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Date: December 3, 2021
Our Ref: NY001422.0012.00001
Subject: 2021 Annual Sampling Round Data Summary
United Stellar Industries Site (Site No. 130115)
Plainview, New York

Dear Mr. Dressler,

This annual sampling round data summary was prepared on behalf of 131 Sunnyside LLC for the Former United Stellar Industries Site at Sunnyside Boulevard in Plainview, New York (Site). Monitoring activities are being conducted pursuant to the Operable Unit 2 Remedial Investigation (RI) Work Plan dated November 27, 2019 that was conditionally approved by the NYSDEC via email on January 9, 2020 with the inclusion of the entire email thread associated with the approval.

Groundwater Quality Monitoring

Activities

The monitoring well sampling was performed between July 7 and July 21 using low-flow groundwater purging and sampling procedures. Monitoring wells were purged and sampled using a decontaminated, non-dedicated, variable speed, 2-inch diameter stainless steel submersible pump. Field parameters (oxidation-reduction potential [ORP], dissolved oxygen, pH, conductivity, temperature) were measured using a flow through cell initially, at 5-minute intervals, and at the time of sampling. Turbidity was measured from the purge water after the flow through cell. After the water quality parameters stabilized, the flow rate was reduced to approximately 100 milliliters per minute (mL/min) and the groundwater sample was collected directly from the pump discharge.

Twenty-five (25) monitoring wells were sampled during the annual round for volatile organic compounds (VOCs) and three wells were also analyzed for emerging contaminants (ECs; i.e., 1,4-dioxane and per- and polyfluorinated alkyl substances [PFAS]). Sampling for PFAS was conducted in accordance with the Arcadis Technical Guidance Instructions (TGI) - Poly- and Perfluorinated Alkyl Substances (PFAS) Field Sampling Guidance, Revision 4, March 26, 2019. In addition, a subset of wells was sampled for biogeochemical parameters (i.e., nitrate, sulfate, light hydrocarbons, dissolved iron and manganese). Monitoring wells PW-5S, PW-5D, PW-7S and PW-7D could not be sampled due to a buildup of sediment/precipitate. These wells are scheduled to be redeveloped prior to the semi-annual (January 2022) sampling event and will be sampled as part of the semi-annual sampling round. The location of monitoring wells is shown on Figure 1.

Results

Volatile Organic Compounds

The July 2021 groundwater monitoring data for VOCs in the shallow perched zone, deep perched zone and regional aquifer are provided in Tables 1 through 3, respectively. The primary site-related chlorinated VOC is trichloroethene (TCE), with relevant concentrations of cis-1,2-dichloroethene (DCE) and low concentrations of tetrachloroethene and chloroform.

VOCs were not detected in the shallow perched zone with the exception of trace concentrations of toluene and PCE that were detected between the method detection limit and the reporting limit.

On-site concentrations of TCE in the deep perched zone ranged from non-detect at PW-1D to 300 µg/L at PW-3D. Further downgradient in the mid-plume area, the highest concentration of TCE was detected in PW-17D at 420 µg/L (compared with 600 µg/L in April 2015). Concentrations along the western extent of VOC-impacted groundwater in the deep perched zone are monitored at PW-20D, where TCE exhibited a concentration of 13 µg/L.

Further downgradient the deep clay diminishes to the point that it no longer supports the deep perched zone. As a result, water in the deep perched zone will infiltrate downward to the regional groundwater system. Regional aquifer monitoring wells MW-18, MW-22, MW-24 and MW-25 demonstrate that a network of monitoring wells is in place to monitor the downgradient extent of VOC-impacted groundwater. Concentrations in these monitoring wells range from non-detect to 12 µg/L, indicating that the percolation of water between the deep perched zone and regional aquifer contributes to the further attenuation of VOCs.

Emerging Contaminants

PFAS samples were analyzed for 21 PFAS compounds by EPA Method 537 Modified. Deep perched zone monitoring well PW-12D, which is located upgradient of the Site and exhibited no detections of VOCs, had perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) concentrations of 39.9 ng/L and 16 ng/L, respectively. Similar concentrations of PFOA and PFOS were detected in PW-6D and PW-17D, as shown in Table 4. As the NYSDEC has been previously advised, the Howard J Moore Co., Inc (MORCO), located at 210 Terminal Drive, is known to have stored and used a PFOA- or PFOS-containing material at the facility.

Low concentrations of 1,4-dioxane were detected in PW-6D at 1.4 µg/L and PW-17D at 6.5 µg/L but were not detected in PW-12D (Table 4).

Biogeochemical Parameters

The groundwater monitoring data for biogeochemical parameters are provided in Table 5. Evaluation of VOC results suggest that incomplete biodegradation is occurring based on the presence of DCE and the relative absence of vinyl chloride. This observation is further corroborated by concentrations of ethene below the reporting limit, very low concentrations of methane, and field measured dissolved oxygen levels indicating aerobic conditions in the perched zones and regional aquifer. The presence of electron acceptors (i.e., nitrate and sulfate) also provide an indication that conditions are not conducive to accelerated rates of reductive dechlorination of VOCs. Low concentrations of dissolved iron and dissolved manganese also support this interpretation of biogeochemical conditions in the subsurface. The data support the conceptual site model (CSM) that other natural

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NYSDEC DER
December 3, 2021

attenuation processes (e.g., sorption, diffusion) are responsible for the general decrease in VOC concentrations with distance from the Site.

Please do not hesitate to contact me if you have any questions or need additional information.

Sincerely,
Arcadis of New York, Inc.



Steven M. Feldman
Associate Vice President

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Enclosures:

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Table 1
Concentrations of Volatile Organic Compounds in Samples
Collected from Shallow Perched Zone Monitoring Wells
131 Sunnyside Boulevard Site
Plainview, New York



Sample ID: Sample Date:	NYSDEC TOGS (1.1.1) SGV	Sample ID: Sample Date:	PW-2S 07/12/21	PW-3S 07/07/21	PW-11S 07/13/21	PW-12S 07/14/21
VOCs (units in ug/L)						
1,1,1-Trichloroethane	5		1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	5		1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	5		1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	1		1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	5		1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	5		1.0 U	1.0 U	1.0 U	1.0 U
1,2,3-Trichlorobenzene	--		1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	5		1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	0.04		1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	0.0006		1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	3		1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6		1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	1		1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3		1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	3		1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	--		50 U	50 U	50 U	50 U
2-Butanone	50		5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	50		5.0 U	5.0 U	5.0 U	5.0 UJ
4-Methyl-2-pentanone	--		5.0 U	5.0 U	5.0 U	5.0 U
Acetone	50		5.0 U	5.0 U	5.0 U	5.0 U
Benzene	1		1.0 U	1.0 U	1.0 U	1.0 U
Bromochloromethane	--		1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	50		1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	50		1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	5		1.0 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	60		1.0 U	1.0 U	1.0 U	1.0 U
Carbon Tetrachloride	5		1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5		1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	5		1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	7		1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	5		1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	0.4		1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	--		1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	50		1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane	5		1.0 UJ	1.0 UJ	1.0 U	1.0 U
Ethylbenzene	5		1.0 U	1.0 U	1.0 U	1.0 U
Isopropylbenzene	5		1.0 U	1.0 U	1.0 U	1.0 U
m&p-Xylene	--		1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	--		5.0 U	5.0 U	5.0 U	5.0 U
Methyl tert-butyl ether	10		1.0 U	1.0 U	1.0 U	1.0 U
Methylcyclohexane	--		1.0 U	1.0 U	1.0 U	1.0 U
Methylene Chloride	5		1.0 U	1.0 U	1.0 U	1.0 U

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Table 1
Concentrations of Volatile Organic Compounds in Samples
Collected from Shallow Perched Zone Monitoring Wells
131 Sunnyside Boulevard Site
Plainview, New York



	Sample ID: Sample Date:	NYSDEC TOGS (1.1.1) SGV	Sample ID: Sample Date:	PW-2S 07/12/21	PW-3S 07/07/21	PW-11S 07/13/21	PW-12S 07/14/21
o-Xylene		--		1.0 U	1.0 U	1.0 U	1.0 U
Styrene		5		1.0 U	1.0 U	1.0 U	1.0 U
Toluene		5		0.59 J	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene		5		1.0 U	1.0 UB	1.0 U	1.0 U
trans-1,3-Dichloropropene		0.4		1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane		5		1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene		5		1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene		5		1.0 U	1.0 U	1.0 U	0.27 J
Trichloroethene		5		1.0 U	1.0 U	1.0 U	1.0 U
Vinyl Chloride		2		1.0 U	1.0 U	1.0 U	1.0 U

Notes

ug/L	Micrograms per liter.
U	The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
J	Estimated value.
NYSDEC	New York State Department of Environmental Conservation.
TOGS	Technical and Operational Guidance Series.
SGV	Ambient Water Quality Standards and Guidance Values.
--	Not available.
Bold	Indicates detection above laboratory MDL.

Table 2
Concentrations of Volatile Organic Compounds in Samples
Collected from Deep Perched Zone Monitoring Wells
131 Sunnyside Boulevard Site
Plainview, New York



Constituent	NYSDEC TOGS (1.1.1) SGV	Sample ID: Sample Date:	PW-1D 07/20/21	PW-2D 07/12/21	PW-3D 07/16/21	PW-5D 07/20/21	PW-6D 07/15/21	PW-8D 07/08/21	PW-9D 07/08/21	PW-10D 07/19/21	PW-11D 07/13/21
VOCs (units in ug/L)											
1,1,1-Trichloroethane	5		1.0 U	1.0 U	0.63 J [0.58 J]	1.0 U	1.0 U	0.50 J	1.0 U	0.32 J	1.0 U
1,1,2,2-Tetrachloroethane	5		1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	5		1.0 U	1.0 U	0.70 J [0.63 J]	1.0 U	0.47 J	1.2	0.42 J	0.72 J	1.0 U
1,1,2-Trichloroethane	1		1.0 U	1.0 U	0.20 J [0.20 J]	1.0 U	1.0 U	1.0 U	1.0 U	0.20 J	1.0 U
1,1-Dichloroethane	5		1.0 U	1.0 U	1.3 [1.2]	1.0 U	0.74 J	1.6	0.62 J	1.0	1.0 U
1,1-Dichloroethene	5		1.0 U	1.0 U	2.2 [2.1]	1.0 U	1.2	2.3	1.1	1.4	0.37 J
1,2,3-Trichlorobenzene	- -		1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	5		1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	0.04		1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	0.0006		1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	3		1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6		1.0 U	1.0 U	0.47 J [0.43 J]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	1		1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3		1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	3		1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	- -		50 U	50 U	50 U [50 U]	50 U	50 U	50 U	50 U	50 U	50 U
2-Butanone	50		5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	50		5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone	- -		5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	50		5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	1		1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromochloromethane	- -		1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	50		1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	50		1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	5		1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	60		1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Tetrachloride	5		1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5		1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	5		1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	7		1.0 U	26	14 [16]	0.82 J	3.1	0.60 J	2.0	0.42 J	0.66 J

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Table 2
Concentrations of Volatile Organic Compounds in Samples
Collected from Deep Perched Zone Monitoring Wells
131 Sunnyside Boulevard Site
Plainview, New York



Constituent	NYSDEC TOGS (1.1.1) SGV	Sample ID: Sample Date:	PW-1D 07/20/21	PW-2D 07/12/21	PW-3D 07/16/21	PW-5D 07/20/21	PW-6D 07/15/21	PW-8D 07/08/21	PW-9D 07/08/21	PW-10D 07/19/21	PW-11D 07/13/21
Chloromethane	5		1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	0.4		1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	--		1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	50		1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane	5		1.0 U	1.0 UJ	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U
Ethylbenzene	5		1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropylbenzene	5		1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
m&p-Xylene	--		1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	--		5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl tert-butyl ether	10		1.0 U	1.0 U	0.26 J [0.26 J]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylcyclohexane	--		1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene Chloride	5		1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
o-Xylene	--		1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	5		1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	5		0.52 J	0.83 J	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.46 J
trans-1,2-Dichloroethene	5		1.0 U	1.0 U	0.55 J [0.52 J]	1.0 U	0.30 J	0.80 J	0.51 J	0.36 J	0.25 J
trans-1,3-Dichloropropene	0.4		1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	5		1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5		1.0 U	3.4	43 [41]	2.6	18	39	20	19	4.4
Tetrachloroethene	5		1.0 U	0.75 J	3.6 [3.5]	0.53 J	2.3	3.8	2.3	1.4	0.52 J
Trichloroethene	5		1.0 U	19	300 [280]	12	170	260	140	150	40
Vinyl Chloride	2		1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Notes

ug/L	Micrograms per liter.
U	The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
J	Estimated value.
NYSDEC	New York State Department of Environmental Conservation.
TOGS	Technical and Operational Guidance Series.
SGV	Ambient Water Quality Standards and Guidance Values.
--	Not available.
[]	Values in brackets are the laboratory results for the duplicate sample.
Bold	Indicates detection above laboratory MDL.
	Constituent concentration equal to or exceeds SGV.

Table 2
Concentrations of Volatile Organic Compounds in Samples
Collected from Deep Perched Zone Monitoring Wells
131 Sunnyside Boulevard Site
Plainview, New York



Constituent	NYSDEC TOGS (1.1.1) SGV	Sample ID: Sample Date:	PW-12D 07/14/21	PW-13D 07/08/21	PW-14D 07/19/21	PW-15D 07/20/21	PW-17D 07/15/21	PW-19D 07/12/21	PW-20D 07/19/21	PW-21D 07/19/21	PW-23D 07/13/21
VOCs (units in ug/L)											
1,1,1-Trichloroethane	5		1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	0.93 J	0.80 J	1.0 U	0.79 J	1.0 U
1,1,2,2-Tetrachloroethane	5		1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	5		1.0 U [1.0 U]	0.50 J	0.48 J	0.80 J	2.3	3.4	1.2	3.6	1.0 U
1,1,2-Trichloroethane	1		1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	5		1.0 U [1.0 U]	0.76 J	1.0 U	1.2	3.2	2.3	0.97 J	2.5	1.0 U
1,1-Dichloroethene	5		1.0 U [1.0 U]	1.2	0.30 J	2.2	4.0	3.9	0.69 J	3.4	1.0 U
1,2,3-Trichlorobenzene	- -		1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	5		1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	0.04		1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	0.0006		1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	3		1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6		1.0 U [1.0 U]	1.0 U	1.0 U	0.47 J	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	1		1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3		1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	3		1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	- -		50 U [50 U]	50 U	50 U	50 U	100 U	50 U	50 U	50 U	50 U
2-Butanone	50		5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	50		5.0 UJ [5.0 UJ]	5.0 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone	- -		5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	50		5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	1		1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromochloromethane	- -		1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	50		1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	50		1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	5		1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	60		1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Tetrachloride	5		1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5		1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	5		1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	7		1.0 U [1.0 U]	0.94 J	1.0 U	6.9	2.0 U	0.95 J	0.34 J	0.43 J	1.0 U

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Table 2
Concentrations of Volatile Organic Compounds in Samples
Collected from Deep Perched Zone Monitoring Wells
131 Sunnyside Boulevard Site
Plainview, New York



Constituent	NYSDEC TOGS (1.1.1) SGV	Sample ID: Sample Date:	PW-12D 07/14/21	PW-13D 07/08/21	PW-14D 07/19/21	PW-15D 07/20/21	PW-17D 07/15/21	PW-19D 07/12/21	PW-20D 07/19/21	PW-21D 07/19/21	PW-23D 07/13/21
Chloromethane	5		1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	0.4		1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	--		1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	50		1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane	5		1.0 U [1.0 U]	1.0 UJ	1.0 U	1.0 U	2.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U
Ethylbenzene	5		1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropylbenzene	5		1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
m&p-Xylene	--		1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	--		5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl tert-butyl ether	10		1.0 U [1.0 U]	1.0 U	1.0 U	0.76 J	2.0 U	1.3	0.33 J	0.76 J	1.0 U
Methylcyclohexane	--		1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene Chloride	5		1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
o-Xylene	--		1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	5		1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	5		1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	5		1.0 U [1.0 U]	0.43 J	1.0 U	0.53 J	2.0 U	0.45 J	0.28 J	0.50 J	1.0 U
trans-1,3-Dichloropropene	0.4		1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	5		1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5		1.0 U [1.0 U]	20	3.8	22	32	27	1.4	24	0.29 J
Tetrachloroethene	5		1.0 U [1.0 U]	1.8	0.48 J	2.2	4.2	3.8	0.34 J	3.4	1.0 U
Trichloroethene	5		1.0 U [1.0 U]	130	26	170	420	280	13	290	0.77 J
Vinyl Chloride	2		1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Notes

ug/L	Micrograms per liter.
U	The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
J	Estimated value.
NYSDEC	New York State Department of Environmental Conservation.
TOGS	Technical and Operational Guidance Series.
SGV	Ambient Water Quality Standards and Guidance Values.
--	Not available.
[]	Values in brackets are the laboratory results for the duplicate sample.
Bold	Indicates detection above laboratory MDL.
	Constituent concentration equal to or exceeds SGV.

Table 3
Concentrations of Volatile Organic Compounds in Samples
Collected from Regional Aquifer Monitoring Wells
131 Sunnyside Boulevard Site
Plainview, New York



Constituent	NYSDEC TOGS (1.1.1) SGV	Sample ID: Sample Date:	MW-18 07/20/21	MW-19 07/12/21	MW-22 07/21/21	MW-24 07/16/21	MW-25 07/21/21
VOCs (units in ug/L)							
1,1,1-Trichloroethane	5		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	5		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	5		0.58 J	0.58 J	0.84 J	1.0 U	1.0 U
1,1,2-Trichloroethane	1		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	5		0.26 J	0.38 J	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	5		1.0 U	0.50 J	1.0 U	1.0 U	1.0 U
1,2,3-Trichlorobenzene	--		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	5		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	0.04		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	0.0006		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	3		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	1		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	3		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	--		50 U	50 U	50 U	50 U	50 U
2-Butanone	50		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	50		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone	--		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	50		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	1		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromochloromethane	--		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	50		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	50		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	5		1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U
Carbon Disulfide	60		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Tetrachloride	5		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	5		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	7		1.0 U	0.38 J	0.39 J	1.0 U	1.0 U
Chloromethane	5		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	0.4		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	--		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	50		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane	5		1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 U
Ethylbenzene	5		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropylbenzene	5		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
m&p-Xylene	--		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	--		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl tert-butyl ether	10		0.53 J	0.37 J	1.0 U	1.0 U	1.0 U
Methylcyclohexane	--		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene Chloride	5		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
o-Xylene	--		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	5		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	5		1.0 U	1.0 U	3.8	1.0 U	1.0 U
trans-1,2-Dichloroethene	5		1.0 U	0.31 J	1.0 U	1.0 U	1.0 U

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Table 3
Concentrations of Volatile Organic Compounds in Samples
Collected from Regional Aquifer Monitoring Wells
131 Sunnyside Boulevard Site
Plainview, New York



Constituent	NYSDEC TOGS (1.1.1) SGV	Sample ID: Sample Date:	MW-18 07/20/21	MW-19 07/12/21	MW-22 07/21/21	MW-24 07/16/21	MW-25 07/21/21
trans-1,3-Dichloropropene	0.4		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	5		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5		0.71 J	5.7	1.0 U	1.0 U	1.0 U
Tetrachloroethene	5		1.0 U	0.69 J	1.0 U	1.0 U	1.0 U
Trichloroethene	5		12	49	0.72 J	1.0 U	1.0 U
Vinyl Chloride	2		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Notes

ug/L	Micrograms per liter.
U	The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
J	Estimated value.
NYSDEC	New York State Department of Environmental Conservation.
TOGS	Technical and Operational Guidance Series.
SGV	Ambient Water Quality Standards and Guidance Values.
--	Not available.
Bold	Indicates detection above laboratory MDL.
	Constituent concentration equal to or exceeds SGV.

Table 4
Concentrations of Emerging Contaminants in Samples
Collected from Deep Perched Zone Monitoring Wells
131 Sunnyside Boulevard
Plainview, New York



Constituent	NYSDEC TOGS (1.1.1) SGV	Sample ID: Sample Date:	PW-6D 07/15/21	PW-12D 07/14/21	PW-17D 07/15/21
PFAS (units in ng/L)					
6:2FTS	100		4.14 U	4.38 U [4.02 U]	4.36 U
8:2FTS	100		1.65 U	1.75 U [1.61 U]	1.74 U
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	100		4.14 U	4.38 U [4.02 U]	4.36 U
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	100		4.14 U	4.38 U [4.02 U]	4.36 U
Perfluorobutanesulfonic acid (PFBS)	100		1.83	2.58 [2.61]	0.530 J
Perfluorobutanoic acid (PFBA)	100		14.9	9.25 [9.11]	50.0
Perfluorodecanesulfonic acid (PFDS)	100		1.65 UJ	1.75 U [1.61 U]	1.74 U
Perfluorodecanoic acid (PFDA)	100		5.56	3.71 [3.57]	4.81
Perfluorododecanoic acid (PFDoA)	100		1.65 U	1.75 U [1.61 U]	1.74 U
Perfluoroheptanesulfonic Acid (PFHpS)	100		1.65 U	1.75 U [1.61 U]	1.74 U
Perfluoroheptanoic acid (PFHpA)	100		13.4	15.0 [13.7]	36.2
Perfluorohexanesulfonic acid (PFHxS)	100		0.990 J	1.84 [1.58 J]	1.88
Perfluorohexanoic acid (PFHxA)	100		12.7	11.8 [11.8]	36.0
Perfluorononanoic acid (PFNA)	100		8.00	16.8 [16.0]	10.0
Perfluorooctane Sulfonamide (FOSA)	100		1.65 U	1.75 U [1.61 U]	1.74 U
Perfluorooctanesulfonic acid (PFOS)	10		6.05	16.0 [14.5]	7.54
Perfluorooctanoic acid (PFOA)	10		26.0	39.9 [36.6]	54.4
Perfluoropentanoic acid (PFPeA)	100		13.1	16.0 [16.5]	37.2
Perfluorotetradecanoic acid (PFTeA)	100		1.65 UJ	1.75 U [1.61 U]	1.74 UJ
Perfluorotridecanoic Acid (PFTriA)	100		1.65 U	1.75 U [1.61 U]	1.74 U
Perfluoroundecanoic acid (PFUnA)	100		3.09	1.75 U [1.61 U]	1.95
1,4-Dioxane (units in ug/L)	NE		1.4 J	0.20 U [0.20 U]	6.5

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Notes

PFAS	Per- and Polyfluoroalkyl Substances; the reported PFAS are the expanded list of 21 chemicals monitored as part of EPA's UCMR3 (third Unregulated Contaminant Monitoring Rule).
NYSDEC	New York State Department of Environmental Conservation .
TOGS	Technical and Operational Guidance Series
SGV	Ambient Water Quality Standards and Guidance Values. Note that on October 6, 2021 the NYSDEC released proposed guidance values of 6.7 ng/L for PFOA, 2.7 ng/L for PFOS, and 0.35 µg/L for 1,4-dioxane.
U	The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
J	Indicates an estimated value.
ng/L	nanograms per Liter.
µg/L	micrograms per Liter.
NE	Not established
[]	Values in brackets are the laboratory results for the duplicate sample.
Bold	Indicates detection above method detection limits.
	Constituent concentration equal to or exceeds SGV.

Table 5
Summary of Groundwater Sample Biogeochemical
Parameter Results
131 Sunnyside Boulevard
Plainview, New York

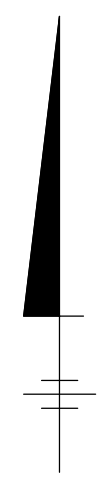
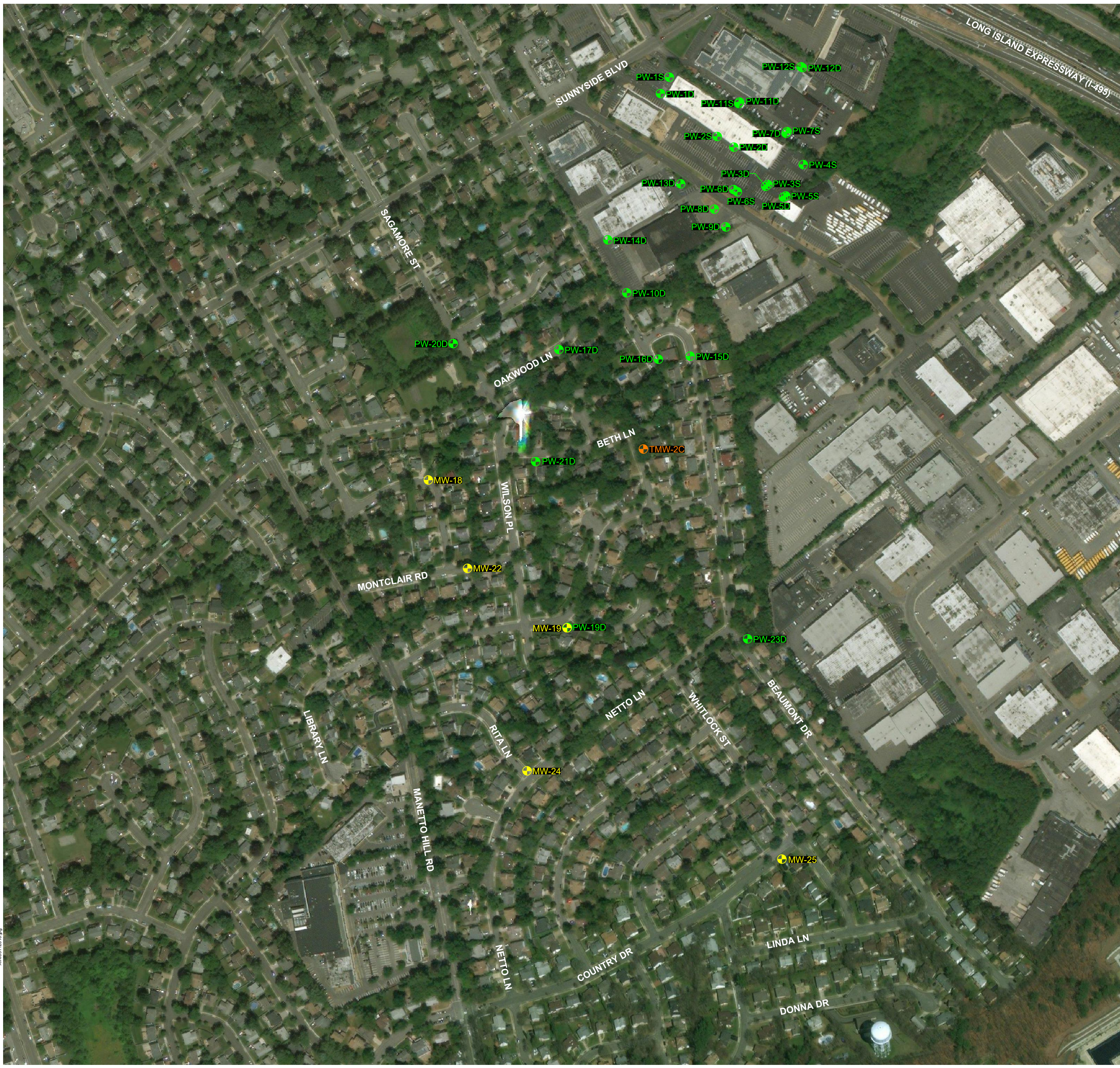


Sample ID	Sample Date	Iron (dissolved) ug/L	Manganese (dissolved) ug/L	Ethane ug/L	Ethene ug/L	Methane ug/L	Nitrate as N mg/L	Nitrite as N mg/L	Sulfate mg/L
MW-22	7/21/2021	150 U	627	1.00 U	1.00 U	10.4	3.50	0.100 U	30.3
PW-1D	7/20/2021	150 U	407	1.00 U	1.00 U	2.51 J	3.20	0.100 U	32.7
PW-2D	7/12/2021	150 U	151	1.00 U	0.298 J	16.2	1.30	0.0200 J	19.5
PW-5D	7/20/2021	99.8 J	223	1.00 U	1.00 U	8.89	1.40	0.100 U	20.3
PW-6D	7/15/2021	120 U	135	1.00 U	1.00 U	5.00 U	2.10	0.200 U	9.70
PW-10D	7/19/2021	150 U	184	1.00 U	1.00 U	2.11 J	2.90	0.200 U	7.30
PW-11D	7/13/2021	67.2 J	144	1.00 U	1.00 U	2.92 J	1.80	0.0330 J	22.8
PW-11S	7/13/2021	120 U	19.3	1.00 U	0.267 J	2.44 J	2.30	0.0190 J	34.5
PW-12D	7/14/2021	150 U [150 U]	129 [128]	1.00 U	1.00 U	5.00 U	2.10 H [2.20 H]	0.200 UH [0.200 UH]	29.3 [28.5]
PW-12S	7/14/2021	150 U	236	1.00 U	1.00 U	5.00 U	1.60 H	0.100 UH	27.2
PW-13D	7/8/2021	120 U	415	1.00 U	0.417 J	4.05 J	2.30	0.200 U	9.20
PW-14D	7/19/2021	150 U	249	1.00 U	1.00 U	1.98 J	2.20	0.200 U	10.5
PW-15D	7/20/2021	173	34.1	1.00 U	1.00 U	2.13 J	2.50	0.100 U	5.00 U
PW-17D	7/15/2021	328	330	1.00 U	1.00 U	3.15 J	4.40	0.500 U	5.20
PW-19D	7/12/2021	150 U	148	1.00 U	1.00 U	2.78 J	3.90	0.0210 J	6.30
PW-20D	7/19/2021	2,210	1,520	1.00 U	1.00 U	2.43 J	5.10	0.500 U	15.5
PW-21D	7/19/2021	150 U	317	1.00 U	1.00 U	2.07 J	3.70	0.200 U	6.90
PW-23D	7/13/2021	120 U	571	1.00 U	0.279 J	2.73 J	3.30	0.0920 J	10.1

Notes

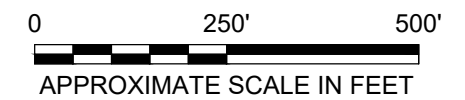
ug/L	Micrograms per liter.
mg/L	Milligrams per liter.
U	The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
J	Estimated value.
H	Exceedence of analytical holding time.
NYSDEC	New York State Department of Environmental Conservation.
TOGS	Technical and Operational Guidance Series.
SGV	Ambient Water Quality Standards and Guidance Values.
--	Not available.
[]	Values in brackets are the laboratory results for the duplicate sample.
Bold	Indicates detection above laboratory MDL.

CITY:SYRACUSE ENV: DIV:GROUP:ENV DE:A SANCHEZ LDALS PIC:OAH PM:Regd TM:OAH LVR:ONION OFF-REF
C:\Users\BSS\mail\ACDoc\Arcadis\131 SUNNYSIDE, LLC\PLANVIEW-PLANVIEW New York\Project Files\2021\01 In Progress\01-DWG\SA-SRD-F01-MW.dwg LAYOUT: 1 SAVED: 10/12/2021 5:28 PM ACADVER: 23 IS (LMS TECH) PAGES: 10 PLOTSETUP: PLOTSTYLETABLE: PLOTTED: 10/12/2021 5:28 PM BY: SMALL BRIAN
XREFS: X:SA-SRD-BDR-CL
IMAGES: STAMP:09
AW:01/10/16 pg



- LEGEND:**
- PERMANENT REGIONAL WATER TABLE MONITORING WELL
 - PERMANENT PERCHED WATER MONITORING WELL
 - TEMPORARY MONITORING WELL

- NOTES:**
- THE LOCATION OF WELLS SURVEYED BY DONALD G. DEKENIPP L.S., P.C. PROFESSIONAL LAND SURVEYOR, 222 GREENE AVENUE, SAYVILLE, NY, 11782.
 - SITE AERIAL PHOTOGRAPHY ADAPTED FROM GOOGLE EARTH PRO WITH AN IMAGERY DATE OF 03/06/2012.



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EXISTING MONITORING WELL NETWORK

