October 10, 2017

Mr. Henry Wilkie
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233-7015

Subject: **Progress Report – September 2017**
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, New York
NYSDEC Site #130165

Dear Mr. Wilkie:

On behalf of Chevron Environmental Management Company (CEMC), Leidos, Inc. is submitting this Progress Report to the New York State Department of Environmental Conservation (NYSDEC) in accordance with the Order on Consent and Administrative Settlement for the former Gulf Oil Terminal in Oceanside, New York (NYSDEC Site #130165).

ACTIONS TAKEN THIS PERIOD

- Coordinated with NYSDEC and other stakeholders.
- Planning and coordination of re-installation of damaged wells.
- Accessible monitoring wells were gauged during high tide, and hydra-sleeves™ were installed in 16 wells (AMW-14-D1, AMW-14-D2, AMW-14-VD, AMW-15-D1, AMW-15-D2, AMW-15-D3, AMW-15-VD, MW-23-D1R, MW-23-D2R, MW-24-D2, MW-26-D1, MW-26-D2, MW-27-D2, MW-28-D1, MW-28-D2R, and MW-29-D1) on September 7, 2017. A hydra-sleeve™ could not be installed in MW-27-D1 due to an obstruction in the well at approximately 8 feet below ground surface.
- Surveying ground and top-of-casing elevations of all existing monitoring wells was completed on September 6, 2017.

ACTIONS PLANNED FOR NEXT PERIOD

- Coordinate with NYSDEC and other stakeholders.
- Re-installation of monitoring wells AMW-7, MW-18R, MW-24-D1, MW-24-VD, and OW-3-D1 planned for October 29, 2017.
- Gauging of accessible wells, removal of Hydrasleeves™ installed in wells on September 7, 2017, and deployment of new Hydrasleeves™ planned after monitoring well re-installations are completed.
- Meeting with NYSDEC to provide a conceptual site model and discuss postponing the feasibility study, anticipated in mid-November.

APPROVED MODIFICATIONS TO WORK PLANS AND/OR SCHEDULES

- None

RESULTS OF SAMPLING, TESTING, OR OTHER DATA GENERATED THIS PERIOD

Hydrasleeves™ were removed and groundwater samples collected on August 27, 2017 from 17 wells (AMW-14-D1, AMW-14-D2, AMW-14-VD, AMW-15-D1, AMW-15-D2, AMW-15-D3, AMW-15-VD, MW-23-D1R, MW-23-D2R, MW-24-D2, MW-26-D1, MW-26-D2, MW-27-D1, MW-27-D2, MW-28-D1, MW-28-D2R, and MW-29-D1). Monitoring wells AMW-7, MW-18R, and MW-24-D1 were not sampled due to well damage at time of Hydrasleeve™ deployment. Concentrations exceeding the NYSDEC TOGS 1.1.1 Water Guidance Values were detected in groundwater samples analyzed from 12 of the 17 monitoring wells sampled (AMW-14-D1, AMW-14-D2, AMW-15-D1, AMW-15-D2, AMW-15-D3, MW-23-D1R, MW-23-D2R, MW-24-D2, MW-26-D1, MW-27-D1, MW-28-D1, and MW-29-D1). The reported groundwater results from monitoring wells AMW-14-VD, AMW-15-VD, MW-26-D2, MW-27-D2, and MW-28-D2R did not exhibit concentrations above TOGS Water Guidance Values. Exceedances of the TOGS Water Guidance Values are summarized below:

- Concentrations exceeding the TOGS Water Guidance Value for benzene (1 microgram per liter [µg/L]) were detected in groundwater samples analyzed from AMW-15-D1 (12 µg/L), AMW-15-D2 (9.8 µg/L), AMW-15-D3 (3.7J µg/L), MW-26-D1 (9.5J µg/L), MW-27-D1 (1.6J µg/L), MW-28-D1 (2.7J µg/L), and MW-29-D1 (19 µg/L). Results flagged "J" are estimated values less than the reporting limit but greater than or equal to the method detection limit.
- Concentrations exceeding the TOGS Water Guidance Value for cis-1,2-dichloroethene (5 µg/L) were detected in groundwater samples analyzed from AMW-15-D1 (5.1 µg/L) and AMW-15-D3 (19 µg/L).

- A concentration exceeding the TOGS Water Guidance Value for ethylbenzene (5 µg/L) was detected in the groundwater sample analyzed from AMW-15-D2 (5.1 µg/L).
- A concentration exceeding the TOGS Water Guidance Value for isopropylbenzene (5 µg/L) was detected in the groundwater sample analyzed from MW-29-D1 (9.3 µg/L).

- Concentrations exceeding the TOGS Water Guidance Value for methyl tert-butyl ether (MTBE) (10 µg/L) were detected in groundwater samples analyzed from AMW-14-D1 (170 µg/L), AMW-14-D2 (14 µg/L), AMW-15-D1 (200 µg/L), AMW-15-D2 (350 µg/L), AMW-15-D3 (64 µg/L), MW-23-D1R (130 µg/L), MW-23-D2R (72 µg/L), MW-24-D2 (87 µg/L), MW-26-D1 (240 µg/L), MW-27-D1 (100 µg/L), and MW-29-D1 (28 µg/L). Migration of MTBE from up-gradient, off-site, potential sources is being evaluated.
- Concentrations exceeding the TOGS Water Guidance Value for toluene (5 µg/L) were detected in groundwater samples analyzed from AMW-15-D1 (17 µg/L) and AMW-15-D2 (7.8 µg/L).
- Concentrations exceeding the TOGS Water Guidance Value for trans-1,2-dichloroethene (5 µg/L) were detected in groundwater samples analyzed from AMW-15-D1 (28 µg/L) and AMW-15-D2 (5.5 µg/L).
- A concentration exceeding the TOGS Water Guidance Value for trichloroethene (5 µg/L) was detected in the groundwater sample analyzed from AMW-15-D3 (140 µg/L).
- Concentrations exceeding the TOGS Water Guidance Value for vinyl chloride (2 µg/L) were detected in groundwater samples analyzed from AMW-14-D1 (7.6 µg/L), AMW-15-D1 (76 µg/L), AMW-15-D2 (300 µg/L), AMW-15-D3 (16 µg/L), MW-24-D2 (72 µg/L), and MW-27-D1 (110 µg/L).
- Concentrations exceeding the TOGS Water Guidance Value for xylenes (5 µg/L) were detected in groundwater samples analyzed from AMW-15-D1 (17 µg/L), AMW-15-D2 (12 µg/L), and AMW-15-D3 (17 µg/L).
- It should be noted that PCE was not detected in any well during the August 2017 sampling event.

Analytical results for the groundwater samples collected in August 2017 are summarized in the attached Table 1 and Figure 1.

Accessible monitoring wells were gauged on September 7, 2017 during high tide. Phase-separated hydrocarbons (PSH) were not detected in any monitoring wells during gauging. Gauging data, as well as the July 2017 gauging data, is presented in Table 2. Groundwater contour maps will be submitted in the next progress report.

UNRESOLVED DELAYS ENCOUNTERED OR ANTICIPATED

- None.

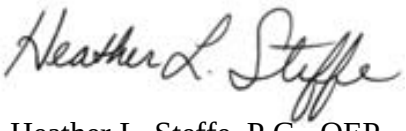
ACTIVITIES UNDERTAKEN IN SUPPORT OF CITIZEN PARTICIPATION PLAN

- None.

If you have any questions regarding this progress report or require further information, please do not hesitate to contact me at (717) 901-8829 or steffeh@leidos.com.

Sincerely,

Leidos, Inc.



Heather L. Steffe, P.G., QEP
Senior Project Manager

Attachments: Table 1 - Summary of Pre-FS Groundwater Analytical Data
Table 2 - Summary of July and September 2017 Groundwater Gauging Data
Figure 1 - VOC TOGS Exceedances in Pre-FS Groundwater Samples

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TABLE 1
SUMMARY OF PRE-FS GROUNDWATER ANALYTICAL DATA
FORMER GULF OIL TERMINAL
OCEANSIDE, TOWNSHIPO OF HEMPSTEAD, NY

Location ID:	NYSDEC		AMW-14-D1	AMW-14-D1	AMW-14-D2	AMW-14-VD	AMW-14-VD	AMW-15-D1	AMW-15-D1	AMW-15-D1	AMW-15-D1	AMW-15-D2	AMW-15-D2	AMW-15-D2	AMW-15-D2	AMW-15-D3	AMW-15-VD	MW-23-D1R	MW-23-D1R	MW-23-D1R	MW-23-D1R	MW-23-D2R	MW-23-D2R	MW-24-D1
Approximate Screen Interval (Feet below top of casing):	TOGS 1.1.1 Water Guidance		21.5 - 31.5	21.5 - 31.5	31.5 - 41.5	63.5 - 73.5	63.5 - 73.5	23 - 33	23 - 33	23 - 33	23 - 33	30 - 40	29.5 - 39.5	29.5 - 39.5	29.5 - 39.5	39.5 - 49.5	60 - 70	20 - 30	20 -30	20 - 30	20 - 30	34.5 - 44.5	34.5 - 44.5	20.5 - 30.5
Date Collected:	Values	Units	07/05/17	08/27/17	08/27/17	07/05/17	08/27/17	10/26/16	10/26/16	07/05/17	08/27/17	10/26/16	10/26/16	07/05/17	08/27/17	08/27/17	08/27/17	10/26/16	10/26/16	07/05/17	08/27/17	07/05/17	08/27/17	10/26/16
Field Notes			Hydrasleeve	Hydrasleeve	Hydrasleeve	Hydrasleeve	Hydrasleeve	Hydrasleeve	Low Flow	Hydrasleeve	Hydrasleeve	Hydrasleeve	Low Flow	Hydrasleeve	Hydrasleeve	Hydrasleeve	Hydrasleeve	Hydrasleeve	Low Flow	Hydrasleeve	Hydrasleeve	Hydrasleeve	Hydrasleeve	Hydrasleeve
Volatile Organics																								
1,1,1-Trichloroethane	5	ug/L	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	10 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	1.0 U	4.0 U	1.0 U [1.0 U]
1,1,2,2-Tetrachloroethane	5	ug/L	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	10 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	1.0 U	4.0 U	1.0 U [1.0 U]
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	10 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	1.0 U	4.0 U	1.0 U [1.0 U]
1,1,2-Trichloroethane	1	ug/L	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	10 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	1.0 U	4.0 U	1.0 U [1.0 U]
1,1-Dichloroethane	5	ug/L	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	10 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	1.0 U	4.0 U	**0.74 J [0.56 J]**
1,1-Dichloroethene	5	ug/L	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	10 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	1.0 U	4.0 U	1.0 U [1.0 U]
1,2,4-Trichlorobenzene	5	ug/L	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	10 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	1.0 U	4.0 U	1.0 U [1.0 U]
1,2-Dibromo-3-chloropropane	0.04	ug/L	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	10 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	1.0 U	4.0 U	1.0 U [1.0 U]
1,2-Dibromoethane	0.0006	ug/L	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	10 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	1.0 U	4.0 U	1.0 U [1.0 U]
1,2-Dichlorobenzene	3	ug/L	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	10 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	1.0 U	4.0 U	1.0 U [1.0 U]
1,2-Dichloroethane	0.6	ug/L	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	10 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	1.0 U	4.0 U	1.0 U [1.0 U]
1,2-Dichloropropane	1	ug/L	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	10 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	1.0 U	4.0 U	1.0 U [1.0 U]
1,3-Dichlorobenzene	3	ug/L	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	10 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	1.0 U	4.0 U	1.0 U [1.0 U]
1,4-Dichlorobenzene	3	ug/L	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	10 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	1.0 U	4.0 U	1.0 U [1.0 U]
2-Butanone	50	ug/L	40 U	40 U	10 U	10 U	10 U	100 U	40 U	40 U	40 U	10 U	10 U	40 U	40 U	40 U	10 U	20 U	50 U	40 U	40 U	10 U	40 U	10 U [10 U]
2-Hexanone	50	ug/L	20 U	20 U	5.0 U	5.0 U	5.0 U	50 U	20 U	20 U	20 U	5.0 U	5.0 U	20 U	20 U	20 U	5.0 U	10 U	25 U	20 U	20 U	5.0 U	20 U	5.0 U [5.0 U]
4-Methyl-2-pentanone	- -	ug/L	20 U	20 U	5.0 U	5.0 U	5.0 U	50 U	20 U	20 U	20 U	5.0 U	5.0 U	20 U	20 U	20 U	5.0 U	10 U	25 U	20 U	20 U	5.0 U	20 U	5.0 U [5.0 U]
Acetone	50	ug/L	40 U	40 U	10 U	**3.7 J**	10 U	100 U	40 U	40 U	40 U	**13**	**5.1 J**	40 U	40 U	40 U	**36 J**	10 U	20 U	50 U	40 U	40 U	**4 J**	40 U	10 U [10 U]
Benzene	1	ug/L	**2.0 J**	4.0 U	1.0 U	1.0 U	1.0 U	**11**	**5.1**	4.0 U	**12**	1.0 U	**0.47 J**	4.0 U	**9.8**	**3.7 J**	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	1.0 U	4.0 U	**4.9 [4.1]**
Bromodichloromethane	50	ug/L	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	10 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	1.0 U	4.0 U	1.0 U [1.0 U]
Bromoform	50	ug/L	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	10 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	1.0 U	4.0 U	1.0 U [1.0 U]
Bromomethane	5	ug/L	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	10 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	1.0 U	4.0 U	1.0 U [1.0 U]
Carbon Disulfide	60	ug/L	4.0 U	4.0 U	**2.7**	**0.25 J**	1.0 U	10 U	**1.7 J**	4.0 U	**2.7 J**	**0.75 J**	**0.42 J**	4.0 U	4.0 U	**1.8 J**	1.0 U	**0.53 J**	5.0 U	4.0 U	4.0 U	1.0 U	4.0 U	**1.3 [1.7]**
Carbon Tetrachloride	5	ug/L	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	10 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	1.0 U	4.0 U	1.0 U [1.0 U]
Chlorobenzene	5	ug/L	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	10 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	1.0 U	4.0 U	1.0 U [1.0 U]
Chloroethane	5	ug/L	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	10 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	1.0 U	4.0 U	1.0 U [1.0 U]
Chloroform	7	ug/L	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	10 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	1.0 U	4.0 U	1.0 U [1.0 U]
Chloromethane	5	ug/L	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	10 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	1.0 U	4.0 U	1.0 U [1.0 U]
cis-1,2-Dichloroethene	5	ug/L	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	**81**	**38**	4.0 U	**5.1**	**0.86 J**	**1.6**	4.0 U	4.0 U	**19**	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	1.0 U	4.0 U	**6.1 [4.0]**
cis-1,3-Dichloropropene	0.4	ug/L	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	10 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	1.0 U	4.0 U	1.0 U [1.0 U]
Cyclohexane	- -	ug/L	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	10 U	**2.0 J**	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	1.0 U	**0.40 J**	5.0 U	4.0 U	4.0 U	1.0 U	4.0 U	**1.4 [1.6]**
Dibromochloromethane	50	ug/L	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	10 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	1.0 U	4.0 U	1.0 U [1.0 U]
Dichlorodifluoromethane	5	ug/L	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	10 U*	4.0 U*	4.0 U	4.0 U	1.0 U*	1.0 U*	4.0 U	4.0 U	4.0 U	1.0 U	2.0 U*	5.0 U*	4.0 U	4.0 U	1.0 U	4.0 U	1.0 U* [1.0 U*]
Ethylbenzene	5	ug/L	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	10 U	4.0 U	4.0 U	**4.1**	1.0 U	1.0 U	4.0 U	**5.1**	**3.4 J**	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	1.0 U	4.0 U	**2.2 [2.3]**
Isopropylbenzene	5	ug/L	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	10 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	1.0 U	4.0 U	1.0 U [1.0 U]
Methyl acetate	- -	ug/L	10 U	10 U	2.5 U	2.5 U	2.5 U	25 U	10 U	10 U	10 U	2.5 U	2.5 U	10 U	10 U	10 U	2.5 U	5.0 U	13 U	10 U	10 U	2.5 U	10 U	2.5 U [2.5 U]
Methyl tert-butyl ether	10	ug/L	**170**	**170**	**14**	**0.51 J**	**0.42 J**	**110**	**180**	**170**	**200**	**42**	**110**	**120**	**350**	**64**	**1.2**	**140**	**180**	**140**	**130**	**8.0**	**72**	**120 [150]**
Methylcyclohexane	- -	ug/L	4.0 U	4.0 U	**0.27 J**	1.0 U	1.0 U	**3.3 J**	**0.87 J**	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	1.0 U	4.0 U	**0.66 J [0.64 J]**
Methylene Chloride	5	ug/L	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	**8.9 J**	**4.1**	4.0 U	**2.2 J**	1.0 U	1.0 U	4.0 U	4.0 U	**2.4 J**	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	1.0 U	4.0 U	1.0 U [1.0 U]
Styrene	5	ug/L	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	10 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	1.0 U	4.0 U	1.0 U [1.0 U]
Tetrachloroethene	5	ug/L	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	10 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	1.0 U	4.0 U	1.0 U [1.0 U]
Toluene	5	ug/L	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	**18**	**6.6**	4.0 U	**17**	1.0 U	1.0 U	4.0 U	**7.8**	4.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	1.0 U	4.0 U	**0.64 J [0.68 J]**
trans-1,2-Dichloroethene	5	ug/L	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	10 U	4.0 U	4.0 U	**28**	1.0 U	1.0 U	4.0 U	**5.5**	4.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	1.0 U	4.0 U	**6.8 [6.5]**
trans-1,3-Dichloropropene	0.4	ug/L	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	10 UF1	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	1.0 U	4.0 U	1.0 U [1.0 U]
Trichloroethene	5	ug/L	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	**48**	**18**	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	4.0 U	**140**	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	1.0 U	4.0 U	1.0 U [1.0 U]
Trichlorofluoromethane	5	ug/L	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	10 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	1.0 U	4.0 U	1.0 U [1.0 U]
Vinyl Chloride	2	ug/L	**78**	**7.6**	1.0 U	1.0 U	1.0 U	**600 F1**	**240**	**10**	**76**	**4.7**	**30**	4.0 U	**300**	**16**	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	1.0 U	4.0 U	**15 [33]**
Xylenes (total)	5	ug/L	**3.2 J**	8.0 U	2.0 U	2.0 U	2.0 U	**15 J**	**5.5 J**	8.0 U	**17**	2.0 U	2.0 U	8.0 U	**12**	**17**	2.0 U	4.0 U	10 U	8.0 U	8.0 U	2.0 U	8.0 U	**6.6 [7.2]**
Inorganics																								
Iron, Dissolved	0.3	mg/L	NA	NA	NA	NA	NA	**1.9 B**	**0.095 B**	NA	NA	**0.050 B**	0.050 U	NA	NA	NA	NA	0.050 U	**0.24 B**	NA	NA	NA	NA	**0.058 B** [0.050 U]
Iron,Total	0.3	mg/L	**4.7**	**5.2**	**0.034 J**	**11.3**	**17.0**	NA	NA	**2.1**	**12.4**	NA	NA	**0.70**	**3.5**	**2.3**	**11.8**	NA	NA	**17.1**	**33.9**	**4.4**	**1.8**	NA
Manganese, Dissolved	0.3	mg/L	NA	NA	NA	NA	NA	**0.070 B**	**0.11 B**	NA	NA	**0.085 B**	**0.098 B**	NA	NA	NA	NA	**0.021 B**	**0.67 B**	NA	NA	NA	NA	**0.0089 B [0.049 B]**
Manganese, Total	0.3	mg/L	**0.048**	**0.049 B**	**0.016 B**	**0.30**	**0.42 B**	NA	NA	**0.084**	**0.17 B**	NA	NA	**0.11**	**0.14 B**	**0.45 B**	**0.35 B**	NA	NA	**3.1**	**2.2 B**	**0.21**	**0.17 B**	NA
Sodium	20	mg/L	**1,690^**	**1,730**	**13.5**	**4,800^**	**9,160**	NA	NA	**1,750^**	**1,520**	NA	NA	**2,090 ^**	**2,200**	**2980 ^**	**8,910**	NA	NA	**1,190^**	**1,190 ^**	**2,190^**	**1930 ^**	NA
General Chemistry																								
Alkalinity	- -	mg/L	**716 B**	**563 B**	**439 B**	**440 B**	**415 B**	**130**	**528**	**597**	**471 B**	**99.9**	**600**	**687**	**673 B**	**408 B**	**135 B**	**555**	**525**	**500**	**512 B**	**520**	**434 B**	**324 [526]**
Alkalinity, Bicarbonate	- -		NA	NA	NA	NA	NA	**130**	**528**	NA	NA	**99.9**	**600**	NA	NA	NA	NA	**555**	**525**	NA	NA	NA	NA	**324 [526]**
Carbon Dioxide	- -	mg/L	**130**	**79**	**18**	**120**	**100**	NA	NA	**110**	**27**	NA	NA	**98**	**94**	**5.1**	**31**	NA	NA	**82**	**75**	**130**	**110**	NA
Chloride	250	mg/L	**3,060**	**3,130**	**4,930**	**15,200**	**15,400**	NA	NA	**73.2**	**2,480**	NA	NA	**3,700**	**3,650**	**4,230**	**16,100**	NA	NA	**1,970**	**2,190**	**5,260**	**5,420**	NA
Ethane	- -	mg/L	0.15 U	0.33 U	0.083 U	0.0075 U	0.0075 U	NA	NA	0.15 U	**0.092 J**	NA	NA	0.15 U	0.17 U	0.33 U	0.0075 U	NA	NA	0.15 U	0.083 U	0.038 U	0.083 U	NA
Ethene	- -	mg/L	0.14 U	**0.2 J**	0.077 U	0.0070 U	0.0070 U	NA	NA	0.14 U	**0.83**	NA	NA	0.14 U	**0.037 J**	0.31 U	0.0070 U	NA	NA	0.14 U	0.077 U	0.035 U	0.077 U	NA
Methane	- -	mg/L	**1.1**	**0.55**	**0.21**	**0.020**	**0.018**	NA	NA	**0.4**	**4**	NA	NA	**0.43**	**0.88**	**2.4**	**0.024**	NA	NA	**0.15**	**1.5**	**0.073**	**0.36**	NA
Ferric Iron	- -		**4.5**	**5.2**	0.10 U	**11.3**	**12.3**	NA	NA	**2.1**	**12.4**	NA	NA	**0.53**	**3.5**	**2.3**	**11.5**	NA	NA	**17.1**	**31.9**	**4.2**	**1.8**	NA
Ferrous Iron	- -		**0.17 HF**	0.1 U HF	0.1 U HF	0.10 U HF	**4.7 HF**	NA	NA	0.10 U HF F1	0.50 UHF	NA	NA	**0.17 HF**	0.10 U HF	0.5 U HF	**0.28 HF**	NA	NA	0.10 U HF	**2 HF**	**0.17 HF**	0.1 U HF	NA
Nitrate Nitrogen	10	mg/L	0.050 U	0.050 UH	0.050 UH	0.050 U	0.050 UH	NA	NA	0.050 U	0.050 UH	NA	NA	0.050 U	0.050 U H	0.05 U H	0.05 U H	NA	NA	0.050 U	**0.023 J H**	0.050 U	**0.037 J H**	NA
Nitrite Nitrogen	1	mg/L	0.050 U	0.050 UH	0.050 UH	0.050 U	0.050 UH	NA	NA	0.050 U	0.050 UH	NA	NA	0.050 U	0.050 U H	0.050 U H	0.050 U H	NA	NA	0.050 U	0.050 U H	0.050 U	0.050 U H	NA
Total Organic Carbon	- -	mg/L	**13.1 B**	**10.6 B**	**7.8 B**	**3.4 B**	**4.0 B**	NA	NA	**9.4 B**	**53.4 B**	NA	NA	**10.3 B**	**10.9 B**	**34.3 B**	**3.5 B**	NA	NA	**16.1 B**	**17.3 B**	**5.2 B**	**6.1 B**	NA
Sulfate	250	mg/L	**140**	**251**	**507**	**1,830**	**2,000**	**63**	**164**	**1,640**	**156**	**243**	**216**	**269**	**237**	**495**	**2,140**	**148**	**156**	**259**	**173**	**861**	**665**	**248 [217]**
Sulfide	0.05	mg/L	**38**	**56.4**	**4.2**	**0.80 J**	1.0 U	**8**	**36**	**42**	**53.2**	**12.8**	**36**	**34**	**58**	**16.4**	1 U	**6.4**	**13.6**	**8.4**	**15.4**	**29.6**	**36.2**	**60 [64 F1]**

Notes:
ug/L: micrograms per liter.
mg/L: milligrams per liter.
U: Indicates the analyte was analyzed for but not detected.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.
F1: MS and/or MSD recovery is outside acceptance limits.
B: Compound was found in the blank and sample.
H: Sample was prepped or analyzed beyond specified holding time.
HF: Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
*: LCS or LCSD is outside acceptance limits.
^: ICV, CCV, ICB, CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related quality control is outside acceptance limits.
Bolded value: indicates a result above laboratory detection limits.
Shaded cells: Indicates result above the referenced standard.

TABLE 1
SUMMARY OF PRE-FS GROUNDWATER ANALYTICAL DATA
FORMER GULF OIL TERMINAL
OCEANSIDE, TOWNSHIPO OF HEMPSTEAD, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values		MW-24-D1	MW-24-D2	MW-24-D2	MW-24-D2	MW-24-D2	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-27-D1	MW-27-D1	MW-27-D2	MW-27-D2	MW-28-D1	MW-28-D1	MW-28-D2R	MW-28-D2R	MW-29-D1	MW-29-D1	MW-29-D1	MW-29-D1
Approximate Screen Interval (Feet below top of casing):			20.5 - 30.5	36 - 46	36 - 46	36 - 46	36 - 46	18.5 - 28.5	18.5 - 28.5	18.5 - 28.5	18.5 - 28.5	34 - 44	34 - 44	34 - 44	34 - 44	21.5 - 31.5	21.5 - 31.5	36.5 - 46.5	36.5 - 46.5	21 - 31	21 - 31	36 -46	36 - 46	20.5 - 30.5	20.5 - 30.5	20.5 - 30.5	20.5 - 30.5
Date Collected:		Units	10/26/16	10/25/16	10/25/16	07/05/17	08/27/17	10/25/16	10/25/16	07/05/17	08/27/17	10/25/16	10/25/16	07/05/17	08/27/17	07/05/17	08/27/17	07/05/17	08/27/17	07/05/17	08/27/17	07/05/17	08/27/17	10/26/16	10/26/16	07/05/17	08/27/17
Field Notes			Low Flow	Hydrasleeve	Low Flow	Hydrasleeve	Hydrasleeve	Hydrasleeve	Low Flow	Hydrasleeve	Hydrasleeve	Hydrasleeve	Low Flow	Hydrasleeve	Hydrasleeve	Hydrasleeve	Hydrasleeve	Hydrasleeve	Hydrasleeve	Hydrasleeve	Hydrasleeve	Hydrasleeve	Hydrasleeve	Hydrasleeve	Low Flow	Hydrasleeve	Hydrasleeve
Volatile Organics																											
1,1,1-Trichloroethane	5	ug/L	4.0 U	4.0 U	5.0 U	8.0 U	8.0 U	10 U	4.0 U	10 U	10 U	2.0 U	2.0 U	1.0 U	8.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	1.0 U	1.0 U	2.0 U	2.0 U
1,1,2,2-Tetrachloroethane	5	ug/L	4.0 U	4.0 U	5.0 U	8.0 U	8.0 U	10 U	4.0 U	10 U	10 U	2.0 U	2.0 U	1.0 U	8.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	1.0 U	1.0 U	2.0 U	2.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	4.0 U	4.0 U	5.0 U	8.0 U	8.0 U	10 U	4.0 U	10 U	10 U	2.0 U	2.0 U	1.0 U	8.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	1.0 U	1.0 U	2.0 U	2.0 U
1,1,2-Trichloroethane	1	ug/L	4.0 U	4.0 U	5.0 U	8.0 U	8.0 U	10 U	4.0 U	10 U	10 U	2.0 U	2.0 U	1.0 U	8.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	1.0 U	1.0 U	2.0 U	2.0 U
1,1-Dichloroethane	5	ug/L	4.0 U	4.0 U	5.0 U	8.0 U	8.0 U	10 U	4.0 U	10 U	10 U	2.0 U	2.0 U	1.0 U	8.0 U	2.0 U	2.0 U	1.0 U	1.0 U	**0.58 J**	4.0 U	1.0 U	4.0 U	1.0 U	1.0 U	2.0 U	2.0 U
1,1-Dichloroethene	5	ug/L	4.0 U	4.0 U	5.0 U	8.0 U	8.0 U	10 U	4.0 U	10 U	10 U	2.0 U	2.0 U	1.0 U	8.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	1.0 U	1.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	5	ug/L	4.0 U	4.0 U	5.0 U	8.0 U	8.0 U	10 U	4.0 U	10 U	10 U	2.0 U	2.0 U	1.0 U	8.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	1.0 U	1.0 U	2.0 U	2.0 U
1,2-Dibromo-3-chloropropane	0.04	ug/L	4.0 U	4.0 U	5.0 U	8.0 U	8.0 U	10 U	4.0 U	10 U	10 U	2.0 U	2.0 U	1.0 U	8.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	1.0 U	1.0 U	2.0 U	2.0 U
1,2-Dibromoethane	0.0006	ug/L	4.0 U	4.0 U	5.0 U	8.0 U	8.0 U	10 U	4.0 U	10 U	10 U	2.0 U	2.0 U	1.0 U	8.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	1.0 U	1.0 U	2.0 U	2.0 U
1,2-Dichlorobenzene	3	ug/L	4.0 U	4.0 U	5.0 U	8.0 U	8.0 U	10 U	4.0 U	10 U	10 U	2.0 U	2.0 U	1.0 U	8.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	1.0 U	1.0 U	2.0 U	2.0 U
1,2-Dichloroethane	0.6	ug/L	4.0 U	4.0 U	5.0 U	8.0 U	8.0 U	10 U	4.0 U	10 U	10 U	2.0 U	2.0 U	1.0 U	8.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	1.0 U	1.0 U	2.0 U	2.0 U
1,2-Dichloropropane	1	ug/L	4.0 U	4.0 U	5.0 U	8.0 U	8.0 U	10 U	4.0 U	10 U	10 U	2.0 U	2.0 U	1.0 U	8.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	1.0 U	1.0 U	2.0 U	2.0 U
1,3-Dichlorobenzene	3	ug/L	4.0 U	4.0 U	5.0 U	8.0 U	8.0 U	10 U	4.0 U	10 U	10 U	2.0 U	2.0 U	1.0 U	8.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	1.0 U	1.0 U	2.0 U	2.0 U
1,4-Dichlorobenzene	3	ug/L	4.0 U	4.0 U	5.0 U	8.0 U	8.0 U	10 U	4.0 U	10 U	10 U	2.0 U	2.0 U	1.0 U	8.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	1.0 U	1.0 U	2.0 U	2.0 U
2-Butanone	50	ug/L	40 U	40 U	50 U	80 U	80 U	100 U	40 U	100 U	100 U	20 U	20 U	10 U	80 U	20 U	20 U	10 U	10 U	10 U	40 U	10 U	40 U	10 U	10 U	20 U	20 U
2-Hexanone	50	ug/L	20 U	20 U	25 U	40 U	40 U	50 U	20 U	50 U	50 U	10 U	10 U	5.0 U	40 U	10 U	10 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	20 U	5.0 U	5.0 U	10 U	10 U
4-Methyl-2-pentanone	- -	ug/L	20 U	20 U	25 U	40 U	40 U	50 U	20 U	50 U	50 U	10 U	10 U	5.0 U	40 U	10 U	10 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	20 U	5.0 U	5.0 U	10 U	10 U
Acetone	50	ug/L	40 U	**62**	**56**	80 U	80 U	100 U	40 U	100 U	100 U	**9.4 J**	**37**	10 U	80 U	20 U	20 U	10 U	10 U	10 U	40 U	10 U	40 U	10 U	10 U	20 U	20 U
Benzene	1	ug/L	4.0 U	4.0 U	**3.0 J**	8.0 U	8.0 U	**8.6 J**	**12**	**8.7 J**	**9.5 J**	2.0 U	2.0 U	1.0 U	8.0 U	**1.1 J**	**1.6 J**	1.0 U	1.0 U	**8.9**	**2.7 J**	1.0 U	4.0 U	**5.5**	**32**	**9.7**	**19**
Bromodichloromethane	50	ug/L	4.0 U	4.0 U	5.0 U	8.0 U	8.0 U	10 U	4.0 U	10 U	10 U	2.0 U	2.0 U	1.0 U	8.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	1.0 U	1.0 U	2.0 U	2.0 U
Bromoform	50	ug/L	4.0 U	4.0 U	5.0 U	8.0 U	8.0 U	10 U	4.0 U	10 U	10 U	2.0 U	2.0 U	1.0 U	8.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	1.0 U	1.0 U	2.0 U	2.0 U
Bromomethane	5	ug/L	4.0 U	4.0 U	5.0 U	8.0 U	8.0 U	10 U	4.0 U	10 U	10 U	2.0 U	2.0 U	1.0 U	8.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	1.0 U	1.0 U	2.0 U	2.0 U
Carbon Disulfide	60	ug/L	4.0 U	4.0 U	5.0 U	8.0 U	8.0 U	10 U	4.0 U	10 U	10 U	**0.6 J**	2.0 U	**0.37 J**	8.0 U	2.0 U	2.0 U	1.0 U	1.0 U	**0.40 J**	4.0 U	**0.38 J**	4.0 U	**0.21 J**	1.0 U	2.0 U	2.0 U
Carbon Tetrachloride	5	ug/L	4.0 U	4.0 U	5.0 U	8.0 U	8.0 U	10 U	4.0 U	10 U	10 U	2.0 U	2.0 U	1.0 U	8.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	1.0 U	1.0 U	2.0 U	2.0 U
Chlorobenzene	5	ug/L	4.0 U	4.0 U	5.0 U	8.0 U	8.0 U	10 U	4.0 U	10 U	10 U	2.0 U	2.0 U	1.0 U	8.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	1.0 U	1.0 U	2.0 U	2.0 U
Chloroethane	5	ug/L	4.0 U	4.0 U	5.0 U	8.0 U	8.0 U	10 U	4.0 U	10 U	10 U	2.0 U	2.0 U	1.0 U	8.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	1.0 U	1.0 U	2.0 U	2.0 U
Chloroform	7	ug/L	4.0 U	4.0 U	5.0 U	8.0 U	8.0 U	10 U	4.0 U	10 U	10 U	2.0 U	2.0 U	1.0 U	8.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	1.0 U	1.0 U	2.0 U	2.0 U
Chloromethane	5	ug/L	4.0 U	4.0 U	5.0 U	8.0 U	8.0 U	10 U	4.0 U	10 U	10 U	2.0 U	2.0 U	1.0 U	8.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	1.0 U	1.0 U	2.0 U	2.0 U
cis-1,2-Dichloroethene	5	ug/L	4.0 U	4.0 U	5.0 U	8.0 U	8.0 U	10 U	4.0 U	10 U	10 U	2.0 U	2.0 U	1.0 U	8.0 U	**2.2**	**3.2**	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	1.0 U	1.0 U	2.0 U	2.0 U
cis-1,3-Dichloropropene	0.4	ug/L	4.0 U	4.0 U	5.0 U	8.0 U	8.0 U	10 U	4.0 U	10 U	10 U	2.0 U	2.0 U	1.0 U	8.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	1.0 U	1.0 U	2.0 U	2.0 U
Cyclohexane	- -	ug/L	4.0 U	4.0 U	5.0 U	8.0 U	8.0 U	10 U	4.0 U	10 U	10 U	2.0 U	2.0 U	1.0 U	8.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	**11**	**21**	**7.6**	**12**
Dibromochloromethane	50	ug/L	4.0 U	4.0 U	5.0 U	8.0 U	8.0 U	10 U	4.0 U	10 U	10 U	2.0 U	2.0 U	1.0 U	8.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	1.0 U	1.0 U	2.0 U	2.0 U
Dichlorodifluoromethane	5	ug/L	4.0 U*	4.0 U	5.0 U	8.0 U	8.0 U	10 U	4.0 U	10 U	10 U	2.0 U	2.0 U	1.0 U	8.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	1.0 U*	1.0 U*	2.0 U	2.0 U
Ethylbenzene	5	ug/L	4.0 U	4.0 U	5.0 U	8.0 U	8.0 U	10 U	**3.0 J**	10 U	10 U	2.0 U	2.0 U	1.0 U	8.0 U	2.0 U	2.0 U	1.0 U	1.0 U	**1.2**	4.0 U	1.0 U	4.0 U	1.0 U	1.0 U	2.0 U	2.0 U
Isopropylbenzene	5	ug/L	4.0 U	4.0 U	5.0 U	8.0 U	8.0 U	10 U	4.0 U	10 U	10 U	2.0 U	2.0 U	1.0 U	8.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	**6.4**	**16**	**7.7**	**9.3**
Methyl acetate	- -	ug/L	10 U	10 U	13 U	20 U	20 U	25 U	10 U	25 U	25 U	5.0 U	5.0 U	2.5 U	20 U	5.0 U	5.0 U	2.5 U	2.5 U	2.5 U	10 U	2.5 U	10 U	2.5 U	2.5 U	5.0 U	5.0 U
Methyl tert-butyl ether	10	ug/L	**81**	**120**	**270**	**220**	**87**	**310**	**390**	**290**	**240**	**85**	**43**	1.0 U	8.0 U	**84**	**100**	1.0 U	1.0 U	**19**	**6.6**	1.0 U	4.0 U	**23**	**44**	**71**	**28**
Methylcyclohexane	- -	ug/L	4.0 U	4.0 U	5.0 U	8.0 U	8.0 U	10 U	4.0 U	10 U	10 U	2.0 U	2.0 U	1.0 U	8.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	**2.5**	**10**	**1.8 J**	**5.8**
Methylene Chloride	5	ug/L	4.0 U	**120**	**84 F1**	8.0 U	8.0 U	10 U	**3.6 J**	10 U	10 U	**15**	**81**	1.0 U	8.0 U	2.0 U	**0.94 J**	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	1.0 U	1.0 U	2.0 U	2.0 U
Styrene	5	ug/L	4.0 U	4.0 U	5.0 U	8.0 U	8.0 U	10 U	4.0 U	10 U	10 U	2.0 U	2.0 U	1.0 U	8.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	1.0 U	1.0 U	2.0 U	2.0 U
Tetrachloroethene	5	ug/L	4.0 U	4.0 U	5.0 U	8.0 U	8.0 U	10 U	4.0 U	10 U	10 U	2.0 U	2.0 U	1.0 U	8.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	1.0 U	1.0 U	2.0 U	2.0 U
Toluene	5	ug/L	4.0 U	4.0 U	5.0 U	8.0 U	8.0 U	10 U	4.0 U	10 U	10 U	2.0 U	2.0 U	1.0 U	8.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	**1.6**	**3.1**	**2.3**	**1.7 J**
trans-1,2-Dichloroethene	5	ug/L	4.0 U	4.0 U	5.0 U	8.0 U	8.0 U	10 U	4.0 U	10 U	10 U	2.0 U	2.0 U	1.0 U	8.0 U	2.0 U	**5.0**	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	1.0 U	1.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	0.4	ug/L	4.0 U	4.0 U	5.0 U	8.0 U	8.0 U	10 U	4.0 U	10 U	10 U	2.0 U	2.0 U	1.0 U	8.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	1.0 U	1.0 U	2.0 U	2.0 U
Trichloroethene	5	ug/L	4.0 U	4.0 U	5.0 U	8.0 U	8.0 U	10 U	4.0 U	10 U	10 U	2.0 U	2.0 U	1.0 U	8.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	1.0 U	1.0 U	2.0 U	2.0 U
Trichlorofluoromethane	5	ug/L	4.0 U	4.0 U	5.0 U	8.0 U	8.0 U	10 U	4.0 U	10 U	10 U	2.0 U	2.0 U	1.0 U	8.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	1.0 U	1.0 U	2.0 U	2.0 U
Vinyl Chloride	2	ug/L	4.0 U	**20**	**280 F1**	**250 F1**	**72**	**18**	**51**	**28**	10 U	2.0 U	2.0 U	1.0 U	8.0 U	**28**	**110**	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	4.0 U	1.0 U	1.0 U	2.0 U	2.0 U
Xylenes (total)	5	ug/L	8.0 U	8.0 U	10 U	16 U	16 U	20 U	8.0 U	20 U	20 U	4.0 U	4.0 U	2.0 U	16 U	4.0 U	4.0 U	2.0 U	2.0 U	2.0 U	8.0 U	2.0 U	8.0 U	**4.0**	**9.7**	**3.7 J**	**4.3**
Inorganics																											
Iron, Dissolved	0.3	mg/L	**0.024 JB**	**0.049 J**	0.050 U	NA	NA	0.050 U	0.050 U	NA	NA	**0.055**	0.050 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.050 U	**0.22 B**	NA	NA
Iron,Total	0.3	mg/L	NA	NA	NA	**1.8**	**6.6**	NA	NA	**0.23**	**0.64**	NA	NA	**0.97**	**0.97**	**2.8**	**1.3**	**12.4**	**11.6**	**3.6**	**0.74**	**6.8**	**6.0**	NA	NA	**0.46**	**2.4**
Manganese, Dissolved	0.3	mg/L	**0.059 B**	**0.062**	**0.056**	NA	NA	**0.025**	**0.037**	NA	NA	**0.063**	**0.14**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.0052 B**	**0.25 B**	NA	NA
Manganese, Total	0.3	mg/L	NA	NA	NA	**0.088**	**0.16 B**	NA	NA	**0.041**	**0.048 B**	NA	NA	**0.42**	**0.31 B**	**0.056**	**0.33 B**	**0.55**	**1.2 B**	**0.067**	**0.019 B**	**0.34**	**0.50 B**	NA	NA	**0.35**	**0.15 B**
Sodium	20	mg/L	NA	NA	NA	**2,520^**	**2,260**	NA	NA	**1,570^**	**1,500**	NA	NA	**3,930^**	**3,370**	**1,130^**	**960**	**2,690^**	**3,140^**	**418^**	**1,040 ^**	**3,810^**	**5,340**	NA	NA	**951^**	**2,470 ^**
General Chemistry																											
Alkalinity	- -	mg/L	**577**	**512**	**759**	**667**	**774 B**	**479**	**591**	**542**	**532 B**	NA	**653**	**348**	**379**	**394 B**	**884**	**408 B**	**303**	**457**	**365 H B**	**334**	**337 B**	**547**	**540**	**556**	**560 B**
Alkalinity, Bicarbonate	- -		**577**	**512**	**759**	NA	NA	**479**	**591**	NA	NA	NA	**653**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**547**	**540**	NA	NA
Carbon Dioxide	- -	mg/L	NA	NA	NA	**130**	**110**	NA	NA	**120**	**95**	NA	NA	**130**	**110**	**26**	**100**	**130**	**100**	**51**	**15**	**120**	**120**	NA	NA	**180**	**150**
Chloride	250	mg/L	NA	NA	NA	**4,060**	**4,100**	NA	NA	**2,520**	**2,530**	NA	NA	**9,010**	**7,980**	**2,860**	**5,640**	**6,330**	**9,140**	**3,120**	**3,310**	**9,090**	**11,300 B**	NA	NA	**1,610**	**1,580**
Ethane	- -	mg/L	NA	NA	NA	0.15 U	0.17 U	NA	NA	0.15U	0.17 U	NA	NA	0.0075 U	0.083 U	0.38 U	0.17 U	0.075 U	0.083 U	0.15 U	0.17 U	0.0075 U	0.083 U	NA	NA	0.300 U	0.66 U
Ethene	- -	mg/L	NA	NA	NA	0.14 U	0.15 U	NA	NA	0.14U	0.15 U	NA	NA	0.0070 U	0.077 U	0.35 U	0.15 U	0.070 U	0.077 U	0.14 U	0.15 U	0.0070 U	0.077 U	NA	NA	0.280 U	0.62 U
Methane	- -	mg/L	NA	NA	NA	**0.13**	**0.98**	NA	NA	**0.25**	**1.2**	NA	NA	**0.076**	**0.092**	**0.55**	**1.1**	**0.053**	**0.18**	**0.29**	**1**	**0.067**	**0.062**	NA	NA	**0.68**	**11**
Ferric Iron	- -		NA	NA	NA	**1.8**	**6.6**	NA	NA	**0.23**	**0.64**	NA	NA	**0.97**	**0.97**	**2.8**	**1.3**	**12.4**	**11.6**	**3.6**	**0.74**	**6.7**	**5.6**	NA	NA	**0.46**	**2.4**
Ferrous Iron	- -		NA	NA	NA	0.10 U HF	0.1 U HF	NA	NA	0.10 U HF	0.1 U HF	NA	NA	0.10 U HF	0.1 U HF	0.10 U HF	0.1 U HF	0.10 U HF	0.1 U HF F1	0.10 U HF	0.1 U HF	**0.092 J HF**	**0.42 HF**	NA	NA	0.10 U HF	0.1 U HF F1
Nitrate Nitrogen	10	mg/L	NA	NA	NA	0.050 U	0.05 U H	NA	NA	0.050 U	0.05 U H	NA	NA	0.050 U	0.05 U H	0.050 U	0.05 U H	0.050 U	0.05 U H	0.050 U	0.05 U H	0.050 U	0.05 U H	NA	NA	0.050 U	0.05 U H
Nitrite Nitrogen	1	mg/L	NA	NA	NA	0.050 U	0.050 U H	NA	NA	0.050 U	0.050 U H	NA	NA	0.050 U	0.050 U H	0.050 U	0.050 U H	0.050 U	0.050 U H	0.050 U	0.050 U H	0.050 U	0.050 U H	NA	NA	0.050 U	0.050 U H
Total Organic Carbon	--	mg/L	NA	NA	NA	**12.5 B**	**11.6 B**	NA	NA	**9.1 B**	**10.8 B**	NA	NA	**4.3 B**	**4.8 B**	**13.7 B**	**14.4 B**	**6.3 B**	**4.8 B**	**13.0 B**	**14.4 B**	**4.0 B**	**4.8 B**	NA	NA	**13.5 B**	**12.9 B**
Sulfate	250	mg/L	**219**	**374**	**270**	**541**	**346**	**252**	**131**	**313**	**203**	NA	**382**	**1,580**	**1,100**	**308**	**699**	**808**	**1,300**	**340**	**349**	**1,620**	**1,370**	**1.8 J**	5 U	100 U	100 U
Sulfide	0.05	mg/L	**56**	**48**	**64**	**84**	**61.8**	**48**	**56**	**44**	**43.2**	**40**	**36**	**24.4**	**16**	**14.4**	**1.4**	**12.8**	**16.6**	**4.0**	**18.2**	**2.4**	**4**	2 U	**1.2**	**0.8 J**	**101**

Notes:
ug/L: micrograms per liter.
mg/L: milligrams per liter.
U: Indicates the analyte was analyzed for but not detected.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.
F1: MS and/or MSD recovery is outside acceptance lmits.
B: Compound was found in the blank and sample.
H: Sample was prepped or analyzed beyond specified holding time.
HF: Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
*: LCS or LCSD is outside acceptance limits.
^: ICV, CCV, ICB, CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related quality control is outside acceptance limits.
Bolded value: indicates a result above laboratory detection limits.
Shaded cells: Indicates result above the referenced standard.

TABLE 2
SUMMARY OF JULY AND SEPTEMBER 2017 GROUNDWATER GAUGING DATA DURING HIGH TIDE
FORMER GULF OIL TERMINAL
OCEANSIDE, TOWNSHIP OF HEMPSTEAD, NEW YORK

Monitoring Well	Date	Well Diameter (in)	Well Depth (ft btoc)	Screen Interval (ft btoc)	Top of Casing Elevation (ft)*	Depth to Water (ft btoc)	Depth to PSH (ft btoc)	Measured PSH Thickness (ft)	Corrected Groundwater Elevation (ft amsl)
Shallow Fill Unit Monitoring Wells									
AMW-3	7/27/2017	2	12.75	7.75 - 12.75	9.05	5.47	NP	NP	3.58
	9/7/2017					5.74	NP	NP	3.31
AMW-7	7/27/2017	2	NAV	NAV	NAV	5.50	NP	NP	NAV
	9/7/2017					NG	NG	NG	NG
MW-18R	7/27/2017	2	NAV	NAV	NAV	NG	NG	NG	NG
	9/7/2017					NG	NG	NG	NG
D1 Horizon Monitoring Wells									
AMW-13-D1	7/27/2017	2	31.67	21.67 - 31.67	9.87	7.52	NP	NP	2.35
	9/7/2017					9.07	NP	NP	0.80
AMW-14-D1	7/27/2017	2	31.68	21.68 - 31.68	9.38	7.16	NP	NP	2.22
	9/7/2017					8.06	NP	NP	1.32
AMW-15-D1	7/27/2017	2	33.14	23.14 - 33.14	9.74	7.44	NP	NP	2.30
	9/7/2017					8.75	NP	NP	0.99
MW-23-D1R	7/27/2017	2	29.94	19.94 - 29.94	9.84	7.63	NP	NP	2.21
	9/7/2017					8.99	NP	NP	0.85
MW-24-D1	7/27/2017	2	30.61	20.61 - 30.61	9.81	NG	NG	NG	NG
	9/7/2017					NG	NG	NG	NG
MW-26-D1	7/27/2017	2	28.55	18.55 - 28.55	9.95	7.65	NP	NP	2.30
	9/7/2017					8.86	NP	NP	1.09
MW-27-D1	7/27/2017	2	31.53	21.53 - 31.53	9.03	6.88	NP	NP	2.15
	9/7/2017					7.23	NP	NP	1.80
MW-28-D1	7/27/2017	2	31.05	21.05 - 31.05	8.25	2.20	NP	NP	6.05
	9/7/2017					6.57	NP	NP	1.68

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OCEANSIDE, TOWNSHIP OF HEMPSTEAD, NEW YORK

Monitoring Well	Date	Well Diameter (in)	Well Depth (ft btoc)	Screen Interval (ft btoc)	Top of Casing Elevation (ft)*	Depth to Water (ft btoc)	Depth to PSH (ft btoc)	Measured PSH Thickness (ft)	Corrected Groundwater Elevation (ft amsl)
MW-29-D1	7/27/2017	2	30.58	20.61 - 30.61	5.21	2.72	NP	NP	2.49
	9/7/2017					3.04	NP	NP	2.17
MW-30-D1	7/27/2017	2	31.64	21.64 - 31.64	8.74	NG	NG	NG	NG
	9/7/2017					6.88	NP	NP	1.86
MW-31-D1R	7/27/2017	2	30.69	20.69 - 30.69	8.39	6.01	NP	NP	2.38
	9/7/2017					6.83	NP	NP	1.56
MW-32D	7/27/2017	2	37.25	27.25 - 37.35	8.85	NG	NG	NG	NG
	9/7/2017					6.83	NP	NP	2.02
OW-2-D1	7/27/2017	2	32.54	28.54 - 32.54	9.94	10.67	NP	NP	-0.73
	9/7/2017					8.80	NP	NP	1.14
D2 Horizon Monitoring Wells									
AMW-13-D2	7/27/2017	2	41.56	31.56 - 41.56	9.76	7.35	NP	NP	2.41
	9/7/2017					8.91	NP	NP	0.85
AMW-14-D2	7/27/2017	2	41.67	31.67 - 41.67	9.37	7.13	NP	NP	2.24
	9/7/2017					8.01	NP	NP	1.36
AMW-15-D2	7/27/2017	2	39.61	29.61 - 39.61	9.71	7.45	NP	NP	2.26
	9/7/2017					8.75	NP	NP	0.96
MW-23-D2R	7/27/2017	2	44.62	34.62 - 44.62	10.52	8.29	NP	NP	2.23
	9/7/2017					9.67	NP	NP	0.85
MW-24-D2	9/7/2017	2	45.70	35.70 - 45.70	10.00	7.80	NP	NP	2.20
	9/7/2017					8.83	NP	NP	1.17
MW-26-D2	7/27/2017	2	43.70	33.70 - 43.70	9.40	10.09	NP	NP	-0.69
	9/7/2017					7.88	NP	NP	1.52

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TABLE 2
SUMMARY OF JULY AND SEPTEMBER 2017 GROUNDWATER GAUGING DATA DURING HIGH TIDE
FORMER GULF OIL TERMINAL
OCEANSIDE, TOWNSHIP OF HEMPSTEAD, NEW YORK

Monitoring Well	Date	Well Diameter (in)	Well Depth (ft btoc)	Screen Interval (ft btoc)	Top of Casing Elevation (ft)*	Depth to Water (ft btoc)	Depth to PSH (ft btoc)	Measured PSH Thickness (ft)	Corrected Groundwater Elevation (ft amsl)
MW-27-D2	7/27/2017	2	46.69	36.69 - 46.69	9.09	6.85	NP	NP	2.24
	9/7/2017					7.18	NP	NP	1.91
MW-28-D2R	7/27/2017	2	46.10	36.10 - 46.10	8.40	5.98	NP	NP	2.42
	9/7/2017					6.72	NP	NP	1.68
MW-29-D2	7/27/2017	2	45.37	35.58 - 45.58	5.38	2.98	NP	NP	2.40
	9/7/2017					3.25	NP	NP	2.13
MW-30-D2	7/27/2017	2	46.62	36.62 - 46.62	8.72	6.27	NP	NP	2.45
	9/7/2017					6.90	NP	NP	1.82
MW-31-D2R	7/27/2017	2	45.65	35.65 - 45.65	8.35	5.85	NP	NP	2.50
	9/7/2017					6.58	NP	NP	1.77
D3 Horizon Monitoring Wells									
AMW-15-D3	7/27/2017	2	49.61	39.61 - 49.61	9.81	7.45	NP	NP	2.36
	9/7/2017					8.80	NP	NP	1.01
VD Horizon Monitoring Wells									
AMW-13-VD	7/27/2017	2	69.67	59.67 - 69.67	9.77	7.24	NP	NP	2.53
	9/7/2017					8.90	NP	NP	0.87
AMW-14-VD	7/27/2017	2	73.55	63.55 - 73.55	9.25	6.83	NP	NP	2.42
	9/7/2017					7.71	NP	NP	1.54
AMW-15-VD	7/27/2017	2	69.72	59.72 - 69.72	9.82	7.14	NP	NP	2.68
	9/7/2017					8.43	NP	NP	1.39
MW-26-VD	7/27/2017	2	71.59	61.59 - 71.59	9.99	10.78	NP	NP	-0.79
	9/7/2017					8.47	NP	NP	1.52

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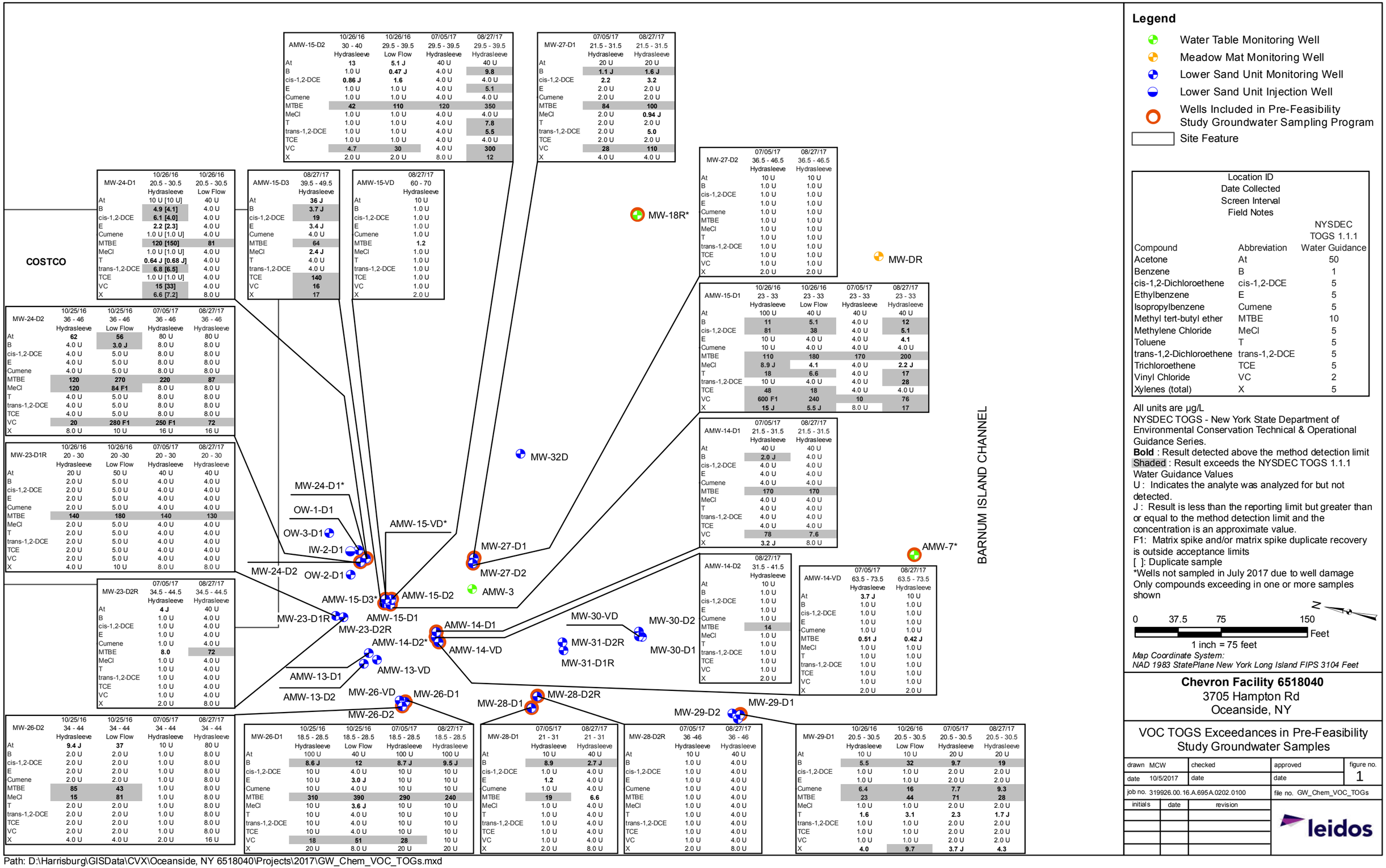
TABLE 2
SUMMARY OF JULY AND SEPTEMBER 2017 GROUNDWATER GAUGING DATA DURING HIGH TIDE
FORMER GULF OIL TERMINAL
OCEANSIDE, TOWNSHIP OF HEMPSTEAD, NEW YORK

Monitoring Well	Date	Well Diameter (in)	Well Depth (ft btoc)	Screen Interval (ft btoc)	Top of Casing Elevation (ft)*	Depth to Water (ft btoc)	Depth to PSH (ft btoc)	Measured PSH Thickness (ft)	Corrected Groundwater Elevation (ft amsl)
MW-29-VD	7/27/2017	2	66.61	56.37 - 66.37	5.27	3.05	NP	NP	2.22
	9/7/2017					3.42	NP	NP	1.85
MW-30-VD	9/7/2017	4	86.60	76.60 - 86.60	8.70	5.59	NP	NP	3.11
	9/7/2017					6.15	NP	NP	2.55

Notes:
Monitoring wells AMW-7 and MW-18R were not surveyed due to wells needing replacement.
*Top of casing elevations were surveyed by Borbas Surveying & Mapping, LLC, September 18, 2017.
PSH - Phase-Separated Hydrocarbons
in - inches
ft btoc - Feet below top of casing
ft amsl - Feet above mean sea level
NAV - Not Available.
NG - Not gauged
NP - No PSH measured in monitoring well.



AMW-15-D2	10/26/16 30 - 40 Hydrasleeve	10/26/16 29.5 - 39.5 Low Flow	07/05/17 29.5 - 39.5 Hydrasleeve	08/27/17 29.5 - 39.5 Hydrasleeve
At	**13**	**5.1 J**	40 U	40 U
B	1.0 U	**0.47 J**	4.0 U	**9.8**
cis-1,2-DCE	**0.86 J**	**1.6**	4.0 U	4.0 U
E	1.0 U	1.0 U	4.0 U	**5.1**
Cumene	1.0 U	1.0 U	4.0 U	4.0 U
MTBE	**42**	**110**	**120**	**350**
MeCl	1.0 U	1.0 U	4.0 U	4.0 U
T	1.0 U	1.0 U	4.0 U	**7.8**
trans-1,2-DCE	1.0 U	1.0 U	4.0 U	**5.5**
TCE	1.0 U	1.0 U	4.0 U	4.0 U
VC	**4.7**	**30**	4.0 U	**300**
X	2.0 U	2.0 U	8.0 U	**12**

MW-27-D1	07/05/17 21.5 - 31.5 Hydrasleeve	08/27/17 21.5 - 31.5 Hydrasleeve
At	20 U	20 U
B	**1.1 J**	**1.6 J**
cis-1,2-DCE	**2.2**	**3.2**
E	2.0 U	2.0 U
Cumene	2.0 U	2.0 U
MTBE	**84**	**100**
MeCl	2.0 U	**0.94 J**
T	2.0 U	2.0 U
trans-1,2-DCE	2.0 U	**5.0**
TCE	2.0 U	2.0 U
VC	**28**	**110**
X	4.0 U	4.0 U

MW-24-D1	10/26/16 20.5 - 30.5 Hydrasleeve	10/26/16 20.5 - 30.5 Low Flow
At	10 U [10 U]	40 U
B	**4.9 [4.1]**	4.0 U
cis-1,2-DCE	**6.1 [4.0]**	4.0 U
E	**2.2 [2.3]**	4.0 U
Cumene	1.0 U [1.0 U]	4.0 U
MTBE	**120 [150]**	**81**
MeCl	1.0 U [1.0 U]	4.0 U
T	**0.64 J [0.68 J]**	4.0 U
trans-1,2-DCE	**6.8 [6.5]**	4.0 U
TCE	1.0 U [1.0 U]	4.0 U
VC	**15 [33]**	4.0 U
X	**6.6 [7.2]**	8.0 U

AMW-15-D3	08/27/17 39.5 - 49.5 Hydrasleeve
At	**36 J**
B	**3.7 J**
cis-1,2-DCE	**19**
E	**3.4 J**
Cumene	4.0 U
MTBE	**64**
MeCl	**2.4 J**
T	4.0 U
trans-1,2-DCE	4.0 U
TCE	**140**
VC	**16**
X	**17**

AMW-15-VD	08/27/17 60 - 70 Hydrasleeve
At	10 U
B	1.0 U
cis-1,2-DCE	1.0 U
E	1.0 U
Cumene	1.0 U
MTBE	**1.2**
MeCl	1.0 U
T	1.0 U
trans-1,2-DCE	1.0 U
TCE	1.0 U
VC	1.0 U
X	2.0 U

MW-27-D2	07/05/17 36.5 - 46.5 Hydrasleeve	08/27/17 36.5 - 46.5 Hydrasleeve
At	10 U	10 U
B	1.0 U	1.0 U
cis-1,2-DCE	1.0 U	1.0 U
E	1.0 U	1.0 U
Cumene	1.0 U	1.0 U
MTBE	1.0 U	1.0 U
MeCl	1.0 U	1.0 U
T	1.0 U	1.0 U
trans-1,2-DCE	1.0 U	1.0 U
TCE	1.0 U	1.0 U
VC	1.0 U	1.0 U
X	2.0 U	2.0 U

MW-24-D2	10/25/16 36 - 46 Hydrasleeve	10/25/16 36 - 46 Low Flow	07/05/17 36 - 46 Hydrasleeve	08/27/17 36 - 46 Hydrasleeve
At	**62**	**56**	80 U	80 U
B	4.0 U	**3.0 J**	8.0 U	8.0 U
cis-1,2-DCE	4.0 U	5.0 U	8.0 U	8.0 U
E	4.0 U	5.0 U	8.0 U	8.0 U
Cumene	4.0 U	5.0 U	8.0 U	8.0 U
MTBE	**120**	**270**	**220**	**87**
MeCl	**120**	**84 F1**	8.0 U	8.0 U
T	4.0 U	5.0 U	8.0 U	8.0 U
trans-1,2-DCE	4.0 U	5.0 U	8.0 U	8.0 U
TCE	4.0 U	5.0 U	8.0 U	8.0 U
VC	**20**	**280 F1**	**250 F1**	**72**
X	8.0 U	10 U	16 U	16 U

AMW-15-D1	10/26/16 23 - 33 Hydrasleeve	10/26/16 23 - 33 Low Flow	07/05/17 23 - 33 Hydrasleeve	08/27/17 23 - 33 Hydrasleeve
At	100 U	40 U	40 U	40 U
B	**11**	**5.1**	4.0 U	**12**
cis-1,2-DCE	**81**	**38**	4.0 U	**5.1**
E	10 U	4.0 U	4.0 U	**4.1**
Cumene	10 U	4.0 U	4.0 U	4.0 U
MTBE	**110**	**180**	**170**	**200**
MeCl	**8.9 J**	**4.1**	4.0 U	**2.2 J**
T	**18**	**6.6**	4.0 U	**17**
trans-1,2-DCE	10 U	4.0 U	4.0 U	**28**
TCE	**48**	**18**	4.0 U	4.0 U
VC	**600 F1**	**240**	**10**	**76**
X	**15 J**	**5.5 J**	8.0 U	**17**

AMW-14-D1	07/05/17 21.5 - 31.5 Hydrasleeve	08/27/17 21.5 - 31.5 Hydrasleeve
At	40 U	40 U
B	**2.0 J**	4.0 U
cis-1,2-DCE	4.0 U	4.0 U
E	4.0 U	4.0 U
Cumene	4.0 U	4.0 U
MTBE	**170**	**170**
MeCl	4.0 U	4.0 U
T	4.0 U	4.0 U
trans-1,2-DCE	4.0 U	4.0 U
TCE	4.0 U	4.0 U
VC	**78**	**7.6**
X	**3.2 J**	8.0 U

AMW-14-D2	08/27/17 31.5 - 41.5 Hydrasleeve
At	10 U
B	1.0 U
cis-1,2-DCE	1.0 U
E	1.0 U
Cumene	1.0 U
MTBE	**14**
MeCl	1.0 U
T	1.0 U
trans-1,2-DCE	1.0 U
TCE	1.0 U
VC	1.0 U
X	2.0 U

AMW-14-VD	07/05/17 63.5 - 73.5 Hydrasleeve	08/27/17 63.5 - 73.5 Hydrasleeve
At	**3.7 J**	10 U
B	1.0 U	1.0 U
cis-1,2-DCE	1.0 U	1.0 U
E	1.0 U	1.0 U
Cumene	1.0 U	1.0 U
MTBE	**0.51 J**	**0.42 J**
MeCl	1.0 U	1.0 U
T	1.0 U	1.0 U
trans-1,2-DCE	1.0 U	1.0 U
TCE	1.0 U	1.0 U
VC	1.0 U	1.0 U
X	2.0 U	2.0 U

MW-23-D1R	10/26/16 20 - 30 Hydrasleeve	10/26/16 20 -30 Low Flow	07/05/17 20 - 30 Hydrasleeve	08/27/17 20 - 30 Hydrasleeve
At	20 U	50 U	40 U	40 U
B	2.0 U	5.0 U	4.0 U	4.0 U
cis-1,2-DCE	2.0 U	5.0 U	4.0 U	4.0 U
E	2.0 U	5.0 U	4.0 U	4.0 U
Cumene	2.0 U	5.0 U	4.0 U	4.0 U
MTBE	**140**	**180**	**140**	**130**
MeCl	2.0 U	5.0 U	4.0 U	4.0 U
T	2.0 U	5.0 U	4.0 U	4.0 U
trans-1,2-DCE	2.0 U	5.0 U	4.0 U	4.0 U
TCE	2.0 U	5.0 U	4.0 U	4.0 U
VC	2.0 U	5.0 U	4.0 U	4.0 U
X	4.0 U	10 U	8.0 U	8.0 U

MW-23-D2R	07/05/17 34.5 - 44.5 Hydrasleeve	08/27/17 34.5 - 44.5 Hydrasleeve
At	**4 J**	40 U
B	1.0 U	4.0 U
cis-1,2-DCE	1.0 U	4.0 U
E	1.0 U	4.0 U
Cumene	1.0 U	4.0 U
MTBE	**8.0**	**72**
MeCl	1.0 U	4.0 U
T	1.0 U	4.0 U
trans-1,2-DCE	1.0 U	4.0 U
TCE	1.0 U	4.0 U
VC	1.0 U	4.0 U
X	2.0 U	8.0 U

MW-26-D2	10/25/16 34 - 44 Hydrasleeve	10/25/16 34 - 44 Low Flow	07/05/17 34 - 44 Hydrasleeve	08/27/17 34 - 44 Hydrasleeve
At	**9.4 J**	**37**	10 U	80 U
B	2.0 U	2.0 U	1.0 U	8.0 U
cis-1,2-DCE	2.0 U	2.0 U	1.0 U	8.0 U
E	2.0 U	2.0 U	1.0 U	8.0 U
Cumene	2.0 U	2.0 U	1.0 U	8.0 U
MTBE	**85**	**43**	1.0 U	8.0 U
MeCl	**15**	**81**	1.0 U	8.0 U
T	2.0 U	2.0 U	1.0 U	8.0 U
trans-1,2-DCE	2.0 U	2.0 U	1.0 U	8.0 U
TCE	2.0 U	2.0 U	1.0 U	8.0 U
VC	2.0 U	2.0 U	1.0 U	8.0 U
X	4.0 U	4.0 U	2.0 U	16 U

MW-26-D1	10/25/16 18.5 - 28.5 Hydrasleeve	10/25/16 18.5 - 28.5 Low Flow	07/05/17 18.5 - 28.5 Hydrasleeve	08/27/17 18.5 - 28.5 Hydrasleeve
At	100 U	40 U	100 U	100 U
B	**8.6 J**	**12**	**8.7 J**	**9.5 J**
cis-1,2-DCE	10 U	4.0 U	10 U	10 U
E	10 U	**3.0 J**	10 U	10 U
Cumene	10 U	4.0 U	10 U	10 U
MTBE	**310**	**390**	**290**	**240**
MeCl	10 U	**3.6 J**	10 U	10 U
T	10 U	4.0 U	10 U	10 U
trans-1,2-DCE	10 U	4.0 U	10 U	10 U
TCE	10 U	4.0 U	10 U	10 U
VC	**18**	**51**	**28**	10 U
X	20 U	8.0 U	20 U	20 U

MW-28-D1	07/05/17 21 - 31 Hydrasleeve	08/27/17 21 - 31 Hydrasleeve
At	10 U	40 U
B	**8.9**	**2.7 J**
cis-1,2-DCE	1.0 U	4.0 U
E	**1.2**	4.0 U
Cumene	1.0 U	4.0 U
MTBE	**19**	**6.6**
MeCl	1.0 U	4.0 U
T	1.0 U	4.0 U
trans-1,2-DCE	1.0 U	4.0 U
TCE	1.0 U	4.0 U
VC	1.0 U	4.0 U
X	2.0 U	8.0 U

MW-28-D2R	07/05/17 36 -46 Hydrasleeve	08/27/17 36 - 46 Hydrasleeve
At	10 U	40 U
B	1.0 U	4.0 U
cis-1,2-DCE	1.0 U	4.0 U
E	1.0 U	4.0 U
Cumene	1.0 U	4.0 U
MTBE	1.0 U	4.0 U
MeCl	1.0 U	4.0 U
T	1.0 U	4.0 U
trans-1,2-DCE	1.0 U	4.0 U
TCE	1.0 U	4.0 U
VC	1.0 U	4.0 U
X	2.0 U	8.0 U

MW-29-D1	10/26/16 20.5 - 30.5 Hydrasleeve	10/26/16 20.5 - 30.5 Low Flow	07/05/17 20.5 - 30.5 Hydrasleeve	08/27/17 20.5 - 30.5 Hydrasleeve
At	10 U	10 U	20 U	20 U
B	**5.5**	**32**	**9.7**	**19**
cis-1,2-DCE	1.0 U	1.0 U	2.0 U	2.0 U
E	1.0 U	1.0 U	2.0 U	2.0 U
Cumene	**6.4**	**16**	**7.7**	**9.3**
MTBE	**23**	**44**	**71**	**28**
MeCl	1.0 U	1.0 U	2.0 U	2.0 U
T	**1.6**	**3.1**	**2.3**	**1.7 J**
trans-1,2-DCE	1.0 U	1.0 U	2.0 U	2.0 U
TCE	1.0 U	1.0 U	2.0 U	2.0 U
VC	1.0 U	1.0 U	2.0 U	2.0 U
X	**4.0**	**9.7**	**3.7 J**	**4.3**

Legend

- Water Table Monitoring Well
- Meadow Mat Monitoring Well
- Lower Sand Unit Monitoring Well
- Lower Sand Unit Injection Well
- Wells Included in Pre-Feasibility Study Groundwater Sampling Program
- Site Feature

Location ID Date Collected Screen Interval Field Notes		NYSDEC TOGS 1.1.1
Compound	Abbreviation	Water Guidance
Acetone	At	50
Benzene	B	1
cis-1,2-Dichloroethene	cis-1,2-DCE	5
Ethylbenzene	E	5
Isopropylbenzene	Cumene	5
Methyl tert-butyl ether	MTBE	10
Methylene Chloride	MeCl	5
Toluene	T	5
trans-1,2-Dichloroethene	trans-1,2-DCE	5
Trichloroethene	TCE	5
Vinyl Chloride	VC	2
Xylenes (total)	X	5

All units are µg/L
NYSDEC TOGS - New York State Department of Environmental Conservation Technical & Operational Guidance Series.
Bold : Result detected above the method detection limit
Shaded : Result exceeds the NYSDEC TOGS 1.1.1 Water Guidance Values
U : Indicates the analyte was analyzed for but not detected.
J : Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.
F1: Matrix spike and/or matrix spike duplicate recovery is outside acceptance limits
[ ]: Duplicate sample
*Wells not sampled in July 2017 due to well damage
Only compounds exceeding in one or more samples shown

N

0 37.5 75 150 Feet

1 inch = 75 feet

Map Coordinate System:
NAD 1983 StatePlane New York Long Island FIPS 3104 Feet

Chevron Facility 6518040
3705 Hampton Rd
Oceanside, NY

VOC TOGS Exceedances in Pre-Feasibility Study Groundwater Samples

drawn MCW	checked	approved	figure no. 1
date 10/5/2017	date	date	
job no. 319926.00.16.A.695A.0202.0100			file no. GW_Chem_VOC_TOGs

initials	date	revision

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