September 7, 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 – August 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 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) on July 27, 2017.
- Hydra-sleeves™ installed in 17 wells on July 27, 2017 were removed and groundwater samples collected on August 27, 2017.

ACTIONS PLANNED FOR NEXT PERIOD

- Coordinate with NYSDEC and other stakeholders.

- Surveying ground and top-of-casing elevations of all existing monitoring wells; planned for September 6, 2017.
- Gauging of accessible wells and deployment of Hydrasleeves™ in same 17 wells sampled in August 2017; planned for September 7, 2017.
- Planning for additional monitoring well repairs.
- Leidos review of preliminary analytical data for August 2017 groundwater samples.
- Survey data will be used to generate groundwater contour maps for both the July and August 2017 gauging events.

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 July 5, 2017 from 14 wells (AMW-14-D1, AMW-14-VD, AMW-15-D1, AMW-15-D2, 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, AMW-14-D2, AMW-15-D3, AMW-15-VD, 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 nine of the 14 monitoring wells sampled (AMW-14-D1, AMW-15-D1, AMW-15-D2, MW-23-D1R, 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, MW-23-D2R, 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-14-D1 (2J µg/L), MW-26-D1 (8.7J µg/L), MW-27-D1 (1.1J µg/L), MW-28-D1 (8.9 µg/L), and MW-29-D1 (9.7 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 methyl tert-butyl ether (MTBE) (10 µg/L) were detected in groundwater samples analyzed from AMW-14-D1 (170 µg/L), AMW-15-D1 (170 µg/L), AMW-15-D2 (120 µg/L), MW-23-D1R (140 µg/L), MW-24-D2 (220 µg/L), MW-26-D1 (290 µg/L),

MW-27-D1 (84 µg/L), MW-28-D1 (19 µg/L), and MW-29-D1 (71 µg/L). Migration of MTBE from up-gradient, off-site, potential sources is being evaluated.

- Concentrations exceeding the TOGS Water Guidance Value for vinyl chloride (2 µg/L) were detected in groundwater samples analyzed from AMW-14-D1 (78 µg/L), AMW-15-D1 (10 µg/L), MW-24-D2 (250F1 µg/L), MW-26-D1 (28 µg/L), and MW-27-D1 (28 µg/L). Results flagged "F1" indicate that the matrix spike and/or matrix spike duplicate recovery are outside acceptance limits.
- A concentration exceeding the TOGS Water Guidance Value for isopropylbenzene (5 µg/L) was detected in the groundwater sample analyzed from MW-29-D1 (7.7 µg/L).
- It should be noted that TCE was not detected in any well during this July 2017 sampling event

Analytical results for the groundwater samples collected in July 2017 are summarized in the attached table and figure.

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

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

Attachments: Table - Summary of Pre-FS Groundwater Analytical Data
Figure - VOC TOGS Exceedances in Pre-FS Groundwater Samples

cc: Daniel Evans, NYSDEC (e-mail)
Alali Tamuno, NYSDEC (e-mail)
Jacquelyn Nealon, NYSDOH (e-mail)
Peter Cagnetta, CEMC (e-mail)
Neil Fletcher, CEMC (e-mail)
Erich J. Brann Jr., Costco Wholesale (e-mail)
Louis Lagios, Esq., Coremark Group, LLC (e-mail)
Jennifer Hadden, AECOM (e-mail)

REPORT LIMITATIONS

This technical document was prepared on behalf of CEMC and is intended for its sole use and for use by the local, state, or federal regulatory agency that the technical document was sent to by Leidos. Any other person or entity obtaining, using, or relying on this technical document hereby acknowledges that they do so at their own risk, and Leidos shall have no responsibility or liability for the consequences thereof.

Site history and background information provided in this technical document are based on sources that may include interviews with environmental regulatory agencies and property management personnel and a review of acquired environmental regulatory agency documents and property information obtained from CEMC and others. Leidos has not made, nor has it been asked to make, any independent investigation concerning the accuracy, reliability, or completeness of such information beyond that described in this technical document.

Recognizing reasonable limits of time and cost, this technical document cannot wholly eliminate uncertainty regarding the vertical and lateral extent of impacted environmental media.

Opinions and recommendations presented in this technical document apply only to site conditions and features as they existed at the time of Leidos site visits or site work and cannot be applied to conditions and features of which Leidos is unaware and has not had the opportunity to evaluate.

All sources of information on which Leidos has relied in making its conclusions (including direct field observations) are identified by reference in this technical document or in appendices attached to this technical document. Any information not listed by reference or in appendices has not been evaluated or relied on by Leidos in the context of this technical document. The conclusions, therefore, represent our professional opinion based on the identified sources of information.

Summary of Pre-FS Groundwater Analytical Data
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	AMW-14-D1	AMW-14-VD	AMW-15-D1	AMW-15-D1	AMW-15-D1	AMW-15-D2	AMW-15-D2	AMW-15-D2	MW-23-D1R	MW-23-D1R	MW-23-D1R	MW-23-D2R
Historical Screen Interval (feet below ground surface)			NA	NA	NA	NA	NA	NA	NA	NA	16.5 - 26.5	16.5 - 26.5	16.5 - 26.5	31 - 41
Approximate Screen Interval (Feet below approximate ground surface)[a]:			22 - 32	64 - 74	23.5 - 33.5	23.5 - 33.5	23.5 - 33.5	30 - 40	30 - 40	30 - 40	20.5 - 30.5	20.5 - 30.5	20.5 - 30.5	35 - 45
Date Collected:			07/05/17	07/05/17	10/26/16	10/26/16	07/05/17	10/26/16	10/26/16	07/05/17	10/26/16	10/26/16	07/05/17	07/05/17
Field Notes			Hydrasleeve	Hydrasleeve	Hydrasleeve	Low Flow	Hydrasleeve	Hydrasleeve	Low Flow	Hydrasleeve	Hydrasleeve	Low Flow	Hydrasleeve	Hydrasleeve
Volatile Organics														
1,1,1-Trichloroethane	5	ug/L	4.0 U	1.0 U	10 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	2.0 U	5.0 U	4.0 U	1.0 U
1,1,2,2-Tetrachloroethane	5	ug/L	4.0 U	1.0 U	10 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	2.0 U	5.0 U	4.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	4.0 U	1.0 U	10 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	2.0 U	5.0 U	4.0 U	1.0 U
1,1,2-Trichloroethane	1	ug/L	4.0 U	1.0 U	10 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	2.0 U	5.0 U	4.0 U	1.0 U
1,1-Dichloroethane	5	ug/L	4.0 U	1.0 U	10 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	2.0 U	5.0 U	4.0 U	1.0 U
1,1-Dichloroethene	5	ug/L	4.0 U	1.0 U	10 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	2.0 U	5.0 U	4.0 U	1.0 U
1,2,4-Trichlorobenzene	5	ug/L	4.0 U	1.0 U	10 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	2.0 U	5.0 U	4.0 U	1.0 U
1,2-Dibromo-3-chloropropane	0.04	ug/L	4.0 U	1.0 U	10 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	2.0 U	5.0 U	4.0 U	1.0 U
1,2-Dibromoethane	0.0006	ug/L	4.0 U	1.0 U	10 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	2.0 U	5.0 U	4.0 U	1.0 U
1,2-Dichlorobenzene	3	ug/L	4.0 U	1.0 U	10 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	2.0 U	5.0 U	4.0 U	1.0 U
1,2-Dichloroethane	0.6	ug/L	4.0 U	1.0 U	10 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	2.0 U	5.0 U	4.0 U	1.0 U
1,2-Dichloropropane	1	ug/L	4.0 U	1.0 U	10 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	2.0 U	5.0 U	4.0 U	1.0 U
1,3-Dichlorobenzene	3	ug/L	4.0 U	1.0 U	10 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	2.0 U	5.0 U	4.0 U	1.0 U
1,4-Dichlorobenzene	3	ug/L	4.0 U	1.0 U	10 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	2.0 U	5.0 U	4.0 U	1.0 U
2-Butanone	50	ug/L	40 U	10 U	100 U	40 U	40 U	10 U	10 U	40 U	20 U	50 U	40 U	10 U
2-Hexanone	50	ug/L	20 U	5.0 U	50 U	20 U	20 U	5.0 U	5.0 U	20 U	10 U	25 U	20 U	5.0 U
4-Methyl-2-pentanone	- -	ug/L	20 U	5.0 U	50 U	20 U	20 U	5.0 U	5.0 U	20 U	10 U	25 U	20 U	5.0 U
Acetone	50	ug/L	40 U	**3.7 J**	100 U	40 U	40 U	**13**	**5.1 J**	40 U	20 U	50 U	40 U	**4 J**
Benzene	1	ug/L	**2.0 J**	1.0 U	**11**	**5.1**	4.0 U	1.0 U	**0.47 J**	4.0 U	2.0 U	5.0 U	4.0 U	1.0 U
Bromodichloromethane	50	ug/L	4.0 U	1.0 U	10 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	2.0 U	5.0 U	4.0 U	1.0 U
Bromoform	50	ug/L	4.0 U	1.0 U	10 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	2.0 U	5.0 U	4.0 U	1.0 U
Bromomethane	5	ug/L	4.0 U	1.0 U	10 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	2.0 U	5.0 U	4.0 U	1.0 U
Carbon Disulfide	60	ug/L	4.0 U	**0.25 J**	10 U	**1.7 J**	4.0 U	**0.75 J**	**0.42 J**	4.0 U	**0.53 J**	5.0 U	4.0 U	1.0 U
Carbon Tetrachloride	5	ug/L	4.0 U	1.0 U	10 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	2.0 U	5.0 U	4.0 U	1.0 U
Chlorobenzene	5	ug/L	4.0 U	1.0 U	10 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	2.0 U	5.0 U	4.0 U	1.0 U
Chloroethane	5	ug/L	4.0 U	1.0 U	10 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	2.0 U	5.0 U	4.0 U	1.0 U
Chloroform	7	ug/L	4.0 U	1.0 U	10 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	2.0 U	5.0 U	4.0 U	1.0 U
Chloromethane	5	ug/L	4.0 U	1.0 U	10 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	2.0 U	5.0 U	4.0 U	1.0 U
cis-1,2-Dichloroethene	5	ug/L	4.0 U	1.0 U	**81**	**38**	4.0 U	**0.86 J**	**1.6**	4.0 U	2.0 U	5.0 U	4.0 U	1.0 U
cis-1,3-Dichloropropene	0.4	ug/L	4.0 U	1.0 U	10 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	2.0 U	5.0 U	4.0 U	1.0 U
Cyclohexane	- -	ug/L	4.0 U	1.0 U	10 U	**2.0 J**	4.0 U	1.0 U	1.0 U	4.0 U	**0.40 J**	5.0 U	4.0 U	1.0 U
Dibromochloromethane	50	ug/L	4.0 U	1.0 U	10 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	2.0 U	5.0 U	4.0 U	1.0 U
Dichlorodifluoromethane	5	ug/L	4.0 U	1.0 U	10 U*	4.0 U*	4.0 U	1.0 U*	1.0 U*	4.0 U	2.0 U*	5.0 U*	4.0 U	1.0 U
Ethylbenzene	5	ug/L	4.0 U	1.0 U	10 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	2.0 U	5.0 U	4.0 U	1.0 U
Isopropylbenzene	5	ug/L	4.0 U	1.0 U	10 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	2.0 U	5.0 U	4.0 U	1.0 U
Methyl acetate	- -	ug/L	10 U	2.5 U	25 U	10 U	10 U	2.5 U	2.5 U	10 U	5.0 U	13 U	10 U	2.5 U
Methyl tert-butyl ether	10	ug/L	**170**	**0.51 J**	**110**	**180**	**170**	**42**	**110**	**120**	**140**	**180**	**140**	**8.0**
Methylcyclohexane	- -	ug/L	4.0 U	1.0 U	**3.3 J**	**0.87 J**	4.0 U	1.0 U	1.0 U	4.0 U	2.0 U	5.0 U	4.0 U	1.0 U
Methylene Chloride	5	ug/L	4.0 U	1.0 U	**8.9 J**	**4.1**	4.0 U	1.0 U	1.0 U	4.0 U	2.0 U	5.0 U	4.0 U	1.0 U
Styrene	5	ug/L	4.0 U	1.0 U	10 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	2.0 U	5.0 U	4.0 U	1.0 U
Tetrachloroethene	5	ug/L	4.0 U	1.0 U	10 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	2.0 U	5.0 U	4.0 U	1.0 U
Toluene	5	ug/L	4.0 U	1.0 U	**18**	**6.6**	4.0 U	1.0 U	1.0 U	4.0 U	2.0 U	5.0 U	4.0 U	1.0 U
trans-1,2-Dichloroethene	5	ug/L	4.0 U	1.0 U	10 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	2.0 U	5.0 U	4.0 U	1.0 U
trans-1,3-Dichloropropene	0.4	ug/L	4.0 U	1.0 U	10 UF1	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	2.0 U	5.0 U	4.0 U	1.0 U
Trichloroethene	5	ug/L	4.0 U	1.0 U	**48**	**18**	4.0 U	1.0 U	1.0 U	4.0 U	2.0 U	5.0 U	4.0 U	1.0 U
Trichlorofluoromethane	5	ug/L	4.0 U	1.0 U	10 U	4.0 U	4.0 U	1.0 U	1.0 U	4.0 U	2.0 U	5.0 U	4.0 U	1.0 U
Vinyl Chloride	2	ug/L	**78**	1.0 U	**600 F1**	**240**	**10**	**4.7**	**30**	4.0 U	2.0 U	5.0 U	4.0 U	1.0 U
Xylenes (total)	5	ug/L	**3.2 J**	2.0 U	**15 J**	**5.5 J**	8.0 U	2.0 U	2.0 U	8.0 U	4.0 U	10 U	8.0 U	2.0 U

Summary of Pre-FS Groundwater Analytical Data
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, NY

Location ID:			AMW-14-D1	AMW-14-VD	AMW-15-D1	AMW-15-D1	AMW-15-D1	AMW-15-D2	AMW-15-D2	AMW-15-D2	MW-23-D1R	MW-23-D1R	MW-23-D1R	MW-23-D2R
Historical Screen Interval (feet below ground surface)			NA	NA	NA	NA	NA	NA	NA	NA	16.5 - 26.5	16.5 - 26.5	16.5 - 26.5	31 - 41
Approximate Screen Interval (Feet below approximate ground surface)[a]:	NYSDEC TOGS 1.1.1 Water Guidance		22 - 32	64 - 74	23.5 - 33.5	23.5 - 33.5	23.5 - 33.5	30 - 40	30 - 40	30 - 40	20.5 - 30.5	20.5 - 30.5	20.5 - 30.5	35 - 45
Date Collected:	Values	Units	07/05/17	07/05/17	10/26/16	10/26/16	07/05/17	10/26/16	10/26/16	07/05/17	10/26/16	10/26/16	07/05/17	07/05/17
Field Notes			Hydrasleeve	Hydrasleeve	Hydrasleeve	Low Flow	Hydrasleeve	Hydrasleeve	Low Flow	Hydrasleeve	Hydrasleeve	Low Flow	Hydrasleeve	Hydrasleeve
Inorganics														
Iron. Dissolved	0.3	mg/L	NA	NA	**1.9 B**	**0.095 B**	NA	**0.050 B**	0.050 U	NA	0.050 U	**0.24 B**	NA	NA
Iron,Total	0.3	mg/L	**4.7**	**11.3**	NA	NA	**2.1**	NA	NA	**0.70**	NA	NA	**17.1**	**4.4**
Manganese, Dissolved	0.3	mg/L	NA	NA	**0.070 B**	**0.11 B**	NA	**0.085 B**	**0.098 B**	NA	**0.021 B**	**0.67 B**	NA	NA
Manganese, Total	0.3	mg/L	**0.048**	**0.30**	NA	NA	**0.084**	NA	NA	**0.11**	NA	NA	**3.1**	**0.21**
Sodium	20	mg/L	**1,690^**	**4,800^**	NA	NA	**1,750^**	NA	NA	**2,090 ^**	NA	NA	**1,190^**	**2,190^**
General Chemistry														
Alkalinity	- -	mg/L	**716 B**	**440 B**	**130**	**528**	**597**	**99.9**	**600**	**687**	**555**	**525**	**500**	**520**
Alkalinity, Bicarbonate	- -		NA	NA	**130**	**528**	NA	**99.9**	**600**	NA	**555**	**525**	NA	NA
Carbon Dioxide	- -	mg/L	**130**	**120**	NA	NA	**110**	NA	NA	**98**	NA	NA	**82**	**130**
Chloride	250	mg/L	**3,060**	**15,200**	NA	NA	**73.2**	NA	NA	**3,700**	NA	NA	**1,970**	**5,260**
Ethane	- -	mg/L	0.15 U	0.0075 U	NA	NA	0.15 U	NA	NA	0.15 U	NA	NA	0.15 U	0.038 U
Ethene	- -	mg/L	0.14 U	0.0070 U	NA	NA	0.14 U	NA	NA	0.14 U	NA	NA	0.14 U	0.035 U
Methane	- -	mg/L	**1.1**	**0.020**	NA	NA	**0.4**	NA	NA	**0.43**	NA	NA	**0.15**	**0.073**
Ferric Iron	- -		**4.5**	**11.3**			**2.1**			**0.53**			**17.1**	**4.2**
Ferrous Iron	- -		**0.17 HF**	0.10 U HF			0.10 U HF F1			**0.17 HF**			0.10 U HF	**0.17 HF**
Nitrate Nitrogen	10	mg/L	0.050 U	0.050 U	NA	NA	0.050 U	NA	NA	0.050 U	NA	NA	0.050 U	0.050 U
Nitrite Nitrogen	1	mg/L	0.050 U	0.050 U	NA	NA	0.050 U	NA	NA	0.050 U	NA	NA	0.050 U	0.050 U
Total Organic Carbon	- -	mg/L	**13.1 B**	**3.4 B**	NA	NA	**9.4 B**	NA	NA	**10.3 B**	NA	NA	**16.1 B**	**5.2 B**
Sulfate	250	mg/L	**140**	**1,830**	**63.1**	**164**	**1,640**	**243**	**216**	**269**	**148**	**156**	**259**	**861**
Sulfide	0.05	mg/L	**38**	**0.80 J**	**8**	**36**	**42**	**12.8**	**36**	**34**	**6.4**	**13.6**	**8.4**	**29.6**

Notes:
ug/L: micrograms per liter.
mg/L: milligrams per liter.
[a]: Screen intervals will be updated once wells are surveyed in September 2017.
U: Indicates the analyte was analyzed for but not detected.
J: Result is less than the reporting limit but greater than or equall 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.
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.

Summary of Pre-FS Groundwater Analytical Data
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, NY

Location ID:			MW-24-D1	MW-24-D1	MW-24-D2	MW-24-D2	MW-24-D2	MW-26-D1	MW-26-D1	MW-26-D1	MW-26-D2	MW-26-D2	MW-26-D2	MW-27-D1
Historical Screen Interval (feet below ground surface)			17 - 27	17 - 27	32 - 42	32 - 42	32 - 42	15 - 25	15 - 25	15 - 25	30 - 40	30 - 40	30 - 40	18 - 28
Approximate Screen Interval (Feet below approximate ground surface)[a]:	NYSDEC TOGS 1.1.1 Water Guidance		21 - 31	21 - 31	36 - 46	36 - 46	36 - 46	19 - 29	19 - 29	19 - 29	34 - 44	34 - 44	34 - 44	22-32
Date Collected:	Values	Units	10/26/16	10/26/16	10/25/16	10/25/16	07/05/17	10/25/16	10/25/16	07/05/17	10/25/16	10/25/16	07/05/17	07/05/17
Field Notes			Hydrasleeve	Low Flow	Hydrasleeve	Low Flow	Hydrasleeve	Hydrasleeve	Low Flow	Hydrasleeve	Hydrasleeve	Low Flow	Hydrasleeve	Hydrasleeve
Volatile Organics														
1,1,1-Trichloroethane	5	ug/L	1.0 U [1.0 U]	4.0 U	4.0 U	5.0 U	8.0 U	10 U	4.0 U	10 U	2.0 U	2.0 U	1.0 U	2.0 U
1,1,2,2-Tetrachloroethane	5	ug/L	1.0 U [1.0 U]	4.0 U	4.0 U	5.0 U	8.0 U	10 U	4.0 U	10 U	2.0 U	2.0 U	1.0 U	2.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	1.0 U [1.0 U]	4.0 U	4.0 U	5.0 U	8.0 U	10 U	4.0 U	10 U	2.0 U	2.0 U	1.0 U	2.0 U
1,1,2-Trichloroethane	1	ug/L	1.0 U [1.0 U]	4.0 U	4.0 U	5.0 U	8.0 U	10 U	4.0 U	10 U	2.0 U	2.0 U	1.0 U	2.0 U
1,1-Dichloroethane	5	ug/L	**0.74 J [0.56 J]**	4.0 U	4.0 U	5.0 U	8.0 U	10 U	4.0 U	10 U	2.0 U	2.0 U	1.0 U	2.0 U
1,1-Dichloroethene	5	ug/L	1.0 U [1.0 U]	4.0 U	4.0 U	5.0 U	8.0 U	10 U	4.0 U	10 U	2.0 U	2.0 U	1.0 U	2.0 U
1,2,4-Trichlorobenzene	5	ug/L	1.0 U [1.0 U]	4.0 U	4.0 U	5.0 U	8.0 U	10 U	4.0 U	10 U	2.0 U	2.0 U	1.0 U	2.0 U
1,2-Dibromo-3-chloropropane	0.04	ug/L	1.0 U [1.0 U]	4.0 U	4.0 U	5.0 U	8.0 U	10 U	4.0 U	10 U	2.0 U	2.0 U	1.0 U	2.0 U
1,2-Dibromoethane	0.0006	ug/L	1.0 U [1.0 U]	4.0 U	4.0 U	5.0 U	8.0 U	10 U	4.0 U	10 U	2.0 U	2.0 U	1.0 U	2.0 U
1,2-Dichlorobenzene	3	ug/L	1.0 U [1.0 U]	4.0 U	4.0 U	5.0 U	8.0 U	10 U	4.0 U	10 U	2.0 U	2.0 U	1.0 U	2.0 U
1,2-Dichloroethane	0.6	ug/L	1.0 U [1.0 U]	4.0 U	4.0 U	5.0 U	8.0 U	10 U	4.0 U	10 U	2.0 U	2.0 U	1.0 U	2.0 U
1,2-Dichloropropane	1	ug/L	1.0 U [1.0 U]	4.0 U	4.0 U	5.0 U	8.0 U	10 U	4.0 U	10 U	2.0 U	2.0 U	1.0 U	2.0 U
1,3-Dichlorobenzene	3	ug/L	1.0 U [1.0 U]	4.0 U	4.0 U	5.0 U	8.0 U	10 U	4.0 U	10 U	2.0 U	2.0 U	1.0 U	2.0 U
1,4-Dichlorobenzene	3	ug/L	1.0 U [1.0 U]	4.0 U	4.0 U	5.0 U	8.0 U	10 U	4.0 U	10 U	2.0 U	2.0 U	1.0 U	2.0 U
2-Butanone	50	ug/L	10 U [10 U]	40 U	40 U	50 U	80 U	100 U	40 U	100 U	20 U	20 U	10 U	20 U
2-Hexanone	50	ug/L	5.0 U [5.0 U]	20 U	20 U	25 U	40 U	50 U	20 U	50 U	10 U	10 U	5.0 U	10 U
4-Methyl-2-pentanone	- -	ug/L	5.0 U [5.0 U]	20 U	20 U	25 U	40 U	50 U	20 U	50 U	10 U	10 U	5.0 U	10 U
Acetone	50	ug/L	10 U [10 U]	40 U	**62**	**56**	80 U	100 U	40 U	100 U	**9.4 J**	**37**	10 U	20 U
Benzene	1	ug/L	**4.9 [4.1]**	4.0 U	4.0 U	**3.0 J**	8.0 U	**8.6 J**	**12**	**8.7 J**	2.0 U	2.0 U	1.0 U	**1.1 J**
Bromodichloromethane	50	ug/L	1.0 U [1.0 U]	4.0 U	4.0 U	5.0 U	8.0 U	10 U	4.0 U	10 U	2.0 U	2.0 U	1.0 U	2.0 U
Bromoform	50	ug/L	1.0 U [1.0 U]	4.0 U	4.0 U	5.0 U	8.0 U	10 U	4.0 U	10 U	2.0 U	2.0 U	1.0 U	2.0 U
Bromomethane	5	ug/L	1.0 U [1.0 U]	4.0 U	4.0 U	5.0 U	8.0 U	10 U	4.0 U	10 U	2.0 U	2.0 U	1.0 U	2.0 U
Carbon Disulfide	60	ug/L	**1.3 [1.7]**	4.0 U	4.0 U	5.0 U	8.0 U	10 U	4.0 U	10 U	**0.6 J**	2.0 U	**0.37 J**	2.0 U
Carbon Tetrachloride	5	ug/L	1.0 U [1.0 U]	4.0 U	4.0 U	5.0 U	8.0 U	10 U	4.0 U	10 U	2.0 U	2.0 U	1.0 U	2.0 U
Chlorobenzene	5	ug/L	1.0 U [1.0 U]	4.0 U	4.0 U	5.0 U	8.0 U	10 U	4.0 U	10 U	2.0 U	2.0 U	1.0 U	2.0 U
Chloroethane	5	ug/L	1.0 U [1.0 U]	4.0 U	4.0 U	5.0 U	8.0 U	10 U	4.0 U	10 U	2.0 U	2.0 U	1.0 U	2.0 U
Chloroform	7	ug/L	1.0 U [1.0 U]	4.0 U	4.0 U	5.0 U	8.0 U	10 U	4.0 U	10 U	2.0 U	2.0 U	1.0 U	2.0 U
Chloromethane	5	ug/L	1.0 U [1.0 U]	4.0 U	4.0 U	5.0 U	8.0 U	10 U	4.0 U	10 U	2.0 U	2.0 U	1.0 U	2.0 U
cis-1,2-Dichloroethene	5	ug/L	**6.1 [4.0]**	4.0 U	4.0 U	5.0 U	8.0 U	10 U	4.0 U	10 U	2.0 U	2.0 U	1.0 U	**2.2**
cis-1,3-Dichloropropene	0.4	ug/L	1.0 U [1.0 U]	4.0 U	4.0 U	5.0 U	8.0 U	10 U	4.0 U	10 U	2.0 U	2.0 U	1.0 U	2.0 U
Cyclohexane	- -	ug/L	**1.4 [1.6]**	4.0 U	4.0 U	5.0 U	8.0 U	10 U	4.0 U	10 U	2.0 U	2.0 U	1.0 U	2.0 U
Dibromochloromethane	50	ug/L	1.0 U [1.0 U]	4.0 U	4.0 U	5.0 U	8.0 U	10 U	4.0 U	10 U	2.0 U	2.0 U	1.0 U	2.0 U
Dichlorodifluoromethane	5	ug/L	1.0 U* [1.0 U*]	4.0 U*	4.0 U	5.0 U	8.0 U	10 U	4.0 U	10 U	2.0 U	2.0 U	1.0 U	2.0 U
Ethylbenzene	5	ug/L	**2.2 [2.3]**	4.0 U	4.0 U	5.0 U	8.0 U	10 U	**3.0 J**	10 U	2.0 U	2.0 U	1.0 U	2.0 U
Isopropylbenzene	5	ug/L	1.0 U [1.0 U]	4.0 U	4.0 U	5.0 U	8.0 U	10 U	4.0 U	10 U	2.0 U	2.0 U	1.0 U	2.0 U
Methyl acetate	- -	ug/L	2.5 U [2.5 U]	10 U	10 U	13 U	20 U	25 U	10 U	25 U	5.0 U	5.0 U	2.5 U	5.0 U
Methyl tert-butyl ether	10	ug/L	**120 [150]**	**81**	**120**	**270**	**220**	**310**	**390**	**290**	**85**	**43**	1.0 U	**84**
Methylcyclohexane	- -	ug/L	**0.66 J [0.64 J]**	4.0 U	4.0 U	5.0 U	8.0 U	10 U	4.0 U	10 U	2.0 U	2.0 U	1.0 U	2.0 U
Methylene Chloride	5	ug/L	1.0 U [1.0 U]	4.0 U	**120**	**84 F1**	8.0 U	10 U	**3.6 J**	10 U	**15**	**81**	1.0 U	2.0 U
Styrene	5	ug/L	1.0 U [1.0 U]	4.0 U	4.0 U	5.0 U	8.0 U	10 U	4.0 U	10 U	2.0 U	2.0 U	1.0 U	2.0 U
Tetrachloroethene	5	ug/L	1.0 U [1.0 U]	4.0 U	4.0 U	5.0 U	8.0 U	10 U	4.0 U	10 U	2.0 U	2.0 U	1.0 U	2.0 U
Toluene	5	ug/L	**0.64 J [0.68 J]**	4.0 U	4.0 U	5.0 U	8.0 U	10 U	4.0 U	10 U	2.0 U	2.0 U	1.0 U	2.0 U
trans-1,2-Dichloroethene	5	ug/L	**6.8 [6.5]**	4.0 U	4.0 U	5.0 U	8.0 U	10 U	4.0 U	10 U	2.0 U	2.0 U	1.0 U	2.0 U
trans-1,3-Dichloropropene	0.4	ug/L	1.0 U [1.0 U]	4.0 U	4.0 U	5.0 U	8.0 U	10 U	4.0 U	10 U	2.0 U	2.0 U	1.0 U	2.0 U
Trichloroethene	5	ug/L	1.0 U [1.0 U]	4.0 U	4.0 U	5.0 U	8.0 U	10 U	4.0 U	10 U	2.0 U	2.0 U	1.0 U	2.0 U
Trichlorofluoromethane	5	ug/L	1.0 U [1.0 U]	4.0 U	4.0 U	5.0 U	8.0 U	10 U	4.0 U	10 U	2.0 U	2.0 U	1.0 U	2.0 U
Vinyl Chloride	2	ug/L	**15 [33]**	4.0 U	**20**	**280 F1**	**250 F1**	**18**	**51**	**28**	2.0 U	2.0 U	1.0 U	**28**
Xylenes (total)	5	ug/L	**6.6 [7.2]**	8.0 U	8.0 U	10 U	16 U	20 U	8.0 U	20 U	4.0 U	4.0 U	2.0 U	4.0 U

Summary of Pre-FS Groundwater Analytical Data
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, NY

Location ID:			MW-24-D1	MW-24-D1	MW-24-D2	MW-24-D2	MW-24-D2	MW-26-D1	MW-26-D1	MW-26-D1	MW-26-D2	MW-26-D2	MW-26-D2	MW-27-D1
Historical Screen Interval (feet below ground surface)			17 - 27	17 - 27	32 - 42	32 - 42	32 - 42	15 - 25	15 - 25	15 - 25	30 - 40	30 - 40	30 - 40	18 - 28
Approximate Screen Interval (Feet below approximate ground surface)[a]:	NYSDEC TOGS 1.1.1 Water Guidance		21 - 31	21 - 31	36 - 46	36 - 46	36 - 46	19 - 29	19 - 29	19 - 29	34 - 44	34 - 44	34 - 44	22-32
Date Collected:	Values	Units	10/26/16	10/26/16	10/25/16	10/25/16	07/05/17	10/25/16	10/25/16	07/05/17	10/25/16	10/25/16	07/05/17	07/05/17
Field Notes			Hydrasleeve	Low Flow	Hydrasleeve	Low Flow	Hydrasleeve	Hydrasleeve	Low Flow	Hydrasleeve	Hydrasleeve	Low Flow	Hydrasleeve	Hydrasleeve
Inorganics														
Iron. Dissolved	0.3	mg/L	**0.058 B** [0.050 U]	**0.024 JB**	**0.049 J**	0.050 U	NA	0.050 U	0.050 U	NA	**0.055**	0.050 U	NA	NA
Iron,Total	0.3	mg/L	NA	NA	NA	NA	**1.8**	NA	NA	**0.23**	NA	NA	**0.97**	**2.8**
Manganese, Dissolved	0.3	mg/L	**0.0089 B [0.049 B]**	**0.059 B**	**0.062**	**0.056**	NA	**0.025**	**0.037**	NA	**0.063**	**0.14**	NA	NA
Manganese, Total	0.3	mg/L	NA	NA	NA	NA	**0.088**	NA	NA	**0.041**	NA	NA	**0.42**	**0.056**
Sodium	20	mg/L	NA	NA	NA	NA	**2,520^**	NA	NA	**1,570^**	NA	NA	**3,930^**	**1,130^**
General Chemistry														
Alkalinity	- -	mg/L	**324 [526]**	**577**	**512**	**759**	**667**	**479**	**591**	**542**	NA	**653**	**348**	**394 B**
Alkalinity, Bicarbonate	- -		**324 [526]**	**577**	**512**	**759**	NA	**479**	**591**	NA	NA	**653**	NA	NA
Carbon Dioxide	- -	mg/L	NA	NA	NA	NA	**130**	NA	NA	**120**	NA	NA	**130**	**26**
Chloride	250	mg/L	NA	NA	NA	NA	**4,060**	NA	NA	**2,520**	NA	NA	**9,010**	**2,860**
Ethane	- -	mg/L	NA	NA	NA	NA	0.15 U	NA	NA	0.15U	NA	NA	0.0075 U	0.38 U
Ethene	- -	mg/L	NA	NA	NA	NA	0.14 U	NA	NA	0.14U	NA	NA	0.0070 U	0.35 U
Methane	- -	mg/L	NA	NA	NA	NA	**0.13**	NA	NA	**0.25**	NA	NA	**0.076**	**0.55**
Ferric Iron	- -						**1.8**			**0.23**			**0.97**	**2.8**
Ferrous Iron	- -						0.10 U HF			0.10 U HF			0.10 U HF	0.10 U HF
Nitrate Nitrogen	10	mg/L	NA	NA	NA	NA	0.050 U	NA	NA	0.050 U	NA	NA	0.050 U	0.050 U
Nitrite Nitrogen	1	mg/L	NA	NA	NA	NA	0.050 U	NA	NA	0.050 U	NA	NA	0.050 U	0.050 U
Total Organic Carbon	- -	mg/L	NA	NA	NA	NA	**12.5 B**	NA	NA	**9.1 B**	NA	NA	**4.3 B**	**13.7 B**
Sulfate	250	mg/L	**248 [217]**	**219**	**374**	**270**	**541**	**252**	**131**	**313**	NA	**382**	**1,580**	**308**
Sulfide	0.05	mg/L	**60 [64 F1]**	**56**	**48**	**64**	**84**	**48**	**56**	**44**	**40**	**36**	**24.4**	**14.4**

Notes:
ug/L: micrograms per liter.
mg/L: milligrams per liter.
[a]: Screen intervals will be updated once wells are surveyed in Septen
U: Indicates the analyte was analyzed for but not detected.
J: Result is less than the reporting limit but greater than or equall 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.
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.

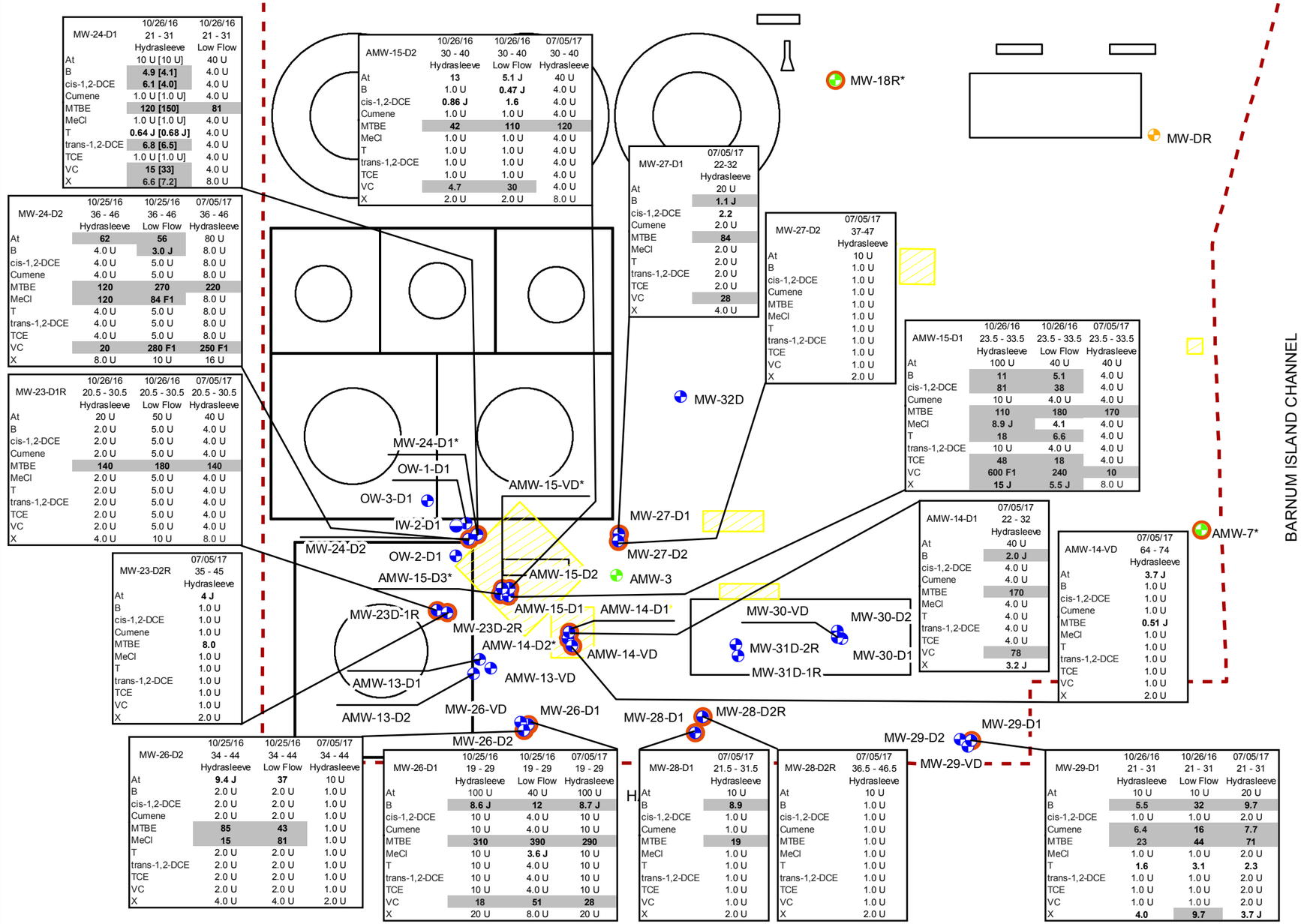
Summary of Pre-FS Groundwater Analytical Data
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-27-D2	MW-28-D1	MW-28-D2R	MW-29-D1	MW-29-D1	MW-29-D1
Historical Screen Interval (feet below ground surface)			33-43	17.5 - 27.5	32.5 - 42.5	17 - 27	17 - 27	17 - 27
Approximate Screen Interval (Feet below approximate ground surface)[a]:			37-47	21.5 - 31.5	36.5 - 46.5	21 - 31	21 - 31	21 - 31
Date Collected:			07/05/17	07/05/17	07/05/17	10/26/16	10/26/16	07/05/17
Field Notes			Hydrasleeve	Hydrasleeve	Hydrasleeve	Hydrasleeve	Low Flow	Hydrasleeve
Volatile Organics								
1,1,1-Trichloroethane	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
1,1,2,2-Tetrachloroethane	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
1,1,2-Trichloroethane	1	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
1,1-Dichloroethane	5	ug/L	1.0 U	**0.58 J**	1.0 U	1.0 U	1.0 U	2.0 U
1,1-Dichloroethene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
1,2,4-Trichlorobenzene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
1,2-Dibromo-3-chloropropane	0.04	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
1,2-Dibromoethane	0.0006	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
1,2-Dichlorobenzene	3	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
1,2-Dichloroethane	0.6	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
1,2-Dichloropropane	1	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
1,3-Dichlorobenzene	3	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
1,4-Dichlorobenzene	3	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
2-Butanone	50	ug/L	10 U	10 U	10 U	10 U	10 U	20 U
2-Hexanone	50	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U
4-Methyl-2-pentanone	- -	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U
Acetone	50	ug/L	10 U	10 U	10 U	10 U	10 U	20 U
Benzene	1	ug/L	1.0 U	**8.9**	1.0 U	**5.5**	**32**	**9.7**
Bromodichloromethane	50	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Bromoform	50	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Bromomethane	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Carbon Disulfide	60	ug/L	1.0 U	**0.40 J**	**0.38 J**	**0.21 J**	1.0 U	2.0 U
Carbon Tetrachloride	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Chlorobenzene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Chloroethane	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Chloroform	7	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Chloromethane	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
cis-1,2-Dichloroethene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
cis-1,3-Dichloropropene	0.4	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Cyclohexane	- -	ug/L	1.0 U	1.0 U	1.0 U	**11**	**21**	**7.6**
Dibromochloromethane	50	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Dichlorodifluoromethane	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U*	1.0 U*	2.0 U
Ethylbenzene	5	ug/L	1.0 U	**1.2**	1.0 U	1.0 U	1.0 U	2.0 U
Isopropylbenzene	5	ug/L	1.0 U	1.0 U	1.0 U	**6.4**	**16**	**7.7**
Methyl acetate	- -	ug/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5.0 U
Methyl tert-butyl ether	10	ug/L	1.0 U	**19**	1.0 U	**23**	**44**	**71**
Methylcyclohexane	- -	ug/L	1.0 U	1.0 U	1.0 U	**2.5**	**10**	**1.8 J**
Methylene Chloride	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Styrene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Tetrachloroethene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Toluene	5	ug/L	1.0 U	1.0 U	1.0 U	**1.6**	**3.1**	**2.3**
trans-1,2-Dichloroethene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
trans-1,3-Dichloropropene	0.4	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Trichloroethene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Trichlorofluoromethane	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Vinyl Chloride	2	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Xylenes (total)	5	ug/L	2.0 U	2.0 U	2.0 U	**4.0**	**9.7**	**3.7 J**

Summary of Pre-FS Groundwater Analytical Data
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-27-D2	MW-28-D1	MW-28-D2R	MW-29-D1	MW-29-D1	MW-29-D1
Historical Screen Interval (feet below ground surface)			33-43	17.5 - 27.5	32.5 - 42.5	17 - 27	17 - 27	17 - 27
Approximate Screen Interval (Feet below approximate ground surface)[a]:			37-47	21.5 - 31.5	36.5 - 46.5	21 - 31	21 - 31	21 - 31
Date Collected:			07/05/17	07/05/17	07/05/17	10/26/16	10/26/16	07/05/17
Field Notes			Hydrasleeve	Hydrasleeve	Hydrasleeve	Hydrasleeve	Low Flow	Hydrasleeve
Inorganics								
Iron. Dissolved	0.3	mg/L	NA	NA	NA	0.050 U	**0.22 B**	NA
Iron,Total	0.3	mg/L	**12.4**	**3.6**	**6.8**	NA	NA	**0.46**
Manganese, Dissolved	0.3	mg/L	NA	NA	NA	**0.0052 B**	**0.25 B**	NA
Manganese, Total	0.3	mg/L	**0.55**	**0.067**	**0.34**	NA	NA	**0.35**
Sodium	20	mg/L	**2,690^**	**418^**	**3,810^**	NA	NA	**951^**
General Chemistry								
Alkalinity	- -	mg/L	**408 B**	**457**	**334**	**547**	**540**	**556**
Alkalinity, Bicarbonate	- -		NA	NA	NA	**547**	**540**	NA
Carbon Dioxide	- -	mg/L	**130**	**51**	**120**	NA	NA	**180**
Chloride	250	mg/L	**6,330**	**3,120**	**9,090**	NA	NA	**1,610**
Ethane	- -	mg/L	0.075 U	0.15 U	0.0075 U	NA	NA	0.300 U
Ethene	- -	mg/L	0.070 U	0.14 U	0.0070 U	NA	NA	0.280 U
Methane	- -	mg/L	**0.053**	**0.29**	**0.067**	NA	NA	**0.68**
Ferric Iron	- -		**12.4**	**3.6**	**6.7**			**0.46**
Ferrous Iron	- -		0.10 U HF	0.10 U HF	**0.092 J HF**			0.10 U HF
Nitrate Nitrogen	10	mg/L	0.050 U	0.050 U	0.050 U	NA	NA	0.050 U
Nitrite Nitrogen	1	mg/L	0.050 U	0.050 U	0.050 U	NA	NA	0.050 U
Total Organic Carbon	- -	mg/L	**6.3 B**	**13.0 B**	**4.0 B**	NA	NA	**13.5 B**
Sulfate	250	mg/L	**808**	**340**	**1,620**	**1.8 J**	5 U	100 U
Sulfide	0.05	mg/L	**12.8**	**4.0**	**2.4**	2 U	**1.2**	**0.8 J**

Notes:
ug/L: micrograms per liter.
mg/L: milligrams per liter.
[a]: Screen intervals will be updated once wells are surveyed in Septen
U: Indicates the analyte was analyzed for but not detected.
J: Result is less than the reporting limit
but greater than or equall 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.
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.



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
- Excavation Area
- Site Feature
- Property Boundary

Location ID
Date Collected
Screen Interval
Field Notes

Compound	Abbreviation	NYSDEC TOGS 1.1.1 Water Guidance
Acetone	At	50
Benzene	B	1
cis-1,2-Dichloroethene	cis-1,2-DCE	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 9/5/2017	date	date	
job no. 319926.00.16.A.695A.0202.0100			file no. GW_Chem_VOC_TOGs

initials	date	revision

leidos

Path: D:\Harrisburg\GISData\CVX\Oceanside, NY 6518040\Projects\2017\GW_Chem_VOC_TOGs.mxd