oil Terminal Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
10									
0								Hand cleared to 5' bgs. No recovery.	
	1	0-5	NA	NA	NA				
5								Brown fine to coarse SAND, some fine to coarse round to angular GRAVEL, trace Silt and red Brick, wet. [FILL]	
				0.0	0.1				
				0.0	0.1			Gray fine to coarse angular Gravel and fine to coarse SAND, moist. [CONCRETE].	
		5-10	5.0	0.0	0.1			Brown fine to medium SAND, little fine to coarse round to angular Gravel and Silt, wet.	
0				0.0	0.1				
10				0.0	0.1				
				0.6	0.0			Gray fine to coarse SAND, little fine round Gravel, trace medium round Gravel, wet.	Converted to monitoring well. See well construction for AMW-13-VD.
	2			2.4	0.0			Dark gray CLAY, little Grass, wet. [MEADOW MAT]	
		10-15	4.3	0.4	0.0				
				4.5	0.0				
-5				5.2	2.4				
15								Black CLAY and SILT, trace Shell Fragments.	
				3.4	1.0				

ARCADIS Design & Consultancy for natural and built assets

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA =not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Soil samples collected at 20-21' and 26-28', and 36-38' bgs.

Boring was converted to monitoring well AMW-13-VD.

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-8**

Borehole Depth: 75' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
					12.5	1.1			Dark gray CLAY, little Grass, wet. [MEADOW MAT]	
		3	15-20	5.0	12.1	1.2				
					3.6	3.8				
	-10				4.1	6.2				
20					11.2	2.5			Gray fine to coarse SAND, some to little CLAY, trace Organics and fine to medium round Gravel, wet.	
					11.4	12.2			Brown fine SAND, trace Mica and fine to medium round Gravel, color grading to grayish brown, wet.	
		4	20-25	5.0	1.5	1.2				
					1.9	1.4				
	-15				6.5	0.6				
25					0.1	0.0			Grayish brown fine SAND, trace Mica and fine to medium round Gravel, wet.	
					0.1	0.0				
		5	25-30	4.5	0.1	0.0				
					0.4	0.0				
	-20				0.7	0.0				
30					0.1	0.0				Converted to monitoring well. See well construction for AMW-13-VD.
					0.2				Light brownish gray fine to coarse SAND, little fine round Gravel, trace medium Gravel, wet.	
						0.0			Light gray.	
		6	30-35	4.0	0.1					
					0.3	0.0				
	-25				0.4	0.0				
35					0.1	0.0			Light gray fine to coarse SAND, trace fine to medium round Gravel, wet.	

ARCADIS Design & Consultancy for natural and built assets

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA =not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Soil samples collected at 20-21' and 26-28', and 36-38' bgs.

Boring was converted to monitoring well AMW-13-VD.

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-8**

Borehole Depth: 75' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
				0.1	0.0				
	7	35-40	4.5	0.1	0.0				
				0.1	0.0				
-30				0.1	0.0				
40				0.1	0.0			Light gray fine to medium SAND, trace fine to medium round Gravel, wet.	
				0.1	0.0				
	8	40-45	4.5	0.1	0.0				
				0.0	0.0				
-35				0.0	0.0			Light gray fine to coarse SAND, little fine to medium round Gravel, wet.	
45				0.1	0.0				
				0.0	0.0				
	9	45-50	4.5						
				0.0	0.0				
-40				0.0	0.0				
50				0.0	0.0			SILT lens at 50.5' bgs and 54.5' bgs, trace fine to medium Gravel	Converted to monitoring well. See well construction for AMW-13-VD.
				0.0	0.0				
	10	50-55	3.8						
				0.0	0.0				
-45				0.0	0.0			Trace fine to medium Gravel.	
55								Light gray fine to medium SAND, trace fine to medium round Gravel, coarse Sand, and Mica, wet.	

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA =not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Soil samples collected at 20-21' and 26-28', and 36-38' bgs.

Boring was converted to monitoring well AMW-13-VD.

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-8**

Borehole Depth: 75' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
				0.0	0.0				
				0.0	0.0				
	11	55-60	4.0	0.0	0.0				
-50				0.0	0.0				
60				0.0	0.0				
				0.0	0.0				
	12	60-65	4.0	0.0	0.0			Light gray fine SAND, trace Mica and fine round Gravel, wet.	
				0.0	0.0				
-55				0.0	0.0				
65				0.0	0.0			Light greenish gray fine SAND, thin layers of light green CLAY between 67-68' bgs, trace Mica, moist.	
				0.0	0.0				
	13	65-70	5.0	0.0	0.0				
				0.0	0.0			Light gray fine SAND, trace Mica, wet.	
-60				0.0	0.0				
70				0.0	0.0			Dark greenish gray CLAY AND SILT, moist.	Converted to monitoring well. See well construction for AMW-13-VD.
				0.0	0.0				
	14	70-75	5.0	0.0	0.0				
-65				0.0	0.0				
75								End of boring at 75' bgs.	

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA =not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Soil samples collected at 20-21' and 26-28', and 36-38' bgs.

Boring was converted to monitoring well AMW-13-VD.

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-8**

Borehole Depth: 75' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
-70 80									

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA =not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Soil samples collected at 20-21' and 26-28', and 36-38' bgs.

Boring was converted to monitoring well AMW-13-VD.

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Date Start/Finish: 6/16/16
Drilling Company: Summit Drilling
Driller's Name: Ninevski, Mobus, Crandall
Drilling Method: Rotary Sonic
Sampling Method: NA
Rig Type: Track-mounted Fraste Rotary Sonic

Northing: 1081039.648
Easting: 164417.8452
Casing Elevation: NA

Borehole Depth: 18' bgs
Surface Elevation: 9.00' AMSL

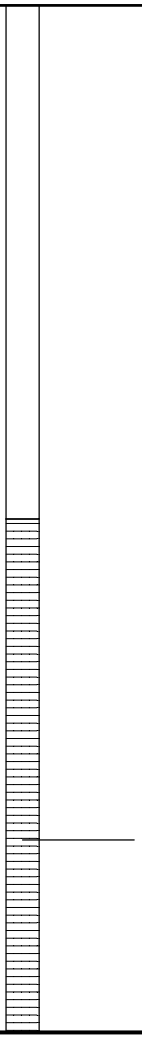
Descriptions By: Levia Terrell

Well/Boring ID: **TW-1**

Client: Chevron EMC

Location: Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
10							
0							
	1	0-6.5	NA	NA		Hand cleared with vac truck to 6.5' bgs.	
5							
						Drilled to 18' bgs. No descriptions available.	
0							
10	2	6.5-18	NA	NA			
-5							
15							



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Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Northern and easting coordinates and ground surface elevation data are approximate.

Borehole hand-cleared to 5.0' bgs.

Ground water sampling interval, 8.0-18.0' bgs.

Client: Chevron EMC

Well/Boring ID: **TW-1**

Borehole Depth: 18' bgs

Site Location:
Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
						End of boring at 18' bgs.	

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Northern and easting coordinates and ground surface elevation data are approximate.

Borehole hand-cleared to 5.0' bgs.

Ground water sampling interval, 8.0-18.0' bgs.

Date Start/Finish: 6/16/16
Drilling Company: Summit Drilling
Driller's Name: Ninevski, Mobus, Crandall
Drilling Method: Rotary Sonic
Sampling Method: NA
Rig Type: Track-mounted Fraste Rotary Sonic

Northing: 1081115.174
Easting: 164421.3814
Casing Elevation: NA

Borehole Depth: 18' bgs
Surface Elevation: 9.00' AMSL

Descriptions By: Levia Terrell

Well/Boring ID: **TW-2**

Client: Chevron EMC

Location: Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
10							
0						Hand cleared with vac truck to 8' bgs.	
	1	0-5	NA	NA			
5							
5							
0						Drilled to 18' bgs. No descriptions available.	
10							
	2	5-18	NA	NA			
-5							
15							

Temporary well set with PVC screen 8-18' bgs. Well was pulled and boring hole backfilled with grout to grade.

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Northern and easting coordinates and ground surface elevation data are approximate.

Borehole hand-cleared to 5.0' bgs.

Ground water sampling interval, 8.0-18.0' bgs.

Client: Chevron EMC

Well/Boring ID: **TW-2**

Borehole Depth: 18' bgs

Site Location:
Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
						End of boring at 18' bgs.	

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Northern and easting coordinates and ground surface elevation data are approximate.

Borehole hand-cleared to 5.0' bgs.

Ground water sampling interval, 8.0-18.0' bgs.

Date Start/Finish: 6/16/16
Drilling Company: Summit Drilling
Driller's Name: Ninevski, Mobus, Crandall
Drilling Method: Rotary Sonic
Sampling Method: NA
Rig Type: Track-mounted Fraste Rotary Sonic

Northing: 1081126.846
Easting: 164366.4666
Casing Elevation: NA

Borehole Depth: 18' bgs
Surface Elevation: 9.00' AMSL

Descriptions By: Levia Terrell

Well/Boring ID: **TW-3**

Client: Chevron EMC

Location: Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
10 / 0							
5 / 5	1	0-8	NA	NA		Hand cleared with vac truck to 8' bgs.	
0 / 10						Drilled to 18' bgs. No descriptions available.	
-5 / 15	2	8-18	NA	NA			Temporary well set with PVC screen 8-18' bgs. Well was pulled and boring hole backfilled with grout to grade.

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Northern and easting coordinates and ground surface elevation data are approximate.

Borehole hand-cleared to 8.0' bgs.

Ground water sampling interval, 8.0-18.0' bgs.

Client: Chevron EMC

Well/Boring ID: TW-3

Borehole Depth: 18' bgs

Site Location:
Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
						End of boring at 18' bgs.	

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Northern and easting coordinates and ground surface elevation data are approximate.

Borehole hand-cleared to 8.0' bgs.

Ground water sampling interval, 8.0-18.0' bgs.

Date Start/Finish: 10/27/16
Drilling Company: Cascade Drilling, L.P.
Driller's Name: Carlos Hernandez and John Carey
Drilling Method: Geoprobe Direct Push
Sampling Method: 1.25" x 5' Liner
Rig Type: DT22 Geoprobe System

Northing: 1080821.9410
Easting: 164894.8451
Casing Elevation: NA

Borehole Depth: 25' bgs
Surface Elevation: 9.50' AMSL

Descriptions By: Jon LeMessurier

Well/Boring ID: **TW-4**

Client: Chevron EMC

Location: Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
10							
0						Recycled Concrete Aggregate, angular to subangular; little Cobble, pebble in size; little Sand, medium. Moist, poorly sorted. Dark Brown.	
5	NA	0-8	NA	0.0		Airknifed using a VacTruck to 8' bgs.	
						Wet at 7.0' bgs.	
						SAND, medium to coarse; little Silty Sand. Wet, poorly sorted. Very Dark Gray.	
0	1	8-10	NA	0.0			
10						SAND, fine to coarse; some Gravel, fine to small pebble, subangular; trace Silt. Wet, poorly sorted, loose, no odor. Gray-Brown.	
						CLAY; some Organics (Peat-like material and Grass); trace Silt. Moist, soft, moderate organic-like odor, high plasticity. Dark Gray.	
-5	2	10-15	3.0	44.8			Borehole backfilled with grout to grade
15						CLAY; trace Sand, very fine. Moist, soft, moderate organic-like odor, high plasticity. Dark Gray.	

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Northern and easting coordinates and ground surface elevation data are approximate.

Borehole hand-cleared to 8.0' bgs.

Ground water sampling interval, 20.0' - 25.0' bgs.

Client: Chevron EMC

Well/Boring ID: **TW-4**

Borehole Depth: 25' bgs

Site Location:
Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
	3	15-20	3.0	10.7			
-10 / 20						SAND, fine to medium; trace Clay. Wet, loose, poorly sorted, slight organic-like odor. Gray.	
	4	20-25	5.0	15.3		SAND, fine to medium. Wet, loose, poorly sorted, slight organic-like odor. Gray-Brown.	Borehole backfilled with grout to grade
-15 / 25						End of boring at 25' bgs.	
-20 / 30							
-25 / 35							

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Northern and easting coordinates and ground surface elevation data are approximate.

Borehole hand-cleared to 8.0' bgs.

Ground water sampling interval, 20.0' - 25.0' bgs.

Date Start/Finish: 10/27/16
Drilling Company: Cascade Drilling, L.P.
Driller's Name: Carlos Hernandez and John Carey
Drilling Method: Geoprobe Direct Push
Sampling Method: 1.25" x 5' Liner
Rig Type: DT22 Geoprobe System

Northing: NA
Easting: NA
Casing Elevation: NA

Borehole Depth: 30' bgs
Surface Elevation: NA

Descriptions By: Jon LeMessurier

Well/Boring ID: TW-5

Client: Chevron EMC

Location: Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DRAFT

DEPTH (feet bgs)	ELEVATION (feet AMSL)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	0								
		NA	0-8	NA	0.3			Recycled Concrete Aggregate, angular to subangular, pebble to cobble; little Sand, medium. Moist, poorly sorted. Dark Brown.	
								Airknifed using a VacTruck to 8' bgs.	
5	-5							7.5' - 10.0' bgs, trace Silt.	
								Wet at 6.0' bgs.	
		1	8-10	NA	0.4			SAND, medium to coarse; trace Silty Clay. Wet, poorly sorted. Very Dark Grey.	
10	-10							SAND, fine to coarse; little Gravel, granular to small pebble, subangular; trace Silt. Wet, poorly sorted, loose, no odor. Dark Grey.	Borehole backfilled with grout to grade
		2	10-15	1.0	0.0				
15	-15								

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Borehole hand-cleared to 8.0' bgs.

Ground water sampling interval, 25.0' - 30.0' bgs.

Client: Chevron EMC

Well/Boring ID: TW-5

Borehole Depth: 30' bgs

Site Location:
Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DRAFT

DEPTH (feet bgs) / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
	3	15-20	5.0	20.5			CLAY; trace Organics (Grass); trace Sand, very fine. Moist, soft, moderate organic-like odor, high plasticity. Dark Grey.	
20 -20								Borehole backfilled with grout to grade
	4	20-25	5.0	10.7			SAND, fine to medium; trace Gravel, granular, subrounded. Wet, loose, poorly sorted, no odor. Grey-Brown.	
25 -25								
	5	25-30	5.0	28.3				
30 -30							End of boring at 30' bgs.	

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Borehole hand-cleared to 8.0' bgs.

Ground water sampling interval, 25.0' - 30.0' bgs.

Date Start/Finish: 10/27/16
Drilling Company: Cascade Drilling, L.P.
Driller's Name: Carlos Hernandez and John Carey
Drilling Method: Geoprobe Direct Push
Sampling Method: 1.25" x 5' Liner
Rig Type: DT22 Geoprobe System

Northing: 1080910.3950
Easting: 164829.3143
Casing Elevation: NA

Borehole Depth: 30' bgs
Surface Elevation: 9.50' AMSL

Descriptions By: Jon LeMessurier

Well/Boring ID: **TW-6**

Client: Chevron EMC

Location: Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
10							
0						Recycled Concrete Aggregate, angular to subangular, pebble to cobble; little Sand, medium. Moist, poorly sorted. Dark Brown.	
5	NA	0-8	NA	0.4		Airknifed using a VacTruck to 8' bgs.	
						Wet at 7.0' bgs.	
						Concrete obstruction/rubble	
						SAND, medium to coarse; little Gravel; trace Silty Clay. Wet, poorly sorted. Very Dark Gray.	
0	1	8-10	NA	0.7			
10						SAND, fine to coarse; little Silt; trace Gravel, granular to small pebble, subangular. Wet, poorly sorted, loose, slight organic-like odor. Light Gray.	
	2	10-15	4.0	9.8		SILTY CLAY; some Organics (Peat-like and Grass). Moist, soft, moderate organic-like odor, high plasticity. Dark Gray.	
-5							
15							

Borehole backfilled with grout to grade

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Northern and easting coordinates and ground surface elevation data are approximate.

Borehole hand-cleared to 8.0' bgs.

Ground water sampling interval, 25.0' - 30.0' bgs.

Client: Chevron EMC

Well/Boring ID: **TW-6**

Borehole Depth: 30' bgs

Site Location:
Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
-10 / 20	3	15-20	3.0	12.5			
						SAND, fine to coarse; little Gravel, granular, subrounded; trace Silt. Wet, loose, poorly sorted, no odor. Gray.	Borehole backfilled with grout to grade
						SILTY CLAY; some Organics (Peat-like and Grass). Moist, soft, slight organic-like odor, high plasticity. Dark Gray.	
	4	20-25	5.0	18.9			
-15 / 25						SAND, fine to medium. Wet, loose, poorly sorted, slight organic-like odor. Gray-Brown.	
	5	25-30	5.0	22.9			
-20 / 30						End of boring at 30' bgs.	
-25 / 35							

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Northern and easting coordinates and ground surface elevation data are approximate.

Borehole hand-cleared to 8.0' bgs.

Ground water sampling interval, 25.0' - 30.0' bgs.

Date Start/Finish: 10/27/16
Drilling Company: Cascade Drilling, L.P.
Driller's Name: Carlos Hernandez and John Carey
Drilling Method: Geoprobe Direct Push
Sampling Method: 1.25" x 5' Liner
Rig Type: DT22 Geoprobe System

Northing: 1080978.0690
Easting: 164844.0730
Casing Elevation: NA

Borehole Depth: 30' bgs
Surface Elevation: 9.50' AMSL

Descriptions By: Jon LeMessurier

Well/Boring ID: **TW-7**

Client: Chevron EMC

Location: Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
10							
0						Recycled Concrete Aggregate, angular to subangular, pebble to cobble; little Sand, medium. Moist, poorly sorted. Dark Brown.	
5	NA	0-8	NA	0.0		Airknifed using a VacTruck to 8' bgs.	
						Wet at 7.5' bgs.	
						Concrete obstruction/rubble.	
0	1	8-10	NA	0.0		SAND, medium to coarse; little Gravel; trace concrete rubble. Wet, poorly sorted. Dark Brown.	
10							Borehole backfilled with grout to grade
						SAND, fine to coarse; little Silt; trace Gravel, granular to small pebble, subangular. Wet, poorly sorted, loose, slight organic-like odor. Gray.	
-5	2	10-15	5.0	6.9		CLAYEY SILT; some Organics (Peat-like and Grass). Moist, soft, strong organic-like odor, medium plasticity. Gray-Brown.	
15							

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Northern and easting coordinates and ground surface elevation data are approximate.

Borehole hand-cleared to 8.0' bgs.

Ground water sampling interval, 25.0' - 30.0' bgs.

Client: Chevron EMC

Well/Boring ID: TW-7

Borehole Depth: 30' bgs

Site Location:
Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
	3	15-20	5.0	9.6			
						CLAY; little Organics (Shells). Moist, soft, strong organic-like odor, high plasticity. Dark Gray.	
-10 / 20							
						SAND, fine to coarse; little Gravel, granular, subrounded; trace Silt. Wet, loose, poorly sorted, no odor. Gray.	Borehole backfilled with grout to grade
						SAND, fine to medium; some Silt; little Clay, trace Gravel, granular to small pebble, subrounded. Wet, loose, poorly sorted, slight organic-like odor. Dark Gray.	
	4	20-25	5.0	9.9			
						CLAY; little Organics (Broken shells). Moist, soft, slight organic-like odor, high plasticity. Dark Gray.	
-15 / 25							
						SAND, fine to medium. Wet, loose, poorly sorted, slight organic-like odor. Gray-Brown.	
	5	25-30	5.0	15.4			
-20 / 30							
						End of boring at 30' bgs.	
-25 / 35							

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Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Northern and easting coordinates and ground surface elevation data are approximate.

Borehole hand-cleared to 8.0' bgs.

Ground water sampling interval, 25.0' - 30.0' bgs.

APPENDIX C

Well Construction Logs

Date Start/Finish: 11/30/10
Drilling Company: Parratt Wolff
Driller's Name: J. Price
Drilling Method: 4.24" HSA
Sampling Method: 2" x 2' Split Spoon
Rig Type: Vac Unit/IR 466

Northing: 164690.55
Easting: 1080941.49
Casing Elevation: 7.53

Borehole Depth: 10' bgs
Surface Elevation: 5.41

Descriptions By: MWE

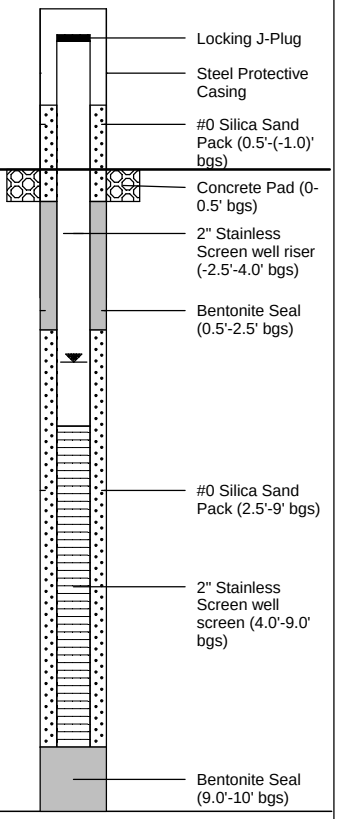
Well/Boring ID: **AMW-3**

Client: Chevron

Location: Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0 / 5	1	0-2	Grab	273		Brown to grey fine to coarse SAND and fine to coarse GRAVEL, trace Silt, Organics (M,NP)
	2	2-4	Grab	384		moderate petroleum-like odor, increase with depth
5 / 0	3	4-6	Grab	339		heavy petroleum-like odor
	4	6-8	Grab	211		Grey fine to medium SAND, little fine to medium Gravel (S,NP)
	5	8-10	1.0	67.8		Grey SILT and CLAY, little Peat, trace Organics, fine Sand (S,P) moderate petroleum-like odor, decrease with depth
10 / -5						End of boring at 10' bgs
15 / -10						

Well/Boring Construction



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Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ AMW-3 (0-2'), (2-4'), (4-6') & Dup-2-113010 @ (2-4') / MS/MSD @ (4-6') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Date Start/Finish: 11/18/10
Drilling Company: Parratt Wolff
Driller's Name: J. Price
Drilling Method: 4.24" HSA
Sampling Method: 2" x 2' Split Spoon
Rig Type: Vac Unit/IR 466

Northing: 164369.13
Easting: 1081225.55
Casing Elevation: 6.36

Borehole Depth: 12' bgs
Surface Elevation: 6.60

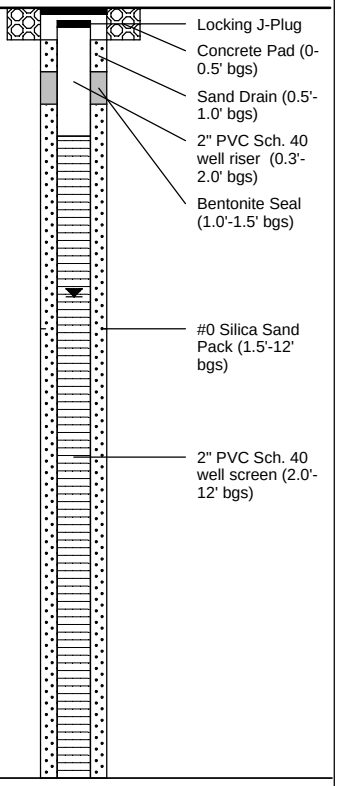
Descriptions By: MWE

Well/Boring ID: **AMW-4**

Client: Chevron

Location: Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0	1	0-2	Grab	0.2		Red to brown fine to medium SAND, little subangular Gravel, Silt, and trace Organics (M,NP)
5	2	2-4	Grab	0.0		
0	3	4-6	Grab	455		Grey to brown fine to coarse SAND, little Silt, Clay, and fine to medium Gravel (S,NP) moderate petroleum-like odor, decreses with depth
5	4	6-8	Grab	155		
10	5	8-10	0.3	27.8		
-5	6	10-12	2.0	11.7		increase Silt and Clay with depth Grey SILT and CLAY, trace fine Sand, Organics (S,MP)
15						End of boring at 12' bgs



Well/Boring Construction

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Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ AMW-4 (2-4'), (4-6'), (6-8') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Date Start/Finish: 11/2910
Drilling Company: Parratt Wolff
Driller's Name: J. Price
Drilling Method: 4.24" HSA
Sampling Method: 2" x 2' Split Spoon
Rig Type: Vac Unit/IR 466

Northing: 164319.6
Easting: 1081050.81
Casing Elevation: 6.43

Borehole Depth: 12' bgs
Surface Elevation: 6.74

Descriptions By: MWE

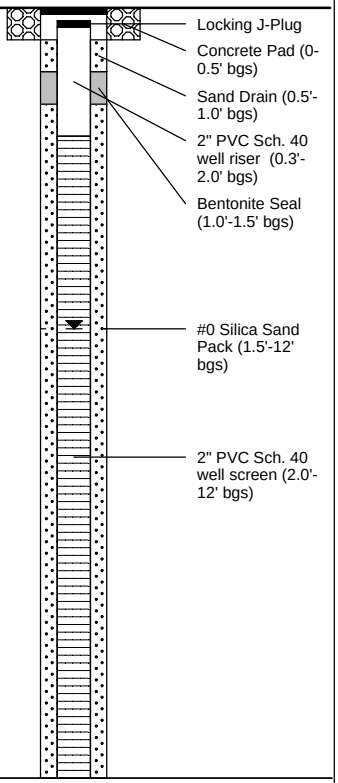
Well/Boring ID: **AMW-7**

Client: Chevron

Location: Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0						
0	1	0-2	Grab	0.0		Brown fine to medium SAND, little fine to coarse Gravel, trace Silt (M,NP)
5	2	2-4	Grab	0.0		
5	3	4-6	Grab	0.0		
0	4	6-8	Grab	0.4		faint petroleum-like odor
	5	8-10	2.0	18.9		
10						Brown fine to medium SAND, little grey fine Sand, trace fine Gravel (S,NP) odor
-5	6	10-12	2.0	1.7		Grey to brown fine SAND, little to some Silt, trace Clay (layered between sand seams (1-2 mm))
15						End of boring at 12' bgs

Well/Boring Construction



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Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ AMW-7 (4-6'), (8-10'), (10-12') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Date Start/Finish: 11-30-10
Drilling Company: Parratt Wolff
Driller's Name: J. Price
Drilling Method: 4.24" HSA
Sampling Method: 2" x 2' Split Spoon
Rig Type: Vac Unit/IR 466

Northing: 164748.61
Easting: 1080920.06
Casing Elevation: 7.90

Borehole Depth: 16' bgs
Surface Elevation: 5.41

Descriptions By: MWE

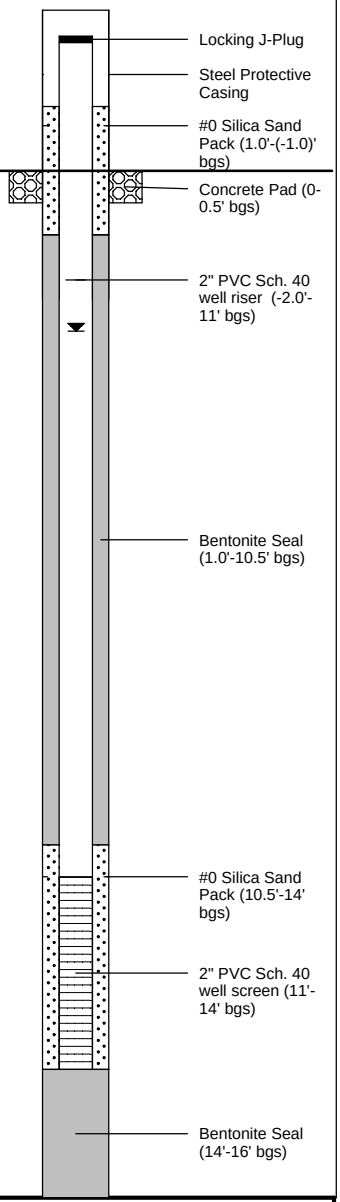
Well/Boring ID: **AMW-8**

Client: Chevron

Location: Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0 / 5	1	0-2	Grab	10.0		Brown fine to coarse SAND, some fine to medium subangular Gravel, trace Silt, Organics (M,NP) faint petroleum-like odor, increase with depth
	2	2-4	Grab	43.8		Grey to brown fine to coarse SAND, little fine to medium Gravel (S,NP) moderate petroleum-like odor, trace sheen in water at water table
5 / 0	3	4-6	Grab	6.9		
	4	6-8	Grab	3.9		
	5	8-10	0.2	18.9		No Recovery
10 / -5	6	10-12	1.0	4.7		Grey SILT and CLAY, some Peat, little fine Sand (S,MP) moderate sulfur-like odor, trace petroleum-like odor
	7	12-14	2.0	18.7		
15 / -10	8	14-16	2.0	8.6		Grey to brown fine to medium SAND, little Silt, Organics, Peat, Clay (S,NP) End of boring at 16' bgs

Well/Boring Construction



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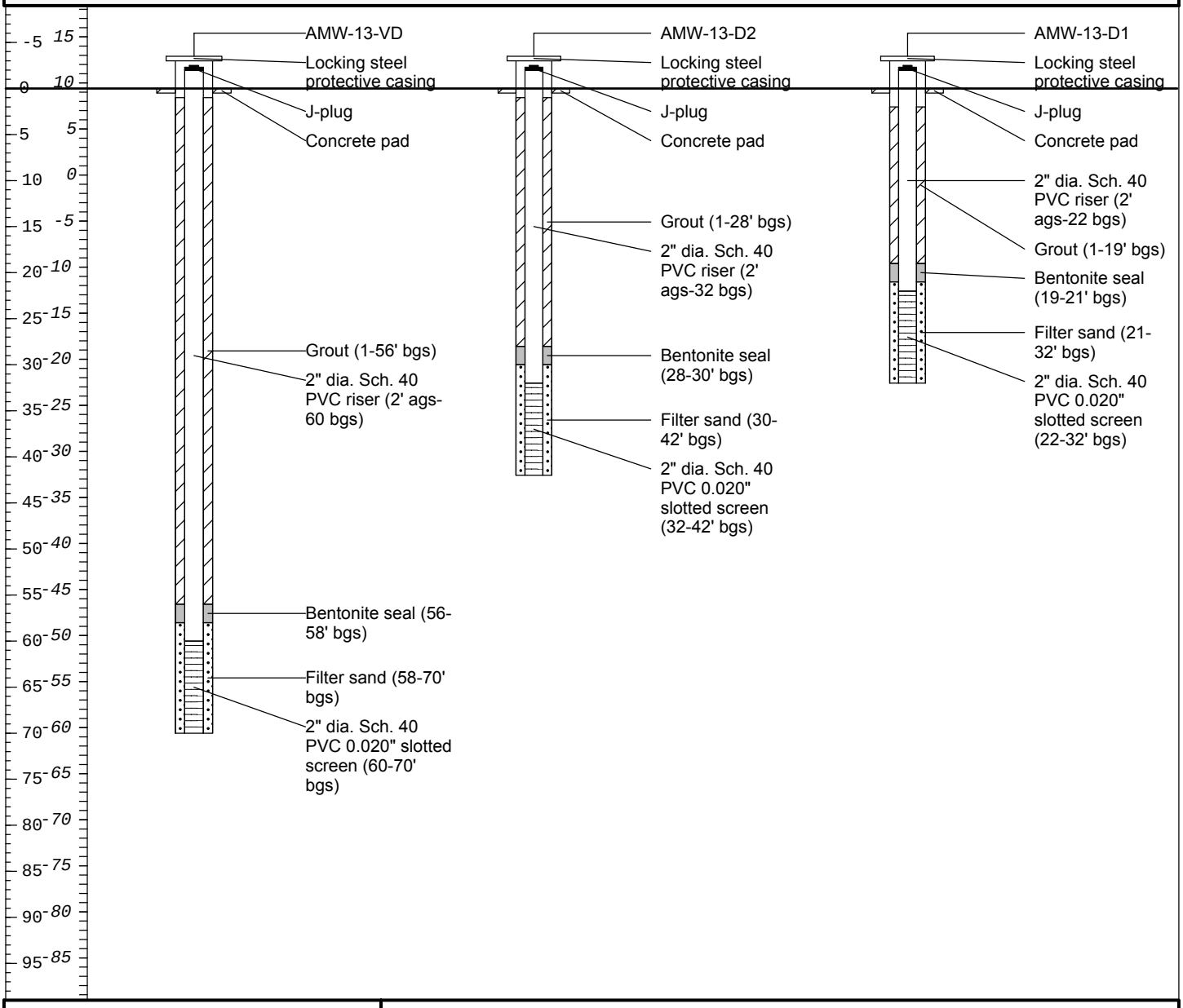
Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ AMW-8 (10-11'), (12-14'), (14-15') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Date Start/Finish: 6/14 - 6/15/2016 **Drilling Company:** Summit Drilling **Driller's Name:** Ninevski, Mobus, Crandall **Drilling Method:** Rotary Sonic **Bit Size:** NA **Auger Size:** NA **Rig Type:** Track-mounted Fraste Rotary Sonic **Sampling Method:** NA	**Northing:** NA **Easting:** NA **Casing Elevation:** NA **Borehole Depth:** 70' bgs **Surface Elevation:** 9.40' AMSL **Descriptions By:** Levia Terrell	**Well ID:** **AMW-13 well cluster** **Client:** Chevron Environmental Management Company **Location:** Former Gulf Oil Terminal Oceanside, New York

Well Construction



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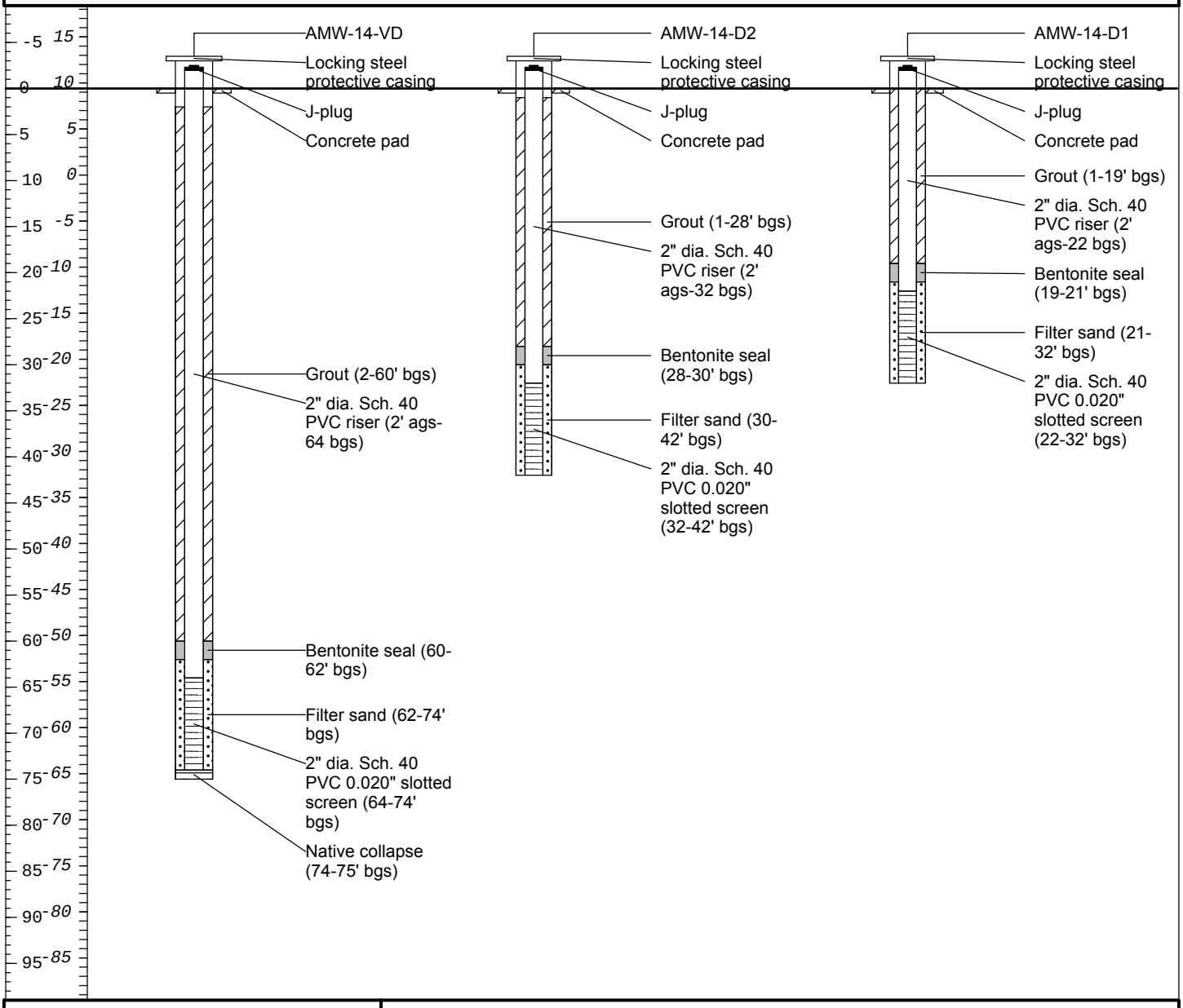
Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available;

Ground surface elevation is approximate.

Well construction logs for AMW-13-VD, AMW-13-D1, and AMW-13-D2.
For soil descriptions and drilling notes, see boring log for ASB-8.

Date Start/Finish: 6/15 - 6/16/2016 **Drilling Company:** Summit Drilling **Driller's Name:** Ninevski, Mobus, Crandall **Drilling Method:** Rotary Sonic **Bit Size:** NA **Auger Size:** NA **Rig Type:** Track-mounted Fraste Rotary Sonic **Sampling Method:** NA	**Northing:** NA **Easting:** NA **Casing Elevation:** NA **Borehole Depth:** 75' bgs **Surface Elevation:** 9.40' AMSL **Descriptions By:** Levia Terrell	**Well ID:** **AMW-14 well cluster** **Client:** Chevron Environmental Management Company **Location:** Former Gulf Oil Terminal Oceanside, New York

Well Construction



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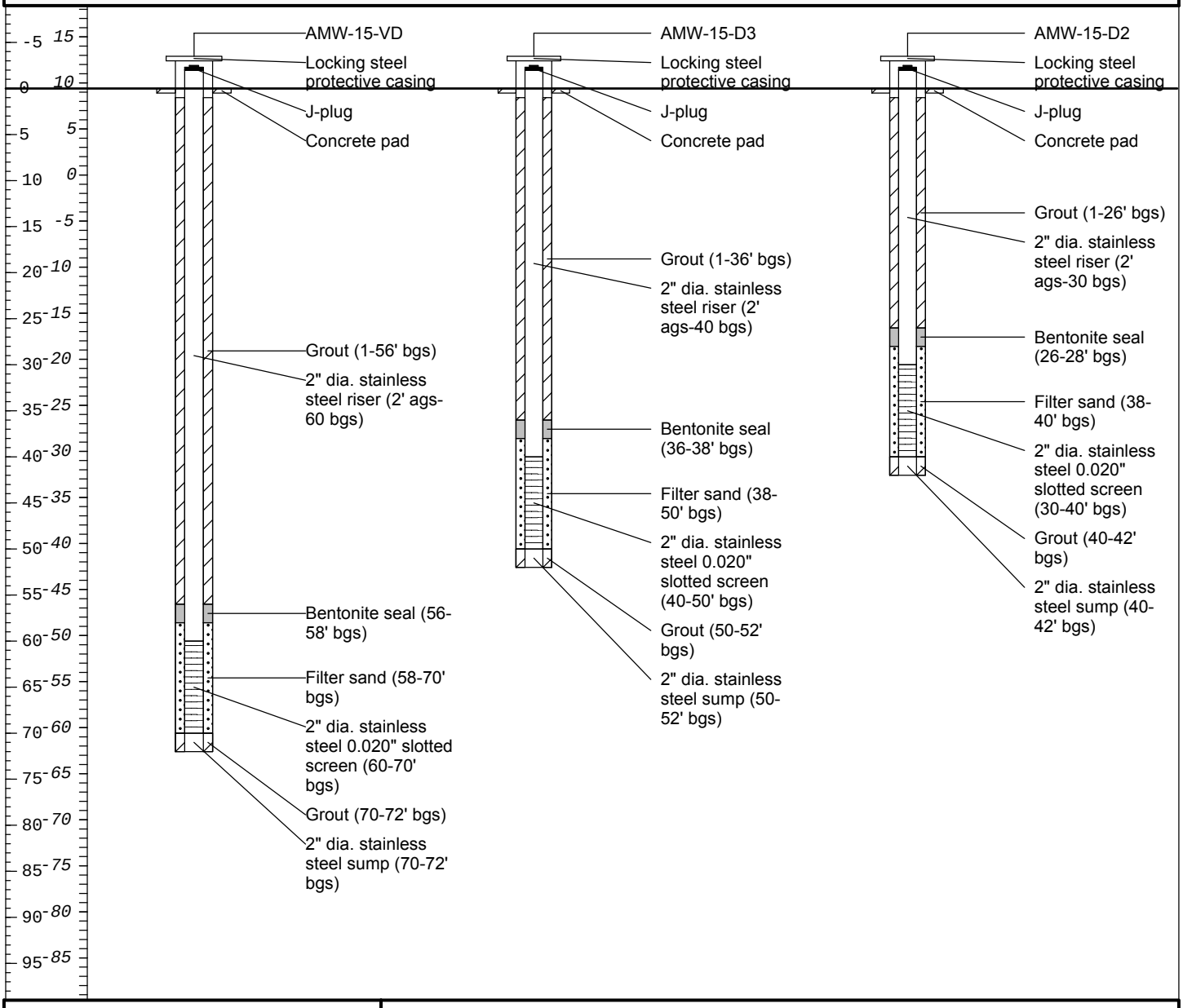
Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available;

Ground surface elevation is approximate.

Well construction logs for AMW-14-VD, AMW-14-D1, and AMW-14-D2.
For soil descriptions and drilling notes, see boring log for ASB-6.

Date Start/Finish: 6/9 - 6/13/2016 **Drilling Company:** Summit Drilling **Driller's Name:** Ninevski, Mobus, Crandall **Drilling Method:** Rotary Sonic **Bit Size:** NA **Auger Size:** NA **Rig Type:** Track-mounted Fraste Rotary Sonic **Sampling Method:** NA	**Northing:** NA **Easting:** NA **Casing Elevation:** NA **Borehole Depth:** 72' bgs **Surface Elevation:** 9.40' AMSL **Descriptions By:** Levia Terrell	**Well ID:** **AMW-15 well cluster** **Client:** Chevron Environmental Management Company **Location:** Former Gulf Oil Terminal Oceanside, New York

Well Construction



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Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available;

Ground surface elevation is approximate.

Well construction logs for AMW-15-VD, AMW-15-D1, AMW-15-D2, and AMW-15-D3. For soil descriptions and drilling notes, see boring log for ASB-1.

Date Start/Finish: 1/29/2013-2/13/2013
Drilling Company: Parratt-Wolff Inc.
Driller's Name: J.Price/R.Navatka
Drilling Method: 6 1/4" HSA / Mud Rotary
Sampling Method: 3" x 2' Split Spoon
Rig Type: IR A-300 Truck Mounted Rig

Northing: 164800.4100
Easting: 1080951.5500
Casing Elevation: NA

Borehole Depth: 29' bgs
Surface Elevation: 7.88' AMSL

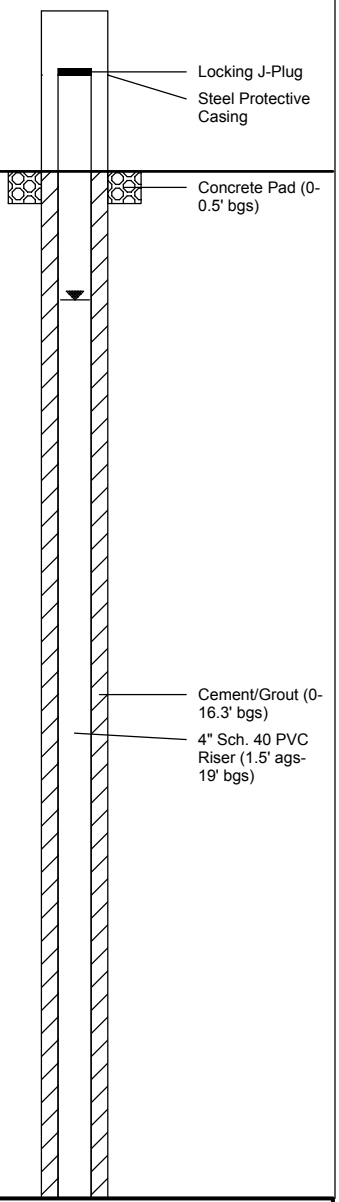
Descriptions By: J.Oliver

Well/Boring ID: **IW-02-D1**

Client: Chevron EMC

Location: Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
	1	0-1	NA	0.0		Light brown fine to medium SAND, trace coarse Sand and fine Gravel, moist to wet.
	2	1-2	NA	0.4		
	3	2-3	NA	0.4		Gray/brown fine to coarse SAND, trace fine Gravel, wet.
	4	3-4	NA	0.9		
	NA	NA	NA	NA		Unable to collect samples due to borehole collapse.
	5	8-10	1.0	23.9		Gray SILT and CLAY, trace Peat and fine Sand, plastic, wet, odor.
	6	10-12	1.0	17.0		Little to trace fine Sand.
	7	12-14	2.0	5.1		Gray SILT and CLAY, trace to llittle fine Sand, plastic, trace.
	8	14-16	1.3	32.7		Trace fine Sand, Shell fragments at 15' bgs, wet, odor.



Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Ground surface elevation is approximate.

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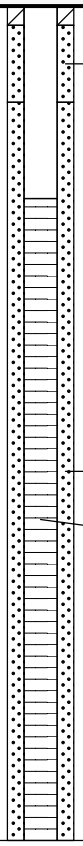
Client: Chevron EMC

Well/Boring ID: **IW-02-D1**

Borehole Depth: 29' bgs

Site Location:
Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
				27.3		Trace Shell fragments, wet, odor.	
-10	9	16-18	1.6			Gray fine to medium SAND, moderately dense, odor, wet. [Trace coarse Sand and Gravel in tip of spoon.]	
				112 257		Trace coarse Sand.	
	10	18-20	1.3	110		Brown to light brown fine to medium SAND, trace coarse Sand, trace Organics at 18.9' bgs, odor, wet.	
20	11	20-22	1.4	130 125		Light brown fine to medium SAND, trace coarse Sand, odor, wet.	
-15	12	22-24	1.9	101 97.9		Light brown/very light gray fine to medium SAND, odor, wet.	
25	13	24-26	1.6	15.7 45.1		Light brown/light gray fine to medium SAND, little coarse Sand after 24.7' bgs, wet, odor.	
	14	26-28	0.9	10.1		Light gray fine to coarse SAND, fine Gravel lamination at 26.7' bgs, wet, dense from 26-26.5' bgs.	
-20	15	28-29	0.5	11.2		Very light gray fine to medium SAND, trace coarse Sand, wet, grain size decreasing with depth.	
						End of boring at 29' bgs.	
30							
-25							
35							



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Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Ground surface elevation is approximate.

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LOG OF BORING LB-6/TW-6 SHEET 1 OF 2

PROJECT FMR GOLF FACILITY	PROJECT NO. 1836704
LOCATION OCEANSIDE, NY	ELEVATION AND DATUM
DRILLING AGENCY ZEBRA	DATE STARTED 3/11/04 / DATE FINISHED 3/11/04
DRILLING EQUIPMENT GEOPROBE 6600 w/ HSA	COMPLETION DEPTH 20-FT / ROCK DEPTH —
SIZE AND TYPE OF BIT —	NO. SAMPLES DIST. — UNDIST. 2 CORE —
CASING 3-IN OD STEEL CASING	WATER LEVEL FIRST 1.6' COMPL.— 24 HR. —
CASING HAMMER WEIGHT — DROP —	FOREMAN CHARLES GREGN
SAMPLER 2-IN MACROCORE	INSPECTOR MARSHALL KING
SAMPLER HAMMER WEIGHT — DROP —	

UNIT	SAMPLE DESCRIPTION	DEPTH SCALE	SAMPLES NO./LOC.	TYPE	RECOV. FT.	PENETR. RESIST BLWS/6"	PID ppm	W/C	REMARKS (DRILLING FLUID, DEPTH OF CASING, CASING BLOWS, FLUID LOSS, ETC.)
FILL	CONCRETE DEBRIS	1							START 13:15
	LIGHT BROWN M-F SAND	2	S-1	MC	2.8	—	0	MOIST	PID = OVM 19.8V
	Brown-Black f-SAND, to silt	3					0	wet	MC'S COLLECTED USING DISCRETE SAMPLING METHOD
SAND	Brown-Grey M-F SAND, tr F gravel	4							
	SAME	5	S-2	MC	1.5	—	0	wet	
		6					0		
		7					0		
		8					0		SAMPLE 1024: 7.5-8'
ORGANIC	Grey SILT, sm. to fibrous organics, tr clay	9							
		10	S-3	MC	1.9	—	1.3	wet	
		11					1.2		
	SAME	12					0.5		
		13	S-4	MC	2.4	—	2.4	wet	
		14					3.2		

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JOB NO. 1836704
DATE 3/11/04

LOG OF BORING NO. LB-6/TW-6.
SHEET 2 OF 2

UNIT	SAMPLE DESCRIPTION	DEPTH SCALE	SAMPLES NO./DESC.	SAMPLES TYPE	SAMPLES RECOV. FT.	SAMPLES PENETR. RESIST BLW/FT.	PID ppm	W/C	REMARKS (DRILLING FLUID, DEPTH OF CASING, CASING BLOWS, FLUID LOSS, ETC.)
ORGANIC	Grey SILT, sm tr fibrous organics, tr clay	15	S-4 (Grab)	MC	2Y	1	32	wet	STEEL CASING POSHED TO 16-FT
		16					2.1		
SAND	Brown MF SAND, tr silt	17					12.3		
		18	S-5	MC	33"	1	17.1	wet	SAMPLE #025 18-18.5
	Tan MF SAND	19					23		
		20							END BORING 20-FT @ 1430 BORING GROUTED TO SURFACE AS CASING WAS PULLED
		21							
		22							
		23							
		24							
		25							
		26							
		27							
		28							
		29							
		30							
		31							

086100

Date Start/Finish: 1/30/2013
Drilling Company: Parratt-Wolff Inc.
Driller's Name: J.Price/R.Navatka
Drilling Method: 6 1/4" HSA / Mud Rotary
Sampling Method: 2" x 2' Split Spoon
Rig Type: DT22 Geoprobe System

Northing: 164617.4000
Easting: 1081290.4300
Casing Elevation: NA

Borehole Depth: 7' bgs
Surface Elevation: 8.85' AMSL

Descriptions By: JRO

Well/Boring ID: **MW-18R**

Client: Chevron EMC

Location: Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
10 / 0							Locking J-Plug; Steel Protective Casing; 2" Sch 40 PVC Riser (1.5' ags-2' bgs)
	1	0-1	NA	374.8		Dark gray fine to medium SAND, trace fine Gravel and Debris (Wood and Concrete), moist, strong odor.	Concrete Pad (0-0.5' bgs); Drainage Sand
	2	1-2	NA	448.1		Moist-wet.	Bentonite Seal (1-2' bgs)
5 / 5	3	2-5	NA	450.7		COBBLES and fine to medium GRAVEL, some to little fine to coarse Sand and debris, wet.	2" Sch 40 PVC 0.010" Slot Screen (2-7' bgs)
	4	5-7	NA	NA			#0 Silica Sand Pack (2-7' bgs)
0 / -5						Blind drilled to 7' bgs. End of boring at 7' bgs.	
10 / 15							

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Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Ground surface elevation is approximate.

Borehole hand-cleared to 8.0' bgs.

Ground water sampling interval, 20.0' - 25.0' bgs.

Date Start/Finish: 9/23/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Moratis
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore
4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:

Borehole Depth: 26.5 feet
Surface Elevation:

Geologist: Joe Lisi

Well/Boring ID: MW-23D-1
Client: CEMC

MW-23D-1

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows / 6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0					0		Dark to light brown coarse to fine SAND and GRAVEL, moist.		Cap
		2.3 / 4			0		Dark grey coarse to fine SAND and GRAVEL, moist.		Cement Pad
					0		Dark grey coarse to fine SAND and GRAVEL, moist.		Bentonite (1 - 3 feet bgs)
5					0				Sand Pack (3 - 9 feet bgs)
		3.0 / 4			0.6				
			NA		1.1		Dark grey coarse to fine SAND and GRAVEL, some silt moist.		
		2.6 / 4			1.0				2 inch PVC Casing (0.5 - 16.5 feet bgs)
					5.7		Dark grey SILT, some clay, trace organics, wet.		
10					5.2				
		4.0 / 4			0		Dark grey SILT, some clay, trace organics, wet.		Bentonite (9 - 13 feet bgs)
					10.3				00 Sand Pack (13 - 14 feet bgs)
					26.1		Dark grey SILT and coarse to fine SAND, little clay, wet.		
15									
		2.0 / 4					Light grey to brown coarse to fine SAND and GRAVEL, wet.		
					25.9				#2 Filter Sand (14 - 26.5 feet bgs)
20							GRAVEL and SAND.		
25									0.02 inch slotted PVC Screen (16.5 - 26.5 feet bgs)

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Remarks: bgs - Below ground surface.

Date Start/Finish: 9/23/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Morafis
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore
4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:
Borehole Depth: 41 feet
Surface Elevation:
Geologist: Joe Lisl

Well/Boring ID: MW23D-2
Client: CEMC

MW-23D-2

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows/6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0		2.3/4	NA		0		Dark to light brown coarse to fine SAND and GRAVEL, moist.		Cap Cement Pad
					0		Dark grey coarse to fine SAND and GRAVEL, moist.		Bentonite (1 - 3 feet bgs)
5		3.0/4			0		Dark grey coarse to fine SAND and GRAVEL, moist.		Sand Pack (3 - 8.5 feet bgs)
		2.6/4			0.6 1.1 1.0		Dark grey coarse to fine SAND and GRAVEL, some silt moist.		2 inch PVC Casing (0.5 - 31 feet bgs)
10					5.7		Dark grey SILT, some clay, trace organics, wet.		
		4.0/4			5.2 0		Dark grey SILT, some clay, trace organics, wet.		Bentonite (8.5 - 28 feet bgs)
15					10.3 26.1		Dark grey SILT and coarse to fine SAND, little clay, wet.		
		2.0/4			25.9		Light grey to brown coarse to fine SAND and GRAVEL, wet.		
20							GRAVEL and SAND.		00 Sand Pack (28 - 29 feet bgs)
25									
30									#2 Filter Sand (29 - 41 feet bgs)
35									0.02 inch slotted PVC Screen (31 - 41 feet bgs)
40									

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Remarks: bgs - Below ground surface.

Date Start/Finish: 9/27/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Morallis
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore
4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:
Borehole Depth: 27 feet
Surface Elevation:
Geologist: Joe Lisi

Well/Boring ID: MW-24D-1
Client: CEMC

MW-24D-1

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows / 6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
		2.5 / 4			28.3		Brown fine to coarse SAND, some fine gravel, trace concrete.		Cap Cement Pad
					27.7		Brown coarse SAND and coarse to fine GRAVEL, trace quartz pieces, wet.		Bentonite (1 - 3 feet bgs)
5		3.8 / 4			31.2		Dark green coarse to fine SAND, some gravel, wet.		Sand Pack (3 - 5 feet bgs)
					30.8		Dark grey fine SAND, some silt, trace gravel, wet.		
					22.2		Dark green coarse to fine SAND, some gravel, wet.		
		3.0 / 4	NA		20.7		Dark grey SILT, some clay, trace organices, sulfur odor, wet.		2 inch PVC Casing (0.5 - 17 feet bgs)
10					16.4				
					16.2				
					19.2				
		1.7 / 4			2.1		Dark grey SILT, some clay, trace organices, sulfur odor, wet.		Bentonite (8 - 14 feet bgs)
					10.7				00 Sand Pack (14 - 15 feet bgs)
15					13.8				
					2.0		Light grey fine to coarse SAND, some silt, trace fine gravel, wet.		
					16.1		Brown fine to coarse SAND and GRAVEL, wet.		#2 Filter Sand (15 - 27 feet bgs)
		1.5 / 4			2.1				
20							SAND and GRAVEL.		
									0.02 inch slotted PVC Screen (17 - 27 feet bgs)
25									

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Remarks: bgs - Below ground surface.

Date Start/Finish: 9/27/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Moratis
Drilling Method: Direct-Push Drilling
Sampling Method: Macrocore
4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:
Borehole Depth: 42
Surface Elevation:
Geologist: Joe List

Well/Boring ID: MW-24D-2
Client: CEMC

MW-24D-2

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows / 6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0					28.3		Brown fine to coarse SAND, some fine gravel, trace concrete.		Cap Cement Pad
		2.5 / 4			27.7		Brown coarse SAND and coarse to fine GRAVEL, trace quartz pieces, wet.		Bentonite (1 - 3 feet bgs)
5					31.2		Dark green coarse to fine SAND, some gravel, wet.		
		3.8 / 4			30.8		Dark green coarse to fine SAND, some gravel, wet.		Sand Pack (3 - 8 feet bgs)
					22.2		Dark grey fine SAND, some silt, trace gravel, wet.		
		3.0 / 4	NA		20.7 16.4		Dark green coarse to fine SAND, some gravel, wet.		2 inch PVC Casing (0.5 - 32 feet bgs)
10					16.2		Dark grey SILT, some clay, trace organics, sulfur odor, wet.		
					19.2				
		1.7 / 4			2.1		Dark grey SILT, some clay, trace organics, sulfur odor, wet.		Bentonite (8 - 29 feet bgs)
15					10.7				
					13.8		Light grey fine to coarse SAND, some silt, trace fine gravel, wet.		
					2.0		Brown fine to coarse SAND and GRAVEL, wet.		
		1.5 / 4			16.1				
20					2.1		SAND and GRAVEL.		
25									
30									00 Sand Pack (29 - 30 feet bgs)
35									#2 Filter Sand (30 - 42 feet bgs)
40									0.02 inch slotted PVC Screen (32 - 42 feet bgs)

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Remarks: bgs - Below ground surface.

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Log of Boring **MW-24VD** Sheet 1 of 4

Project: Former Chevron/Gulf Petroleum Oil Terminal	Project No.: 1836740
Location: Oceanside, NY	Elevation and Datum: Not Surveyed
Drilling Agency: Advanced Drilling	Date Started: 12/7/06 — Date Finished: 12/22/06
Drilling Equipment: Gefco F-10 Drill Rig	Completion Depth: 75 ft — Rock Depth: NA
Size and Type of Bit: 8" I.D. Hollow Stem Auger/Mud Rodary	Number of Samples: Disturbed 19 — Undisturbed 0 — Core 0
Casing Diameter (in): 8"/4" — Casing Depth (ft): 9'/63'	Water Level (ft.): First ▽ 4 — Completion ▼ — 24 HR. ▼
Casing Hammer — Weight (lbs): NA — Drop (in): NA	Drilling Foreman: Chris Stratton/Chris Nigliore
Sampler: 2" O.D. Split Spoon	Inspecting Engineer: Anthony Sfeir/Andrew Racz
Sampler Hammer — Weight (lbs): 140 — Drop (in): 30	

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Light Brown coarse to fine SAND, some coarse to fine gravel		0						1015 - Begin drilling from 0'-5' bgs using hollow-stem auger.
		Brown coarse to fine SAND, little coarse to fine gravel		1						
				2						
				3						
				4						
		Brown coarse SAND, some medium sand, little coarse to fine gravel (wet)		5						1023 - Drilling complete to 5' bgs. Begin split-spoon sampling.
		Grey coarse SAND little coarse to fine gravel (Wet)		6	1	SS	12	4 3 4	7	
		Grey coarse SAND, little medium to fine sand, trace coarse to fine gravel (Wet, Petroleum Odor)		7						Auger to 7ft bgs
		Dark Grey CLAY, some peat, trace of silt (Organic and Petroleum Odor)		8	2	SS	17	4 2 1 1	3	
		Dark Grey CLAY, some peat, trace of silt (Organic and Petroleum Odor)		9						Auger to 9 ft bgs 8" casing installed at 9 ft bgs
		Brown coarse to fine SAND, some coarse to fine gravel		10	3	SS	3	1 1/12" 1		
		Dark grey CLAY, some shells and silt, soft (Wet, Strong Petroleum Odor)		11	4	SS	24	1/12"	Refusal	1040 - Stop Drilling
				27.2 12				1/12"		Resume drilling at 1045 on 12/20/2006
		Dark grey CLAY, some silt, soft (Wet, Strong Sulfur Odor)		13					Refusal	
				25.5 14	5	SS	24	1 1 1	2	
				15				3		Auger to 15 ft bgs
				45.5 16	6	SS	20	1 1 1	2	
				17				1		
				34.9 18	7	SS	24	3 6 6 7	12	
				19						Auger to 19 ft bgs
		Grey fine to medium SAND, trace silt and clay (Wet, strong petroleum odor) Brown fine to medium SAND, trace coarse sand (Wet, strong petroleum odor)		20	8	SS	10	8 16	31	

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Log of Boring **MW-24VD** Sheet 2 of 4

Project	Project No.
Former Chevron/Gulf Petroleum Oil Terminal	1836740
Location	**Elevation and Datum**
Oceanside, NY	Not Surveyed

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				20	8	SS	10	15 20	31	
				21						
				22						
				23				6		Auger to 23 ft bgs Begin sampling at 5ft intervals
				24	9	SS	10	5 6	11	
				25				6		
				26						
				27						
				28						Auger to 28 ft bgs
		Fine rounded GRAVEL gray, white yellow and clear						10		
		White coarse to fine SAND, some fine rounded gravel (Wet, Petroleum Odor)		29	10	SS	10	15 17	32	
		White coarse to medium SAND		30				15		
				31						
				32						
				33						Auger to 33 ft bgs
				34	11	SS	10	6 8 10	18	
		White coarse to medium SAND, some fine sand (Wet, Petroleu Odor)		35				12		
				36						
				37						
				38						Auger to 38 ft bgs
				39	12	SS	8	5 10 14	24	
		White Coarse to Medium SAND, soem f gravel and fine sand (Wet, very slight odor)		40				14		
				41						
				42						
				43						Auger to 43 ft bgs
				44	13	SS	10	6 7 8	15	
				45				8		

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Log of Boring **MW-24VD** Sheet 3 of 4

Project	Former Chevron/Gulf Petroleum Oil Terminal	Project No.	1836740
Location	Oceanside, NY	Elevation and Datum	Not Surveyed

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		White Coarse to Medium SAND, some f gravel and fine sand (Wet)		45						
				46						
				47						
				48						Auger to 48 ft bgs Stop Drilling
				49	14	SS	8	5 10 12 12	22	
		White medium to fine SAND, trace f gravel (Wet, slight odor)		50						
				51						
				52						
				53						Resume Drilling at 0800 on 12/21/2006 Auger to 53 ft bgs
			0.8	54	15	SS	5	15 25 30 30	55	
		Light Brown medium-fine SAND, trace f gravel (Wet, very slight odor)		55						
				56						
				57						
				58						Auger to 58 ft bgs
				59	16	SS	10	4 20 38 37	58	
		Light Brown to white fine to medium SAND, trace fine gravel (Wet)		60						
				61						
				62						
				63						Auger to 63 ft bgs
				64	17	SS	10	5 16 18 30	34	
		Light Brown fine to medium SAND (Wet)		65						
				66						
				67						
				68						Auger to 68 ft bgs
				69	18	SS	10	9 9 16 16	25	
				70						

N-Value scale: 10 20 30 40

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Log of Boring **MW-24VD** Sheet 4 of 4

Project	Former Chevron/Gulf Petroleum Oil Terminal	Project No.	1836740
Location	Oceanside, NY	Elevation and Datum	Not Surveyed

MATERIAL SYMBOL	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Dark grey-green silty CLAY, very stiff, moist (no odor)		70						
				71						
				72						Auger to 73 ft bgs
			0	73				3		
				74	19	SS	16	3 6 9	9	
				75						End of Boring at 75 ft bgs Remove temporary 4" steel casing Drill with 6" roller bit from 0 to 63 ft bgs 4" permanent steel casing installed from 0 to 63 ft bgs (grout in place) Monitoring well installed at 73 ft bgs
				76						
				77						
				78						
				79						
				80						
				81						
				82						
				83						
				84						
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Date Start/Finish: 9/27/04
Drilling Company: Zebra Drilling
Driller's Name: Ryan Moratis
Drilling Method: Direct-Push Drilling
Sampling Method: Macrocore
4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:
Borehole Depth: 27 feet
Surface Elevation:
Geologist: Joe Lisi

Well/Boring ID: MW-25D-1
Client: CEMC

MW-25D-1

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows/.6 Inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0							CONCRETE and REBAR.		Cap; Cement Pad
					0		Lightbrown coarse to fine SAND and GRAVEL, wet.		
		2.0 / 4			0		Brown coarse to fine GRAVEL, some coarse to fine sand, wet.		Bentonite (1 - 3 feet bgs)
5					0		Brown coarse to fine GRAVEL, some coarse to fine sand, wet.		Sand Pack (3 - 9 feet bgs)
		3.8 / 4			0				
		1.5 / 4	NA		25.5		Dark grey coarse to fine SAND, some coarse gravel, some silt, wet.		2 Inch PVC Casing (0.5 - 16 feet bgs)
					24.7		Dark grey coarse to fine SAND, some coarse gravel, some silt, wet.		
10					228		Dark grey SILT, some clay, trace organics, sulfur odor, wet.		
					48.3				
		4.0 / 4			9.7		Dark grey SILT, some clay, trace organics, sulfur odor, wet.		Bentonite (9 - 13 feet bgs)
					8.0				00 Sand Pack (13 - 14 feet bgs)
15					28.1		Dark brown coarse to fine SAND, some fine gravel, trace silt, wet.		
							GRAVEL and SAND.		#2 Filter Sand (14 - 26 feet bgs)
20									
25									0.02 inch slotted PVC Screen (16 - 26 feet bgs)

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Remarks: bgs - Below ground surface.

Date Start/Finish: 9/25/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Morris
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore
4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:

Borehole Depth: 41 feet
Surface Elevation:

Geologist: Joe Lisi

Well/Boring ID: MW-25D-2
Client: CEMC

MW-25D-2

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows / 6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0		2.0 / 4	NA		0		CONCRETE and REBAR.		Cap Cement Pad
					0		Lightbrown coarse to fine SAND and GRAVEL, wet.		
					0		Brown coarse to fine GRAVEL, some coarse to fine sand, wet.		Bentonite (1 - 3 feet bgs)
5		3.8 / 4			0		Brown coarse to fine GRAVEL, some coarse to fine sand, wet.		Sand Pack (3 - 9 feet bgs)
					0		Dark grey coarse to fine SAND, some coarse gravel, some silt, wet.		
		1.5 / 4			25.5 24.7		Dark grey coarse to fine SAND, some coarse gravel, some silt, wet.		2 inch PVC Casing (0.5 - 31 feet bgs)
10					228		Dark grey SILT, some clay, trace organics, sulfur odor, wet.		
		4.0 / 4			48.3				
					9.7		Dark grey SILT, some clay, trace organics, sulfur odor, wet.		Bentonite (9 - 28 feet bgs)
15					8				
					28.1		Dark brown coarse to fine SAND, some fine gravel, trace silt, wet.		
							GRAVEL and SAND.		
20									
25									00 Sand Pack (28 - 29 feet bgs)
30									
35									#2 Filter Sand (29 - 41 feet bgs)
									0.02 inch slotted PVC Screen (31 - 41 feet bgs)
40									

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Remarks: bgs - Below ground surface.

Date Start/Finish: 12/2/10 & 12/9/10
Drilling Company: Parratt Wolff
Driller's Name: J. Price
Drilling Method: 4.24" HSA
Sampling Method: 2" x 2' Split Spoon
Rig Type: Vac Unit/IR 466

Northing: 164759.23
Easting: 1080931.65
Casing Elevation: 5.66

Borehole Depth: 50' bgs
Surface Elevation: 5.49

Descriptions By: MWE

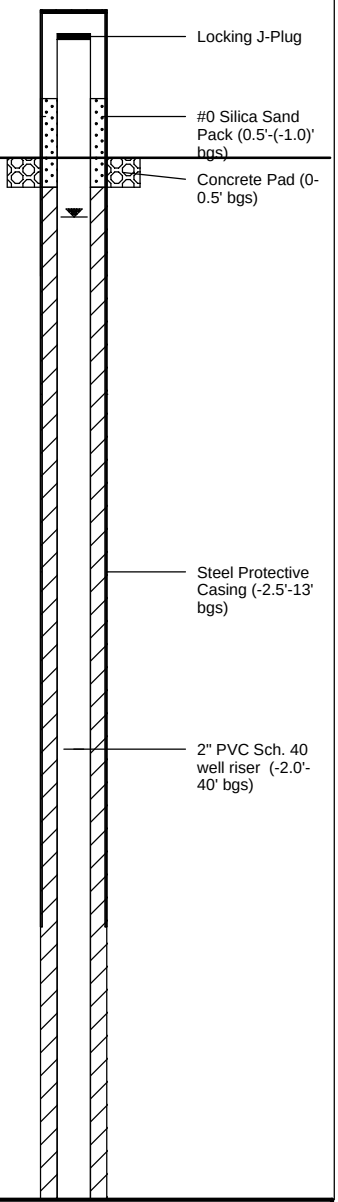
Well/Boring ID: **MW-25-D3**

Client: Chevron

Location: Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0	5	1	0-2	Grab	0.0		Brown fine to medium SAND, little fine to medium Gravel, Organics (roots), Silt (M,NP)
		2	2-4	Grab	1,031		moderate to heavy petroleum-like odor
5	0	3	4-6	Grab	82.6		Grey to brown fine to medium SAND, some fine to medium Gravel, little Silt (S,NP)
		4	6-8	Grab	45.6		moderate petroleum-like odor
		5	8-10	2.0	27.8		Grey SILT and CLAY, little Organics (peat, roots), trace fine Sand (S,P)
10	-5	6	10-12	2.0	38.3		
		7	12-13	1.0	17.2		set 4" steel casing and switched to Mud-Rotary at 13' bgs
		8	13-15	2.0	23.2		
15	-10	9	15-17	2.0	17.8		
		9	15-17	2.0	17.8		Brown to grey fine to medium SAND, little Peat, Silt, trace Clay (S,NP) faint odor
							Brown fine to medium SAND, trace fine Gravel (S,NP)

Well/Boring Construction



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Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ MW-25-D3 (21-23') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Date Start/Finish: 12/2/10 & 12/9/10
Drilling Company: Parratt Wolff
Driller's Name: J. Price
Drilling Method: 4.24" HSA
Sampling Method: 2" x 2' Split Spoon
Rig Type: Vac Unit/IR 466

Northing: 164759.23
Easting: 1080931.65
Casing Elevation: 5.66

Borehole Depth: 50' bgs
Surface Elevation: 5.49

Descriptions By: MWE

Well/Boring ID: **MW-25-D3**

Client: Chevron

Location: Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
		10	17-19	2.0	17.9		faint petroleum-like odor (possibly drawdown)	Cement/Bentonite Grout (0.5'-35' bgs)
20	-15	11	19-21	2.0	23.7			
		12	21-23	2.0	39.8			
		13	23-25	2.0	3.2			
25	-20	14	25-27	2.0	0.3		Brown fine to coarse SAND, trace fine Gravel (S,NP)	
		15	27-29	2.0	0.3			
30	-25	16	29-31	2.0	0.0			
		17	31-33	2.0	0.0		Brown medium to coarse SAND, little fine Sand, trace fine Gravel (S,NP)	
							drilled to 38' bgs	
35	-30							Bentonite Seal (35'-38' bgs)

ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ MW-25-D3 (21-23') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Date Start/Finish: 12/2/10 & 12/9/10 **Drilling Company:** Parratt Wolff **Driller's Name:** J. Price **Drilling Method:** 4.24" HSA **Sampling Method:** 2" x 2' Split Spoon **Rig Type:** Vac Unit/IR 466	**Northing:** 164759.23 **Easting:** 1080931.65 **Casing Elevation:** 5.66 **Borehole Depth:** 50' bgs **Surface Elevation:** 5.49 **Descriptions By:** MWE	**Well/Boring ID:** **MW-25-D3** **Client:** Chevron **Location:** Oceanside Former Gulf Terminal Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
		18	38-40	2.0	0.0		Brown medium to coarse SAND, little fine Sand, trace fine Gravel (S,NP) drilled to 43' bgs	
40	-35							
		19	43-45	2.0	0.0		Brown medium to coarse SAND, little fine Sand, trace fine Gravel (S,NP) drilled to 48' bgs	
45	-40							
		20	48-50	2.0	0.0		Brown medium to coarse SAND, little fine Sand, trace fine Gravel (S,NP)	
50	-45						End of boring at 50' bgs	

#0 Silica Sand Pack (38'-50' bgs)

2" PVC Sch. 40 well screen (40'-50' bgs)

ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ MW-25-D3 (21-23') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

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Log of Boring **MW-25VD** Sheet 1 of 4

Project: Former Chevron/Gulf Petroleum Oil Terminal	Project No.: 1836740
Location: Oceanside, NY	Elevation and Datum: Not Surveyed
Drilling Agency: Advanced Drilling	Date Started: 12/6/06 — Date Finished: 12/19/06
Drilling Equipment: Gefco F-10 Drill Rig	Completion Depth: 75 ft — Rock Depth: NA
Size and Type of Bit: 8" I.D. Hollow Stem Auger/Mud Rodary	Number of Samples: Disturbed 21 — Undisturbed 0 — Core 0
Casing Diameter (in): 8"/4" — Casing Depth (ft): 14'/63'	Water Level (ft.): First ▽ 5 — Completion ▼ — 24 HR. ▼
Casing Hammer — Weight (lbs): NA — Drop (in): NA	Drilling Foreman: Chris Stratton/Chris Nigliore
Sampler: 2" O.D. Split Spoon	Inspecting Engineer: Anthony Sfeir/Andrew Racz
Sampler Hammer — Weight (lbs): 140 — Drop (in): 30	

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Light Brown medium to fine SAND, some coarse to fine gravel		0						1330 - Begin drilling with a hollow-stem auger
		Black coarse SAND, some medium sand, little coarse to fine gravel (Petroleum Smell)	0.8	1	1	SS	10	8 12 8 8	20+	
			30	2	2	SS	10	6 5 8 6	13+	
		Black coarse SAND, some medium sand, some coarse to fine gravel (Wet, Petroleum odor) ▽		3						Auger to 4 ft bgs
			20.5	4	3	SS	12	5 5 7 7	12+	
		Black coarse to fine SAND, little coarse to fine gravel (Wet, Petroleum odor)	34	5	4	SS	22	7 4 3 4	7+	
				6						Auger to 8 ft bgs
		(No Recovery)		7	5	SS	0	2 1/12" 1		
				8	6	SS	0	WH/2"	Refusal+	
				9					Refusal+	
				10						
				11						
		Dark gray CLAY, trace of peat, trace of silt (Wet,Petroleum and organic smell)		12	7	SS	24	1/12" 1/12"		
			475	13						
		Dark brown CLAY, some coarse to fine gravel, little peat (Petroleum and organic smell)		14	8	SS	3	WH/12" 1	Refusal+	Auger to 14 ft bgs 8" Casing Placed at 14 ft bgs
			20	15				1	Refusal+	
				16						Stop Drilling at 1430 on 12/06/2006
		Dark brown CLAY, some coarse to fine gravel, little peat (Petroleum and organic smell)		17	9	SS	14	3 5 12 20	17	Resume drilling at 0915 on 12/14/2006
		Brown fine to medium SAND, trace coarse sand and fine white quartz gravel (Wet, organic and chemical odor)	21.5	18						
		Brown to gray fine to medium SAND (Wet, strong chemical odor)	33	19	10	SS	15	10 15 20 22	35+	
				20						

N-Value (Blows/ft) scale: 10 20 30 40

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Log of Boring **MW-25VD** Sheet 2 of 4

Project	Former Chevron/Gulf Petroleum Oil Terminal	Project No.	1836740
Location	Oceanside, NY	Elevation and Datum	Not Surveyed

Sample Description	PID Reading (ppm)	Depth Scale	Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
Brown fine to medium SAND, trace fine white quartz gravel (Wet, strong chemical odor)		20						
		21						
		22						
		23						Auger to 23 ft bgs Start sampling at 5 ft intervals
	16.7	24	11	SS	8	5, 6, 7, 10	13	
Gray to white medium to coarse SAND, trace fine sand (Wet, chemical odor)		25						
		26						
		27						Auger to 28 ft bgs
		28						
	16.1	29	12	SS	8	10, 17, 18, 13	35	
White fine to medium SAND (Wet, organic/chemical odor)		30						
		31						
		32						
	3.4	33						Auger to 33 ft bgs Sand is caving need a larger bit of casing (break down for the day)
		34	13	SS	10	13, 19, 22, 22	41	Resume Drilling on 12/15/2006 at 1015 Install temporary 4" casing from 0-14 ft bgs Drill from 0 to 33 ft using 4" mud rodary
White medium to coarse SAND, some fine sand (Wet, slight organnc chemical odor)		35						
		36						Borehole filling in with Sand, installa additional temporary 4" steel casing to 29 ft bgs
	0.0	37						Drill to 38 ft bgs Too much sand in mud stop to change mud
		38						
		39	14	SS	12	9, 12, 14, 12	26	
Fine gravel (gray, white and yellow)		40						
	0.0	41						
		42						Drill to 43 ft bgs
		43						
Medium to coarse gray to yellow SAND, some fine sand and fine gravel (Wet)		44	15	SS	10	6, 7, 9, 10	16	
		45						

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Log of Boring **MW-25VD** Sheet 3 of 4

Project	Project No.
Former Chevron/Gulf Petroleum Oil Terminal	1836740
Location	**Elevation and Datum**
Oceanside, NY	Not Surveyed

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Brown and gray medium coarse SAND and fine rounded gravel, trace fine sand (Wet)	0.0	45						
				46						
				47						
				48						Drill to 48 ft bgs
			0.0	49	16	SS	16	7 3 7 20	10	
		White fine to medium SAND (Wet)		50						
				51						
				52						
				53						Drill to 53 ft bgs
			0.0	54	17	SS	14	19 20 30 35	50	
		White fine to medium SAND, some coarse sand, trace fine gravel (Wet)		55						Mud pad empty, mud is being quickly sucked up by the gravel layer. Stop to mix new mud
				56						
				57						
				58						Drill to 58 ft bgs
			0.0	59	18	SS	10	15 22 24 28	46	
		White to light brown fine to medium SAND, trace fine rounded gravel (Wet)		60						
				61						
				62						
				63						Drill to 63 ft bgs
			0.0	64	19	SS	10	12 20 22 25	42	
		Light brown fine to medium SAND, trace coarse sand (Wet)		65						
				66						
				67						
				68						Drill to 68 ft bgs
			0.0	69	20	SS	10	12 15 15 17	30	
				70						

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Log of Boring **MW-25VD** Sheet 4 of 4

Project	Project No.
Former Chevron/Gulf Petroleum Oil Terminal	1836740
Location	**Elevation and Datum**
Oceanside, NY	Not Surveyed

MATERIAL SYMBOL	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Darg gray-green silty CLAY, very dense moist		70						
				71						
				72						
				73				10		Dril to 73 ft bgs
				74	21	SS	24	10 17 20	27	
				75						End of boring at 75 ft bgs Install 4" steel inner casing from 0 to 63 ft bgs 2" PVC Monitoring well installed at 73 ft bgs
				76						
				77						
				78						
				79						
				80						
				81						
				82						
				83						
				84						
				85						
				86						
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				88						
				89						
				90						
				91						
				92						
				93						
				94						
				95						

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Date Start/Finish: 9/24/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Morais
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore
4 feet by 2-inch diameter

Northing:
Easting:
Casing Elevation:
Borehole Depth: 25 feet
Surface Elevation:
Geologist: Joe Lisi

Well/Boring ID: MW-26D-1
Client: CEMC

MW-26D-1

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows / 6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0		2.5 / 4	NA		0		Dark grey coarse to medium SAND and coarse to fine GRAVEL, wet.		Cap Cement Pad
					0				Bentonite (1 - 3 feet bgs)
					0		Dark brown coarse to fine SAND and coarse GRAVEL, trace silt, wet.		
5		0.9 / 4			0				Sand Pack (5 - 8.5 feet bgs)
		2.3 / 4			25.5		Dark grey SAND, some silt, moist to wet.		
					24.7		Dark grey SILT, some clay, trace organics and wood, sulfur odor, wet.		2 inch PVC Casing (0.5 - 15 feet bgs)
10					228				
					48.3				Bentonite (8.5 - 12 feet bgs)
		1.4 / 4			9.7		Dark grey SILT, some clay, trace organics and wood, sulfur odor, wet.		00 Sand Pack (12 - 13 feet bgs)
					8.0		Brown coarse to fine SAND, trace shells and gravel, wet.		
15					28.1				
							GRAVEL and SAND.		#2 Filter Sand (13 - 25 feet bgs)
20									
									0.02 inch slotted PVC Screen (15 - 25 feet bgs)
25									

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Remarks: bgs - Below ground surface.

Date Start/Finish: 9/24/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Morais
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore
4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:
Borehole Depth: 40 feet
Surface Elevation:
Geologist: Joe Lisi

Well/Boring ID: MW-26D-2
Client: CEMC

MW-26D-2

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows / 6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0		2.5 / 4			1.0		Dark grey coarse to medium SAND and coarse to fine GRAVEL, wet.		Cap Cement Pad
					0				
5		0.9 / 4			1.3		Dark brown coarse to fine SAND and coarse GRAVEL, trace silt, wet.		Bentonite (1 - 3 feet bgs)
					1.9				Sand Pack (3 - 8.5 feet bgs)
		2.3 / 4	NA		8.4		Dark grey SAND, some silt, moist to wet.		
10					20.5		Dark grey SILT, some clay, trace organics and wood, sulfur odor, wet.		2 inch PVC Casing (0.5 - 31 feet bgs)
		1.4 / 4			21.9				
					16.8		Dark grey SILT, some clay, trace organics and wood, sulfur odor, wet.		Bentonite (8.5 - 27 feet bgs)
15					9.8		Brown coarse to fine SAND, trace shells and gravel, wet.		
					12.3		GRAVEL and SAND.		
20									00 Sand Pack (28 - 29 feet bgs)
25									
30									#2 Filter Sand (29 - 41 feet bgs)
35									0.02 inch slotted PVC Screen (30 - 40 feet bgs)
40									

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Remarks: bgs - Below ground surface.

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Log of Boring **MW-26VD** Sheet 1 of 4

Project	Former Chevron/Gulf Petroleum Oil Terminal
Project No.	1836740
Location	Oceanside, NY
Elevation and Datum	Not Surveyed
Drilling Agency	Advanced Drilling
Date Started	12/5/06
Date Finished	12/28/06
Drilling Equipment	Gefco F-10 Drill Rig
Completion Depth	70 ft
Rock Depth	NA
Size and Type of Bit	8" I.D. Hollow Stem Auger/Mud Rodary
Number of Samples	Disturbed 18 / Undisturbed 0 / Core 0
Casing Diameter (in)	8"/4"
Casing Depth (ft)	16'/60'
Water Level (ft.)	First ▽ 3 / Completion ▼ / 24 HR. ▼
Casing Hammer	Weight (lbs) NA / Drop (in) NA
Drilling Foreman	Chris Stratton/Chris Nigliore
Sampler	2" O.D. Split Spoon
Inspecting Engineer	Anthony Sfeir/Andrew Racz
Sampler Hammer	Weight (lbs) 140 / Drop (in) 30

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Blac coarse to fine SAND, some coarse to fine gravel (Petroleum Odor)		0						1420 - Start drilling using a 10" hollow-stem auger
		Black coarse SAND, some medium to fine sand, some coarse to fine gravel (Wet)		5	1	SS	1.5	1 1/12"		Auger to 5 ft bgs
		Black coarse to fine SAND, some coarse to fine gravel (Wet)		7	2	SS	0	WH/24"	Refusal Refusal	
				9	3	SS	1	WH/18"		Auger to 9 ft bgs
		Black coarse SAND, some medium to fine sand, some fine gravel (Wet)		10				1	Refusal	
				11	4	SS	0.5	WH/12"		
		Black coarse SAND, little medium sand, little fine gravel (Wet)		12				1 1	Refusal	Auger to 13 ft bgs
		Dark brown CLAY, some peat some silt (organic and petroleum odor)		13	5	SS	2	2 1 2 5		
		Light brown medium SAND, some fine sand		15	6	SS	14	2 4 4 5	8	
		Brown medium SAND, some fine sand, trace silt (Petroleum odor, wet)		17	7	SS	24	7 8 9 10	17	Auger to 17 ft bgs 8" Casing installed at 16 ft Stop Drilling at 1600 on 12/5/2006 Resume Drilling on 12/28/2006 Install temporary 4" steel casing from 0 to 15 ft bgs Drill to 19 ft bgs
		Brown medium to fine SAND, some fine rounded gravel, trace mica flakes (Wet, strong chemical odor)		19	8	SS	6	8 11	24	
				20						

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Log of Boring **MW-26VD** Sheet 2 of 4

Project: Former Chevron/Gulf Petroleum Oil Terminal	Project No.: 1836740
Location: Oceanside, NY	Elevation and Datum: Not Surveyed

Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
	Brown coarse to medium SAND, some fine rounded gravel (Wet, Strong chemical odor)	10.1	20	8	SS	6	13 17	24	
			21						
			22						Drill to 23 ft bgs
			23						
		5.2	24	9	SS	7	21 31 57 50/3"	88	
	Whte fine to medium SAND (Wet, faint chemical odor)		25						
			26						Gravel is clogging the hole, drive additional temporary 4 " steel casing to 25 ft bgs
			27						
			28						Drill to 28 ft bgs
		0	29	10	SS	6	21 47 38 42	85	
	Whte fine to medium SAND, some coarse sand (Wet, slight chemical odor)		30						
			31						
			32						Resume Drilling on 12/29/2006
			33						Drill to 33 ft bgs
		2.4	34	11	SS	6	20 18 22 25	40	
	White coarse to fine SAND (Wet)		35						
			36						
			37						Drill to 38 ft bgs
			38						
		0	39	12	SS	6	22 27 23 40	50	
	Light Brown to white Coarse SAND and fine GRAVEL, some medium to fine sand (Wet)		40						
			41						
			42						Drill to 43 ft bgs
			43						
		0	44	13	SS	6	19 22 30 38	52	
			45						

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Log of Boring **MW-26VD** Sheet 3 of 4

Project	Project No.
Former Chevron/Gulf Petroleum Oil Terminal	1836740
Location	**Elevation and Datum**
Oceanside, NY	Not Surveyed

MATERIAL SYMBOL	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		White fine to medium SAND, trace coarse sand (Wet)		45						
				46						
				47						
				48						Drill to 48 ft bgs
				49	14	SS	6	27 26 33 38	59	
		Light brown medium to fine SAND, some coarse sand (Wet, very faint odor)		50						
				51						
				52						
				53						Drill to 53 ft bgs
			9.7	54	15	SS	6	28 33 40 50/3"	73	
		Light Brown to white medium to fine SAND, trace fine gravel (Wet)		55						
				56						
				57						
				58						Drill to 58 ft bgs
				59	16	SS	6	34 36 35 55	71	
		Darg grey medium to fine SAND, some silt and clay, some fine gravel (Wet)		60						
				61						
				62						
				63						Drill to 63 ft bgs
				64	17	SS	10	43 50 50 50	100	
		Dark grey SILT, some fine white shell fragments, moist		65						
				66						
				67						
				68	18	SS	6			
				69						
				70						

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Log of Boring **MW-26VD** Sheet 4 of 4

Project	Project No.
Former Chevron/Gulf Petroleum Oil Terminal	1836740
Location	**Elevation and Datum**
Oceanside, NY	Not Surveyed

MATERIAL SYMBOL	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				70						End of Boring at 70 ft bgs
				71						
				72						
				73						
				74						
				75						
				76						
				77						
				78						
				79						
				80						
				81						
				82						
				83						
				84						
				85						
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				88						
				89						
				90						
				91						
				92						
				93						
				94						
				95						

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Date Start/Finish: 9/27/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Morais
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore - 4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:
Borehole Depth: 28 feet
Surface Elevation:
Geologist: Joe List

Well/Boring ID: MW-27D-1
Client: CEMC

MW-27D-1

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows / 6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0		2.7 / 4			0 3.2		Brown fine to coarse SAND, trace organics. Grey coarse SAND, some coarse to fine gravel, odor, moist.		Cap Cement Pad
5		3.5 / 4	NA		41.1 8.4 11.3		Grey coarse SAND, some coarse to fine gravel, odor, moist. Brown coarse to fine SAND, some gravel, little silt, no odor.		Bentonite (1 - 3 feet bgs) Sand Pack (3 - 12 feet bgs)
10		0.0 / 4 3.0 / 4			2.1 0 0 0		No recovery. Dark grey SILT, some clay, trace organics, sulfur odor, moist.		2 inch PVC Casing (0.5 - 18 feet bgs) Bentonite (12 - 15 feet bgs) 00 Sand Pack (15 - 16 feet bgs)
15					2.8		Dark grey SILT, some clay, trace organics, sulfur odor, moist.		
20		2.2 / 4			0 11.3		Brown fine to coarse SAND and GRAVEL, wet. SAND and GRAVEL.		#2 Filter Sand (16 - 28 feet bgs)
25									0.02 inch slotted PVC Screen (18 - 28 feet bgs)

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Remarks: bgs - Below ground surface.

Date Start/Finish: 9/29/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Meratis
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore
4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:
Borehole Depth: 43 feet
Surface Elevation:
Geologist: Joe List

Well/Boring ID: MW-27D-2
Client: CEMC

MW-27D-2

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows / 6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0					0		Brown fine to coarse SAND, trace organics.		Cap Cement Pad
		2.7 / 4			3.2		Grey coarse SAND, some coarse to fine gravel, odor, moist.		Bentonite (1 - 3 feet bgs)
5					41.1				
		3.5 / 4			8.4		Grey coarse SAND, some coarse to fine gravel, odor, moist.		Sand Pack (3 - 12 feet bgs)
					11.3		Brown coarse to fine SAND, some gravel, little silt, no odor.		
		0.0 / 4	NA		2.1				2 inch PVC Casing (0.5 - 33 feet bgs)
10					0		No recovery.		
					8.1				
		3.0 / 4			13.4				
					0		Dark grey SILT, some clay, trace organics, sulfur odor, moist.		
					0				
15					0		Dark grey SILT, some clay, trace organics, sulfur odor, moist.		Bentonite (12 - 30 feet bgs)
					2.8				
		2.2 / 4			0		Brown fine to coarse SAND and GRAVEL, wet.		
20					11.3				
							SAND and GRAVEL.		
25									
30									00 Sand Pack (30 - 31 feet bgs)
35									#2 Filter Sand (31 - 43 feet bgs)
									0.02 inch slotted PVC Screen (33 - 43 feet bgs)
40									

BBL
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engineers & scientists

Remarks: bgs - Below ground surface.

Date Start/Finish: 10/6/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Morais
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore
4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:
Borehole Depth: 27.5 feet
Surface Elevation:
Geologist: Joe List

Well/Boring ID: MW-28D-1
Client: GEMC

MW-28D-1

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows / 6 Inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0							CONCRETE.		Cap; Cement Pad
		1.8 / 4					Brown coarse to fine SAND, moist to wet.		
					7.5		Light grey coarse SAND and fine GRAVEL, wet.		Bentonite (1 - 3 feet bgs)
5							Light grey coarse SAND and fine GRAVEL, wet.		Sand Pack (3 - 8 feet bgs)
		2.0 / 4			14.1				
		1.0 / 4	NA				Dark grey CLAY, some silt, trace organics and wood.		2 inch PVC Casing (0.5 - 17.5 feet bgs)
10					58.7				
		0.5 / 4					Dark grey CLAY, some silt, trace organics and wood.		Bentonite (8 - 15 feet bgs)
					3.5				
15							Dark grey CLAY, some silt, trace organics and wood.		00 Sand Pack (15 - 16 feet bgs)
					12.3		Brown to grey medium to fine SAND, trace coarse gravel, wet.		#2 Filter Sand (16 - 27.5 feet bgs)
		3.0 / 4			99.4				
20							SAND and GRAVEL.		
									0.02 inch slotted PVC Screen (17.5 - 27.5 feet bgs)
25									

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Remarks: bgs - Below ground surface.

Date Start/Finish: 10/5/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Morais
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore
4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:
Borehole Depth: 42.5 feet
Surface Elevation:
Geologist: Joe List

Well/Boring ID: MW-28D-2
Client: CEMC

MW-28D-2

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows/6 Inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0							CONCRETE.		Cap Cement Pad
		1.8 / 4			7.5		Brown coarse to fine SAND, moist to wet.		
5							Light grey coarse SAND and fine GRAVEL, wet.		Bentonite (1 - 3 feet bgs)
		2.0 / 4			14.1		Light grey coarse SAND and fine GRAVEL, wet.		Sand Pack (3 - 8 feet bgs)
		1.0 / 4	NA				Dark grey CLAY, some silt, trace organics and wood.		2 inch PVC Casing (0.5 - 32.5 feet bgs)
10					58.7				
		0.5 / 4					Dark grey CLAY, some silt, trace organics and wood.		Bentonite (8 - 30 feet bgs)
					3.5				
15							Dark grey CLAY, some silt, trace organics and wood.		
					12.3		Brown to grey medium to fine SAND, trace coarse gravel, wet.		
		3.0 / 4			99.4				
20							SAND and GRAVEL.		
25									
30									00 Sand Pack (30 - 31 feet bgs)
35									#2 Filter Sand (31 - 42.5 feet bgs)
									0.02 inch slotted PVC Screen (32.5 - 42.5 feet bgs)
40									

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Remarks: bgs - Below ground surface.

Date Start/Finish: 6/17/2016
Drilling Company: Summit Drilling
Driller's Name: Ninevski, Mobus, Crandall
Drilling Method: Rotary Sonic
Sampling Method: 5'x3" Rotary Sonic Sampler
Rig Type: Track-mounted Fraste Rotary Sonic

Northing: 164618.6100
Easting: 1080862.1500
Casing Elevation: NA

Borehole Depth: 46' bgs
Surface Elevation: 9.00' AMSL

Descriptions By: Levia Terrell

Well/Boring ID: **MW-28-D2R**

Client: Chevron Environmental Management Company

Location: Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
10							J-plug; Locking steel protective casing
0							
				0.0		Hand-cleared by AirVac Truck to 8.0' bgs.	Concrete pad
				0.0			
				0.0			
5				0.0			
	1	0-8	NA	0.0			2" dia. Sch. 40 PVC riser (2' ags-37' bgs)
5				0.0			
				0.0			
				0.0			
				0.0		Dark Gray medium to fine SAND, some fine to coarse Gravel, rounded, wet.	
0				0.0		Water approximately at 9.0' bgs.	
10				0.0		Dark Gray CLAY, some Organics (grass), little Silt. [Meadow Mat]	Grout (1-33' bgs)
	2	8-15	5.5	0.0			
				0.3		Dark Gray CLAY, little Organics (grass and shells), moist. [Meadow Mat]	
-5				0.2			
				1.3			
15				0.3			

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Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million; NR = no recovery.

Ground surface elevation is approximate.

Client: Chevron Environmental Management Company

Well/Boring ID: **MW-28-D2R**

Borehole Depth: 46' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
				8.8			Grout (1-33' bgs)
	3	15-20	5.5	7.5			2" dia. Sch. 40 PVC riser (2' ags-37' bgs)
-10				14.0		Dark Gray medium to fine SAND and SILT, trace medium to fine Gravel, rounded, moist.	
20				45.0			
				2.6			
				7.5		Brown fine to medium SAND, trace medium to fine Gravel, round, mica.	
	4	20-25	5.0	0.0			
				0.3			
-15				14.0			
25				0.0			
				0.0			
	5	25-30	4.0	0.0		Some medium to fine, rounded Gravel. Wet.	
				0.0		Brown to light brown coarse to medium SAND, some coarse to fine Gravel.	
-20				0.0			
30				0.0		Light Gray coarse to medium SAND and fine Gravel, rounded.	
				0.0			
	6	30-35	2.0	0.0			
				0.0			
-25				0.0			Bentonite seal (33-35' bgs)
35				0.0			

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million; NR = no recovery.

Ground surface elevation is approximate.

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Client: Chevron Environmental Management Company

Well/Boring ID: **MW-28-D2R**

Borehole Depth: 46' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
	7	35-40	4.5	0.0 0.0 0.0 0.0		Trace medium to coarse rounded Gravel. 1-inch color change to orange-brown. Light Gray medium to fine SAND, little medium to fine Gravel, rounded, mica present.	
40 / -30	8	40-46	NR	0.0 0.0 0.0 0.0 0.0		No Recovery. Overdrilled to 46.0' bgs for well placement. End of boring 46' bgs.	Filter sand (35-47' bgs) 2" dia. Sch. 40 PVC 0.020" slotted screen (37-47' bgs)
45 / -35							
50 / -40							
55 / -45							

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Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million; NR = no recovery.

Ground surface elevation is approximate.

Date Start/Finish: 9/30/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Moratis
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore
4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:
Borehole Depth: 27 feet
Surface Elevation:
Geologist: Joel Lisi

Well/Boring ID: MW-29D-1
Client: CEMC

MW-29D-1

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows /6 inches	N Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0							GRAVEL and ASPHALT		Cap
					0		Light brown coarse to fine GRAVEL, little sand, moist.		Cement Pad
		3.5 / 4			61.2		Grey coarse to fine SAND and GRAVEL, wet.		Bentonite (1 - 3 feet bgs)
					186				
5					20.6		Grey coarse to fine SAND and GRAVEL, wet.		Sand Pack (3 - 8 feet bgs)
		4.0 / 4			20.3				
			NA		0		Grey coarse to fine SAND and GRAVEL, some silt, wet.		
		3.4 / 4			0		Grey SILT, trace clay and organics, wood, and shells, wet.		2 inch PVC Casing (0.5 - 17 feet bgs)
10					0				
					0				
		2.7 / 4			0		Grey SILT, trace clay and organics, wet.		Bentonite (8 - 14 feet bgs)
					0				
15					0		Dark grey to black SILT and fine SAND, trace fine gravel, wet.		00 Sand Pack (14 - 15 feet bgs)
					0		Brown coarse to fine SAND, some fine gravel, wet.		
		3.5 / 4			0				#2 Filter Sand (15 - 27 feet bgs)
					0				
20							SAND and GRAVEL		
									0.02 inch slotted PVC Screen (17 - 27 feet bgs)
25									

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Remarks: bgs - Below ground surface.

Date Start/Finish: 9/30/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Morais
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore
4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:
Borehole Depth: 42 feet
Surface Elevation:
Geologist: Joe Lisi

Well/Boring ID: MW-29D-2
Client: CEMC

MW-29D-2

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows /6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0					0		GRAVEL and ASPHALT		Cap Cement Pad
		3.5 / 4			61.2		Light brown coarse to fine GRAVEL, little sand, moist.		
					186		Grey coarse to fine SAND and GRAVEL, wet.		Bentonite (1 - 3 feet bgs)
5					20.6		Grey coarse to fine SAND and GRAVEL, wet.		
		4.0 / 4			20.3				Sand Pack (3 - 8 feet bgs)
		3.4 / 4	NA		0		Grey coarse to fine SAND and GRAVEL, some silt, wet.		
					0		Grey SILT, trace clay and organics, wood chips, and shells, wet.		2 inch PVC Casing (0.5 - 32 feet bgs)
10					0				
					0				
		2.7 / 4			0		Grey SILT, trace clay and organics, wet.		Bentonite (8 - 29 feet bgs)
					0				
15					0		Dark grey to black SILT and fine SAND, trace fine gravel, wet.		
					0		Brown coarse to fine SAND, some fine gravel, wet.		
		3.5 / 4			0				
					0				
20							SAND and GRAVEL.		
25									00 Sand Pack (29 - 30 feet bgs)
30									
35									#2 Filter Sand (30 - 42 feet bgs)
									0.02 inch slotted PVC Screen (32 - 42 feet bgs)
40									

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Remarks: bgs - Below ground surface.

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Log of Boring **MW-29VD** Sheet 1 of 3

Project	Former Chevron/Gulf Petroleum Oil Terminal
Project No.	1836740
Location	Oceanside, NY
Elevation and Datum	Not Surveyed
Drilling Agency	Advanced Drilling
Date Started	12/4/06
Date Finished	12/26/06
Drilling Equipment	Gefco F-10 Drill Rig
Completion Depth	65 ft
Rock Depth	NA
Size and Type of Bit	8" I.D. Hollow Stem Auger/Mud Rodary
Number of Samples	Disturbed 17 / Undisturbed 0 / Core 0
Casing Diameter (in)	8"/4"
Casing Depth (ft)	15'/54'
Water Level (ft.)	First ▽ 3 / Completion ▼ / 24 HR. ▼
Casing Hammer	Weight (lbs) NA / Drop (in) NA
Drilling Foreman	Chris Stratton/Chris Nigliore
Sampler	2" O.D. Split Spoon
Inspecting Engineer	Anthony Sfeir/Andrew Racz
Sampler Hammer	Weight (lbs) 140 / Drop (in) 30

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Black coarse to fine SAND, some coarse to fine gravel, tarce silt		0						0950 - Start drilling using a 10" hollow-stem auger
				1						
				2						
				3						
				4						
		Black coarse to fine SAND, some coarse to fine gravel (Wet, Petroleum odor)		5	1	SS	3	2 2 4 5	6	Auger to 5 ft bgs
		Black coarse to fine SAND, little coarse to fine gravel (Wet, Petroleum odor)		6						Auger to 7 ft bgs
			0.5	7	2	SS	2	WH 1 1	2	
		Black coarse to fine SAND, little coarse to fine gravel (Wet, Petroleum odor)		8						Auger to 9 ft bgs
				9	3	SS	0.25	WH/24"		
				10					Refusal	
		CLAY, some silt, trace fine sand		11	4	SS	3	1 WH/18"		Auger to 11 ft bgs
				12					Refusal	
				13	5	SS	0	2 WR/12"		Auger to 13 ft bgs
				14				WH/12"	Refusal	
		Black coarse to medium SAND, trace fine sand, trace gravel		15	6	SS	1.5	WH/18"		Auger to 15 ft bgs 8" Casing installed at 15 ft Stop Drilling at 1110 on 12/4/2006 Resume Drilling on 12/26/2006 at 0900 Install temporary 4" steel casing from 0 to 13 ft bgs Drill to 15 ft
			4.2	16					Refusal	
		Black to brown medium SAND, some fine sand, trace fine gravel (Petroleum Odor, wet)		17				2		
			0.7	18	7	SS	8	7 14 14	28	
		Brown medium to fine SAND (Petroleum odor, wet)		19				15		Drill to 19 ft bgs Install 4" temporary casing to 19 ft bgs
				20	8	SS	14	12 29	45	

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Log of Boring **MW-29VD** Sheet 2 of 3

Project	Former Chevron/Gulf Petroleum Oil Terminal	Project No.	1836740
Location	Oceanside, NY	Elevation and Datum	Not Surveyed

Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
Brown medium to fine SAND, trace medium to fine subangular beach gravel (wet)	20	8	SS	14	16 16	45	Drill to 23 ft bgs
	23	9	SS	10	8 14 17 18	31	
Brown coarse to fine SAND, trace medium to fine subangular gravel (strong petroleum odor, wet)	25						
	28	10	SS	4	3 2 5 5	7	
Brown to white medium to fine SAND, trace medium to fine sub angular beach gravel (strong petroleum odor, wet)	30						
	33	11	SS	10	3 2 2 3	4	
Brown to light gray medium to fine SAND, trace fine to medium sub angular beach gravel (slight petroleum odor, wet)	35						
	38	12	SS	8	2 3 3 2	6	
Brown to gray coarse to medium SAND, trace fine to medium sub angular beach gravel (slight petroleum odor, wet)	40						
	43	13	SS	12	3 3 5 5	8	

PID Reading (ppm): 0.4, 0.2, 6.9, 3.8, 0, 0

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Log of Boring **MW-29VD** Sheet 3 of 3

Project	Former Chevron/Gulf Petroleum Oil Terminal	Project No.	1836740
Location	Oceanside, NY	Elevation and Datum	Not Surveyed

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Light brown to light gray coarse to medium SAND, trace fine to medium sub angular beach gravel		45						
				46						
				47						
				48				2		
				49	14	SS	6	3 2 3	5	
		Light gray mediu to fine SAND, trace medium to fine beach gravel (Wet)		50						
				51						
				52						
				53				19		
				54	15	SS	16	24 26	50	
		Light gray fine SAND, trace rock fragments, trace mediu to fine beach gravel (wet)		55				23		
				56						
				57						
				58				13		
				59	16	SS	12	21 28	49	
		Light Gray fine SAND, trace medium to fine beach gravel (wet)		60				40		
				61						
				62						
				63				11		
				64	17	SS	12	14 11	25	
		Gray silty CLAY		65				12		
				66						Drill to 54 ft bgs using a 6" bit Install Permanent 4" steel casing from 0 to 54 ft bgs Install 2" PVC Monitoring Well from at 63 ft bgs
				67						
				68						
				69						
				70						

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Date Start/Finish: 10/1/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Morais
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore
4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:
Borehole Depth: 28 feet
Surface Elevation:
Geologist: Joe List

Well/Boring ID: MW-30D-1
Client: CEMC

MW-30D-1

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows / 6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0							Coarse SAND and GRAVEL (fill).		Cap
		2.5 / 4			0		Brown coarse to fine SAND and GRAVEL, wet.		Cement Pad
					30.8				
					64.1		Grey brown coarse to fine SAND and GRAVEL, wet.		Bentonite (1 - 3 feet bgs)
5					33		Grey coarse to fine SAND, some gravel, trace silt, wet.		
		2.5 / 4			35.1				Sand Pack (3 - 8 feet bgs)
			NA		8.8				
		3.0 / 4			0		Grey SILT, some clay, trace fine sand and organics, wet.		2 inch PVC Casing (0.5 - 18 feet bgs)
10					8.1				
					13.4				
		1.5 / 4			0		Grey SILT, some clay, trace fine sand and organics, wet.		Bentonite (8 - 15 feet bgs)
					0				
15					0				00 Sand Pack (15 - 16 feet bgs)
					0		No recovery.		
		0.0 / 4			0				#2 Filter Sand (16 - 28 feet bgs)
					0				
20							SAND and GRAVEL.		
25									0.02 inch slotted PVC Screen (18 - 28 feet bgs)

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Remarks: bgs - Below ground surface.

Date Started/Finished: 9/30/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Moralis
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore
4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:
Borehole Depth: 43 feet
Surface Elevation:
Geologist: Joe Lisi

Well/Boring ID: MW-30D-2
Client: CEMC

MW-30D-2

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

Depth (Feet bgs)	Sample Run Number	Recovery (feet)	Blows / 6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0					0		Coarse SAND and GRAVEL (fill).		Cap Cement Pad
		2.5 / 4			30.8		Brown coarse to fine SAND and GRAVEL, wet.		
					64.1		Grey brown coarse to fine SAND and GRAVEL, wet.		Bentonite (1 - 3 feet bgs)
5					33		Grey coarse to fine SAND, some gravel, trace silt, wet.		Sand Pack (3 - 8 feet bgs)
		2.5 / 4			35.1				
		3.0 / 4	NA		8.8 0		Grey SILT, some clay, trace fine sand and organics, wet.		2 inch PVC Casing (0.5 - 33 feet bgs)
10					8.1				
					13.4				
		1.5 / 4			0		Grey SILT, some clay, trace fine sand and organics, wet.		Bentonite (8 - 30 feet bgs)
					0				
15					0				
							No recovery.		
		0.0 / 4							
20							SAND and GRAVEL.		
25									
30									00 Sand Pack (30 - 31 feet bgs)
35									#2 Filter Sand (31 - 43 feet bgs)
									0.02 inch slotted PVC Screen (33 - 43 feet bgs)
40									

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Remarks: bgs - Below ground surface.

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Log of Boring **MW-30VD** Sheet 1 of 4

Project	Former Chevron/Gulf Petroleum Oil Terminal
Project No.	1836740
Location	Oceanside, NY
Elevation and Datum	Not Surveyed
Drilling Agency	Advanced Drilling
Date Started	12/5/06
Date Finished	12/27/06
Drilling Equipment	Gefco F-10 Drill Rig
Completion Depth	86 ft
Rock Depth	NA
Size and Type of Bit	8" I.D. Hollow Stem Auger/Mud Rodary
Number of Samples	Disturbed 21 / Undisturbed 0 / Core 0
Casing Diameter (in)	8"/4"
Casing Depth (ft)	10'/73'
Water Level (ft.)	First ▽ 3 / Completion ▼ / 24 HR. ▽
Casing Hammer	Weight (lbs) NA / Drop (in) NA
Drilling Foreman	Chris Stratton/Chris Nigliore
Sampler	2" O.D. Split Spoon
Inspecting Engineer	Anthony Sfeir/Andrew Racz
Sampler Hammer	Weight (lbs) 140 / Drop (in) 30

MATERIAL SYMBOL	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Black coarse to fine SAND, some coarse to fine gravel (Petroleum Odor)		0						1005 - Start drilling using a 10" hollow-stem auger
		Black coarse SAND and coarse to fine GRAVEL, little fine sand (Wet, Petroleum odor)		5	1	SS	3	5 4 6 4	10	
		Black coarse to fine SAND, some coarse to fine gravel	10.2	7	2	SS	18	WH/24"	Refusal	Auger to 7 ft bgs
		Dark brown CLAY, some silt, some peat (Strong petroleum and organic odor)	0.8	8						
		Dark brown CLAY, little peat, little coarse to fine gravel, little silt (organic smell)	1.0	10	3	SS	12	1 1 1 1	2	Auger to 9 ft bgs Auger to 10 ft bgs Place 8" casing at 10 ft bgs Stop drilling at 1145 Resume drilling on 12/27/2006 Install temporary 4" casing from 0 to 15 ft bgs. Drill to 13 ft bgs
		Soft gray CLAY, some silt, trace organic matter, moist strong sulfur odor		11						
		Soft gray CLAY, some silt amd organic matter, wet, sulfur odor	3.9	14	5	SS	24	5 5 6 4	11	
			3.2	16	6	SS	18	3 5 5 10	10	
		Brown medium to fine SAND, chemical odor (wet)	0	17	7	SS	8	17 21 30 40	51	
		Coarse to medium SAND, and fine rounded GRAVEL some fine sand, (strong petroleum odor, wet)		19						
				20						

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Log of Boring **MW-30VD** Sheet 2 of 4

Project	Project No.
Former Chevron/Gulf Petroleum Oil Terminal	1836740
Location	**Elevation and Datum**
Oceanside, NY	Not Surveyed

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				20						
				21						
				22						
				23				18		Drill to 23 ft bgs
				24	9	SS	5	23 29 35	52	
		Brown Coarse to fine SAND, some fine GRAVEL, trace silt wet strong chemical odor		25						
				26						
				27						Drill to 28 ft bgs
				28				9		
			7.3	29	10	SS	8	16 18 21	34	
		Brown to white coarse to fine SAND, wet Strong Chemical odor		30						
				31						
				32						Drill to 33 ft bgs
				33				10		
			6	34	11	SS	6	14 23 20	37	
		White coarse to medium SAND, some fine sand wet Strong Chemical odor		35						
				36						
				37						Drill to 38 ft bgs
				38				4		
			0	39	12	SS	7	26 19 24	45	
		Light Brown medium SAND, some coarse sand, trace fine sand (wet, slight odor)		40						
				41						
				42						Drill to 43 ft bgs
				43				25		
			0	44	13	SS	6	27 18 10	45	
				45						

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Log of Boring **MW-30VD** Sheet 3 of 4

Project	Project No.
Former Chevron/Gulf Petroleum Oil Terminal	1836740
Location	**Elevation and Datum**
Oceanside, NY	Not Surveyed

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist Bl./6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Light brown to white medium SAND, some coarse to fine sand (wet, very slight odor)		45						
				46						
				47						
				48						Drill to 48 ft bgs
				49	14	SS	6	20 22 30 29	52	
		Light brown to white coarse to fine SAND, some fine rounded gravel (wet)		50						
				51						
				52						
				53						Drill to 53 ft bgs
				54	15	SS	8	30 58 65 74	123	
		White fine to medium SAND, wet		55						
				56						
				57						
				58						Drill to 58 ft bgs
				59	16	SS	4	50 50 50 50	100	
		White fine to medium SAND, some coarse sand, wet		60						
				61						
				62						
				63						Drill to 63 ft bgs
				64	17	SS	10	50 50 50 50	100	
		White fine to medium SAND, some coarse sand, wet		65						
				66						
				67						
				68						Drill to 68 ft bgs
				69	18	SS	12	16 29 41 58	70	
				70						

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Log of Boring **MW-30VD** Sheet 4 of 4

Project	Former Chevron/Gulf Petroleum Oil Terminal	Project No.	1836740
Location	Oceanside, NY	Elevation and Datum	Not Surveyed

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Brown to white medium to fine SAND, some medium to fine rounded gravel, wet		70						
				71						
				72						Drill to 72 ft bgs
				73	19	SS	14	22 48 54 54	102	
		White fine SAND very dense, wet, trace mica flakes		74						Resume drilling on 12/28/2006 Drill to 74 ft bgs
				75	20	SS	10	22 48 54 54	102	
				76						
				77						
				78						Drill to 78 ft bgs
		White fine SAND very dense, wet, trace mica flakes		79	21	SS	10	38 52 35 50	87	
				80						
				81						
				82						
				83						Drill to 83 ft bgs
		Brown coarse to medium SAND, some fine sand, trace of silt Brown clayey SAND, some medium to fine rounded gravel White fine to medium SAND, some silt and fine gravel Gray sandy CLAY, some fine to medium rounded gravel		84	22	SS	16	26 22 26 32	48	
				85				8		
		Medium to coarse SAND, some silt and clay (greenish), some fine to medium rounded gravel. Lense f grey silty clay		86	23	SS	20	12 38 40	50	End of boring at 85 ft on ~~12/27/2006~~ Drill from 0 to 73 ft bgs with 6" bit Install 4" steel casingfrom 0 to 73 ft bgs Well installed at 83 ft bgs
				87						
				88						
				89						
				90						
				91						
				92						
				93						
				94						
				95						

N-Value (Blows/ft) scale: 10 20 30 40

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Date Start/Finish: 10/7/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Morais
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore; 4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:
Borehole Depth: 27.5 feet
Surface Elevation:
Geologist: Joe List

Well/Boring ID: MW-31D-1
Client: CEMC

MW-31D-1

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows / 6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0							CONCRETE.		Cap
		1.2 / 4			4.0		Brown coarse to fine SAND, some fine gravel, moist.		Cement Pad
5							Brown coarse to fine SAND, some fine gravel, wet.		Bentonite (1 - 3 feet bgs)
		2.0 / 4			47.4		Brown coarse to fine SAND, some fine gravel, moist.		Sand Pack (3 - 8 feet bgs)
		3.1 / 4	NA		34.6		Dark grey CLAY, some silt, trace organics, wet.		2 inch PVC Casing (0.5 - 17.5 feet bgs)
10					58.7				
					64.9				
		0.0 / 4					No recovery		Bentonite (8 - 15 feet bgs)
					3.5				
15									00 Sand Pack (15 - 16 feet bgs)
					440		Dark grey CLAY, some silt, trace organics, wet.		
		2.4 / 4					Dark brown coarse to fine SAND, little fine gravel, trace organics, wet.		#2 Filter Sand (16 - 27.5 feet bgs)
					460				
20							SAND and GRAVEL.		
									0.02 inch slotted PVC Screen (17.5 - 27.5 feet bgs)
25									

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Remarks: bgs - Below ground surface.

Date Start/Finish: 11/16/10 - 12/6/10
Drilling Company: Parratt Wolff
Driller's Name: J. Price
Drilling Method: 4.24" HSA
Sampling Method: 2" x 2' Split Spoon
Rig Type: Vac Unit/IR 466

Northing: 164601.03
Easting: 1080906.14
Casing Elevation: 6.62

Borehole Depth: 27' bgs
Surface Elevation: 5.21

Descriptions By: MWE

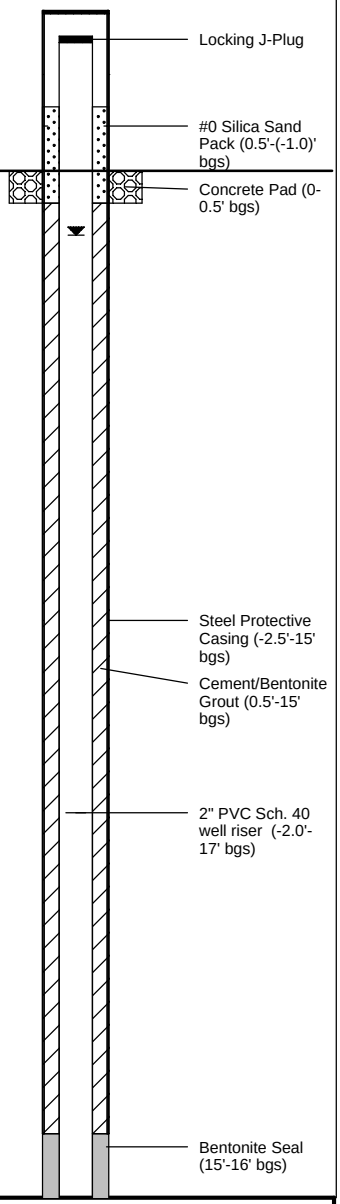
Well/Boring ID: **MW-31D-1R**

Client: Chevron

Location: Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0	5	1	0-2	Grab	0.6		Brown fine to coarse SAND and GRAVEL (S,NP)
		2	2-4	Grab	21.8		moderate petroleum-like odor
5	0	3	4-6	Grab	0.8		Brown fine to coarse SAND, little fine to medium Gravel (S,NP)
		4	6-8	Grab	0.5		
		5	8-10	2.0	2.6		
10	-5	6	10-12	2.0	1.7		Grey SILT and CLAY, little Wood (fibrous), Organics, trace fine Sand (S,MP)
		7	12-14	2.0	0.8		faint sulfur and petroleum-like odor (9.5'-23' bgs)
							Drilled to 15' bgs to set 4" steel casing
15	-10	8	15-17	NR	NA		No Recovery

Well/Boring Construction



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Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ MW-31D-1R (0-2'), (2-4'), (4-6') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Client: Chevron

Well/Boring ID: **MW-31D-1R**

Borehole Depth: 27' bgs

Site Location:
Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
		8	15-17	NR	NA			
		9	17-19	1.2	2.5		Brown to grey fine to medium SAND, trace fine to medium Gravel (S,NP)	
20	-15	10	19-21	1.0	8.6		faint sulfur and petroleum-like odor (9.5'-23' bgs)	#0 Silica Sand Pack (16'-27' bgs)
		11	21-23	2.0	0.0			2" PVC Sch. 40 well screen (17'-27' bgs)
		12	23-25	1.3	0.0			
25	-20	13	25-27	1.0	0.0			
							End of boring at 27' bgs	
30	-25							
35								

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Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ MW-31D-1R (0-2'), (2-4'), (4-6') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Date Start/Finish: 10/7/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Morais
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore
4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:

Borehole Depth: 42.5 feet
Surface Elevation:

Geologist: Joe Lisi

Well/Boring ID: MW-31D-2
Client: CEMC

MW-31D-2

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows / 6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0							CONCRETE.		Cap Cement Pad
		1.2 / 4			4.0		Brown coarse to fine SAND, some fine gravel, moist.		Bentonite (1 - 3 feet bgs)
5							Brown coarse to fine SAND, some fine gravel, wet.		Sand Pack (3 - 8 feet bgs)
		2.0 / 4			47.4		Brown coarse to fine SAND, some fine gravel, moist.		
		3.1 / 4	NA		34.6		Dark grey CLAY, some silt, trace organics, wet.		2 inch PVC Casing (0.5 - 32.5 feet bgs)
10					64.9				
		0.0 / 4					No recovery		Bentonite (8 - 30 feet bgs)
15									
					440		Dark grey CLAY, some silt, trace organics, wet.		
		2.4 / 4					Dark brown coarse to fine SAND, little fine gravel, trace organics, wet.		
20					460				
							SAND and GRAVEL.		00 Sand Pack (30 - 31 feet bgs)
25									
30									#2 Filter Sand (31 - 42.5 feet bgs)
35									0.02 inch slotted PVC Screen (32.5 - 42.5 feet bgs)
40									

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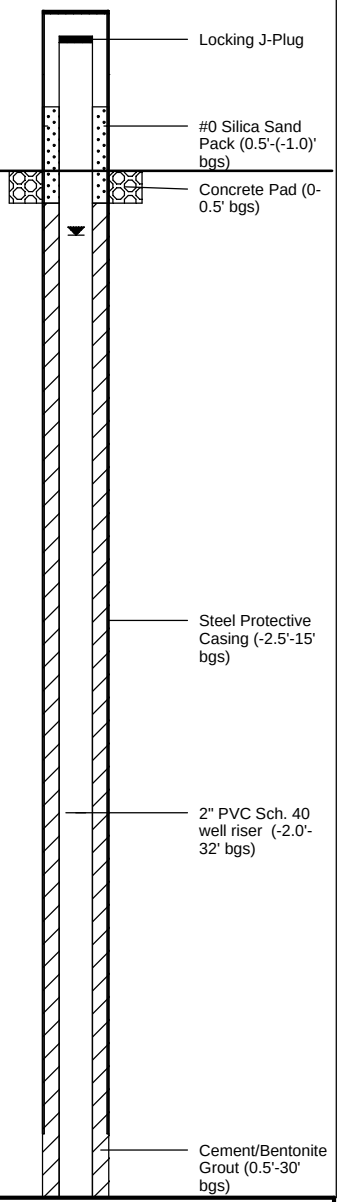
Remarks: bgs - Below ground surface.

Date Start/Finish: 11/17/10 - 12/7/10 **Drilling Company:** Parratt Wolff **Driller's Name:** J. Price **Drilling Method:** 4.24" HSA **Sampling Method:** 2" x 2' Split Spoon **Rig Type:** Vac Unit/IR 466	**Northing:** 164603.76 **Easting:** 1080912.75 **Casing Elevation:** 6.11 **Borehole Depth:** 42' bgs **Surface Elevation:** 5.41 **Descriptions By:** MWE	**Well/Boring ID:** **MW-31D-2R** **Client:** Chevron **Location:** Oceanside Former Gulf Terminal Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0							
	5	1	0-2	Grab	0.2		Brown fine to coarse SAND and fine to medium subangular Gravel (S,NP)
		2	2-4	Grab	2.3		
5	0	3	4-6	Grab	78.4		Brown to grey fine to medium SAND, little to trace fine to medium Gravel (S,NP) heavy petroleum-like odor at water table
		4	6-8	Grab	11.7		
		5	8-10	2.0	6.8		
10	-5	6	10-12	2.0	3.4		Grey CLAY and SILT, little to trace fine Sand, Organics, trace fine to medium Gravel (S,MP) meadowmat material
		7	12-14	2.0	2.3		heavy sulfur-like odor
							Drilled from 14' to 15' before beginning mud rotary
15	-10	8	15-17	1.0	52.4		Grey to brown fine to medium SAND, trace fine to medium Gravel (S,NP)



Well/Boring Construction

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Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ MW-31D-2R (2-4'), (4-6'), (6-8'), (17-19') & Dup-111710 @ (4-6') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Client: Chevron

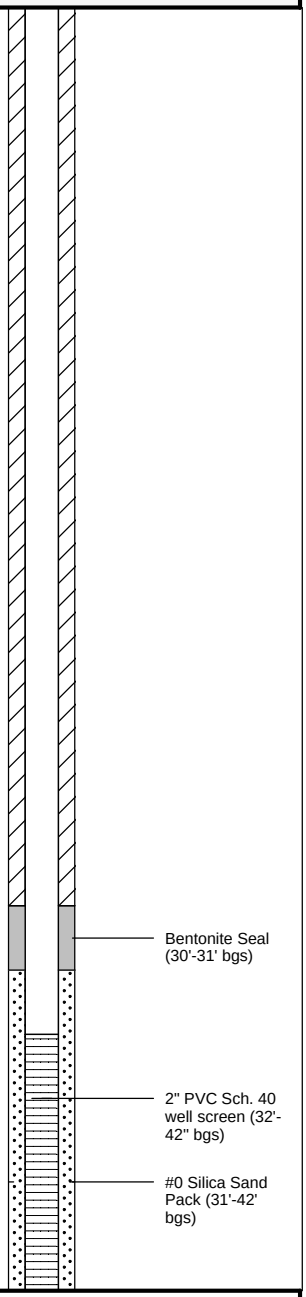
Well/Boring ID: **MW-31D-2R**

Borehole Depth: 42' bgs

Site Location:
Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
		8	15-17	1.0	52.4		
		9	17-19	1.6	20.0		
20	-15	10	19-21	2.0	6.8		
		11	21-23	2.0	2.8		
		12	23-25	2.0	1.7		Brown fine to coarse SAND
25	-20	13	25-27	2.0	0.6		
		14	27-29	2.0	0.0		Brown medium to coarse SAND, little fine Sand (S,NP)
30	-25	15	29-31	2.0	0.0		
		16	31-33	2.0	0.0		
		17	33-35	2.0	0.0		Brown coarse SAND, trace fine to medium Sand (S,NP)
35	-30						Drilled to 42' bgs, unable to keep hole open for representative sample collection

Well/Boring Construction



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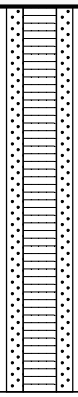
Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ MW-31D-2R (2-4'), (4-6'), (6-8'), (17-19') & Dup-111710 @ (4-6') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Client: Chevron

Well/Boring ID: **MW-31D-2R**

Borehole Depth: 42' bgs

Site Location:
Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
40 / -35							
45 / -40						End of boring at 42' bgs	
50 / -45							

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Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ MW-31D-2R (2-4'), (4-6'), (6-8'), (17-19') & Dup-111710 @ (4-6') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

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Log of Boring **MW-32D** Sheet 1 of 2

Project	Former Chevron/Gulf Petroleum Oil Terminal
Project No.	1836740
Location	Oceanside, NY
Elevation and Datum	Not Surveyed
Drilling Agency	Advanced Drilling
Date Started	12/7/06
Date Finished	12/13/06
Drilling Equipment	Gefco F-10 Drill Rig
Completion Depth	35 ft
Rock Depth	NA
Size and Type of Bit	8" I.D. Hollow Stem Auger/Mud Rodary
Number of Samples	Disturbed 15 / Undisturbed 0 / Core 0
Casing Diameter (in) 8" / Casing Depth (ft) 17'	Water Level (ft.) First ▽ 9 / Completion ▼ / 24 HR. ▽
Casing Hammer / Weight (lbs) NA / Drop (in) NA	Drilling Foreman: Chris Stratton/Chris Nigliore
Sampler: 2" O.D. Split Spoon	Inspecting Engineer: Anthony Sfeir/Andrew Racz
Sampler Hammer / Weight (lbs) 140 / Drop (in) 30	

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Dark gray coarse SAND, some medium to fine sand, some coarse to fine gravel		0						1315 - Start drilling using a 10" hollow-stem auger
				1						
				2						
				3						
				4						
				5						Auger to 5 ft bgs
		Light gray coarse SAND, some medium sand, trace coarse to fine grael	0.2	6	1	SS	10	2 4 4 5	8	
		Light gray coarse SAND, soe medium sand, moist	5.0	7						Auger to 7 ft bgs
				8	2	SS	24	3 2 2 2	4	
		Dark gray CLAY, some peat (organis smell, moist) ▽		9						Auger to 9 ft bgs
		Light gray coarse SAND, some medium to fine sand, trace of brick (wet)	0.0	10	3	SS	4	1/12" 1/12"		
				11	4	SS	0.5	WH/24"	Refusal Refusal	Auger to 11 ft bgs
		Light gray coarse SAND, some medium to fine sand, trace of brick (wet)	0.0	12						
				13	5	SS	0	WH/24"	Refusal	Auger to 13 ft bgs
				14						
		Light gray coarse SAND, some medium to fine sand, wet	12	15	6	SS	24	1/12" 1 1		Auger to 15 ft bgs
		Dark gray CLAY, some silt, little peat (organic smell)		16						
		Dark gray CLAY, trace peat, some silt (organic smell)	22	17	7	SS	1	WH/18"	Refusal	Auger to 17 ft bgs 8" casing installed at 17 ft bsg
				18				1	Refusal	Stop drilling at 1600 on 12/7/2006 Resume drilling at 1015 on 12/13/2006
		Dark gray CLAY, trace peat, some silt (organic smell)	0.0	19	8	SS	13	WOR/12"		Drill to 19 ft bgs
				20					Refusal	

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Log of Boring **MW-32D** Sheet 2 of 2

Project	Former Chevron/Gulf Petroleum Oil Terminal	Project No.	1836740
Location	Oceanside, NY	Elevation and Datum	Not Surveyed

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		PEAT and organic matter some clay, sulfur odor		20				WH/12	10 20 30 40 Refusal	
		gray CLAY, some silt, wet, sulfr odor	0.0	21	9	SS	24	WH 2 2 5	4	
		CLAY and PEAT, brown some silt, sulfur odor		22						Drill to 23 ft bgs
		White medium to coarse SAND, trace fine sand, sulfur odor	7.8	23	10	SS	12	7 8 22 21	30	
			6.6	25						
				26	11	SS	12	12 22 19 19	41	
		Yellow coarse to medium SAND, trace fine sand								Drill to 27 ft bgs
		White medium to coarse SAND, trace fine sand	10.3	27				11		
				28	12	SS	8	16 16 18	32	
		White medium to coarse SAND, trace fine sand	0.0	29				17		
				30	13	SS	18	18 19 18	37	
		Yellow to white coarse to fine SAND, trace fine sand and fine gravel, slight odor	0.0	31				5		
				32	14	SS	12	6 9 13	15	
			0.0	33						
				34	15	SS	12	11 19 17 22	36	Stop drilling at 1200 on ~~12/13/2006~~ 2" PVC Monitoring well installed at 34'
				35						
				36						
				37						
				38						
				39						
				40						
				41						
				42						
				43						
				44						
				45						

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Log of Boring **MW-33D** Sheet 1 of 2

Project: Former Chevron/Gulf Petroleum Oil Terminal	Project No.: 1836740
Location: Oceanside, NY	Elevation and Datum: Not Surveyed
Drilling Agency: Advanced Drilling	Date Started: 12/7/06 — Date Finished: 12/12/06
Drilling Equipment: Gefco F-10 Drill Rig	Completion Depth: 29 ft — Rock Depth: NA
Size and Type of Bit: 8" I.D. Hollow Stem Auger/Mud Rodary	Number of Samples: Disturbed 12 — Undisturbed 0 — Core 0
Casing Diameter (in): 8" — Casing Depth (ft): 13'	Water Level (ft.): First ▽ 7 — Completion ▼ — 24 HR. ▼
Casing Hammer — Weight (lbs): NA — Drop (in): NA	Drilling Foreman: Chris Stratton/Chris Nigliore
Sampler: 2" O.D. Split Spoon	Inspecting Engineer: Anthony Sfeir/Andrew Racz
Sampler Hammer — Weight (lbs): 140 — Drop (in): 30	

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Black coarse SAND, some medium sand, some coarse to fine gravel		0						1520 - Start drilling using a 10" hollow-stem auger on 12/7/2006
				1						
				2						
			209	3						
				4						
		Black coarse SAND, some medium sand, some coarse to fine gravel (petroleum smell)	22	5	1	SS	1	2 1 1	2	Auger to 5 ft bgs
		Black coarse SAND, some medium sand, some coarse to fine gravel (Petroleum smell) ▽		6						
				7	2	SS	1	1 WH/18"		Auger to 7 ft bgs
				8						Refusal
		Dark brown coarse SAND, some medium to fine sand, some coarse to fine garvel Petroleum odor)	35	9	3	SS	3	WH/24"		Auger to 9 ft bgs
				10						Refusal
		Meadow Mat (No Recovery)	25	11	4	SS	0	WH/24"		Auger to 11 ft bgs
				12						Refusal
				13	5	SS	0	WH/12"		Cuttings consists of clay and peat
				14				4		Auger to 13 ft bgs 8" casing installed at 13 ft bgs
				15				4		Refusal
				16	6	SS	0	3 2 3 4	5	
		Light brown medium SAND, some fine sand, trace of silt (Wet, organic smell)	4	17						Auger to 17 ft bgs Stop drilling at 1630 on 12/7/2006 Resume drilling at 1430 on 12/13/2006
				18	7	SS	18	3 3 8 12	11	
		Yellowish brown medium to fine SAND, some coarse sand (Wet, organic smell)	21	19	8	SS	11	4 6	14	Drill to 19 ft bgs
				20						

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Log of Boring **MW-33D** Sheet 2 of 2

Project	Former Chevron/Gulf Petroleum Oil Terminal	Project No.	1836740
Location	Oceanside, NY	Elevation and Datum	Not Surveyed

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Light brown medium to fine SAND, some coarse sand, little fine gravel (Wet, organic odor)	8	20	8	SS	11	8 6	14	
				21	9	SS	18	5 10 17 12	27	
		Coarse to medium SAND (Wet , organic odor)	2.7	22 23	10	SS	12	6 8 10 10	18	
		Light brown coarse to medium SAND, trace of fine sand (Wet, organic odor)	6	24 25	11	SS	15	10 11 10 12	21	Drill to 25 ft bgs
		White medium SAND, little coarse sand (Wet, organic smell)	14	26 27	12	SS	12	10 12 11 7	23	Drill to 27 ft bgs
				28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45						Stop drilling at 1525 on 12/13/2006 End of boring at 29 ft bgs 2" PVC Monitoring well installed at 28 ft bgs

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Log of Boring **MW-34D** Sheet 1 of 2

Project	Former Chevron/Gulf Petroleum Oil Terminal
Project No.	1836740
Location	Oceanside, NY
Elevation and Datum	Not Surveyed
Drilling Agency	Advanced Drilling
Date Started	12/8/06
Date Finished	12/12/06
Drilling Equipment	Gefco F-10 Drill Rig
Completion Depth	35 ft
Rock Depth	NA
Size and Type of Bit	8" I.D. Hollow Stem Auger/Mud Rodary
Number of Samples	Disturbed 15 / Undisturbed 0 / Core 0
Casing Diameter (in) 8" / Casing Depth (ft) 11'	Water Level (ft.) First ▽ 7 / Completion ▼ / 24 HR. ▼
Casing Hammer / Weight (lbs) NA / Drop (in) NA	Drilling Foreman: Chris Stratton/Chris Nigliore
Sampler: 2" O.D. Split Spoon	Inspecting Engineer: Anthony Sfeir/Andrew Racz
Sampler Hammer / Weight (lbs) 140 / Drop (in) 30	

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Black coarse SAND, some medium to fine sand, some coarse to fine gravel (moist, petroleum odor)	70	0						1045 - Start drilling using a 10" hollow-stem auger on 12/8/2006
				1						
				2						
				3						
				4						
			200	5						Auger to 5 ft bgs
		Black coarse SAND, some medium to fine sand, some coarse to fine gravel, trace of roots (moist, petroleum smell)		6	1	SS	15	3 4 5 4	9	
		Dark brown coarse SAND, some medium to fine sand, trace brick (wet, Petroleum smell) ▽	42	7						Auger to 7 ft bgs
				8	2	SS	15	5 4 2 2	6	
				9						Auger to 9 ft bgs
		Dark gray CLAY, some peat, trace fine gravel, some silt (organic and petroleum odor)	40	10	3	SS	20	4 1/12" 2		
		Dark gray CLAY, some silt, trace peat (organic and petroleum odor)	53	11					Refusal	Auger to 11 ft bgs 8" Casing installed at 11 ft bgs
				12	4	SS	10	1 1 1 1	2	Stop drilling at 1130 on 12/8/2006
			33	13	5	SS	23	WH/24"	Refusal	Resume Drilling on 12/12/2006 at 0920 Drill to 13 ft bgs
				14						
			48	15				WH		
				16	6	SS	24	1 2 1	3	
			54	17	7	SS	20	WH/24"	Refusal	Drill to 17 ft bgs
				18						
			34	19	8	SS	20	WH 1	3	
				20						

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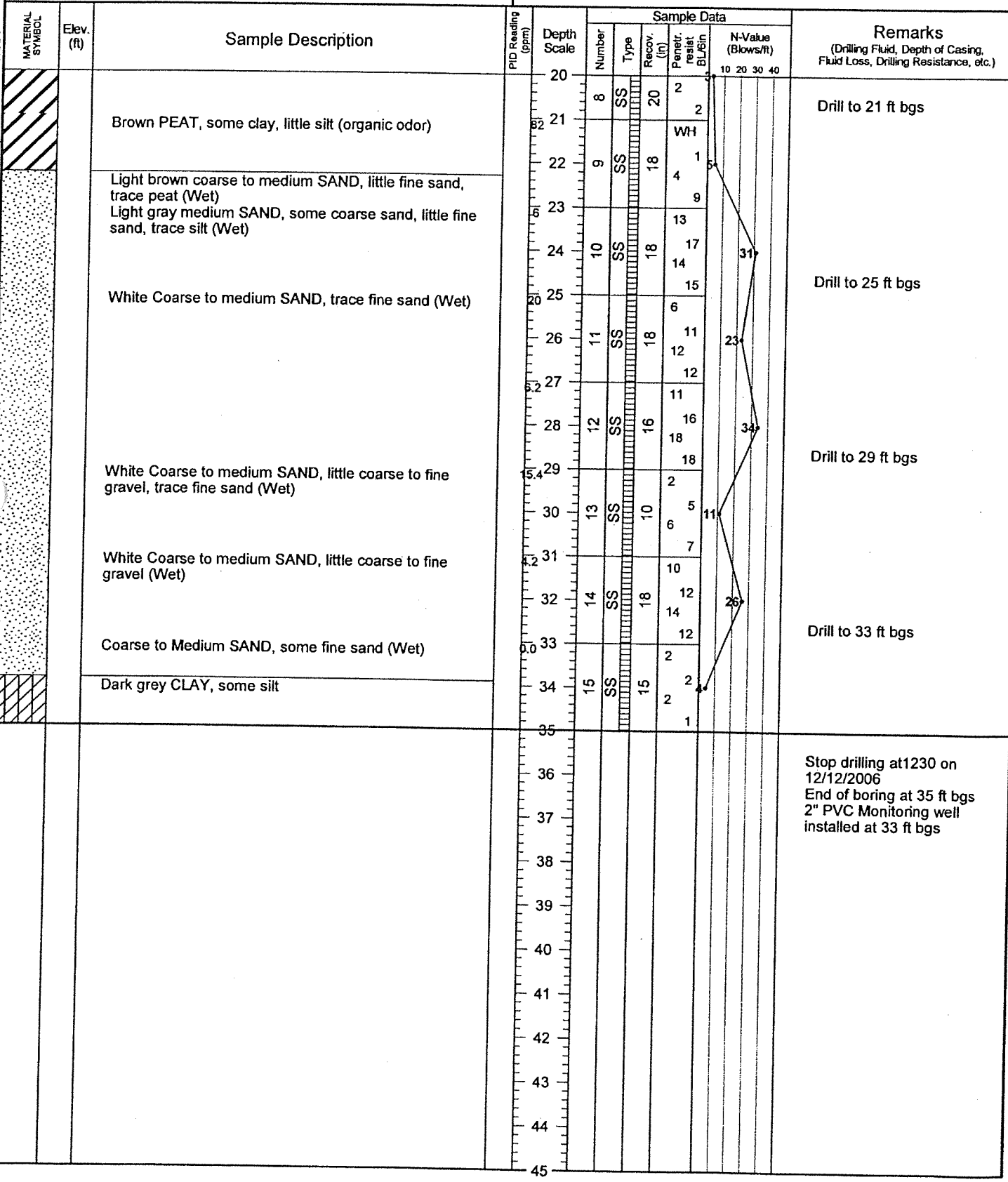
Log of Boring **MW-34D** Sheet 2 of 2

Project	Project No.
Former Chevron/Gulf Petroleum Oil Terminal	1836740
Location	**Elevation and Datum**
Oceanside, NY	Not Surveyed



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Log of Boring **MW-35D** Sheet 1 of 2

Project: Former Chevron/Gulf Petroleum Oil Terminal	Project No.: 1836740
Location: Oceanside, NY	Elevation and Datum: Not Surveyed
Drilling Agency: Advanced Drilling	Date Started: 12/8/06 — Date Finished: 12/11/06
Drilling Equipment: Gefco F-10 Drill Rig	Completion Depth: 27 ft — Rock Depth: NA
Size and Type of Bit: 8" I.D. Hollow Stem Auger/Mud Rodary	Number of Samples: Disturbed 11 — Undisturbed 0 — Core 0
Casing Diameter (in): 8" — Casing Depth (ft): 11'	Water Level (ft.): First ▽ 6.8 — Completion ▼ — 24 HR. ▼
Casing Hammer — Weight (lbs): NA — Drop (in): NA	Drilling Foreman: Chris Stratton/Chris Nigliore
Sampler: 2" O.D. Split Spoon	Inspecting Engineer: Anthony Sfeir/Andrew Racz
Sampler Hammer — Weight (lbs): 140 — Drop (in): 30	

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Reddish brown coarse to fine SAND, some coarse to fine gravel, trace balck coarse sand (moist)		0						1400 - Start drilling using a 10" hollow-stem auger on 12/8/2006
		Dark brown coarse to fine SAND, some coarse to fine gravel (moist)		5.0	1	SS	8	3 2 1	3	Auger to 5 ft bgs
		Grey coarse SAND, some medium to fine sand, trace fine gravel (wet, light petroleum odor)		7.0	2	SS	24	3 2 2	4	Auger to 7 ft bgs
		Dark brown coarse SAND, some medium to fine sand, little fine gravel (Wet)		9.0	3	SS	24	WH/24"	Refusal	Auger to 9 ft bgs
		Grey CLAY, trace peat, some silt		10						
		Grey CLAY, some silt, trace peat (Organic Odor)		11.0	4	SS	13	1 1 1	2	Auger to 11 ft bgs 8" Casing installed at 11 ft bgs Stop drilling at 1440 on 12/8/2006
		Grey CLAY, some peat, some silt (organic odor)		13.0	5	SS	20	WH/18"	Refusal	Auger to 13 ft bgs
		Dark brown coarse to medium SAND, some fine sand (Wet, petroleum odor)		15.0	6	SS	20	4 7 8	11	
				17.0	7	SS	20	9 15 21 20	36	
				19.0	8	SS	11	5 1	9	
				20						

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Log of Boring **MW-35D** Sheet 2 of 2

Project	Former Chevron/Gulf Petroleum Oil Terminal	Project No.	1836740
Location	Oceanside, NY	Elevation and Datum	Not Surveyed

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Dark brown coarse to medium SAND, some fine sand, trace coarse to fine fravel (Wet, petroleum odor)		20	8	SS	11	8 12	9	
				21 (5.0)	9	SS	18	10 15 18 14	33	Drill to 23 ft bgs
		Brown coarse to medium SAND, trace coarse to fine gravel (Wet, Petroleum Odor)		22 23 (3.8)	10	SS	10	4 5 9 12	14	
		Brown Coarse to medium SAND, trace coarse to fine gravel (Petroleum odor, Wet)		24 25 (4.4)	11	SS	18	16 16 16 12	32	Drill to 26 ft bgs
				26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45						Stop drilling at 1400 on 12/11/2006 End of boring at 27 ft bgs 2" PVC Monitoring well installed at 26 ft bgs

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Log of Boring **MW-36D** Sheet 1 of 2

Project: Former Chevron/Gulf Petroleum Oil Terminal	Project No.: 1836740
Location: Oceanside, NY	Elevation and Datum: Not Surveyed
Drilling Agency: Advanced Drilling	Date Started: 12/14/06 — Date Finished: 12/20/06
Drilling Equipment: Gefco F-10 Drill Rig	Completion Depth: 33 ft — Rock Depth: NA
Size and Type of Bit: 8" I.D. Hollow Stem Auger/Mud Rodary	Number of Samples: Disturbed 14 — Undisturbed 0 — Core 0
Casing Diameter (in): 8" — Casing Depth (ft): 13'	Water Level (ft.): First ▽ 5 — Completion ▼ — 24 HR. ▼
Casing Hammer — Weight (lbs): NA — Drop (in): NA	Drilling Foreman: Chris Stratton/Chris Nigliore
Sampler: 2" O.D. Split Spoon	Inspecting Engineer: Anthony Sfeir/Andrew Racz
Sampler Hammer — Weight (lbs): 140 — Drop (in): 30	

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist Bl./6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Coarse angular gravel, concrete and brick fragments; some medium sand, some plant material, wet		0						1330 - Start drilling using a 10" hollow-stem auger on 12/14/2006
				1						
				2						
				3						
				4						
				5						Auger to 5 ft bgs
			0.0							
		coarse to fine SAND, wet petroleum odor		6	1	SS	18	6 6 6	12	
		Coarse to fine SAND, wet slight odor		7						Auger to 7 ft bgs
			1.8		2	SS	24	5 4 2 2	6	
				8						Auger to 9 ft bgs
		Dark gray CLAY, soft, wet, spme peat and plat material, trace silt, strong sulfur odor		9						
			6.4		3	SS	2	1 2 1/18"		
		Meadow Mat (No Recovery)		10						
				11	4	SS	0.0	WH/2"	Refusal	
				12						
				13	5	SS	0.0	WH/2"	Refusal	8" Steel casing installed at 13 ft bgs
				14						
				15	6	SS	0.0	WH/2"	Refusal	Auger to 15 ft bgs Stop drilling 1410 on 12/14/2006 Resume drilling on 12/19/2006 at 1400
				16						
				17	7	SS	0.0	WH/2"	Refusal	
				18						
		Dark gray CLAY and PEAT, soft, wet, organic sulfur odor		19	8	SS	16	WH/12"		Drill to 19 ft bgs
				20						

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Log of Boring **MW-36D** Sheet 2 of 2

Project	Project No.
Former Chevron/Gulf Petroleum Oil Terminal	1836740
Location	**Elevation and Datum**
Oceanside, NY	Not Surveyed

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				20				2 WH/6"	Refusal	Drill to 21 ft bgs
		Brown PEAT, roots, decaying plant matter, some silt and clay		21						
				22	9	SS	20	25 30 35 40	65	
		Gray to white medium to fine SAND, trace fine gravel, wet, organic/chemical odor White coarse to fine SAND, some fine gravel, wet, organic/chemical odor	0.0	23						
				24	10	SS	18	6 5 10 13	15	
		gray to white coarse SAND and fine GRAVEL, some medium sand, trace fine sand, wet faint odor	0.0	25						
				26	11	SS	10	15 20 33 35	53	
		White medium to fine SAND, trace coarse sand, wet, faint odor	0.0	27						
				28	12	SS	12	15 20 33 35	53	Drill to 29 ft bgs
			0.0	29						
				30	13	SS	8	10 12 14 16	26	
		White coarse to fine SAND, wet very faint odor	0.0	31						
				32	14	SS	16	15 15 16 22	31	
				33						
				34						End of boring at 34 ft bgs 2" PVC Monitoring well installed at 34 ft bgs
				35						
				36						
				37						
				38						
				39						
				40						
				41						
				42						
				43						
				44						
				45						

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Date Start/Finish: 1/29/2013-2/14/2013
Drilling Company: Parratt-Wolff Inc.
Driller's Name: J.Price/R.Navatka
Drilling Method: 6 1/4" HSA / Mud Rotary
Sampling Method: 2" x 2' Split Spoon
Rig Type: IR A-300 Truck Mounted Rig

Northing: 164794.2800
Easting: 1080954.7400
Casing Elevation: NA

Borehole Depth: 29' bgs
Surface Elevation: 6.70' AMSL

Descriptions By: J.Oliver

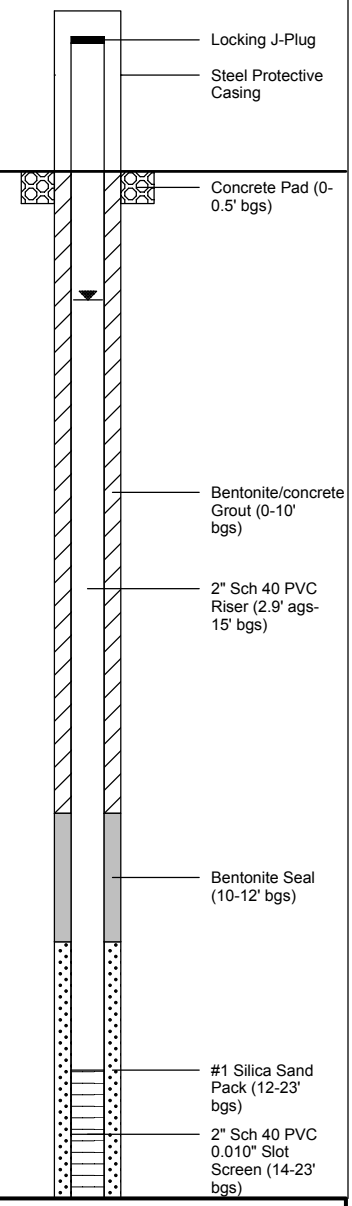
Well/Boring ID: **OW-01-D1**

Client: Chevron EMC

Location: Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0	1	0-1	NA	NA		CONCRETE pieces and fine to medium SAND, trace fine Gravel, Silt, Organics, odor, moist.
5	2	1-2	NA	15.1		Brown fine to medium SAND, little to trace Silt, trace fine Gravel, odor, moist to wet.
	3	2-3	NA	2.3		
0	NA	NA	NA	NA		Unable to collect samples due to borehole collapse.
5						Gray fine to medium SAND, trace Clay, odor, wet.
	4	8-10	0.9	11.9		Gray SILT and CLAY, little Peat, plastic, odor, wet.
10	5	10-12	0.9	11.3		
-5	6	12-14	1.0	6.0		Gray SILT and CLAY, trace fine to medium Sand, Organics, odor, wet.
15	7	14-16	1.2	6.1 23		Gray SILT and fine SAND, some to little Clay, odor, wet.

Well/Boring Construction



Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Ground surface elevation is approximate.

ARCADIS Design & Consultancy for natural and built assets

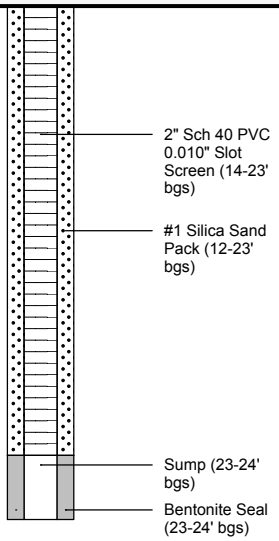
Client: Chevron EMC

Well/Boring ID: **OW-01-D1**

Borehole Depth: 29' bgs

Site Location:
Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
-10				10.4			
	8	16-18	1.4	29.1		Brown fine SAND, trace Silt, Organics, odor, wet.	
						Color becomes lighter with depth. Material coarsening with depth to [medium to fine Sand].	
	9	18-20	1.0	35 56		Light gray/light brown fine SAND, trace medium Sand, odor, wet.	
20							
	10	20-22	1.2	20 26		Brown/ light brown fine to medium SAND, trace coarse Sand, odor, wet.	
-15							
	11	22-24	1.4	19.3 43.7			
	12	24-26	0.8	11.4 4.6		Light brown/ light gray medium to fine SAND, trace coarse Sand, wet. Fine subrounded Gravel lamination at 24.5' bgs	
25							
-20				5.1			
	13	26-28	1.6	40.1		Light to very light gray medium to coarse SAND, little fine Sand (increasing with depth), wet.	
	14	28-29	0.4	18.4		Light fine SAND, little medium Sand, odor, wet.	
30						End of boring at 29' bgs.	
-25							
35							



ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Ground surface elevation is approximate.

Date Start/Finish: 1/29/2013-2/14/2013
Drilling Company: Parratt-Wolff Inc.
Driller's Name: J.Price/J. Cavelier
Drilling Method: 6 1/4" HSA / Mud Rotary
Sampling Method: 2" x 2' Split Spoon
Rig Type: IR A-300 Truck Mounted Rig

Northing: 164796.4600
Easting: 1080931.8600
Casing Elevation: NA

Borehole Depth: 29' bgs
Surface Elevation: 7.00' AMSL

Descriptions By: J.Oliver

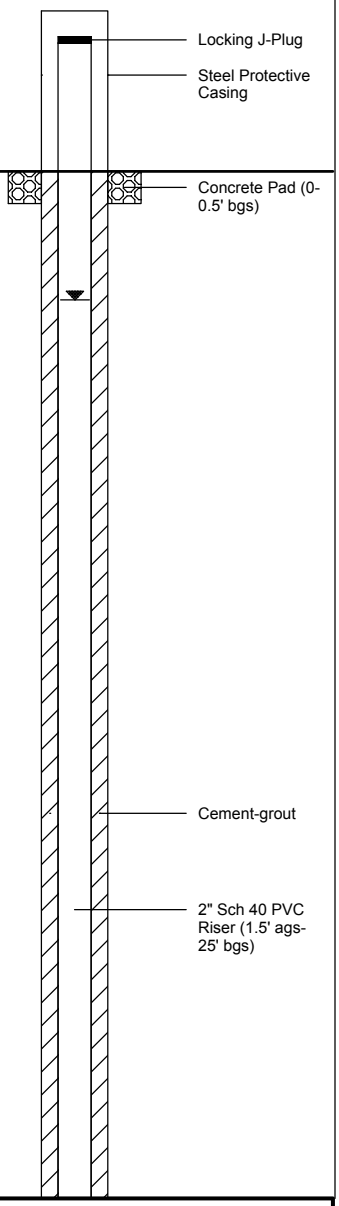
Well/Boring ID: **OW-02-D1**

Client: Chevron EMC

Location: Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0		1	0-1	NA	0.0		Light brown medium to coarse SAND, some fine Sand, fine subrounded to subangular Gravel, trace Organics, moist.
							Gray-brown, wet.
5	5	2	1-3	NA	0.9		
		3	3-5	NA	90.3		Gray fine to medium SAND, trace fine Gravel, coarse Sand, wet, odor.
5		NA	5-8	NA	NA		Unable to collect samples due to borehole collapse.
	0						
		4	8-10	0.7	16.9		Gray CLAY and SILT, trace fine Sand and Peat, moderate plasticity, odor, wet.
10		5	10-12	0.9	10.8		Trace Shells.
	-5	6	12-14	0.7	17.3		Gray SILT and CLAY, trace fine Sand seam at 12.2' bgs, plastic, wet, odor.
15		7	14-16	2.0	12.1 18.4		

Well/Boring Construction



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Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Ground surface elevation is approximate.

Client: Chevron EMC

Well/Boring ID: **OW-02-D1**

Borehole Depth: 29' bgs

Site Location:
Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
						Gray to dark brown fine SAND and SILT, some CLAY, wet, odor.	
-10	8	16-18	0.8	20.2 85		Brown to light brown fine to medium SAND, trace Organics, odor, wet.	Cement-grout
	9	18-20	1.4	22.1 35.7		Brown to light brownish gray fine to medium SAND, odor, wet.	2" Sch 40 PVC Riser (1.5' ags-25' bgs)
20	10	20-22	0.8	15.3 13.1		Faint odor.	
-15	11	22-24	1.6	18.7 13.3		Trace coarse Sand, faint odor.	Bentonite Seal (23-24' bgs)
25	12	24-26	1.0	14.1 15.3			
-20	13	26-28	2.0	5.7 17.1		Some laminations between 26.8-27.2' bgs. Light gray medium to coarse SAND, some fine subrounded Gravel, grain size increasing with depth, wet.	#1 Silica Sand Pack (24-29' bgs) 2" Sch 40 PVC 0.010" Slot Screen (25-29' bgs)
	14	28-29	0.5	4.3		Light gray fine SAND, some to little medium Sand.	
30						End of boring at 29' bgs.	
-25							
35							

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Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Ground surface elevation is approximate.

Date Start/Finish: 1/29/2013-2/7/2013
Drilling Company: Parratt-Wolff Inc.
Driller's Name: J.Price/J. Cavelier
Drilling Method: 6 1/4" HSA / Mud Rotary
Sampling Method: 2" x 2' Split Spoon
Rig Type: IR A-300 Truck Mounted Rig

Northing: 164822.2500
Easting: 1080963.7000
Casing Elevation: NA

Borehole Depth: 29' bgs
Surface Elevation: 6.83' AMSL

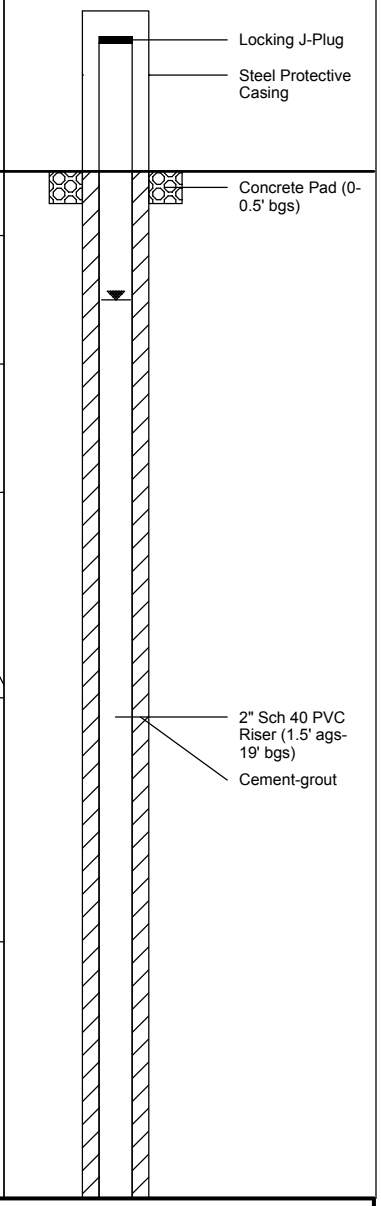
Descriptions By: J.Oliver

Well/Boring ID: **OW-03-D1**

Client: Chevron EMC

Location: Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0	1	0-1	NA	0.0		Light brown fine to medium SAND, trace coarse Sand, fine Gravel, and Organics, moist.
5	2	1-3	NA	NA		COBBLES, trace fine to medium Gravel and fine Sand, wet.
	3	3-5	NA	20.5		Gray fine to medium SAND, trace Silt and fine Gravel, odor, wet.
0	NA	5-8	NA	NA		Unable to collect samples due to borehole collapse.
						Fine SAND.
	4	8-10	0.7	32 14.1		Gray SILT and CLAY, little to trace Peat, trace fine Sand, moist, plastic, odor, wet. [MEADOW MAT]
10	5	10-12	0.9	11.5		Trace Shell fragments.
-5	6	12-14	0.7	5.8		Gray SILT and CLAY, trace fine Sand, odor, wet.
15	7	14-16	2.0	10.9		Fine Sand at the end of sampler (last 0.1').



Well/Boring Construction

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Ground surface elevation is approximate.

Client: Chevron EMC

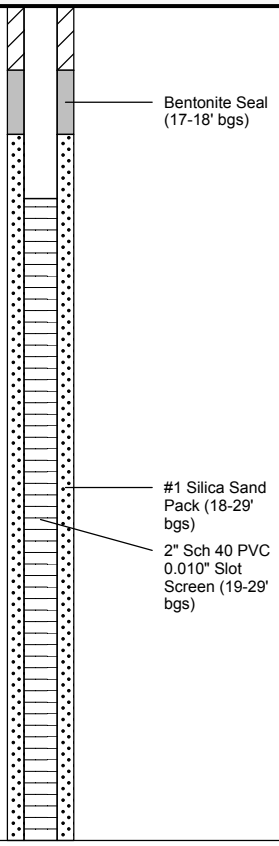
Well/Boring ID: **OW-03-D1**

Borehole Depth: 29' bgs

Site Location:
Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
						Light gray fine to medium SAND, wet, odor.
-10	8	16-18	0.8	14.9		Brown fine SAND, some to little Organics, trace Silt, odor, wet.
	9	18-20	1.4	8.7		Brown to light brown fine to medium SAND, trace Organics and fine Gravel, coarsening with depth, odor, wet.
20	10	20-22	0.8	22.0		Light brown fine to medium SAND, laminations of fine to medium Sand and Silt at 20.5' bgs, odor, wet.
-15	11	22-24	1.6	7.9		Light brown to light gray fine to medium SAND, trace coarse Sand after 22.7' bgs, odor, wet.
25	12	24-26	1.0	1.1		Light gray coarse SAND, little to trace fine Sand, trace fine subrounded Gravel, wet.
-20	13	26-28	2.0	2.4		Light gray coarse SAND, little fine subrounded Gravel, trace fine to medium Sand, wet. Some laminations between 26.8-27.2' bgs.
	14	28-29	0.5	5.1		Light gray fine to medium SAND (fining with depth), trace coarse Sand, wet.
30						
-25						
35						

Well/Boring Construction



ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Ground surface elevation is approximate.

Date Start/Finish: 12/2/10
Drilling Company: Parratt Wolff
Driller's Name: J. Price
Drilling Method: 4.24" HSA
Sampling Method: 2" x 2' Split Spoon
Rig Type: Vac Unit/IR 466

Northing: 164635.52
Easting: 1080863.65
Casing Elevation: 4.64

Borehole Depth: 10' bgs
Surface Elevation: 5.07

Descriptions By: MWE

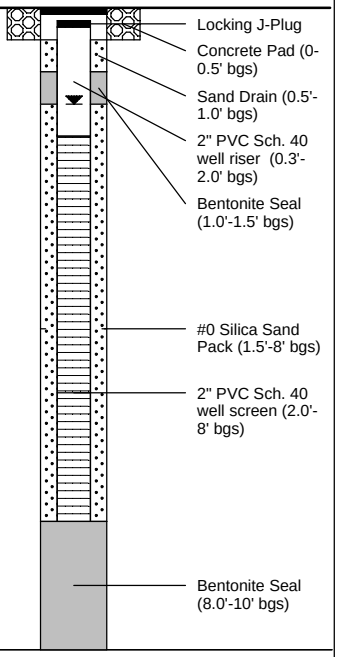
Well/Boring ID: **P-18R**

Client: Chevron

Location: Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0	5	1	0-2	Grab	0.0		Brown fine to medium SAND, little fine to coarse Gravel, trace Silt, Organics (M,NP)
		2	2-4	Grab	0.0		Brown fine to coarse SAND, some fine to medium Gravel, little Silt (S,NP)
5	0	3	4-6	Grab	1.9		Grey and brown fine to medium SAND, little fine Gravel, trace Silt (S,NP) moderate petroleum-like odor, decreses with depth
		4	6-8	Grab	0.8		
		5	8-10	Grab	27.2		Grey SILT and CLAY, little to trace Peat, fine Sand (S,P) moderate to heavy sulfur and petroleum-like odor
10	-5						End of boring at 10' bgs
15	-10						

Well/Boring Construction



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Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ P-18R (0-2'), (4-6'), (6-8') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

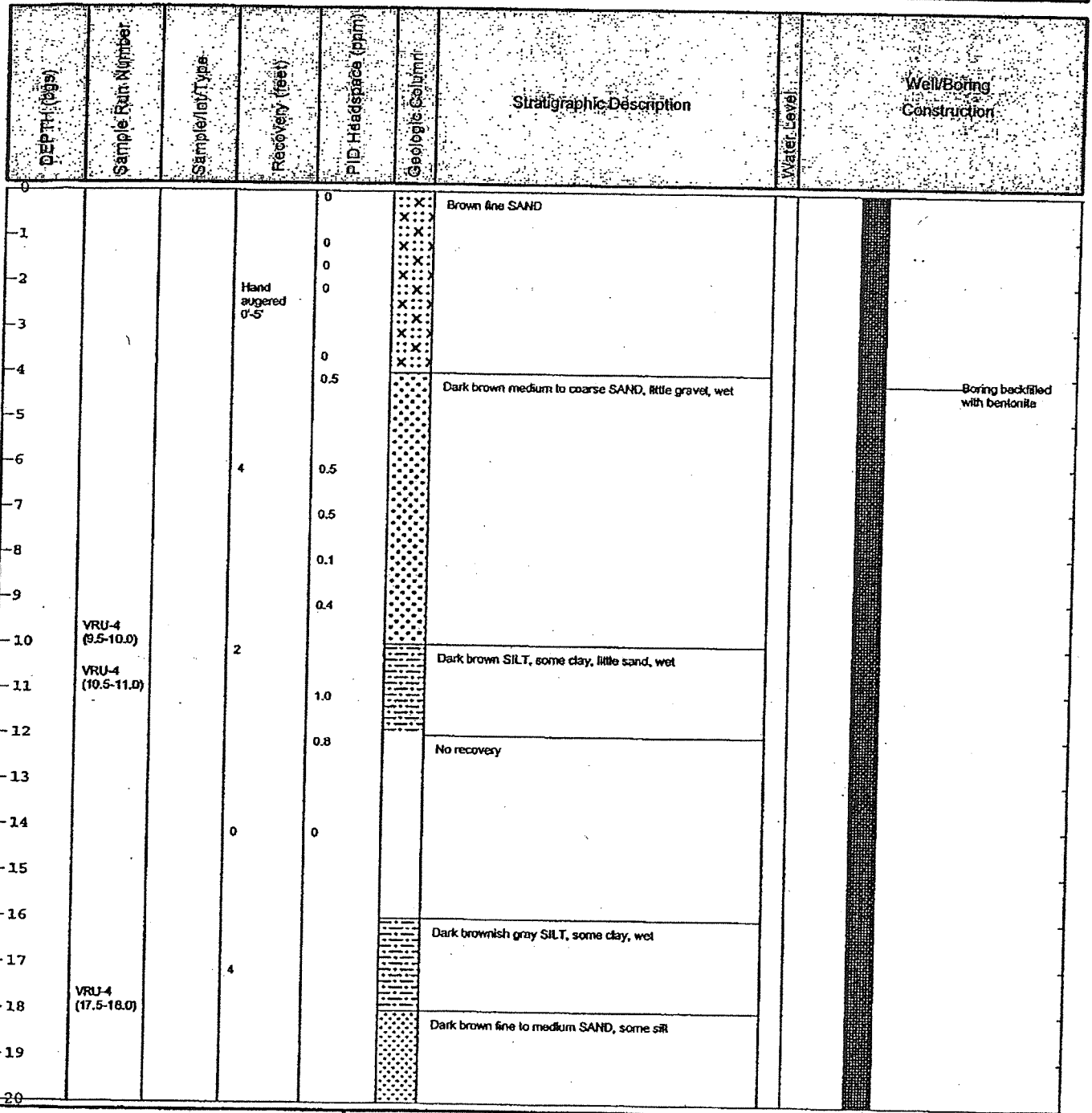
Date Start/Finish: 09/22/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Moraitis
Drilling Method: Direct Push
Sampling Method: 4 foot Macrocore

Northing:
Easting:
Casing Elevation:
Borehole Depth: 20
Surface Elevation:
Geologist: JDC

Well/Boring ID: VRU-4
Client: CEMC

VRU-4

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, New York



BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Remarks:

Date Start/Finish: 09/22/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Moratis
Drilling Method: Direct Push
Sampling Method: 4 foot Macrocore

Northing:
Easting:
Casing Elevation:

Borehole Depth: 16
Surface Elevation:

Geologist: JDC

Well/Boring ID: VRU-8

VRU-8

Client: CEMC

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, New York

DEPTH (bgs)	Sample Run Number	Sample Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0				0		Brown fine SAND		
1				0				
2			Hand augered 0'-5'	0				
3								
4				0				
5				6.9		Dark Gray fine to coarse SAND, some gravel and clay, wet		Boring backfilled with bentonite
6			3			Dark Gray and brown medium coarse SAND and GRAVEL, wet		
7				9.9				
8	VRU-8 (8.0-8.5)			12.2				
9				6.4				
10	VRU-8 (10.0-10.5)		2.4	4.5		Dark Gray CLAY and SILT, trace organics and wood, moist		
11								
12				6.8				
13			2.4	8.6				
14	VRU-8 (14.0-14.5)			7.7				
15								
16								

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Remarks:

Date Start/Finish: 09/22/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Moralis
Drilling Method: Direct Push
Sampling Method: 4 foot Macrocore

Northing:
Easting:
Casing Elevation:

Borehole Depth: 16
Surface Elevation:

Geologist: JDC

Well/Boring ID: VRU-9

Client: CEMC

VRU-9

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, New York

DEPTH (bgs)	Sample Run Number	Sampler/Int Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0				0		Brown fine SAND		
1				0				
2			Hand augered 0'-5'	0				
3								
4				0				
5				1.2		Light brown fine to coarse SAND and GRAVEL, wet		Boring backfilled with bentonite
6			2.9	2.0				
7				1.5				
8	VRU-9 (7.5-8.0)			16.6		Dark gray CLAY and SILT, trace organics, wet		
9								
10	VRU-9 (9.5-10.0)		3.8	44.9				
11								
12				51.8		Dark gray CLAY and SILT, trace organics and wood pieces		
13	VRU-9 (12.5-13.0)			13.5				
14				36.7		Dark brown fine to coarse SAND, some gravel and silt, moist		
15								
16								

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Remarks:

Project: 43948.001
Data File:

Template: F:\PROJECTS\Chevron SAR\SAR NE\NY\Oceanside Terminal\Log Plot\VRU-9
Date:9/22/04

APPENDIX D

MTBE Investigation Results

MEMO

To:
Pete Cagnetta, Chevron EMC

Copies:
Bill McCune, Arcadis

From:
Jo Ann Robertson, Arcadis

Arcadis of New York, Inc.
6723 Towpath Road
P.O. Box 66
Syracuse
New York 13214-0066
Tel 315 446 9120
Fax 315 449 0017

Date:
January 18, 2017

Arcadis Project No.:
B0047517.0023

Subject:
MTBE Investigation in the Lower Sand Unit

To further characterize current subsurface conditions along the site boundary upgradient of MTBE impacts detected in the groundwater in the Lower Sand Unit, a series four soil borings were advanced and temporary monitoring wells were installed along the northern property boundary. Grab groundwater samples were collected from the temporary well screened in the upper 7 feet of the Lower Sand Unit.

During the week of October 24th, 2016, an experienced Arcadis field geologist observed as the subcontracted crew from Cascade Drilling advanced each of the four soil borings and installation of temporary monitoring wells along the northern property boundary (Figure 1).

Prior to advancing the soil borings, the locations were cleared for utilities in accordance with both Chevron and Arcadis Utility Clearance requirements which included the following lines of evidence: GPR, reviewing the site utility plans, and the borings were cleared to 8 feet bgs by hand.

The soil borings were advanced using a Geoprobe unit and continuous soil samples were collected for screening using a PID and for lithological descriptions. The total depths of the soil borings were between 25 and 30 feet deep, depending on the terminal depth of the meadow mat unit. Grab groundwater samples were collected from a 1-inch temporary monitoring well installed approximately seven feet below the base of the meadow mat unit. The temporary monitoring wells was purged for 30 minutes using a parasitic pump prior to sample collection. Groundwater samples were collected from the upper 7-feet of the Lower Sand Unit and submitted for analysis of VOCs by Test America of Amherst, New York.

The analytical results of the groundwater samples collected for this assessment are summarized in the attached table. MTBE was detected in all four of the groundwater samples collected from the temporary wells. Concentrations ranged from 76 ug/L in TW-4 at the western most sampling point (closest to Hampton Road) to 670 ug/L in TW-7 (eastern most sampling point). The data from the temporary monitoring wells was consist with the existing data from adjacent monitoring wells. The highest concentrations of MTBE are closest to the former VRU Area and concentrations decrease to the west of the former VRU area.

Boring logs and analytical results are attached.

Enclosures:

Tables
Table 1 – Summary of Groundwater Analytical Data

Figures
Figure 1 – MTBE Lower Sand Unit Sample Locations

Attachments
Attachment 1 – Boring Logs
Attachment 2 – Analytical Results

Table

Table 1
Summary of Groundwater Analytical Data

MTBE Study
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(Feet): Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	TW-04 20-25 10/27/16	TW-05 25-30 10/27/16	TW-06 25-30 10/27/16	TW-07 25-30 10/27/16
Volatile Organics						
Benzene	1	ug/L	**0.58 J**	2.0 U	5.0 U	10 U
Toluene	5	ug/L	1.0 U	2.0 U	5.0 U	10 U
Ethylbenzene	5	ug/L	1.0 U	2.0 U	5.0 U	10 U
Xylenes (total)	5	ug/L	2.0 U	4.0 U	10 U	20 U
Methyl tert-butyl ether	10	ug/L	**76**	**83**	**260**	**670**
Isopropylbenzene	5	ug/L	1.0 U	2.0 U	5.0 U	10 U
1,1,1-Trichloroethane	5	ug/L	1.0 U	2.0 U	5.0 U	10 U
1,1,2,2-Tetrachloroethane	5	ug/L	1.0 U	2.0 U	5.0 U	10 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	1.0 U	2.0 U	5.0 U	10 U
1,1,2-Trichloroethane	1	ug/L	1.0 U	2.0 U	5.0 U	10 U
1,1-Dichloroethane	5	ug/L	1.0 U	2.0 U	5.0 U	10 U
1,1-Dichloroethene	5	ug/L	1.0 U	2.0 U	5.0 U	10 U
1,2,4-Trichlorobenzene	5	ug/L	1.0 U	2.0 U	5.0 U	10 U
1,2-Dibromo-3-chloropropane	0.04	ug/L	1.0 U	2.0 U	5.0 U	10 U
1,2-Dibromoethane	0.0006	ug/L	1.0 U	2.0 U	5.0 U	10 U
1,2-Dichlorobenzene	3	ug/L	1.0 U	2.0 U	5.0 U	10 U
1,2-Dichloroethane	0.6	ug/L	1.0 U	2.0 U	5.0 U	10 U
1,2-Dichloropropane	1	ug/L	1.0 U	2.0 U	5.0 U	10 U
1,3-Dichlorobenzene	3	ug/L	1.0 U	2.0 U	5.0 U	10 U
1,4-Dichlorobenzene	3	ug/L	1.0 U	2.0 U	5.0 U	10 U
2-Butanone	50	ug/L	10 U	20 U	50 U	100 U
2-Hexanone	50	ug/L	5.0 U	10 U	25 U	50 U
4-Methyl-2-pentanone	- -	ug/L	5.0 U	10 U	25 U	50 U
Acetone	50	ug/L	10 U	20 U	50 U	100 U
Bromodichloromethane	50	ug/L	1.0 U	2.0 U	5.0 U	10 U
Bromoform	50	ug/L	1.0 U	2.0 U	5.0 U	10 U
Bromomethane	5	ug/L	1.0 U	2.0 U	5.0 U	10 U
Carbon Disulfide	60	ug/L	**0.75 J**	2.0 U	5.0 U	10 U
Carbon Tetrachloride	5	ug/L	1.0 U	2.0 U	5.0 U	10 U
Chlorobenzene	5	ug/L	1.0 U	2.0 U	5.0 U	10 U
Chloroethane	5	ug/L	1.0 U	2.0 U	5.0 U	10 U
Chloroform	7	ug/L	1.0 U	2.0 U	5.0 U	10 U
Chloromethane	5	ug/L	1.0 U	2.0 U	5.0 U	10 U
cis-1,2-Dichloroethene	5	ug/L	1.0 U	2.0 U	5.0 U	10 U
cis-1,3-Dichloropropene	0.4	ug/L	1.0 U	2.0 U	5.0 U	10 U
Cyclohexane	- -	ug/L	1.0 U	2.0 U	5.0 U	10 U
Dibromochloromethane	50	ug/L	1.0 U	2.0 U	5.0 U	10 U
Dichlorodifluoromethane	5	ug/L	1.0 U	2.0 U	5.0 U	10 U
Methyl acetate	- -	ug/L	2.5 U	5.0 U	13 U	25 U
Methylcyclohexane	- -	ug/L	1.0 U	2.0 U	5.0 U	10 U
Methylene Chloride	5	ug/L	1.0 U	2.0 U	5.0 U	10 U
Styrene	5	ug/L	1.0 U	2.0 U	5.0 U	10 U
Tetrachloroethene	5	ug/L	1.0 U	2.0 U	5.0 U	10 U
Total VOCs	- -	ug/L	**77 J**	**83**	**260**	**670**
trans-1,2-Dichloroethene	5	ug/L	1.0 U	2.0 U	5.0 U	10 U
trans-1,3-Dichloropropene	0.4	ug/L	1.0 U	2.0 U	5.0 U	10 U
Trichloroethene	5	ug/L	1.0 U	2.0 U	5.0 U	10 U
Trichlorofluoromethane	5	ug/L	1.0 U	2.0 U	5.0 U	10 U
Vinyl Chloride	2	ug/L	1.0 U	2.0 U	5.0 U	10 U

See Notes on Page 2.

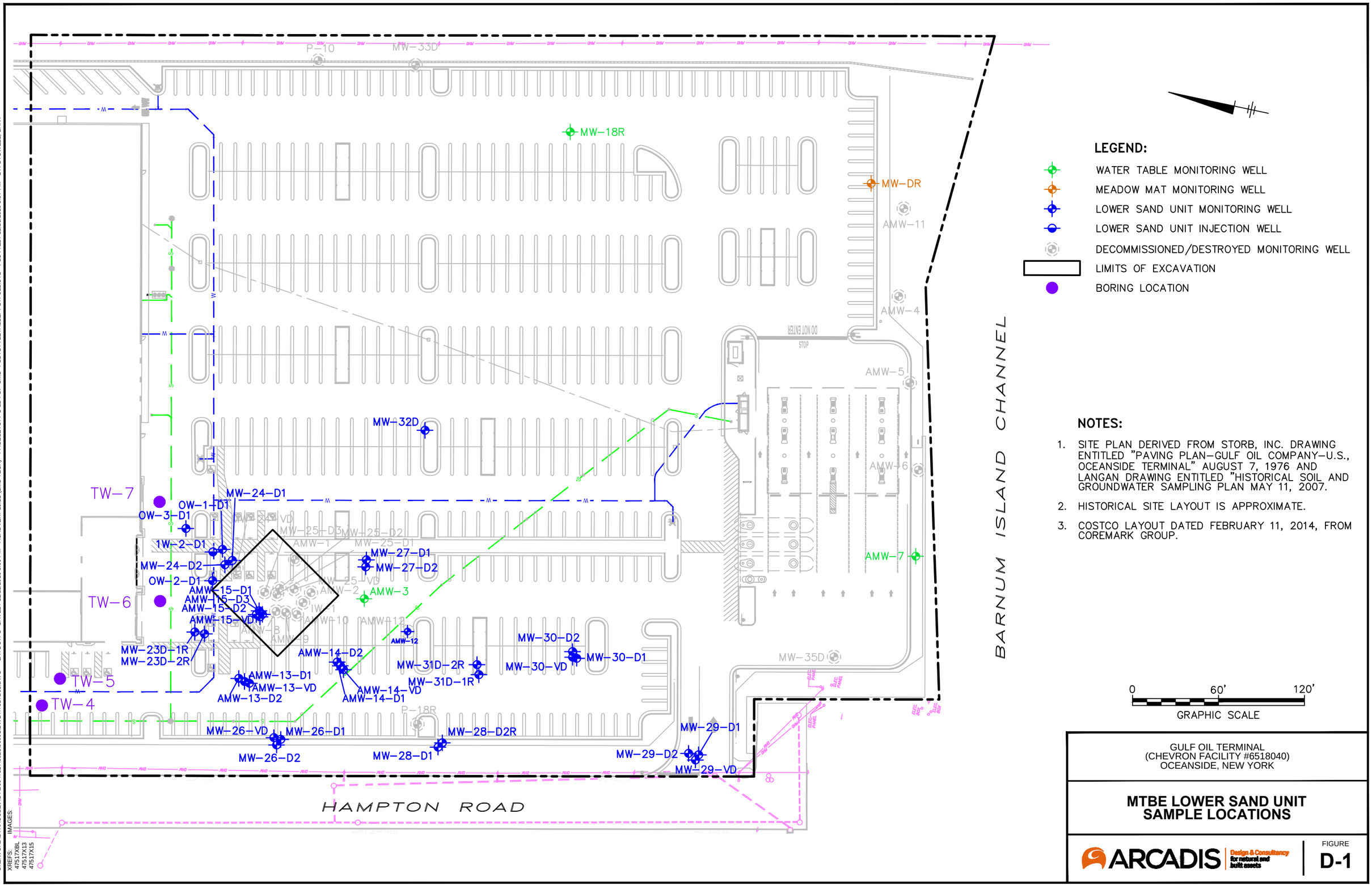
Table 1
Summary of Groundwater Analytical Data

MTBE Study
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Notes:

1. Results compared to NYSDEC Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1, Ambient Water Quality Standards and Guidance Values.
   Gray font = not detected. Bold font = detected. Bold font with Gray shading = Result detected above NYSDEC TOGS 1.1.1.
2. Abbreviations:
   - - = NYSDEC TOGS 1.1.1 not available.
   ug/L = micrograms per Liter.
   ND = Not detected.
   NYSDEC = New York State Department of Environmental Conservation.
   VOC = Volatile Organic Compounds.
3. Qualifier Definitions:
   J = Estimated value. Result is greater than the RL but less than the MDL.

Figure



LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- LIMITS OF EXCAVATION
- BORING LOCATION

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN–GULF OIL COMPANY–U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. HISTORICAL SITE LAYOUT IS APPROXIMATE.
3. COSTCO LAYOUT DATED FEBRUARY 11, 2014, FROM COREMARK GROUP.

0 60' 120'

GRAPHIC SCALE

GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

MTBE LOWER SAND UNIT SAMPLE LOCATIONS

ARCADIS Design & Consultancy for natural and built assets

FIGURE
D-1

CITY: SYRACUSE, NY DIV/GROUP: ENV/IM-DV DB: L.FORAKER, R. ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*;OFF=*REF*
C:\ENVCAD\SYRACUSE\ACTIB\0047517\00230001\DWG\47517B03.DWG LAYOUT: 1 SAVED: 11/23/2016 3:06 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: C:\LB-PDF-GMS PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 11/23/2016 3:07 PM BY: STOWELL, GARY
XREFS: IMAGES:
47517XBL
47517X13
47517X15

Attachment 1 – Boring Logs

Date Start/Finish: 10/27/16
Drilling Company: Cascade Drilling, L.P.
Driller's Name: Carlos Hernandez and John Carey
Drilling Method: Geoprobe Direct Push
Sampling Method: 1.25" x 5' Liner
Rig Type: DT22 Geoprobe System

Northing: NA
Easting: NA
Casing Elevation: NA

Borehole Depth: 25' bgs
Surface Elevation: NA

Descriptions By: Jon LeMessurier

Well/Boring ID: TW-4

Client: Chevron EMC

Location: Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DRAFT

DEPTH (feet bgs) / ELEVATION (feet AMSL)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
0 / 0	NA	0-8	NA	0.0			Recycled Concrete Aggregate, angular to subangular; little Cobble, pebble in size; little Sand, medium. Moist, poorly sorted. Dark Brown.	
5 / -5							Airknifed using a VacTruck to 8' bgs.	
							Wet at 7.0' bgs.	
	1	8-10	NA	0.0			SAND, medium to coarse; little Silty Sand. Wet, poorly sorted. Very Dark Grey.	
10 / -10	2	10-15	3.0	44.8			SAND, fine to coarse; some Gravel, fine to small pebble, subangular; trace Silt. Wet, poorly sorted, loose, no odor. Grey-Brown.	
							CLAY; some Organics (Peat-like material and Grass); trace Silt. Moist, soft, moderate organic-like odor, high plasticity. Dark Grey.	Borehole backfilled with grout to grade
15 / -15							CLAY; trace Sand, very fine. Moist, soft, moderate organic-like odor, high plasticity. Dark Grey.	

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Borehole hand-cleared to 8.0' bgs.

Ground water sampling interval, 20.0' - 25.0' bgs.

Client: Chevron EMC

Well/Boring ID: TW-4

Borehole Depth: 25' bgs

Site Location:
Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DRAFT

DEPTH (feet bgs) / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
	3	15-20	3.0	10.7			SAND, fine to medium; trace Clay. Wet, loose, poorly sorted, slight organic-like odor. Grey.	
20 -20							SAND, fine to medium. Wet, loose, poorly sorted, slight organic-like odor. Grey-Brown.	Borehole backfilled with grout to grade
	4	20-25	5.0	15.3				
25 -25							End of boring at 25' bgs.	
30 -30								
35 -35								

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Borehole hand-cleared to 8.0' bgs.

Ground water sampling interval, 20.0' - 25.0' bgs.

Date Start/Finish: 10/27/16
Drilling Company: Cascade Drilling, L.P.
Driller's Name: Carlos Hernandez and John Carey
Drilling Method: Geoprobe Direct Push
Sampling Method: 1.25" x 5' Liner
Rig Type: DT22 Geoprobe System

Northing: NA
Easting: NA
Casing Elevation: NA

Borehole Depth: 30' bgs
Surface Elevation: NA

Descriptions By: Jon LeMessurier

Well/Boring ID: TW-5

Client: Chevron EMC

Location: Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DRAFT

DEPTH (feet bgs)	ELEVATION (feet AMSL)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	0								
		NA	0-8	NA	0.3			Recycled Concrete Aggregate, angular to subangular, pebble to cobble; little Sand, medium. Moist, poorly sorted. Dark Brown.	
								Airknifed using a VacTruck to 8' bgs.	
5	-5							7.5' - 10.0' bgs, trace Silt.	
								Wet at 6.0' bgs.	
		1	8-10	NA	0.4			SAND, medium to coarse; trace Silty Clay. Wet, poorly sorted. Very Dark Grey.	
10	-10							SAND, fine to coarse; little Gravel, granular to small pebble, subangular; trace Silt. Wet, poorly sorted, loose, no odor. Dark Grey.	Borehole backfilled with grout to grade
		2	10-15	1.0	0.0				
15	-15								

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Borehole hand-cleared to 8.0' bgs.

Ground water sampling interval, 25.0' - 30.0' bgs.

Client: Chevron EMC

Well/Boring ID: TW-5

Borehole Depth: 30' bgs

Site Location:
Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DRAFT

DEPTH (feet bgs) / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
	3	15-20	5.0	20.5			CLAY; trace Organics (Grass); trace Sand, very fine. Moist, soft, moderate organic-like odor, high plasticity. Dark Grey.	
20 -20								Borehole backfilled with grout to grade
	4	20-25	5.0	10.7			SAND, fine to medium; trace Gravel, granular, subrounded. Wet, loose, poorly sorted, no odor. Grey-Brown.	
25 -25								
	5	25-30	5.0	28.3				
30 -30							End of boring at 30' bgs.	

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Borehole hand-cleared to 8.0' bgs.

Ground water sampling interval, 25.0' - 30.0' bgs.

Date Start/Finish: 10/27/16
Drilling Company: Cascade Drilling, L.P.
Driller's Name: Carlos Hernandez and John Carey
Drilling Method: Geoprobe Direct Push
Sampling Method: 1.25" x 5' Liner
Rig Type: DT22 Geoprobe System

Northing: NA
Easting: NA
Casing Elevation: NA

Borehole Depth: 30' bgs
Surface Elevation: NA

Descriptions By: Jon LeMessurier

Well/Boring ID: TW-6

Client: Chevron EMC

Location: Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DRAFT

DEPTH (feet bgs)	ELEVATION (feet AMSL)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	0								
		NA	0-8	NA	0.4			Recycled Concrete Aggregate, angular to subangular, pebble to cobble; little Sand, medium. Moist, poorly sorted. Dark Brown.	
5	-5							Airknifed using a VacTruck to 8' bgs.	
								Wet at 7.0' bgs.	
								Concrete obstruction/rubble	
		1	8-10	NA	0.7			SAND, medium to coarse; little Gravel; trace Silty Clay. Wet, poorly sorted. Very Dark Grey.	
10	-10								Borehole backfilled with grout to grade
								SAND, fine to coarse; little Silt; trace Gravel, granular to small pebble, subangular. Wet, poorly sorted, loose, slight organic-like odor. Light Grey.	
		2	10-15	4.0	9.8			SILTY CLAY; some Organics (Peat-like and Grass). Moist, soft, moderate organic-like odor, high plasticity. Dark Grey.	
15	-15								

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Borehole hand-cleared to 8.0' bgs.

Ground water sampling interval, 25.0' - 30.0' bgs.

Client: Chevron EMC

Well/Boring ID: TW-6

Borehole Depth: 30' bgs

Site Location:
Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DRAFT

DEPTH (feet bgs) / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
	3	15-20	3.0	12.5				
20 -20							SAND, fine to coarse; little Gravel, granular, subrounded; trace Silt. Wet, loose, poorly sorted, no odor. Grey.	Borehole backfilled with grout to grade
	4	20-25	5.0	18.9			SILTY CLAY; some Organics (Peat-like and Grass). Moist, soft, slight organic-like odor, high plasticity. Dark Grey.	
25 -25							SAND, fine to medium. Wet, loose, poorly sorted, slight organic-like odor. Grey-Brown.	
	5	25-30	5.0	22.9				
30 -30							End of boring at 30' bgs.	
35 -35								

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Borehole hand-cleared to 8.0' bgs.

Ground water sampling interval, 25.0' - 30.0' bgs.

Date Start/Finish: 10/27/16
Drilling Company: Cascade Drilling, L.P.
Driller's Name: Carlos Hernandez and John Carey
Drilling Method: Geoprobe Direct Push
Sampling Method: 1.25" x 5' Liner
Rig Type: DT22 Geoprobe System

Northing: NA
Easting: NA
Casing Elevation: NA

Borehole Depth: 30' bgs
Surface Elevation: NA

Descriptions By: Jon LeMessurier

Well/Boring ID: TW-7

Client: Chevron EMC

Location: Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DRAFT

DEPTH (feet bgs)	ELEVATION (feet AMSL)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	0							Recycled Concrete Aggregate, angular to subangular, pebble to cobble; little Sand, medium. Moist, poorly sorted. Dark Brown.	
		NA	0-8	NA	0.0			Airknifed using a VacTruck to 8' bgs.	
5	-5							Wet at 7.5' bgs.	
								Concrete obstruction/rubble.	
		1	8-10	NA	0.0			SAND, medium to coarse; little Gravel; trace concrete rubble. Wet, poorly sorted. Dark Brown.	
10	-10								Borehole backfilled with grout to grade
		2	10-15	5.0	6.9			SAND, fine to coarse; little Silt; trace Gravel, granular to small pebble, subangular. Wet, poorly sorted, loose, slight organic-like odor. Grey.	
								CLAYEY SILT; some Organics (Peat-like and Grass). Moist, soft, strong organic-like odor, medium plasticity. Grey-Brown.	
15	-15								

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Borehole hand-cleared to 8.0' bgs.

Ground water sampling interval, 25.0' - 30.0' bgs.

Client: Chevron EMC

Well/Boring ID: TW-7

Borehole Depth: 30' bgs

Site Location:
Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DRAFT

DEPTH (feet bgs) / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
	3	15-20	5.0	9.6			CLAY; little Organics (Shells). Moist, soft, strong organic-like odor, high plasticity. Dark Grey.	
20 -20							SAND, fine to coarse; little Gravel, granular, subrounded; trace Silt. Wet, loose, poorly sorted, no odor. Grey.	Borehole backfilled with grout to grade
	4	20-25	5.0	9.9			SAND, fine to medium; some Silt; little Clay, trace Gravel, granular to small pebble, subrounded. Wet, loose, poorly sorted, slight organic-like odor. Dark Grey.	
							CLAY; little Organics (Broken shells). Moist, soft, slight organic-like odor, high plasticity. Dark Grey.	
25 -25							SAND, fine to medium. Wet, loose, poorly sorted, slight organic-like odor. Grey-Brown.	
	5	25-30	5.0	15.4				
30 -30							End of boring at 30' bgs.	
35 -35								

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Borehole hand-cleared to 8.0' bgs.

Ground water sampling interval, 25.0' - 30.0' bgs.

Attachment 2 – Analytical Results

APPENDIX E

Community Air Monitoring Plan Data

MEMO

ARCADIS Design & Consultancy for natural and built assets

To:
Note to File

From:
Jo Ann Robertson

Date:
December 13, 2016

Arcadis Project No.:
B0047517

Subject:
Chevron Oceanside CAMP data

Arcadis of New York, Inc.
One Lincoln Center
110 West Fayette Street
Suite 300
Syracuse
New York 13202
Tel 315 446 9120
Fax 315 449 0017

During the MIPs program in February 2016, the CAMP PID measurements were inconstant with breathing zone monitoring. An example of the inconsistently was at 10:10 AM on 2/22/16:

- The following note was recorded in the field notes: Slight petroleum-like odor is noticeable in the air. Not totally sure where source is coming from; breathing zone MultiRae shows reading of PID 0.1-1.6 ppm.
- At 10:10 the upwind CAMP, the average PID measurements at 10:10 was 125 ppm, 1,091 ppm at 10:25, and 211 ppm at 10:40.
- PID measurements for the downwind CAMP were 19 ppm at 9:52, 398 ppm at 10:07, and 375 ppm at 10:22.

Elevated PID measurements continued throughout the day. Heavy equipment was operating on the site as part of the redevelopment. Based on this information, it has been determined that the elevated PID measurements from the CAMP did not relate from the MIPs investigation.

During the June 2016 drilling, monitoring stations were located upwind and downwind of the work area for monitoring of VOCs and particulates. No alarms indicating an exceedance of VOC and particulate criteria occurred during the drilling. However, due to equipment vendor issues, the data was not downloaded from the instrument.

Instrument Name	DustTrak II
Model Number	8530
Serial Number	8530132429
Firmware Version	3
Calibration Date	6/13/2013
Test Name	MANUAL_001
Test Start Time	9:16:48 AM
Test Start Date	2/16/2016
Test Length [D:H:M]	0:03:00
Test Interval [M:S]	15:00
Mass Average [mg/m3]	0.024
Mass Minimum [mg/m3]	0.021
Mass Maximum [mg/m3]	0.028
Mass TWA [mg/m3]	0.009
Photometric User Cal	0.85
Flow User Cal	0
Errors	
Number of Samples	12

Elapsed Time [s]	Mass [mg/m3]	Alarms	Errors
900	0.021		
1800	0.022		
2700	0.023		
3600	0.022		
4500	0.023		
5400	0.024		
6300	0.024		
7200	0.026		
8100	0.024		
9000	0.023		
9900	0.025		
10800	0.028		

=========Event #64 information (begin)=========

==========

[Event #64 name:]--[Event #64]2016-02-16 09:24<-->2016-02-16 12:24

[Event start time:]--2016-02-16 09:24:03[Event end time:]--2016-02-16 12:24:03

===========Event #64 head information===========

Product Name: MiniRAE 3000 Model Number: PGM-7320 Serial Number: 592-901139

Data Points: 12 Sample Period: 900 s Datalog Mode: Automatic

SITE ID: 00000005 USER ID: PES00000 Op Mode: Search Mode

==========

Sensor Information : PID-Min(ppm)PID-Avg(ppm)PID-Max(ppm)

Measurement Gas : Isobutene

Calibration Time : 2016-02-02 13:44:002016-02-02 13:44:002016-02-02 13:44:00

Drift Value : --- --- ---

Low Alarm Levels : 50000 50000 50000

High Alarm Levels : 100000 100000 100000

Span Value : 100000 100000 100000

Correction Factor : 0.10 0.10 0.10

Over Alarm Levels : 2000000 2000000 2000000

==========Event #64 data informations==========

LINE#	Date/Time	PID-Min(pp	PID-Avg(pp	PID-Max(ppm)	
1	2/16/2016 9:39	0	0	0	downwind
2	2/16/2016 9:54	0	0	0	
3	2/16/2016 10:09	0	0	0	
4	2/16/2016 10:24	0	0	0	
5	2/16/2016 10:39	0	0	0	
6	2/16/2016 10:54	0	0	0	
7	2/16/2016 11:09	0	0	0	
8	2/16/2016 11:24	0	0	0	
9	2/16/2016 11:39	0	0	0	
10	2/16/2016 11:54	0	0	0	
11	2/16/2016 12:09	0	0	0	
12	2/16/2016 12:24	0	0	0	

==========Event #64 information (end)==========

Instrument Name	DustTrak II	
Model Number	8530	
Serial Number	8530122906	
Firmware Version	3.4	
Calibration Date	9/25/2015	
Test Name	MANUAL_001	
Test Start Time	9:13:50 AM	Upwind
Test Start Date	2/16/2016	
Test Length [D:H:M]	0:03:17	
Test Interval [M:S]	1:00	
Mass Average [mg/m3]	0.083	
Mass Minimum [mg/m3]	0.076	
Mass Maximum [mg/m3]	0.1	
Mass TWA [mg/m3]	0.034	
Photometric User Cal	1	
Flow User Cal	0	
Errors		
Number of Samples	197	

Elapsed Time [s]	Mass [mg/m3]	Alarms	Errors
60	0.098		
120	0.088		
180	0.087		
240	0.1		
300	0.088		
360	0.089		
420	0.09		
480	0.091		
540	0.09		
600	0.089		
660	0.087		
720	0.087		
780	0.085		
840	0.084		
900	0.085		
960	0.085		
1020	0.086		
1080	0.083		
1140	0.082		
1200	0.083		
1260	0.085		
1320	0.086		
1380	0.087		
1440	0.088		
1500	0.086		
1560	0.087		
1620	0.089		

1680	0.087
1740	0.089
1800	0.089
1860	0.09
1920	0.089
1980	0.086
2040	0.089
2100	0.089
2160	0.088
2220	0.089
2280	0.088
2340	0.088
2400	0.086
2460	0.088
2520	0.087
2580	0.087
2640	0.086
2700	0.087
2760	0.087
2820	0.09
2880	0.087
2940	0.087
3000	0.085
3060	0.085
3120	0.083
3180	0.084
3240	0.082
3300	0.081
3360	0.081
3420	0.081
3480	0.082
3540	0.08
3600	0.081
3660	0.081
3720	0.081
3780	0.084
3840	0.086
3900	0.087
3960	0.087
4020	0.087
4080	0.089
4140	0.087
4200	0.086
4260	0.088
4320	0.088
4380	0.086
4440	0.086

4500	0.084
4560	0.084
4620	0.081
4680	0.083
4740	0.085
4800	0.086
4860	0.085
4920	0.085
4980	0.086
5040	0.084
5100	0.085
5160	0.084
5220	0.085
5280	0.085
5340	0.086
5400	0.086
5460	0.089
5520	0.088
5580	0.087
5640	0.087
5700	0.086
5760	0.086
5820	0.085
5880	0.086
5940	0.087
6000	0.086
6060	0.085
6120	0.084
6180	0.083
6240	0.083
6300	0.081
6360	0.084
6420	0.082
6480	0.081
6540	0.081
6600	0.081
6660	0.08
6720	0.081
6780	0.081
6840	0.081
6900	0.08
6960	0.081
7020	0.081
7080	0.081
7140	0.081
7200	0.081
7260	0.079

7320	0.08
7380	0.08
7440	0.08
7500	0.079
7560	0.08
7620	0.079
7680	0.08
7740	0.081
7800	0.08
7860	0.08
7920	0.08
7980	0.079
8040	0.079
8100	0.08
8160	0.08
8220	0.079
8280	0.08
8340	0.079
8400	0.078
8460	0.078
8520	0.076
8580	0.078
8640	0.078
8700	0.077
8760	0.077
8820	0.077
8880	0.078
8940	0.078
9000	0.078
9060	0.077
9120	0.078
9180	0.079
9240	0.078
9300	0.079
9360	0.078
9420	0.078
9480	0.078
9540	0.078
9600	0.078
9660	0.077
9720	0.077
9780	0.079
9840	0.079
9900	0.079
9960	0.08
10020	0.081
10080	0.079

10140	0.081
10200	0.081
10260	0.08
10320	0.081
10380	0.079
10440	0.079
10500	0.081
10560	0.081
10620	0.082
10680	0.08
10740	0.079
10800	0.08
10860	0.082
10920	0.08
10980	0.082
11040	0.083
11100	0.085
11160	0.083
11220	0.082
11280	0.082
11340	0.081
11400	0.082
11460	0.082
11520	0.079
11580	0.076
11640	0.078
11700	0.079
11760	0.078
11820	0.08

=========Event #73 information (begin)=========

==========

[Event #73 name:]--[Event #73]2016-02-16 09:21<-->2016-02-16 12:36

[Event start time:]--2016-02-16 09:21:20[Event end time:]--2016-02-16 12:36:20

===========Event #73 head information===========

Product Name: MiniRAE 3000 Model Number: PGM-7320 Serial Number: 592-903918

Data Points: 13 Sample Period: 900 s Datalog Mode: Automatic

SITE ID: RAE00022 USER ID: 00000001 Op Mode: Search Mode

==========

Sensor Information : PID-Min(ppb)PID-Avg(ppb)PID-Max(ppb)

Measurement Gas : Isobutylene

Calibration Time : 2016-02-04 08:12:002016-02-04 08:12:002016-02-04 08:12:00

Drift Value : --- --- ---

Low Alarm Levels : 50000 50000 50000

High Alarm Levels : 100000 100000 100000

Span Value : 100000 100000 100000

Correction Factor : 0.10 0.10 0.10

Over Alarm Levels : 2000000 2000000 2000000

==========Event #73 data informations==========

LINE#	Date/Time	PID-Min(pp	PID-Avg(pp	PID-Max(ppb)	
1	2/16/2016 9:36	0	2	61	upwind
2	2/16/2016 9:51	0	0	0	
3	2/16/2016 10:06	0	0	0	
4	2/16/2016 10:21	0	0	0	
5	2/16/2016 10:36	0	0	0	
6	2/16/2016 10:51	0	0	0	
7	2/16/2016 11:06	0	0	0	
8	2/16/2016 11:21	0	0	0	
9	2/16/2016 11:36	0	0	1	
10	2/16/2016 11:51	0	0	2	
11	2/16/2016 12:06	0	3	6	
12	2/16/2016 12:21	2	5	10	
13	2/16/2016 12:36	5	11	21	

==========Event #73 information (end)==========

Instrument Name	DustTrak II	
Model Number	8530	
Serial Number	8530132429	
Firmware Version	3	
Calibration Date	6/13/2013	
Test Name	MANUAL_002	
Test Start Time	7:45:23 AM	
Test Start Date	2/17/2016	downwind
Test Length [D:H:M]	0:06:15	
Test Interval [M:S]	15:00	
Mass Average [mg/m3]	0.02	
Mass Minimum [mg/m3]	0.016	
Mass Maximum [mg/m3]	0.025	
Mass TWA [mg/m3]	0.016	
Photometric User Cal	0.85	
Flow User Cal	0	
Errors		
Number of Samples	25	

Elapsed Time [s]	Mass [mg/m3]	Alarms	Errors
900	0.025		
1800	0.025		
2700	0.023		
3600	0.023		
4500	0.025		
5400	0.023		
6300	0.023		
7200	0.022		
8100	0.021		
9000	0.017		
9900	0.016		
10800	0.018		
11700	0.018		
12600	0.018		
13500	0.022		
14400	0.021		
15300	0.019		
16200	0.02		
17100	0.021		
18000	0.02		
18900	0.019		
19800	0.019		
20700	0.018		
21600	0.017		
22500	0.018		

Instrument Name	DustTrak II	
Model Number	8530	
Serial Number	8530122906	
Firmware Version	3.4	
Calibration Date	9/25/2015	
Test Name	MANUAL_002	
Test Start Time	7:37:52 AM	
Test Start Date	2/17/2016	upwind
Test Length [D:H:M]	0:09:33	
Test Interval [M:S]	1:00	
Mass Average [mg/m3]	0.044	
Mass Minimum [mg/m3]	0	
Mass Maximum [mg/m3]	0.095	
Mass TWA [mg/m3]	0.049	
Photometric User Cal	1	
Flow User Cal	0	
Errors		
Number of Samples	504	

Elapsed Time [s]	Mass [mg/m3]	Alarms	Errors
60	0.076		
120	0.054		
180	0.059		
240	0.057		
300	0.058		
360	0.055		
420	0.054		
480	0.055		
540	0.055		
600	0.056		
660	0.056		
720	0.055		
780	0.056		
840	0.055		
900	0.055		
960	0.055		
1020	0.058		
1080	0.058		
1140	0.056		
1200	0.055		
1260	0.055		
1320	0.055		
1380	0.055		
1440	0.055		
1500	0.059		
1560	0.06		
1620	0.056		

1680	0.056
1740	0.056
1800	0.056
1860	0.057
1920	0.058
1980	0.056
2040	0.054
2100	0.056
2160	0.054
2220	0.054
2280	0.054
2340	0.053
2400	0.054
2460	0.054
2520	0.06
2580	0.056
2640	0.053
2700	0.054
2760	0.062
2820	0.068
2880	0.077
2940	0.054
3000	0.059
3060	0.063
3120	0.053
3180	0.053
3240	0.053
3300	0.054
3360	0.056
3420	0.059
3480	0.056
3540	0.088
3600	0.078
3660	0.063
3720	0.058
3780	0.061
3840	0.095
3900	0.065
3960	0.063
4020	0.052
4080	0.052
4140	0.059
4200	0.052
4260	0.065
4320	0.061
4380	0.051
4440	0.064

4500	0.057
4560	0.058
4620	0.052
4680	0.053
4740	0.052
4800	0.053
4860	0.052
4920	0.051
4980	0.053
5040	0.052
5100	0.052
5160	0.058
5220	0.054
5280	0.054
5340	0.054
5400	0.06
5460	0.058
5520	0.055
5580	0.06
5640	0.062
5700	0.075
5760	0.055
5820	0.053
5880	0.053
5940	0.053
6000	0.053
6060	0.053
6120	0.052
6180	0.052
6240	0.052
6300	0.052
6360	0.052
6420	0.052
6480	0.052
6540	0.052
6600	0.051
6660	0.051
6720	0.051
6780	0.051
6840	0.049
6900	0.05
6960	0.051
7020	0.049
7080	0.049
7140	0.051
7200	0.05
7260	0.049

7320	0.049
7380	0.049
7440	0.048
7500	0.049
7560	0.048
7620	0.048
7680	0.05
7740	0.05
7800	0.052
7860	0.05
7920	0.052
7980	0.05
8040	0.049
8100	0.052
8160	0.052
8220	0.054
8280	0.049
8340	0.047
8400	0.047
8460	0.046
8520	0.045
8580	0.043
8640	0.042
8700	0.042
8760	0.042
8820	0.042
8880	0.043
8940	0.043
9000	0.043
9060	0.052
9120	0.063
9180	0.067
9240	0.058
9300	0.058
9360	0.063
9420	0.047
9480	0.044
9540	0.051
9600	0.048
9660	0.04
9720	0.04
9780	0.047
9840	0.049
9900	0.07
9960	0.072
10020	0.071
10080	0.064

10140	0.046
10200	0.044
10260	0.043
10320	0.043
10380	0.043
10440	0.042
10500	0.044
10560	0.046
10620	0.045
10680	0.043
10740	0.043
10800	0.065
10860	0.055
10920	0.045
10980	0.045
11040	0.044
11100	0.044
11160	0.045
11220	0.044
11280	0.044
11340	0.044
11400	0.044
11460	0.044
11520	0.044
11580	0.044
11640	0.043
11700	0.043
11760	0.044
11820	0.044
11880	0.044
11940	0.044
12000	0.044
12060	0.045
12120	0.044
12180	0.044
12240	0.044
12300	0.045
12360	0.045
12420	0.043
12480	0.044
12540	0.045
12600	0.044
12660	0.044
12720	0.044
12780	0.043
12840	0.043
12900	0.043

12960	0.046
13020	0.045
13080	0.044
13140	0.045
13200	0.057
13260	0.047
13320	0.046
13380	0.045
13440	0.046
13500	0.045
13560	0.045
13620	0.044
13680	0.044
13740	0.045
13800	0.045
13860	0.045
13920	0.046
13980	0.045
14040	0.044
14100	0.048
14160	0.046
14220	0.044
14280	0.046
14340	0.048
14400	0.047
14460	0.046
14520	0.048
14580	0.046
14640	0.046
14700	0.047
14760	0.05
14820	0.047
14880	0.047
14940	0.047
15000	0.047
15060	0.046
15120	0.046
15180	0.047
15240	0.046
15300	0.045
15360	0.044
15420	0.044
15480	0.045
15540	0.045
15600	0.044
15660	0.044
15720	0.045

15780	0.046
15840	0.047
15900	0.046
15960	0.046
16020	0.046
16080	0.046
16140	0.046
16200	0.046
16260	0.049
16320	0.046
16380	0.046
16440	0.046
16500	0.046
16560	0.046
16620	0.046
16680	0.047
16740	0.046
16800	0.047
16860	0.047
16920	0.047
16980	0.047
17040	0.047
17100	0.047
17160	0.047
17220	0.047
17280	0.053
17340	0.049
17400	0.049
17460	0.048
17520	0.047
17580	0.047
17640	0.047
17700	0.047
17760	0.048
17820	0.047
17880	0.047
17940	0.047
18000	0.047
18060	0.048
18120	0.045
18180	0.046
18240	0.045
18300	0.044
18360	0.047
18420	0.045
18480	0.045
18540	0.045

18600	0.046
18660	0.047
18720	0.046
18780	0.046
18840	0.047
18900	0.046
18960	0.045
19020	0.046
19080	0.046
19140	0.045
19200	0.045
19260	0.044
19320	0.044
19380	0.045
19440	0.045
19500	0.045
19560	0.045
19620	0.045
19680	0.044
19740	0.044
19800	0.044
19860	0.044
19920	0.046
19980	0.046
20040	0.045
20100	0.044
20160	0.044
20220	0.044
20280	0.044
20340	0.045
20400	0.044
20460	0.044
20520	0.044
20580	0.043
20640	0.044
20700	0.046
20760	0.047
20820	0.045
20880	0.044
20940	0.042
21000	0.042
21060	0.042
21120	0.041
21180	0.041
21240	0.042
21300	0.042
21360	0.043

21420	0.042
21480	0.042
21540	0.042
21600	0.042
21660	0.043
21720	0.042
21780	0.043
21840	0.042
21900	0.043
21960	0.047
22020	0.045
22080	0.044
22140	0.045
22200	0.051
22260	0.044
22320	0.044
22380	0.045
22440	0.045
22500	0.043
22560	0.044
22620	0.044
22680	0.044
22740	0.046
22800	0.045
22860	0.044
22920	0.044
22980	0.047
23040	0.047
23100	0.043
23160	0.043
23220	0.044
27434	0
27480	0.06
27540	0.051
27600	0.046
27660	0.043
27720	0.041
27780	0.037
27840	0.037
27900	0.036
27960	0.036
28020	0.036
28080	0.035
28140	0.033
28200	0.033
28260	0.032
28320	0.032

28380	0.032
28440	0.031
28500	0.032
28560	0.031
28620	0.031
28680	0.03
28740	0.03
28800	0.03
28860	0.03
28920	0.029
28980	0.029
29040	0.029
29100	0.03
29160	0.029
29220	0.028
29280	0.028
29340	0.029
29400	0.03
29460	0.029
29520	0.029
29580	0.029
29640	0.028
29700	0.028
29760	0.027
29820	0.027
29880	0.027
29940	0.026
30000	0.026
30060	0.025
30120	0.026
30180	0.027
30240	0.026
30300	0.024
30360	0.024
30420	0.024
30480	0.024
30540	0.023
30600	0.024
30660	0.023
30720	0.023
30780	0.023
30840	0.023
30900	0.022
30960	0.022
31020	0.025
31080	0.022
31140	0.023

31200	0.023
31260	0.021
31320	0.021
31380	0.021
31440	0.021
31500	0.021
31560	0.021
31620	0.02
31680	0.02
31740	0.021
31800	0.02
31860	0.02
31920	0.021
31980	0.023
32040	0.023
32100	0.021
32160	0.021
32220	0.021
32280	0.021
32340	0.019
32400	0.021
32460	0.019
32520	0.019
32580	0.019
32640	0.019
32700	0.019
32760	0.018
32820	0.018
32880	0.019
32940	0.019
33000	0.019
33060	0.019
33120	0.019
33180	0.019
33240	0.018
33300	0.018
33360	0.018
33420	0.022
33480	0.019
33540	0.018
33600	0.018
33660	0.018
33720	0.019
33780	0.02
33840	0.019
33900	0.019
33960	0.019

34020	0.018
34080	0.018
34140	0.018
34200	0.018
34260	0.018
34320	0.018
34380	0.018

=========Event #74 information (begin)=========

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[Event #74 name:]--[Event #74]2016-02-17 07:45<-->2016-02-17 14:00

[Event start time:]--2016-02-17 07:45:56[Event end time:]--2016-02-17 14:00:56

===========Event #74 head information===========

Product Name: MiniRAE 3000 Model Number: PGM-7320 Serial Number: 592-903918

Data Points: 25 Sample Period: 900 s Datalog Mode: Automatic

SITE ID: RAE00023 USER ID: 00000001 Op Mode: Search Mode

==========

Sensor Information : PID-Min(ppb)PID-Avg(ppb)PID-Max(ppb)

Calibration Time : 2016-02-04 08:12:002016-02-04 08:12:002016-02-04 08:12:00

Drift Value : --- --- ---

Low Alarm Levels : 50000 50000 50000

Measurement Gas : Isobutylene

High Alarm Levels : 100000 100000 100000

Span Value : 100000 100000 100000

Correction Factor : 0.10 0.10 0.10

Over Alarm Levels : 2000000 2000000 2000000

==========Event #74 data informations==========

LINE#	Date/Time	PID-Min(pp	PID-Avg(pp	PID-Max(ppb)	
1	2/17/2016 8:00	0	0	76	upwind
2	2/17/2016 8:15	0	1	39	
3	2/17/2016 8:30	0	10	194	
4	2/17/2016 8:45	10	24	76	
5	2/17/2016 9:00	21	32	82	
6	2/17/2016 9:15	26	42	62	
7	2/17/2016 9:30	36	49	121	
8	2/17/2016 9:45	41	62	477	
9	2/17/2016 10:00	46	81	287	
10	2/17/2016 10:15	43	55	97	
11	2/17/2016 10:30	44	52	64	
12	2/17/2016 10:45	47	53	79	
13	2/17/2016 11:00	46	53	73	
14	2/17/2016 11:15	46	50	62	
15	2/17/2016 11:30	47	52	72	
16	2/17/2016 11:45	48	55	95	
17	2/17/2016 12:00	50	55	70	
18	2/17/2016 12:15	49	58	113	
19	2/17/2016 12:30	53	63	117	
20	2/17/2016 12:45	59	71	119	
21	2/17/2016 13:00	57	61	76	
22	2/17/2016 13:15	58	66	124	
23	2/17/2016 13:30	58	65	82	
24	2/17/2016 13:45	61	66	90	
25	2/17/2016 14:00	60	68	89	

==========Event #74 information (end)==========

Instrument Name	DustTrak II	
Model Number	8530	
Serial Number	8530132429	
Firmware Version	3	
Calibration Date	6/13/2013	
Test Name	MANUAL_003	
Test Start Time	7:22:35 AM	
Test Start Date	2/18/2016	downwind
Test Length [D:H:M]	0:07:45	
Test Interval [M:S]	15:00	
Mass Average [mg/m3]	0.007	
Mass Minimum [mg/m3]	0.003	
Mass Maximum [mg/m3]	0.023	
Mass TWA [mg/m3]	0.007	
Photometric User Cal	0.85	
Flow User Cal	0	
Errors		
Number of Samples	31	

Elapsed Time [s]	Mass [mg/m3]	Alarms	Errors
900	0.009		
1800	0.011		
2700	0.012		
3600	0.023		
4500	0.016		
5400	0.005		
6300	0.005		
7200	0.005		
8100	0.005		
9000	0.005		
9900	0.005		
10800	0.005		
11700	0.006		
12600	0.005		
13500	0.006		
14400	0.008		
15300	0.006		
16200	0.006		
17100	0.005		
18000	0.003		
18900	0.003		
19800	0.01		
20700	0.005		
21600	0.004		
22500	0.005		
23400	0.006		
24300	0.004		
25200	0.009		
26100	0.006		
27000	0.006		
27900	0.004		

=========Event #66 information (begin)=========

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[Event #66 name:]--[Event #66]2016-02-18 07:30<-->2016-02-18 15:15

[Event start time:]--2016-02-18 07:30:38[Event end time:]--2016-02-18 15:15:38

==========Event #66 head information==========

Product Name: MiniRAE 3000 Model Number: PGM-7320 Serial Number: 592-901139

Data Points: 31 Sample Period: 900 s Datalog Mode: Automatic

SITE ID: 00000007 USER ID: PES00000 Op Mode: Search Mode

==========

Sensor Information : PID-Min(ppm)PID-Avg(ppm)PID-Max(ppm)

Measurement Gas : Isobutene

Calibration Time : 2016-02-02 13:44:002016-02-02 13:44:002016-02-02 13:44:00

Drift Value : --- --- ---

Low Alarm Levels : 50000 50000 50000

High Alarm Levels : 100000 100000 100000

Span Value : 100000 100000 100000

Correction Factor : 0.10 0.10 0.10

Over Alarm Levels : 2000000 2000000 2000000

==========Event #66 data informations==========

LINE#	Date/Time	PID-Min(pp	PID-Avg(pp	PID-Max(ppm)	
1	2/18/2016 7:45	0	0	0	downwind
2	2/18/2016 8:00	0	0	0	
3	2/18/2016 8:15	0	0	0	
4	2/18/2016 8:30	0	0	0	
5	2/18/2016 8:45	0	0	0	
6	2/18/2016 9:00	0	0	0	
7	2/18/2016 9:15	0	0	0	
8	2/18/2016 9:30	0	0	0	
9	2/18/2016 9:45	0	0	0	
10	2/18/2016 10:00	0	0	0	
11	2/18/2016 10:15	0	0	0	
12	2/18/2016 10:30	0	0	0	
13	2/18/2016 10:45	0	0	0	
14	2/18/2016 11:00	0	0	0	
15	2/18/2016 11:15	0	0	0	
16	2/18/2016 11:30	0	0	0	
17	2/18/2016 11:45	0	0	0	
18	2/18/2016 12:00	0	0	0	
19	2/18/2016 12:15	0	0	0	
20	2/18/2016 12:30	0	0	0	
21	2/18/2016 12:45	0	0	0	
22	2/18/2016 13:00	0	0	0	
23	2/18/2016 13:15	0	0	0	
24	2/18/2016 13:30	0	0	0	
25	2/18/2016 13:45	0	0	0	
26	2/18/2016 14:00	0	0	0	
27	2/18/2016 14:15	0	0	0	
28	2/18/2016 14:30	0	0	0	
29	2/18/2016 14:45	0	0	0	
30	2/18/2016 15:00	0	0	0	
31	2/18/2016 15:15	0	0	0	

==========Event #66 information (end)==========

Instrument Name	DustTrak II	
Model Number	8530	
Serial Number	8530122906	
Firmware Version	3.4	
Calibration Date	9/25/2015	
Test Name	MANUAL_003	
Test Start Time	7:18:26 AM	
Test Start Date	2/18/2016	upwind
Test Length [D:H:M]	0:07:52	
Test Interval [M:S]	1:00	
Mass Average [mg/m3]	0.038	
Mass Minimum [mg/m3]	0.025	
Mass Maximum [mg/m3]	0.244	
Mass TWA [mg/m3]	0.038	
Photometric User Cal	1	
Flow User Cal	0	
Errors		
Number of Samples	472	

Elapsed Time [s]	Mass [mg/m3]	Alarms	Errors
60	0.1		
120	0.04		
180	0.034		
240	0.033		
300	0.051		
360	0.032		
420	0.04		
480	0.037		
540	0.036		
600	0.042		
660	0.03		
720	0.033		
780	0.058		
840	0.042		
900	0.039		
960	0.038		
1020	0.039		
1080	0.045		
1140	0.044		
1200	0.04		
1260	0.044		
1320	0.038		
1380	0.039		
1440	0.041		
1500	0.037		
1560	0.03		
1620	0.056		

1680	0.11	
1740	0.046	
1800	0.069	
1860	0.096	
1920	0.04	
1980	0.244	1
2040	0.043	
2100	0.225	1
2160	0.218	1
2220	0.079	
2280	0.064	
2340	0.056	
2400	0.042	
2460	0.046	
2520	0.091	
2580	0.039	
2640	0.051	
2700	0.035	
2760	0.095	
2820	0.038	
2880	0.07	
2940	0.068	
3000	0.047	
3060	0.037	
3120	0.056	
3180	0.088	
3240	0.124	
3300	0.174	1
3360	0.052	
3420	0.041	
3480	0.074	
3540	0.069	
3600	0.074	
3660	0.056	
3720	0.057	
3780	0.113	
3840	0.24	1
3900	0.075	
3960	0.091	
4020	0.101	
4080	0.043	
4140	0.071	
4200	0.149	
4260	0.039	
4320	0.044	
4380	0.045	
4440	0.03	

4500	0.033
4560	0.03
4620	0.071
4680	0.029
4740	0.03
4800	0.044
4860	0.039
4920	0.032
4980	0.038
5040	0.034
5100	0.036
5160	0.029
5220	0.049
5280	0.036
5340	0.03
5400	0.033
5460	0.032
5520	0.037
5580	0.036
5640	0.047
5700	0.033
5760	0.04
5820	0.036
5880	0.029
5940	0.037
6000	0.029
6060	0.031
6120	0.03
6180	0.03
6240	0.03
6300	0.029
6360	0.029
6420	0.028
6480	0.034
6540	0.037
6600	0.028
6660	0.03
6720	0.028
6780	0.027
6840	0.027
6900	0.028
6960	0.031
7020	0.04
7080	0.038
7140	0.041
7200	0.041
7260	0.032

7320	0.034
7380	0.03
7440	0.029
7500	0.029
7560	0.028
7620	0.031
7680	0.029
7740	0.03
7800	0.033
7860	0.035
7920	0.032
7980	0.032
8040	0.032
8100	0.031
8160	0.03
8220	0.04
8280	0.029
8340	0.029
8400	0.032
8460	0.031
8520	0.031
8580	0.028
8640	0.032
8700	0.034
8760	0.037
8820	0.035
8880	0.03
8940	0.029
9000	0.028
9060	0.028
9120	0.028
9180	0.029
9240	0.03
9300	0.031
9360	0.036
9420	0.03
9480	0.029
9540	0.03
9600	0.041
9660	0.034
9720	0.042
9780	0.031
9840	0.031
9900	0.03
9960	0.03
10020	0.03
10080	0.029

10140	0.03
10200	0.03
10260	0.031
10320	0.029
10380	0.029
10440	0.028
10500	0.028
10560	0.029
10620	0.029
10680	0.029
10740	0.03
10800	0.03
10860	0.029
10920	0.029
10980	0.03
11040	0.033
11100	0.03
11160	0.04
11220	0.044
11280	0.031
11340	0.028
11400	0.028
11460	0.03
11520	0.03
11580	0.03
11640	0.028
11700	0.029
11760	0.03
11820	0.033
11880	0.035
11940	0.035
12000	0.03
12060	0.039
12120	0.031
12180	0.031
12240	0.031
12300	0.032
12360	0.03
12420	0.037
12480	0.03
12540	0.035
12600	0.039
12660	0.03
12720	0.027
12780	0.033
12840	0.034
12900	0.032

12960	0.03
13020	0.031
13080	0.042
13140	0.032
13200	0.03
13260	0.029
13320	0.03
13380	0.031
13440	0.029
13500	0.038
13560	0.04
13620	0.032
13680	0.04
13740	0.038
13800	0.03
13860	0.042
13920	0.044
13980	0.045
14040	0.032
14100	0.036
14160	0.031
14220	0.036
14280	0.048
14340	0.041
14400	0.036
14460	0.051
14520	0.03
14580	0.029
14640	0.033
14700	0.045
14760	0.034
14820	0.037
14880	0.034
14940	0.028
15000	0.029
15060	0.038
15120	0.042
15180	0.036
15240	0.028
15300	0.029
15360	0.04
15420	0.033
15480	0.037
15540	0.034
15600	0.03
15660	0.033
15720	0.033

15780	0.032
15840	0.03
15900	0.03
15960	0.031
16020	0.034
16080	0.042
16140	0.03
16200	0.033
16260	0.032
16320	0.039
16380	0.033
16440	0.035
16500	0.03
16560	0.035
16620	0.034
16680	0.035
16740	0.034
16800	0.03
16860	0.046
16920	0.031
16980	0.026
17040	0.039
17100	0.032
17160	0.027
17220	0.03
17280	0.029
17340	0.028
17400	0.028
17460	0.029
17520	0.027
17580	0.032
17640	0.028
17700	0.031
17760	0.029
17820	0.027
17880	0.026
17940	0.027
18000	0.026
18060	0.026
18120	0.027
18180	0.025
18240	0.028
18300	0.035
18360	0.028
18420	0.027
18480	0.033
18540	0.025

18600	0.026
18660	0.027
18720	0.029
18780	0.028
18840	0.033
18900	0.033
18960	0.028
19020	0.027
19080	0.027
19140	0.03
19200	0.033
19260	0.033
19320	0.027
19380	0.031
19440	0.027
19500	0.025
19560	0.025
19620	0.027
19680	0.027
19740	0.029
19800	0.03
19860	0.026
19920	0.04
19980	0.041
20040	0.048
20100	0.029
20160	0.028
20220	0.028
20280	0.026
20340	0.027
20400	0.03
20460	0.029
20520	0.031
20580	0.033
20640	0.038
20700	0.038
20760	0.028
20820	0.027
20880	0.028
20940	0.028
21000	0.026
21060	0.041
21120	0.03
21180	0.033
21240	0.037
21300	0.033
21360	0.035

21420	0.027
21480	0.028
21540	0.029
21600	0.028
21660	0.027
21720	0.03
21780	0.026
21840	0.031
21900	0.029
21960	0.034
22020	0.032
22080	0.032
22140	0.029
22200	0.029
22260	0.042
22320	0.046
22380	0.032
22440	0.029
22500	0.027
22560	0.03
22620	0.03
22680	0.034
22740	0.029
22800	0.039
22860	0.036
22920	0.026
22980	0.032
23040	0.029
23100	0.031
23160	0.031
23220	0.037
23280	0.031
23340	0.032
23400	0.029
23460	0.031
23520	0.037
23580	0.038
23640	0.034
23700	0.029
23760	0.027
23820	0.036
23880	0.029
23940	0.029
24000	0.028
24060	0.042
24120	0.032
24180	0.033

24240	0.031
24300	0.038
24360	0.032
24420	0.03
24480	0.034
24540	0.031
24600	0.03
24660	0.043
24720	0.04
24780	0.033
24840	0.034
24900	0.035
24960	0.039
25020	0.032
25080	0.037
25140	0.032
25200	0.028
25260	0.035
25320	0.03
25380	0.031
25440	0.03
25500	0.037
25560	0.044
25620	0.034
25680	0.034
25740	0.041
25800	0.036
25860	0.036
25920	0.03
25980	0.038
26040	0.036
26100	0.032
26160	0.032
26220	0.029
26280	0.042
26340	0.047
26400	0.031
26460	0.026
26520	0.032
26580	0.033
26640	0.07
26700	0.117
26760	0.032
26820	0.028
26880	0.031
26940	0.03
27000	0.031

27060	0.03
27120	0.046
27180	0.047
27240	0.029
27300	0.029
27360	0.039
27420	0.029
27480	0.028
27540	0.033
27600	0.036
27660	0.027
27720	0.027
27780	0.032
27840	0.029
27900	0.027
27960	0.038
28020	0.03
28080	0.03
28140	0.03
28200	0.027
28260	0.032
28320	0.03

=========Event #75 information (begin)=========

==========

[Event #75 name:]--[Event #75]2016-02-18 07:26<-->2016-02-18 15:11

[Event start time:]--2016-02-18 07:26:49[Event end time:]--2016-02-18 15:11:49

==========Event #75 head information==========

Product Name: MiniRAE 3000 Model Number: PGM-7320 Serial Number: 592-903918

Data Points: 31 Sample Period: 900 s Datalog Mode: Automatic

SITE ID: RAE00024 USER ID: 00000001 Op Mode: Search Mode

==========

Sensor Information : PID-Min(ppb)PID-Avg(ppb)PID-Max(ppb)

Measurement Gas : Isobutylene

Calibration Time : 2016-02-04 08:12:002016-02-04 08:12:002016-02-04 08:12:00

Drift Value : --- --- ---

Low Alarm Levels : 50000 50000 50000

High Alarm Levels : 100000 100000 100000

Span Value : 100000 100000 100000

Correction Factor : 0.10 0.10 0.10

Over Alarm Levels : 2000000 2000000 2000000

==========Event #75 data informations==========

LINE#	Date/Time	PID-Min(pp	PID-Avg(pp	PID-Max(ppb)	
1	2/18/2016 7:41	0	0	30	upwind
2	2/18/2016 7:56	0	5	152	
3	2/18/2016 8:11	12	21	67	
4	2/18/2016 8:26	26	36	73	
5	2/18/2016 8:41	38	50	153	
6	2/18/2016 8:56	48	60	134	
7	2/18/2016 9:11	56	64	76	
8	2/18/2016 9:26	57	64	76	
9	2/18/2016 9:41	63	82	137	
10	2/18/2016 9:56	61	80	118	
11	2/18/2016 10:11	63	71	98	
12	2/18/2016 10:26	64	71	87	
13	2/18/2016 10:41	66	77	124	
14	2/18/2016 10:56	65	72	104	
15	2/18/2016 11:11	65	72	106	
16	2/18/2016 11:26	67	81	196	
17	2/18/2016 11:41	69	80	110	
18	2/18/2016 11:56	69	74	125	
19	2/18/2016 12:11	65	74	90	
20	2/18/2016 12:26	67	71	87	
21	2/18/2016 12:41	64	68	76	
22	2/18/2016 12:56	64	71	82	
23	2/18/2016 13:11	63	73	127	
24	2/18/2016 13:26	64	72	89	
25	2/18/2016 13:41	66	75	98	
26	2/18/2016 13:56	67	73	88	
27	2/18/2016 14:11	67	76	139	
28	2/18/2016 14:26	67	77	96	
29	2/18/2016 14:41	67	83	114	
30	2/18/2016 14:56	69	80	140	
31	2/18/2016 15:11	65	73	101	

==========Event #75 information (end)==========

Instrument Name	DustTrak II	
Model Number	8530	
Serial Number	8530132429	
Firmware Version	3	
Calibration Date	6/13/2013	
Test Name	MANUAL_005	
Test Start Time	7:13:58 AM	
Test Start Date	2/22/2016	downwind
Test Length [D:H:M]	0:06:45	
Test Interval [M:S]	15:00	
Mass Average [mg/m3]	0.009	
Mass Minimum [mg/m3]	0.005	
Mass Maximum [mg/m3]	0.014	
Mass TWA [mg/m3]	0.008	
Photometric User Cal	0.85	
Flow User Cal	0	
Errors		
Number of Samples	27	

Elapsed Time [s]	Mass [mg/m3]	Alarms	Errors
900	0.014		
1800	0.009		
2700	0.01		
3600	0.011		
4500	0.008		
5400	0.007		
6300	0.009		
7200	0.007		
8100	0.006		
9000	0.006		
9900	0.006		
10800	0.006		
11700	0.006		
12600	0.005		
13500	0.006		
14400	0.006		
15300	0.007		
16200	0.01		
17100	0.01		
18000	0.01		
18900	0.011		
19800	0.011		
20700	0.012		
21600	0.011		
22500	0.013		
23400	0.013		
24300	0.014		

=========Event #67 information (begin)=========

==========

[Event #67 name:]--[Event #67]2016-02-19 07:37<-->2016-02-19 13:07

[Event start time:]--2016-02-19 07:37:57[Event end time:]--2016-02-19 13:07:57

===========Event #67 head information===========

Product Name: MiniRAE 3000 Model Number: PGM-7320 Serial Number: 592-901139

Data Points: 22 Sample Period: 900 s Datalog Mode: Automatic

SITE ID: 00000008 USER ID: PES00000 Op Mode: Search Mode

==========

Sensor Information : PID-Min(ppm)PID-Avg(ppm)PID-Max(ppm)

Measurement Gas : Isobutene

Calibration Time : 2016-02-02 13:44:002016-02-02 13:44:002016-02-02 13:44:00

Drift Value : --- --- ---

Low Alarm Levels : 50000 50000 50000

High Alarm Levels : 100000 100000 100000

Span Value : 100000 100000 100000

Correction Factor : 0.10 0.10 0.10

Over Alarm Levels : 2000000 2000000 2000000

==========Event #67 data informations==========

LINE#	Date/Time	PID-Min(pp	PID-Avg(pp	PID-Max(ppm)	
1	2/19/2016 7:52	0	0	0	downwind
2	2/19/2016 8:07	0	0	0	
3	2/19/2016 8:22	0	0	0	
4	2/19/2016 8:37	0	0	0	
5	2/19/2016 8:52	0	0	0	
6	2/19/2016 9:07	0	0	0	
7	2/19/2016 9:22	0	0	0	
8	2/19/2016 9:37	0	0	0	
9	2/19/2016 9:52	0	0	0	
10	2/19/2016 10:07	0	0	0	
11	2/19/2016 10:22	0	279	770	
12	2/19/2016 10:37	677	1009	1435	
13	2/19/2016 10:52	983	1125	1278	
14	2/19/2016 11:07	1057	1225	1341	
15	2/19/2016 11:22	903	1007	1105	
16	2/19/2016 11:37	1015	1263	1407	
17	2/19/2016 11:52	0	880	1220	
18	2/19/2016 12:07	0	42	605	
19	2/19/2016 12:22	0	1	56	
20	2/19/2016 12:37	0	0	0	
21	2/19/2016 12:52	0	0	0	
22	2/19/2016 13:07	0	280	984	

==========Event #67 information (end)==========

Instrument Name	DustTrak II	
Model Number	8530	
Serial Number	8530122906	
Firmware Version	3.4	
Calibration Date	9/25/2015	
Test Name	MANUAL_004	
Test Start Time	7:23:57 AM	
Test Start Date	2/19/2016	upwind
Test Length [D:H:M]	0:05:42	
Test Interval [M:S]	1:00	
Mass Average [mg/m3]	0.034	
Mass Minimum [mg/m3]	0.026	
Mass Maximum [mg/m3]	0.298	
Mass TWA [mg/m3]	0.024	
Photometric User Cal	1	
Flow User Cal	0	
Errors		
Number of Samples	342	

Elapsed Time [s]	Mass [mg/m3]	Alarms	Errors
60	0.079		
120	0.033		
180	0.031		
240	0.032		
300	0.034		
360	0.031		
420	0.032		
480	0.031		
540	0.056		
600	0.035		
660	0.032		
720	0.032		
780	0.033		
840	0.037		
900	0.041		
960	0.037		
1020	0.036		
1080	0.038		
1140	0.04		
1200	0.037		
1260	0.036		
1320	0.036		
1380	0.045		
1440	0.037		
1500	0.031		
1560	0.035		
1620	0.041		

1680	0.03
1740	0.03
1800	0.034
1860	0.033
1920	0.035
1980	0.03
2040	0.03
2100	0.031
2160	0.03
2220	0.03
2280	0.03
2340	0.032
2400	0.032
2460	0.033
2520	0.032
2580	0.038
2640	0.031
2700	0.057
2760	0.03
2820	0.045
2880	0.043
2940	0.03
3000	0.03
3060	0.034
3120	0.034
3180	0.034
3240	0.033
3300	0.035
3360	0.032
3420	0.044
3480	0.048
3540	0.043
3600	0.046
3660	0.05
3720	0.055
3780	0.072
3840	0.06
3900	0.042
3960	0.041
4020	0.057
4080	0.033
4140	0.039
4200	0.033
4260	0.033
4320	0.046
4380	0.032
4440	0.031

4500	0.031	
4560	0.11	
4620	0.298	1
4680	0.065	
4740	0.064	
4800	0.055	
4860	0.043	
4920	0.035	
4980	0.031	
5040	0.038	
5100	0.037	
5160	0.038	
5220	0.037	
5280	0.038	
5340	0.034	
5400	0.041	
5460	0.044	
5520	0.047	
5580	0.033	
5640	0.038	
5700	0.041	
5760	0.035	
5820	0.034	
5880	0.037	
5940	0.042	
6000	0.035	
6060	0.035	
6120	0.119	
6180	0.1	
6240	0.048	
6300	0.038	
6360	0.032	
6420	0.032	
6480	0.043	
6540	0.032	
6600	0.031	
6660	0.032	
6720	0.03	
6780	0.03	
6840	0.031	
6900	0.031	
6960	0.03	
7020	0.03	
7080	0.032	
7140	0.031	
7200	0.031	
7260	0.03	

7320	0.033
7380	0.032
7440	0.033
7500	0.032
7560	0.033
7620	0.034
7680	0.043
7740	0.033
7800	0.034
7860	0.042
7920	0.033
7980	0.033
8040	0.033
8100	0.032
8160	0.033
8220	0.031
8280	0.029
8340	0.028
8400	0.028
8460	0.03
8520	0.031
8580	0.034
8640	0.03
8700	0.03
8760	0.03
8820	0.029
8880	0.029
8940	0.029
9000	0.03
9060	0.029
9120	0.027
9180	0.027
9240	0.027
9300	0.028
9360	0.028
9420	0.027
9480	0.028
9540	0.027
9600	0.027
9660	0.026
9720	0.026
9780	0.027
9840	0.026
9900	0.026
9960	0.026
10020	0.026
10080	0.026

10140	0.026
10200	0.027
10260	0.028
10320	0.027
10380	0.027
10440	0.027
10500	0.027
10560	0.028
10620	0.027
10680	0.027
10740	0.027
10800	0.027
10860	0.027
10920	0.027
10980	0.026
11040	0.026
11100	0.027
11160	0.027
11220	0.027
11280	0.027
11340	0.027
11400	0.027
11460	0.026
11520	0.026
11580	0.027
11640	0.027
11700	0.026
11760	0.027
11820	0.026
11880	0.027
11940	0.026
12000	0.026
12060	0.027
12120	0.027
12180	0.027
12240	0.027
12300	0.027
12360	0.027
12420	0.027
12480	0.027
12540	0.028
12600	0.028
12660	0.027
12720	0.032
12780	0.031
12840	0.027
12900	0.027

12960	0.027
13020	0.027
13080	0.028
13140	0.027
13200	0.029
13260	0.029
13320	0.028
13380	0.028
13440	0.027
13500	0.028
13560	0.027
13620	0.028
13680	0.027
13740	0.027
13800	0.028
13860	0.027
13920	0.027
13980	0.028
14040	0.028
14100	0.032
14160	0.027
14220	0.027
14280	0.029
14340	0.029
14400	0.027
14460	0.028
14520	0.028
14580	0.028
14640	0.027
14700	0.028
14760	0.028
14820	0.028
14880	0.029
14940	0.028
15000	0.028
15060	0.028
15120	0.028
15180	0.029
15240	0.029
15300	0.028
15360	0.028
15420	0.028
15480	0.029
15540	0.028
15600	0.028
15660	0.028
15720	0.028

15780	0.029
15840	0.03
15900	0.028
15960	0.028
16020	0.028
16080	0.029
16140	0.028
16200	0.029
16260	0.029
16320	0.029
16380	0.028
16440	0.029
16500	0.029
16560	0.03
16620	0.033
16680	0.031
16740	0.03
16800	0.029
16860	0.03
16920	0.029
16980	0.03
17040	0.029
17100	0.03
17160	0.03
17220	0.029
17280	0.03
17340	0.03
17400	0.03
17460	0.03
17520	0.03
17580	0.03
17640	0.031
17700	0.031
17760	0.042
17820	0.044
17880	0.03
17940	0.03
18000	0.029
18060	0.03
18120	0.029
18180	0.036
18240	0.033
18300	0.032
18360	0.03
18420	0.03
18480	0.03
18540	0.03

18600	0.032
18660	0.032
18720	0.031
18780	0.032
18840	0.03
18900	0.032
18960	0.031
19020	0.032
19080	0.032
19140	0.031
19200	0.032
19260	0.035
19320	0.031
19380	0.03
19440	0.031
19500	0.031
19560	0.031
19620	0.033
19680	0.03
19740	0.03
19800	0.03
19860	0.03
19920	0.03
19980	0.03
20040	0.032
20100	0.03
20160	0.032
20220	0.032
20280	0.032
20340	0.031
20400	0.03
20460	0.031
20520	0.031

=========Event #76 information (begin)=========

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[Event #76 name:]--[Event #76]2016-02-19 07:32<-->2016-02-19 13:02

[Event start time:]--2016-02-19 07:32:18[Event end time:]--2016-02-19 13:02:18

===========Event #76 head information===========

Product Name: MiniRAE 3000 Model Number: PGM-7320 Serial Number: 592-903918

Data Points: 22 Sample Period: 900 s Datalog Mode: Automatic

SITE ID: RAE00025 USER ID: 00000001 Op Mode: Search Mode

==========

Sensor Information : PID-Min(ppb)PID-Avg(ppb)PID-Max(ppb)

Measurement Gas : Isobutylene

Calibration Time : 2016-02-04 08:12:002016-02-04 08:12:002016-02-04 08:12:00

Drift Value : --- --- ---

Low Alarm Levels : 50000 50000 50000

High Alarm Levels : 100000 100000 100000

Span Value : 100000 100000 100000

Correction Factor : 0.10 0.10 0.10

Over Alarm Levels : 2000000 2000000 2000000

==========Event #76 data informations==========

LINE#	Date/Time	PID-Min(pp	PID-Avg(pp	PID-Max(ppb)	
1	2/19/2016 7:47	0	0	40	upwind
2	2/19/2016 8:02	2	18	50	
3	2/19/2016 8:17	25	35	102	
4	2/19/2016 8:32	39	53	100	
5	2/19/2016 8:47	57	66	103	
6	2/19/2016 9:02	60	79	161	
7	2/19/2016 9:17	67	78	120	
8	2/19/2016 9:32	60	66	82	
9	2/19/2016 9:47	63	74	108	
10	2/19/2016 10:02	58	68	119	
11	2/19/2016 10:17	52	65	120	
12	2/19/2016 10:32	56	72	124	
13	2/19/2016 10:47	55	62	103	
14	2/19/2016 11:02	60	68	104	
15	2/19/2016 11:17	58	66	88	
16	2/19/2016 11:32	57	64	86	
17	2/19/2016 11:47	57	64	93	
18	2/19/2016 12:02	58	65	118	
19	2/19/2016 12:17	59	69	238	
20	2/19/2016 12:32	64	84	246	
21	2/19/2016 12:47	61	73	151	
22	2/19/2016 13:02	67	80	110	

==========Event #76 information (end)==========

Instrument Name	DustTrak II	
Model Number	8530	
Serial Number	8530132429	
Firmware Version	3	
Calibration Date	6/13/2013	
Test Name	MANUAL_005	
Test Start Time	7:13:58 AM	
Test Start Date	2/22/2016	downwind
Test Length [D:H:M]	0:06:45	
Test Interval [M:S]	15:00	
Mass Average [mg/m3]	0.009	
Mass Minimum [mg/m3]	0.005	
Mass Maximum [mg/m3]	0.014	
Mass TWA [mg/m3]	0.008	
Photometric User Cal	0.85	
Flow User Cal	0	
Errors		
Number of Samples	27	

Elapsed Time [s]	Mass [mg/m3]	Alarms	Errors
900	0.014		
1800	0.009		
2700	0.01		
3600	0.011		
4500	0.008		
5400	0.007		
6300	0.009		
7200	0.007		
8100	0.006		
9000	0.006		
9900	0.006		
10800	0.006		
11700	0.006		
12600	0.005		
13500	0.006		
14400	0.006		
15300	0.007		
16200	0.01		
17100	0.01		
18000	0.01		
18900	0.011		
19800	0.011		
20700	0.012		
21600	0.011		
22500	0.013		
23400	0.013		
24300	0.014		

=========Event #68 information (begin)=========

==========

[Event #68 name:]--[Event #68]2016-02-22 07:22<-->2016-02-22 13:52

[Event start time:]--2016-02-22 07:22:44[Event end time:]--2016-02-22 13:52:44

==========Event #68 head information==========

Product Name: MiniRAE 3000 Model Number: PGM-7320 Serial Number: 592-901139

Data Points: 26 Sample Period: 900 s Datalog Mode: Automatic

SITE ID: 00000009 USER ID: PES00000 Op Mode: Search Mode

==========

Sensor Information : PID-Min(ppm)PID-Avg(ppm)PID-Max(ppm)

Measurement Gas : Isobutene

Calibration Time : 2016-02-02 13:44:002016-02-02 13:44:002016-02-02 13:44:00

Drift Value : --- --- ---

Low Alarm Levels : 50000 50000 50000

High Alarm Levels : 100000 100000 100000

Span Value : 100000 100000 100000

Correction Factor : 0.10 0.10 0.10

Over Alarm Levels : 2000000 2000000 2000000

==========Event #68 data informations==========

LINE#	Date/Time	PID-Min(pp	PID-Avg(pp	PID-Max(ppm)	
1	2/22/2016 7:37	0	0	0	downwind
2	2/22/2016 7:52	0	0	0	
3	2/22/2016 8:07	0	0	0	
4	2/22/2016 8:22	0	0	0	
5	2/22/2016 8:37	0	0	0	
6	2/22/2016 8:52	0	0	0	
7	2/22/2016 9:07	0	0	0	
8	2/22/2016 9:22	0	0	0	
9	2/22/2016 9:37	0	0	0	
10	2/22/2016 9:52	0	19	257	
11	2/22/2016 10:07	180	398	653	
12	2/22/2016 10:22	0	375	1089	
13	2/22/2016 10:37	0	5	365	
14	2/22/2016 10:52	0	0	0	
15	2/22/2016 11:07	0	0	0	
16	2/22/2016 11:22	0	0	0	
17	2/22/2016 11:37	0	0	0	
18	2/22/2016 11:52	0	0	0	
19	2/22/2016 12:07	0	0	0	
20	2/22/2016 12:22	0	0	0	
21	2/22/2016 12:37	0	0	0	
22	2/22/2016 12:52	0	0	0	
23	2/22/2016 13:07	0	0	0	
24	2/22/2016 13:22	0	0	0	
25	2/22/2016 13:37	0	0	0	
26	2/22/2016 13:52	0	0	0	

==========Event #68 information (end)==========

Instrument Name	DustTrak II	
Model Number	8530	
Serial Number	8530122906	
Firmware Version	3.4	
Calibration Date	9/25/2015	
Test Name	MANUAL_005	
Test Start Time	7:16:34 AM	
Test Start Date	2/22/2016	upwind
Test Length [D:H:M]	0:06:54	
Test Interval [M:S]	1:00	
Mass Average [mg/m3]	0.026	
Mass Minimum [mg/m3]	0.016	
Mass Maximum [mg/m3]	0.058	
Mass TWA [mg/m3]	0.022	
Photometric User Cal	1	
Flow User Cal	0	
Errors		
Number of Samples	414	

Elapsed Time [s]	Mass [mg/m3]	Alarms	Errors
60	0.056		
120	0.058		
180	0.043		
240	0.054		
300	0.042		
360	0.045		
420	0.054		
480	0.043		
540	0.04		
600	0.038		
660	0.037		
720	0.037		
780	0.039		
840	0.037		
900	0.036		
960	0.037		
1020	0.037		
1080	0.038		
1140	0.037		
1200	0.038		
1260	0.038		
1320	0.04		
1380	0.041		
1440	0.039		
1500	0.041		
1560	0.043		
1620	0.042		

1680	0.039
1740	0.04
1800	0.039
1860	0.037
1920	0.038
1980	0.041
2040	0.042
2100	0.042
2160	0.04
2220	0.037
2280	0.035
2340	0.037
2400	0.036
2460	0.033
2520	0.033
2580	0.034
2640	0.033
2700	0.035
2760	0.036
2820	0.039
2880	0.035
2940	0.034
3000	0.035
3060	0.046
3120	0.035
3180	0.034
3240	0.034
3300	0.033
3360	0.032
3420	0.031
3480	0.033
3540	0.032
3600	0.033
3660	0.035
3720	0.034
3780	0.032
3840	0.031
3900	0.03
3960	0.033
4020	0.034
4080	0.032
4140	0.035
4200	0.032
4260	0.031
4320	0.027
4380	0.027
4440	0.028

4500	0.028
4560	0.029
4620	0.027
4680	0.027
4740	0.027
4800	0.027
4860	0.029
4920	0.026
4980	0.027
5040	0.026
5100	0.027
5160	0.028
5220	0.027
5280	0.034
5340	0.033
5400	0.028
5460	0.032
5520	0.027
5580	0.026
5640	0.032
5700	0.028
5760	0.03
5820	0.03
5880	0.028
5940	0.03
6000	0.034
6060	0.027
6120	0.026
6180	0.033
6240	0.032
6300	0.029
6360	0.029
6420	0.025
6480	0.027
6540	0.029
6600	0.024
6660	0.028
6720	0.027
6780	0.027
6840	0.024
6900	0.028
6960	0.032
7020	0.029
7080	0.028
7140	0.028
7200	0.027
7260	0.031

7320	0.028
7380	0.032
7440	0.026
7500	0.023
7560	0.024
7620	0.025
7680	0.027
7740	0.025
7800	0.029
7860	0.028
7920	0.025
7980	0.023
8040	0.024
8100	0.025
8160	0.026
8220	0.023
8280	0.024
8340	0.023
8400	0.033
8460	0.033
8520	0.027
8580	0.028
8640	0.026
8700	0.024
8760	0.026
8820	0.029
8880	0.029
8940	0.026
9000	0.035
9060	0.04
9120	0.037
9180	0.027
9240	0.025
9300	0.023
9360	0.021
9420	0.021
9480	0.025
9540	0.026
9600	0.022
9660	0.023
9720	0.029
9780	0.021
9840	0.023
9900	0.024
9960	0.027
10020	0.02
10080	0.021

10140	0.02
10200	0.02
10260	0.033
10320	0.024
10380	0.035
10440	0.026
10500	0.024
10560	0.02
10620	0.052
10680	0.028
10740	0.019
10800	0.02
10860	0.022
10920	0.019
10980	0.019
11040	0.02
11100	0.022
11160	0.026
11220	0.04
11280	0.035
11340	0.031
11400	0.027
11460	0.03
11520	0.036
11580	0.032
11640	0.035
11700	0.029
11760	0.021
11820	0.038
11880	0.038
11940	0.023
12000	0.021
12060	0.037
12120	0.024
12180	0.022
12240	0.026
12300	0.019
12360	0.02
12420	0.02
12480	0.02
12540	0.021
12600	0.036
12660	0.02
12720	0.02
12780	0.018
12840	0.035
12900	0.029

12960	0.029
13020	0.031
13080	0.02
13140	0.018
13200	0.018
13260	0.018
13320	0.017
13380	0.022
13440	0.018
13500	0.017
13560	0.017
13620	0.023
13680	0.022
13740	0.018
13800	0.02
13860	0.016
13920	0.016
13980	0.018
14040	0.018
14100	0.023
14160	0.026
14220	0.019
14280	0.022
14340	0.018
14400	0.022
14460	0.02
14520	0.019
14580	0.031
14640	0.02
14700	0.016
14760	0.016
14820	0.016
14880	0.016
14940	0.016
15000	0.017
15060	0.022
15120	0.019
15180	0.02
15240	0.02
15300	0.033
15360	0.023
15420	0.021
15480	0.021
15540	0.019
15600	0.017
15660	0.018
15720	0.021

15780	0.019
15840	0.021
15900	0.019
15960	0.019
16020	0.019
16080	0.018
16140	0.018
16200	0.018
16260	0.019
16320	0.018
16380	0.019
16440	0.018
16500	0.02
16560	0.022
16620	0.019
16680	0.019
16740	0.02
16800	0.019
16860	0.019
16920	0.017
16980	0.017
17040	0.018
17100	0.019
17160	0.02
17220	0.02
17280	0.02
17340	0.019
17400	0.021
17460	0.02
17520	0.019
17580	0.018
17640	0.018
17700	0.019
17760	0.019
17820	0.021
17880	0.019
17940	0.019
18000	0.019
18060	0.018
18120	0.019
18180	0.019
18240	0.02
18300	0.018
18360	0.019
18420	0.019
18480	0.02
18540	0.019

18600	0.019
18660	0.019
18720	0.019
18780	0.02
18840	0.019
18900	0.02
18960	0.019
19020	0.022
19080	0.027
19140	0.023
19200	0.021
19260	0.021
19320	0.021
19380	0.02
19440	0.019
19500	0.019
19560	0.019
19620	0.019
19680	0.018
19740	0.018
19800	0.018
19860	0.029
19920	0.027
19980	0.024
20040	0.026
20100	0.02
20160	0.019
20220	0.02
20280	0.017
20340	0.018
20400	0.02
20460	0.021
20520	0.021
20580	0.019
20640	0.019
20700	0.022
20760	0.022
20820	0.024
20880	0.021
20940	0.023
21000	0.018
21060	0.018
21120	0.021
21180	0.019
21240	0.018
21300	0.019
21360	0.019

21420	0.02
21480	0.02
21540	0.02
21600	0.019
21660	0.019
21720	0.019
21780	0.019
21840	0.019
21900	0.019
21960	0.021
22020	0.022
22080	0.02
22140	0.021
22200	0.022
22260	0.021
22320	0.02
22380	0.019
22440	0.02
22500	0.02
22560	0.02
22620	0.02
22680	0.021
22740	0.021
22800	0.022
22860	0.021
22920	0.021
22980	0.021
23040	0.025
23100	0.022
23160	0.024
23220	0.022
23280	0.022
23340	0.022
23400	0.022
23460	0.023
23520	0.023
23580	0.023
23640	0.026
23700	0.024
23760	0.025
23820	0.027
23880	0.025
23940	0.025
24000	0.026
24060	0.026
24120	0.026
24180	0.026

24240	0.027
24300	0.027
24360	0.026
24420	0.026
24480	0.026
24540	0.026
24600	0.026
24660	0.027
24720	0.027
24780	0.028
24840	0.031

==========Event #77 information (begin)==========

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[Event #77 name:]--[Event #77]2016-02-22 07:25<-->2016-02-22 14:10

[Event start time:]--2016-02-22 07:25:25[Event end time:]--2016-02-22 14:10:25

==========Event #77 head information==========

Product Name: MiniRAE 3000 Model Number: PGM-7320 Serial Number: 592-903918

Data Points: 27 Sample Period: 900 s Datalog Mode: Automatic

SITE ID: RAE00026 USER ID: 00000001 Op Mode: Search Mode

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Sensor Information : PID-Min(ppb)PID-Avg(ppb)PID-Max(ppb)

Measurement Gas : Isobutylene

Calibration Time : 2016-02-04 08:12:002016-02-04 08:12:002016-02-04 08:12:00

Drift Value : --- --- ---

Low Alarm Levels : 50000 50000 50000

High Alarm Levels : 100000 100000 100000

Span Value : 100000 100000 100000

Correction Factor : 0.10 0.10 0.10

Over Alarm Levels : 2000000 2000000 2000000

==========Event #77 data informations==========

LINE#	Date/Time	PID-Min(pp	PID-Avg(pp	PID-Max(ppb)	
1	2/22/2016 7:40	0	0	55	upwind
2	2/22/2016 7:55	0	44	360	
3	2/22/2016 8:10	19	113	1426	
4	2/22/2016 8:25	48	72	200	
5	2/22/2016 8:40	50	57	72	
6	2/22/2016 8:55	50	60	73	
7	2/22/2016 9:10	54	63	87	
8	2/22/2016 9:25	52	62	76	
9	2/22/2016 9:40	51	65	88	
10	2/22/2016 9:55	60	74	182	
11	2/22/2016 10:10	72	125	10379	
12	2/22/2016 10:25	75	1091	50831	
13	2/22/2016 10:40	88	211	2642	
14	2/22/2016 10:55	103	141	556	
15	2/22/2016 11:10	87	136	826	
16	2/22/2016 11:25	63	102	684	
17	2/22/2016 11:40	58	119	1491	
18	2/22/2016 11:55	58	70	206	
19	2/22/2016 12:10	54	61	158	
20	2/22/2016 12:25	59	116	651	
21	2/22/2016 12:40	54	68	203	
22	2/22/2016 12:55	51	61	99	
23	2/22/2016 13:10	54	64	94	
24	2/22/2016 13:25	55	71	102	
25	2/22/2016 13:40	44	60	86	
26	2/22/2016 13:55	39	56	184	
27	2/22/2016 14:10	37	52	140	

==========Event #77 information (end)==========

Instrument Name	DustTrak II	
Model Number	8530	
Serial Number	8530133403	
Firmware Version	3.4	
Calibration Date	1/20/2016	
Test Name	MANUAL_001	
Test Start Time	9:06:35 AM	
Test Start Date	10/25/2016	downwind
Test Length [D:H:M]	0:05:35	
Test Interval [M:S]	1:00	
Mass Average [mg/m3]	0.021	
Mass Minimum [mg/m3]	0.005	
Mass Maximum [mg/m3]	0.604	
Mass TWA [mg/m3]	0.015	
Photometric User Cal	1	
Flow User Cal	0	
Errors		
Number of Samples	335	

Elapsed Time [s]	Mass [mg/m3]	Alarms	Errors
60	0.012		
120	0.006		
180	0.006		
240	0.006		
300	0.088		
360	0.012		
420	0.007		
480	0.035		
540	0.006		
600	0.007		
660	0.008		
720	0.006		
780	0.012		
840	0.007		
900	0.007		
960	0.006		
1020	0.007		
1080	0.007		
1140	0.02		
1200	0.007		
1260	0.006		
1320	0.006		
1380	0.007		
1440	0.006		
1500	0.007		
1560	0.006		
1620	0.007		

1680	0.01
1740	0.01
1800	0.007
1860	0.009
1920	0.01
1980	0.009
2040	0.007
2100	0.007
2160	0.007
2220	0.008
2280	0.008
2340	0.01
2400	0.009
2460	0.008
2520	0.006
2580	0.006
2640	0.009
2700	0.008
2760	0.007
2820	0.008
2880	0.008
2940	0.01
3000	0.011
3060	0.007
3120	0.007
3180	0.007
3240	0.007
3300	0.006
3360	0.006
3420	0.006
3480	0.006
3540	0.006
3600	0.007
3660	0.006
3720	0.007
3780	0.009
3840	0.008
3900	0.008
3960	0.007
4020	0.007
4080	0.007
4140	0.006
4200	0.008
4260	0.007
4320	0.006
4380	0.005
4440	0.006

4500	0.013
4560	0.009
4620	0.008
4680	0.006
4740	0.007
4800	0.006
4860	0.008
4920	0.009
4980	0.009
5040	0.007
5100	0.008
5160	0.008
5220	0.008
5280	0.008
5340	0.011
5400	0.012
5460	0.012
5520	0.009
5580	0.014
5640	0.01
5700	0.012
5760	0.011
5820	0.009
5880	0.012
5940	0.012
6000	0.018
6060	0.012
6120	0.007
6180	0.008
6240	0.01
6300	0.014
6360	0.013
6420	0.036
6480	0.016
6540	0.016
6600	0.017
6660	0.013
6720	0.011
6780	0.009
6840	0.009
6900	0.01
6960	0.012
7020	0.013
7080	0.009
7140	0.01
7200	0.011
7260	0.011

7320	0.009
7380	0.007
7440	0.009
7500	0.015
7560	0.009
7620	0.008
7680	0.01
7740	0.012
7800	0.008
7860	0.014
7920	0.019
7980	0.008
8040	0.006
8100	0.006
8160	0.017
8220	0.023
8280	0.012
8340	0.011
8400	0.014
8460	0.021
8520	0.023
8580	0.014
8640	0.012
8700	0.008
8760	0.015
8820	0.008
8880	0.008
8940	0.008
9000	0.006
9060	0.006
9120	0.008
9180	0.006
9240	0.006
9300	0.006
9360	0.007
9420	0.009
9480	0.028
9540	0.012
9600	0.013
9660	0.02
9720	0.066
9780	0.017
9840	0.017
9900	0.01
9960	0.009
10020	0.013
10080	0.007

10140	0.015
10200	0.013
10260	0.008
10320	0.008
10380	0.007
10440	0.007
10500	0.008
10560	0.009
10620	0.006
10680	0.008
10740	0.016
10800	0.007
10860	0.021
10920	0.012
10980	0.031
11040	0.015
11100	0.015
11160	0.014
11220	0.012
11280	0.009
11340	0.006
11400	0.018
11460	0.02
11520	0.014
11580	0.007
11640	0.007
11700	0.008
11760	0.005
11820	0.006
11880	0.006
11940	0.016
12000	0.008
12060	0.011
12120	0.006
12180	0.007
12240	0.008
12300	0.008
12360	0.014
12420	0.036
12480	0.02
12540	0.02
12600	0.017
12660	0.01
12720	0.009
12780	0.017
12840	0.023
12900	0.008

12960	0.008
13020	0.01
13080	0.012
13140	0.012
13200	0.016
13260	0.035
13320	0.024
13380	0.04
13440	0.024
13500	0.013
13560	0.022
13620	0.016
13680	0.012
13740	0.017
13800	0.015
13860	0.013
13920	0.016
13980	0.008
14040	0.009
14100	0.016
14160	0.014
14220	0.01
14280	0.015
14340	0.006
14400	0.006
14460	0.01
14520	0.01
14580	0.011
14640	0.014
14700	0.011
14760	0.008
14820	0.007
14880	0.013
14940	0.008
15000	0.013
15060	0.011
15120	0.014
15180	0.01
15240	0.021
15300	0.011
15360	0.017
15420	0.008
15480	0.021
15540	0.015
15600	0.01
15660	0.018
15720	0.012

15780	0.009
15840	0.02
15900	0.01
15960	0.01
16020	0.006
16080	0.01
16140	0.009
16200	0.007
16260	0.014
16320	0.014
16380	0.097
16440	0.018
16500	0.024
16560	0.131
16620	0.031
16680	0.23
16740	0.452
16800	0.055
16860	0.125
16920	0.044
16980	0.042
17040	0.012
17100	0.036
17160	0.039
17220	0.028
17280	0.023
17340	0.035
17400	0.08
17460	0.015
17520	0.01
17580	0.017
17640	0.047
17700	0.008
17760	0.044
17820	0.058
17880	0.017
17940	0.208
18000	0.097
18060	0.066
18120	0.604
18180	0.031
18240	0.021
18300	0.177
18360	0.042
18420	0.073
18480	0.085
18540	0.048

18600	0.025
18660	0.034
18720	0.028
18780	0.014
18840	0.012
18900	0.016
18960	0.011
19020	0.008
19080	0.011
19140	0.027
19200	0.016
19260	0.022
19320	0.01
19380	0.032
19440	0.013
19500	0.015
19560	0.01
19620	0.015
19680	0.007
19740	0.025
19800	0.157
19860	0.098
19920	0.027
19980	0.028
20040	0.02
20100	0.038

Instrument Name	DustTrak II	
Model Number	8530	
Serial Number	8530153512	
Firmware Version	3.4	
Calibration Date	6/1/2016	
Test Name	MANUAL_001	
Test Start Time	9:18:51 AM	
Test Start Date	10/25/2016	upwind
Test Length [D:H:M]	0:05:28	
Test Interval [M:S]	1:00	
Mass Average [mg/m3]	0.011	
Mass Minimum [mg/m3]	0.005	
Mass Maximum [mg/m3]	0.053	
Mass TWA [mg/m3]	0.008	
Photometric User Cal	1	
Flow User Cal	0	
Errors		
Number of Samples	328	

Elapsed Time [s]	Mass [mg/m3]	Alarms	Errors
60	0.05		
120	0.011		
180	0.01		
240	0.01		
300	0.012		
360	0.01		
420	0.01		
480	0.01		
540	0.011		
600	0.011		
660	0.01		
720	0.012		
780	0.012		
840	0.01		
900	0.01		
960	0.012		
1020	0.011		
1080	0.01		
1140	0.011		
1200	0.01		
1260	0.011		
1320	0.01		
1380	0.01		
1440	0.01		
1500	0.01		
1560	0.009		
1620	0.009		

1680	0.009
1740	0.015
1800	0.01
1860	0.008
1920	0.01
1980	0.01
2040	0.009
2100	0.008
2160	0.008
2220	0.009
2280	0.008
2340	0.008
2400	0.008
2460	0.008
2520	0.009
2580	0.008
2640	0.011
2700	0.008
2760	0.008
2820	0.01
2880	0.009
2940	0.008
3000	0.008
3060	0.008
3120	0.007
3180	0.008
3240	0.008
3300	0.007
3360	0.008
3420	0.01
3480	0.009
3540	0.012
3600	0.007
3660	0.008
3720	0.007
3780	0.008
3840	0.008
3900	0.007
3960	0.007
4020	0.008
4080	0.007
4140	0.007
4200	0.007
4260	0.014
4320	0.008
4380	0.009
4440	0.007

4500	0.007
4560	0.007
4620	0.01
4680	0.008
4740	0.007
4800	0.009
4860	0.007
4920	0.008
4980	0.008
5040	0.008
5100	0.008
5160	0.011
5220	0.026
5280	0.016
5340	0.019
5400	0.013
5460	0.018
5520	0.01
5580	0.016
5640	0.017
5700	0.018
5760	0.025
5820	0.016
5880	0.009
5940	0.009
6000	0.015
6060	0.023
6120	0.015
6180	0.022
6240	0.039
6300	0.025
6360	0.02
6420	0.018
6480	0.016
6540	0.013
6600	0.014
6660	0.015
6720	0.014
6780	0.015
6840	0.015
6900	0.015
6960	0.019
7020	0.018
7080	0.013
7140	0.01
7200	0.013
7260	0.02

7320	0.013
7380	0.012
7440	0.011
7500	0.017
7560	0.01
7620	0.019
7680	0.017
7740	0.01
7800	0.007
7860	0.006
7920	0.007
7980	0.021
8040	0.013
8100	0.016
8160	0.019
8220	0.021
8280	0.031
8340	0.028
8400	0.019
8460	0.012
8520	0.021
8580	0.011
8640	0.01
8700	0.01
8760	0.007
8820	0.007
8880	0.007
8940	0.008
9000	0.007
9060	0.008
9120	0.01
9180	0.015
9240	0.008
9300	0.007
9360	0.012
9420	0.014
9480	0.047
9540	0.03
9600	0.014
9660	0.011
9720	0.008
9780	0.014
9840	0.008
9900	0.008
9960	0.014
10020	0.007
10080	0.01

10140	0.009
10200	0.007
10260	0.008
10320	0.01
10380	0.007
10440	0.007
10500	0.01
10560	0.009
10620	0.006
10680	0.007
10740	0.007
10800	0.009
10860	0.014
10920	0.008
10980	0.008
11040	0.006
11100	0.007
11160	0.01
11220	0.015
11280	0.007
11340	0.006
11400	0.007
11460	0.006
11520	0.007
11580	0.007
11640	0.007
11700	0.018
11760	0.008
11820	0.008
11880	0.008
11940	0.007
12000	0.007
12060	0.009
12120	0.014
12180	0.053
12240	0.026
12300	0.013
12360	0.013
12420	0.012
12480	0.007
12540	0.008
12600	0.019
12660	0.008
12720	0.008
12780	0.01
12840	0.015
12900	0.011

12960	0.016
13020	0.038
13080	0.019
13140	0.042
13200	0.022
13260	0.01
13320	0.017
13380	0.011
13440	0.009
13500	0.011
13560	0.011
13620	0.011
13680	0.011
13740	0.009
13800	0.008
13860	0.008
13920	0.009
13980	0.008
14040	0.008
14100	0.007
14160	0.007
14220	0.007
14280	0.008
14340	0.009
14400	0.008
14460	0.008
14520	0.01
14580	0.009
14640	0.008
14700	0.009
14760	0.009
14820	0.009
14880	0.012
14940	0.009
15000	0.023
15060	0.009
15120	0.012
15180	0.01
15240	0.01
15300	0.009
15360	0.009
15420	0.024
15480	0.019
15540	0.007
15600	0.007
15660	0.008
15720	0.009

15780	0.006
15840	0.01
15900	0.008
15960	0.007
16020	0.006
16080	0.008
16140	0.007
16200	0.006
16260	0.006
16320	0.008
16380	0.007
16440	0.008
16500	0.022
16560	0.025
16620	0.009
16680	0.009
16740	0.007
16800	0.008
16860	0.006
16920	0.008
16980	0.007
17040	0.007
17100	0.006
17160	0.007
17220	0.01
17280	0.008
17340	0.008
17400	0.007
17460	0.007
17520	0.01
17580	0.014
17640	0.007
17700	0.01
17760	0.021
17820	0.008
17880	0.01
17940	0.006
18000	0.007
18060	0.014
18120	0.006
18180	0.006
18240	0.006
18300	0.01
18360	0.009
18420	0.006
18480	0.006
18540	0.009

18600	0.008
18660	0.005
18720	0.005
18780	0.005
18840	0.006
18900	0.005
18960	0.006
19020	0.01
19080	0.006
19140	0.012
19200	0.007
19260	0.006
19320	0.011
19380	0.008
19440	0.005
19500	0.005
19560	0.005
19620	0.005
19680	0.005

Instrument Name	DustTrak II	
Model Number	8530	
Serial Number	8530133403	
Firmware Version	3.4	
Calibration Date	1/20/2016	
Test Name	MANUAL_002	
Test Start Time	7:28:27 AM	
Test Start Date	10/26/2016	downwind
Test Length [D:H:M]	0:05:30	
Test Interval [M:S]	1:00	
Mass Average [mg/m3]	0.013	
Mass Minimum [mg/m3]	0.003	
Mass Maximum [mg/m3]	0.159	
Mass TWA [mg/m3]	0.009	
Photometric User Cal	1	
Flow User Cal	0	
Errors		
Number of Samples	330	

Elapsed Time [s]	Mass [mg/m3]	Alarms	Errors
60	0.08		
120	0.019		
180	0.016		
240	0.013		
300	0.019		
360	0.012		
420	0.024		
480	0.026		
540	0.008		
600	0.018		
660	0.01		
720	0.01		
780	0.009		
840	0.011		
900	0.011		
960	0.009		
1020	0.013		
1080	0.012		
1140	0.011		
1200	0.022		
1260	0.008		
1320	0.011		
1380	0.01		
1440	0.013		
1500	0.012		
1560	0.013		
1620	0.011		

1680	0.009
1740	0.009
1800	0.067
1860	0.01
1920	0.009
1980	0.011
2040	0.009
2100	0.009
2160	0.009
2220	0.009
2280	0.009
2340	0.009
2400	0.01
2460	0.012
2520	0.015
2580	0.01
2640	0.011
2700	0.013
2760	0.016
2820	0.01
2880	0.009
2940	0.009
3000	0.009
3060	0.011
3120	0.01
3180	0.009
3240	0.01
3300	0.009
3360	0.01
3420	0.009
3480	0.009
3540	0.008
3600	0.009
3660	0.008
3720	0.008
3780	0.009
3840	0.008
3900	0.008
3960	0.008
4020	0.01
4080	0.011
4140	0.01
4200	0.009
4260	0.012
4320	0.011
4380	0.01
4440	0.009

4500	0.01
4560	0.01
4620	0.01
4680	0.01
4740	0.01
4800	0.009
4860	0.011
4920	0.01
4980	0.013
5040	0.011
5100	0.012
5160	0.01
5220	0.013
5280	0.011
5340	0.01
5400	0.009
5460	0.01
5520	0.011
5580	0.01
5640	0.009
5700	0.011
5760	0.007
5820	0.01
5880	0.009
5940	0.01
6000	0.023
6060	0.02
6120	0.013
6180	0.012
6240	0.009
6300	0.01
6360	0.01
6420	0.013
6480	0.022
6540	0.022
6600	0.01
6660	0.01
6720	0.012
6780	0.007
6840	0.008
6900	0.012
6960	0.012
7020	0.013
7080	0.017
7140	0.018
7200	0.018
7260	0.011

7320	0.019
7380	0.011
7440	0.009
7500	0.008
7560	0.014
7620	0.009
7680	0.011
7740	0.013
7800	0.009
7860	0.012
7920	0.019
7980	0.014
8040	0.009
8100	0.009
8160	0.006
8220	0.005
8280	0.011
8340	0.015
8400	0.011
8460	0.007
8520	0.006
8580	0.007
8640	0.01
8700	0.013
8760	0.007
8820	0.006
8880	0.006
8940	0.018
9000	0.01
9060	0.007
9120	0.008
9180	0.031
9240	0.012
9300	0.012
9360	0.006
9420	0.01
9480	0.074
9540	0.008
9600	0.008
9660	0.007
9720	0.007
9780	0.008
9840	0.007
9900	0.007
9960	0.006
10020	0.011
10080	0.008

10140	0.007
10200	0.006
10260	0.005
10320	0.006
10380	0.035
10440	0.008
10500	0.006
10560	0.007
10620	0.007
10680	0.007
10740	0.006
10800	0.007
10860	0.006
10920	0.005
10980	0.006
11040	0.01
11100	0.007
11160	0.006
11220	0.007
11280	0.005
11340	0.005
11400	0.006
11460	0.035
11520	0.005
11580	0.004
11640	0.004
11700	0.007
11760	0.008
11820	0.008
11880	0.007
11940	0.009
12000	0.006
12060	0.004
12120	0.006
12180	0.003
12240	0.011
12300	0.062
12360	0.009
12420	0.005
12480	0.013
12540	0.012
12600	0.012
12660	0.011
12720	0.005
12780	0.004
12840	0.003
12900	0.003

12960	0.004
13020	0.007
13080	0.006
13140	0.036
13200	0.007
13260	0.004
13320	0.006
13380	0.043
13440	0.01
13500	0.012
13560	0.008
13620	0.008
13680	0.019
13740	0.014
13800	0.015
13860	0.004
13920	0.003
13980	0.02
14040	0.049
14100	0.022
14160	0.012
14220	0.009
14280	0.016
14340	0.006
14400	0.006
14460	0.04
14520	0.052
14580	0.049
14640	0.017
14700	0.046
14760	0.022
14820	0.014
14880	0.022
14940	0.086
15000	0.033
15060	0.019
15120	0.02
15180	0.027
15240	0.019
15300	0.023
15360	0.02
15420	0.016
15480	0.025
15540	0.017
15600	0.013
15660	0.008
15720	0.011

15780	0.007
15840	0.01
15900	0.008
15960	0.006
16020	0.007
16080	0.004
16140	0.005
16200	0.005
16260	0.005
16320	0.009
16380	0.024
16440	0.015
16500	0.009
16560	0.009
16620	0.007
16680	0.007
16740	0.007
16800	0.022
16860	0.016
16920	0.009
16980	0.02
17040	0.008
17100	0.01
17160	0.01
17220	0.01
17280	0.007
17340	0.006
17400	0.007
17460	0.014
17520	0.025
17580	0.011
17640	0.159
17700	0.011
17760	0.005
17820	0.005
17880	0.005
17940	0.016
18000	0.033
18060	0.006
18120	0.004
18180	0.005
18240	0.005
18300	0.005
18360	0.006
18420	0.005
18480	0.011
18540	0.005

18600	0.004
18660	0.005
18720	0.026
18780	0.007
18840	0.009
18900	0.015
18960	0.012
19020	0.008
19080	0.008
19140	0.007
19200	0.006
19260	0.005
19320	0.005
19380	0.004
19440	0.004
19500	0.016
19560	0.006
19620	0.006
19680	0.008
19740	0.062
19800	0.033

Instrument Name	DustTrak II	
Model Number	8530	
Serial Number	8530153512	
Firmware Version	3.4	
Calibration Date	6/1/2016	
Test Name	MANUAL_002	
Test Start Time	7:41:35 AM	
Test Start Date	10/26/2016	upwind
Test Length [D:H:M]	0:05:29	
Test Interval [M:S]	1:00	
Mass Average [mg/m3]	0.011	
Mass Minimum [mg/m3]	0.003	
Mass Maximum [mg/m3]	0.038	
Mass TWA [mg/m3]	0.007	
Photometric User Cal	1	
Flow User Cal	0	
Errors		
Number of Samples	329	

Elapsed Time [s]	Mass [mg/m3]	Alarms	Errors
60	0.014		
120	0.009		
180	0.009		
240	0.009		
300	0.009		
360	0.019		
420	0.013		
480	0.01		
540	0.01		
600	0.01		
660	0.009		
720	0.011		
780	0.012		
840	0.011		
900	0.012		
960	0.012		
1020	0.01		
1080	0.01		
1140	0.01		
1200	0.01		
1260	0.01		
1320	0.011		
1380	0.01		
1440	0.011		
1500	0.01		
1560	0.01		
1620	0.01		

1680	0.01
1740	0.009
1800	0.01
1860	0.011
1920	0.01
1980	0.01
2040	0.011
2100	0.01
2160	0.01
2220	0.011
2280	0.014
2340	0.012
2400	0.013
2460	0.011
2520	0.01
2580	0.01
2640	0.011
2700	0.012
2760	0.013
2820	0.011
2880	0.01
2940	0.01
3000	0.01
3060	0.01
3120	0.01
3180	0.01
3240	0.01
3300	0.011
3360	0.009
3420	0.01
3480	0.009
3540	0.01
3600	0.01
3660	0.012
3720	0.01
3780	0.013
3840	0.012
3900	0.012
3960	0.014
4020	0.014
4080	0.013
4140	0.013
4200	0.013
4260	0.013
4320	0.013
4380	0.013
4440	0.012

4500	0.013
4560	0.013
4620	0.012
4680	0.015
4740	0.015
4800	0.012
4860	0.012
4920	0.012
4980	0.013
5040	0.011
5100	0.012
5160	0.012
5220	0.015
5280	0.012
5340	0.013
5400	0.012
5460	0.008
5520	0.008
5580	0.01
5640	0.012
5700	0.014
5760	0.022
5820	0.017
5880	0.015
5940	0.012
6000	0.012
6060	0.012
6120	0.013
6180	0.023
6240	0.019
6300	0.012
6360	0.011
6420	0.009
6480	0.008
6540	0.012
6600	0.019
6660	0.012
6720	0.012
6780	0.024
6840	0.038
6900	0.014
6960	0.026
7020	0.02
7080	0.01
7140	0.009
7200	0.01
7260	0.016

7320	0.011
7380	0.009
7440	0.009
7500	0.007
7560	0.009
7620	0.01
7680	0.009
7740	0.009
7800	0.009
7860	0.01
7920	0.006
7980	0.013
8040	0.013
8100	0.007
8160	0.006
8220	0.006
8280	0.007
8340	0.007
8400	0.02
8460	0.013
8520	0.007
8580	0.008
8640	0.009
8700	0.014
8760	0.013
8820	0.009
8880	0.008
8940	0.008
9000	0.009
9060	0.007
9120	0.007
9180	0.013
9240	0.009
9300	0.01
9360	0.008
9420	0.009
9480	0.009
9540	0.008
9600	0.009
9660	0.007
9720	0.017
9780	0.014
9840	0.008
9900	0.007
9960	0.006
10020	0.008
10080	0.01

10140	0.006
10200	0.007
10260	0.009
10320	0.011
10380	0.012
10440	0.008
10500	0.009
10560	0.009
10620	0.006
10680	0.006
10740	0.009
10800	0.008
10860	0.007
10920	0.006
10980	0.007
11040	0.009
11100	0.011
11160	0.006
11220	0.006
11280	0.006
11340	0.006
11400	0.008
11460	0.012
11520	0.01
11580	0.006
11640	0.01
11700	0.006
11760	0.007
11820	0.005
11880	0.005
11940	0.006
12000	0.014
12060	0.008
12120	0.006
12180	0.014
12240	0.01
12300	0.006
12360	0.011
12420	0.006
12480	0.004
12540	0.008
12600	0.004
12660	0.004
12720	0.005
12780	0.007
12840	0.004
12900	0.006

12960	0.004
13020	0.005
13080	0.019
13140	0.017
13200	0.012
13260	0.011
13320	0.012
13380	0.029
13440	0.007
13500	0.012
13560	0.004
13620	0.003
13680	0.013
13740	0.022
13800	0.022
13860	0.01
13920	0.008
13980	0.009
14040	0.007
14100	0.006
14160	0.008
14220	0.024
14280	0.025
14340	0.013
14400	0.022
14460	0.02
14520	0.012
14580	0.019
14640	0.018
14700	0.028
14760	0.022
14820	0.014
14880	0.014
14940	0.025
15000	0.012
15060	0.019
15120	0.027
15180	0.015
15240	0.019
15300	0.008
15360	0.012
15420	0.005
15480	0.006
15540	0.006
15600	0.009
15660	0.007
15720	0.006

15780	0.004
15840	0.008
15900	0.004
15960	0.005
16020	0.004
16080	0.021
16140	0.011
16200	0.006
16260	0.004
16320	0.006
16380	0.004
16440	0.005
16500	0.021
16560	0.01
16620	0.013
16680	0.01
16740	0.01
16800	0.008
16860	0.013
16920	0.012
16980	0.007
17040	0.006
17100	0.009
17160	0.009
17220	0.011
17280	0.01
17340	0.029
17400	0.016
17460	0.004
17520	0.003
17580	0.005
17640	0.023
17700	0.018
17760	0.007
17820	0.003
17880	0.004
17940	0.005
18000	0.004
18060	0.004
18120	0.004
18180	0.003
18240	0.003
18300	0.003
18360	0.004
18420	0.01
18480	0.011
18540	0.005

18600	0.01
18660	0.016
18720	0.008
18780	0.008
18840	0.007
18900	0.006
18960	0.004
19020	0.003
19080	0.003
19140	0.004
19200	0.005
19260	0.004
19320	0.004
19380	0.01
19440	0.012
19500	0.014
19560	0.005
19620	0.004
19680	0.007
19740	0.005

Instrument Name	DustTrak II	
Model Number	8530	
Serial Number	8530133403	
Firmware Version	3.4	
Calibration Date	1/20/2016	
Test Name	MANUAL_003	
Test Start Time	7:38:26 AM	
Test Start Date	10/27/2016	downwind
Test Length [D:H:M]	0:07:22	
Test Interval [M:S]	1:00	
Mass Average [mg/m3]	0.012	
Mass Minimum [mg/m3]	0.004	
Mass Maximum [mg/m3]	0.082	
Mass TWA [mg/m3]	0.011	
Photometric User Cal	1	
Flow User Cal	0	
Errors		
Number of Samples	442	

Elapsed Time [s]	Mass [mg/m3]	Alarms	Errors
60	0.033		
120	0.021		
180	0.006		
240	0.005		
300	0.005		
360	0.006		
420	0.006		
480	0.005		
540	0.005		
600	0.008		
660	0.026		
720	0.005		
780	0.005		
840	0.006		
900	0.005		
960	0.011		
1020	0.006		
1080	0.006		
1140	0.006		
1200	0.006		
1260	0.006		
1320	0.007		
1380	0.014		
1440	0.007		
1500	0.006		
1560	0.007		
1620	0.008		

1680	0.007
1740	0.01
1800	0.012
1860	0.008
1920	0.021
1980	0.008
2040	0.008
2100	0.007
2160	0.016
2220	0.027
2280	0.013
2340	0.012
2400	0.01
2460	0.015
2520	0.011
2580	0.008
2640	0.018
2700	0.028
2760	0.015
2820	0.034
2880	0.055
2940	0.026
3000	0.019
3060	0.017
3120	0.009
3180	0.043
3240	0.046
3300	0.018
3360	0.026
3420	0.055
3480	0.039
3540	0.034
3600	0.01
3660	0.051
3720	0.017
3780	0.024
3840	0.017
3900	0.018
3960	0.035
4020	0.023
4080	0.015
4140	0.025
4200	0.021
4260	0.014
4320	0.02
4380	0.02
4440	0.022

4500	0.02
4560	0.015
4620	0.019
4680	0.016
4740	0.013
4800	0.012
4860	0.019
4920	0.012
4980	0.014
5040	0.01
5100	0.013
5160	0.014
5220	0.018
5280	0.009
5340	0.016
5400	0.012
5460	0.017
5520	0.015
5580	0.017
5640	0.022
5700	0.027
5760	0.027
5820	0.025
5880	0.021
5940	0.016
6000	0.021
6060	0.015
6120	0.016
6180	0.019
6240	0.016
6300	0.022
6360	0.022
6420	0.017
6480	0.028
6540	0.019
6600	0.022
6660	0.021
6720	0.031
6780	0.036
6840	0.013
6900	0.021
6960	0.015
7020	0.014
7080	0.017
7140	0.014
7200	0.017
7260	0.015

7320	0.015
7380	0.013
7440	0.015
7500	0.01
7560	0.009
7620	0.01
7680	0.009
7740	0.009
7800	0.009
7860	0.009
7920	0.011
7980	0.011
8040	0.01
8100	0.01
8160	0.009
8220	0.01
8280	0.011
8340	0.011
8400	0.01
8460	0.011
8520	0.011
8580	0.012
8640	0.009
8700	0.01
8760	0.009
8820	0.009
8880	0.008
8940	0.009
9000	0.009
9060	0.009
9120	0.009
9180	0.009
9240	0.011
9300	0.009
9360	0.009
9420	0.009
9480	0.014
9540	0.013
9600	0.01
9660	0.013
9720	0.012
9780	0.014
9840	0.014
9900	0.01
9960	0.015
10020	0.011
10080	0.012

10140	0.014
10200	0.013
10260	0.01
10320	0.01
10380	0.016
10440	0.014
10500	0.011
10560	0.017
10620	0.03
10680	0.016
10740	0.016
10800	0.015
10860	0.018
10920	0.016
10980	0.016
11040	0.015
11100	0.017
11160	0.014
11220	0.013
11280	0.018
11340	0.015
11400	0.013
11460	0.012
11520	0.015
11580	0.017
11640	0.018
11700	0.024
11760	0.021
11820	0.019
11880	0.012
11940	0.01
12000	0.013
12060	0.013
12120	0.014
12180	0.015
12240	0.014
12300	0.01
12360	0.012
12420	0.015
12480	0.017
12540	0.01
12600	0.019
12660	0.016
12720	0.013
12780	0.017
12840	0.015
12900	0.016

12960	0.022
13020	0.022
13080	0.018
13140	0.012
13200	0.017
13260	0.013
13320	0.019
13380	0.013
13440	0.012
13500	0.01
13560	0.009
13620	0.016
13680	0.011
13740	0.017
13800	0.018
13860	0.013
13920	0.013
13980	0.01
14040	0.008
14100	0.009
14160	0.009
14220	0.011
14280	0.008
14340	0.009
14400	0.008
14460	0.009
14520	0.009
14580	0.01
14640	0.009
14700	0.011
14760	0.01
14820	0.01
14880	0.009
14940	0.009
15000	0.011
15060	0.011
15120	0.012
15180	0.016
15240	0.012
15300	0.009
15360	0.009
15420	0.01
15480	0.01
15540	0.009
15600	0.008
15660	0.008
15720	0.009

15780	0.008
15840	0.009
15900	0.009
15960	0.008
16020	0.008
16080	0.008
16140	0.009
16200	0.01
16260	0.008
16320	0.008
16380	0.008
16440	0.008
16500	0.008
16560	0.008
16620	0.008
16680	0.008
16740	0.008
16800	0.008
16860	0.008
16920	0.008
16980	0.008
17040	0.008
17100	0.008
17160	0.082
17220	0.011
17280	0.008
17340	0.008
17400	0.008
17460	0.008
17520	0.008
17580	0.008
17640	0.008
17700	0.008
17760	0.009
17820	0.009
17880	0.008
17940	0.008
18000	0.008
18060	0.011
18120	0.01
18180	0.009
18240	0.009
18300	0.009
18360	0.008
18420	0.008
18480	0.009
18540	0.008

18600	0.008
18660	0.008
18720	0.008
18780	0.008
18840	0.01
18900	0.008
18960	0.008
19020	0.008
19080	0.009
19140	0.008
19200	0.008
19260	0.008
19320	0.009
19380	0.008
19440	0.009
19500	0.008
19560	0.008
19620	0.009
19680	0.008
19740	0.008
19800	0.008
19860	0.008
19920	0.008
19980	0.008
20040	0.008
20100	0.008
20160	0.007
20220	0.01
20280	0.008
20340	0.009
20400	0.008
20460	0.008
20520	0.008
20580	0.008
20640	0.008
20700	0.008
20760	0.008
20820	0.008
20880	0.009
20940	0.008
21000	0.009
21060	0.01
21120	0.009
21180	0.009
21240	0.01
21300	0.013
21360	0.01

21420	0.011
21480	0.012
21540	0.009
21600	0.01
21660	0.011
21720	0.009
21780	0.009
21840	0.009
21900	0.01
21960	0.011
22020	0.013
22080	0.009
22140	0.01
22200	0.011
22260	0.012
22320	0.011
22380	0.011
22440	0.009
22500	0.009
22560	0.009
22620	0.009
22680	0.009
22740	0.009
22800	0.01
22860	0.011
22920	0.012
22980	0.013
23040	0.013
23100	0.015
23160	0.015
23220	0.016
23280	0.013
23340	0.011
23400	0.01
23460	0.01
23520	0.01
23580	0.015
23640	0.015
23700	0.01
23760	0.01
23820	0.01
23880	0.01
23940	0.009
24000	0.009
24060	0.009
24120	0.009
24180	0.01

24240	0.009
24300	0.013
24360	0.006
24420	0.005
24480	0.006
24540	0.005
24600	0.005
24660	0.006
24720	0.006
24780	0.006
24840	0.006
24900	0.006
24960	0.006
25020	0.005
25080	0.006
25140	0.006
25200	0.005
25260	0.006
25320	0.005
25380	0.007
25440	0.005
25500	0.006
25560	0.006
25620	0.006
25680	0.007
25740	0.006
25800	0.005
25860	0.004
25920	0.005
25980	0.005
26040	0.005
26100	0.005
26160	0.005
26220	0.006
26280	0.005
26340	0.005
26400	0.005
26460	0.006
26520	0.006

Instrument Name	DustTrak II	
Model Number	8530	
Serial Number	8530153512	
Firmware Version	3.4	
Calibration Date	6/1/2016	
Test Name	MANUAL_003	
Test Start Time	7:43:45 AM	
Test Start Date	10/27/2016	upwind
Test Length [D:H:M]	0:07:23	
Test Interval [M:S]	1:00	
Mass Average [mg/m3]	0.014	
Mass Minimum [mg/m3]	0.005	
Mass Maximum [mg/m3]	0.085	
Mass TWA [mg/m3]	0.013	
Photometric User Cal	1	
Flow User Cal	0	
Errors		
Number of Samples	443	

Elapsed Time [s]	Mass [mg/m3]	Alarms	Errors
60	0.008		
120	0.017		
180	0.01		
240	0.035		
300	0.024		
360	0.008		
420	0.012		
480	0.013		
540	0.008		
600	0.006		
660	0.006		
720	0.008		
780	0.006		
840	0.007		
900	0.01		
960	0.005		
1020	0.007		
1080	0.034		
1140	0.008		
1200	0.013		
1260	0.01		
1320	0.006		
1380	0.016		
1440	0.006		
1500	0.006		
1560	0.008		
1620	0.007		

1680	0.046
1740	0.012
1800	0.007
1860	0.021
1920	0.016
1980	0.007
2040	0.034
2100	0.02
2160	0.01
2220	0.011
2280	0.014
2340	0.021
2400	0.015
2460	0.009
2520	0.011
2580	0.007
2640	0.018
2700	0.013
2760	0.008
2820	0.009
2880	0.009
2940	0.031
3000	0.085
3060	0.079
3120	0.041
3180	0.019
3240	0.019
3300	0.022
3360	0.025
3420	0.018
3480	0.019
3540	0.01
3600	0.009
3660	0.012
3720	0.009
3780	0.011
3840	0.012
3900	0.016
3960	0.014
4020	0.011
4080	0.016
4140	0.016
4200	0.012
4260	0.009
4320	0.008
4380	0.009
4440	0.011

4500	0.009
4560	0.01
4620	0.01
4680	0.009
4740	0.009
4800	0.01
4860	0.009
4920	0.009
4980	0.01
5040	0.008
5100	0.011
5160	0.013
5220	0.013
5280	0.012
5340	0.014
5400	0.009
5460	0.009
5520	0.009
5580	0.008
5640	0.008
5700	0.007
5760	0.007
5820	0.009
5880	0.007
5940	0.009
6000	0.013
6060	0.016
6120	0.016
6180	0.015
6240	0.02
6300	0.01
6360	0.011
6420	0.01
6480	0.012
6540	0.014
6600	0.014
6660	0.011
6720	0.012
6780	0.012
6840	0.012
6900	0.011
6960	0.014
7020	0.016
7080	0.016
7140	0.015
7200	0.017
7260	0.012

7320	0.011
7380	0.016
7440	0.011
7500	0.011
7560	0.02
7620	0.011
7680	0.011
7740	0.01
7800	0.012
7860	0.011
7920	0.011
7980	0.011
8040	0.011
8100	0.011
8160	0.011
8220	0.009
8280	0.01
8340	0.011
8400	0.011
8460	0.017
8520	0.01
8580	0.012
8640	0.012
8700	0.012
8760	0.01
8820	0.011
8880	0.01
8940	0.01
9000	0.011
9060	0.01
9120	0.009
9180	0.01
9240	0.01
9300	0.01
9360	0.011
9420	0.01
9480	0.009
9540	0.01
9600	0.015
9660	0.023
9720	0.019
9780	0.016
9840	0.011
9900	0.015
9960	0.012
10020	0.011
10080	0.011

10140	0.01
10200	0.011
10260	0.012
10320	0.011
10380	0.014
10440	0.013
10500	0.013
10560	0.012
10620	0.014
10680	0.017
10740	0.013
10800	0.01
10860	0.01
10920	0.011
10980	0.01
11040	0.01
11100	0.01
11160	0.011
11220	0.011
11280	0.011
11340	0.01
11400	0.011
11460	0.011
11520	0.01
11580	0.01
11640	0.011
11700	0.011
11760	0.016
11820	0.013
11880	0.014
11940	0.014
12000	0.012
12060	0.012
12120	0.016
12180	0.015
12240	0.011
12300	0.011
12360	0.013
12420	0.014
12480	0.021
12540	0.014
12600	0.015
12660	0.015
12720	0.012
12780	0.012
12840	0.012
12900	0.011

12960	0.012
13020	0.011
13080	0.013
13140	0.013
13200	0.013
13260	0.011
13320	0.012
13380	0.018
13440	0.015
13500	0.015
13560	0.012
13620	0.015
13680	0.015
13740	0.026
13800	0.026
13860	0.027
13920	0.017
13980	0.015
14040	0.011
14100	0.014
14160	0.021
14220	0.02
14280	0.02
14340	0.028
14400	0.021
14460	0.018
14520	0.018
14580	0.014
14640	0.015
14700	0.012
14760	0.015
14820	0.017
14880	0.018
14940	0.017
15000	0.016
15060	0.015
15120	0.019
15180	0.021
15240	0.02
15300	0.016
15360	0.016
15420	0.016
15480	0.019
15540	0.023
15600	0.028
15660	0.021
15720	0.023

15780	0.017
15840	0.019
15900	0.022
15960	0.015
16020	0.013
16080	0.012
16140	0.01
16200	0.011
16260	0.009
16320	0.012
16380	0.01
16440	0.009
16500	0.01
16560	0.009
16620	0.009
16680	0.011
16740	0.01
16800	0.009
16860	0.009
16920	0.009
16980	0.009
17040	0.009
17100	0.01
17160	0.012
17220	0.01
17280	0.009
17340	0.027
17400	0.015
17460	0.009
17520	0.009
17580	0.009
17640	0.009
17700	0.009
17760	0.009
17820	0.009
17880	0.009
17940	0.009
18000	0.009
18060	0.01
18120	0.009
18180	0.01
18240	0.009
18300	0.009
18360	0.009
18420	0.009
18480	0.009
18540	0.009

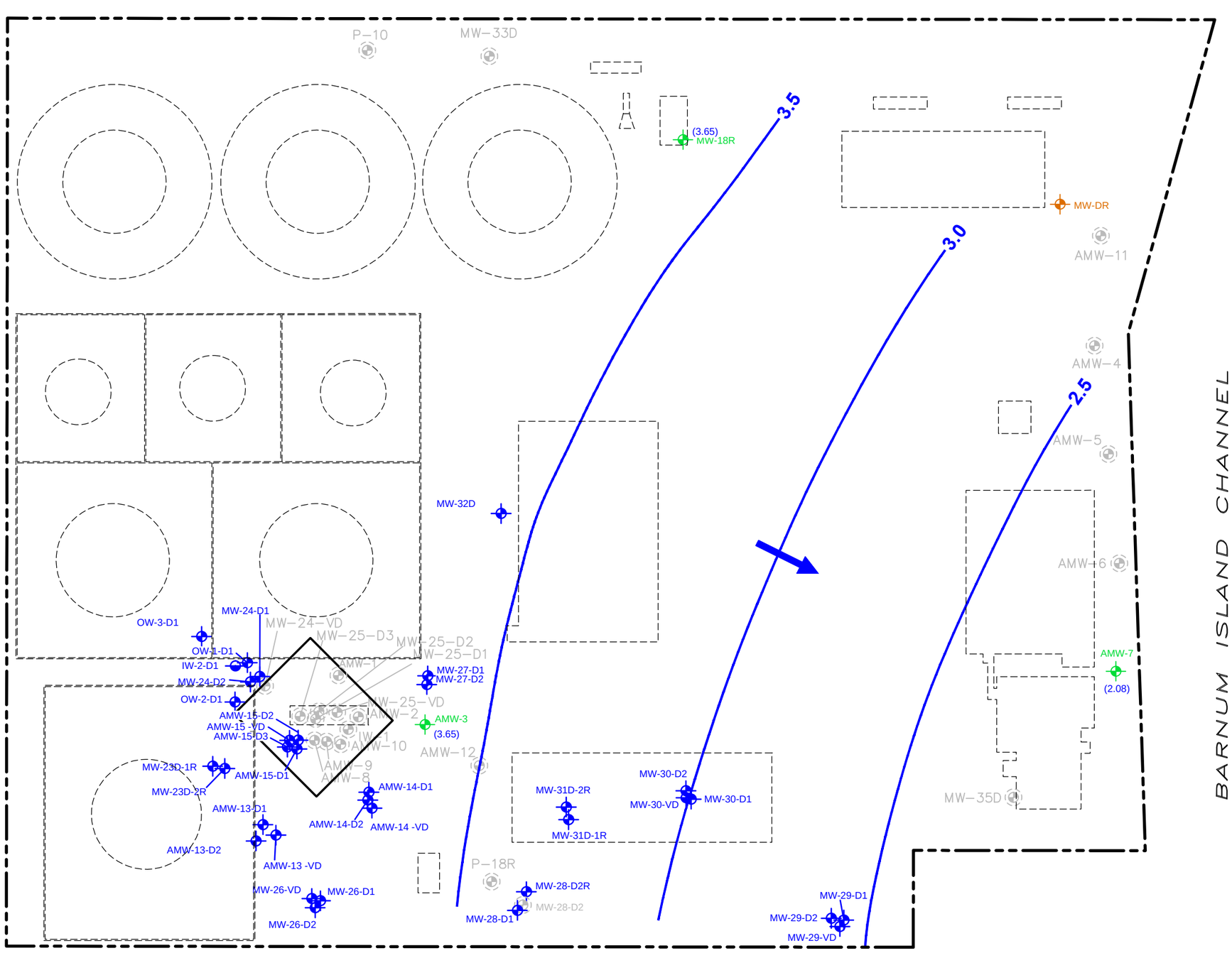
18600	0.009
18660	0.01
18720	0.022
18780	0.012
18840	0.014
18900	0.013
18960	0.016
19020	0.021
19080	0.018
19140	0.016
19200	0.018
19260	0.015
19320	0.017
19380	0.021
19440	0.024
19500	0.015
19560	0.014
19620	0.017
19680	0.018
19740	0.015
19800	0.023
19860	0.018
19920	0.02
19980	0.018
20040	0.016
20100	0.022
20160	0.021
20220	0.021
20280	0.018
20340	0.024
20400	0.021
20460	0.029
20520	0.025
20580	0.023
20640	0.021
20700	0.022
20760	0.019
20820	0.021
20880	0.019
20940	0.027
21000	0.018
21060	0.019
21120	0.019
21180	0.018
21240	0.016
21300	0.018
21360	0.022

21420	0.017
21480	0.016
21540	0.014
21600	0.017
21660	0.019
21720	0.014
21780	0.017
21840	0.017
21900	0.014
21960	0.017
22020	0.021
22080	0.019
22140	0.016
22200	0.018
22260	0.021
22320	0.024
22380	0.02
22440	0.013
22500	0.017
22560	0.02
22620	0.019
22680	0.022
22740	0.025
22800	0.022
22860	0.027
22920	0.027
22980	0.023
23040	0.02
23100	0.023
23160	0.022
23220	0.023
23280	0.019
23340	0.016
23400	0.015
23460	0.02
23520	0.017
23580	0.017
23640	0.023
23700	0.026
23760	0.018
23820	0.019
23880	0.026
23940	0.018
24000	0.014
24060	0.012
24120	0.012
24180	0.016

24240	0.013
24300	0.012
24360	0.013
24420	0.014
24480	0.022
24540	0.019
24600	0.017
24660	0.025
24720	0.012
24780	0.007
24840	0.008
24900	0.009
24960	0.009
25020	0.017
25080	0.008
25140	0.007
25200	0.008
25260	0.012
25320	0.01
25380	0.01
25440	0.009
25500	0.007
25560	0.007
25620	0.009
25680	0.009
25740	0.011
25800	0.007
25860	0.008
25920	0.008
25980	0.007
26040	0.006
26100	0.006
26160	0.006
26220	0.007
26280	0.007
26340	0.007
26400	0.007
26460	0.008
26520	0.007
26580	0.007

APPENDIX F

Groundwater Elevation Contour Maps



LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- LIMITS OF EXCAVATION
- HISTORICAL SITE FEATURE
- (3.65) GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- [0.33] GROUNDWATER ELEVATION (FAMSL) NOT USED TO GENERATE GROUNDWATER CONTOURS
- 1.0 GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
- APPROXIMATE GROUNDWATER FLOW DIRECTION

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN–GULF OIL COMPANY–U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. HISTORICAL SITE LAYOUT AND SAMPLE LOCATIONS ARE APPROXIMATE.
3. MONITORING WELL LOCATIONS SURVEYED BY AMERICAN ENGINEERING AND SURVEY.

0 60' 120'

GRAPHIC SCALE

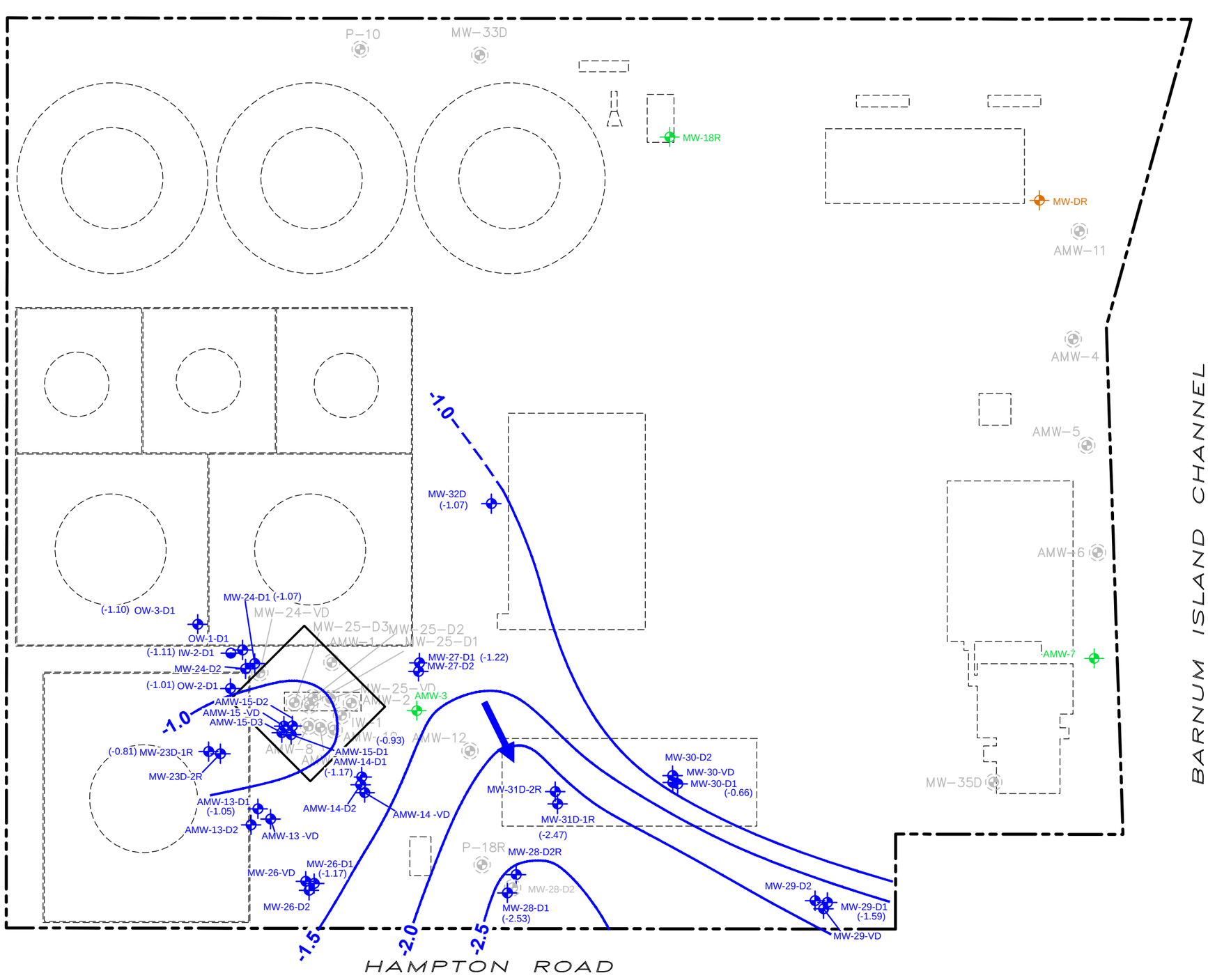
GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

WATER TABLE GROUNDWATER ELEVATION CONTOUR - LOW TIDE 7/26/2016

ARCADIS Design & Consultancy for natural and built assets

FIGURE F-1

CITY: SYRACUSE, NY DIVGROUP: ENV/IM-DV DB: L. FORAKER, R. ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*; OFF=*REF*
C:\ENVCAD\SYRACUSE\ACTIB\047517\0023000\01\DWG\047517W01.DWG LAYOUT: F-1 SAVED: 12/1/2016 10:55 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: C:LB-PDF-GMS PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 12/12/2016 10:59 PM BY: STOWELL, GARY
XREFS:
47517XBL
47517X01
IMAGES:



LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- LIMITS OF EXCAVATION
- HISTORICAL SITE FEATURE
- (3.65) GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- [0.33] GROUNDWATER ELEVATION (FAMSL) NOT USED TO GENERATE GROUNDWATER CONTOURS
- 1.0 GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
- APPROXIMATE GROUNDWATER FLOW DIRECTION

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN–GULF OIL COMPANY–U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. HISTORICAL SITE LAYOUT AND SAMPLE LOCATIONS ARE APPROXIMATE.
3. MONITORING WELL LOCATIONS SURVEYED BY AMERICAN ENGINEERING AND SURVEY.

0 60' 120'

GRAPHIC SCALE

GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

POTENTIOMETRIC SURFACE MAP FOR LOWER SAND D1 HORIZON - LOW TIDE 7/26/2016

ARCADIS Design & Consultancy for natural and built assets

FIGURE
F-2

CITY: SYRACUSE, NY DIVGROUP: ENV/IM-DV DB: L.FORAKER, R. ALLEN LD: PIC: J. VOGELEY PM: W.McCUNE TM: W.McCUNE LYR: ON=*; OFF=*REF*
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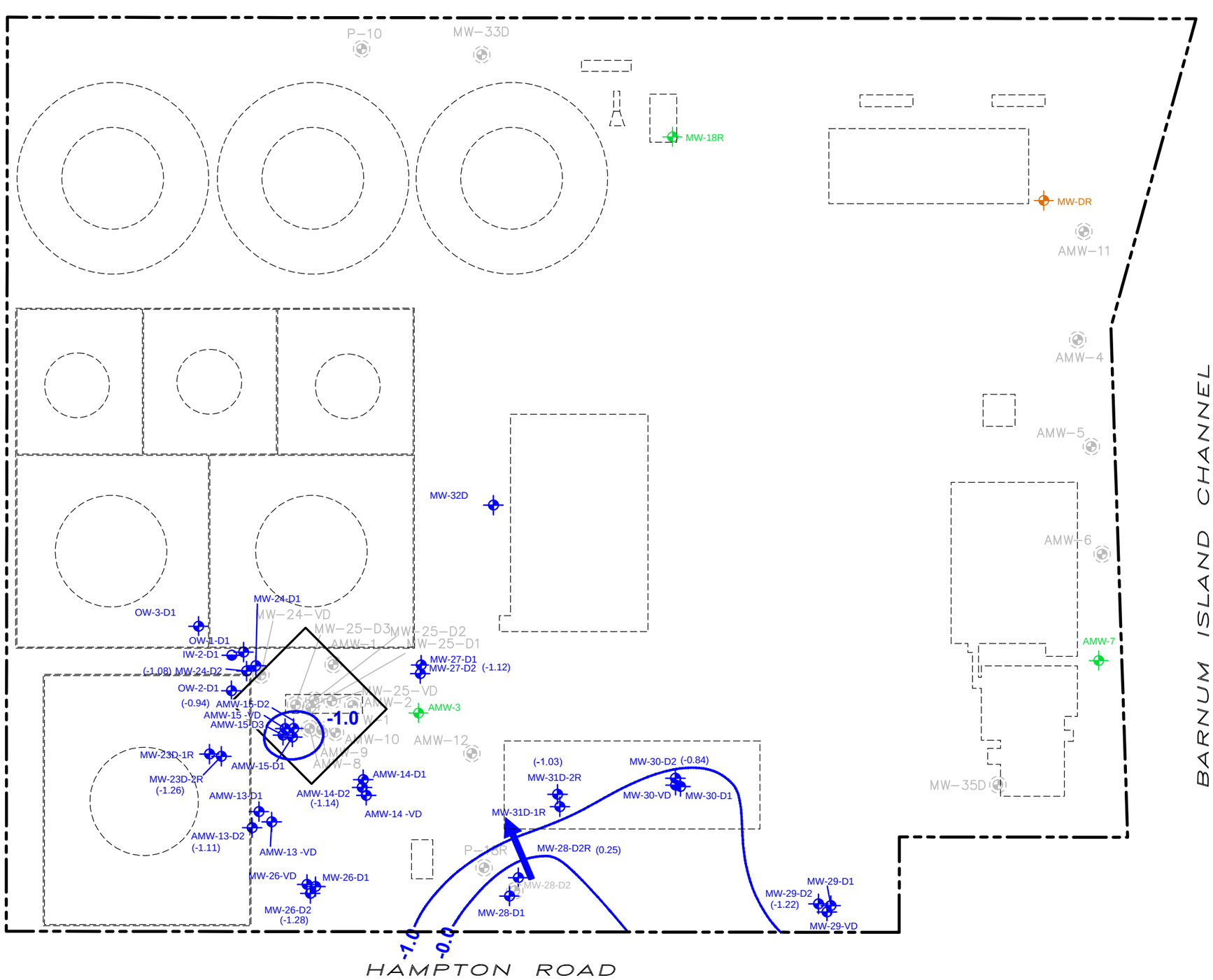
XREFS:
47517XBL
47517X01
IMAGES:



LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- LIMITS OF EXCAVATION
- HISTORICAL SITE FEATURE
- (3.65) GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)
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0 60' 120'

GRAPHIC SCALE

GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

POTENTIOMETRIC SURFACE MAP FOR LOWER SAND D2 HORIZON - LOW TIDE 7/26/2016

ARCADIS Design & Consultancy for natural and built assets

FIGURE
F-3

CITY: SYRACUSE, NY DIV/GROUP: ENV/IM-DV DB: L. FORAKER, R. ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*;OFF=*REF*
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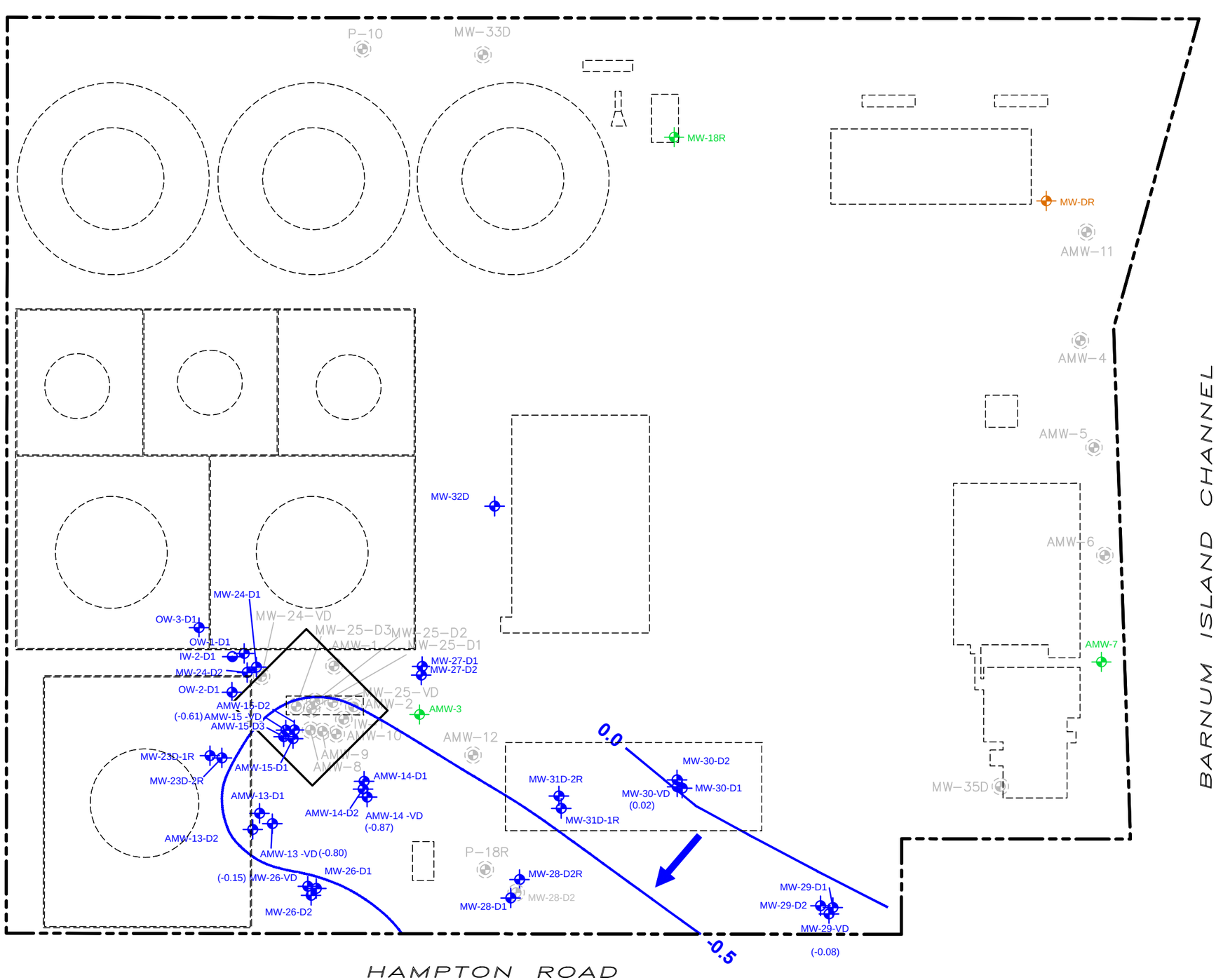

LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- LIMITS OF EXCAVATION
- HISTORICAL SITE FEATURE
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0 60' 120'

GRAPHIC SCALE

GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

POTENTIOMETRIC SURFACE MAP FOR LOWER SAND VD HORIZON - LOW TIDE 7/26/2016

ARCADIS Design & Consultancy for natural and built assets

FIGURE
F-4

CITY: SYRACUSE, NY DIVGROUP: ENV/IM-DV DB: L.FORAKER, R. ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*;OFF=*REF*
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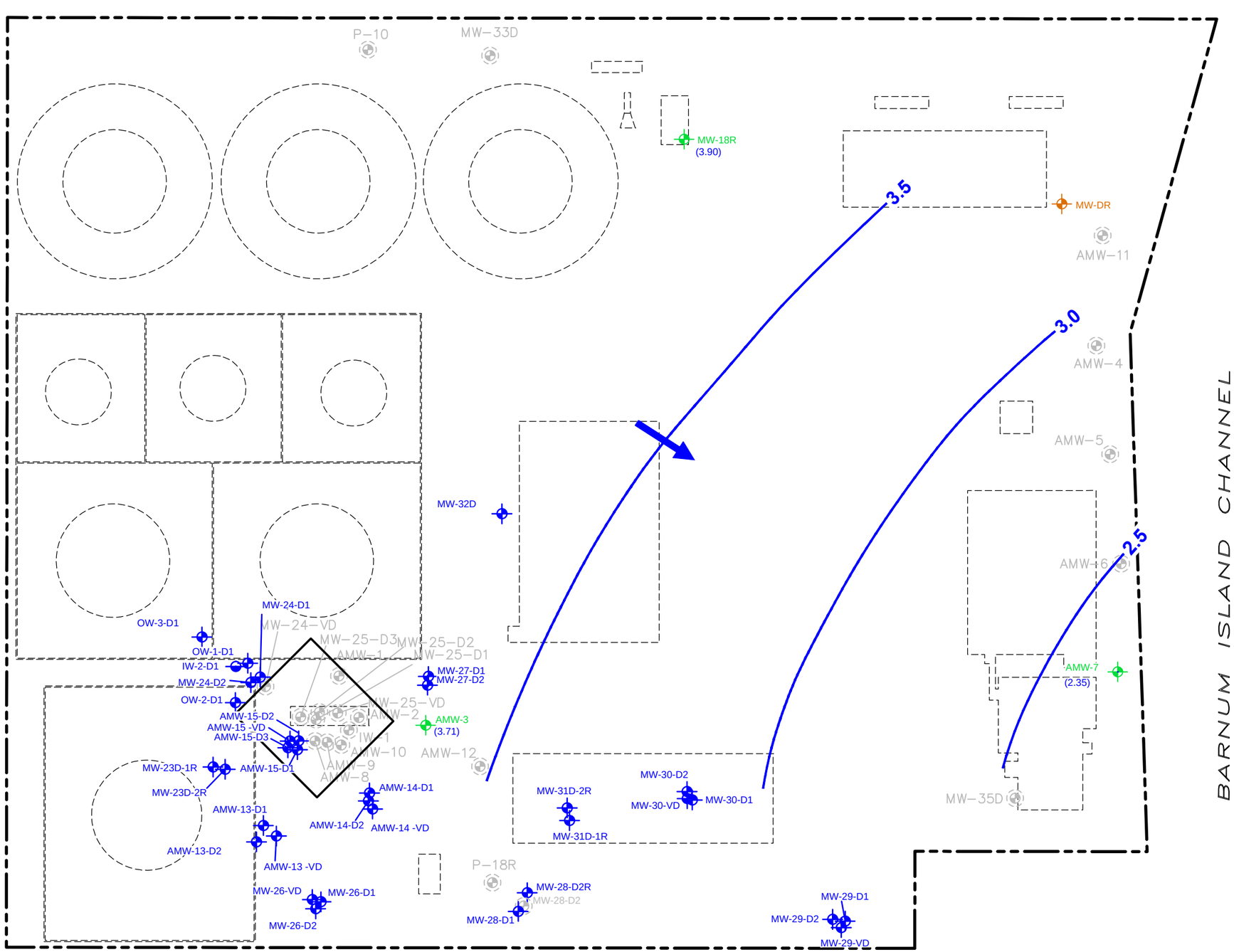
47517X01



LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- LIMITS OF EXCAVATION
- HISTORICAL SITE FEATURE
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GRAPHIC SCALE

GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

WATER TABLE ELEVATION CONTOUR MAP - HIGH TIDE 7/26/2016

ARCADIS Design & Consultancy for natural and built assets

FIGURE
F-5

CITY: SYRACUSE, NY DIV/GROUP: ENV/IM-DV DB: L.FORAKER, R. ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*;OFF=*REF*
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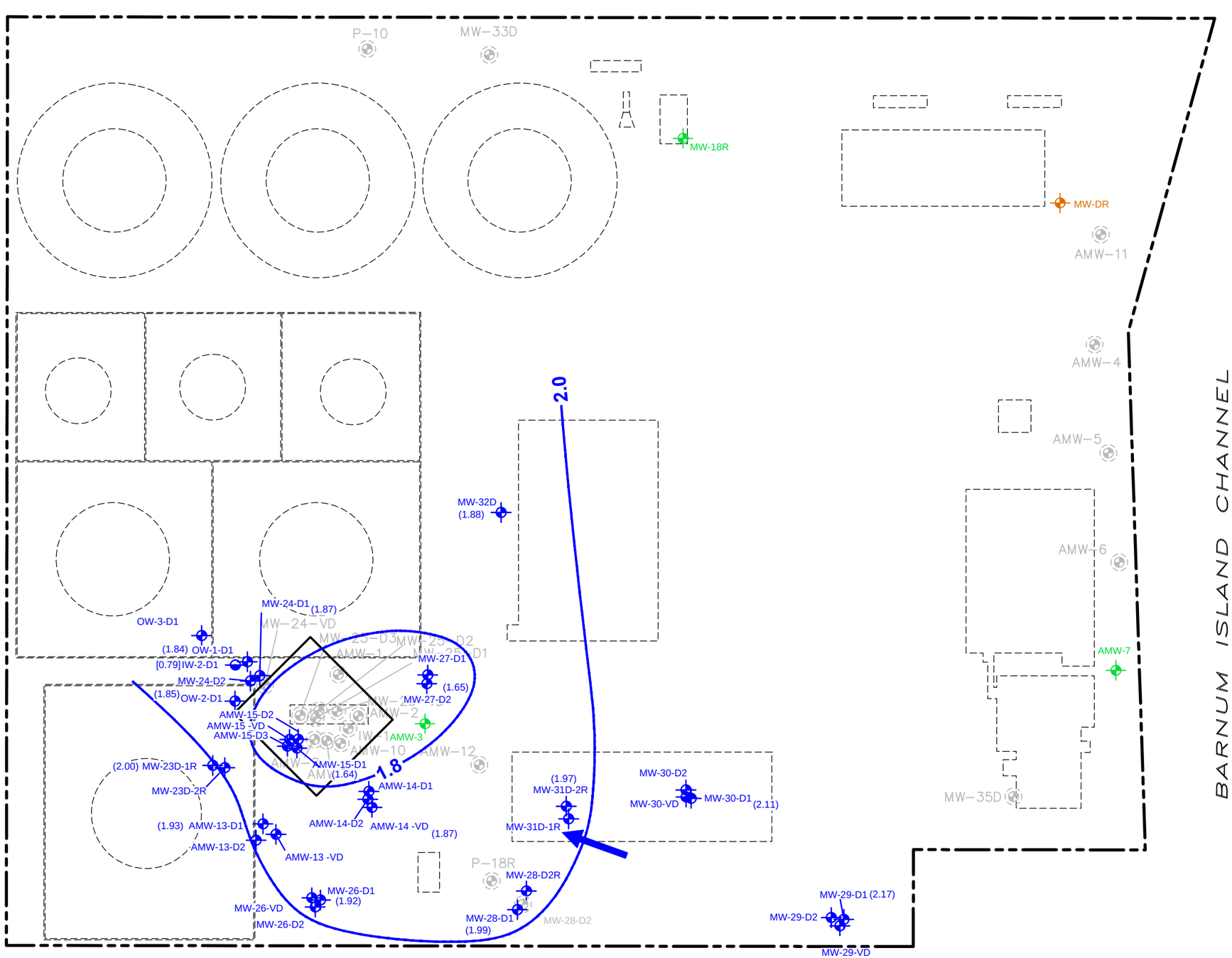
XREFS: IMAGES:
47517XBL
47517X01



LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
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0 60' 120'

GRAPHIC SCALE

GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

POTENTIOMETRIC SURFACE MAP FOR LOWER SAND D1 HORIZON - HIGH TIDE 7/26/2016

ARCADIS Design & Consultancy for natural and built assets

FIGURE
F-6

CITY: SYRACUSE, NY DIVGROUP: ENV/IM-DV DB: L.FORAKER, R. ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*;OFF=*REF*
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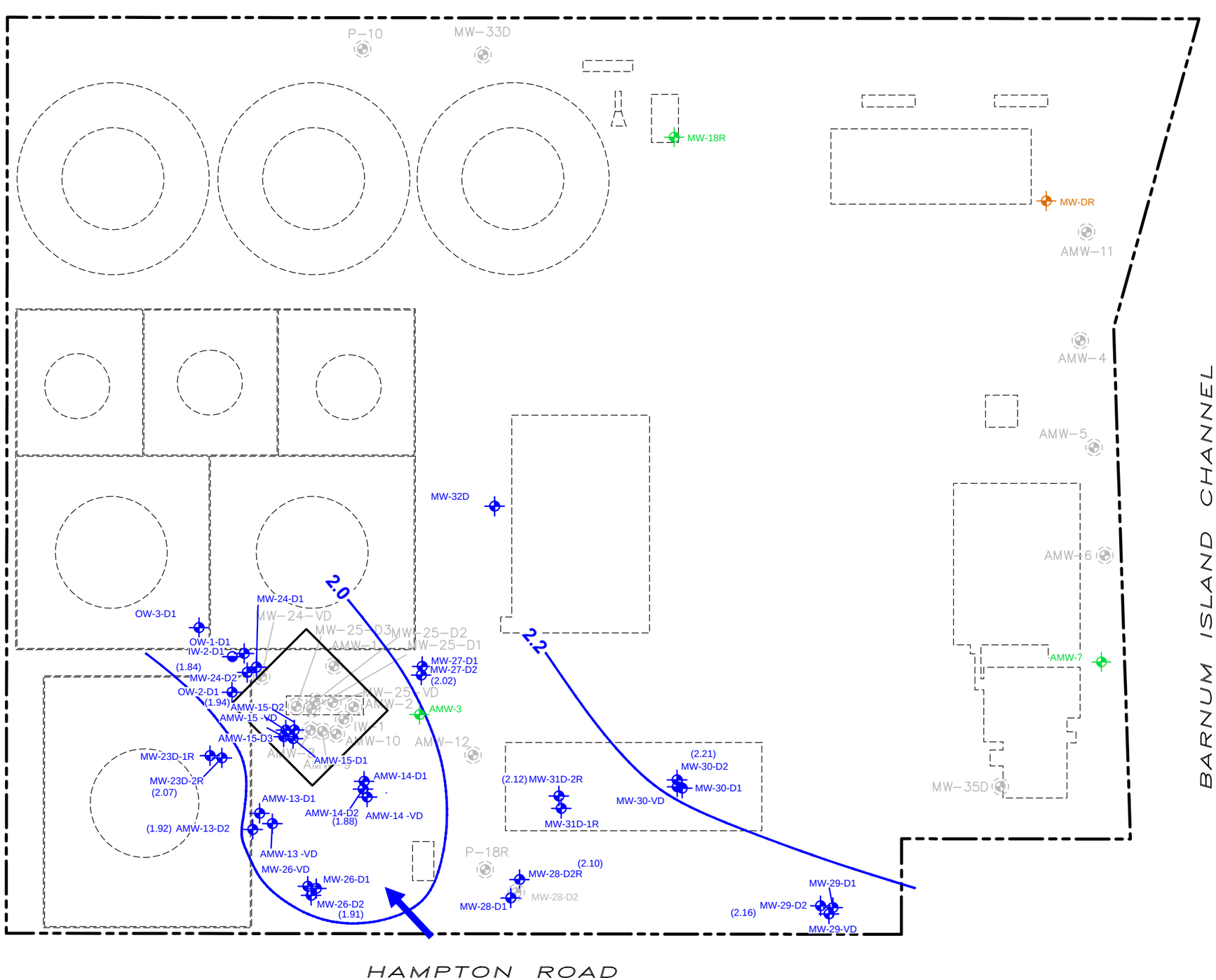
XREFS: 47517XBL 47517X01 IMAGES:



LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
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GRAPHIC SCALE

GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

POTENTIOMETRIC SURFACE MAP FOR LOWER SAND D2 HORIZON - HIGH TIDE 7/26/2016

ARCADIS Design & Consultancy for natural and built assets

FIGURE
F-7

CITY: SYRACUSE, NY DIVGROUP: ENV/IM-DV DB: L.FORAKER, R. ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*;OFF=*REF*
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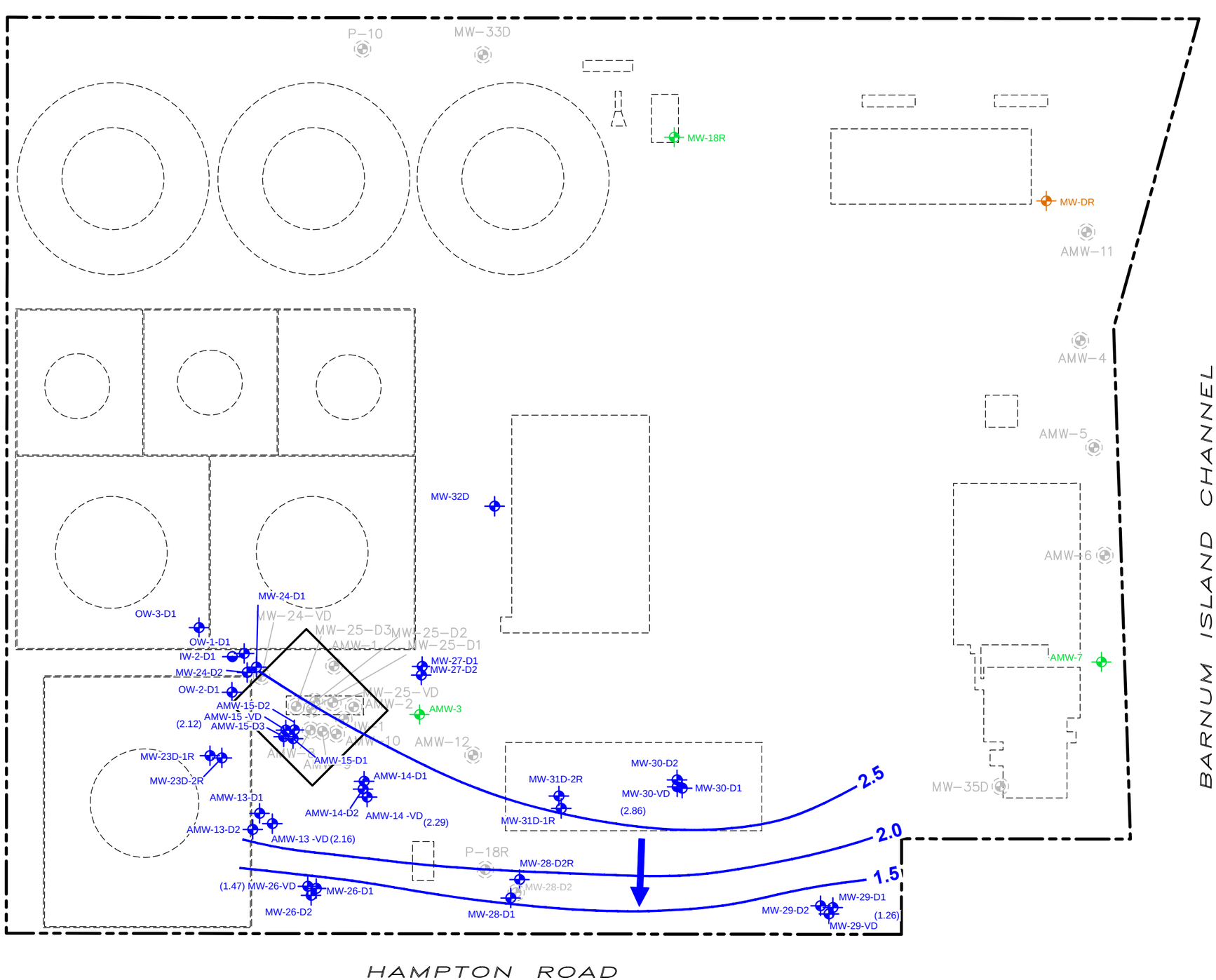
XREFS: IMAGES:
47517XBL
47517X01



LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
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0 60' 120'

GRAPHIC SCALE

GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

POTENTIOMETRIC SURFACE MAP FOR LOWER SAND VD HORIZON - HIGH TIDE 7/26/2016

ARCADIS Design & Consultancy for natural and built assets

FIGURE
F-8

CITY: SYRACUSE, NY DIVGROUP: ENV/IM-DV DB: L. FORAKER, R. ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*;OFF=*REF*
C:\ENVCAD\SYRACUSE\ACTIB\0047517\0023000001\DWG\47517W08.DWG LAYOUT: F-8 SAVED: 12/12/2016 10:55 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: C-LB-PDF-GMS PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 12/12/2016 10:59 PM BY: STOWELL, GARY
XREFS: IMAGES:
47517XBL
47517X01

APPENDIX G

Analytical Reports

(provided under separate cover)

APPENDIX H

Historical Groundwater Results

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(Feet): Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	GP-1(2002) - - 05/02/02	GP-2(2002) - - 05/02/02	GP-3(2002) - - 05/02/02	GP-4(2002) - - 05/02/02	GP-5(2002) - - 05/02/02	GP-6(1995) - - 12/15/95	GP-6(2002) - - 05/02/02	GP-7(2002) - - 05/02/02	GP-8(2002) - - 05/02/02	GP-9(2002) - - 05/02/02	GP-10(2002) - - 05/02/02	GW-01 - - 04/15/97	GW-02 - - 04/15/97
Volatile Organics															
Benzene	1	ug/L	ND	ND	**17**	ND	ND	**430**	**14,000**	**2,800**	ND	**200**	ND	**540**	**29**
Toluene	5	ug/L	ND	ND	ND	ND	ND	**8,000**	ND	ND	ND	**180**	**120**	**16**	**5.3**
Ethylbenzene	5	ug/L	**52**	**8,800**	ND	ND	ND	**19,000**	**160,000**	**76,000**	**2.0**	**180**	**7,200**	**570**	**9.0**
Xylenes (total)	5	ug/L	ND	**11,000**	**8.2**	ND	ND	**230,000**	ND	ND	**4.4**	**530**	**640**	ND	**43**
Methyl tert-butyl ether	10	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	**2,400**	**52**
Naphthalene	10	ug/L	**440**	**6,200**	ND	ND	ND	**23,000**	ND	ND	ND	ND	NA	**430**	**27**
Isopropylbenzene	5	ug/L	NA	NA	NA	NA	NA	**4,400**	NA	NA	NA	NA	NA	**64**	**13**
1,1,1-Trichloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.6	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	**52,000**	NA	NA	NA	NA	NA	ND	**7.8**
1,3-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	ND	ND	NA	ND	ND	ND	ND	ND	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	5	ug/L	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	NA	NA
cis-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	- -	ug/L	ND	NA	NA	ND	ND	**160,000**	ND	ND	ND	NA	NA	ND	**31**
Methylene Chloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	**56,000**	NA	NA	NA	NA	NA	**27**	ND
n-Propylbenzene	- -	ug/L	NA	NA	NA	NA	NA	**9,500**	NA	NA	NA	NA	NA	**130**	**21**
o-Xylene	- -	ug/L	ND	NA	NA	ND	ND	**73,000**	ND	ND	ND	NA	NA	ND	**12**
p-Isopropyltoluene	- -	ug/L	NA	NA	NA	NA	NA	**2,400**	NA	NA	NA	NA	NA	ND	**6.5**
sec-Butylbenzene	- -	ug/L	NA	NA	NA	ND	NA	**3,900**	NA	NA	NA	NA	NA	**20**	**15**

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(Feet): Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	GP-1(2002) - - 05/02/02	GP-2(2002) - - 05/02/02	GP-3(2002) - - 05/02/02	GP-4(2002) - - 05/02/02	GP-5(2002) - - 05/02/02	GP-6(1995) - - 12/15/95	GP-6(2002) - - 05/02/02	GP-7(2002) - - 05/02/02	GP-8(2002) - - 05/02/02	GP-9(2002) - - 05/02/02	GP-10(2002) - - 05/02/02	GW-01 - - 04/15/97	GW-02 - - 04/15/97
Volatile Organics (Cont.)															
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	**2,300**	NA	NA	NA	NA	NA	ND	**15**
Tertiary butyl alcohol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total VOCs	- -	ug/L	**490**	**26,000**	**25**	**100**	**7.6**	**650,000**	**180,000**	**79,000**	**6.4**	**1,100**	**8,000**	**4,200**	**290**
trans-1,2-Dichloroethene	5	ug/L	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	NA	NA
trans-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5	ug/L	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2	ug/L	ND	ND	ND	**100**	**7.6**	NA	ND	ND	ND	ND	ND	NA	NA
Semivolatile Organics															
Naphthalene	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	0.002	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	0.002	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.002	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	0.4	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PheNAnthrene	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total SVOCs	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
General Chemistry															
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH															
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	GW-03 - - 04/15/97	GW-04 - - 04/15/97	GW-05 - - 04/15/97	GW-06 - - 04/15/97	GW-07 - - 04/15/97	GW-08 - - 04/15/97	GW-09 - - 04/15/97	GW-10 - - 04/15/97	GW-12 - - 04/15/97	HA-01 - - 12/15/95	HA-01 - - 02/29/96	HA-02 - - 12/15/95	HA-02 - - 02/29/96	MW-01 10.28 12/19/95	MW-01 10.28 02/29/96	MW-01 10.28 01/27/98	MW-01 10.28 04/08/98
Volatile Organics																			
Benzene	1	ug/L	**2,700**	**110**	ND	**100**	ND	**1.8**	ND	**170**	ND	**24**	ND	ND	ND	NA	**1.8**	NA	**2.0**
Toluene	5	ug/L	**44**	**12**	ND	ND	ND	**6.1**	ND	ND	ND	**61**	ND	ND	ND	NA	ND	NA	**0.30 J**
Ethylbenzene	5	ug/L	**510**	**5.2**	ND	ND	ND	**1.0**	ND	**30**	ND	ND	ND	ND	ND	NA	ND	NA	**0.90 J**
Xylenes (total)	5	ug/L	**120**	**16**	ND	**110**	ND	**4.0**	ND	ND	**240**	ND	ND	ND	ND	NA	ND	NA	**1.9**
Methyl tert-butyl ether	10	ug/L	**450**	**130**	ND	**1,600**	ND	**19**	**13**	**84**	**300**	ND	**1.1**	ND	**2.6**	NA	**80**	NA	**54**
Naphthalene	10	ug/L	**900**	**4.1**	ND	**470**	**16**	**3.0**	ND	**120**	**170**	ND	ND	ND	ND	NA	**4.4**	NA	**12**
Isopropylbenzene	5	ug/L	**180**	ND	ND	ND	**1.4**	**2.4**	ND	**94**	ND	ND	ND	ND	ND	NA	**4.1**	NA	**7.9**
1,1,1-Trichloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA
1,1-Dichloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA
1,1-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.6	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA
1,2-Dichloropropane	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	- -	ug/L	ND	**5.4**	ND	**120**	ND	ND	ND	ND	**400**	ND	ND	ND	ND	NA	ND	NA	**0.50 J**
1,3-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA
m&p-Xylene	- -	ug/L	**120**	**10**	ND	**110**	ND	**4.0**	ND	ND	**240**	ND	ND	ND	ND	NA	ND	NA	**1.5 J**
Methylene Chloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA
n-Butylbenzene	- -	ug/L	**87**	**4.4**	ND	**230**	**1.1**	ND	ND	**34**	**210**	ND	ND	ND	ND	NA	**3.8**	NA	**3.8**
n-Propylbenzene	- -	ug/L	**380**	**1.1**	ND	**80**	**2.3**	**3.5**	ND	**180**	ND	ND	ND	ND	ND	NA	**2.1**	NA	**3.1**
o-Xylene	- -	ug/L	ND	**6.2**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	**0.40 J**
p-Isopropyltoluene	- -	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	**2.1**
sec-Butylbenzene	- -	ug/L	**50**	**2.1**	ND	ND	**1.8**	**1.6**	ND	**19**	ND	ND	ND	ND	ND	NA	ND	NA	**4.0**

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(Feet): Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	GW-03 - - 04/15/97	GW-04 - - 04/15/97	GW-05 - - 04/15/97	GW-06 - - 04/15/97	GW-07 - - 04/15/97	GW-08 - - 04/15/97	GW-09 - - 04/15/97	GW-10 - - 04/15/97	GW-12 - - 04/15/97	HA-01 - - 12/15/95	HA-01 - - 02/29/96	HA-02 - - 12/15/95	HA-02 - - 02/29/96	MW-01 10.28 12/19/95	MW-01 10.28 02/29/96	MW-01 10.28 01/27/98	MW-01 10.28 04/08/98
Volatile Organics (Cont.)																			
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	ND	**4.2**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	**2.3**
Tertiary butyl alcohol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA
Total VOCs	- -	ug/L	**5,500**	**310**	0	**2,800**	**23**	**42**	**13**	**730**	**1,600**	**85**	**1.1**	ND	**2.6**	NA	**96**	NA	**97**
trans-1,2-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics																			
Naphthalene	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	**7.0 J**	NA
2,4-Dimethylphenol	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	**2.0 J**	NA
Acenaphthylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
Anthracene	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	**1.0 J**	NA
Benzo(a)anthracene	0.002	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	ND	NA
Benzo(a)pyrene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	ND	NA
Benzo(b)fluoranthene	0.002	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	ND	NA
Benzo(g,h,i)perylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	ND	NA
Benzo(k)fluoranthene	0.002	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	ND	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	ND	NA
Dibenzo(a,h)anthracene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	ND	NA
Di-n-Butylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	**2.0 J**	NA
Fluorene	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	**4.0 J**	NA
Hexachlorocyclopentadiene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	ND	NA
Nitrobenzene	0.4	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	ND	NA
Pentachlorophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PheNAnthrene	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	**4.0 J**	NA
Phenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	**2.0 J**	NA
Total SVOCs	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	**22**	NA
General Chemistry																			
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																			
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	**3,000**	NA	**5,300**	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-01 10.28 11/02/01	MW-01 10.28 04/03/02	MW-01 10.28 08/20/02	MW-03 10.26 12/19/95	MW-03 10.26 02/29/96	MW-03 10.26 08/20/02	MW-03A 9.3 01/27/98	MW-03A 9.3 04/08/98	MW-03A 9.3 11/02/01	MW-03A 9.3 04/30/02	MW-03A 9.3 08/20/02	MW-04A 9.41 08/20/02	MW-05 10.24 12/19/95	MW-05 10.24 02/29/96	MW-05 10.24 08/20/02	MW-07 9.21 08/20/02	MW-07A 10 08/20/02
Volatile Organics																			
Benzene	1	ug/L	2.7	3.8	1.0	NA	1,300	200	NA	ND	ND	ND	ND	ND	NA	NA	ND	150	4.1
Toluene	5	ug/L	ND	ND	ND	NA	33	ND	NA	ND	ND	ND	NA	ND	NA	ND	ND	11	0.60
Ethylbenzene	5	ug/L	ND	ND	ND	NA	96	2.4	NA	ND	ND	ND	ND	ND	NA	ND	ND	220	0.50
Xylenes (total)	5	ug/L	ND	ND	ND	NA	640	2.1	NA	0.50	ND	ND	ND	ND	NA	ND	ND	48	0.40
Methyl tert-butyl ether	10	ug/L	20	NA	15	NA	13	3.0	NA	9.8	8.5	NA	8.3	31	NA	1.7	ND	7.4	0.90
Naphthalene	10	ug/L	9.3	NA	NA	NA	42	NA	NA	1.2	ND	ND	NA	NA	NA	ND	NA	NA	NA
Isopropylbenzene	5	ug/L	NA	NA	NA	NA	5.9	NA	NA	0.90 J	NA	NA	NA	NA	NA	2.8	NA	NA	NA
1,1,1-Trichloroethane	5	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND
1,1,2,2-Tetrachloroethane	5	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND
1,1,2-Trichloroethane	1	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND
1,1-Dichloroethane	5	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND
1,1-Dichloroethene	5	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND
1,2-Dichlorobenzene	3	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND
1,2-Dichloroethane	0.6	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND
1,2-Dichloropropane	1	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND
1,3,5-Trimethylbenzene	- -	ug/L	NA	NA	NA	NA	33	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA
1,3-Dichlorobenzene	3	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND
1,4-Dichlorobenzene	3	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND	NA
Acrylonitrile	- -	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	NA
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.6	NA	1.4	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	5	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND
cis-1,3-Dichloropropene	0.4	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND
Dibromochloromethane	50	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND
m&p-Xylene	- -	ug/L	ND	ND	ND	NA	480	ND	NA	0.50 J	ND	ND	ND	ND	NA	ND	ND	ND	ND
Methylene Chloride	5	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND
n-Butylbenzene	- -	ug/L	NA	NA	NA	NA	20	NA	NA	0.80 J	NA	NA	NA	NA	NA	1.0	NA	NA	NA
n-Propylbenzene	- -	ug/L	NA	NA	NA	NA	7.0	NA	NA	0.80 J	NA	NA	NA	NA	NA	3.9	NA	NA	NA
o-Xylene	- -	ug/L	ND	ND	ND	NA	160	ND	NA	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND
p-Isopropyltoluene	- -	ug/L	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA
sec-Butylbenzene	- -	ug/L	NA	NA	NA	NA	ND	NA	NA	0.50 J	NA	NA	NA	NA	NA	ND	NA	NA	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-01 10.28 11/02/01	MW-01 10.28 04/03/02	MW-01 10.28 08/20/02	MW-03 10.26 12/19/95	MW-03 10.26 02/29/96	MW-03 10.26 08/20/02	MW-03A 9.3 01/27/98	MW-03A 9.3 04/08/98	MW-03A 9.3 11/02/01	MW-03A 9.3 04/30/02	MW-03A 9.3 08/20/02	MW-04A 9.41 08/20/02	MW-05 10.24 12/19/95	MW-05 10.24 02/29/96	MW-05 10.24 08/20/02	MW-07 9.21 08/20/02	MW-07A 10 08/20/02
Volatile Organics (Cont.)																			
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA
Tertiary butyl alcohol	- -	ug/L	ND	NA	ND	NA	NA	ND	NA	NA	ND	NA	**11**	ND	NA	NA	ND	ND	ND
Tetrachloroethene	5	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	ND	ND	ND	NA	NA	ND	ND	ND
Total VOCs	- -	ug/L	**32**	**3.8**	**16**	NA	**2,800**	**200**	NA	**15**	**8.5**	ND	**20**	**35**	NA	**11**	ND	**430**	**6.5**
trans-1,2-Dichloroethene	5	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND
trans-1,3-Dichloropropene	0.4	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND
Trichloroethene	5	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND
Trichlorofluoromethane	5	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND
Vinyl Chloride	2	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND
Semivolatile Organics																			
Naphthalene	10	ug/L	NA	NA	ND	**54**	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND	**580**	ND
2,4-Dimethylphenol	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Acenaphthene	20	ug/L	NA	NA	**1.2**	ND	NA	**8.2**	ND	NA	NA	NA	ND	**1.2**	ND	NA	**5.5**	**150**	ND
Acenaphthylene	- -	ug/L	NA	NA	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	ND	NA	ND	ND	NA
Anthracene	50	ug/L	NA	NA	**0.66**	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND	**36**	NA
Benzo(a)anthracene	0.002	ug/L	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND	**25**	NA
Benzo(a)pyrene	- -	ug/L	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND	**8.7**	NA
Benzo(b)fluoranthene	0.002	ug/L	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND	**11**	NA
Benzo(g,h,i)perylene	- -	ug/L	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND	**1.1**	NA
Benzo(k)fluoranthene	0.002	ug/L	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND	**8.5**	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	**2.1**	NA	NA	ND	**30**	**23**
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND	**17**	NA
Dibenzo(a,h)anthracene	- -	ug/L	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND	**0.53**	NA
Di-n-Butylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	50	ug/L	NA	NA	**0.68**	ND	NA	ND	ND	NA	NA	NA	ND	**0.77**	ND	NA	ND	**150**	ND
Fluorene	50	ug/L	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	**0.59**	ND	NA	ND	**140**	**4.8**
Hexachlorocyclopentadiene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND	**1.4**	NA
Nitrobenzene	0.4	ug/L	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND	ND	ND
Pentachlorophenol	- -	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	ND	ND	NA
PheNAnthrene	50	ug/L	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	**3.7**	**250**	ND
Phenol	1	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	ND	ND	ND
Pyrene	50	ug/L	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	**0.63**	ND	NA	**0.67**	**95**	NA
Total SVOCs	- -	ug/L	NA	NA	**2.5**	**54**	NA	**8.2**	ND	NA	NA	NA	ND	**5.3**	ND	NA	**10**	**1,500**	**28**
General Chemistry																			
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																			
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	**5,400**	NA	NA	**720**	NA	NA	NA	NA	NA	**2,700**	NA	NA	NA	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-08 10.15 12/19/95	MW-08 10.15 02/29/96	MW-08 10.15 01/27/98	MW-08 10.15 04/08/98	MW-08 10.15 11/02/01	MW-08 10.15 04/30/02	MW-08 10.15 08/20/02	MW-08 10.15 06/03/03	MW-08 10.15 02/11/04	MW-08 10.15 05/20/04	MW-08 10.15 10/26/04	MW-08 10.15 03/10/05	MW-08 10.15 08/11/05	MW-09 13.8 06/05/95	MW-09 13.8 12/18/95	MW-09 13.8 04/08/96	MW-09 13.8 06/05/96
Volatile Organics																			
Benzene	1	ug/L	NA	**160**	NA	**51**	**500**	**68**	**400**	**0.60**	**20**	**47**	**44**	**30**	**36**	**110**	NA	**57**	NA
Toluene	5	ug/L	NA	**18**	NA	**12**	ND	**1.9**	**7.9**	ND	**13**	**13**	**16**	**19**	**13**	**180**	NA	**48**	NA
Ethylbenzene	5	ug/L	NA	**100**	NA	**130**	**150**	**32**	**48**	**24**	**260**	**290**	**92**	**190**	**58**	**520**	NA	**260**	NA
Xylenes (total)	5	ug/L	NA	**350**	NA	**900**	**77**	**17**	**38**	**41**	**91**	**110**	**48**	**60**	**33**	**3,000**	NA	**1,400**	NA
Methyl tert-butyl ether	10	ug/L	NA	**4.6**	NA	ND	**35**	NA	**33**	ND	**2.7**	**2.1**	**3.5**	**1.6**	**2.5**	**33**	NA	ND	NA
Naphthalene	10	ug/L	NA	**18**	NA	**33**	**89**	**21**	NA	NA	NA	NA	NA	ND	ND	**200**	NA	**95**	NA
Isopropylbenzene	5	ug/L	NA	**6.1**	NA	**15**	NA	NA	NA	NA	NA	NA	NA	ND	ND	**30**	NA	**21**	NA
1,1,1-Trichloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA
1,1,2-Trichloroethane	1	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA
1,1-Dichloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	**1.6**	ND	NA	NA	NA	NA
1,1-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA
1,2-Dichloroethane	0.6	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA
1,2-Dichloropropane	1	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA
1,3,5-Trimethylbenzene	- -	ug/L	NA	**26**	NA	**140**	NA	NA	NA	NA	NA	NA	NA	ND	ND	**220**	NA	**120**	NA
1,3-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA
Acrylonitrile	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**2.5**	**2.5**	ND	NA	ND	NA
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**1.3**	**1.3**	ND	NA	ND	NA
cis-1,2-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA
Dibromochloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA
m&p-Xylene	- -	ug/L	NA	**250**	NA	**660**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2,500**	NA	**1,300**	NA
Methylene Chloride	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA
n-Butylbenzene	- -	ug/L	NA	**22**	NA	**74**	NA	NA	NA	NA	NA	NA	NA	ND	ND	**91**	NA	**46**	NA
n-Propylbenzene	- -	ug/L	NA	**11**	NA	**23**	NA	NA	NA	NA	NA	NA	NA	ND	ND	**65**	NA	**41**	NA
o-Xylene	- -	ug/L	NA	**100**	NA	**240**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**490**	NA	**120**	NA
p-Isopropyltoluene	- -	ug/L	NA	ND	NA	**4.8 J**	NA	NA	NA	NA	NA	NA	NA	ND	ND	**80**	NA	**4.7 J**	NA
sec-Butylbenzene	- -	ug/L	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	ND	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-08 10.15 12/19/95	MW-08 10.15 02/29/96	MW-08 10.15 01/27/98	MW-08 10.15 04/08/98	MW-08 10.15 11/02/01	MW-08 10.15 04/30/02	MW-08 10.15 08/20/02	MW-08 10.15 06/03/03	MW-08 10.15 02/11/04	MW-08 10.15 05/20/04	MW-08 10.15 10/26/04	MW-08 10.15 03/10/05	MW-08 10.15 08/11/05	MW-09 13.8 06/05/95	MW-09 13.8 12/18/95	MW-09 13.8 04/08/96	MW-09 13.8 06/05/96
Volatile Organics (Cont.)																			
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	NA	ND	NA	**3.5 J**	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	ND	NA
Tertiary butyl alcohol	- -	ug/L	NA	NA	NA	NA	ND	NA	ND	ND	ND	ND	**87**	**7.6**	ND	NA	NA	NA	NA
Tetrachloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA
Total VOCs	- -	ug/L	NA	**1,100**	NA	**2,300**	**840**	**140**	**530**	**65**	**390**	**460**	**290**	**310**	**150**	**7,500**	NA	**3,500**	NA
trans-1,2-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA
Trichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA
Trichlorofluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA
Vinyl Chloride	2	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA
Semivolatile Organics																			
Naphthalene	10	ug/L	**23**	NA	**6.0 J**	NA	NA	NA	**100**	**0.57**	**94**	**1.6**	**110**	**100**	**39**	NA	**190**	NA	**93**
2,4-Dimethylphenol	50	ug/L	NA	NA	ND	NA	NA	NA	ND	ND	NA	**3.7**	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	ug/L	ND	NA	**1.0 J**	NA	NA	NA	ND	ND	**0.70**	**1.3**	**1.2 J**	**1.4**	**1.2**	NA	NA	NA	NA
Acenaphthylene	- -	ug/L	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	50	ug/L	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	0.002	ug/L	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	- -	ug/L	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	0.002	ug/L	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	- -	ug/L	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.002	ug/L	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	NA	NA	NA	NA	NA	**4.9**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	- -	ug/L	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	50	ug/L	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	50	ug/L	ND	NA	ND	NA	NA	NA	**0.79**	ND	NA	**1.2**	NA	NA	**0.64**	NA	NA	NA	NA
Hexachlorocyclopentadiene	5	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	0.4	ug/L	ND	NA	ND	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PheNAnthrene	50	ug/L	ND	NA	ND	NA	NA	NA	**0.71**	ND	NA	**1.3**	NA	NA	**0.63**	NA	NA	NA	NA
Phenol	1	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	50	ug/L	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total SVOCs	- -	ug/L	**23**	NA	**7.0**	NA	NA	NA	**110**	**0.57**	**94**	**9.1**	**110**	**100**	**42**	NA	**190**	NA	**93**
General Chemistry																			
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																			
Total Petroleum Hydrocarbons	- -	ug/L	**3,800**	NA	**2,100**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**1,100**	NA	**3,500**

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-09 13.8 09/13/96	MW-09 13.8 04/15/97	MW-09 13.8 07/15/97	MW-09 13.8 01/27/98	MW-09 13.8 11/02/01	MW-09 13.8 04/30/02	MW-09 13.8 08/20/02	MW-10 14.2 12/15/95	MW-10 14.2 08/20/02	MW-10 14.2 07/10/03	MW-10D 14.2 08/20/02	MW-11 13.6 12/18/95	MW-11 13.6 12/19/95	MW-11 13.6 01/27/98	MW-11 13.6 04/08/98	MW-11 13.6 11/02/01	MW-11 13.6 04/30/02
Volatile Organics																			
Benzene	1	ug/L	**270**	**170**	**200**	NA	**860**	**620**	**520**	NA	**120**	NA	NA	NA	NA	NA	**620**	**75**	**83**
Toluene	5	ug/L	**89**	**26**	**15**	NA	ND	**3.4**	ND	NA	**11**	NA	NA	NA	NA	NA	**27**	**13**	**17**
Ethylbenzene	5	ug/L	**620**	**300**	**210**	NA	**34**	**120**	**79**	NA	**410**	NA	NA	NA	NA	NA	**1,100**	**410**	**1,000**
Xylenes (total)	5	ug/L	**2,500**	**1,000**	**320**	NA	**37**	**150**	**33**	NA	**45**	NA	NA	NA	NA	NA	**2,500**	**180**	**320**
Methyl tert-butyl ether	10	ug/L	**340**	**50**	**28**	NA	**47**	NA	**33**	NA	**16**	NA	NA	NA	NA	NA	ND	ND	NA
Naphthalene	10	ug/L	**190**	**95**	**59**	NA	**640**	**160**	NA	NA	NA	NA	NA	NA	NA	NA	**220**	**160**	**190**
Isopropylbenzene	5	ug/L	**29**	**20**	**13**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**40**	NA	NA
1,1,1-Trichloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	1	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.6	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	1	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	- -	ug/L	**180**	**99**	**41**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**100**	NA	NA
1,3-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND	NA	NA	NA	NA	ND	ND	ND
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND	NA	NA	NA	NA	ND	ND	ND
cis-1,2-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	- -	ug/L	**2,300**	**1,000**	**300**	NA	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	**2,500**	ND	ND
Methylene Chloride	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	- -	ug/L	**80**	**50**	**35**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**46**	NA	NA
n-Propylbenzene	- -	ug/L	**65**	**40**	**23**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**61**	NA	NA
o-Xylene	- -	ug/L	**230**	**5.0**	**21**	NA	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	**16 J**	ND	ND
p-Isopropyltoluene	- -	ug/L	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**4.7 J**	NA	NA
sec-Butylbenzene	- -	ug/L	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-09 13.8 09/13/96	MW-09 13.8 04/15/97	MW-09 13.8 07/15/97	MW-09 13.8 01/27/98	MW-09 13.8 11/02/01	MW-09 13.8 04/30/02	MW-09 13.8 08/20/02	MW-10 14.2 12/15/95	MW-10 14.2 08/20/02	MW-10 14.2 07/10/03	MW-10D 14.2 08/20/02	MW-11 13.6 12/18/95	MW-11 13.6 12/19/95	MW-11 13.6 01/27/98	MW-11 13.6 04/08/98	MW-11 13.6 11/02/01	MW-11 13.6 04/30/02
Volatile Organics (Cont.)																			
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
Tertiary butyl alcohol	- -	ug/L	NA	NA	NA	NA	ND	NA	**45**	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA
Tetrachloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Total VOCs	- -	ug/L	**6,900**	**2,900**	**1,300**	NA	**1,600**	**1,100**	**710**	NA	**590**	ND	NA	NA	NA	NA	**7,300**	**840**	**1,600**
trans-1,2-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics																			
Naphthalene	10	ug/L	**150**	NA	NA	**5.0 J**	NA	NA	NA	**300**	**230**	NA	**150**	**320**	**380**	**220**	NA	NA	NA
2,4-Dimethylphenol	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	**3.5**	NA	ND	NA	NA	NA	NA	NA	NA
Acenaphthene	20	ug/L	ND	NA	NA	**1.0 J**	NA	NA	NA	ND	**6.8**	NA	**2.1**	ND	ND	**1.0 J**	NA	NA	NA
Acenaphthylene	- -	ug/L	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND	NA	NA	NA	NA
Anthracene	50	ug/L	ND	NA	NA	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	NA	NA	NA
Benzo(a)anthracene	0.002	ug/L	ND	NA	NA	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	NA	NA	NA
Benzo(a)pyrene	- -	ug/L	ND	NA	NA	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	NA	NA	NA
Benzo(b)fluoranthene	0.002	ug/L	ND	NA	NA	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	NA	NA	NA
Benzo(g,h,i)perylene	- -	ug/L	ND	NA	NA	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	NA	NA	NA
Benzo(k)fluoranthene	0.002	ug/L	ND	NA	NA	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	NA	NA	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	**1.9**	NA	ND	NA	NA	NA	NA	NA	NA
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	ND	NA	NA	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	NA	NA	NA
Dibenzo(a,h)anthracene	- -	ug/L	ND	NA	NA	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	NA	NA	NA
Di-n-Butylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	50	ug/L	ND	NA	NA	ND	NA	NA	NA	ND	N	NA	ND	ND	ND	ND	NA	NA	NA
Fluorene	50	ug/L	ND	NA	NA	ND	NA	NA	NA	ND	**3.9**	NA	**1.7**	ND	ND	**1.0 J**	NA	NA	NA
Hexachlorocyclopentadiene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	ND	NA	NA	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	NA	NA	NA
Nitrobenzene	0.4	ug/L	ND	NA	NA	ND	NA	NA	NA	ND	ND	NA	ND	ND	ND	ND	NA	NA	NA
Pentachlorophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PheNAnthrene	50	ug/L	ND	NA	NA	ND	NA	NA	NA	ND	**1.5**	NA	ND	ND	**11**	ND	NA	NA	NA
Phenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	**44**	NA	ND	NA	NA	NA	NA	NA	NA
Pyrene	50	ug/L	ND	NA	NA	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	NA	NA	NA
Total SVOCs	- -	ug/L	**150**	NA	NA	**6.0**	NA	NA	NA	**300**	**290**	NA	**150**	**320**	**390**	**220**	NA	NA	NA
General Chemistry																			
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																			
Total Petroleum Hydrocarbons	- -	ug/L	**3,300**	NA	NA	**2,400**	NA	NA	NA	**3,900**	NA	NA	NA	**3,700**	**16,000**	**3,000**	NA	NA	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-11 13.6 08/20/02	MW-11 13.6 06/03/03	MW-11 13.6 02/11/04	MW-11 13.6 05/20/04	MW-11 13.6 10/24/04	MW-11 13.6 10/26/04	MW-11 13.6 03/10/05	MW-11 13.6 08/11/05	MW-11AR - - 08/20/02	MW-11AR - - 03/19/03	MW-11AR - - 06/03/03	MW-11AR - - 02/11/04	MW-11AR - - 05/20/04	MW-11AR - - 10/26/04	MW-11AR - - 03/09/05
Volatile Organics																	
Benzene	1	ug/L	**56**	**8.1**	**12**	**3.3**	**13**	NA	**5.7**	**9.3**	**910**	**90**	**44**	**11**	**74**	**86**	**18**
Toluene	5	ug/L	**15**	**5.8**	**6.4**	**1.9**	**5.9**	NA	**3.8**	**4.0**	**250**	**11**	**3.8**	**0.60**	**30**	**15**	**4.2**
Ethylbenzene	5	ug/L	**650**	**560**	**480**	**180**	**260**	NA	**240**	**140**	**930**	**120**	**5.6**	ND	**9.2**	**6.8**	**20**
Xylenes (total)	5	ug/L	**400**	**390**	**190**	**84**	**57**	NA	**45**	**15**	**2,700**	**300**	**40**	**7.5**	**110**	**23**	**22**
Methyl tert-butyl ether	10	ug/L	ND	ND	ND	ND	ND	NA	ND	ND	**300**	**17**	**9.2**	**1.8**	**11**	**20**	**1.9**
Naphthalene	10	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	ND
Isopropylbenzene	5	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	ND
1,1,1-Trichloroethane	5	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND
1,1,2,2-Tetrachloroethane	5	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND
1,1,2-Trichloroethane	1	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND
1,1-Dichloroethane	5	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND
1,1-Dichloroethene	5	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND
1,2-Dichlorobenzene	3	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND
1,2-Dichloroethane	0.6	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND
1,2-Dichloropropane	1	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND
1,3,5-Trimethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	3	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND
1,4-Dichlorobenzene	3	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	NA
Acrylonitrile	- -	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	NA
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	**29,000**	**80**	**56**	**1.8**	**860**	**410**	**49**
cis-1,3-Dichloropropene	0.4	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND
Dibromochloromethane	50	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND
m&p-Xylene	- -	ug/L	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	5	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	ND	ND
n-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	ND
n-Propylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	ND
o-Xylene	- -	ug/L	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	ND
sec-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	ND

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-11 13.6 08/20/02	MW-11 13.6 06/03/03	MW-11 13.6 02/11/04	MW-11 13.6 05/20/04	MW-11 13.6 10/24/04	MW-11 13.6 10/26/04	MW-11 13.6 03/10/05	MW-11 13.6 08/11/05	MW-11AR - - 08/20/02	MW-11AR - - 03/19/03	MW-11AR - - 06/03/03	MW-11AR - - 02/11/04	MW-11AR - - 05/20/04	MW-11AR - - 10/26/04	MW-11AR - - 03/09/05
Volatile Organics (Cont.)																	
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	ND
Tertiary butyl alcohol	- -	ug/L	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND
Total VOCs	- -	ug/L	**1,100**	**960**	**690**	**270**	**330**	NA	**290**	**170**	**44,000**	**860**	**210**	**50**	**1,400**	**810**	**180**
trans-1,2-Dichloroethene	5	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	**99**	NA	NA	NA	**5.0**	**3.2**	**0.50**
trans-1,3-Dichloropropene	0.4	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND
Trichloroethene	5	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	**2,100**	**14**	**15**	**0.40**	ND	**13**	**0.80**
Trichlorofluoromethane	5	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	**210**	**27**	**27**	ND	NA	**27**
Vinyl Chloride	2	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	**7,800**	**13**	**12**	NA	**270**	**240**	**36**
Semivolatile Organics																	
Naphthalene	10	ug/L	**160**	**72**	**130**	**95**	NA	**89**	**78**	**56**	**500**	**16**	**24**	**0.79**	**32**	ND	NA
2,4-Dimethylphenol	50	ug/L	**6.6**	ND	ND	ND	NA	ND	ND	ND	**15**	ND	ND	ND	ND	ND	NA
Acenaphthene	20	ug/L	**1.7**	**0.77**	**2.8**	**1.1**	NA	**2.4**	**1.8**	**2.4**	**4.7**	ND	**0.50**	ND	ND	ND	NA
Acenaphthylene	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA
Anthracene	50	ug/L	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND	NA
Benzo(a)anthracene	0.002	ug/L	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND	NA
Benzo(a)pyrene	- -	ug/L	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA	NA	NA	NA	ND	NA
Benzo(b)fluoranthene	0.002	ug/L	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	ND	NA	ND	NA
Benzo(g,h,i)perylene	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.002	ug/L	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	ND	NA	**4.5**	NA	NA	ND	**1.2**	ND	**7.2**	ND	NA	ND	NA	ND	NA
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	NA	NA	ND	NA	NA	ND	ND	ND	ND	ND	NA	ND	NA	ND	NA
Dibenzo(a,h)anthracene	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	50	ug/L	NA	NA	NA	**1.1**	NA	ND	ND	ND	NA	ND	NA	NA	ND	ND	NA
Fluoranthene	50	ug/L	ND	NA	ND	NA	NA	ND	ND	ND	**1.7**	ND	NA	ND	NA	ND	NA
Fluorene	50	ug/L	**1.7**	**0.85**	**2.5**	**1.2**	NA	**2.3**	**1.5**	**2.1**	**5.5**	ND	**0.85**	ND	ND	ND	NA
Hexachlorocyclopentadiene	5	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	0.4	ug/L	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Pentachlorophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA
PheNAnthrene	50	ug/L	**0.59**	**0.53**	**1.1**	ND	NA	**0.88 J**	**0.55**	**0.95**	ND	ND	ND	ND	ND	ND	NA
Phenol	1	ug/L	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	**2.4 J**	NA
Pyrene	50	ug/L	NA	NA	ND	NA	NA	ND	ND	ND	NA	ND	NA	ND	NA	ND	NA
Total SVOCs	- -	ug/L	**170**	**74**	**140**	**99**	NA	**95**	**84**	**62**	**530**	**16**	**25**	**0.79**	**32**	**2.4**	NA
General Chemistry																	
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																	
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-11AR - - 03/10/05	MW-12 13.9 02/11/04	MW-12 13.9 10/26/04	MW-12 13.9 03/10/05	MW-12A 11.7 12/19/95	MW-12A 11.7 04/08/96	MW-12A 11.7 12/27/98	MW-12A 11.7 11/02/01	MW-12A 11.7 04/30/02	MW-12A 11.7 08/20/02	MW-13 12.15 12/18/95	MW-13 12.15 08/20/02	MW-14R 11.57 03/05/03	MW-14R 11.57 06/03/03	MW-14R 11.57 02/11/04	MW-14R 11.57 05/20/04
Volatile Organics																		
Benzene	1	ug/L	NA	**1,500**	**990**	**890**	NA	**34**	NA	**26**	**3.4**	**12**	NA	**5.4**	**42**	**12**	**1.4**	**7.1**
Toluene	5	ug/L	NA	**25**	**14**	**13**	NA	**2.9 J**	NA	**1.2**	ND	**2.5**	NA	**1.5**	**1.3**	ND	ND	ND
Ethylbenzene	5	ug/L	NA	**920**	**450**	**400**	NA	**85**	NA	**2.9**	**9.9**	**26**	NA	**0.60**	**22**	**11**	**0.40**	**1.9**
Xylenes (total)	5	ug/L	NA	**1,800**	**350**	**280**	NA	**24**	NA	**4.5**	**5.7**	**9.1**	NA	**2.8**	**12**	**4.3**	ND	**0.20**
Methyl tert-butyl ether	10	ug/L	NA	ND	ND	ND	NA	**41**	NA	**25**	NA	**4.1**	NA	**2.5**	**8.4**	**1.3**	ND	**0.80**
Naphthalene	10	ug/L	NA	NA	NA	ND	NA	**27**	NA	ND	**22**	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	5	ug/L	NA	NA	NA	ND	NA	**33**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	5	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
1,1,2,2-Tetrachloroethane	5	ug/L	NA	NA	NA	**3.7**	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
1,1,2-Trichloroethane	1	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
1,1-Dichloroethane	5	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
1,1-Dichloroethene	5	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
1,2-Dichloroethane	0.6	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
1,2-Dichloropropane	1	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
1,3,5-Trimethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	**32**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	3	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
1,4-Dichlorobenzene	3	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
Acrylonitrile	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	NA	ND	ND	ND	NA	ND	NA	ND	ND	ND	NA	ND	ND	ND	ND	ND
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	NA	ND	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
cis-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
Dibromochloromethane	50	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
m&p-Xylene	- -	ug/L	NA	ND	ND	ND	NA	**20**	NA	ND	ND	ND	NA	ND	ND	ND	ND	ND
Methylene Chloride	5	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
n-Butylbenzene	- -	ug/L	NA	NA	NA	ND	NA	**27**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	- -	ug/L	NA	NA	NA	ND	NA	**58**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	- -	ug/L	NA	ND	ND	ND	NA	**3.9 J**	NA	ND	ND	ND	NA	ND	ND	ND	ND	ND
p-Isopropyltoluene	- -	ug/L	NA	NA	NA	ND	NA	**1.7 J**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	- -	ug/L	NA	NA	NA	ND	NA	**9.4**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-11AR - - 03/10/05	MW-12 13.9 02/11/04	MW-12 13.9 10/26/04	MW-12 13.9 03/10/05	MW-12A 11.7 12/19/95	MW-12A 11.7 04/08/96	MW-12A 11.7 12/27/98	MW-12A 11.7 11/02/01	MW-12A 11.7 04/30/02	MW-12A 11.7 08/20/02	MW-13 12.15 12/18/95	MW-13 12.15 08/20/02	MW-14R 11.57 03/05/03	MW-14R 11.57 06/03/03	MW-14R 11.57 02/11/04	MW-14R 11.57 05/20/04
Volatile Organics (Cont.)																		
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	NA	NA	NA	ND	NA	3.4 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	ug/L	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND	NA	ND	ND	ND	ND	ND
Tetrachloroethene	5	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
Total VOCs	- -	ug/L	NA	4,200	1,800	1,600	NA	400	NA	59	41	53	NA	13	85	28	1.8	10
trans-1,2-Dichloroethene	5	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
trans-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
Trichloroethene	5	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
Trichlorofluoromethane	5	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
Vinyl Chloride	2	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
Semivolatile Organics																		
Naphthalene	10	ug/L	5.8	160	310	230	130	NA	58	NA	NA	31	ND	ND	12	6.0	ND	ND
2,4-Dimethylphenol	50	ug/L	ND	9.4	ND	ND	NA	NA	NA	NA	NA	1.2	NA	ND	ND	ND	ND	ND
Acenaphthene	20	ug/L	ND	4.2	14	20	23	NA	6.0 J	NA	NA	25	ND	3.3	1.1	0.58	ND	ND
Acenaphthylene	- -	ug/L	ND	NA	NA	ND	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA
Anthracene	50	ug/L	ND	0.74	4.3	9.9	ND	NA	ND	NA	NA	NA	ND	NA	NA	NA	ND	NA
Benzo(a)anthracene	0.002	ug/L	ND	ND	1.9 J	2.7	ND	NA	ND	NA	NA	NA	ND	NA	NA	NA	ND	NA
Benzo(a)pyrene	- -	ug/L	ND	NA	0.91 J	0.83 J	ND	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	0.002	ug/L	ND	ND	1.2 J	4.2	ND	NA	ND	NA	NA	0.76	ND	ND	NA	NA	ND	NA
Benzo(g,h,i)perylene	- -	ug/L	ND	NA	NA	ND	ND	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.002	ug/L	ND	ND	0.78 J	0.69 J	ND	NA	ND	NA	NA	NA	ND	NA	NA	NA	ND	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	ND	6.0	70	88	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	1.5	NA
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	ND	ND	1.5 J	0.84 J	ND	NA	ND	NA	NA	0.74	ND	ND	ND	NA	ND	NA
Dibenzo(a,h)anthracene	- -	ug/L	ND	NA	NA	ND	ND	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	NA
Di-n-Butylphthalate	50	ug/L	ND	NA	8.1	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND
Fluoranthene	50	ug/L	ND	1.2	33	16	ND	NA	1.0 J	NA	NA	ND	ND	1.0	ND	NA	ND	NA
Fluorene	50	ug/L	ND	6.3	ND	49	ND	NA	6.0 J	NA	NA	ND	ND	2.5	1.8	0.98	ND	ND
Hexachlorocyclopentadiene	5	ug/L	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA
Hexachloroethane	5	ug/L	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	ND	NA	NA	ND	ND	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	NA
Nitrobenzene	0.4	ug/L	ND	ND	ND	ND	ND	NA	ND	NA	NA	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	- -	ug/L	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PheNAnthrene	50	ug/L	ND	6.7	57	77	ND	NA	2.0 J	NA	NA	6.1	ND	1.0	0.97	ND	ND	ND
Phenol	1	ug/L	2.4 J	3.5	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.89	ND	ND
Pyrene	50	ug/L	ND	1.1	14	ND	ND	NA	ND	NA	NA	ND	ND	0.99	ND	NA	ND	NA
Total SVOCs	- -	ug/L	8.2	200	510	500	150	NA	73	NA	NA	65	ND	8.8	16	8.5	1.5	ND
General Chemistry																		
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																		
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	NA	1,000	NA	1,100	NA	NA	NA	1,100	NA	NA	NA	NA	NA

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Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-14R 11.57 10/26/04	MW-14R 11.57 03/10/05	MW-15 8.87 08/20/02	MW-16 13.85 12/15/95	MW-16 13.85 06/05/96	MW-16 13.85 09/13/96	MW-16 13.85 04/15/97	MW-16 13.85 07/15/97	MW-16 13.85 01/27/98	MW-16 13.85 04/08/98	MW-16 13.85 11/02/01	MW-16 13.85 04/30/02	MW-16 13.85 08/20/02	MW-17 14.55 12/12/95	MW-17 14.55 12/18/95
Volatile Organics																	
Benzene	1	ug/L	**1.3**	ND	ND	**20**	**23**	**22**	**83**	**64**	NA	**150 [120]**	**13**	**31**	**55**	ND	**120**
Toluene	5	ug/L	ND	ND	ND	ND	ND	ND	**1.4**	ND	NA	ND [ND]	ND	ND	ND	ND	**3.5**
Ethylbenzene	5	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	NA	**21 J [11 J]**	ND	ND	ND	ND	ND
Xylenes (total)	5	ug/L	ND	ND	ND	ND	**2.8**	**2.2**	**98**	ND	NA	ND [ND]	ND	**3.1**	**2.1**	ND	**7.5**
Methyl tert-butyl ether	10	ug/L	**1.6**	ND	**4.7**	**3,000**	**1,500**	**1,200**	**8,000**	**5,900**	NA	**6,100 [5,400]**	**660**	NA	**1,500**	ND	**240**
Naphthalene	10	ug/L	NA	ND	NA	ND	**2.4**	**4.6**	ND	ND	NA	**72 J [40 J]**	ND	**5.1**	NA	ND	**45**
Isopropylbenzene	5	ug/L	NA	ND	NA	**1.3**	**1.9**	**1.4**	**2.2**	ND	NA	ND [ND]	NA	NA	NA	ND	**13**
1,1,1-Trichloroethane	5	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
1,1,2,2-Tetrachloroethane	5	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
1,1,2-Trichloroethane	1	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
1,1-Dichloroethane	5	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
1,1-Dichloroethene	5	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
1,2-Dichlorobenzene	3	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
1,2-Dichloroethane	0.6	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
1,2-Dichloropropane	1	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
1,3,5-Trimethylbenzene	- -	ug/L	NA	**0.60 J**	NA	ND	ND	ND	ND	ND	NA	ND [ND]	NA	NA	NA	ND	ND
1,3-Dichlorobenzene	3	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
1,4-Dichlorobenzene	3	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
Acrylonitrile	- -	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND [ND]	ND	ND	ND	ND	ND
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND [ND]	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
cis-1,3-Dichloropropene	0.4	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
Dibromochloromethane	50	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
m&p-Xylene	- -	ug/L	ND	ND	ND	**2.0**	**2.8**	**2.2**	**2.8**	ND	NA	ND [ND]	ND	ND	ND	ND	**7.5**
Methylene Chloride	5	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
n-Butylbenzene	- -	ug/L	NA	ND	NA	**1.4**	ND	ND	ND	ND	NA	**ND [13 J]**	NA	NA	NA	ND	NA
n-Propylbenzene	- -	ug/L	NA	ND	NA	**2.3**	**3.4**	**2.3**	**3.6**	ND	NA	ND [ND]	NA	NA	NA	ND	**18**
o-Xylene	- -	ug/L	ND	ND	ND	ND	ND	ND	**95**	ND	NA	ND [ND]	ND	ND	ND	ND	ND
p-Isopropyltoluene	- -	ug/L	NA	ND	NA	**1.4**	**1.3**	ND	ND	ND	NA	ND [ND]	NA	NA	NA	ND	**6.6**
sec-Butylbenzene	- -	ug/L	NA	ND	NA	ND	ND	ND	ND	ND	NA	ND [ND]	NA	NA	NA	ND	**3.2**

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-14R 11.57 10/26/04	MW-14R 11.57 03/10/05	MW-15 8.87 08/20/02	MW-16 13.85 12/15/95	MW-16 13.85 06/05/96	MW-16 13.85 09/13/96	MW-16 13.85 04/15/97	MW-16 13.85 07/15/97	MW-16 13.85 01/27/98	MW-16 13.85 04/08/98	MW-16 13.85 11/02/01	MW-16 13.85 04/30/02	MW-16 13.85 08/20/02	MW-17 14.55 12/12/95	MW-17 14.55 12/18/95
Volatile Organics (Cont.)																	
Styrene	5	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	NA	ND	NA	ND	**1.3**	ND	ND	**12**	NA	ND [ND]	NA	NA	NA	ND	ND
Tertiary butyl alcohol	- -	ug/L	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	**1,900**	NA	**5,200**	NA	NA
Tetrachloroethene	5	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
Total VOCs	- -	ug/L	**2.9**	**0.60**	**4.7**	**3,000**	**1,500**	**1,200**	**8,200**	**6,000**	NA	**6,300 [5,600]**	**2,600**	**39**	**57**	ND	**460**
trans-1,2-Dichloroethene	5	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
trans-1,3-Dichloropropene	0.4	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
Trichloroethene	5	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
Trichlorofluoromethane	5	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
Vinyl Chloride	2	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
Semivolatile Organics																	
Naphthalene	10	ug/L	ND	ND	ND	ND	ND	ND	NA	NA	**28 [26]**	NA	NA	NA	**1.1**	NA	**37**
2,4-Dimethylphenol	50	ug/L	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
Acenaphthene	20	ug/L	**0.34**	ND	**3.2**	ND	ND	ND	NA	NA	**3.0 J [3.0 J]**	NA	NA	NA	**5.4**	NA	**16**
Acenaphthylene	- -	ug/L	NA	ND	NA	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND
Anthracene	50	ug/L	ND	ND	NA	ND	ND	ND	NA	NA	ND [ND]	NA	NA	NA	NA	NA	ND
Benzo(a)anthracene	0.002	ug/L	ND	ND	NA	ND	ND	ND	NA	NA	ND [ND]	NA	NA	NA	NA	NA	ND
Benzo(a)pyrene	- -	ug/L	ND	ND	NA	ND	ND	ND	NA	NA	ND [ND]	NA	NA	NA	NA	NA	ND
Benzo(b)fluoranthene	0.002	ug/L	ND	ND	ND	ND	ND	ND	NA	NA	ND [ND]	NA	NA	NA	ND	NA	ND
Benzo(g,h,i)perylene	- -	ug/L	NA	ND	NA	ND	ND	ND	NA	NA	ND [ND]	NA	NA	NA	NA	NA	ND
Benzo(k)fluoranthene	0.002	ug/L	ND	ND	NA	ND	ND	ND	NA	NA	ND [ND]	NA	NA	NA	NA	NA	ND
bis(2-Ethylhexyl)phthalate	5	ug/L	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
Chloride	250,000	ug/L	NA	NA	NA	NA	**480**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	ND	ND	ND	ND	ND	ND	NA	NA	ND [ND]	NA	NA	NA	ND	NA	ND
Dibenzo(a,h)anthracene	- -	ug/L	NA	ND	NA	ND	ND	ND	NA	NA	ND [ND]	NA	NA	NA	NA	NA	ND
Di-n-Butylphthalate	50	ug/L	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	50	ug/L	ND	ND	ND	ND	ND	ND	NA	NA	ND [ND]	NA	NA	NA	ND	NA	ND
Fluorene	50	ug/L	ND	ND	**1.4**	ND	ND	ND	NA	NA	ND [ND]	NA	NA	NA	**0.88**	NA	ND
Hexachlorocyclopentadiene	5	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
Hexachloroethane	5	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	ND	NA	ND	ND	ND	NA	NA	ND [ND]	NA	NA	NA	NA	NA	ND
Nitrobenzene	0.4	ug/L	ND	ND	ND	ND	ND	ND	NA	NA	ND [ND]	NA	NA	NA	ND	NA	ND
Pentachlorophenol	- -	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PheNAnthrene	50	ug/L	ND	ND	ND	ND	ND	ND	NA	NA	ND [ND]	NA	NA	NA	ND	NA	ND
Phenol	1	ug/L	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	50	ug/L	ND	ND	ND	ND	ND	ND	NA	NA	ND [ND]	NA	NA	NA	ND	NA	ND
Total SVOCs	- -	ug/L	**0.34**	ND	**4.6**	ND	ND	ND	NA	NA	**31 [29]**	NA	NA	NA	**7.4**	NA	**53**
General Chemistry																	
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	**1.2**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																	
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	ND	ND	ND	NA	NA	**480 J [490 J]**	NA	NA	NA	NA	NA	**1,200**

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-17 14.55 06/05/96	MW-17 14.55 09/13/96	MW-17 14.55 04/15/97	MW-17 14.55 07/15/97	MW-17 14.55 01/27/98	MW-17 14.55 04/09/98	MW-17 14.55 11/02/01	MW-17 14.55 04/30/02	MW-17 14.55 08/20/02	MW-18 12.2 12/12/95	MW-18 12.2 04/30/02	MW-18 12.2 08/20/02	MW-19 - - 12/12/95	MW-19 - - 12/18/95	MW-19 - - 06/05/96	MW-19 - - 04/15/97
Volatile Organics																		
Benzene	1	ug/L	**68**	**80**	**120**	**84 [90]**	NA	**72**	**16**	**6.3**	**3.0**	**1,700**	**350**	**370**	**27**	**23**	**72**	**14**
Toluene	5	ug/L	**2.5**	**2.4**	ND	ND [ND]	NA	**2.3 J**	**1.4**	ND	ND	**1,400**	**12**	**7.2**	ND	ND	ND	ND
Ethylbenzene	5	ug/L	**2.8**	ND	ND	ND [ND]	NA	**3.4 J**	**1.3**	ND	ND	**39,000**	**380**	**69**	ND	ND	ND	ND
Xylenes (total)	5	ug/L	**8.0**	**5.9**	ND	ND [ND]	NA	**8.2**	**4.5**	**3.2**	**0.40**	**66,000**	**33**	**17**	ND	ND	ND	ND
Methyl tert-butyl ether	10	ug/L	**120**	**190**	**230**	**180 [180]**	NA	**190**	**71**	NA	**60**	ND	NA	**490**	ND	**240**	**120**	**65**
Naphthalene	10	ug/L	**100**	**25**	**88**	**28 [28]**	NA	**160**	**2.7**	**17**	NA	**33,000**	**78**	NA	ND	ND	**100**	ND
Isopropylbenzene	5	ug/L	**10**	**12**	**14**	ND [ND]	NA	**12**	NA	NA	NA	**7,600**	NA	NA	ND	ND	**18**	**1.2**
1,1,1-Trichloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA
1,1,2-Trichloroethane	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA
1,1-Dichloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA
1,1-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA
1,2-Dichloroethane	0.6	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA
1,2-Dichloropropane	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA
1,3,5-Trimethylbenzene	- -	ug/L	ND	ND	ND	ND [ND]	NA	**1.3 J**	NA	NA	NA	**25,000**	NA	NA	ND	ND	ND	ND
1,3-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA
Acrylonitrile	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	ND	ND	ND	ND [ND]	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	ND	ND	ND	ND [ND]	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA
Dibromochloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA
m&p-Xylene	- -	ug/L	**5.6**	**5.9**	ND	ND [ND]	NA	**5.7 J**	ND	ND	ND	**62,000**	ND	ND	ND	ND	ND	ND
Methylene Chloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	ND	NA	NA	NA
n-Butylbenzene	- -	ug/L	**4.7**	**6.4**	ND	ND [ND]	NA	**8.1**	NA	NA	NA	**56,000**	NA	NA	**94**	**1.9**	ND	ND
n-Propylbenzene	- -	ug/L	**14**	**17**	**18**	ND [ND]	NA	**14**	NA	NA	NA	**21,000**	NA	NA	ND	**3.0**	**2.2**	ND
o-Xylene	- -	ug/L	**2.4**	ND	ND	ND [ND]	NA	**2.5 J**	ND	ND	ND	**3,900**	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	- -	ug/L	ND	ND	ND	ND [ND]	NA	ND	NA	NA	NA	**6,200**	NA	NA	ND	ND	ND	ND
sec-Butylbenzene	- -	ug/L	**2.5**	**3.2**	ND	ND [ND]	NA	**5.1**	NA	NA	NA	**8,200**	NA	NA	ND	ND	ND	ND

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-17 14.55 06/05/96	MW-17 14.55 09/13/96	MW-17 14.55 04/15/97	MW-17 14.55 07/15/97	MW-17 14.55 01/27/98	MW-17 14.55 04/09/98	MW-17 14.55 11/02/01	MW-17 14.55 04/30/02	MW-17 14.55 08/20/02	MW-18 12.2 12/12/95	MW-18 12.2 04/30/02	MW-18 12.2 08/20/02	MW-19 - - 12/12/95	MW-19 - - 12/18/95	MW-19 - - 06/05/96	MW-19 - - 04/15/97
Volatile Organics (Cont.)																		
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	**1.1**	ND	ND	ND [ND]	NA	**2.4 J**	NA	NA	NA	**4,600**	NA	NA	ND	ND	ND	ND
Tertiary butyl alcohol	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	**32**	NA	NA	**410**	NA	NA	NA	NA
Tetrachloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	ND	NA	NA	NA
Total VOCs	- -	ug/L	**340**	**350**	**470**	**290 [300]**	NA	**490**	**96**	**26**	**95**	**340,000**	**860**	**1,400**	**120**	**270**	**310**	**80**
trans-1,2-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA
Trichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA
Trichlorofluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA
Vinyl Chloride	2	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA
Semivolatile Organics																		
Naphthalene	10	ug/L	**64 [59]**	**20 [17]**	NA	NA	**66**	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA
2,4-Dimethylphenol	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	**2.7**	NA	NA	NA	NA
Acenaphthene	20	ug/L	**16 [17]**	**17 [15]**	NA	NA	**19**	NA	NA	NA	**17**	NA	NA	**1.9**	NA	ND	ND	NA
Acenaphthylene	- -	ug/L	ND [ND]	ND [ND]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
Anthracene	50	ug/L	ND [ND]	ND [ND]	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
Benzo(a)anthracene	0.002	ug/L	ND [ND]	ND [ND]	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
Benzo(a)pyrene	- -	ug/L	ND [ND]	ND [ND]	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
Benzo(b)fluoranthene	0.002	ug/L	ND [ND]	ND [ND]	NA	NA	ND	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA
Benzo(g,h,i)perylene	- -	ug/L	ND [ND]	ND [ND]	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
Benzo(k)fluoranthene	0.002	ug/L	**10 [10]**	ND [ND]	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	**4.1**	NA	NA	NA	NA
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**17**	NA
Chrysene	0.002	ug/L	ND [ND]	ND [ND]	NA	NA	ND	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA
Dibenzo(a,h)anthracene	- -	ug/L	ND [ND]	ND [ND]	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
Di-n-Butylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	50	ug/L	ND [ND]	ND [ND]	NA	NA	**2.0 J**	NA	NA	NA	**0.81**	NA	NA	ND	NA	ND	ND	NA
Fluorene	50	ug/L	ND [ND]	**7.9 [7.3]**	NA	NA	**9.0 J**	NA	NA	NA	**5.3**	NA	NA	**2.8**	NA	ND	ND	NA
Hexachlorocyclopentadiene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	**12**	NA	NA	NA	NA
Hexachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	ND [ND]	ND [ND]	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
Nitrobenzene	0.4	ug/L	ND [ND]	ND [ND]	NA	NA	ND	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA
Pentachlorophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PheNAnthrene	50	ug/L	ND [ND]	**5.9 [ND]**	NA	NA	**6.0 J**	NA	NA	NA	ND	NA	NA	**2.9**	NA	ND	ND	NA
Phenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	50	ug/L	ND [ND]	ND [ND]	NA	NA	**1.0 J**	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA
Total SVOCs	- -	ug/L	**90 [86]**	**51 [39]**	NA	NA	**100**	NA	NA	NA	**23**	NA	NA	**26**	NA	ND	ND	NA
General Chemistry																		
Chloride	250	mg/L	**0.66**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	**0.61**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.34**	NA
TPH																		
Total Petroleum Hydrocarbons	- -	ug/L	**1,100 [2,400]**	ND [ND]	NA	NA	**720**	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-19 - - 07/15/97	MW-19 - - 01/27/98	MW-19 - - 04/09/98	MW-19 - - 11/02/01	MW-19 - - 04/30/02	MW-19 - - 08/20/02	MW-20 11.1 12/12/95	MW-20 11.1 12/13/95	MW-20 11.1 12/18/95	MW-20 11.1 06/05/96	MW-20 11.1 09/13/96	MW-20 11.1 04/15/97	MW-20 11.1 07/15/97	MW-20 11.1 01/27/98	MW-20 11.1 04/09/98	MW-20 11.1 11/02/01
Volatile Organics																		
Benzene	1	ug/L	**11**	NA	ND	ND	**5.1**	**0.90**	**19**	ND	NA	**1.5**	**170**	**25 [26]**	**70**	NA	**76 J**	**130**
Toluene	5	ug/L	ND	NA	ND	ND	ND	**0.60**	**2.1**	ND	NA	ND	**40**	ND [ND]	ND	NA	ND	**2.8**
Ethylbenzene	5	ug/L	ND	NA	ND	ND	ND	ND	**30**	ND	NA	ND	**16**	**1.4 [1.9]**	ND	NA	ND	ND
Xylenes (total)	5	ug/L	ND	NA	ND	ND	ND	ND	**6.7**	ND	NA	ND	**9.2**	ND [ND]	ND	NA	ND	**6.5**
Methyl tert-butyl ether	10	ug/L	**57**	NA	**5.7**	ND	NA	ND	**9,100**	ND	NA	**1,700**	**54,000**	**9,300 [9,900]**	**19,000**	NA	**2,200**	**120**
Naphthalene	10	ug/L	ND	NA	ND	ND	**7.5**	NA	**20**	**140**	NA	ND	**14**	ND [ND]	ND	NA	**110**	ND
Isopropylbenzene	5	ug/L	ND	NA	**0.40 J**	NA	NA	NA	**16**	ND	NA	ND	**18**	**1.2 [ND]**	ND	NA	ND	NA
1,1,1-Trichloroethane	5	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	5	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	1	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	5	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.6	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	1	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	- -	ug/L	ND	NA	ND	NA	NA	NA	**6.2**	ND	NA	ND	ND	ND [ND]	ND	NA	**26 J**	NA
1,3-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	- -	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND [ND]	ND	NA	ND	ND
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND [ND]	ND	NA	ND	ND
cis-1,2-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	50	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	- -	ug/L	ND	NA	ND	ND	ND	ND	**6.7**	ND	NA	ND	**9.2**	ND [ND]	ND	NA	ND	ND
Methylene Chloride	5	ug/L	NA	NA	ND	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	- -	ug/L	ND	NA	**0.30 J**	NA	NA	NA	**2.3**	ND	NA	ND	**4.9**	ND [ND]	ND	NA	**36 J**	NA
n-Propylbenzene	- -	ug/L	ND	NA	**0.40 J**	NA	NA	NA	**39**	ND	NA	ND	**40**	ND [ND]	ND	NA	ND	NA
o-Xylene	- -	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND [ND]	ND	NA	ND	ND
p-Isopropyltoluene	- -	ug/L	ND	NA	ND	NA	NA	NA	ND	ND	NA	ND	ND	ND [ND]	ND	NA	ND	NA
sec-Butylbenzene	- -	ug/L	ND	NA	**0.20 J**	NA	NA	NA	**2.4**	ND	NA	ND	**3.9**	ND [ND]	ND	NA	ND	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-19 - - 07/15/97	MW-19 - - 01/27/98	MW-19 - - 04/09/98	MW-19 - - 11/02/01	MW-19 - - 04/30/02	MW-19 - - 08/20/02	MW-20 11.1 12/12/95	MW-20 11.1 12/13/95	MW-20 11.1 12/18/95	MW-20 11.1 06/05/96	MW-20 11.1 09/13/96	MW-20 11.1 04/15/97	MW-20 11.1 07/15/97	MW-20 11.1 01/27/98	MW-20 11.1 04/09/98	MW-20 11.1 11/02/01
Volatile Organics (Cont.)																		
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	ND	NA	ND	NA	NA	NA	NA	ND	NA	ND	ND	ND [ND]	ND	NA	ND	NA
Tertiary butyl alcohol	- -	ug/L	NA	NA	ND	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Tetrachloroethene	5	ug/L	ND	NA	ND	NA	NA	ND	NA	ND	NA	NA	NA	NA	ND	NA	ND	NA
Total VOCs	- -	ug/L	**68**	NA	**7.0**	ND	**13**	**1.4**	**9,300**	**140**	NA	**1,700**	**54,000**	**9,300 [9,900]**	**19,000**	NA	**2,400**	**260**
trans-1,2-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	5	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics																		
Naphthalene	10	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	**7.0 J**	NA	NA
2,4-Dimethylphenol	50	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA
Acenaphthylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA	NA	NA	NA
Anthracene	50	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA
Benzo(a)anthracene	0.002	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA
Benzo(a)pyrene	- -	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA
Benzo(b)fluoranthene	0.002	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA
Benzo(g,h,i)perylene	- -	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA
Benzo(k)fluoranthene	0.002	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	NA	NA	NA	NA	**1.6**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA
Dibenzo(a,h)anthracene	- -	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA
Di-n-Butylphthalate	50	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	50	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA
Fluorene	50	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA
Hexachlorocyclopentadiene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA
Nitrobenzene	0.4	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA
Pentachlorophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PheNAnthrene	50	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA
Phenol	1	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	50	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA
Total SVOCs	- -	ug/L	NA	ND	NA	NA	NA	**1.6**	NA	NA	ND	ND	ND	NA	NA	**7.0**	NA	NA
General Chemistry																		
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.18**	NA	NA	NA	NA	NA	NA
TPH																		
Total Petroleum Hydrocarbons	- -	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	**550**	ND	**820**	NA	NA	**360 J**	NA	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-20 11.1 04/30/02	MW-20 11.1 08/20/02	MW-21 10.1 01/27/98	MW-21 10.1 04/09/98	MW-21 10.1 11/02/01	MW-21 10.1 04/30/02	MW-21 10.1 08/20/02	MW-21 10.1 03/05/03	MW-21 10.1 06/03/03	MW-21 10.1 02/11/04	MW-21 10.1 05/20/04	MW-21 10.1 10/26/04	MW-21 10.1 03/10/05	MW-22 12 08/20/02	MW-22 12 03/05/03	MW-22 12 06/03/03	MW-22 12 02/11/04
Volatile Organics																			
Benzene	1	ug/L	**10**	**140**	NA	**800**	**340**	ND	**73**	**410**	**640**	**230**	**100**	**87**	**190**	**200**	**150**	**200**	**26**
Toluene	5	ug/L	ND	**28**	NA	**16**	ND	ND	ND	**6.2**	**6.1**	**2.7**	**1.3**	**1.1**	**3.0**	ND	**3.5**	**2.9**	**0.50**
Ethylbenzene	5	ug/L	NA	**3.0**	NA	**650**	**51**	ND	ND	**92**	**74**	**34**	**12**	**5.8**	**77**	**14**	**90**	**170**	**0.50**
Xylenes (total)	5	ug/L	ND	**19**	NA	**340**	ND	ND	**4.5**	**14**	**17**	**7.7**	**8.1**	**4.6**	**37**	**2.8**	ND	**61**	**5.2**
Methyl tert-butyl ether	10	ug/L	NA	**680**	NA	**2,200**	**730**	NA	**440**	**660**	**970**	**280**	**160**	**140**	**97**	**530**	**34**	**44**	**4.0**
Naphthalene	10	ug/L	ND	NA	NA	**330**	**37**	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Isopropylbenzene	5	ug/L	NA	NA	NA	**42**	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
1,1,1-Trichloroethane	5	ug/L	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA
1,1,2,2-Tetrachloroethane	5	ug/L	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA
1,1,2-Trichloroethane	1	ug/L	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA
1,1-Dichloroethane	5	ug/L	NA	**1.9**	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA
1,1-Dichloroethene	5	ug/L	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA
1,2-Dichlorobenzene	3	ug/L	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA
1,2-Dichloroethane	0.6	ug/L	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA
1,2-Dichloropropane	1	ug/L	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA
1,3,5-Trimethylbenzene	- -	ug/L	NA	NA	NA	**26 J**	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
1,3-Dichlorobenzene	3	ug/L	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA
Acrylonitrile	- -	ug/L	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ug/L	ND	**770**	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA
cis-1,3-Dichloropropene	0.4	ug/L	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA
Dibromochloromethane	50	ug/L	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA
m&p-Xylene	- -	ug/L	ND	ND	NA	**320**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	5	ug/L	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA
n-Butylbenzene	- -	ug/L	NA	NA	NA	**54**	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
n-Propylbenzene	- -	ug/L	NA	NA	NA	**65**	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
o-Xylene	- -	ug/L	ND	ND	NA	**16 J**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	- -	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
sec-Butylbenzene	- -	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-20 11.1 04/30/02	MW-20 11.1 08/20/02	MW-21 10.1 01/27/98	MW-21 10.1 04/09/98	MW-21 10.1 11/02/01	MW-21 10.1 04/30/02	MW-21 10.1 08/20/02	MW-21 10.1 03/05/03	MW-21 10.1 06/03/03	MW-21 10.1 02/11/04	MW-21 10.1 05/20/04	MW-21 10.1 10/26/04	MW-21 10.1 03/10/05	MW-22 12 08/20/02	MW-22 12 03/05/03	MW-22 12 06/03/03	MW-22 12 02/11/04
Volatile Organics (Cont.)																			
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Tertiary butyl alcohol	- -	ug/L	NA	**490**	NA	NA	ND	NA	**490**	ND	ND	**41**	**23**	**7.9**	**15**	**80**	**35**	ND	ND
Tetrachloroethene	5	ug/L	ND	ND	NA	ND	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA
Total VOCs	- -	ug/L	**10**	**2,100**	NA	**4,900**	**1,200**	ND	**1,000**	**1,200**	**1,700**	**600**	**310**	**240**	**420**	**830**	**310**	**470**	**37**
trans-1,2-Dichloroethene	5	ug/L	ND	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA
trans-1,3-Dichloropropene	0.4	ug/L	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA
Trichloroethene	5	ug/L	ND	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA
Trichlorofluoromethane	5	ug/L	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA
Vinyl Chloride	2	ug/L	ND	**1,400**	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA
Semivolatile Organics																			
Naphthalene	10	ug/L	NA	ND	**150**	NA	NA	NA	**1.9**	**3.5**	**8.5**	**13**	**2.0**	**1.3**	**18**	NA	**76**	**69**	**4.5**
2,4-Dimethylphenol	50	ug/L	NA	ND	NA	NA	NA	NA	**29**	**9.3**	**15**	**17**	**1.4**	**1.7 J**	**4.9**	NA	ND	ND	ND
Acenaphthene	20	ug/L	NA	ND	**3.0 J**	NA	NA	NA	**6.7**	**4.2**	**3.7**	**4.6**	**6.0**	**7.4**	**3.5**	NA	**2.3**	**2.2**	**0.71**
Acenaphthylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Anthracene	50	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA	ND
Benzo(a)anthracene	0.002	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	**0.89**	NA	ND	ND	NA	NA	NA	ND
Benzo(a)pyrene	- -	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA
Benzo(b)fluoranthene	0.002	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	**0.90**	NA	ND	ND	NA	NA	NA	ND
Benzo(g,h,i)perylene	- -	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Benzo(k)fluoranthene	0.002	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	**0.62**	NA	ND	ND	NA	NA	NA	ND
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	ND	NA	NA	NA	NA	**4.1**	**2.0**	NA	**7.7**	NA	ND	ND	NA	ND	NA	**1.1**
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	NA	NA	ND	NA	NA	NA	NA	ND	NA	**0.57**	NA	ND	ND	NA	ND	NA	ND
Dibenzo(a,h)anthracene	- -	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Di-n-Butylphthalate	50	ug/L	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND	NA	ND	NA	NA
Fluoranthene	50	ug/L	NA	ND	ND	NA	NA	NA	**2.8**	**1.2**	NA	ND	NA	ND	ND	NA	ND	NA	ND
Fluorene	50	ug/L	NA	ND	**3.0 J**	NA	NA	NA	**4.9**	**1.9**	**1.7**	**2.4**	**1.6**	**2.1**	**1.6**	NA	**3.3**	**2.8**	**1.2**
Hexachlorocyclopentadiene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Hexachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Nitrobenzene	0.4	ug/L	NA	ND	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND
Pentachlorophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
PheNAnthrene	50	ug/L	NA	ND	**3.0 J**	NA	NA	NA	**1.6**	**0.74**	**0.76**	ND	ND	**0.47**	ND	NA	**2.9**	**1.7**	**0.75**
Phenol	1	ug/L	NA	ND	NA	NA	NA	NA	**14**	**2.3**	**1.9**	**3.6**	ND	ND	ND	NA	ND	**3.6**	ND
Pyrene	50	ug/L	NA	ND	ND	NA	NA	NA	**2.7**	**2.1**	NA	**4.3**	NA	ND	**1.5**	NA	ND	NA	ND
Total SVOCs	- -	ug/L	NA	ND	**160**	NA	NA	NA	**67**	**27**	**31**	**56**	**11**	**13**	ND	NA	**85**	**80**	**8.3**
General Chemistry																			
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																			
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	**4,900**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-22 12 05/20/04	MW-22 12 10/26/04	MW-22 12 03/10/05	MW-23-D1 16.5 - 26.5 10/27/04	MW-23-D1 16.5 - 26.5 03/09/05	MW-23-D1 16.5 - 26.5 08/10/05	MW-23-D1 16.5 - 26.5 03/15/06	MW-23-D2 31 - 41 10/27/04	MW-23-D2 31 - 41 03/09/05	MW-23-D2 31 - 41 08/10/05	MW-23-D2 31 - 41 03/15/06	MW-24-D1 17 - 27 10/27/04	MW-24-D1 17 - 27 03/09/05	MW-24-D1 17 - 27 08/10/05
Volatile Organics																
Benzene	1	ug/L	**190**	**240**	**8.1**	**1.4**	**2.3**	**12**	**13**	**1.2**	**0.73 J**	**0.69**	ND	**4.7**	**3.7 J**	**1.7**
Toluene	5	ug/L	**1.9**	**4.8**	ND	**0.40**	ND	**9.6**	**9.0 J**	**0.30 J**	ND	**0.20**	ND	**2.3**	ND	**0.90**
Ethylbenzene	5	ug/L	**53**	**2.6**	**2.4**	**0.32 J**	**1.2**	**4.0**	**4.3 J**	ND	ND	ND	ND	ND	ND	ND
Xylenes (total)	5	ug/L	**17**	**7.2**	**0.50**	**0.90 J**	**0.20**	**12**	**11 J**	ND	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether	10	ug/L	**21**	**41**	**1.7**	**180**	**620**	**470**	**680**	**65**	**200**	**220**	**470**	**1,100 J**	**820**	**590**
Naphthalene	10	ug/L	NA	NA	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
Isopropylbenzene	5	ug/L	NA	NA	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
1,1,1-Trichloroethane	5	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	5	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	5	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	3	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND
1,2-Dichloroethane	0.6	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	1	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	- -	ug/L	NA	NA	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
1,3-Dichlorobenzene	3	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND
1,4-Dichlorobenzene	3	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	ND	NA	ND	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND	ND
Acrylonitrile	- -	ug/L	ND	NA	ND	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND	ND
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
Chloromethane	5	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ug/L	ND	NA	ND	**1.5**	**2.8**	**160**	**55**	ND	ND	ND	ND	**280**	**240**	**240**
cis-1,3-Dichloropropene	0.4	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	50	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m&p-Xylene	- -	ug/L	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	5	ug/L	ND	NA	ND	**4.1**	ND	ND	ND	ND	ND	ND	ND	**6.6**	ND	ND
n-Butylbenzene	- -	ug/L	NA	NA	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
n-Propylbenzene	- -	ug/L	NA	NA	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
o-Xylene	- -	ug/L	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	- -	ug/L	NA	NA	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
sec-Butylbenzene	- -	ug/L	NA	NA	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND

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Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-22 12 05/20/04	MW-22 12 10/26/04	MW-22 12 03/10/05	MW-23-D1 16.5 - 26.5 10/27/04	MW-23-D1 16.5 - 26.5 03/09/05	MW-23-D1 16.5 - 26.5 08/10/05	MW-23-D1 16.5 - 26.5 03/15/06	MW-23-D2 31 - 41 10/27/04	MW-23-D2 31 - 41 03/09/05	MW-23-D2 31 - 41 08/10/05	MW-23-D2 31 - 41 03/15/06	MW-24-D1 17 - 27 10/27/04	MW-24-D1 17 - 27 03/09/05	MW-24-D1 17 - 27 08/10/05
Volatile Organics (Cont.)																
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	NA	NA	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
Tertiary butyl alcohol	- -	ug/L	ND	ND	ND	1,800	820	1,100	1,500	2,100	2,400	2,000	ND	3,000	1,600	980
Tetrachloroethene	5	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	0.32	ND	ND	ND	ND
Total VOCs	- -	ug/L	280	290	13	190	1,500	1,900	2,500	67	2,600	2,200	470	5,200	4,100	2,300
trans-1,2-Dichloroethene	5	ug/L	ND	NA	ND	ND	ND	3.3	3.8 J	ND	ND	ND	ND	ND	5.8 J	5.8
trans-1,3-Dichloropropene	0.4	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5	ug/L	ND	NA	ND	ND	ND	0.31	ND	ND	ND	ND	ND	860	1,400	530
Trichlorofluoromethane	5	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	2	ug/L	ND	NA	ND	ND	1.2	140	250	ND	ND	ND	ND	18	21	6.5
Semivolatile Organics																
Naphthalene	10	ug/L	30	5.6	1.5	1.7 J	ND	17	73	1.8 J	ND	0.57	ND	1.1 J	1.8 J	ND
2,4-Dimethylphenol	50	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	20	ug/L	1.1	0.84	ND	1.9 J	ND	1.9	8.4 J	0.41 J	ND	ND	ND	4.0	6.9	3.0
Acenaphthylene	- -	ug/L	NA	NA	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
Anthracene	50	ug/L	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	0.002	ug/L	NA	ND	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
Benzo(a)pyrene	- -	ug/L	NA	ND	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
Benzo(b)fluoranthene	0.002	ug/L	NA	ND	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
Benzo(g,h,i)perylene	- -	ug/L	NA	NA	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
Benzo(k)fluoranthene	0.002	ug/L	NA	ND	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	ND	3.2	5.2	1.4 J	1.2	1.4 J	3.4	2.3	ND	ND	2.1	ND	ND
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	NA	ND	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
Dibenzo(a,h)anthracene	- -	ug/L	NA	NA	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
Di-n-Butylphthalate	50	ug/L	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
Fluoranthene	50	ug/L	NA	ND	ND	NA	ND	ND	0.90 J	NA	ND	ND	ND	NA	ND	ND
Fluorene	50	ug/L	1.6	1.1	1.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	5	ug/L	NA	NA	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
Hexachloroethane	5	ug/L	NA	NA	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	NA	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
Nitrobenzene	0.4	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	- -	ug/L	NA	NA	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
PheNAnthrene	50	ug/L	0.79	ND	ND	0.36 J	ND	ND	0.40 J	ND	ND	ND	ND	0.54 J	1.2 J	ND
Phenol	1	ug/L	9.7	5.7	ND	ND	ND	ND	ND	ND	ND	2.4	ND	ND	ND	ND
Pyrene	50	ug/L	NA	ND	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	8.0	ND
Total SVOCs	- -	ug/L	43	13	5.8	9.2	1.4	20	84	5.6	2.3	3.0	ND	7.7	18	3.0
General Chemistry																
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Remedial Investigation Report
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Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-24-D1 17 - 27 03/15/06	MW-24-D2 32 - 42 10/27/04	MW-24-D2 32 - 42 03/09/05	MW-24-D2 32 - 42 08/10/05	MW-24-D2 32 - 42 03/15/06	MW-24-VD 63 - 73 01/09/07	MW-25-D1 16 - 26 10/27/04	MW-25-D1 16 - 26 03/09/05	MW-25-D1 16 - 26 03/15/05	MW-25-D1 16 - 26 08/10/05	MW-25-D1 16 - 26 03/15/06	MW-25-D2 31 - 41 10/27/04	MW-25-D2 31 - 41 03/09/05	MW-25-D2 31 - 41 08/10/05
Volatile Organics																
Benzene	1	ug/L	**4.8**	ND	**0.50 J**	ND	ND	ND	ND	ND	**15**	**8.6**	NA	**7.5**	ND	**220**
Toluene	5	ug/L	**2.5 J**	**0.30 J**	**0.30 J**	**0.20**	ND	**1.3 J**	**120**	**16 J**	**23 J**	**12**	NA	**19**	ND	**290**
Ethylbenzene	5	ug/L	**1.8 J**	ND	ND	ND	ND	ND	ND	ND	**9.5 J**	ND	NA	**10**	ND	ND
Xylenes (total)	5	ug/L	**3.8 J**	**0.90 J**	**0.30 J**	ND	ND	ND	ND	**21**	**28 J**	**21**	NA	**30**	ND	ND
Methyl tert-butyl ether	10	ug/L	**1,200**	**120**	**270**	**220**	**290**	**5.6**	**1,100**	**1,100**	**1,300**	**1,100**	NA	**280**	**2,600**	**3,500**
Naphthalene	10	ug/L	ND	NA	ND	ND	ND	NA	ND	ND	ND	ND	NA	NA	ND	ND
Isopropylbenzene	5	ug/L	ND	NA	ND	ND	ND	NA	ND	ND	ND	ND	NA	NA	ND	ND
1,1,1-Trichloroethane	5	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND
1,1,2,2-Tetrachloroethane	5	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND
1,1,2-Trichloroethane	1	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND
1,1-Dichloroethane	5	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND
1,1-Dichloroethene	5	ug/L	**2.3 J**	ND	ND	ND	ND	ND	ND	ND	**34**	**9.1**	NA	ND	ND	ND
1,2-Dichlorobenzene	3	ug/L	NA	ND	ND	ND	NA	NA	ND	ND	NA	ND	NA	ND	ND	ND
1,2-Dichloroethane	0.6	ug/L	ND	ND	ND	**32**	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND
1,2-Dichloropropane	1	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND
1,3,5-Trimethylbenzene	- -	ug/L	ND	NA	ND	ND	ND	NA	NA	ND	ND	ND	NA	NA	ND	ND
1,3-Dichlorobenzene	3	ug/L	NA	ND	ND	ND	NA	NA	ND	ND	NA	ND	NA	ND	ND	ND
1,4-Dichlorobenzene	3	ug/L	NA	ND	ND	ND	NA	NA	ND	ND	NA	ND	NA	ND	ND	ND
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	**110**	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	ND	ND	ND	NA	NA	ND	ND	NA	ND	NA	ND	ND	ND
Acrylonitrile	- -	ug/L	NA	ND	ND	**0.40**	NA	NA	ND	ND	NA	ND	NA	ND	ND	ND
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	**6.8 J**	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND
Chloroform	7	ug/L	ND	NA	NA	ND	ND	ND	NA	NA	ND	ND	NA	ND	ND	ND
Chloromethane	5	ug/L	ND	ND	ND	ND	ND	**6.1**	ND	ND	ND	ND	NA	ND	ND	ND
cis-1,2-Dichloroethene	5	ug/L	**670**	**5.9**	**33**	ND	**62**	**7.8**	**6,500**	**5,500**	**10,000**	**5,000**	NA	**820**	**21,000**	**26,000**
cis-1,3-Dichloropropene	0.4	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND
Dibromochloromethane	50	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND
m&p-Xylene	- -	ug/L	NA	ND	ND	ND	ND	NA	ND	ND	NA	ND	NA	ND	ND	ND
Methylene Chloride	5	ug/L	ND	**1.2 J**	**3.0**	ND	ND	ND	**25,000**	**1,100**	**1,000**	**1,200**	NA	**6,500**	**140,000**	**230,000**
n-Butylbenzene	- -	ug/L	ND	NA	ND	ND	ND	NA	ND	ND	ND	ND	NA	NA	ND	ND
n-Propylbenzene	- -	ug/L	ND	NA	ND	ND	ND	NA	ND	ND	ND	ND	NA	NA	ND	ND
o-Xylene	- -	ug/L	NA	ND	ND	ND	ND	NA	ND	ND	NA	ND	NA	ND	ND	ND
p-Isopropyltoluene	- -	ug/L	ND	NA	ND	ND	ND	NA	ND	ND	ND	ND	NA	NA	ND	ND
sec-Butylbenzene	- -	ug/L	ND	NA	ND	ND	ND	NA	ND	ND	ND	ND	NA	NA	ND	ND

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Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-24-D1 17 - 27 03/15/06	MW-24-D2 32 - 42 10/27/04	MW-24-D2 32 - 42 03/09/05	MW-24-D2 32 - 42 08/10/05	MW-24-D2 32 - 42 03/15/06	MW-24-VD 63 - 73 01/09/07	MW-25-D1 16 - 26 10/27/04	MW-25-D1 16 - 26 03/09/05	MW-25-D1 16 - 26 03/15/05	MW-25-D1 16 - 26 08/10/05	MW-25-D1 16 - 26 03/15/06	MW-25-D2 31 - 41 10/27/04	MW-25-D2 31 - 41 03/09/05	MW-25-D2 31 - 41 08/10/05
Volatile Organics (Cont.)																
Styrene	5	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	ND	NA	ND	ND	ND	NA	ND	ND	ND	ND	NA	NA	ND	ND
Tertiary butyl alcohol	- -	ug/L	**1,900**	**640**	**1,300**	**710**	**860**	ND	ND	**1,900**	**1,900**	**2,000**	NA	ND	ND	ND
Tetrachloroethene	5	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND
Total VOCs	- -	ug/L	**5,200**	**790**	**1,800**	**380**	**1,200**	**160**	**110,000**	**13,000**	**17,000**	**10,000**	NA	**19,000**	**660,000**	**760,000**
trans-1,2-Dichloroethene	5	ug/L	**8.3 J**	ND	**0.70 J**	**0.50**	NA	ND	ND	**51**	**64**	**30**	NA	ND	ND	ND
trans-1,3-Dichloropropene	0.4	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND
Trichloroethene	5	ug/L	**1,400**	**20**	**160**	**130**	**20**	**18**	**72,000**	**1,500**	**900**	**410**	NA	**11,000**	**500,000**	**500,000**
Trichlorofluoromethane	5	ug/L	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	NA	ND	ND	ND
Vinyl Chloride	2	ug/L	**26**	ND	**5.2**	ND	ND	ND	ND	**2,300**	**3,100**	**620**	NA	ND	ND	ND
Semivolatile Organics																
Naphthalene	10	ug/L	**2.0 J**	ND	ND	ND	ND	NA	**3.9**	**57**	NA	**33**	**63**	ND	ND	**10**
2,4-Dimethylphenol	50	ug/L	ND	ND	ND	ND	ND	NA	**1.6 J**	ND	NA	**2.3**	**2.8 J**	ND	**4.9 J**	**3.6**
Acenaphthene	20	ug/L	ND	ND	**1.6 J**	**0.98**	**0.50 J**	NA	**5.3**	**37**	NA	**31**	**42**	**4.5**	**2.1**	**2.1**
Acenaphthylene	- -	ug/L	ND	NA	ND	ND	ND	NA	NA	ND	NA	ND	ND	NA	ND	ND
Anthracene	50	ug/L	ND	ND	ND	ND	ND	NA	ND	**1.1 J**	NA	**1.1**	**1.2 J**	**0.38 J**	ND	ND
Benzo(a)anthracene	0.002	ug/L	ND	NA	ND	ND	ND	NA	NA	ND	NA	ND	ND	NA	ND	ND
Benzo(a)pyrene	- -	ug/L	ND	NA	ND	ND	ND	NA	NA	ND	NA	ND	ND	NA	ND	ND
Benzo(b)fluoranthene	0.002	ug/L	ND	NA	ND	ND	ND	NA	NA	ND	NA	ND	ND	NA	ND	ND
Benzo(g,h,i)perylene	- -	ug/L	ND	NA	ND	ND	ND	NA	NA	ND	NA	ND	ND	NA	ND	ND
Benzo(k)fluoranthene	0.002	ug/L	ND	NA	ND	ND	ND	NA	NA	ND	NA	ND	ND	NA	ND	ND
bis(2-Ethylhexyl)phthalate	5	ug/L	ND	**2.8**	ND	**1.1**	ND	NA	ND	ND	NA	**1.8**	ND	**4.7**	**1.4 J**	**1.2**
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	ND	NA	ND	ND	ND	NA	NA	ND	NA	ND	ND	NA	ND	ND
Dibenzo(a,h)anthracene	- -	ug/L	ND	NA	ND	ND	ND	NA	NA	ND	NA	ND	ND	NA	ND	ND
Di-n-Butylphthalate	50	ug/L	ND	NA	ND	ND	ND	NA	NA	ND	NA	ND	ND	NA	ND	ND
Fluoranthene	50	ug/L	ND	NA	ND	ND	ND	NA	NA	ND	NA	ND	**5.2 J**	NA	ND	ND
Fluorene	50	ug/L	**0.40 J**	ND	ND	ND	ND	NA	**1.5 J**	**9.6**	NA	**7.4**	ND	**1.9 J**	**0.97 J**	ND
Hexachlorocyclopentadiene	5	ug/L	ND	NA	ND	ND	ND	NA	NA	ND	NA	ND	ND	NA	ND	ND
Hexachloroethane	5	ug/L	ND	NA	ND	ND	ND	NA	NA	ND	NA	ND	ND	NA	ND	ND
Indeno(1,2,3-cd)pyrene	0.002	ug/L	ND	NA	ND	ND	ND	NA	NA	ND	NA	ND	ND	NA	ND	ND
Nitrobenzene	0.4	ug/L	ND	ND	ND	ND	ND	NA	ND	ND	NA	ND	ND	ND	ND	ND
Pentachlorophenol	- -	ug/L	ND	NA	ND	ND	ND	NA	NA	ND	NA	ND	ND	NA	ND	ND
PheNAnthrene	50	ug/L	**1.7 J**	ND	ND	ND	ND	NA	**1.7 J**	**13**	NA	**12**	**12**	**2.3**	**0.85 J**	ND
Phenol	1	ug/L	ND	ND	ND	ND	ND	NA	**2.8**	ND	NA	ND	ND	ND	**7.4**	**5.8**
Pyrene	50	ug/L	ND	NA	ND	ND	ND	NA	NA	ND	NA	ND	ND	NA	ND	ND
Total SVOCs	- -	ug/L	**4.0**	**2.8**	**1.6**	**2.1**	**0.50 J**	NA	**17**	**120**	NA	**88**	**130**	**14**	**18**	**23**
General Chemistry																
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-25-D2 31 - 41 03/15/06	MW-25-VD 63 - 73 01/09/07	MW-26-D1 15 - 25 10/26/04	MW-26-D1 15 - 25 03/09/05	MW-26-D1 15 - 25 08/10/05	MW-26-D2 30 - 40 10/26/04	MW-26-D2 30 - 40 03/09/05	MW-26-D2 30 - 40 08/10/05	MW-26-VD 58 - 68 01/09/07	MW-27-D1 18 - 28 10/27/04	MW-27-D1 18 - 28 03/09/05	MW-27-D1 18 - 28 08/10/05	MW-27-D1 18 - 28 03/15/06
Volatile Organics															
Benzene	1	ug/L	ND	ND [ND]	**2.9**	**7.8**	**7.5**	ND	ND	ND	**0.60 J**	**5.2**	**6.2 J**	**5.2**	**5.4**
Toluene	5	ug/L	ND	**0.29 J [0.22 J]**	**0.50**	**0.50 J**	**0.60**	ND	ND	ND	**2.1**	ND	ND	ND	ND
Ethylbenzene	5	ug/L	ND	ND [ND]	**0.90**	**4.5**	**2.8**	ND	ND	ND	**0.52 J**	ND	ND	ND	ND
Xylenes (total)	5	ug/L	ND	**0.35** [ND]	**0.80**	**1.1**	**1.1**	**0.40**	ND	ND	**1.5**	**3.7**	ND	ND	ND
Methyl tert-butyl ether	10	ug/L	**3,200 J**	**0.43 J** [ND]	**110**	**520**	**640**	**130**	**140**	**120**	ND	**150**	**280**	**240**	**340**
Naphthalene	10	ug/L	ND	NA	NA	ND	ND	NA	ND	ND	NA	NA	ND	ND	ND
Isopropylbenzene	5	ug/L	ND	NA	NA	ND	ND	NA	ND	ND	NA	NA	ND	ND	ND
1,1,1-Trichloroethane	5	ug/L	ND	ND [ND]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	5	ug/L	ND	ND [ND]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1	ug/L	ND	ND [ND]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5	ug/L	ND	ND [ND]	ND	ND	ND	**1.7**	**1.9**	**2.1**	ND	ND	ND	ND	ND
1,1-Dichloroethene	5	ug/L	ND	ND [ND]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	3	ug/L	NA	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	NA
1,2-Dichloroethane	0.6	ug/L	ND	**1.3 [0.88 J]**	ND	**11**	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	1	ug/L	ND	ND [ND]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	- -	ug/L	ND	NA	NA	ND	ND	NA	ND	ND	NA	NA	ND	ND	ND
1,3-Dichlorobenzene	3	ug/L	NA	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	NA
1,4-Dichlorobenzene	3	ug/L	NA	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	NA
2-Butanone	50	ug/L	NA	ND [ND]	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	ND [ND]	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	ND [ND]	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Acetone	50	ug/L	NA	ND [ND]	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	NA
Acrylonitrile	- -	ug/L	NA	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	NA
Bromodichloromethane	50	ug/L	NA	ND [ND]	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Bromoform	50	ug/L	NA	ND [ND]	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	ND [ND]	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	**1.8 J [1.3 J]**	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	ND [ND]	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	ND [ND]	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Chloroethane	5	ug/L	ND	ND [ND]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	7	ug/L	ND	ND [ND]	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	ND
Chloromethane	5	ug/L	ND	ND [ND]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ug/L	**26,000**	**5.1 [4.4]**	**6.2**	ND	**12**	**2.7**	**0.60 J**	ND	ND	**520**	**1,700**	**1,100**	**1,200**
cis-1,3-Dichloropropene	0.4	ug/L	ND	ND [ND]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	50	ug/L	ND	ND [ND]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m&p-Xylene	- -	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	5	ug/L	**320,000**	**12 [11]**	**8.4**	ND	ND	**3.5**	**0.70 J**	ND	ND	ND	ND	**9.0**	ND
n-Butylbenzene	- -	ug/L	ND	NA	NA	ND	ND	NA	ND	ND	NA	NA	ND	ND	ND
n-Propylbenzene	- -	ug/L	ND	NA	NA	ND	ND	NA	ND	ND	NA	NA	ND	ND	ND
o-Xylene	- -	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	- -	ug/L	ND	NA	NA	ND	ND	NA	ND	ND	NA	NA	ND	ND	ND
sec-Butylbenzene	- -	ug/L	ND	NA	NA	ND	ND	NA	ND	ND	NA	NA	ND	ND	ND

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Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-25-D2 31 - 41 03/15/06	MW-25-VD 63 - 73 01/09/07	MW-26-D1 15 - 25 10/26/04	MW-26-D1 15 - 25 03/09/05	MW-26-D1 15 - 25 08/10/05	MW-26-D2 30 - 40 10/26/04	MW-26-D2 30 - 40 03/09/05	MW-26-D2 30 - 40 08/10/05	MW-26-VD 58 - 68 01/09/07	MW-27-D1 18 - 28 10/27/04	MW-27-D1 18 - 28 03/09/05	MW-27-D1 18 - 28 08/10/05	MW-27-D1 18 - 28 03/15/06
Volatile Organics (Cont.)															
Styrene	5	ug/L	NA	ND [ND]	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	ND	NA	NA	ND	ND	NA	ND	ND	NA	NA	ND	ND	ND
Tertiary butyl alcohol	- -	ug/L	**9,600 J**	ND [ND]	**980**	**1,500**	**2,100**	**660**	**790**	**680**	ND	**1,800**	**4,600**	**3,100**	**2,900**
Tetrachloroethene	5	ug/L	ND	ND [ND]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total VOCs	- -	ug/L	**1,200,000**	**45 [38]**	**220**	**2,100**	**2,800**	**880**	**940**	**800**	**5.3**	**2,500**	**6,600**	**4,600**	**4,500**
trans-1,2-Dichloroethene	5	ug/L	ND	ND [ND]	ND	ND	**1.2**	ND	ND	ND	ND	ND	**8.3 J**	**7.3**	**8.1 J**
trans-1,3-Dichloropropene	0.4	ug/L	ND	ND [ND]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5	ug/L	**880,000**	**24 [20]**	**88**	**0.50 J**	**2.8**	**80**	**15**	**6.1**	**0.59 J**	**9.4**	**77**	**60**	**8.6 J**
Trichlorofluoromethane	5	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND
Vinyl Chloride	2	ug/L	ND	ND [ND]	ND	**23**	**75**	ND	ND	ND	ND	ND	ND	**15**	**18**
Semivolatile Organics															
Naphthalene	10	ug/L	**49**	NA	**1.5 J**	**3.0**	ND	ND	ND	ND	NA	**7.4**	ND	ND	ND
2,4-Dimethylphenol	50	ug/L	**4.0 J**	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND
Acenaphthene	20	ug/L	**2.3 J**	NA	ND	**37**	**0.62**	ND	ND	ND	NA	ND	**1.8**	ND	ND
Acenaphthylene	- -	ug/L	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	ND	ND
Anthracene	50	ug/L	**0.30 J**	NA	NA	ND	ND	NA	ND	ND	NA	NA	ND	ND	ND
Benzo(a)anthracene	0.002	ug/L	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	ND	ND
Benzo(a)pyrene	- -	ug/L	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	ND	ND
Benzo(b)fluoranthene	0.002	ug/L	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	ND	ND
Benzo(g,h,i)perylene	- -	ug/L	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	ND	ND
Benzo(k)fluoranthene	0.002	ug/L	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	ND	ND
bis(2-Ethylhexyl)phthalate	5	ug/L	ND	NA	**1.8 J**	**1.7 J**	ND	**3.0**	**3.2**	**3.2**	NA	**2.2**	ND	ND	ND
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	ND	ND
Dibenzo(a,h)anthracene	- -	ug/L	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	ND	ND
Di-n-Butylphthalate	50	ug/L	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	ND	ND
Fluoranthene	50	ug/L	ND	NA	NA	ND	ND	NA	ND	ND	NA	NA	ND	ND	ND
Fluorene	50	ug/L	**0.80 J**	NA	NA	ND	ND	NA	ND	ND	NA	NA	ND	ND	ND
Hexachlorocyclopentadiene	5	ug/L	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	ND	ND
Hexachloroethane	5	ug/L	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	ND	ND
Indeno(1,2,3-cd)pyrene	0.002	ug/L	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	ND	ND
Nitrobenzene	0.4	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND
Pentachlorophenol	- -	ug/L	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	ND	ND
PheNAnthrene	50	ug/L	**0.60 J**	NA	NA	ND	**1.7**	NA	ND	ND	NA	NA	ND	ND	ND
Phenol	1	ug/L	ND	NA	NA	**6.2**	ND	NA	ND	ND	NA	NA	ND	ND	ND
Pyrene	50	ug/L	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	ND	ND
Total SVOCs	- -	ug/L	**57**	NA	**3.3**	**48**	**2.3**	**3.0**	**3.2**	**3.2**	NA	**9.6**	**1.8**	ND	ND
General Chemistry															
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH															
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Remedial Investigation Report
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Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-27-D2 33 - 43 10/27/04	MW-27-D2 33 - 43 03/09/05	MW-27-D2 33 - 43 08/10/05	MW-27-D2 33 - 43 03/15/06	MW-28-D1 17.5 - 27.5 10/27/04	MW-28-D1 17.5 - 27.5 03/10/05	MW-28-D1 17.5 - 27.5 08/10/05	MW-28-D1 17.5 - 27.5 03/15/06	MW-28-D2 32.4 - 42.5 10/27/04	MW-28-D2 32.4 - 42.5 03/10/05	MW-28-D2 32.4 - 42.5 08/10/05	MW-28-D2 32.4 - 42.5 03/15/06	MW-29-D1 17 - 27 10/27/04	MW-29-D1 17 - 27 03/10/05
Volatile Organics																
Benzene	1	ug/L	**1.0**	**1.9**	**1.7**	ND	**11**	**8.5**	**15**	NA	**0.60 J**	**0.60 J**	**0.40**	ND	**85**	**42**
Toluene	5	ug/L	**2.8**	**1.7**	**2.0**	ND	**4.8**	**8.2**	**1.4**	NA	**0.50 J**	**0.30 J**	**0.20**	ND	**1.1 J**	**0.50**
Ethylbenzene	5	ug/L	ND	**13**	**9.3**	**6.6 J**	**2.6**	**4.0**	**3.2**	NA	ND	ND	ND	ND	ND	ND
Xylenes (total)	5	ug/L	**270**	**41**	**43**	**6.6 J**	**5.5**	**8.9**	**6.9**	NA	**0.70 J**	**0.30 J**	ND	ND	**2.2**	**1.6**
Methyl tert-butyl ether	10	ug/L	**64**	**85**	**100**	**110**	**150**	**380**	**360**	NA	**15**	**9.7**	**6.2**	**6.5**	**650**	**550**
Naphthalene	10	ug/L	NA	ND	ND	ND	NA	ND	ND	NA	NA	ND	ND	ND	NA	ND
Isopropylbenzene	5	ug/L	NA	ND	ND	ND	NA	ND	ND	NA	NA	ND	ND	ND	NA	ND
1,1,1-Trichloroethane	5	ug/L	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	5	ug/L	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1	ug/L	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5	ug/L	**1.9**	**1.6**	**1.1**	ND	**0.40 J**	**0.50 J**	**0.50**	NA	**1.6**	**3.0**	**2.3**	ND	ND	ND
1,1-Dichloroethene	5	ug/L	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	3	ug/L	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
1,2-Dichloroethane	0.6	ug/L	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	1	ug/L	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	- -	ug/L	NA	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	NA	ND
1,3-Dichlorobenzene	3	ug/L	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
1,4-Dichlorobenzene	3	ug/L	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
Acrylonitrile	- -	ug/L	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.40 J**	**2.2**	ND	NA	NA
Chloromethane	5	ug/L	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ug/L	**12**	**30**	**45**	**43**	**12**	**0.90 J**	**2.6**	NA	**1.3**	**0.90 J**	**0.30**	ND	ND	ND
cis-1,3-Dichloropropene	0.4	ug/L	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND
Dibromochloromethane	50	ug/L	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND
m&p-Xylene	- -	ug/L	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND
Methylene Chloride	5	ug/L	ND	ND	**2.5**	**16**	**0.60 J**	ND	ND	NA	ND	ND	ND	ND	ND	ND
n-Butylbenzene	- -	ug/L	NA	ND	ND	ND	NA	ND	ND	NA	NA	ND	ND	ND	NA	ND
n-Propylbenzene	- -	ug/L	NA	ND	ND	ND	NA	ND	ND	NA	NA	ND	ND	ND	NA	ND
o-Xylene	- -	ug/L	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	- -	ug/L	NA	ND	ND	ND	NA	ND	ND	NA	NA	ND	ND	ND	NA	ND
sec-Butylbenzene	- -	ug/L	NA	ND	ND	ND	NA	ND	ND	NA	NA	ND	ND	ND	NA	ND

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Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-27-D2 33 - 43 10/27/04	MW-27-D2 33 - 43 03/09/05	MW-27-D2 33 - 43 08/10/05	MW-27-D2 33 - 43 03/15/06	MW-28-D1 17.5 - 27.5 10/27/04	MW-28-D1 17.5 - 27.5 03/10/05	MW-28-D1 17.5 - 27.5 08/10/05	MW-28-D1 17.5 - 27.5 03/15/06	MW-28-D2 32.4 - 42.5 10/27/04	MW-28-D2 32.4 - 42.5 03/10/05	MW-28-D2 32.4 - 42.5 08/10/05	MW-28-D2 32.4 - 42.5 03/15/06	MW-29-D1 17 - 27 10/27/04	MW-29-D1 17 - 27 03/10/05
Volatile Organics (Cont.)																
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	NA	ND	ND	ND	NA	ND	ND	NA	NA	ND	ND	ND	NA	ND
Tertiary butyl alcohol	- -	ug/L	**310**	**500**	**630**	**1,000**	**490**	**1,400**	**1,100**	NA	**96**	**80**	**61**	ND	**400**	**210**
Tetrachloroethene	5	ug/L	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND
Total VOCs	- -	ug/L	**660**	**690**	**860**	**1,200**	**700**	**1,800**	**1,500**	NA	**120**	**95**	**72**	**6.5**	**490**	**810**
trans-1,2-Dichloroethene	5	ug/L	ND	**2.3**	**1.7**	ND	ND	**12**	**8.3**	NA	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	0.4	ug/L	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND
Trichloroethene	5	ug/L	**4.0**	**2.5**	**18**	**8.6**	**14**	**2.0**	**0.60**	NA	**2.0**	**0.80 J**	ND	ND	**1.8**	ND
Trichlorofluoromethane	5	ug/L	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND
Vinyl Chloride	2	ug/L	ND	**2.3**	ND	**18**	ND	**6.7**	**7.5**	NA	ND	ND	ND	ND	ND	ND
Semivolatile Organics																
Naphthalene	10	ug/L	**14**	**1.7 J**	ND	ND	ND	**15**	**4.8**	**1.0 J**	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	50	ug/L	ND	ND	ND	ND	**2.8**	**2.5 J**	**2.0**	**1.6 J**	ND	ND	ND	ND	NA	ND
Acenaphthene	20	ug/L	ND	ND	ND	ND	**1.7 J**	**43**	**40**	**3.9 J**	**0.37 J**	ND	ND	ND	**0.69 J**	ND
Acenaphthylene	- -	ug/L	NA	NA	ND	ND	NA	NA	**0.73**	ND	NA	NA	ND	ND	ND	ND
Anthracene	50	ug/L	NA	ND	ND	ND	NA	**0.87 J**	**0.79**	**0.30 J**	NA	ND	ND	ND	ND	ND
Benzo(a)anthracene	0.002	ug/L	NA	NA	ND	ND	NA	NA	ND	ND	NA	NA	ND	ND	NA	ND
Benzo(a)pyrene	- -	ug/L	NA	NA	ND	ND	NA	NA	ND	ND	NA	NA	ND	ND	NA	ND
Benzo(b)fluoranthene	0.002	ug/L	NA	NA	ND	ND	NA	NA	ND	ND	NA	NA	ND	ND	NA	ND
Benzo(g,h,i)perylene	- -	ug/L	NA	NA	ND	ND	NA	NA	ND	ND	NA	NA	ND	ND	NA	ND
Benzo(k)fluoranthene	0.002	ug/L	NA	NA	ND	ND	NA	NA	ND	ND	NA	NA	ND	ND	NA	ND
bis(2-Ethylhexyl)phthalate	5	ug/L	**1.6**	ND	**1.3**	ND	**23**	**3.9**	**1.7**	ND	**4.6**	**2.7**	**3.0**	ND	**23**	**1.7 J**
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	NA	NA	ND	ND	NA	NA	ND	ND	NA	NA	ND	ND	NA	ND
Dibenzo(a,h)anthracene	- -	ug/L	NA	NA	ND	ND	NA	NA	ND	ND	NA	NA	ND	ND	NA	ND
Di-n-Butylphthalate	50	ug/L	NA	NA	ND	ND	NA	NA	ND	ND	NA	NA	ND	ND	NA	ND
Fluoranthene	50	ug/L	NA	ND	ND	ND	NA	**0.93 J**	**1.1**	**1.0 J**	NA	ND	ND	ND	NA	ND
Fluorene	50	ug/L	NA	ND	ND	ND	NA	**4.7**	**2.6**	**0.20 J**	NA	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	5	ug/L	NA	NA	ND	ND	NA	NA	ND	ND	NA	NA	ND	ND	NA	ND
Hexachloroethane	5	ug/L	NA	NA	ND	ND	NA	NA	ND	ND	NA	NA	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	NA	ND	ND	NA	NA	ND	ND	NA	NA	ND	ND	NA	ND
Nitrobenzene	0.4	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	- -	ug/L	NA	NA	ND	ND	NA	NA	ND	ND	NA	NA	ND	ND	NA	ND
PheNAnthrene	50	ug/L	NA	ND	ND	ND	NA	**11**	**7.1**	**0.40 J**	NA	ND	ND	ND	**0.31 J**	ND
Phenol	1	ug/L	NA	**9.9**	ND	ND	NA	ND	ND	ND	NA	ND	ND	ND	ND	ND
Pyrene	50	ug/L	NA	NA	ND	ND	NA	NA	ND	ND	NA	NA	ND	ND	NA	ND
Total SVOCs	- -	ug/L	**16**	**12**	**1.3**	ND	**28**	**82**	**60**	**8.4**	**4.6**	**2.7**	**3.0**	ND	**24**	**1.7**
General Chemistry																
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-29-D1 17 - 27 08/10/05	MW-29-D1 17 - 27 08/11/05	MW-29-D1 17 - 27 03/15/06	MW-29-D2 32 - 42 10/27/04	MW-29-D2 32 - 42 03/10/05	MW-29-D2 32 - 42 08/11/05	MW-29-D2 32 - 42 03/15/06	MW-29-VD 54 - 63 01/09/07	MW-30-D1 18 - 28 10/27/04	MW-30-D1 18 - 28 03/10/05	MW-30-D1 18 - 28 08/11/05	MW-30-D1 18 - 28 03/15/06	MW-30-D2 33 - 43 10/27/04	MW-30-D2 33 - 43 03/10/05
Volatile Organics																
Benzene	1	ug/L	**74**	NA	**39**	**5.6**	**0.50 J**	**1.2**	ND	ND	**1,600**	**2,100**	**1,500**	**1,800**	**18**	**3.0**
Toluene	5	ug/L	**1.0**	NA	ND	ND	ND	**0.40**	ND	**0.43 J**	**7.9**	**10 J**	**9.6**	ND	**0.80**	**0.20 J**
Ethylbenzene	5	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	**12**	**16 J**	**13**	**13 J**	**0.70 J**	ND
Xylenes (total)	5	ug/L	**2.0**	NA	ND	ND	ND	ND	ND	ND	**16**	**30**	**21**	ND	**3.3**	**0.30 J**
Methyl tert-butyl ether	10	ug/L	**560**	NA	**390**	**770**	**530**	**480**	**1,500**	**1.3**	**9,100**	**11,000**	**11,000**	**13,000**	**150**	**69**
Naphthalene	10	ug/L	ND	NA	NA	NA	ND	ND	ND	NA	NA	ND	ND	ND	NA	ND
Isopropylbenzene	5	ug/L	ND	NA	NA	NA	ND	ND	ND	NA	NA	ND	ND	ND	NA	ND
1,1,1-Trichloroethane	5	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	5	ug/L	ND	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5	ug/L	ND	NA	ND	ND	**0.60 J**	**0.70**	**2.2 J**	ND	ND	ND	ND	ND	**1.5**	**1.4**
1,1-Dichloroethene	5	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	3	ug/L	ND	NA	NA	ND	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
1,2-Dichloroethane	0.6	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	1	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	- -	ug/L	ND	NA	ND	NA	ND	ND	ND	NA	NA	ND	ND	ND	NA	ND
1,3-Dichlorobenzene	3	ug/L	ND	NA	NA	ND	ND	ND	NA	NA	ND	ND	ND	NA	ND	ND
1,4-Dichlorobenzene	3	ug/L	ND	NA	NA	ND	ND	ND	NA	NA	ND	ND	ND	NA	ND	ND
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	**14**	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	ND	NA	NA	ND	ND	ND	NA	NA	ND	ND	ND	NA	ND	ND
Acrylonitrile	- -	ug/L	ND	NA	NA	ND	ND	ND	NA	NA	ND	ND	ND	NA	ND	ND
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	NA
Chloromethane	5	ug/L	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ug/L	ND	NA	ND	ND	ND	ND	**2.2 J**	ND	ND	ND	ND	ND	**0.30 J**	ND
cis-1,3-Dichloropropene	0.4	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	50	ug/L	ND	NA	NA	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
m&p-Xylene	- -	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	5	ug/L	ND	NA	ND	**6.0**	ND	ND	**2.5 J**	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	- -	ug/L	ND	NA	NA	NA	ND	ND	ND	NA	NA	ND	ND	ND	NA	ND
n-Propylbenzene	- -	ug/L	ND	NA	NA	NA	ND	ND	ND	NA	NA	ND	ND	ND	NA	ND
o-Xylene	- -	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	- -	ug/L	ND	NA	NA	NA	ND	ND	ND	NA	NA	ND	ND	ND	NA	ND
sec-Butylbenzene	- -	ug/L	ND	NA	NA	NA	ND	ND	ND	NA	NA	ND	ND	ND	NA	ND

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Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-29-D1 17 - 27 08/10/05	MW-29-D1 17 - 27 08/11/05	MW-29-D1 17 - 27 03/15/06	MW-29-D2 32 - 42 10/27/04	MW-29-D2 32 - 42 03/10/05	MW-29-D2 32 - 42 08/11/05	MW-29-D2 32 - 42 03/15/06	MW-29-VD 54 - 63 01/09/07	MW-30-D1 18 - 28 10/27/04	MW-30-D1 18 - 28 03/10/05	MW-30-D1 18 - 28 08/11/05	MW-30-D1 18 - 28 03/15/06	MW-30-D2 33 - 43 10/27/04	MW-30-D2 33 - 43 03/10/05
Volatile Organics (Cont.)																
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	ND	NA	NA	NA	ND	ND	ND	NA	NA	ND	ND	ND	NA	ND
Tertiary butyl alcohol	- -	ug/L	**170**	NA	**120 J**	**420**	**620**	**610**	**720**	ND	ND	**190 J**	ND	**470 J**	**210**	**330**
Tetrachloroethene	5	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total VOCs	- -	ug/L	**800**	NA	**550**	**1,200**	**1,100**	**1,100**	**2,300**	**16**	**11,000**	**14,000**	**13,000**	**15,000**	**390**	**410**
trans-1,2-Dichloroethene	5	ug/L	ND	NA	**3.8 J**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	0.4	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5	ug/L	**1.1**	NA	ND	**1.5 J**	**1.1**	**0.70**	**49**	ND	ND	ND	ND	ND	**7.0**	**0.80 J**
Trichlorofluoromethane	5	ug/L	ND	NA	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND
Vinyl Chloride	2	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Semivolatile Organics																
Naphthalene	10	ug/L	NA	ND	ND	ND	ND	ND	NA	NA	**650**	**890**	**900**	ND	**12**	ND
2,4-Dimethylphenol	50	ug/L	NA	ND	ND	NA	ND	ND	NA	NA	NA	**2.6 J**	ND	ND	NA	ND
Acenaphthene	20	ug/L	NA	ND	ND	**0.44 J**	ND	ND	NA	NA	**44**	**86**	**80**	**77**	**1.1 J**	ND
Acenaphthylene	- -	ug/L	NA	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND	ND
Anthracene	50	ug/L	NA	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	0.002	ug/L	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND
Benzo(a)pyrene	- -	ug/L	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND
Benzo(b)fluoranthene	0.002	ug/L	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND
Benzo(g,h,i)perylene	- -	ug/L	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND
Benzo(k)fluoranthene	0.002	ug/L	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	**1.1**	ND	**4.1**	**2.4**	**4.1**	NA	NA	**2.4**	**1.5 J**	**3.6**	ND	**2.7**	**1.9 J**
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND
Dibenzo(a,h)anthracene	- -	ug/L	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND
Di-n-Butylphthalate	50	ug/L	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND
Fluoranthene	50	ug/L	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND
Fluorene	50	ug/L	NA	ND	ND	ND	ND	ND	NA	NA	**6.5**	**15**	**16**	**19 J**	ND	ND
Hexachlorocyclopentadiene	5	ug/L	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND
Hexachloroethane	5	ug/L	NA	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	**5.3**	ND
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND
Nitrobenzene	0.4	ug/L	NA	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	**5.2**	ND	ND
Pentachlorophenol	- -	ug/L	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND
PheNAnthrene	50	ug/L	NA	ND	ND	ND	ND	ND	NA	NA	**3.3**	**6.4**	**4.8**	**880**	**0.46 J**	ND
Phenol	1	ug/L	NA	ND	ND	ND	ND	ND	NA	NA	**6.1**	ND	**1.3**	ND	ND	ND
Pyrene	50	ug/L	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND
Total SVOCs	- -	ug/L	NA	**1.1**	ND	**4.1**	**2.4**	**4.1**	NA	NA	**720**	**1,000**	**1,000**	**980**	**21**	**1.9**
General Chemistry																
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-30-D2 33 - 43 08/11/05	MW-30-D2 33 - 43 03/15/06	MW-30-VD 73 - 83 01/08/07	MW-31-D1 17.5 - 27.5 10/27/04	MW-31-D1 17.5 - 27.5 03/10/05	MW-31-D1 17.5 - 27.5 08/10/05	MW-31-D2 32.5 - 42.5 10/27/04	MW-31-D2 32.5 - 42.5 03/10/05	MW-31-D2 32.5 - 42.5 08/10/05	MW-32D 24 - 34 01/08/07	MW-33D 18 - 28 01/09/07	MW-34D 23 - 33 01/08/07	MW-35D 16 - 26 01/08/07	MW-36D 24 - 34 01/09/07	MW-DR 15.05 08/20/02
Volatile Organics																	
Benzene	1	ug/L	**1.1**	**1.1**	**0.52 J**	**75**	**130**	**130**	**8.4**	ND	ND	**11**	ND	**70**	**2.7**	ND	NA
Toluene	5	ug/L	**0.20**	ND	**1.0**	**11**	**24**	**24**	**0.40**	ND	ND	**0.43 J**	**0.44 J**	**2.2**	**0.60 J**	**0.36 J**	NA
Ethylbenzene	5	ug/L	ND	ND	**0.58 J**	**15**	**33**	**33**	**0.60**	ND	ND	**0.28 J**	**0.41 J**	**0.87 J**	**0.31 J**	ND	NA
Xylenes (total)	5	ug/L	ND	ND	**1.3**	**20**	**49**	**49**	**1.0**	ND	ND	**0.90 J**	**0.39**	**3.6**	**0.48 J**	ND	NA
Methyl tert-butyl ether	10	ug/L	**37**	**42**	**9.1**	**160**	**180**	**180**	**18**	**0.30 J**	**0.32 J**	**80**	**3.6**	**9.8**	**3.6**	**180**	NA
Naphthalene	10	ug/L	ND	ND	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	NA	NA	NA
Isopropylbenzene	5	ug/L	ND	ND	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	5	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
1,1,2,2-Tetrachloroethane	5	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
1,1,2-Trichloroethane	1	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
1,1-Dichloroethane	5	ug/L	**1.3**	ND	**0.93 J**	**3.0**	**3.5**	ND	**1.3**	ND	ND	ND	**0.25 J**	ND	ND	ND	NA
1,1-Dichloroethene	5	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
1,2-Dichlorobenzene	3	ug/L	ND	NA	NA	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.6	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2.1**	ND	ND	ND	ND	NA
1,2-Dichloropropane	1	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
1,3,5-Trimethylbenzene	- -	ug/L	ND	ND	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	3	ug/L	ND	NA	NA	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	ND	NA	NA	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
2-Butanone	50	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	**2.7 J**	ND	ND	ND	NA
2-Hexanone	50	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	NA
Acetone	50	ug/L	NA	NA	**14**	NA	NA	NA	NA	NA	NA	ND	**3.0 J**	**3.9 J**	**3.7 J**	**40**	NA
Acrolein	- -	ug/L	ND	NA	NA	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
Acrylonitrile	- -	ug/L	ND	NA	NA	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
Bromodichloromethane	50	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	NA
Bromoform	50	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	NA
Bromomethane	5	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	NA
Carbon Disulfide	60	ug/L	NA	NA	**9.3**	NA	NA	NA	NA	NA	NA	**9.9**	**0.69 J**	**0.46 J**	**2.3**	**15**	NA
Carbon Tetrachloride	5	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	NA
Chlorobenzene	5	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	NA
Chloroethane	5	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Chloroform	7	ug/L	NA	NA	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	ND	ND	NA
Chloromethane	5	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
cis-1,2-Dichloroethene	5	ug/L	ND	ND	ND	**6.4**	**14 J**	**14**	**0.40**	ND	ND	ND	ND	ND	ND	ND	NA
cis-1,3-Dichloropropene	0.4	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Dibromochloromethane	50	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
m&p-Xylene	- -	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**3.0**	**0.48 J**	ND	NA
Methylene Chloride	5	ug/L	ND	**2.5 J**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
n-Butylbenzene	- -	ug/L	ND	ND	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	NA	NA	NA
n-Propylbenzene	- -	ug/L	ND	ND	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	NA	NA	NA
o-Xylene	- -	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.64 J**	ND	ND	NA
p-Isopropyltoluene	- -	ug/L	ND	ND	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	- -	ug/L	ND	ND	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	NA	NA	NA

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Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-30-D2 33 - 43 08/11/05	MW-30-D2 33 - 43 03/15/06	MW-30-VD 73 - 83 01/08/07	MW-31-D1 17.5 - 27.5 10/27/04	MW-31-D1 17.5 - 27.5 03/10/05	MW-31-D1 17.5 - 27.5 08/10/05	MW-31-D2 32.5 - 42.5 10/27/04	MW-31-D2 32.5 - 42.5 03/10/05	MW-31-D2 32.5 - 42.5 08/10/05	MW-32D 24 - 34 01/08/07	MW-33D 18 - 28 01/09/07	MW-34D 23 - 33 01/08/07	MW-35D 16 - 26 01/08/07	MW-36D 24 - 34 01/09/07	MW-DR 15.05 08/20/02
Volatile Organics (Cont.)																	
Styrene	5	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	NA
tert-Butylbenzene	- -	ug/L	ND	ND	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	ug/L	ND	**450**	**120**	**420**	**470**	**470**	**73**	ND	ND	ND	**160**	ND	ND	**250**	NA
Tetrachloroethene	5	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Total VOCs	- -	ug/L	**40**	**550**	**23**	**710**	**900**	**900**	**100**	**1.1**	ND	**110**	**170**	**91**	**14**	**490**	NA
trans-1,2-Dichloroethene	5	ug/L	ND	ND	ND	ND	**0.60**	**0.56 J**	ND	ND	ND	ND	ND	ND	ND	ND	NA
trans-1,3-Dichloropropene	0.4	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Trichloroethene	5	ug/L	ND	**54**	ND	**0.50**	ND	ND	**0.90**	**0.80 J**	ND	ND	ND	ND	ND	**1.6**	NA
Trichlorofluoromethane	5	ug/L	ND	ND	NA	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2	ug/L	ND	ND	ND	ND	**6.3**	**6.3**	ND	ND	ND	ND	ND	ND	ND	ND	NA
Semivolatile Organics																	
Naphthalene	10	ug/L	ND	ND	NA	**290**	**97**	NA	**5.2**	ND	NA	NA	NA	NA	NA	NA	**0.56**
2,4-Dimethylphenol	50	ug/L	ND	ND	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND
Acenaphthene	20	ug/L	ND	ND	NA	**160**	**410 a**	NA	**1.1**	ND	NA	NA	NA	NA	NA	NA	**2.1**
Acenaphthylene	- -	ug/L	ND	ND	NA	**1.0**	**4.6**	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA
Anthracene	50	ug/L	ND	ND	NA	**2.0**	**2.5**	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	0.002	ug/L	ND	ND	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	- -	ug/L	ND	ND	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	0.002	ug/L	ND	ND	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	- -	ug/L	ND	ND	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.002	ug/L	ND	ND	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	**1.7**	ND	NA	**2.3**	ND	NA	**10**	**5.4**	NA	NA	NA	NA	NA	NA	ND
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	ND	ND	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	- -	ug/L	ND	ND	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	50	ug/L	ND	ND	NA	NA	**6.2**	NA	NA	ND	NA	NA	NA	NA	NA	NA	**1.1**
Fluoranthene	50	ug/L	ND	ND	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND
Fluorene	50	ug/L	ND	ND	NA	**31**	**100**	NA	ND	ND	NA	NA	NA	NA	NA	NA	**1.5**
Hexachlorocyclopentadiene	5	ug/L	ND	ND	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	5	ug/L	ND	ND	NA	ND	ND	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	ND	ND	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	0.4	ug/L	ND	ND	NA	ND	ND	NA	ND	ND	NA	NA	NA	NA	NA	NA	ND
Pentachlorophenol	- -	ug/L	ND	ND	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA
PheNAnthrene	50	ug/L	ND	ND	NA	**17**	ND	NA	ND	ND	NA	NA	NA	NA	NA	NA	ND
Phenol	1	ug/L	ND	ND	NA	**1.8**	**51**	NA	ND	ND	NA	NA	NA	NA	NA	NA	ND
Pyrene	50	ug/L	ND	ND	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND
Total SVOCs	- -	ug/L	**1.7**	ND	NA	**500**	**670**	NA	**17**	**5.4**	NA	NA	NA	NA	NA	NA	**5.3**
General Chemistry																	
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																	
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	P-01 5.95 08/20/02	P-02 5.19 08/20/02	P-03 6.15 08/20/02	P-04 5.46 08/20/02	P-05 - - 08/20/02	P-05R 5.61 03/05/03	P-05R 5.61 06/03/03	P-05R 5.61 02/11/04	P-05R 5.61 05/20/04	P-05R 5.61 10/26/04	P-05R 5.61 03/10/05	P-07 5.4 08/20/02	P-08 6.15 08/20/02	P-09 4.97 04/30/02	P-09 4.97 08/20/02	P-11 5.6 08/20/02	P-11 5.6 03/05/03
Volatile Organics																			
Benzene	1	ug/L	ND	ND	ND	1.9	18	190	180	89	180	87	200	27	26	530	190	750	1,500
Toluene	5	ug/L	ND	ND	ND	ND	0.87	2.6	2.3	1.6	2.6	2.5	2.5	ND	0.88	6.6	3.3	2.6	10
Ethylbenzene	5	ug/L	ND	ND	ND	9.6	2.4	35	61	3.6	28	6.7	21	ND	1.5	11	6.3	ND	8.0
Xylenes (total)	5	ug/L	ND	ND	ND	0.62	2.0	8.8	12	4.3	5.5	4.3	5.1	ND	3.1	22	12	1.8	9.6
Methyl tert-butyl ether	10	ug/L	ND	0.34	0.48	0.91	8.2	59	40	29	56	70	50	3.0	18	NA	80	210	350
Naphthalene	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
Isopropylbenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	5	ug/L	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	ND	NA
1,1,2,2-Tetrachloroethane	5	ug/L	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	ND	NA
1,1,2-Trichloroethane	1	ug/L	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	ND	NA
1,1-Dichloroethane	5	ug/L	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	ND	NA
1,1-Dichloroethene	5	ug/L	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	ND	NA
1,2-Dichlorobenzene	3	ug/L	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	ND	NA
1,2-Dichloroethane	0.6	ug/L	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	ND	NA
1,2-Dichloropropane	1	ug/L	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	ND	NA
1,3,5-Trimethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	3	ug/L	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	ND	NA
1,4-Dichlorobenzene	3	ug/L	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	ND	NA
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	ND	NA
Acrylonitrile	- -	ug/L	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	ND	NA
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	5	ug/L	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	ND	ND	ND	NA
cis-1,3-Dichloropropene	0.4	ug/L	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	ND	NA
Dibromochloromethane	50	ug/L	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	ND	NA
m&p-Xylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	5	ug/L	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	ND	NA
n-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	P-01 5.95 08/20/02	P-02 5.19 08/20/02	P-03 6.15 08/20/02	P-04 5.46 08/20/02	P-05 - - 08/20/02	P-05R 5.61 03/05/03	P-05R 5.61 06/03/03	P-05R 5.61 02/11/04	P-05R 5.61 05/20/04	P-05R 5.61 10/26/04	P-05R 5.61 03/10/05	P-07 5.4 08/20/02	P-08 6.15 08/20/02	P-09 4.97 04/30/02	P-09 4.97 08/20/02	P-11 5.6 08/20/02	P-11 5.6 03/05/03
Volatile Organics (Cont.)																			
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	ug/L	ND	ND	ND	ND	**21**	ND	ND	ND	**97**	**33**	**26**	ND	**37**	NA	**350**	**120**	ND
Tetrachloroethene	5	ug/L	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	ND	NA
Total VOCs	- -	ug/L	ND	**0.30**	**0.50**	**11**	**52**	**290**	**300**	**130**	**370**	**200**	**310**	**30**	**85**	**570**	**640**	**1,100**	**1,900**
trans-1,2-Dichloroethene	5	ug/L	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	ND	ND	ND	NA
trans-1,3-Dichloropropene	0.4	ug/L	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	ND	NA
Trichloroethene	5	ug/L	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	ND	ND	ND	NA
Trichlorofluoromethane	5	ug/L	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	ND	NA
Vinyl Chloride	2	ug/L	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	ND	ND	ND	NA
Semivolatile Organics																			
Naphthalene	10	ug/L	ND	ND	ND	**4.7**	ND	**17**	**15**	**1.9**	**7.9**	ND	ND	ND	ND	NA	**1.2**	ND	ND
2,4-Dimethylphenol	50	ug/L	ND	ND	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	NA	ND	ND
Acenaphthene	20	ug/L	ND	**1.4**	ND	**5.3**	**2.0**	**1.2**	**1.2**	**0.72**	**1.3**	**1.3 J**	**1.4 J**	**5.4**	**13**	NA	**18**	**2.0**	**2.0**
Acenaphthylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
Anthracene	50	ug/L	NA	NA	ND	**2.1**	ND	NA	NA	ND	NA	ND	ND	ND	**1.4**	NA	ND	ND	NA
Benzo(a)anthracene	0.002	ug/L	NA	NA	ND	**0.80**	ND	NA	ND	ND	NA	NA	ND	ND	ND	NA	ND	NA	NA
Benzo(a)pyrene	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	0.002	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.002	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	ND	ND	NA	NA	NA	ND	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	NA	NA	ND	**0.70**	ND	ND	ND	ND	NA	NA	ND	ND	ND	NA	ND	NA	**0.63**
Dibenzo(a,h)anthracene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	50	ug/L	ND	ND	NA	NA	NA	**1.5**	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	ND
Fluoranthene	50	ug/L	ND	ND	ND	**4.1**	**1.1**	ND	ND	ND	NA	NA	ND	**0.76**	**1.9**	NA	**0.66**	**0.96**	**1.8**
Fluorene	50	ug/L	ND	**0.57**	ND	**6.8**	**2.5**	**1.5**	**1.3**	**0.64**	**1.1**	ND	**1.3 J**	**3.5**	**7.2**	NA	**6.6**	**3.0**	**8.3**
Hexachlorocyclopentadiene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
Hexachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
Nitrobenzene	0.4	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND
Pentachlorophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	**1.2**	NA	NA	ND	NA	NA	NA	NA	NA	NA
PheNAnthrene	50	ug/L	ND	ND	ND	**12**	**2.1**	**0.98**	ND	ND	ND	ND	**0.70 J**	**1.1**	**10**	NA	**2.1**	**5.7**	**10**
Phenol	1	ug/L	ND	ND	NA	NA	NA	ND	**1.7**	ND	**2.5**	**2.1 J**	**2.2 J**	NA	NA	NA	NA	**3.7**	**12**
Pyrene	50	ug/L	ND	ND	ND	**3.0**	**0.87**	ND	NA	ND	ND	NA	ND	**0.62**	**1.2**	NA	**0.60**	**0.77**	**1.7**
Total SVOCs	- -	ug/L	ND	**2.0**	ND	**39**	**8.6**	**22**	**20**	**4.5**	**13**	**3.4**	**5.6**	**11**	**35**	NA	**29**	**16**	**36**
General Chemistry																			
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																			
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	P-11 5.6 02/11/04	P-11 5.6 10/26/04	P-11 5.6 03/10/05	P-13 5.45 08/20/02	P-14 5.4 08/20/02	P-14 5.4 03/05/03	P-14 5.4 06/03/03	P-14 5.4 05/20/04	P-14 5.4 10/26/04	P-14 5.4 03/10/05	P-15 5 08/20/02	P-15 5 03/05/03	P-15 5 06/03/03	P-15 5 05/20/04	P-15 5 10/26/04	P-15 5 03/10/05	P-17 - - 08/20/02
Volatile Organics																			
Benzene	1	ug/L	**1,900**	**3,300**	**1,300**	**160**	**240**	**38**	**34**	**50**	**120**	**43**	**1,100**	**300**	**230**	**30**	**24**	**13**	ND
Toluene	5	ug/L	**11**	**19**	**7.5**	**5.7**	**910**	**99**	**110**	**79**	**330**	**350**	**1,900**	**220**	**84**	**14**	**6.1**	**0.38 J**	ND
Ethylbenzene	5	ug/L	**12**	**15**	**12**	**31**	**610**	**130**	**130**	**150**	**240**	**110**	**300**	**160**	**98**	**7.7**	**2.2**	ND	ND
Xylenes (total)	5	ug/L	**17**	**22**	**18**	**25**	ND	**390**	**390**	**280**	**420**	**210**	**770**	**1,000**	ND	**22**	**3.1**	**0.23 J**	ND
Methyl tert-butyl ether	10	ug/L	**310**	**320**	**130**	**94**	ND	**29**	**13**	**32**	**33**	**15**	**210**	**420**	**130**	**88**	**41**	**6.5**	ND
Naphthalene	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	5	ug/L	NA	NA	NA	ND	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	ND
1,1,2,2-Tetrachloroethane	5	ug/L	NA	NA	NA	ND	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	ND
1,1,2-Trichloroethane	1	ug/L	NA	NA	NA	ND	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	ND
1,1-Dichloroethane	5	ug/L	NA	NA	NA	ND	ND	NA	NA	ND	NA	**9.3**	NA	**4.7**	NA	ND	NA	NA	ND
1,1-Dichloroethene	5	ug/L	NA	NA	NA	ND	ND	**6.0**	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	ND
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	ND	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	ND
1,2-Dichloroethane	0.6	ug/L	NA	NA	NA	ND	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	ND
1,2-Dichloropropane	1	ug/L	NA	NA	NA	ND	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	ND
1,3,5-Trimethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	3	ug/L	NA	NA	NA	ND	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	ND
1,4-Dichlorobenzene	3	ug/L	NA	NA	NA	ND	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	ND
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	NA	NA	ND	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND
Acrylonitrile	- -	ug/L	NA	NA	NA	ND	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	5	ug/L	NA	NA	NA	ND	ND	**3,400**	**95**	**350**	**2,200**	**3,800**	**34,000**	**1,800**	**190**	**290**	**200**	**5.6**	ND
cis-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	ND	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	ND
Dibromochloromethane	50	ug/L	NA	NA	NA	ND	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	ND
m&p-Xylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	5	ug/L	NA	NA	NA	ND	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND
n-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	P-11 5.6 02/11/04	P-11 5.6 10/26/04	P-11 5.6 03/10/05	P-13 5.45 08/20/02	P-14 5.4 08/20/02	P-14 5.4 03/05/03	P-14 5.4 06/03/03	P-14 5.4 05/20/04	P-14 5.4 10/26/04	P-14 5.4 03/10/05	P-15 5 08/20/02	P-15 5 03/05/03	P-15 5 06/03/03	P-15 5 05/20/04	P-15 5 10/26/04	P-15 5 03/10/05	P-17 - - 08/20/02
Volatile Organics (Cont.)																			
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	ug/L	ND	ND	ND	**120**	ND	ND	NA	ND	ND	ND	ND	ND	**270**	**120**	**85**	**31**	ND
Tetrachloroethene	5	ug/L	NA	NA	NA	ND	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	ND
Total VOCs	- -	ug/L	**2,200**	**3,700**	**1,500**	**430**	**1,800**	**5,200**	**930**	**650**	**4,400**	**4,800**	**57,000**	**4,900**	**1,100**	**10,000**	**610**	**90**	ND
trans-1,2-Dichloroethene	5	ug/L	NA	NA	NA	ND	ND	**24**	**7.8**	**3.1**	NA	NA	NA	NA	NA	ND	**0.78**	NA	ND
trans-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	ND	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	ND
Trichloroethene	5	ug/L	NA	NA	NA	ND	ND	**210**	NA	**52**	NA	**11**	**9,400**	NA	NA	**9,400**	NA	NA	ND
Trichlorofluoromethane	5	ug/L	NA	NA	NA	ND	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND
Vinyl Chloride	2	ug/L	NA	NA	NA	ND	ND	**890**	**150**	**400**	**1,100**	**210**	**8,700**	**1,000**	**140**	**250**	**250**	**34**	ND
Semivolatile Organics																			
Naphthalene	10	ug/L	**11**	**1.8 J**	**5.3**	**9.9**	**390**	**52**	**53**	**50**	**68**	**22**	**130**	**30**	**20**	ND	ND	ND	**1.9**
2,4-Dimethylphenol	50	ug/L	NA	NA	**1.1**	ND	**17**	**17**	NA	NA	NA	ND	**2.3**	ND	NA	NA	NA	ND	ND
Acenaphthene	20	ug/L	**6.8**	**1.8**	**2.5**	**6.8**	**8.9**	**5.5**	**6.0**	**8.4**	**8.0**	**4.7**	**20**	**3.3**	**4.4**	**3.7**	**2.9**	**2.5**	ND
Acenaphthylene	- -	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA
Anthracene	50	ug/L	**2.5**	**0.58**	**0.56**	**1.0**	ND	NA	NA	NA	**0.59 J**	ND	ND	NA	NA	NA	ND	ND	ND
Benzo(a)anthracene	0.002	ug/L	**1.9**	NA	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA
Benzo(a)pyrene	- -	ug/L	**1.5**	NA	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA
Benzo(b)fluoranthene	0.002	ug/L	**2.1**	NA	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA
Benzo(g,h,i)perylene	- -	ug/L	NA	NA	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA
Benzo(k)fluoranthene	0.002	ug/L	**1.7**	NA	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	**2.9**	NA	ND	NA	NA	ND	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND	NA
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	**1.7**	NA	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA
Dibenzo(a,h)anthracene	- -	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA
Di-n-Butylphthalate	50	ug/L	NA	NA	ND	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND	NA	ND	NA
Fluoranthene	50	ug/L	**7.6**	NA	**1.0 J**	**1.4**	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND	NA	ND	ND
Fluorene	50	ug/L	**11**	**2.4**	**3.6**	**3.9**	**5.8**	**1.7**	**1.9**	**3.0**	**4.2**	**1.7 J**	**5.6**	**1.1**	**1.3**	**1.5**	ND	ND	**8.9**
Hexachlorocyclopentadiene	5	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA
Hexachloroethane	5	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA
Nitrobenzene	0.4	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	- -	ug/L	ND	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA
PheNAnthrene	50	ug/L	**21**	**3.2**	**5.1**	**4.3**	**6.0**	**1.3**	ND	**0.96**	**2.6**	**0.67 J**	ND	ND	ND	ND	ND	ND	**1.5**
Phenol	1	ug/L	**9.7**	**11**	**8.2**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1.4**	ND	ND	ND	ND
Pyrene	50	ug/L	**6.0**	NA	**0.81 J**	**1.0**	ND	ND	NA	ND	NA	ND	ND	ND	NA	ND	NA	ND	ND
Total SVOCs	- -	ug/L	**87**	**21**	**28**	**28**	**430**	**77**	**61**	**62**	**83**	**29**	**160**	**34**	**27**	**5.2**	**2.9**	**2.5**	**12**
General Chemistry																			
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																			
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	P-18 5 04/30/02	P-18 5 08/20/02	P-18 5 03/05/03	P-18 5 06/03/03	P-18 5 02/11/04	P-18 5 05/20/04	P-18 5 10/26/04	P-18 5 03/09/05	P-18 5 08/10/05	P-19 4.03 04/30/02	P-19 4.03 08/20/02	P-19 4.03 03/19/03	P-19 4.03 06/03/03	P-19 4.03 02/11/04	P-19 4.03 05/20/04	P-19 4.03 10/26/04	P-19 4.03 03/09/05
Volatile Organics																			
Benzene	1	ug/L	**1,400**	**740**	**470**	**360**	**120**	**110**	**200**	**170**	**180**	**15**	**220**	**260**	**420**	**150**	**170**	**170**	NA
Toluene	5	ug/L	**380**	**380**	**140**	**44**	**9.9**	**14**	**16**	**22**	**26**	**150**	**220**	**220**	**450**	**14**	**13**	**82**	NA
Ethylbenzene	5	ug/L	**390**	**470**	**420**	**210**	**80**	**26**	**23**	**34**	**18**	**390**	**76**	**55**	**120**	**86**	**54**	**53**	NA
Xylenes (total)	5	ug/L	**460**	**1,500**	**730**	**350**	**27**	**22**	**17**	**32**	**20**	**70**	**140**	**68**	**230**	**24**	**54**	**34**	NA
Methyl tert-butyl ether	10	ug/L	NA	**790**	**290**	**270**	**72**	**88**	**120**	**230 a**	**140**	NA	**990**	**1,200**	**4,900**	**110**	**62**	**900**	NA
Naphthalene	10	ug/L	**45**	NA	NA	NA	NA	NA	NA	NA	NA	**8.4**	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	5	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	NA
1,1,2,2-Tetrachloroethane	5	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	NA
1,1,2-Trichloroethane	1	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	NA
1,1-Dichloroethane	5	ug/L	NA	ND	**4.7**	NA	NA	ND	NA	**0.64 J**	**0.59**	NA	ND	NA	**68**	NA	ND	NA	NA
1,1-Dichloroethene	5	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	NA
1,2-Dichlorobenzene	3	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	NA
1,2-Dichloroethane	0.6	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	NA
1,2-Dichloropropane	1	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	NA
1,3,5-Trimethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	3	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	NA
1,4-Dichlorobenzene	3	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	NA
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	NA
Acrylonitrile	- -	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	NA
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	5	ug/L	ND	**13,000**	**4,500**	**140**	NA	**2.5**	NA	**7.0**	**5.7**	ND	**11,000**	**20,000**	**79,000**	**7.2**	**1.9**	**3,300**	NA
cis-1,3-Dichloropropene	0.4	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	NA
Dibromochloromethane	50	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	NA
m&p-Xylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	5	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	NA
n-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	P-18 5 04/30/02	P-18 5 08/20/02	P-18 5 03/05/03	P-18 5 06/03/03	P-18 5 02/11/04	P-18 5 05/20/04	P-18 5 10/26/04	P-18 5 03/09/05	P-18 5 08/10/05	P-19 4.03 04/30/02	P-19 4.03 08/20/02	P-19 4.03 03/19/03	P-19 4.03 06/03/03	P-19 4.03 02/11/04	P-19 4.03 05/20/04	P-19 4.03 10/26/04	P-19 4.03 03/09/05
Volatile Organics (Cont.)																			
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	ug/L	NA	ND	ND	180	60	120	110	200	130	NA	ND	1,300	2,600	80	64	700	NA
Tetrachloroethene	5	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	NA
Total VOCs	- -	ug/L	2,700	26,000	8,900	1,800	370	390	480	500	610	7,900	20,000	27,000	110,000	480	420	7,800	NA
trans-1,2-Dichloroethene	5	ug/L	ND	ND	11	11	NA	0.42	0.74	2.9	3.1	7,200	ND	NA	100	1.8	0.96	9.8 J	NA
trans-1,3-Dichloropropene	0.4	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	NA
Trichloroethene	5	ug/L	ND	ND	4.7	90	NA	ND	NA	1.5	NA	ND	ND	780	NA	NA	ND	NA	NA
Trichlorofluoromethane	5	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	69	NA	ND	NA	NA
Vinyl Chloride	2	ug/L	ND	9,900	2,300	200	NA	7.4	NA	31	89	ND	8,100	3,500	21,000	15	3.5	2,600	NA
Semivolatile Organics																			
Naphthalene	10	ug/L	NA	140	67	42	13	7.4	ND	ND	ND	NA	29	21	18	4.3	4.3	ND	ND
2,4-Dimethylphenol	50	ug/L	NA	5.1	2.5	NA	NA	NA	NA	ND	ND	NA	NA	ND	NA	NA	NA	NA	ND
Acenaphthene	20	ug/L	NA	8.9	2.3	2.3	0.55	2.0	1.6	1.3	2.1	NA	18	10	12	6.6	7.0	5.1	4.3
Acenaphthylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	ND
Anthracene	50	ug/L	NA	ND	NA	NA	ND	NA	ND	ND	ND	NA	ND	NA	NA	ND	NA	ND	ND
Benzo(a)anthracene	0.002	ug/L	NA	NA	NA	0.96	ND	NA	NA	ND	ND	NA	NA	NA	ND	ND	NA	NA	ND
Benzo(a)pyrene	- -	ug/L	NA	NA	NA	0.98	ND	NA	NA	ND	ND	NA	NA	NA	ND	ND	NA	NA	ND
Benzo(b)fluoranthene	0.002	ug/L	NA	NA	NA	1.5	ND	NA	NA	ND	ND	NA	NA	NA	ND	ND	NA	NA	ND
Benzo(g,h,i)perylene	- -	ug/L	NA	NA	NA	0.69	NA	NA	NA	ND	ND	NA	NA	NA	ND	NA	NA	NA	ND
Benzo(k)fluoranthene	0.002	ug/L	NA	NA	NA	0.77	ND	NA	NA	ND	ND	NA	NA	NA	ND	ND	NA	NA	ND
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	NA	2.0	NA	1.5	NA	NA	ND	ND	NA	NA	ND	NA	ND	NA	NA	ND
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	NA	NA	NA	1.4	ND	NA	NA	ND	ND	NA	NA	NA	ND	ND	NA	NA	ND
Dibenzo(a,h)anthracene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	ND
Di-n-Butylphthalate	50	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA	NA	ND	NA	ND
Fluoranthene	50	ug/L	NA	ND	0.86	3.6	ND	NA	NA	ND	ND	NA	NA	ND	ND	ND	NA	NA	ND
Fluorene	50	ug/L	NA	6.5	1.3	1.6	ND	2.0	1.9	1.3 J	2.5	NA	9.1	4.5	5.7	3.2	2.5	2.9	2.0
Hexachlorocyclopentadiene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	ND
Hexachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	ND
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	ND
Nitrobenzene	0.4	ug/L	NA	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	- -	ug/L	NA	NA	NA	NA	ND	NA	NA	ND	ND	NA	NA	NA	NA	ND	NA	NA	ND
PheNAnthrene	50	ug/L	NA	1.0	0.90	2.7	ND	ND	ND	ND	ND	NA	NA	ND	ND	0.74	ND	ND	ND
Phenol	1	ug/L	NA	ND	ND	15	ND	ND	ND	ND	ND	NA	ND	ND	4.3	ND	ND	ND	ND
Pyrene	50	ug/L	NA	ND	0.58	NA	ND	ND	NA	ND	ND	NA	ND	ND	NA	ND	ND	NA	ND
Total SVOCs	- -	ug/L	NA	160	78	73	15	11	3.5	2.6	4.6	NA	56	36	41	15	14	8.0	ND
General Chemistry																			
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																			
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	P-19 4.03 03/10/05	P-20 5 08/20/02	P-21 4 08/20/02	P-22 4.5 08/20/02	P-23 5.15 08/20/02	P-24 3.2 03/19/03	P-26 5.63 08/20/02	P-26 5.63 03/19/03	P-26 5.63 06/03/03	P-26 5.63 05/20/04	P-26 5.63 10/26/04	P-26 5.63 08/10/05	P-28 5.58 08/20/02	TP-01 - - 09/10/96	TP-01 - - 09/13/96	TP-01 - - 04/26/97	TP-01 - - 01/27/98
Volatile Organics																			
Benzene	1	ug/L	**140**	**57**	**46**	**45**	**50**	**12**	**860**	NA	**640**	NA	**110**	**150**	**6.1**	NA	**3.4**	**4.6**	NA
Toluene	5	ug/L	**44**	**220**	**220**	**12**	**2.0**	**1.8**	**210**	NA	**20**	NA	**2.7**	**19**	**0.62**	NA	ND	ND	NA
Ethylbenzene	5	ug/L	**10**	ND	ND	**2.5**	ND	**0.58**	ND	NA	**34**	NA	**56**	**27**	ND	NA	**1.2**	**2.8**	NA
Xylenes (total)	5	ug/L	**27**	**140**	**140**	**6.3**	**1.8**	**1.7**	**810**	NA	**37**	NA	**12**	**15**	**1.2**	NA	**3.4**	ND	NA
Methyl tert-butyl ether	10	ug/L	**410 a**	**61**	**120**	**150**	**150**	**300**	**630**	NA	**210**	NA	**100**	**150**	**25**	NA	**16**	**2.1**	NA
Naphthalene	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**2.3**	**5.7**	NA
Isopropylbenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	**1.8**	NA
1,1,1-Trichloroethane	5	ug/L	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	5	ug/L	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
1,1,2-Trichloroethane	1	ug/L	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
1,1-Dichloroethane	5	ug/L	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	**0.63**	ND	NA	NA	NA	NA
1,1-Dichloroethene	5	ug/L	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
1,2-Dichlorobenzene	3	ug/L	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
1,2-Dichloroethane	0.6	ug/L	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
1,2-Dichloropropane	1	ug/L	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
1,3,5-Trimethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
1,3-Dichlorobenzene	3	ug/L	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	ND	NA	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Acrylonitrile	- -	ug/L	NA	ND	NA	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	5	ug/L	**170**	**2.0**	**1.2**	**0.66**	**170**	**110**	**130**	NA	**20**	NA	NA	**33**	ND	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	ug/L	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Dibromochloromethane	50	ug/L	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
m&p-Xylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**3.4**	ND	NA
Methylene Chloride	5	ug/L	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
n-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
n-Propylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	**2.3**	NA
o-Xylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
p-Isopropyltoluene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
sec-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA

See Notes on Page 47.

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Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	P-19 4.03 03/10/05	P-20 5 08/20/02	P-21 4 08/20/02	P-22 4.5 08/20/02	P-23 5.15 08/20/02	P-24 3.2 03/19/03	P-26 5.63 08/20/02	P-26 5.63 03/19/03	P-26 5.63 06/03/03	P-26 5.63 05/20/04	P-26 5.63 10/26/04	P-26 5.63 08/10/05	P-28 5.58 08/20/02	TP-01 - - 09/10/96	TP-01 - - 09/13/96	TP-01 - - 04/26/97	TP-01 - - 01/27/98
Volatile Organics (Cont.)																			
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
Tertiary butyl alcohol	- -	ug/L	**1,400 a**	**1,600 a**	**430**	**500**	**260**	**380**	**480**	NA	**450**	NA	**130**	**120**	ND	NA	NA	NA	NA
Tetrachloroethene	5	ug/L	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Total VOCs	- -	ug/L	**2,500**	**490**	**970**	**710**	**630**	**920**	**3,400**	NA	**1,400**	NA	**410**	**610**	**33**	NA	**30**	**19**	NA
trans-1,2-Dichloroethene	5	ug/L	**1.5**	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	**2.7**	ND	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	ug/L	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Trichloroethene	5	ug/L	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	**0.63**	ND	NA	NA	NA	NA
Trichlorofluoromethane	5	ug/L	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Vinyl Chloride	2	ug/L	**330 a**	**2.0**	**4.8**	**1.1**	**260 a**	**120**	**300**	NA	NA	NA	NA	**94**	ND	NA	NA	NA	NA
Semivolatile Organics																			
Naphthalene	10	ug/L	NA	ND	ND	**0.83**	ND	ND	**77**	**10**	**3.1**	**7.7**	**9.9**	ND	NA	ND	NA	NA	ND
2,4-Dimethylphenol	50	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	NA
Acenaphthene	20	ug/L	NA	**6.7**	**28**	**33**	**1.4**	ND	**26**	**15**	**20**	**9.0**	**9.7**	**12**	**14**	ND	NA	NA	ND
Acenaphthylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA
Anthracene	50	ug/L	NA	ND	**0.61**	**1.4**	ND	NA	ND	NA	NA	NA	ND	ND	**1.8**	ND	NA	NA	ND
Benzo(a)anthracene	0.002	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	**1.0 J**
Benzo(a)pyrene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	**2.0 J**
Benzo(b)fluoranthene	0.002	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	**3.0 J**
Benzo(g,h,i)perylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	NA	NA	**2.0 J**
Benzo(k)fluoranthene	0.002	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	NA	NA	**1.0 J**
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	NA
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	**3.0 J**
Dibenzo(a,h)anthracene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	ND
Di-n-Butylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	**2.4**	NA	ND	NA	NA	NA	NA	NA
Fluoranthene	50	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	NA	ND	**1.8**	ND	NA	NA	**4.0 J**
Fluorene	50	ug/L	NA	**2.6**	**13**	**13**	ND	ND	**9.2**	**3.5**	**5.0**	**1.1**	**1.1**	ND	**11**	ND	NA	NA	ND
Hexachlorocyclopentadiene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA
Hexachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA	**2.0 J**
Nitrobenzene	0.4	ug/L	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Pentachlorophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA
PheNAnthrene	50	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	ND	ND	ND	ND	**4.6**	ND	NA	NA	ND
Phenol	1	ug/L	NA	**3.5**	ND	ND	ND	ND	ND	**6.7**	**2.2**	ND	ND	ND	NA	NA	NA	NA	NA
Pyrene	50	ug/L	NA	ND	ND	**0.65**	ND	ND	ND	ND	NA	**0.61**	NA	ND	**1.1**	ND	NA	NA	**4.0 J**
Total SVOCs	- -	ug/L	NA	**13**	**41**	**49**	**1.4**	ND	**110**	**35**	**30**	**21**	**21**	**12**	**35**	ND	NA	NA	**22**
General Chemistry																			
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																			
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**590**	NA	NA	**7,400**

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Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	TP-01 - - 04/09/98	TP-01 - - 11/02/01	TP-04 4.8 09/10/96	TP-04 4.8 04/26/97	TP-04 4.8 01/27/98	TP-04 4.8 04/09/98	TP-04 4.8 11/02/01	TP-04 4.8 04/30/02	TP-04 4.8 08/20/02	TP-07 - - 04/26/97	TP-09 - - 09/09/96	TP-09 - - 04/26/97	TP-10 - - 09/09/96	TP-10 - - 04/26/97	TP-11 - - 09/09/96	TP-12 - - 04/26/97	TP-13 - - 04/26/97
Volatile Organics																			
Benzene	1	ug/L	**1.5**	ND	NA	**10 [8.8]**	NA	ND	ND [ND]	ND	ND	**13**	NA	**71**	NA	**30**	NA	**3,500**	**3,000**
Toluene	5	ug/L	ND	ND	ND	ND [ND]	NA	ND	**5.4** [ND]	ND	ND	ND	**13**	**5.9**	**7.6**	**5.6**	**22**	**76**	**220**
Ethylbenzene	5	ug/L	**0.20 J**	ND	**1.6**	**1.2 [1.1]**	NA	ND	ND [ND]	ND	ND	**9.1**	**160**	**60**	**78**	**83**	**120**	**510**	**1,400**
Xylenes (total)	5	ug/L	**0.80 J**	ND	**4.6**	**7.1 [5.7]**	NA	ND	ND [ND]	ND	ND	**7.8**	**19**	ND	**17**	**15**	**25**	**3,400**	**4,200**
Methyl tert-butyl ether	10	ug/L	**0.70 J**	ND	**13**	**5.0 [5.1]**	NA	**2.0**	ND **[32]**	NA	ND	**10**	**47**	**28**	**120**	**38**	**670**	**290**	**14,000**
Naphthalene	10	ug/L	**1.3**	ND	ND	ND [ND]	NA	**0.40 J**	ND [ND]	ND	NA	**17**	**170**	**35**	**90**	**76**	**33**	**330**	**960**
Isopropylbenzene	5	ug/L	**0.30 J**	NA	ND	ND [ND]	NA	ND	NA	NA	NA	**4.1**	**24**	**7.3**	**7.9**	**4.8**	**8.8**	ND	**160**
1,1,1-Trichloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.6	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	- -	ug/L	ND	NA	ND	ND [ND]	NA	ND	NA	NA	NA	**1.7**	**4.7**	ND	ND	ND	**290**	**440**	**870**
1,3-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	- -	ug/L	ND	ND	**4.6**	**7.1 [5.7]**	NA	ND	ND [ND]	ND	ND	**7.8**	**15**	**5.6**	**11**	**10**	**19**	**3,400**	**4,200**
Methylene Chloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	- -	ug/L	ND	NA	ND	ND [ND]	NA	ND	NA	NA	NA	**4.8**	**29**	ND	**4.0**	ND	**12**	**210**	**1,000**
n-Propylbenzene	- -	ug/L	**0.20 J**	NA	ND	ND [ND]	NA	ND	NA	NA	NA	**7.4**	**47**	**17**	**13**	**5.6**	**13**	ND	**340**
o-Xylene	- -	ug/L	**0.80 J**	ND	ND	ND [ND]	NA	ND	ND [ND]	ND	ND	ND	**4.4**	ND	**6.4**	**5.2**	**6.2**	ND	ND
p-Isopropyltoluene	- -	ug/L	ND	NA	ND	ND [ND]	NA	ND	NA	NA	NA	ND	**1.8**	ND	ND	ND	**1.8**	ND	ND
sec-Butylbenzene	- -	ug/L	**0.30 J**	NA	ND	ND [ND]	NA	ND	NA	NA	NA	**1.1**	**7.2**	**4.0**	**3.6**	ND	**2.7**	ND	ND

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	TP-01 - - 04/09/98	TP-01 - - 11/02/01	TP-04 4.8 09/10/96	TP-04 4.8 04/26/97	TP-04 4.8 01/27/98	TP-04 4.8 04/09/98	TP-04 4.8 11/02/01	TP-04 4.8 04/30/02	TP-04 4.8 08/20/02	TP-07 - - 04/26/97	TP-09 - - 09/09/96	TP-09 - - 04/26/97	TP-10 - - 09/09/96	TP-10 - - 04/26/97	TP-11 - - 09/09/96	TP-12 - - 04/26/97	TP-13 - - 04/26/97
Volatile Organics (Cont.)																			
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	ND	NA	ND	ND [ND]	NA	ND	NA	NA	NA	ND	**1.6**	ND	ND	ND	ND	ND	ND
Tertiary butyl alcohol	- -	ug/L	NA	ND	NA	NA	NA	NA	ND [ND]	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Total VOCs	- -	ug/L	**5.3**	0	**19**	**23 [21]**	NA	**2.4**	**5.4 [32]**	0	0	**76**	**520**	**230**	**340**	**260**	**1,200**	**8,800**	**26,000**
trans-1,2-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics																			
Naphthalene	10	ug/L	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	**83**	NA	**51**	NA	**11**	NA	NA
2,4-Dimethylphenol	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	ug/L	NA	NA	ND	NA	ND	NA	NA	NA	ND	NA	ND	NA	**6.2**	NA	ND	NA	NA
Acenaphthylene	- -	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	NA
Anthracene	50	ug/L	NA	NA	ND	NA	ND	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA
Benzo(a)anthracene	0.002	ug/L	NA	NA	ND	NA	**1.0 J**	NA	NA	NA	**2.1**	NA	ND	NA	ND	NA	ND	NA	NA
Benzo(a)pyrene	- -	ug/L	NA	NA	ND	NA	**2.0 J**	NA	NA	NA	**2.5**	NA	ND	NA	ND	NA	ND	NA	NA
Benzo(b)fluoranthene	0.002	ug/L	NA	NA	ND	NA	**3.0 J**	NA	NA	NA	**3.4**	NA	ND	NA	ND	NA	ND	NA	NA
Benzo(g,h,i)perylene	- -	ug/L	NA	NA	ND	NA	**2.0 J**	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	NA
Benzo(k)fluoranthene	0.002	ug/L	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	NA	NA	ND	NA	**2.0 J**	NA	NA	NA	**3.9**	NA	ND	NA	ND	NA	ND	NA	NA
Dibenzo(a,h)anthracene	- -	ug/L	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	NA
Di-n-Butylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	50	ug/L	NA	NA	ND	NA	**3.0 J**	NA	NA	NA	**6.5**	NA	ND	NA	ND	NA	ND	NA	NA
Fluorene	50	ug/L	NA	NA	ND	NA	ND	NA	NA	NA	ND	NA	ND	NA	**5.9**	NA	ND	NA	NA
Hexachlorocyclopentadiene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	NA	NA	NA	ND	NA	NA	NA	**1.9**	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	0.4	ug/L	NA	NA	ND	NA	ND	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA
Pentachlorophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PheNAnthrene	50	ug/L	NA	NA	ND	NA	ND	NA	NA	NA	**2.5**	NA	ND	NA	**6.5**	NA	ND	NA	NA
Phenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	50	ug/L	NA	NA	ND	NA	**3.0 J**	NA	NA	NA	**5.2**	NA	ND	NA	ND	NA	ND	NA	NA
Total SVOCs	- -	ug/L	NA	NA	ND	NA	**16**	NA	NA	NA	**28**	NA	**83**	NA	**70**	NA	**11**	NA	NA
General Chemistry																			
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																			
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	ND	NA	**2,600**	NA	NA	NA	NA	NA	**1,200**	NA	**1,300**	NA	**4,300**	NA	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	TP-14 - - 09/09/96	TP-15 - - 04/26/97	TW-01 - - 03/15/04	TW-02 - - 03/15/04	TW-03 - - 03/16/04	TW-04 - - 03/15/04	TW-05 - - 03/16/04	TW-06 - - 03/15/04	TW-07 - - 03/16/04	TW-08 - - 03/16/04
Volatile Organics												
Benzene	1	ug/L	NA	**530**	**7.9 J**	**2.8 J [2.9 J]**	**9.9**	**12**	**5.0**	**22**	**0.83**	ND
Toluene	5	ug/L	**440**	ND	**9.3**	ND [ND]	**8.9**	ND	**0.49 J**	**12**	**0.44 J**	ND
Ethylbenzene	5	ug/L	**1,300**	42 U	**4.1 J**	**4.8 [4.8 J]**	**3.8**	**3.5 J**	**1.9**	**8.6 J**	ND	ND
Xylenes (total)	5	ug/L	**5,200**	ND	**13**	**5.9 [6.0 J]**	**9.0**	ND	**0.91 J**	**20**	ND	ND
Methyl tert-butyl ether	10	ug/L	**25,000**	**640**	**960**	**840 [830]**	**450**	**490**	**850**	**2,800**	**55**	**20**
Naphthalene	10	ug/L	**690**	**41**	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	5	ug/L	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	5	ug/L	NA	NA	ND	ND [ND]	ND	NA	ND	ND	**1.7**	**2.9**
1,1-Dichloroethene	5	ug/L	NA	NA	**17**	ND [ND]	ND	**13**	ND	ND	ND	ND
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.6	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	- -	ug/L	**300**	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	5	ug/L	NA	NA	**3,300**	**1,300 [1,300]**	**13**	**6,200**	**28**	**1,200**	ND	ND
cis-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	- -	ug/L	**4,500**	ND	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	5	ug/L	NA	NA	**32**	ND [ND]	ND	ND	ND	**5.1 J**	ND	ND
n-Butylbenzene	- -	ug/L	ND	**11**	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	- -	ug/L	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	- -	ug/L	**720**	ND	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	ug/L	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	- -	ug/L	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	TP-14 - - 09/09/96	TP-15 - - 04/26/97	TW-01 - - 03/15/04	TW-02 - - 03/15/04	TW-03 - - 03/16/04	TW-04 - - 03/15/04	TW-05 - - 03/16/04	TW-06 - - 03/15/04	TW-07 - - 03/16/04	TW-08 - - 03/16/04
Volatile Organics (Cont.)												
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	ug/L	NA	NA	**1,400**	**820 [810]**	**870**	**1,400**	**1,100**	**4,600**	**580**	**450**
Tetrachloroethene	5	ug/L	NA	NA	ND	ND [ND]	ND	ND	ND	ND	ND	ND
Total VOCs	- -	ug/L	**33,000**	**1,200**	**9,600**	**3,100 [3,100]**	**1,400**	**8,100**	**2,100**	**17,000**	**640**	**470**
trans-1,2-Dichloroethene	5	ug/L	NA	NA	**30**	**16 [15]**	**0.86 J**	**38**	**1.7**	**25**	ND	ND
trans-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5	ug/L	NA	NA	**3,500**	**24 [25]**	ND	**6.4 J**	**21**	**7,800**	ND	ND
Trichlorofluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2	ug/L	NA	NA	**370**	**110 [120]**	**46**	**33**	**81**	**71**	ND	ND
Semivolatile Organics												
Naphthalene	10	ug/L	**390**	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	ug/L	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	- -	ug/L	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	50	ug/L	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	0.002	ug/L	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	- -	ug/L	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	0.002	ug/L	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	- -	ug/L	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.002	ug/L	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	- -	ug/L	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	50	ug/L	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	50	ug/L	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	0.4	ug/L	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PheNAnthrene	50	ug/L	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	50	ug/L	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total SVOCs	- -	ug/L	**390**	NA	NA	NA	NA	NA	NA	NA	NA	NA
General Chemistry												
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH												
Total Petroleum Hydrocarbons	- -	ug/L	**11,000**	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

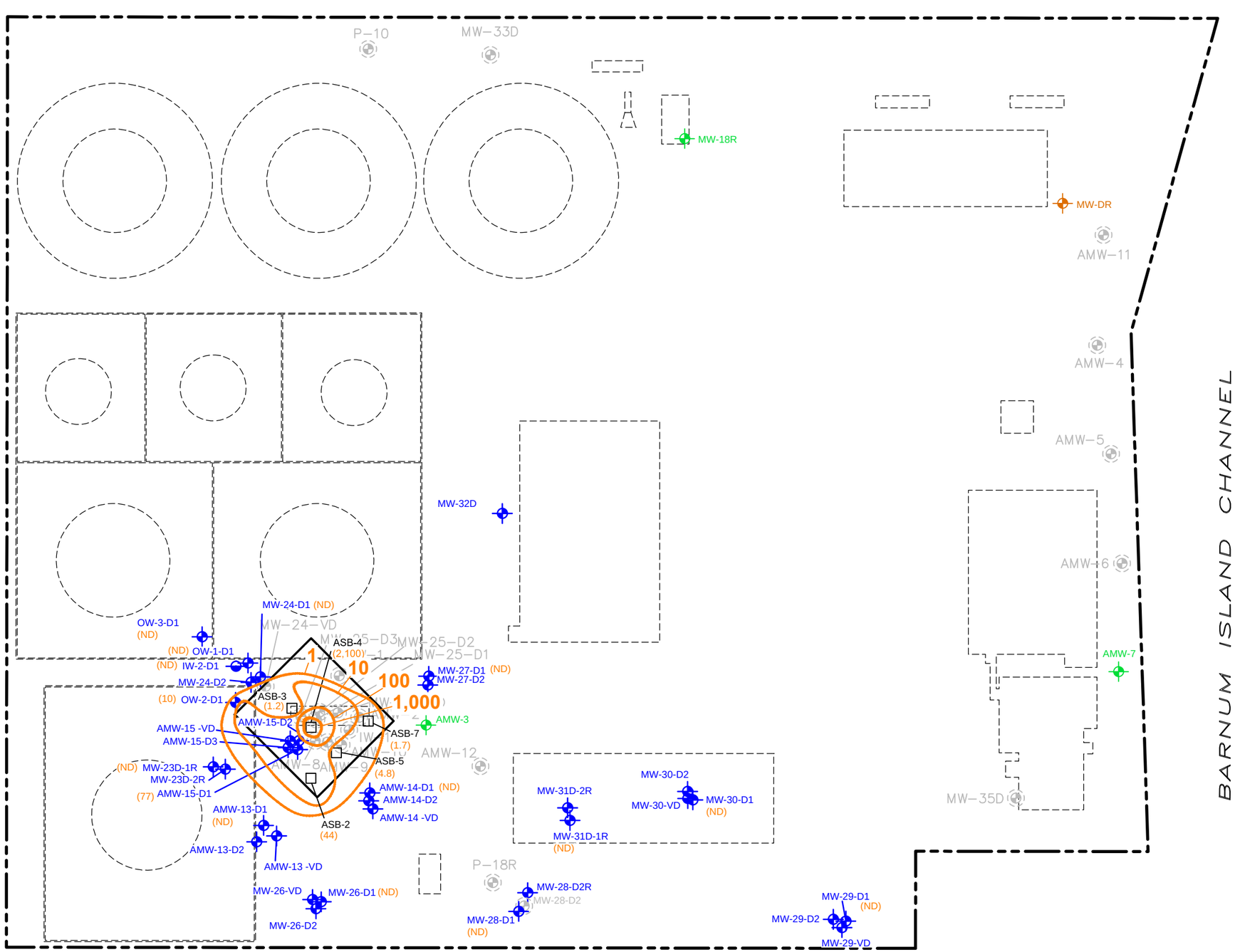
Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Notes:

1. Results compared to NYSDEC Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1, Ambient Water Quality Standards and Guidance Values.
2. Field duplicate sample results are presented in brackets, [ ].
3. Designations:
   Gray font = not detected. Bold font = detected. Bold font with Gray shading = Result detected above NYSDEC TOGS 1.1.1.
4. Abbreviations:
   - - = NYSDEC TOGS 1.1.1 not available.
   ug/L = micrograms per Liter.
   NA = Not analyzed.
   ND = Not detected.
   NYSDEC = New York State Department of Environmental Conservation.
   TOGS 1.1.1 = NYSDEC Division of Water Technical and Operational Guidance Series 1.1.1, Ambient Water Quality Standards and Guidance Values.
   USEPA = United States Environmental Protection Agency.
   VOC = Volatile Organic Compounds.
   SVOC = Semi-Volatile Organic Compounds.
5. Qualifier Definitions:
   J = Estimated value. Result is greater than the RL but less than the MDL.
   U = Analyte not detected at listed reporting detection limit.

APPENDIX I

Isoconcentration Contour Maps



LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- GRAB GROUNDWATER SAMPLE LOCATION
- LIMITS OF EXCAVATION
- HISTORICAL SITE FEATURE
- (4.8) TRICHLOROETHENE CONCENTRATION ug/L (ND = NOT DETECTED)
- 1 TRICHLOROETHENE (TCE) CONCENTRATION CONTOUR

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN–GULF OIL COMPANY–U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. HISTORICAL SITE LAYOUT AND SAMPLE LOCATIONS ARE APPROXIMATE.
3. MONITORING WELL LOCATIONS SURVEYED BY AMERICAN ENGINEERING AND SURVEY.
4. CONCENTRATIONS SHOWN ARE FROM THE MOST RECENT GROUNDWATER SAMPLES COLLECTED IN 2016.

0 60' 120'

GRAPHIC SCALE

GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

TCE CONCENTRATIONS IN GROUNDWATER - D1 HORIZON - 2016

ARCADIS Design & Consultancy for natural and built assets

FIGURE
I-1

CITY: SYRACUSE, NY DIVGROUP: ENV/IM-DV DB: L.FORAKER, R. ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*;OFF=*REF*
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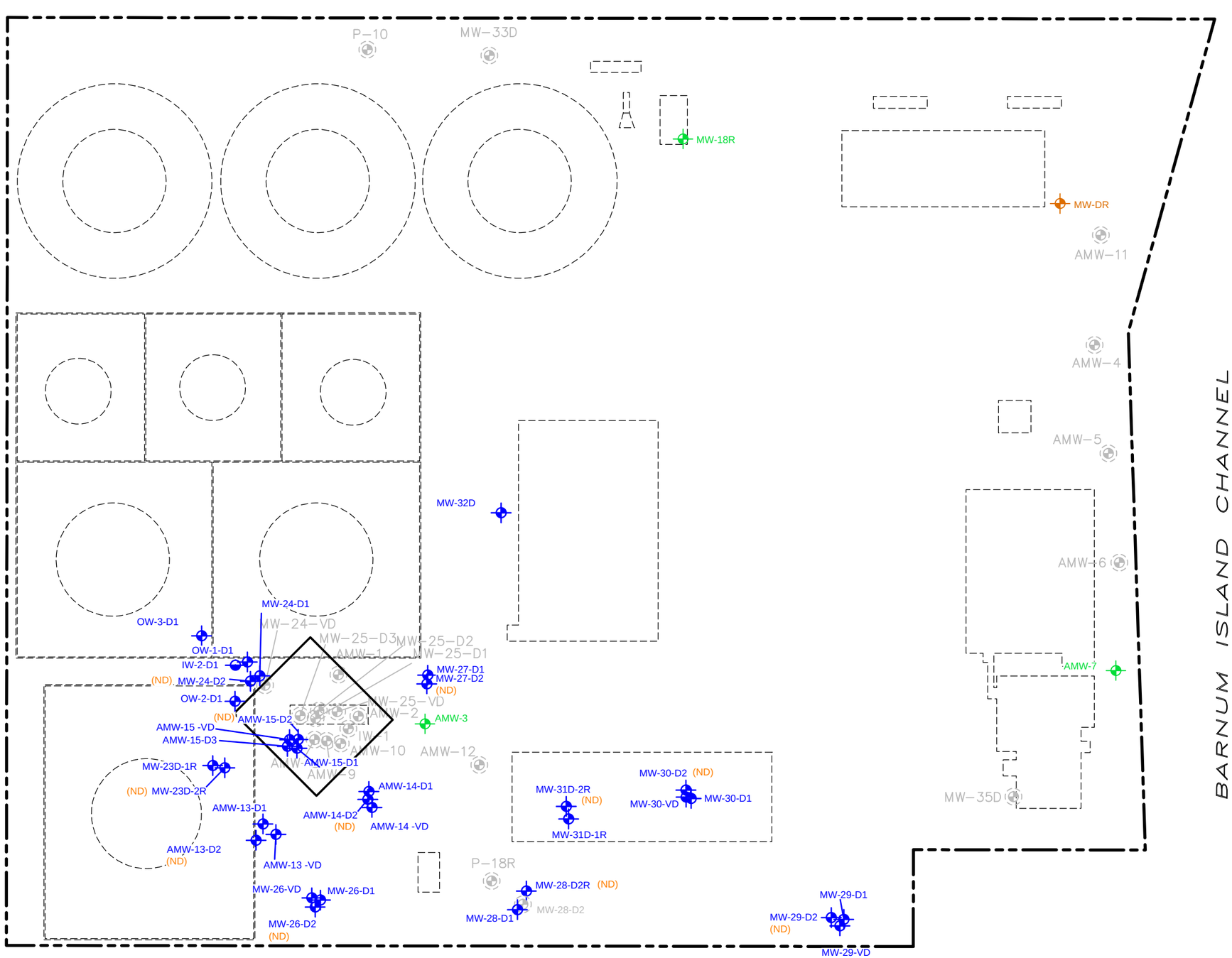

LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- LIMITS OF EXCAVATION
- HISTORICAL SITE FEATURE
- (4.8) TRICHLOROETHENE CONCENTRATION ug/L (ND = NOT DETECTED)
- 1 TRICHLOROETHENE (TCE) CONCENTRATION CONTOUR

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN–GULF OIL COMPANY–U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
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4. CONCENTRATIONS SHOWN ARE FROM THE MOST RECENT GROUNDWATER SAMPLES COLLECTED IN 2016.

0 60' 120'

GRAPHIC SCALE

GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

TCE CONCENTRATIONS IN GROUNDWATER - D2 HORIZON - 2016

ARCADIS Design & Consultancy for natural and built assets

FIGURE
I-2

CITY: SYRACUSE, NY DIV/GROUP: ENV/IM-DV DB: L. FORAKER, R. ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*; OFF=*REF*
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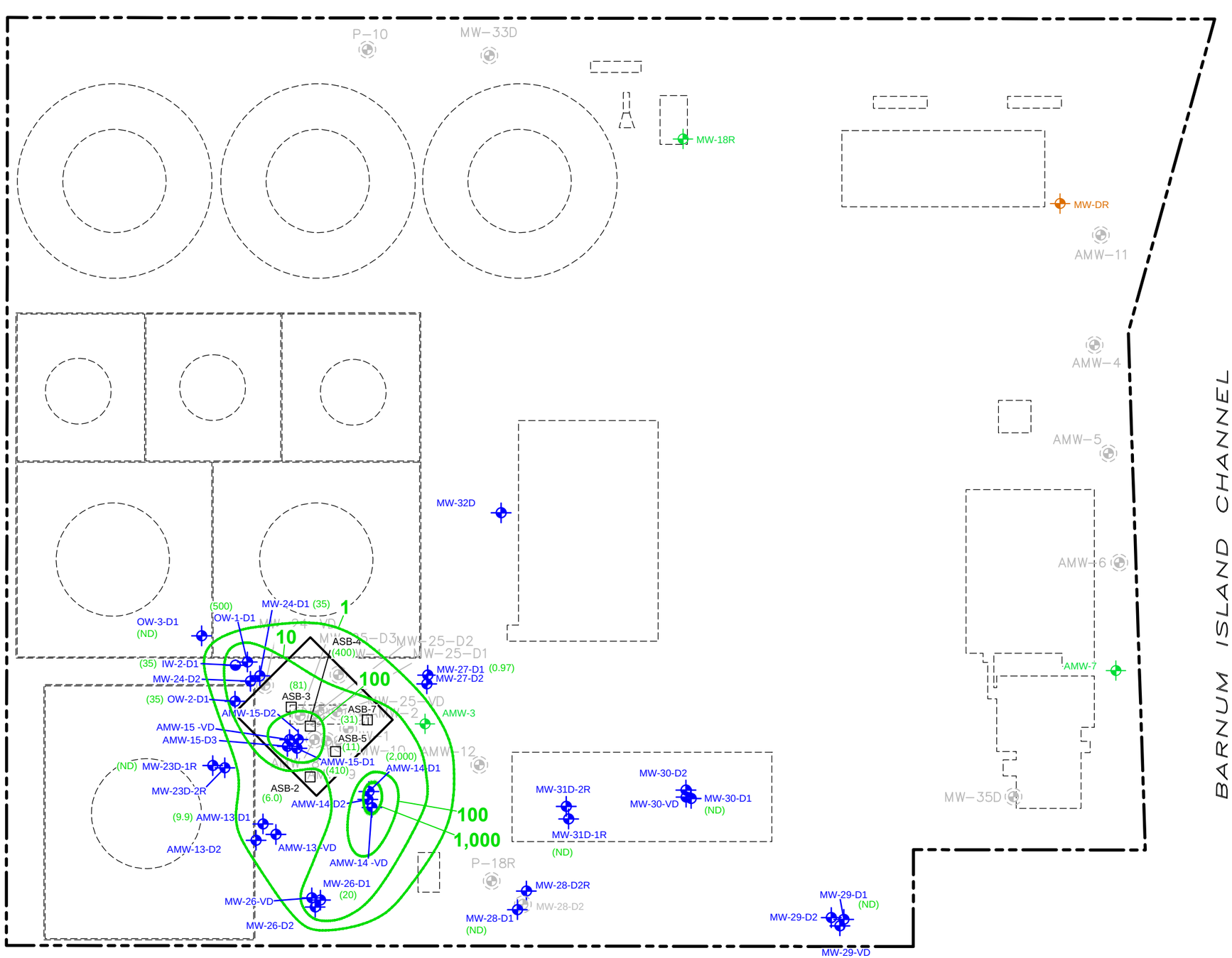

LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- GRAB GROUNDWATER SAMPLE LOCATION
- LIMITS OF EXCAVATION
- HISTORICAL SITE FEATURE
- (4.8) VINYL CHLORIDE CONCENTRATION ug/L (ND = NOT DETECTED)
- 1 VINYL CHLORIDE (VCO CONCENTRATION CONTOUR

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN–GULF OIL COMPANY–U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. HISTORICAL SITE LAYOUT AND SAMPLE LOCATIONS ARE APPROXIMATE.
3. MONITORING WELL LOCATIONS SURVEYED BY AMERICAN ENGINEERING AND SURVEY.
4. CONCENTRATIONS SHOWN ARE FROM THE MOST RECENT GROUNDWATER SAMPLES COLLECTED IN 2016.

0 60' 120'

GRAPHIC SCALE

GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

VINYL CHLORIDE CONCENTRATIONS IN GROUNDWATER - D1 HORIZON - 2016

ARCADIS Design & Consultancy for natural and built assets

FIGURE
I-3

CITY: SYRACUSE, NY DIV/GROUP: ENV/IM-DV DB: L.FORAKER, R. ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*; OFF=*REF*
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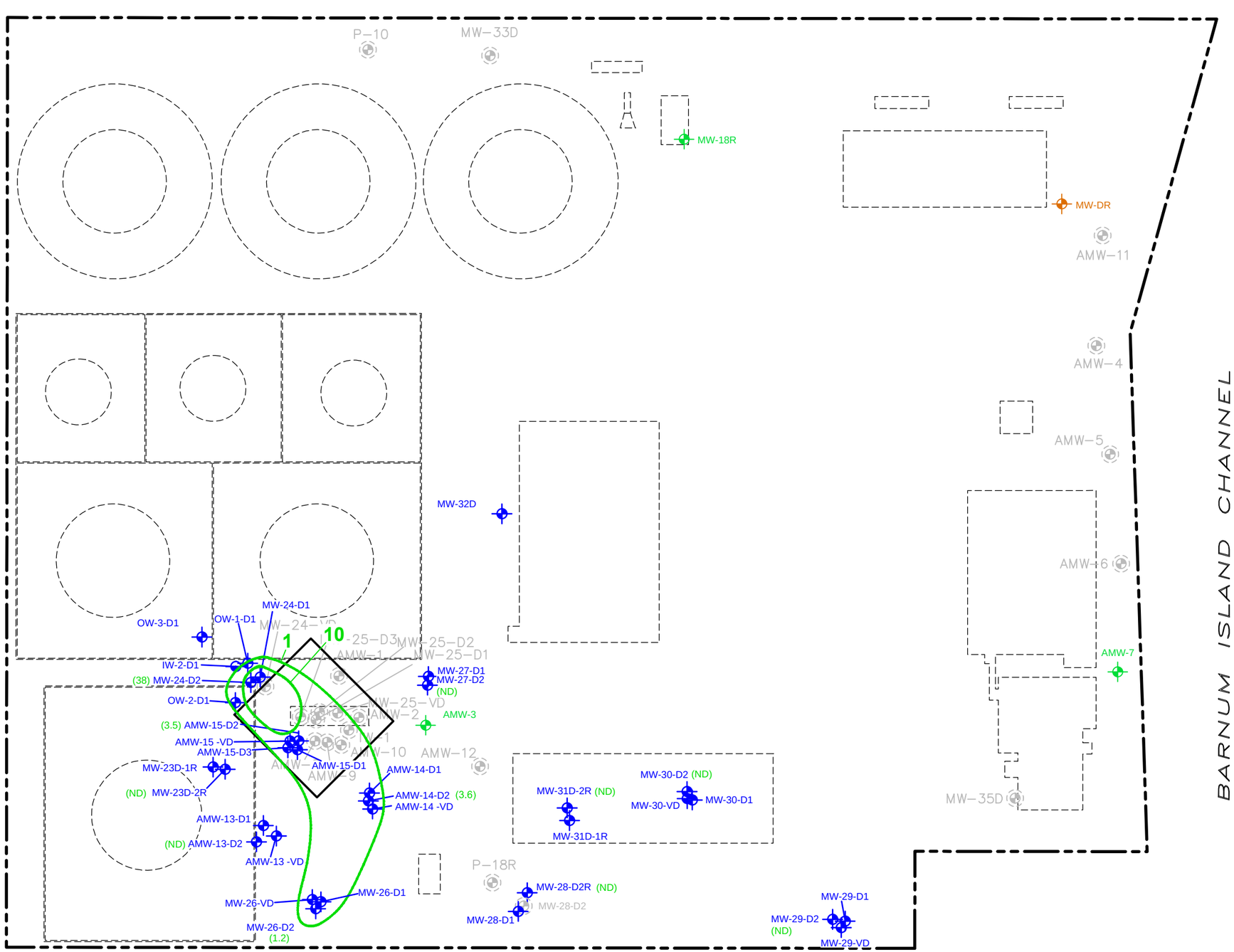

LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- LIMITS OF EXCAVATION
- HISTORICAL SITE FEATURE
- (4.8) VINYL CHLORIDE CONCENTRATION ug/L (ND = NOT DETECTED)
- 1 VINYL CHLORIDE (VC) CONCENTRATION CONTOUR

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN–GULF OIL COMPANY–U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
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0 60' 120'

GRAPHIC SCALE

GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

VINYL CHLORIDE CONCENTRATIONS IN GROUNDWATER - D2 HORIZON - 2016

ARCADIS Design & Consultancy for natural and built assets

FIGURE I-4

CITY: SYRACUSE, NY DIVGROUP: ENV/IM-DV DB: L.FORAKER, R. ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*; OFF=*REF*
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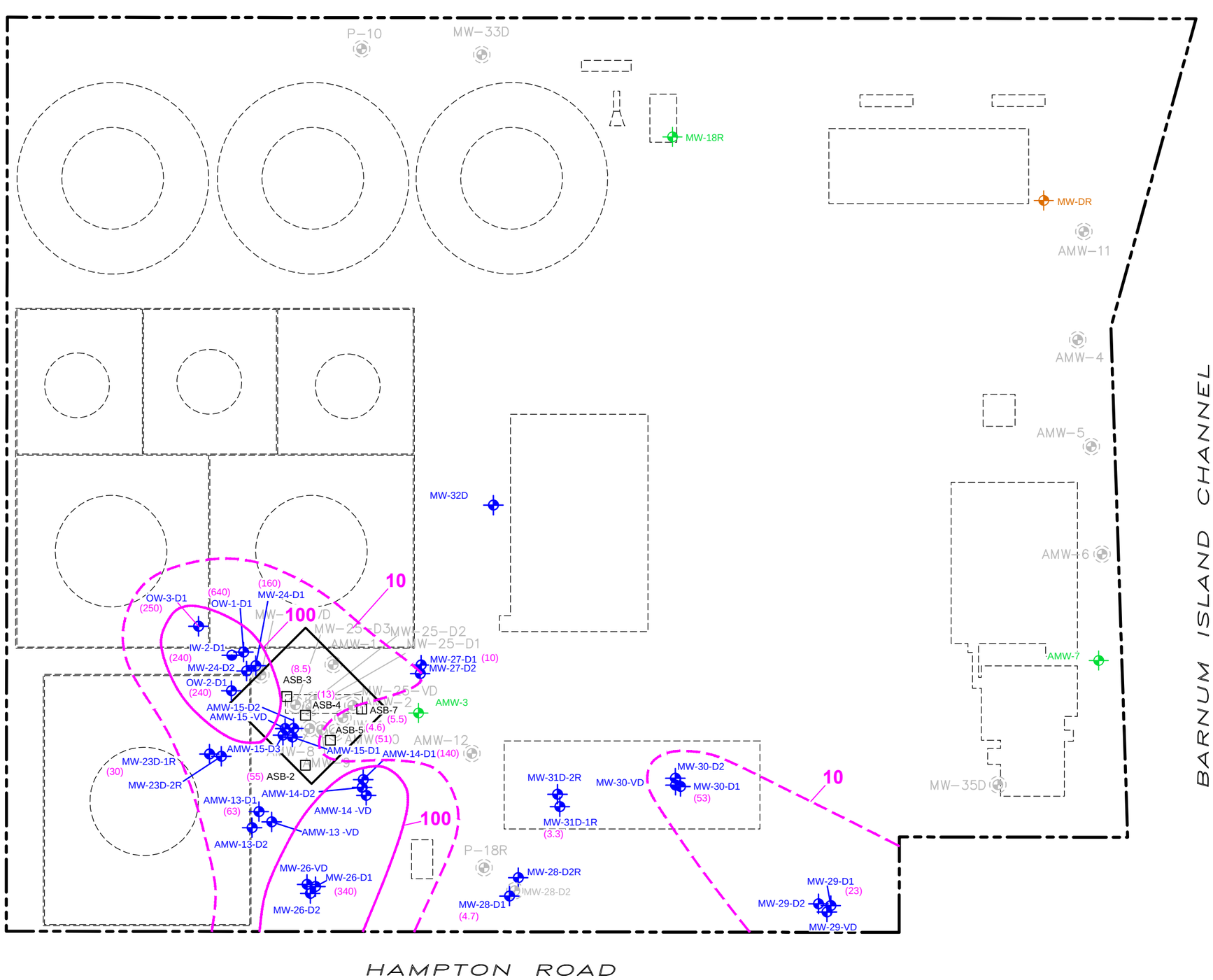

LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- GRAB GROUNDWATER SAMPLE LOCATION
- LIMITS OF EXCAVATION
- HISTORICAL SITE FEATURE
- (4.8) MTBE CONCENTRATION ug/L (ND = NOT DETECTED)
- 1 MTBE CONCENTRATION CONTOUR

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN–GULF OIL COMPANY–U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
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4. CONCENTRATIONS SHOWN ARE FROM THE MOST RECENT GROUNDWATER SAMPLES COLLECTED IN 2016.

0 60’ 120’

GRAPHIC SCALE

GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

MTBE CONCENTRATIONS IN GROUNDWATER - D1 HORIZON - 2016

ARCADIS Design & Consultancy for natural and built assets

FIGURE
I-5

CITY: SYRACUSE, NY DIVGROUP: ENV/IM-DV DB: L.FORAKER, R. ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*;OFF=*REF*
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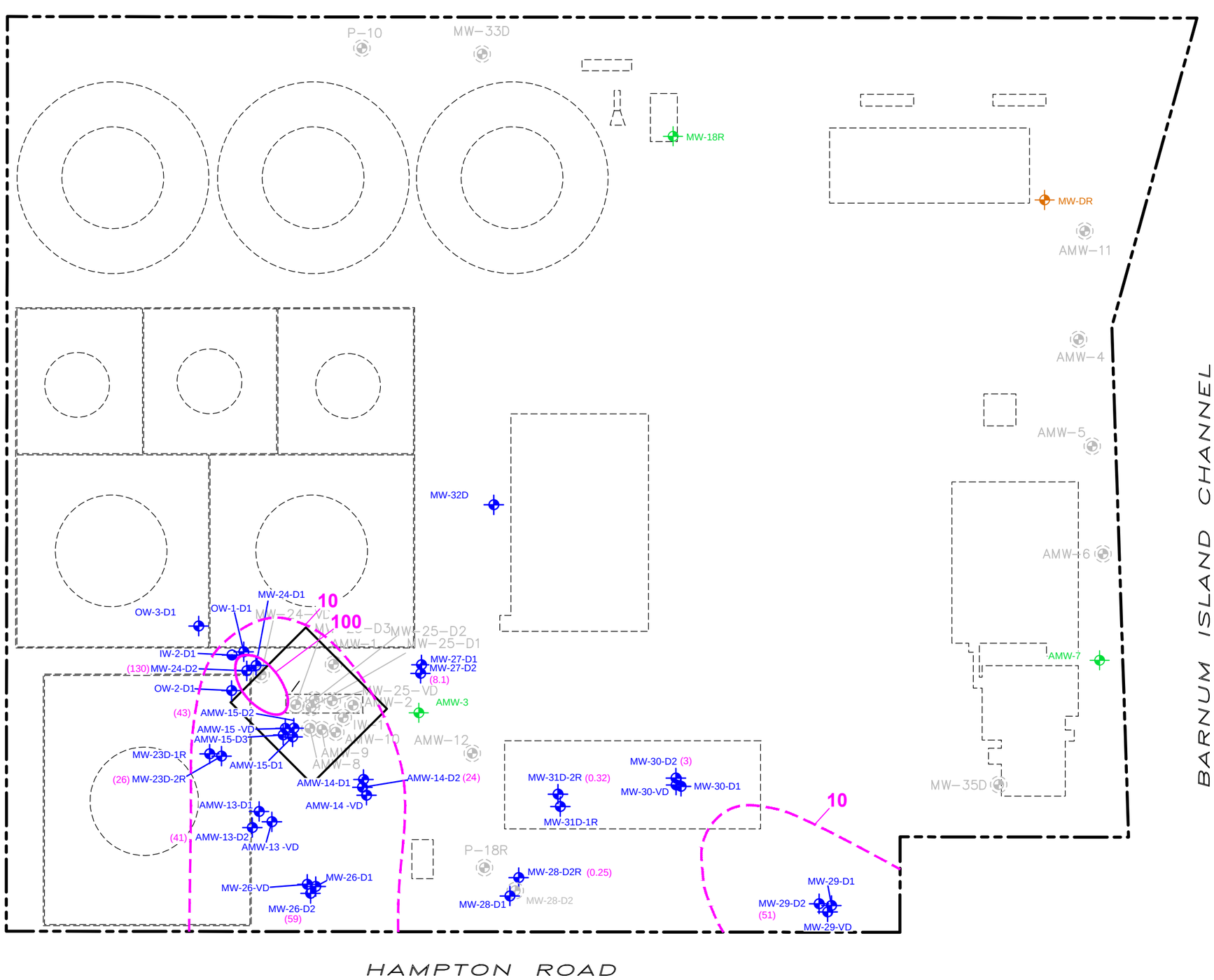

LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- LIMITS OF EXCAVATION
- HISTORICAL SITE FEATURE
- (4.8) MTBE CONCENTRATION ug/L (ND = NOT DETECTED)
- 1 MTBE CONCENTRATION CONTOUR

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN–GULF OIL COMPANY–U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
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0 60' 120'

GRAPHIC SCALE

GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

MTBE CONCENTRATIONS IN GROUNDWATER - D2 HORIZON - 2016

ARCADIS Design & Consultancy for natural and built assets

FIGURE
I-6

CITY: SYRACUSE, NY DIV/GROUP: ENV/IM-DV DB: L.FORAKER, R. ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*;OFF=*REF*
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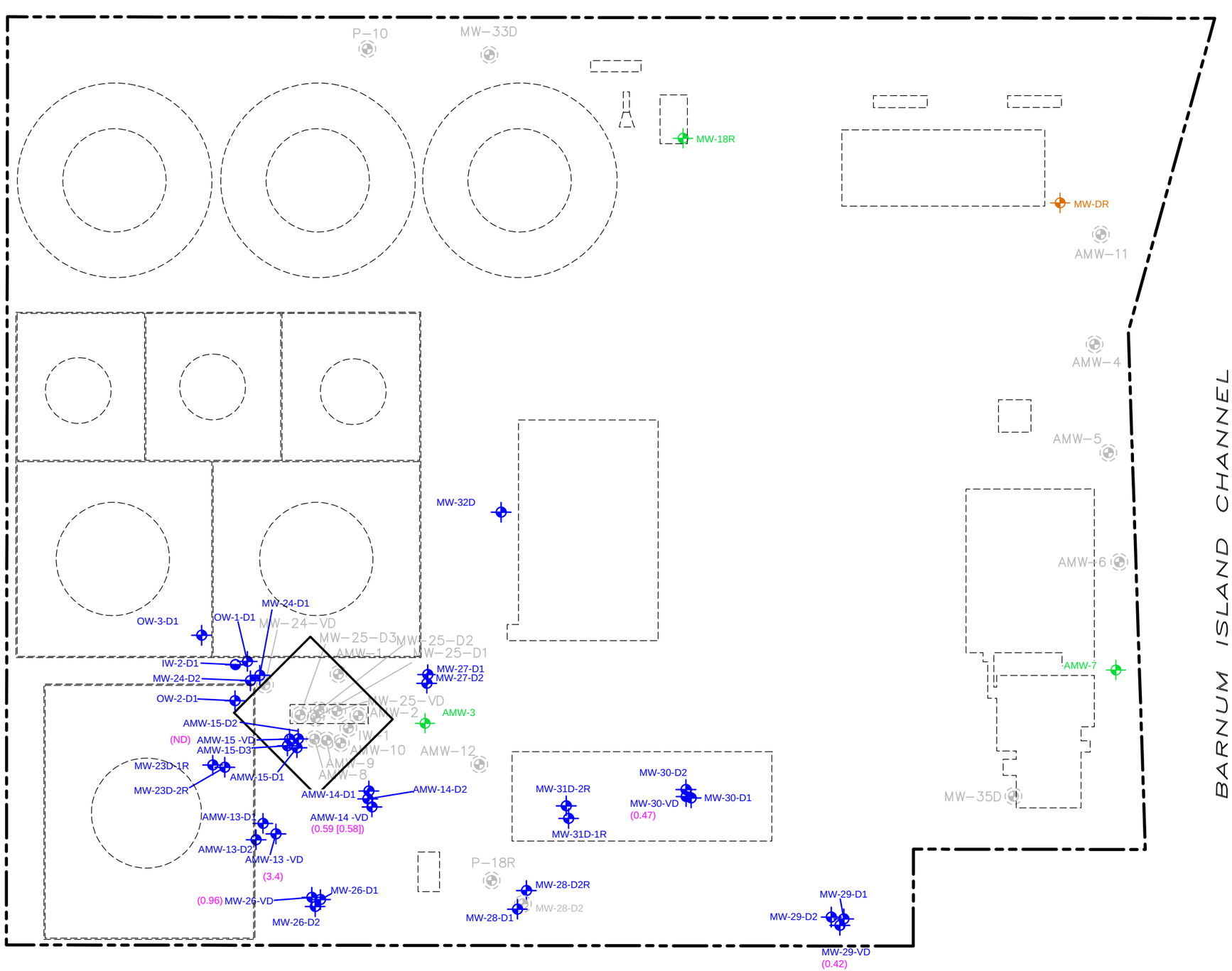

LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- LIMITS OF EXCAVATION
- HISTORICAL SITE FEATURE
- (4.8) MTBE CONCENTRATION ug/L (ND = NOT DETECTED)

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN–GULF OIL COMPANY–U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. HISTORICAL SITE LAYOUT AND SAMPLE LOCATIONS ARE APPROXIMATE.
3. MONITORING WELL LOCATIONS SURVEYED BY AMERICAN ENGINEERING AND SURVEY.
4. CONCENTRATIONS SHOWN ARE FROM THE MOST RECENT GROUNDWATER SAMPLES COLLECTED IN 2016.

0 60' 120'

GRAPHIC SCALE

GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

MTBE CONCENTRATIONS IN GROUNDWATER - VD HORIZON - 2016

ARCADIS Design & Consultancy for natural and built assets

FIGURE
I-7

CITY: SYRACUSE, NY DIV/GROUP: ENV/IM-DV DB: L. FORAKER, R. ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*; OFF=*REF*
C:\ENVCAD\SYRACUSE\ACTIB\0047517\0023000010\DWG\47517W15.DWG LAYOUT: I-7 SAVED: 12/12/2016 10:43 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: C-LB-PDF-GMS PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 12/12/2016 10:48 PM BY: STOWELL, GARY
XREFS: IMAGES:
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