

November 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 – October 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. The installation originally planned for early November was postponed until next year to provide more time to plan for waste management and union labor considerations.
- Hydra-sleeves™ 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, were removed and groundwater samples collected on October 11, 2017. Accessible monitoring wells were gauged during low tide on October 12, 2017 and October 31, 2017.

### **ACTIONS PLANNED FOR NEXT PERIOD**

- Coordinate with NYSDEC and other stakeholders.
- Meeting with NYSDEC to provide a conceptual site model and discuss postponing the feasibility study scheduled for November 16, 2017.

### **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 October 11, 2017, from 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). Monitoring wells AMW-7, MW-18R, MW-27-D1, and MW-24-D1 were not sampled due to well damage at the time of Hydrasleeve™ deployment. Concentrations exceeding the NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1 Water Guidance Values were detected in groundwater samples analyzed from 10 of the 16 monitoring wells sampled (AMW-14-D1, AMW-14-D2, AMW-15-D1, AMW-15-D2, MW-23-D1R, MW-23-D2R, MW-24-D2, MW-26-D2, MW-28-D1, and MW-29-D1). The reported groundwater results from monitoring wells AMW-14-VD, AMW-15-D3, AMW-15-VD, MW-26-D1, 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 [ $\mu\text{g/L}$ ]) were detected in groundwater samples analyzed from AMW-14-D1 (4.7  $\mu\text{g/L}$ ), AMW-15-D1 (11  $\mu\text{g/L}$ ), AMW-15-D2 (2.7J  $\mu\text{g/L}$ ), MW-28-D1 (3.7J  $\mu\text{g/L}$ ), and MW-29-D1 (4.3  $\mu\text{g/L}$ ). Results flagged “J” are estimated values less than the reporting limit but greater than or equal to the method detection limit.
- A concentration exceeding the TOGS Water Guidance Value for ethylbenzene (5  $\mu\text{g/L}$ ) was detected in the groundwater sample analyzed from AMW-14-D1 (7.2  $\mu\text{g/L}$ ).
- A concentration exceeding the TOGS Water Guidance Value for isopropylbenzene (5  $\mu\text{g/L}$ ) was detected in the groundwater sample analyzed from MW-29-D1 (5.8  $\mu\text{g/L}$ ).
- Concentrations exceeding the TOGS Water Guidance Value for methyl tert-butyl ether (MTBE; 10  $\mu\text{g/L}$ ) were detected in groundwater samples analyzed from AMW-14-D1 (170  $\mu\text{g/L}$ ), AMW-14-D2 (48  $\mu\text{g/L}$ ), AMW-15-D1 (290  $\mu\text{g/L}$ ), AMW-15-D2 (160  $\mu\text{g/L}$ ), MW-23-D1R (150  $\mu\text{g/L}$ ), MW-23-D2R (140  $\mu\text{g/L}$ ),

MW-24-D2 (60 µg/L), MW-26-D2 (14 µg/L), and MW-29-D1 (20 µg/L). Migration of MTBE from up-gradient, off-site potential sources is being evaluated.

- A concentration exceeding the TOGS Water Guidance Value for toluene (5 µg/L) was detected in the groundwater sample analyzed from AMW-15-D1 (5.9 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-14-D1 (13 µg/L) and AMW-15-D1 (13 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 (3.2 µg/L), AMW-15-D1 (24 µg/L), AMW-15-D2 (25 µg/L), and MW-24-D2 (18 µg/L).
- Concentrations exceeding the TOGS Water Guidance Value for xylenes (5 µg/L) were detected in groundwater samples analyzed from AMW-14-D1 (20 µg/L) and AMW-15-D1 (12 µg/L).
- It should be noted that trichloroethylene and perchloroethylene were not detected in any well sampled during the October 2017 sampling event.

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

Accessible monitoring wells were gauged on October 12 and 31, 2017, during low tide. Phase-separated hydrocarbons were not detected in any monitoring wells during the October 2017 gauging events. Gauging data is presented in Table 2.

Groundwater contour maps for the D1, D2, and VD horizons during high tide on September 7, 2017, are provided on Figures 2, 3, and 4, respectively; and groundwater contour maps for the D1, D2, and VD horizons during low tide on October 31, 2017, are provided on Figures 5, 6, and 7, respectively.

#### **UNRESOLVED DELAYS ENCOUNTERED OR ANTICIPATED**

- Re-installation of monitoring wells AMW-7, MW-18R, MW-24-D1, MW-27-D1, MW-24-VD, and OW-3-D1 has been postponed until late winter of 2018 due to additional time needed to explore alternative waste management needs for this activity and union labor considerations.


#### **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](mailto: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 through October 2017 Groundwater Gauging Data  
Figure 1 - VOC TOGS Exceedances in Pre-FS Groundwater Samples  
Figure 2 - D1 Horizon GW Contour Map - September 7, 2017 (High Tide)  
Figure 3 - D2 Horizon GW Contour Map - September 7, 2017 (High Tide)  
Figure 4 - VD Horizon GW Contour Map - September 7, 2017 (High Tide)  
Figure 5 - D1 Horizon GW Contour Map - October 31, 2017 (Low Tide)  
Figure 6 - D2 Horizon GW Contour Map - October 31, 2017 (Low Tide)  
Figure 7 - VD Horizon GW Contour Map - October 31, 2017 (Low Tide)

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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.

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

Location ID: Approximate Screen Interval (Feet below top of casing): Date Collected: Field Notes	NYSDEC TOGS 1.1.1 Water Guidance	AMW-14-D1		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-D2		AMW-15-D2		AMW-15-D3		AMW-15-D3		AMW-15-VD		MW-23-D1R		MW-23-D1R		MW-23-D1R		MW-23-D1R		MW-23-D1R		MW-23-D2R		MW-23-D2R		MW-23-D2R			
		21.5 - 31.5	21.5 - 31.5	21.5 - 31.5	31.5 - 41.5	31.5 - 41.5	63.5 - 73.5	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	29.5 - 39.5	39.5 - 49.5	39.5 - 49.5	60 - 70	60 - 70	20 - 30	20 - 30	20 - 30	20 - 30	20 - 30	20 - 30	20 - 30	20 - 30	20 - 30	20 - 30	20 - 30	20 - 30	20 - 30	20 - 30	20 - 30	20 - 30	20 - 30	20 - 30	20 - 30	20 - 30	20 - 30	20 - 30			
		Units	07/05/17	08/27/17	10/11/17	08/27/17	10/11/17	07/05/17	08/27/17	10/11/17	10/26/16	10/26/16	07/05/17	08/27/17	10/11/17	10/26/16	10/26/16	07/05/17	08/27/17	10/11/17	08/27/17	10/11/17	08/27/17	10/11/17	08/27/17	10/11/17	08/27/17	10/11/17	10/26/16	10/26/16	07/05/17	08/27/17	10/11/17	07/05/17	08/27/17	10/11/17	07/05/17	08/27/17	10/11/17	07/05/17	08/27/17	10/11/17					
<b>Volatile Organics</b>																																															
1,1,1-Trichloroethane	5	ug/L	4.0 U	4.0 U	2.0 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	4.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U				
1,1,2,2-Tetrachloroethane	5	ug/L	4.0 U	4.0 U	2.0 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	4.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U			
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	4.0 U	4.0 U	2.0 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	4.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U			
1,1,2-Trichloroethane	1	ug/L	4.0 U	4.0 U	2.0 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	4.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U		
1,1-Dichloroethane	5	ug/L	4.0 U	4.0 U	2.0 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	4.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U		
1,1-Dichlorobenzene	5	ug/L	4.0 U	4.0 U	2.0 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	4.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U		
1,2,4-Trichlorobenzene	5	ug/L	4.0 U	4.0 U	2.0 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	4.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U		
1,2-Dibromo-3-chloropropane	0.04	ug/L	4.0 U	4.0 U	2.0 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	4.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U		
1,2-Dibromobenzene	0.0006	ug/L	4.0 U	4.0 U	2.0 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	4.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U		
1,2-Dichlorobenzene	3	ug/L	4.0 U	4.0 U	2.0 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	4.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U		
1,2-Dichloroethane	0.6	ug/L	4.0 U	4.0 U	2.0 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	4.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U		
1,2-Dichloropropane	1	ug/L	4.0 U	4.0 U	2.0 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	4.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U		
1,3-Dichlorobenzene	3	ug/L	4.0 U	4.0 U	2.0 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	4.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U		
1,4-Dichlorobenzene	3	ug/L	4.0 U	4.0 U	2.0 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	4.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U		
2-Butanone	50	ug/L	40 U	40 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	40 U	40 U	20 U	10 U	10 U	100 U	40 U	40 U	40 U	20 U	10 U	10 U	20 U	50 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U
2-Hexanone	50	ug/L	20 U	20 U	10 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	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	
4-Methyl-2-pentanone	--	ug/L	20 U	20 U	10 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	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	
Acetone	50	ug/L	40 U	40 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	40 U	40 U	20 U	10 U	10 U	100 U	40 U	40 U	40 U	20 U	10 U	10 U	20 U	50 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U
Benzene	1	ug/L	2.0 J	4.0 U	4.7	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	11	5.1	4.0 U	4.0 U	4.0 U	12	11	1.0 U	0.47 J	4.0 U	9.8	2.7 J	3.7 J	2.0 U	1.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	
Bromodichloromethane	50	ug/L	4.0 U	4.0 U	2.0 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	10 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	10 U	4.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U		
Bromoflorm	50	ug/L	4.0 U	4.0 U	2.0 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	10 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	10 U	4.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U		
Bromobenzene	5	ug/L	4.0 U	4.0 U	2.0 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	10 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	10 U	4.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	2.0 U	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U		
Carbon Disulfide	60	ug/L	4.0 U	4.0 U	1.3 J	2.7	0.94 J	0.25 J	1.0 U	1.6	10 U	1.7 J	4.0 U	2.7 J	2.0	0.75 J	0.42 J	4.0 U	4.0 U	1.8 J	2.0 U	1.0 U	1.0 U	0.53 J	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	0.44 J		
Carbon Tetrachloride	5	ug/L	4.0 U																																												



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

Location ID: Approximate Screen Interval (Feet below top of casing): Date Collected: Field Notes	NYSDEC TOGS 1.1.1 Water Guidance	Units	MW-29-D1	MW-29-D1	MW-29-D1	MW-29-D1
			20.5 - 30.5	20.5 - 30.5	20.5 - 30.5	20.5 - 30.5
			10/26/16	07/05/17	08/27/17	10/11/17
			Low Flow	Hydrasleeve	Hydrasleeve	Hydrasleeve
<b>Volatile Organics</b>						
1,1,1-Trichloroethane	5	ug/L	1.0 U	2.0 U	2.0 U	4.0 U
1,1,2,2-Tetrachloroethane	5	ug/L	1.0 U	2.0 U	2.0 U	4.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	1.0 U	2.0 U	2.0 U	4.0 U
1,1,2-Trichloroethane	1	ug/L	1.0 U	2.0 U	2.0 U	4.0 U
1,1-Dichloroethane	5	ug/L	1.0 U	2.0 U	2.0 U	4.0 U
1,1-Dichloroethene	5	ug/L	1.0 U	2.0 U	2.0 U	4.0 U
1,2,4-Trichlorobenzene	5	ug/L	1.0 U	2.0 U	2.0 U	4.0 U
1,2-Dibromo-3-chloropropane	0.04	ug/L	1.0 U	2.0 U	2.0 U	4.0 U
1,2-Dibromoethane	0.0006	ug/L	1.0 U	2.0 U	2.0 U	4.0 U
1,2-Dichlorobenzene	3	ug/L	1.0 U	2.0 U	2.0 U	4.0 U
1,2-Dichloroethane	0.6	ug/L	1.0 U	2.0 U	2.0 U	4.0 U
1,2-Dichloropropane	1	ug/L	1.0 U	2.0 U	2.0 U	4.0 U
1,3-Dichlorobenzene	3	ug/L	1.0 U	2.0 U	2.0 U	4.0 U
1,4-Dichlorobenzene	3	ug/L	1.0 U	2.0 U	2.0 U	4.0 U
2-Butanone	50	ug/L	10 U	20 U	20 U	40 U
2-Hexanone	50	ug/L	5.0 U	10 U	10 U	20 U
4-Methyl-2-pentanone	--	ug/L	5.0 U	10 U	10 U	20 U
Acetone	50	ug/L	10 U	20 U	20 U	40 U
Benzene	1	ug/L	<b>32</b>	<b>9.7</b>	<b>19</b>	<b>4.3</b>
Bromodichloromethane	50	ug/L	1.0 U	2.0 U	2.0 U	4.0 U
Bromoforn	50	ug/L	1.0 U	2.0 U	2.0 U	4.0 U
Bromomethane	5	ug/L	1.0 U	2.0 U	2.0 U	4.0 U
Carbon Disulfide	60	ug/L	1.0 U	2.0 U	2.0 U	4.0 U
Carbon Tetrachloride	5	ug/L	1.0 U	2.0 U	2.0 U	4.0 U
Chlorobenzene	5	ug/L	1.0 U	2.0 U	2.0 U	4.0 U
Chloroethane	5	ug/L	1.0 U	2.0 U	2.0 U	4.0 U
Chloroform	7	ug/L	1.0 U	2.0 U	2.0 U	4.0 U
Chloromethane	5	ug/L	1.0 U	2.0 U	2.0 U	4.0 U
cis-1,2-Dichloroethene	5	ug/L	1.0 U	2.0 U	2.0 U	4.0 U
cis-1,3-Dichloropropene	0.4	ug/L	1.0 U	2.0 U	2.0 U	4.0 U
Cyclohexane	--	ug/L	<b>21</b>	<b>7.6</b>	<b>12</b>	<b>5.4</b>
Dibromochloromethane	50	ug/L	1.0 U	2.0 U	2.0 U	4.0 U
Dichlorodifluoromethane	5	ug/L	1.0 U*	2.0 U	2.0 U	4.0 U
Ethylbenzene	5	ug/L	1.0 U	2.0 U	2.0 U	4.0 U
Isopropylbenzene	5	ug/L	<b>16</b>	<b>7.7</b>	<b>9.3</b>	<b>5.8</b>
Methyl acetate	--	ug/L	2.5 U	5.0 U	5.0 U	10 U
Methyl tert-butyl ether	10	ug/L	<b>44</b>	<b>71</b>	<b>28</b>	<b>20</b>
Methylcyclohexane	--	ug/L	<b>10</b>	<b>1.8 J</b>	<b>5.8</b>	<b>1.5 J</b>
Methylene Chloride	5	ug/L	1.0 U	2.0 U	2.0 U	4.0 U
Styrene	5	ug/L	1.0 U	2.0 U	2.0 U	4.0 U
Tetrachloroethene	5	ug/L	1.0 U	2.0 U	2.0 U	4.0 U
Toluene	5	ug/L	<b>3.1</b>	<b>2.3</b>	<b>1.7 J</b>	<b>4.0 U</b>
trans-1,2-Dichloroethene	5	ug/L	1.0 U	2.0 U	2.0 U	4.0 U
trans-1,3-Dichloropropene	0.4	ug/L	1.0 U	2.0 U	2.0 U	4.0 U
Trichloroethene	5	ug/L	1.0 U	2.0 U	2.0 U	4.0 U
Trichlorofluoromethane	5	ug/L	1.0 U	2.0 U	2.0 U	4.0 U
Vinyl Chloride	2	ug/L	1.0 U	2.0 U	2.0 U	4.0 U
Xylenes (total)	5	ug/L	<b>9.7</b>	<b>3.7 J</b>	<b>4.3</b>	<b>4.3 J</b>
<b>Inorganics</b>						
Iron, Dissolved	0.3	mg/L	<b>0.22 B</b>	NA	NA	NA
Iron, Total	0.3	mg/L	NA	<b>0.46</b>	<b>2.4</b>	<b>3.4</b>
Manganese, Dissolved	0.3	mg/L	<b>0.25 B</b>	NA	NA	NA
Manganese, Total	0.3	mg/L	NA	<b>0.35</b>	<b>0.15 B</b>	<b>0.30 B</b>
Sodium	20	mg/L	NA	<b>951*</b>	<b>2,470 *</b>	<b>893*</b>
<b>General Chemistry</b>						
Alkalinity	--	mg/L	<b>540</b>	<b>556</b>	<b>560 B</b>	<b>619</b>
Alkalinity, Bicarbonate	--	mg/L	<b>540</b>	NA	NA	NA
Carbon Dioxide	--	mg/L	NA	<b>180</b>	<b>150</b>	<b>140</b>
Chloride	250	mg/L	NA	<b>1,610</b>	<b>1,580</b>	<b>1,530</b>
Ethane	--	mg/L	NA	0.300 U	0.66 U	0.170 U
Ethene	--	mg/L	NA	0.280 U	0.62 U	0.150 U
Methane	--	mg/L	NA	<b>0.68</b>	<b>11</b>	<b>5.2</b>
Ferric Iron	--	mg/L	NA	<b>0.46</b>	<b>2.4</b>	<b>3.4</b>
Ferrous Iron	--	mg/L	NA	0.10 U HF	0.10 U HF F1	0.10 U HF F1
Nitrate Nitrogen	10	mg/L	NA	0.050 U	0.050 U H	0.050 U
Nitrite Nitrogen	1	mg/L	NA	0.050 U	0.050 U H	0.050 U
Total Organic Carbon	--	mg/L	NA	<b>13.5 B</b>	<b>12.9 B</b>	<b>11.3 B</b>
Sulfate	250	mg/L	5 U	100 U	100 U	40 U
Sulfide	0.05	mg/L	<b>1.2</b>	<b>0.8 J</b>	<b>101</b>	<b>1.2</b>

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 tin  
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 THROUGH OCTOBER 2017 GROUNDWATER GAUGING DATA**  
**FORMER GULF OIL TERMINAL**  
**OCEANSIDE, TOWNSHIP OF HEMPSTEAD, NEW YORK**

Monitoring Well	Date	Tide Cycle	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)
<b>Shallow Fill Unit Monitoring Wells</b>										
AMW-3	7/27/2017	High	2	12.75	7.75 - 12.75	9.05	5.47	NP	NP	3.58
	9/7/2017	High					5.74	NP	NP	3.31
	10/12/2017	Low					6.04	NP	NP	3.01
	10/31/2017	Low					9.80	NP	NP	-0.75
AMW-7	7/27/2017	High	2	NAV	NAV	NAV	5.50	NP	NP	NAV
	9/7/2017	High					NG	NG	NG	NG
	10/12/2017	Low					NG	NG	NG	NG
	10/31/2017	Low					5.15	NP	NP	NAV
MW-18R	7/27/2017	High	2	NAV	NAV	NAV	NG	NG	NG	NG
	9/7/2017	High					NG	NG	NG	NG
	10/12/2017	Low					NG	NG	NG	NG
	10/31/2017	Low					NG	NG	NG	NG
<b>D1 Horizon Monitoring Wells</b>										
AMW-13-D1	7/27/2017	High	2	31.67	21.67 - 31.67	9.87	7.52	NP	NP	2.35
	9/7/2017	High					9.07	NP	NP	0.80
	10/12/2017	Low					10.75	NP	NP	-0.88
	10/31/2017	Low					10.82	NP	NP	-0.95
AMW-14-D1	7/27/2017	High	2	31.68	21.68 - 31.68	9.38	7.16	NP	NP	2.22
	9/7/2017	High					8.06	NP	NP	1.32
	10/12/2017	Low					9.35	NP	NP	0.03
	10/31/2017	Low					10.51	NP	NP	-1.13
AMW-15-D1	7/27/2017	High	2	33.14	23.14 - 33.14	9.74	7.44	NP	NP	2.30
	9/7/2017	High					8.75	NP	NP	0.99
	10/12/2017	Low					9.67	NP	NP	0.07
	10/31/2017	Low					10.75	NP	NP	-1.01
MW-23-D1R	7/27/2017	High	2	29.94	19.94 - 29.94	9.84	7.63	NP	NP	2.21
	9/7/2017	High					8.99	NP	NP	0.85
	10/12/2017	Low					9.71	NP	NP	0.13
	10/31/2017	Low					10.90	NP	NP	-1.06

**TABLE 2**  
**SUMMARY OF JULY THROUGH OCTOBER 2017 GROUNDWATER GAUGING DATA**  
**FORMER GULF OIL TERMINAL**  
**OCEANSIDE, TOWNSHIP OF HEMPSTEAD, NEW YORK**

Monitoring Well	Date	Tide Cycle	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-24-D1	7/27/2017	High	2	30.61	20.61 - 30.61	9.81	NG	NG	NG	NG
	9/7/2017	High					NG	NG	NG	NG
	10/12/2017	Low					NG	NG	NG	NG
	10/31/2017	Low					NG	NG	NG	NG
MW-26-D1	7/27/2017	High	2	28.55	18.55 - 28.55	9.95	7.65	NP	NP	2.30
	9/7/2017	High					8.86	NP	NP	1.09
	10/12/2017	Low					9.33	NP	NP	0.62
	10/31/2017	Low					10.34	NP	NP	-0.39
MW-27-D1	7/27/2017	High	2	31.53	21.53 - 31.53	9.03	6.88	NP	NP	2.15
	9/7/2017	High					7.23	NP	NP	1.80
	10/12/2017	Low					9.03	NP	NP	0.00
	10/31/2017	Low					10.01	NP	NP	-0.98
MW-28-D1	7/27/2017	High	2	31.05	21.05 - 31.05	8.25	2.20	NP	NP	6.05
	9/7/2017	High					6.57	NP	NP	1.68
	10/12/2017	Low					8.32	NP	NP	-0.07
	10/31/2017	Low					9.32	NP	NP	-1.07
MW-29-D1	7/27/2017	High	2	30.58	20.61 - 30.61	5.21	2.72	NP	NP	2.49
	9/7/2017	High					3.04	NP	NP	2.17
	10/12/2017	Low					5.08	NP	NP	0.13
	10/31/2017	Low					6.41	NP	NP	-1.20
MW-30-D1	7/27/2017	High	2	31.64	21.64 - 31.64	8.74	NG	NG	NG	NG
	9/7/2017	High					6.88	NP	NP	1.86
	10/12/2017	Low					8.25	NP	NP	0.49
	10/31/2017	Low					8.81	NP	NP	-0.07
MW-31-D1R	7/27/2017	High	2	30.69	20.69 - 30.69	8.39	6.01	NP	NP	2.38
	9/7/2017	High					6.83	NP	NP	1.56
	10/12/2017	Low					8.28	NP	NP	0.11
	10/31/2017	Low					9.21	NP	NP	-0.82
MW-32D	7/27/2017	High	2	37.25	27.25 - 37.35	8.85	NG	NG	NG	NG
	9/7/2017	High					6.83	NP	NP	2.02
	10/12/2017	Low					8.80	NP	NP	0.05
	10/31/2017	Low					9.80	NP	NP	-0.95

**TABLE 2**  
**SUMMARY OF JULY THROUGH OCTOBER 2017 GROUNDWATER GAUGING DATA**  
**FORMER GULF OIL TERMINAL**  
**OCEANSIDE, TOWNSHIP OF HEMPSTEAD, NEW YORK**

Monitoring Well	Date	Tide Cycle	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)
OW-2-D1	7/27/2017	High	2	32.54	28.54 - 32.54	9.94	10.67	NP	NP	-0.73
	9/7/2017	High					8.80	NP	NP	1.14
	10/12/2017	Low					10.80	NP	NP	-0.86
	10/31/2017	Low					10.95	NP	NP	-1.01
<b>D2 Horizon Monitoring Wells</b>										
AMW-13-D2	7/27/2017	High	2	41.56	31.56 - 41.56	9.76	7.35	NP	NP	2.41
	9/7/2017	High					8.91	NP	NP	0.85
	10/12/2017	Low					9.58	NP	NP	0.18
	10/31/2017	Low					10.69	NP	NP	-0.93
AMW-14-D2	7/27/2017	High	2	41.67	31.67 - 41.67	9.37	7.13	NP	NP	2.24
	9/7/2017	High					8.01	NP	NP	1.36
	10/12/2017	Low					9.35	NP	NP	0.02
	10/31/2017	Low					10.30	NP	NP	-0.93
AMW-15-D2	7/27/2017	High	2	39.61	29.61 - 39.61	9.71	7.45	NP	NP	2.26
	9/7/2017	High					8.75	NP	NP	0.96
	10/12/2017	Low					9.69	NP	NP	0.02
	10/31/2017	Low					10.74	NP	NP	-1.03
MW-23-D2R	7/27/2017	High	2	44.62	34.62 - 44.62	10.52	8.29	NP	NP	2.23
	9/7/2017	High					9.67	NP	NP	0.85
	10/12/2017	Low					10.38	NP	NP	0.14
	10/31/2017	Low					11.57	NP	NP	-1.05
MW-24-D2	9/7/2017	High	2	45.70	35.70 - 45.70	10.00	7.80	NP	NP	2.20
	9/7/2017	High					8.83	NP	NP	1.17
	10/12/2017	Low					9.84	NP	NP	0.16
	10/31/2017	Low					10.95	NP	NP	-0.95
MW-26-D2	7/27/2017	High	2	43.70	33.70 - 43.70	9.40	10.09	NP	NP	-0.69
	10/12/2017	Low					7.88	NP	NP	1.52
	10/12/2017	Low					9.50	NP	NP	-0.10
	10/31/2017	Low					10.94	NP	NP	-1.54

**TABLE 2**  
**SUMMARY OF JULY THROUGH OCTOBER 2017 GROUNDWATER GAUGING DATA**  
**FORMER GULF OIL TERMINAL**  
**OCEANSIDE, TOWNSHIP OF HEMPSTEAD, NEW YORK**

Monitoring Well	Date	Tide Cycle	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	High	2	46.69	36.69 - 46.69	9.09	6.85	NP	NP	2.24
	10/12/2017	Low					7.18	NP	NP	1.91
	10/12/2017	Low					9.02	NP	NP	0.07
	10/31/2017	Low					10.02	NP	NP	-0.93
MW-28-D2R	7/27/2017	High	2	46.10	36.10 - 46.10	8.40	5.98	NP	NP	2.42
	9/7/2017	High					6.72	NP	NP	1.68
	10/12/2017	Low					8.43	NP	NP	-0.03
	10/31/2017	Low					9.47	NP	NP	-1.07
MW-29-D2	7/27/2017	High	2	45.37	35.58 - 45.58	5.38	2.98	NP	NP	2.40
	9/7/2017	High					3.25	NP	NP	2.13
	10/12/2017	Low					5.29	NP	NP	0.09
	10/31/2017	Low					6.68	NP	NP	-1.30
MW-30-D2	7/27/2017	High	2	46.62	36.62 - 46.62	8.72	6.27	NP	NP	2.45
	9/7/2017	High					6.90	NP	NP	1.82
	10/12/2017	Low					8.55	NP	NP	0.17
	10/31/2017	Low					9.55	NP	NP	-0.83
MW-31-D2R	7/27/2017	High	2	45.65	35.65 - 45.65	8.35	5.85	NP	NP	2.50
	9/7/2017	High					6.58	NP	NP	1.77
	10/12/2017	Low					8.25	NP	NP	0.10
	10/31/2017	Low					9.05	NP	NP	-0.70
<b>D3 Horizon Monitoring Wells</b>										
AMW-15-D3	7/27/2017	High	2	49.61	39.61 - 49.61	9.81	7.45	NP	NP	2.36
	9/7/2017	High					8.80	NP	NP	1.01
	10/12/2017	Low					9.71	NP	NP	0.10
	10/31/2017	Low					10.75	NP	NP	-0.94
<b>VD Horizon Monitoring Wells</b>										
AMW-13-VD	7/27/2017	High	2	69.67	59.67 - 69.67	9.77	7.24	NP	NP	2.53
	9/7/2017	High					8.90	NP	NP	0.87
	10/12/2017	Low					9.10	NP	NP	0.67
	10/31/2017	Low					10.17	NP	NP	-0.40

**TABLE 2**  
**SUMMARY OF JULY THROUGH OCTOBER 2017 GROUNDWATER GAUGING DATA**  
**FORMER GULF OIL TERMINAL**  
**OCEANSIDE, TOWNSHIP OF HEMPSTEAD, NEW YORK**

Monitoring Well	Date	Tide Cycle	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)
AMW-14-VD	7/27/2017	High	2	73.55	63.55 - 73.55	9.25	6.83	NP	NP	2.42
	9/7/2017	High					7.71	NP	NP	1.54
	10/12/2017	Low					9.04	NP	NP	0.21
	10/31/2017	Low					9.92	NP	NP	-0.67
AMW-15-VD	7/27/2017	High	2	69.72	59.72 - 69.72	9.82	7.14	NP	NP	2.68
	9/7/2017	High					8.43	NP	NP	1.39
	10/12/2017	Low					9.39	NP	NP	0.43
	10/31/2017	Low					10.45	NP	NP	-0.63
MW-26-VD	7/27/2017	High	2	71.59	61.59 - 71.59	9.99	10.78	NP	NP	-0.79
	9/7/2017	High					8.47	NP	NP	1.52
	10/12/2017	Low					10.05	NP	NP	-0.06
	10/31/2017	Low					11.07	NP	NP	-1.08
MW-29-VD	7/27/2017	High	2	66.61	56.37 - 66.37	5.27	3.05	NP	NP	2.22
	9/7/2017	High					3.42	NP	NP	1.85
	10/12/2017	Low					5.16	NP	NP	0.11
	10/31/2017	Low					5.47	NP	NP	-0.20
MW-30-VD	9/7/2017	High	4	86.60	76.60 - 86.60	8.70	5.59	NP	NP	3.11
	9/7/2017	High					6.15	NP	NP	2.55
	10/12/2017	Low					7.93	NP	NP	0.77
	10/31/2017	Low					9.00	NP	NP	-0.30

**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

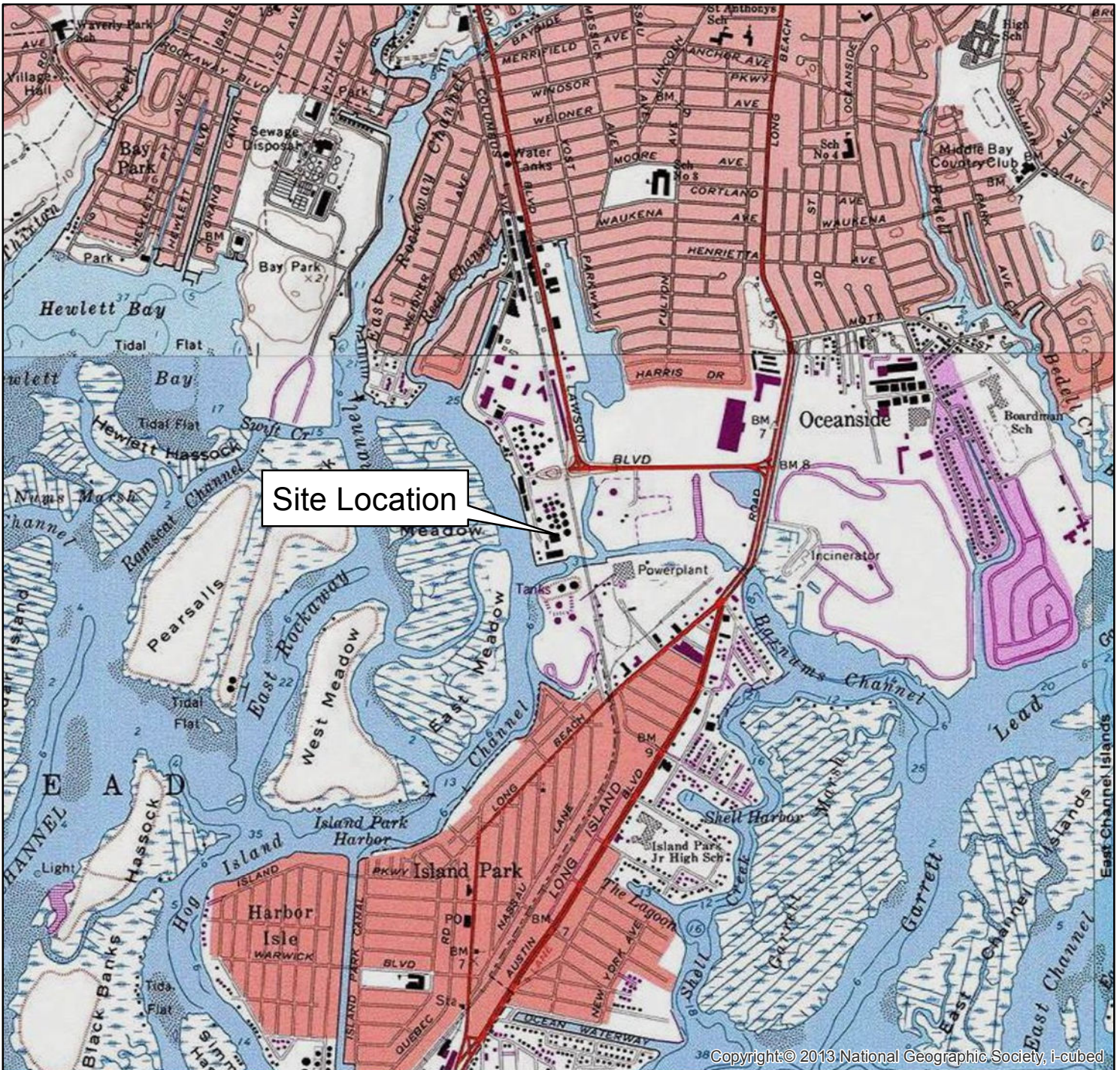
ft btoc - Feet below top of casing

ft amsl - Feet above mean sea level

NAV - Not Available.

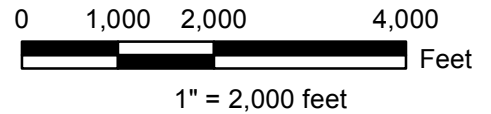
NG - Not gauged

NP - No PSH measured in monitoring well.



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USGS US Topo 7.5 - minute map for Lawrence, NY  
 USGS US Topo 7.5 - minute map for Lynbrook, NY



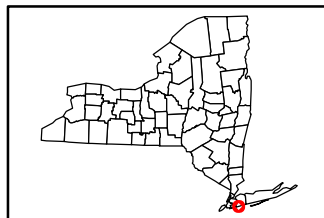
**Chevron Facility 6518040**  
 3705 Hampton Rd  
 Oceanside, NY

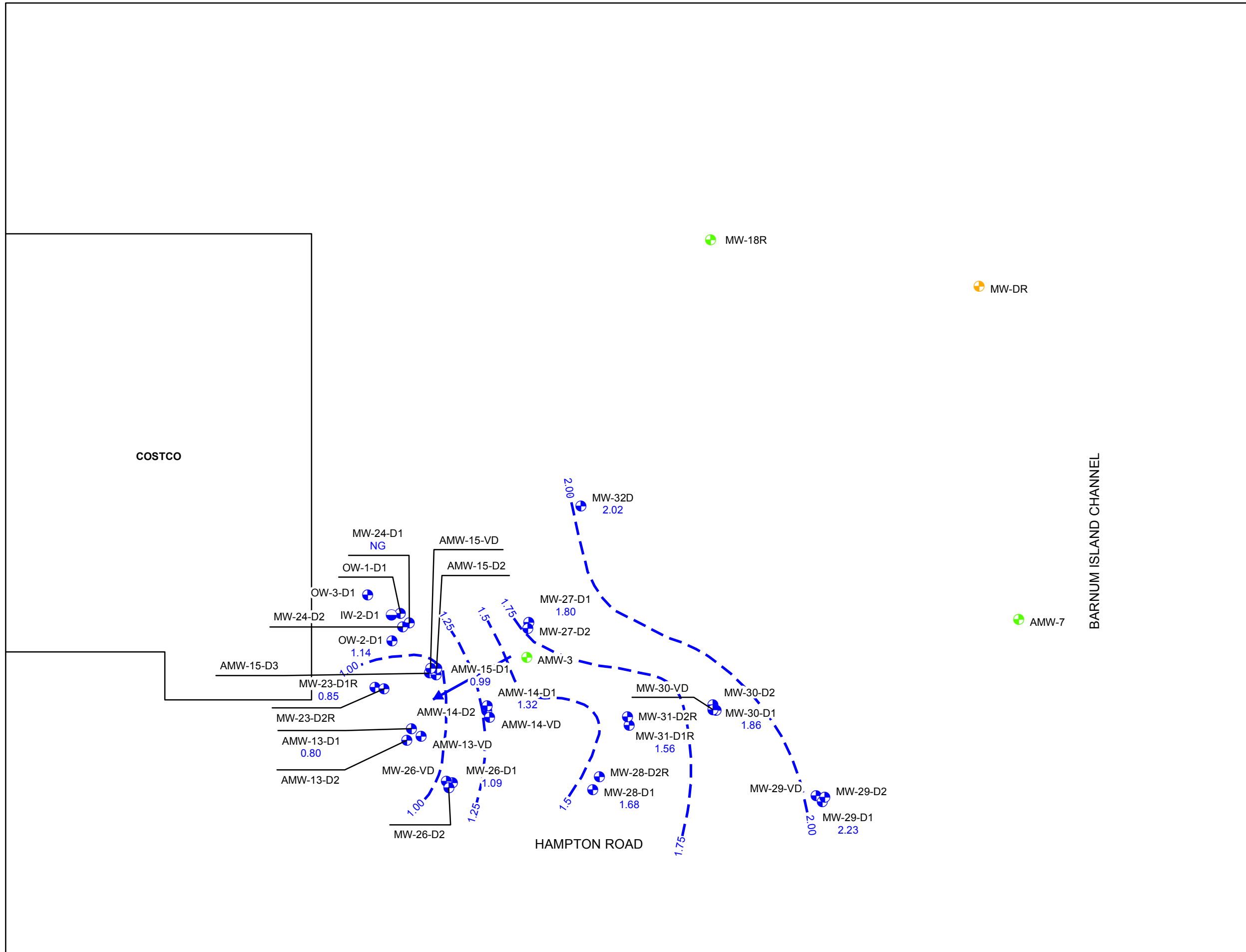
**Site Location Map**

drawn GMAJ	checked	approved	figure no.
date 2/21/2017	date	date	<b>1</b>
job no. 319926.00.16.A.695A.0202.0100		file no. Site_Location	
initials	date	revision	

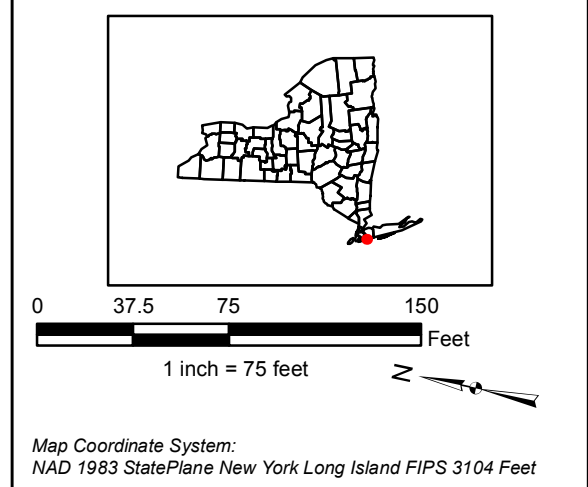


Map Coordinate System:  
 NAD 1983 StatePlane New York Long Island FIPS 3104 Feet





- Legend**
- + Water Table Monitoring Well
  - + Meadow Mat Monitoring Well
  - + Lower Sand Unit Monitoring Well
  - Lower Sand Unit Injection Well
  - Site Feature
  - Groundwater Elevation in feet above mean sea level (AMSL)
  - Inferred Groundwater Flow Direction
- NG: Not Gauged

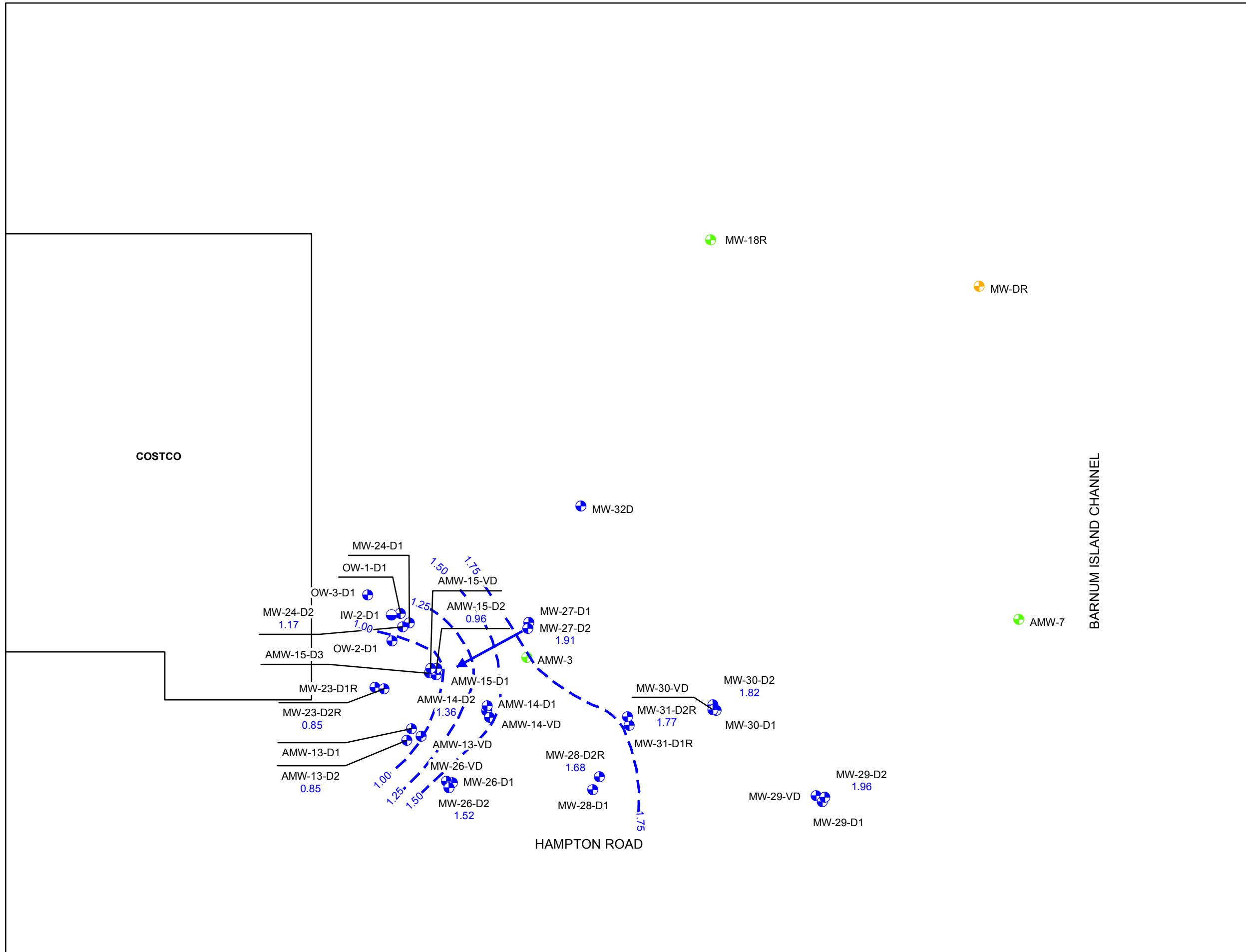


**Chevron Facility 6518040**  
3705 Hampton Rd  
Oceanside, NY

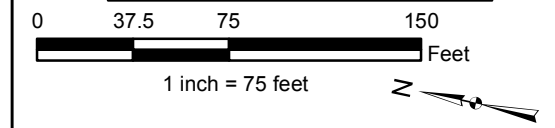
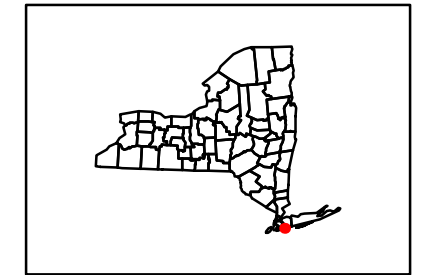
**D1 Horizon GW Contour Map**  
September 7, 2017 (High Tide)

drawn JAL	checked	approved	figure no.
date 11/7/2017	date	date	<b>2</b>
job no. 319926.00.16.A.695A.0202.0100		file no. GW_D1_HT_Cont_3Q17	
initials	date	revision	





- Legend**
- Water Table Monitoring Well
  - Meadow Mat Monitoring Well
  - Lower Sand Unit Monitoring Well
  - Lower Sand Unit Injection Well
  - Site Feature
  - Groundwater Elevation in feet above mean sea level (AMSL)
  - Inferred Groundwater Flow Direction



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

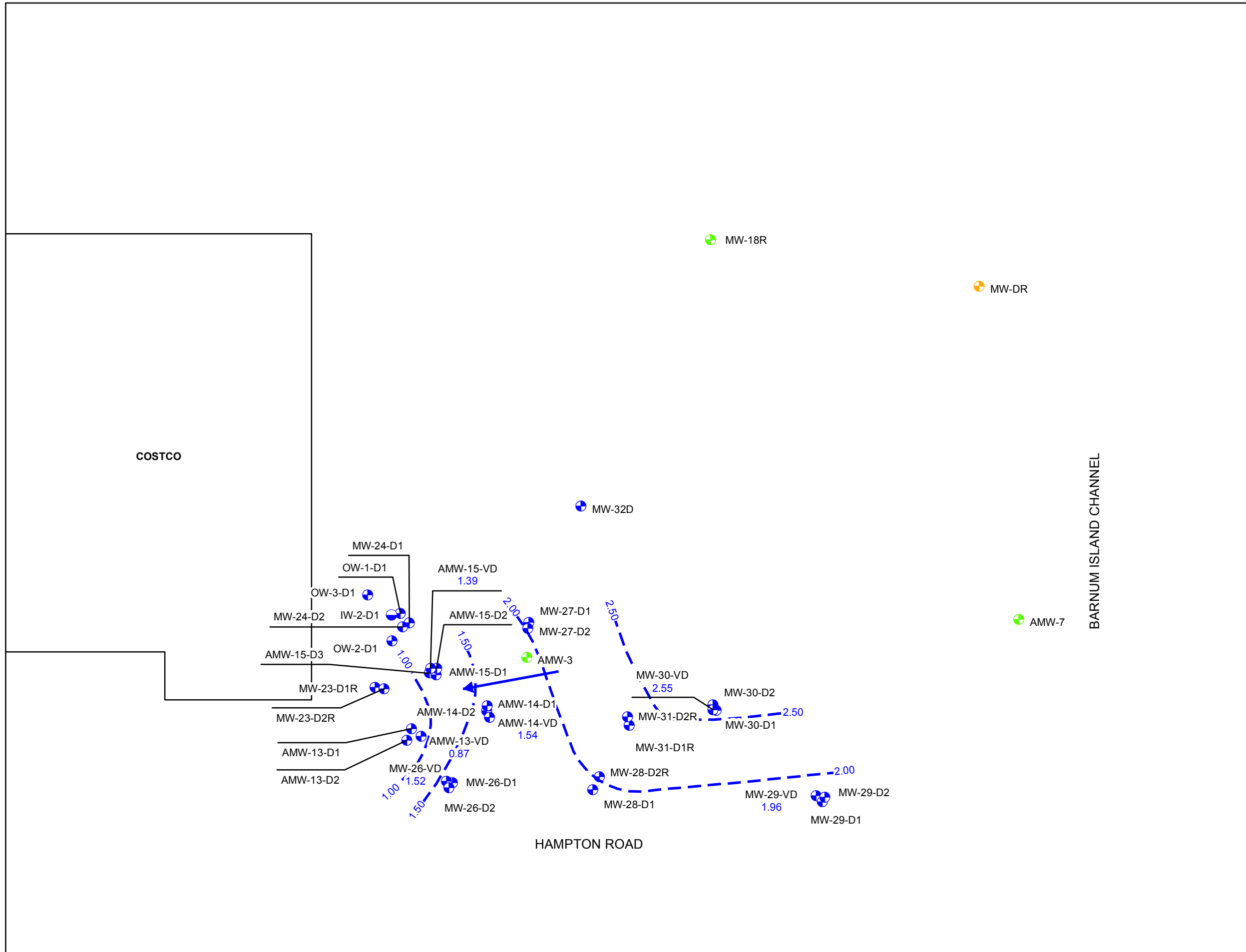
**Chevron Facility 6518040**  
3705 Hampton Rd  
Oceanside, NY

D2 Horizon GW Contour Map  
September 7, 2017 (High Tide)

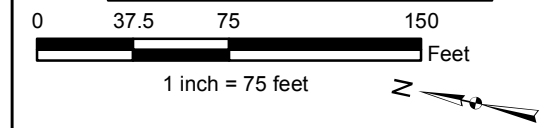
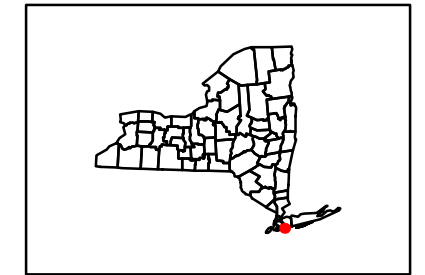
drawn JAL	checked	approved	figure no.
date 11/7/2017	date	date	<b>3</b>
job no. 319926.00.16.A.695A.0202.0100		file no. GW_D2_HT_Cont_3Q17	
initials	date	revision	







- Legend**
- ⊕ Water Table Monitoring Well
  - ⊕ Meadow Mat Monitoring Well
  - ⊕ Lower Sand Unit Monitoring Well
  - ⊙ Lower Sand Unit Injection Well
  - Site Feature
  - Groundwater Elevation in feet above mean sea level (AMSL)
  - Inferred Groundwater Flow Direction



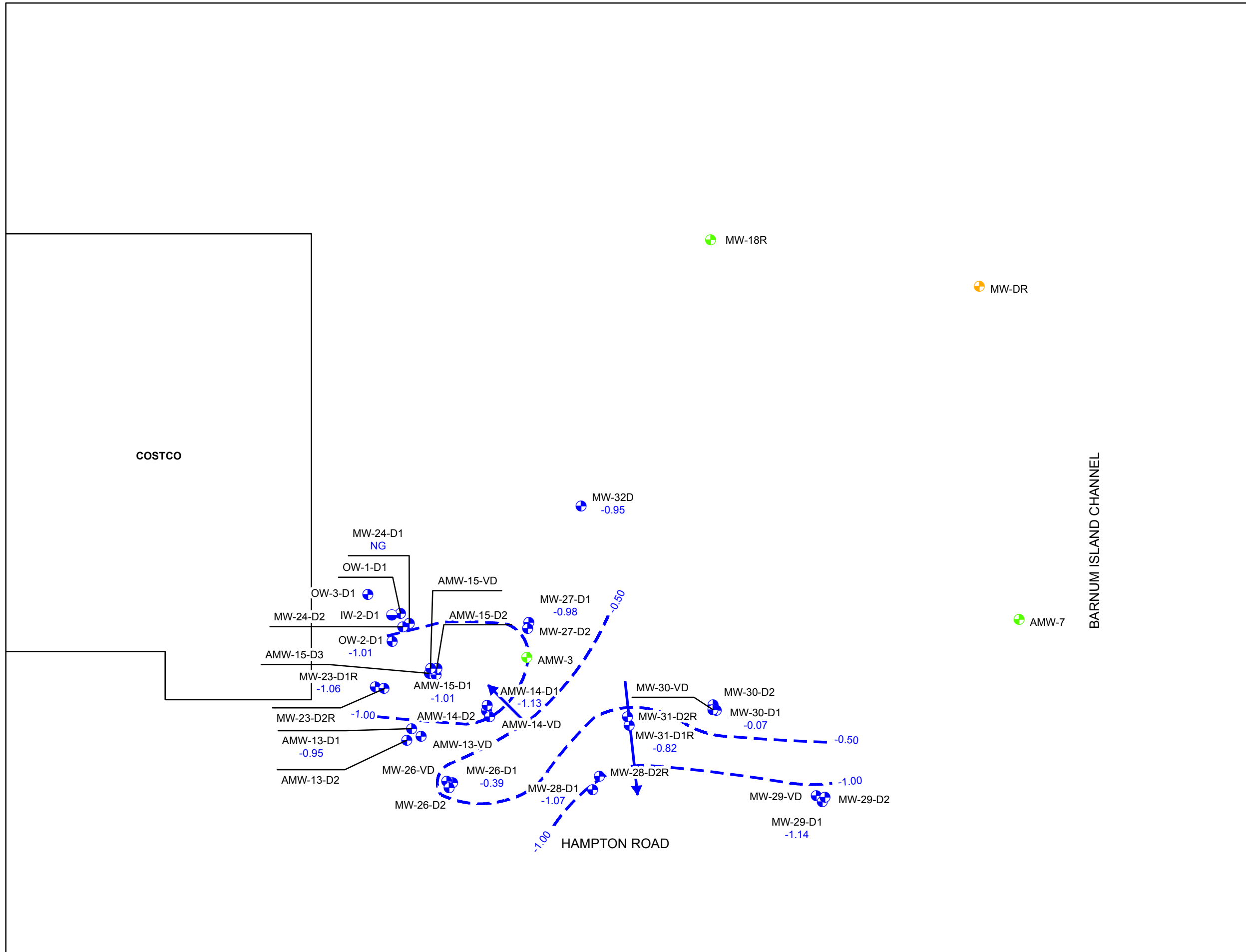
Map Coordinate System:  
NAD 1983 StatePlane New York Long Island FIPS 3104 Feet

**Chevron Facility 6518040**  
3705 Hampton Rd  
Oceanside, NY

VD Horizon GW Contour Map  
September 7, 2017 (High Tide)

drawn	MCW	checked	approved	figure no.
date	10/3/2017	date	date	<b>4</b>
job no. 319926.00.16.A.695A.0202.0100			file no. GW_VD_HT_Cont_3Q17	
initials	date	revision		





**Legend**

- + Water Table Monitoring Well
- + Meadow Mat Monitoring Well
- + Lower Sand Unit Monitoring Well
- Lower Sand Unit Injection Well
- - - Groundwater Elevation in feet above mean sea level (AMSL)
- Inferred Groundwater Flow Direction
- ▭ Site Feature

NG: Not Gauged

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

D1 Horizon GW Contour Map  
October 31, 2017 (Low Tide)

drawn TAY	checked	approved	figure no.
date 11/7/2017	date	date	<b>5</b>
job no. 319926.00.16.A.695A.0202.0100		file no. GW_D1_LT_Cont_4Q17	
initials	date	revision	



