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August 12, 2018

Kathleen Emery
New York State Department of
Environmental Conservation, Region 9
270 Michigan Avenue
Buffalo, New York 14203

RE: Annual Groundwater Monitoring Report, Honeywell Buffalo Research Laboratory

Dear Ms. Emery:

Enclosed please find the 2018 Annual Groundwater Monitoring Report for the Honeywell Buffalo Research Laboratory in Buffalo, New York (see Figure 1). The report is a requirement of the Site Management Plan (SMP) (CRA, May 2013) for the facility. The annual groundwater monitoring event was conducted on June 26, 2018.

Based on the results of the annual groundwater monitoring over the last several years, including the current year, the monitoring will be continued on an annual schedule as defined in the SMP. The monitoring schedule will be re-evaluated as additional results are collected. The detailed rationale for these recommendations is provided in the Recommendations/Conclusions section of this report.

Well Inspection

In accordance with the SMP, the depth to groundwater was measured and the condition of each monitoring well (MW-2, MW-3, MW-5, MW-6, MW-7, MW-8, MW-9, and MW-10) was inspected. MW-1 and MW-4 could not be found and may have been covered by asphalt, as noted in previous reports. The results of the well inspections are presented below. Each of the wells that were inspected were in good condition with only minor issues, but none requiring maintenance.

MW-2, Stick-up Protective Casing

- Well was locked.
- Stick-up protective metal casing was in good condition. The cap hinge was repaired and the protective casing was re-painted.
- J-plug well cap was secure.
- Concrete pad was in good condition.

MW-3, Stick-up Protective Casing

- Well was locked.
- Stick-up protective metal casing was in good condition and was re-painted and labeled.
- J-plug well cap was secure.
- Concrete pad was in good condition.

MW-5, Flush-mounted Protective Casing
- Curb box and cover were in place and in good condition.
- Water-tight well cap was secure.
- Surrounding asphalt was in good condition.
- Curb box was painted green and labeled.

MW-6, Flush-mounted Protective Casing
- Curb box and cover were in place and in good condition.
- Water-tight well cap was secure.
- Surrounding asphalt was in good condition.

MW-7, Flush-mounted Protective Casing
- Curb box and cover were in place and in good condition.
- Water-tight well cap was secure.
- Surrounding asphalt was in good condition.

MW-8, Stick-up Protective Casing
- Well was locked.
- Stick-up protective metal casing was in good condition. Protective casing was re-painted and labeled.
- J-plug well cap was secure.
- Concrete pad was in good condition.

MW-9, Flush-mounted Protective Casing
- Top of curb box and cover were sheared off (possibly from snow plowing). Repairs will be conducted prior to the 2019 monitoring event.
- Water-tight well cap was secure.
- Surrounding asphalt was in good condition.

MW-10, Stick-up Protective Casing
- Well was locked.
- Stick-up protective metal casing was in good condition. Hinge was repaired and well was re-painted and labeled.
- J-plug well cap was secure.
- Concrete pad was in good condition.

Groundwater Sampling

Groundwater samples were collected from MW-3 and MW-5 for laboratory analysis, as specified in the SMP. During this sampling event, purging was conducted and samples were collected using new dedicated disposable high-density polyethylene (HDPE) bailers.

Prior to collecting groundwater samples, each well was purged of a minimum of three well volumes of groundwater. During purging, field parameters, including pH, temperature, specific conductivity, and turbidity, were measured. After purging and allowing the water in the well to return to static conditions, the groundwater samples were collected.

Samples were submitted for analysis using Method EPA 8260 for volatile organic compounds (VOCs) and EPA 6010C for metals (total arsenic and barium and soluble arsenic and barium). In addition to the two groundwater samples, the trip blank that accompanied the bottle set from the laboratory, into the field, and back to the laboratory, was submitted for VOC analysis. Field parameters and other monitoring data were recorded on the Well Sampling Records provided in Attachment A.

Summary of Analytical Results

Table 1 presents a summary of the detected chemical constituents for this sampling event, and Table 2 provides the historical analytical results from 1994 through the current (2018) annual sampling event. A data summary table and the laboratory data report for the current samples are provided in Attachment B. Sample results were compared to the NYSDEC Ambient Water Quality Standards and Guidance Values (AWQS), contained in 6 NYCRR Part 703.

VOCs

Three VOCs were identified in the groundwater sample from MW-3 (1,1,1-trichloroethane at 9.8 μg/L, 1,1-dichloroethene [1,1-DCE] at 4.1 μg/L, and 1,1- dichloroethane [1,1-DCA] at 40 μg/L. 1,1-DCA and 1,1,1-trichloroethane exceeded the NYSDEC AWQS. No VOCs were identified in the groundwater sample from MW-5. The analytical results for the trip blank (VOCs) were all below the analytical detection limits.

Metals

Total arsenic exceeded the AWQS (25 μg/L) in MW-3 (150 μg/L) and in MW-5 (122 μg/L). Total barium was below the AWQS in both wells. Turbidity of both samples was above 50 NTUs and therefore, soluble arsenic and barium were also analyzed. Soluble arsenic was below the detection limits in both MW-3 and MW-5. Soluble barium was below the AWQS in both wells.

Discussion of Historical Analytical Results

VOCs

Table 2 provides a summary of the historical analytical results. Two VOCs were identified in the sample from MW-5 in 2016 that were not found in 2017, 2018, or prior to 2016. VOCs have not typically been found in MW-5. Chloroform and dibromochloromethane were both identified in 2016 and both were below their respective NYSDEC AWQS. It is suspected that these two VOCs are the result of a water main break in the area of MW-5 in 2016. The water main break was repaired prior to the groundwater sampling in 2016. These two compounds are not expected to be identified in the future.

1,1,1-TCA and 1,1-DCA have typically been identified above the respective AWQS in groundwater from MW-3. The concentrations of 1,1-DCA ranged from below the analytical detection limits to 42 μg/L between 1994 and June 2018. Although 1,1,1-TCA was below the analytical detection limit in July 2014, it was detected again in 2015 (9.2 μg/L), 2016 (4.7 μg/L), 2017 (9.0 μg/L), and 2018 (9.8 μg/L). The concentrations of 1,1,1-TCA have ranged from below the analytical detection limits to 36 μg/L (1994) in MW-3. Since 1994 1,1,1-TCA has been 20 μg/L or less, and has been less than 10 μg/L for the last six years. 1,1-DCE has occasionally been identified in MW-3, but is typically below

the analytical detection limits. Although 1,1-DCE has been detected for the last 7 years, it has been below the NYSDEC AWQS of 5 μg/L.

In summary, the analytical results from the current sampling event showed two VOCs (1,1-DCA and 1,1,1-TCA) above the AWQS in a single well (MW-3). Additionally, 1,1-DCE was observed below the AWQS in MW-3. 1,1-DCA is a common breakdown product of 1,1,1-TCA, when degraded through biotic processes such as reductive dechlorination, while 1,1-DCE is a common breakdown product of 1,1,1-TCA when degraded through abiotic processes. While VOCs have not typically been identified in MW-5, chloroform and dibromochloromethane were detected below their respective NYSDEC AWQS in 2016. It is suspected that these two compounds were associated with a water main break in the area of the well. These compounds were not detected in 2017 or 2018.

Metals

Over the past 20 years, total arsenic and total barium have been analyzed at least annually in the groundwater samples from MW-3 and MW-5. Total arsenic occasionally exceeded the AWQS (25 μg/L) in the samples from MW-3 and MW-5. Total arsenic was above the AWQS in MW-3 and MW-5 during this sampling event. Total barium did not exceed the AWQS in either well during this sampling event, nor in the previous sampling events.

Soluble arsenic and soluble barium have been analyzed since 2001. As required in the SMP, soluble arsenic and barium are analyzed when the sample turbidity exceeds 50 NTUs. Historically, soluble arsenic and soluble barium have been below the AWQS in both wells, except for MW-3 in 2013 and 2016. Soluble arsenic and soluble barium were analyzed in 2018 due to the measured turbidity level above 50 NTUs. Soluble arsenic was below the analytical detection limits in MW-3 and MW-5. Soluble barium was detected in both wells at levels below the AWQS.

Groundwater Flow Direction

The water level measurements recorded on June 26, 2018 (see Table 3) are consistent with previous measurements. The groundwater elevation contour map (Figure 2) indicates that the groundwater flow direction is generally to the southeast across the Site, which is consistent with previously observed flow directions.

Recommendations/Conclusions

Based on the current sampling results, groundwater flow direction, and the following points, groundwater monitoring should continue on an annual schedule:

- The detected concentrations of two VOCs (1,1-DCA and 1,1,1-TCA) were low, although exceeding the AWQS in MW-3. One other VOC was detected (1,1-DCE) in MW-3, but was below the AWQS.

- As shown by the lack of VOCs in MW-5, VOCs observed in onsite wells (MW-3) will naturally attenuate prior to reaching the facility boundary.

- Total arsenic has been below the AWQS during five out of the last 17 sampling events in MW-3, and below the AWQS during 12 out of the last 17 sampling events in MW-5;
- Soluble arsenic, when analyzed, has typically been below the detection limits or the AWQS. The only two exceptions were in 2013 and 2016; and
- Total and soluble barium has been below the AWQS during the current event and all previous sampling events in MW-3 and MW-5.
- MW-9 will be repaired (new curb box installed) prior to the 2019 groundwater sampling event.

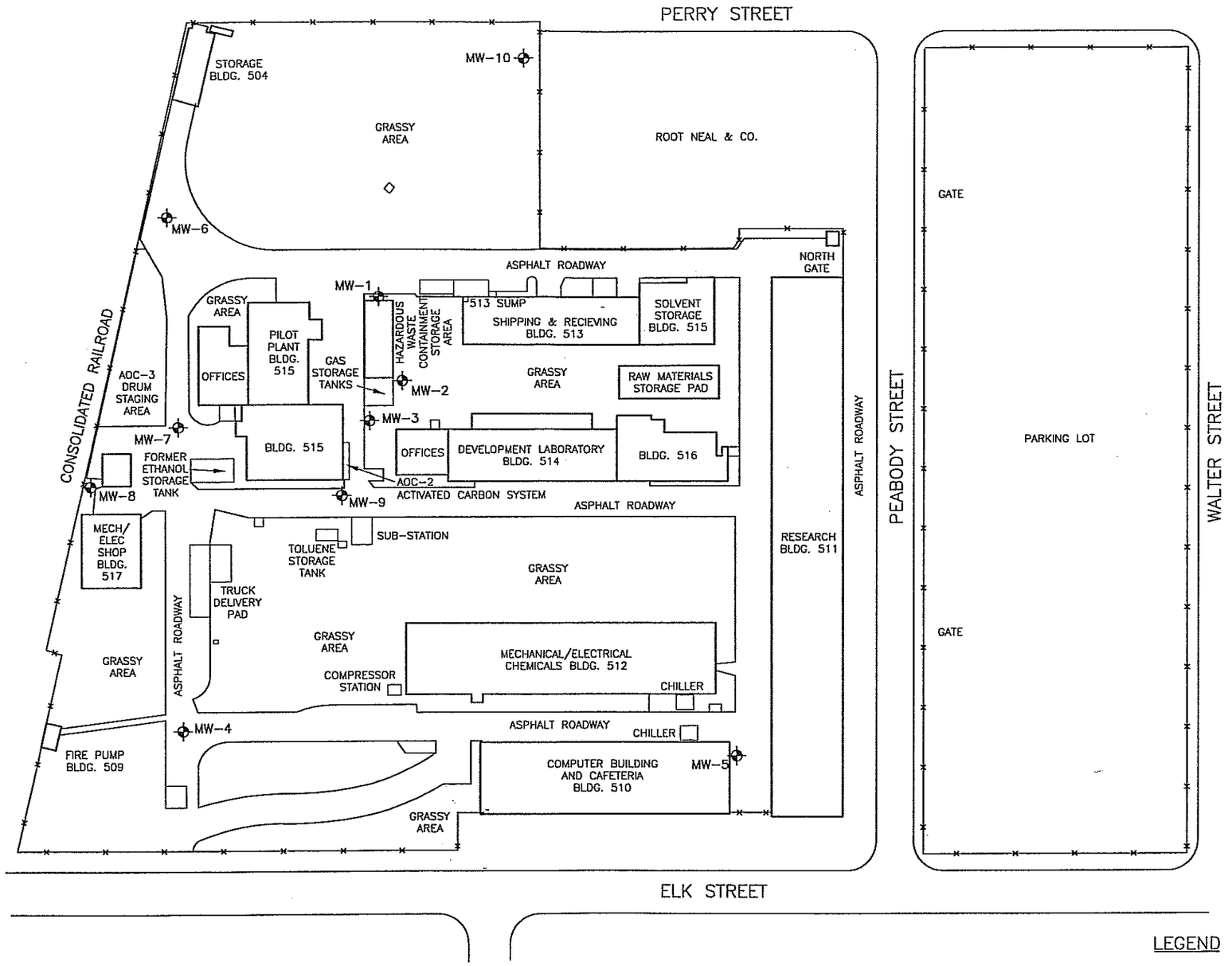
If you need additional information or would like to discuss the results of this Annual Groundwater Monitoring Report, please contact me at (716) 809-9140.

Sincerely,

Eric A. Felter
Project Manager

Robert Sikorski

Site Leader – Honeywell Buffalo Research Laboratory



LEGEND

MW-2 MONITORING WELL LOCATION

100 50 0 100 200

SCALE: 1"=100'

FIGURE 1

SITE PLAN
HONEYWELL SPECIALTY CHEMICALS
BUFFALO, NEW YORK

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180 LAWRENCE BELL DRIVE, SUITE 104, WILLIAMSVILLE, N.Y. 14221, PHONE: 716-633-7074

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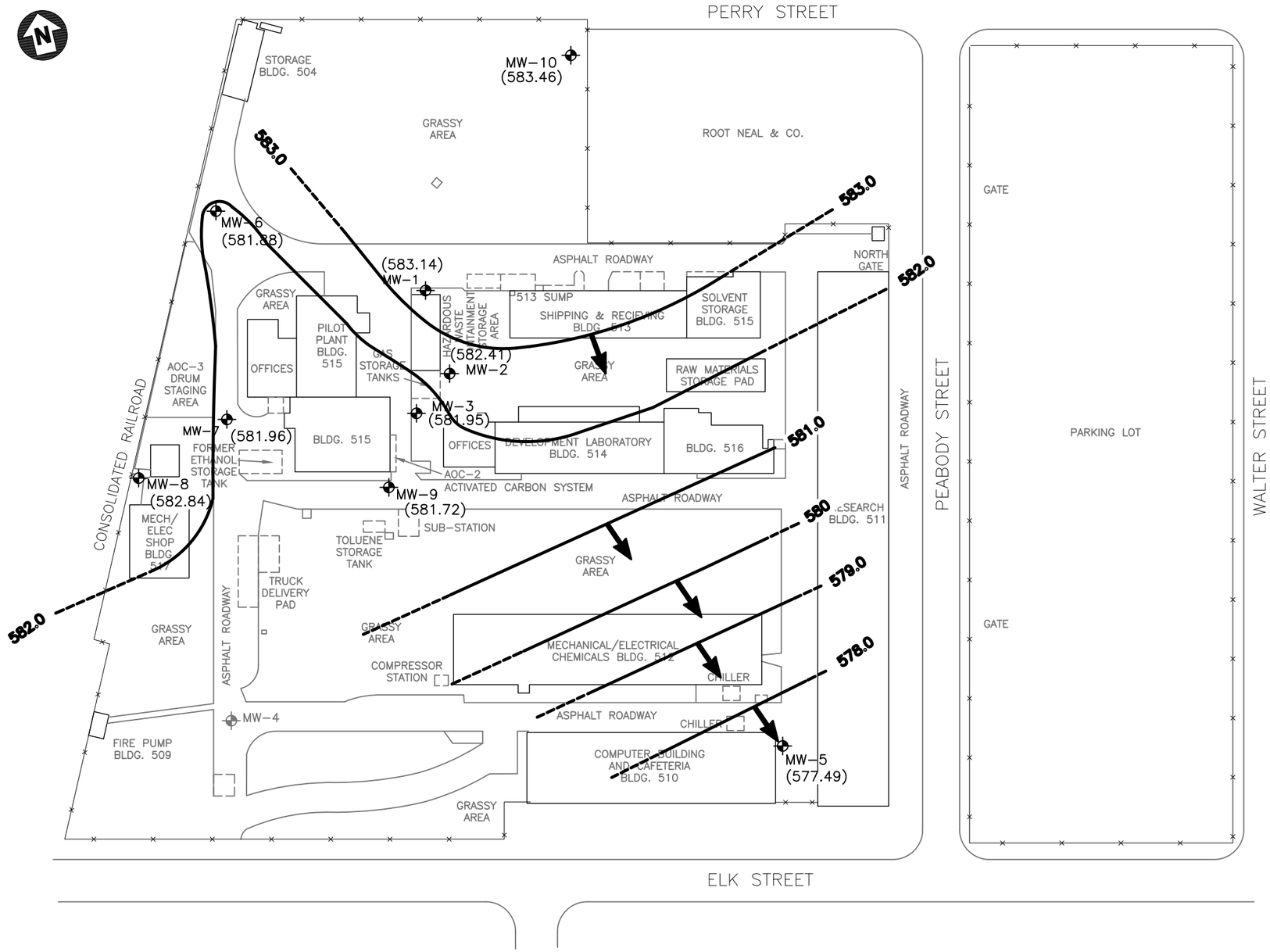

LEGEND:

MW-2	MONITORING WELL LOCATION
580	GROUNDWATER ELEVATION CONTOUR LINE (CONTOUR INTERVAL = 0.5 FOOT)
(578.35)	GROUNDWATER ELEVATION
NM	WATER LEVEL UNABLE TO BE MEASURED
→	GROUNDWATER FLOW DIRECTION

100 50 0 100 200

SCALE: 1"=100'

FIGURE 2

Honeywell SPECIALTY CHEMICALS BUFFALO, NEW YORK

GROUNDWATER ELEVATION CONTOUR MAP (JUNE 26, 2018)

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OFFICES IN PRINCIPAL CITIES

FILE NAME: P:\HONEYWELL -SYR\448331\CAD\GW-2018\448331-JUNE (GW-2018).DWG
PLOT DATE: 7/20/2018 9:29 AM PLOTTED BY: RUSSO, JILL

TABLE 1

Summary of Groundwater Analytical Results (6/26/18)

Analytical Parameters	NYSDEC AWQS µg /L	MW-3 µg /L	MW-5 µg /L	Trip Blank µg /L
Total Arsenic	25	**150**	**122**	NA
Soluble Arsenic	25	ND	ND	NA
Total Barium	1,000	246	254	NA
Soluble Barium	1,000	180	165	NA
1,1-Dichloroethene	5	4.1	ND	ND
1,1-Dichloroethane	5	**40**	ND	ND
1,1,1-Trichloroethane	5	**9.8**	ND	ND

Note: Only detected analytes are shown.
Boxed and bold analytical results exceed NYSDEC Ambient Water Quality Standards (AWQS).
ND = Not detected.
NA = Not analyzed.

Table 2

Honeywell Specialty Chemicals
Historical Analytical Results

Compound	NYSDEC AWQS (ug/L)	MW-1 10/17/94	MW-1 1/18/95	MW-2 10/17/94	MW-2 1/18/95	MW-2 5/27/03	MW-3 10/17/94	MW-3 1/18/95	MW-3 8/23/99	MW-3 10/19/00	MW-3 12/10/01	MW-3 11/19/02	MW-3 5/27/03	MW-3 11/13/03	MW-3 5/25/04	MW-3 4/28/05	MW-3 4/25/06
Total Arsenic	25	3 B	-	-	2.9 B	8.80 J	-	3 B	18	**34**	23 J	**63.3**	13.2 J	13.4 J	8.38 J	**33.0**	**39.0**
Soluble Arsenic	25	NA	NA	NA	NA	6.41 J	NA	NA	NA	NA	13 J	16 J	9.2 J	13.1 J	NA	NA	24
Total Barium	1,000	102 B	67.6	197 B	157 B	130	111 B	129 B	166	135	140	194	197	262	279	357	302
Soluble Barium	1,000	NA	NA	NA	NA	129	NA	NA	NA	NA	140	177	191	245	NA	NA	361
Acetone	50	12	-	11	6 J	NA	7	**59**	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	50	-	-	-	-	NA	-	6 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	5	-	-	-	-	-	**36**	**10**	**20**	**17.1**	**7.62**	**16.2**	**12.3**	-	-	-	**10**
Tetrachloroethene (PCE)	5	-	-	-	-	-	-	-	-	<10	-	-	-	-	-	2.11 J	-
Trichloroethene (TCE)	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**5.20 J**	-
1,1-Dichloroethene	5	-	-	-	-	-	4	-	-	<10	-	-	-	-	-	-	-
Methylene Chloride	5	**11**	-	**8**	-	-	**8**	-	-	<10	-	-	-	-	-	-	-
1,1-Dichloroethane	5	-	-	-	-	-	**42**	**11**	**20**	**20.7**	**7.73**	**26.0**	**17.3**	-	-	**6.42 J**	**14**
1,2-Dichloroethane	0.6	**11**	-	-	-		-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	3	-	-	-	-	-	-	-	-	-	2.86	-	-	-	-	-	-
1,2-Dichloropropane	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	5	-	-	-	3 J	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Bold data exceed NYSDEC Ambient Water Quality Standards (AWQS).
- = Compound not detected above analytical detection limits.
J = Analytical result is an estimate.
NA = Not analyzed.
B = Compond also identified in blank.

Table 2

Honeywell Specialty Chemicals
Historical Analytical Results

Compound	NYSDEC AWQS (ug/L)	MW-3 5/1/07	MW-3 5/6/08	MW-3 4/21/09	MW-3 4/29/10	MW-3 4/19/11	MW-3 4/17/12	MW-3 7/9/13	MW-3 7/9/14	MW-3 9/5/15	MW-3 8/16/16	MW-3 8/1/17	MW-3 6/26/18	MW-4 10/17/94	MW-4 1/18/95	MW-5 10/17/94	MW-5 1/18/95
Total Arsenic	25	**39.0**	**34.0**	13	**58**	20	**36**	**145**	**44**	**90**	**176**	**54**	**150**	-	5.6 B	-	-
Soluble Arsenic	25	-	13	NA	-	-	18	**69**	-	NA	**43.7**	15	-	NA	NA	NA	NA
Total Barium	1,000	394	361	206	147	313	204	289	203	455	446	215	246	183 B	243	71 B	74 B
Soluble Barium	1,000	324	360	NA	136	331	128	226	200	NA	508	244	180	NA	NA	NA	NA
Acetone	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	NA	6	-	5	-
2-Butanone	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	NA	-	-	-	-
Chloroform	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	5	**12.3**	**11.2**	**17.7**	**8.22**	**7.3**	**11.4**	**5.9**	-	**9.2**	4.7	**9.0**	**9.8**	-	-	-	-
Tetrachloroethene (PCE)	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene (TCE)	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	5	-	-	**23.3**	-	-	2.54	2.1	2.3	3.3	1.6	4.4	4.1	-	-	-	-
Methylene Chloride	5	-	-	-	-	-	-	-	-	-	-	-	-	**8**	-	**12**	-
1,1-Dichloroethane	5	**17.1**	**17.1**	-	**12.1**	**10.6**	**21.1**	**8.5**	**19.2**	**29**	**28**	**38**	**40**	-	-	-	-
1,2-Dichloroethane	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	3	-	-	-	-	-	-	**4.2**	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	2	-	-	-	-	-	**13.7**	-	**4.4**	-	-	**2.6**	**-**	-	-	-	-

Bold data exceed NYSDEC Ambient Water Quality Standards (AWQS).
- = Compound not detected above analytical detection limits.
J = Analytical result is an estimate.
NA = Not analyzed.
B = Compond also identified in blank.

Table 2

Honeywell Specialty Chemicals
Historical Analytical Results

Compound	NYSDEC AWQS (ug/L)	MW-5 8/23/99	MW-5 10/19/00	MW-5 12/10/01	MW-5 11/19/02	MW-5 5/27/03	MW-5 11/13/03	MW-5 5/25/04	MW-5 4/28/05	MW-5 4/25/06	MW-5 5/1/07	MW-5 5/6/08	MW-5 4/21/09	MW-5 4/29/10	MW-5 4/19/11	MW-5 4/17/12	MW-5 7/9/13	MW-5 7/9/14
Total Arsenic	25	**113**	**37**	20 J	24.1 J	15.1 J	**106**	8.17 J	13.3 J	-	-	**28.0**	20	**31**	11	**34**	12	16
Soluble Arsenic	25	NA	NA	6 J	14.0 J	8.18 J	9.1 J	NA	8.85	10	-	14	NA	19	-	17	-	-
Total Barium	1,000	170	100	80	95.1	83.8	214	63.9	94.9	92	58	56	50	61	56	56	70	61
Soluble Barium	1,000	NA	NA	80	76	70.2	63.8	NA	86.4	71	21	63	NA	57	71	67	57	51
Acetone	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene (PCE)	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene (TCE)	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene Chloride	5	-	**31.1**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Bold data exceed NYSDEC Ambient Water Quality Standards (AWQS).
- = Compound not detected above analytical detection limits.
J = Analytical result is an estimate.
NA = Not analyzed.
B = Compond also identified in blank.

Table 2

Honeywell Specialty Chemicals
Historical Analytical Results

Compound	NYSDEC AWQS (ug/L)	MW-5 9/8/15	MW-5 8/16/16	MW-5 8/1/17	MW-5 6/26/18	MW-6 10/17/94	MW-6 1/18/95	MW-6 5/27/03	MW-7 10/17/94	MW-7 1/18/95	MW-8 10/17/94	MW-8 1/18/95	MW-9 10/17/94	MW-9 1/18/95	MW-9 5/25/04	MW-10 10/17/94	MW-10 1/18/95	MW-10 5/27/03
Total Arsenic	25	-	6	19	**122**	-	-	5.64 J	-	2.7 B	-	-	-	-	**28.1**	4 B	-	19.7 J
Soluble Arsenic	25	NA	-	-	-	NA	NA	7.34 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Barium	1,000	58	169	137	254	84 B	61.5 B	65.2	176 B	204 B	90 B	77.2 B	149 B	134 B	205	33 B	22.3 B	16.5
Soluble Barium	1,000	NA	108	124	165	NA	NA	69.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	NA	NA	-	NA	4	-	NA	9	-	6	-	27	18	NA	21	5 J	NA
2-Butanone	50	NA	NA	-	NA	-	-	NA	-	-	-	-	-	-	NA	-	-	NA
Chloroform	7	-	6.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	5	-	1.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene (PCE)	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene (TCE)	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene Chloride	5	-	-	-	-	5	-	-	**8**	-	**8**	-	**19**	-	-	**16**	-	-
1,1-Dichloroethane	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	1	-	-	-	-	-	-	-	-	**26**	-	-	-	-	-	-	-	-
Toluene	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Bold data exceed NYSDEC Ambient Water Quality Standards (AWQS).
- = Compound not detected above analytical detection limits.
J = Analytical result is an estimate.
NA = Not analyzed.
B = Compond also identified in blank.

Table 3
Honeywell Specialty Chemicals
Groundwater Elevation Data

Monitoring Well ID	Water Level Measurement Date	Top of Well Casing Elevation (Feet AMSL)	Depth to Water (Feet TOC)	Water Table Elevation (Feet)
MW-1	10/17/1994	585.69	3.26	**582.43**
MW-1	11/8/1994	585.69	5.04	**580.65**
MW-1	11/15/1994	585.69	3.59	**582.10**
MW-1	1/17/1995	585.69	2.55	**583.14**
MW-2	10/17/1994	587.32	5.09	**582.23**
MW-2	11/8/1994	587.32	4.38	**582.94**
MW-2	11/15/1994	587.32	4.73	**582.59**
MW-2	1/17/1995	587.32	4.43	**582.89**
MW-2	8/23/1999	587.32	5.95	**581.37**
MW-2	10/19/2000	587.32	5.05	**582.27**
MW-2	12/10/2001	587.32	4.88	**582.44**
MW-2	11/19/2002	587.32	4.45	**582.87**
MW-2	5/27/2003	587.32	4.56	**582.76**
MW-2	11/13/2003	587.32	4.56	**582.76**
MW-2	5/25/2004	587.32	4.21	**583.11**
MW-2	4/28/2005	587.32	4.10	**583.22**
MW-2	4/25/2006	587.32	4.80	**582.52**
MW-2	5/1/2007	587.32	4.58	**582.74**
MW-2	5/6/2008	587.32	4.80	**582.52**
MW-2	4/21/2009	587.32	4.56	**582.76**
MW-2	4/29/2010	587.32	4.63	**582.69**
MW-2	4/19/2011	587.32	4.28	**583.04**
MW-2	4/17/2012	587.32	5.10	**582.22**
MW-2	7/9/2013	587.32	4.47	**582.85**
MW-2	7/9/2014	587.32	4.55	**582.77**
MW-2	9/8/2015	587.32	5.34	**581.98**
MW-2	8/16/2016	587.32	5.51	**581.81**
MW-2	8/1/2017	587.32	4.80	**582.52**
MW-2	6/26/2018	587.32	4.91	**582.41**
MW-3	10/17/1994	587.55	5.41	**582.14**
MW-3	11/8/1994	587.55	5.13	**582.42**
MW-3	11/15/1994	587.55	5.30	**582.25**
MW-3	1/17/1995	587.55	5.20	**582.35**
MW-3	8/23/1999	587.55	5.90	**581.65**
MW-3	10/19/2000	587.55	6.20	**581.35**
MW-3	12/10/2001	587.55	6.18	**581.37**
MW-3	11/19/2002	587.55	6.11	**581.44**
MW-3	5/27/2003	587.55	6.09	**581.46**
MW-3	11/13/2003	587.55	6.43	**581.12**
MW-3	5/25/2004	587.55	6.57	**580.98**
MW-3	4/28/2005	587.55	6.40	**581.15**
MW-3	4/25/2006	587.55	6.10	**581.45**
MW-3	5/1/2007	587.55	6.08	**581.47**
MW-3	5/6/2008	587.55	6.12	**581.43**
MW-3	4/21/2009	587.55	6.00	**581.55**
MW-3	4/29/2010	587.55	6.20	**581.35**
MW-3	4/19/2011	587.55	5.94	**581.61**
MW-3	4/17/2012	587.55	6.00	**581.55**
MW-3	7/9/2013	587.55	5.89	**581.66**
MW-3	7/9/2014	587.55	5.62	**581.93**
MW-3	9/8/2015	587.55	5.81	**581.74**
MW-3	8/16/2016	587.55	5.81	**581.74**
MW-3	8/1/2017	587.55	5.52	**582.03**
MW-3	6/26/2018	587.55	5.60	**581.95**
MW-4	10/17/1994	583.87	3.18	**580.69**
MW-4	11/8/1994	583.87	4.30	**579.57**
MW-4	11/15/1994	583.87	2.96	**580.91**
MW-4	1/17/1995	583.87	2.86	**581.01**

Table 3
Honeywell Specialty Chemicals
Groundwater Elevation Data

Monitoring Well ID	Water Level Measurement Date	Top of Well Casing Elevation (Feet AMSL)	Depth to Water (Feet TOC)	Water Table Elevation (Feet)
MW-5	10/17/1994	583.47	4.96	**578.51**
MW-5	11/8/1994	583.47	4.65	**578.82**
MW-5	11/15/1994	583.47	4.76	**578.71**
MW-5	1/17/1995	583.47	4.77	**578.70**
MW-5	8/23/1999	583.47	4.82	**578.65**
MW-5	10/19/2000	583.47	4.55	**578.92**
MW-5	12/10/2001	583.47	4.86	**578.61**
MW-5	11/19/2002	583.47	5.02	**578.45**
MW-5	5/27/2003	583.47	5.27	**578.20**
MW-5	11/13/2003	583.47	8.46	**575.01**
MW-5	5/25/2004	583.47	6.30	**577.17**
MW-5	4/28/2005	583.47	4.82	**578.65**
MW-5	4/25/2006	583.47	5.12	**578.35**
MW-5	5/1/2007	583.47	5.62	**577.85**
MW-5	5/6/2008	583.47	6.32	**577.15**
MW-5	4/21/2009	583.47	8.72	**574.75**
MW-5	4/29/2010	583.47	9.02	**574.45**
MW-5	4/19/2011	583.47	8.29	**575.18**
MW-5	4/17/2012	583.47	8.28	**575.19**
MW-5	7/9/2013	583.47	8.30	**575.17**
MW-5	7/9/2014	583.47	5.30	**578.17**
MW-5	9/8/2015	583.47	8.30	**575.17**
MW-5	8/16/2016	583.47	6.85	**576.62**
MW-5	8/1/2017	583.47	5.87	**577.60**
MW-5	6/26/2018	583.47	5.98	**577.49**
MW-6	10/17/1994	585.22	2.68	**582.54**
MW-6	11/8/1994	585.22	2.49	**582.73**
MW-6	11/15/1994	585.22	2.55	**582.67**
MW-6	1/17/1995	585.22	2.54	**582.68**
MW-6	5/27/2003	585.22	2.48	**582.74**
MW-6	10/17/1994	585.22	2.68	**582.54**
MW-6	11/8/1994	585.22	2.49	**582.73**
MW-6	11/15/1994	585.22	2.55	**582.67**
MW-6	1/17/1995	585.22	2.54	**582.68**
MW-6	5/27/2003	585.22	2.48	**582.74**
MW-6	7/9/2013	585.22	2.75	**582.47**
MW-6	7/9/2014	585.22	2.69	**582.53**
MW-6	9/8/2015	585.22	3.56	**581.66**
MW-6	8/16/2016	585.22	3.42	**581.80**
MW-6	8/1/2017	585.22	3.16	**582.06**
MW-6	6/26/2018	585.22	3.34	**581.88**
MW-7	10/17/1994	585.42	3.71	**581.71**
MW-7	11/8/1994	585.42	3.36	**582.06**
MW-7	11/15/1994	585.42	3.62	**581.80**
MW-7	1/17/1995	585.42	3.38	**582.04**
MW-7	7/9/2013	585.42	3.38	**582.04**
MW-7	7/9/2014	585.42	3.40	**582.02**
MW-7	9/8/2015	585.42	3.75	**581.67**
MW-7	8/16/2016	585.42	3.84	**581.58**
MW-7	8/1/2017	585.42	3.60	**581.82**
MW-7	6/26/2018	585.42	3.46	**581.96**
MW-8	10/17/1994	587.94	5.55	**582.39**
MW-8	11/8/1994	587.94	5.40	**582.54**
MW-8	11/15/1994	587.94	5.53	**582.41**
MW-8	1/17/1995	587.94	5.82	**582.12**
MW-8	8/23/1999	587.94	5.40	**582.54**
MW-8	10/19/2000	587.94	5.30	**582.64**
MW-8	12/10/2001	587.94	5.35	**582.59**

Table 3
Honeywell Specialty Chemicals
Groundwater Elevation Data

Monitoring Well ID	Water Level Measurement Date	Top of Well Casing Elevation (Feet AMSL)	Depth to Water (Feet TOC)	Water Table Elevation (Feet)
MW-8	11/19/2002	587.94	5.25	**582.69**
MW-8	5/27/2003	587.94	5.21	**582.73**
MW-8	11/13/2003	587.94	5.09	**582.85**
MW-8	5/25/2004	587.94	4.91	**583.03**
MW-8	4/28/2005	587.94	4.99	**582.95**
MW-8	4/25/2006	587.94	5.3	**582.64**
MW-8	5/1/2007	587.94	5.23	**582.71**
MW-8	5/6/2008	587.94	5.25	**582.69**
MW-8	4/21/2009	587.94	4.68	**583.26**
MW-8	4/29/2010	587.94	5.32	**582.62**
MW-8	4/19/2011	587.94	5.12	**582.82**
MW-8	4/17/2012	587.94	5.43	**582.51**
MW-8	7/9/2013	587.94	4.86	**583.08**
MW-8	7/9/2014	587.94	4.82	**583.12**
MW-8	9/8/2015	587.94	5.46	**582.48**
MW-8	8/16/2016	587.94	5.05	**582.89**
MW-8	8/1/2017	587.94	5.09	**582.85**
MW-8	6/26/2018	587.94	5.10	**582.84**
MW-9	10/17/1994	584.48	2.39	**582.09**
MW-9	11/8/1994	584.48	1.83	**582.65**
MW-9	11/15/1994	584.48	2.09	**582.39**
MW-9	1/17/1995	584.48	2.02	**582.46**
MW-9	10/19/2000	584.48	0.00	**584.48**
MW-9	5/27/2003	584.48	1.91	**582.57**
MW-9	5/25/2004	584.48	2.90	**581.58**
MW-9	4/19/2011	584.48	2.26	**582.22**
MW-9	4/17/2012	584.48	1.86	**582.62**
MW-9	7/9/2013	584.48	2.26	**582.22**
MW-9	7/9/2014	584.48	2.50	**581.98**
MW-9	9/8/2015	584.48	2.45	**582.03**
MW-9	8/16/2016	584.48	2.10	**582.38**
MW-9	8/1/2017	584.48	1.68	**582.80**
MW-9	6/26/2018	584.48	2.76	**581.72**
MW-10	10/17/1994	587.85	5.31	**582.54**
MW-10	11/8/1994	587.85	3.44	**584.41**
MW-10	11/15/1994	587.85	3.98	**583.87**
MW-10	1/17/1995	587.85	3.40	**584.45**
MW-10	8/23/1999	587.85	7.83	**580.02**
MW-10	10/19/2000	587.85	5.01	**582.84**
MW-10	12/10/2001	587.85	4.13	**583.72**
MW-10	11/19/2002	587.85	4.23	**583.62**
MW-10	5/27/2003	587.85	3.85	**584.00**
MW-10	11/13/2003	587.85	3.63	**584.22**
MW-10	5/25/2004	587.85	3.00	**584.85**
MW-10	4/28/2005	587.85	3.53	**584.32**
MW-10	4/25/2006	587.85	4.65	**583.20**
MW-10	5/1/2007	587.85	6.89	**580.96**
MW-10	5/6/2008	587.85	4.02	**583.83**
MW-10	4/21/2009	587.85	6.82	**581.03**
MW-10	4/29/2010	587.85	4.40	**583.45**
MW-10	4/19/2011	587.85	3.42	**584.43**
MW-10	4/17/2012	587.85	5.84	**582.01**
MW-10	7/9/2013	587.85	3.49	**584.36**
MW-10	7/9/2014	587.85	3.60	**584.25**
MW-10	9/8/2015	587.85	5.55	**582.3**
MW-10	8/16/2016	587.85	5.64	**582.21**
MW-10	8/1/2017	587.85	5.07	**582.78**
MW-10	6/26/2018	587.85	4.39	**583.46**

ATTACHMENT A

Well Sampling Records

WELL SAMPLING RECORD

Site Name *Honeywell Speciality Chemicals* Well ID *MW-3*

Samplers *Dan Chamberland*

Total Well Depth (TOC)	18.70	feet
Initial Static Water Level (TOC)	5.60	feet
Well Diameter	2.0	inches

Purging Data

Method *Disposable Bailer* Date/Time *6/26/18 9:51*

Water Volume = (Total Depth of Well - Depth To Water) x Casing Volume per Foot

= *18.70* - *5.60* x *0.16*

2.10 gallons

Casing Volumes (gal/ft.):					
1-inch	0.041	1.5-inch	0.092	2-inch	0.16
3-inch	0.36	4-inch	0.64	6-inch	1.4
8-inch	2.5			10 inch	4

Volume of Purge Water Removed *6.8* gallons

Sampling Data

Method *Disposable Bailer* Date/Time *6/26/18 11:00*

Parameters	Bottle	Pres.	Method
VOCs - TCL	*3- 40mL vials*	*HCl*	*8260*
Turbidity	*1- 250mL Plastic Bottle*	*none*	
Ar & Ba	*1- 250mL Plastic Bottle*	*HNO_3*	*206.2/200.7*
Ar & Ba (soluble)	*1- 250mL Plastic Bottle*	*none*	

Field Parameters	*1 Volume*	*2 Volume*	*3 Volume*	*Sample*
pH	*6.83*	*7.28*	*7.38*	*7.40*
Temp. (C)	*14.81*	*14.40*	*14.74*	*17.64*
Spec. Cond. (mS/cm)	*2.50*	*2.44*	*2.60*	*3.13*
Turbidity (NTU)	*80.50*	*386.00*	*OR*	*348.00*
Volume (gal)	*2.20*	*4.5*	*6.7*	*6.8*
Time	9:51	9:57	10:06	11:00

Comments: *Purge water clear at first but becomes progressively more turbid, sample* is pretty clear.

WELL SAMPLING RECORD

Site Name *Honeywell Speciality Chemicals* Well ID *MW-5*

Samplers *Dan Chamberland*

Total Well Depth (TOC)	16.55	feet
Initial Static Water Level (TOC)	5.87	feet
Well Diameter	2.0	inches

Purging Data

Method *Disposable Bailer* Date/Time *6/26/18 10:29*

Water Volume = (Total Depth of Well - Depth To Water) x Casing Volume per Foot

= *15.68* - *5.98* x *0.16*

1.552 gallons

Casing Volumes (gal/ft.):					
1-inch	0.041	1.5-inch	0.092	2-inch	0.16
3-inch	0.36	4-inch	0.64	6-inch	1.4
8-inch	2.5			10 inch	4

Volume of Purge Water Removed *5.3* gallons

Sampling Data

Method *Disposable Bailer* Date/Time *6/26/18 11:25*

Parameters	Bottle	Pres.	Method
VOCs - TCL	*3- 40mL vials*	*HCl*	*8260*
Ar & Ba	*1- 250mL Plastic Bottle*	*HNO_3*	*206.2/200.7*
Turbidity	*1- 250mL Plastic Bottle*	*none*	
Ar & Ba (soluble)	*1- 250mL Plastic Bottle*	*none*	

Field Parameters	*1 Volume*	*2 Volume*	*3 Volume*	*Sample*
pH	*7.58*	*7.72*	*7.56*	*7.51*
Temp. (C)	*17.00*	*16.70*	*17.12*	*17.98*
Spec. Cond. (mS/cm)	*10.30*	*10.30*	*10.20*	*10.40*
Turbidity (NTU)	*985.00*	*737.00*	*450.00*	*357.00*
Volume (gal)	1.7	*3.4*	*5.2*	*5.3*
Time	10:29	10:33	10:41	11:25

Comments: *Purge water very turbid, clearing up as I purge.*

WELL INSPECTION FORM

Site Name	*Honeywell Specialty Chemicals*	Well ID	*MW-2*
Personnel	*Daniel Chamberland*		

Total Well Depth (TOC)	18.85	feet
Initial Static Water Level (TOC)	4.91	feet
Well Diameter	2.0	inches
Condition of Pro-Cover	OK	
Well Locked	yes / no	
Condition of J-Plug	Good	
Concrete Pad Condition	OK	
Asphalt Condition	NA	
Date of Inspection	6/26/2018	
Time of Inspection	*12:30*	

Comments: *Stick up well. Fresh paint, hinge has been repaired.*

WELL INSPECTION FORM

Site Name *Honeywell Specialty Chemicals* Well ID *MW-3*

Personnel *Dan Chamberland*

Total Well Depth (TOC)	18.7	feet
Initial Static Water Level (TOC)	5.60	feet
Well Diameter	2.0	inches
Condition of Pro-Cover	OK	
Well Locked	yes	no
Condition of J-Plug	Good	
Concrete Pad Condition	OK	
Asphalt Condition	N/A	
Date of Inspection	6/26/2018	
Time of Inspection	*11:00*	

Comments: *Stick-up well. Soft bottom. Fresh paint and labelled*

WELL INSPECTION FORM

Site Name	*Honeywell Specialty Chemicals*	Well ID	*MW-5*
Personnel	*Dan Chamberland*		

Total Well Depth (TOC)	15.68	feet
Initial Static Water Level (TOC)	5.98	feet
Well Diameter	2.0	inches
Condition of Pro-Cover	OK	
Well Locked	yes / **no**	
Condition of J-Plug	Good	
Concrete Pad Condition	OK/None	
Asphalt Condition	OK	
Date of Inspection	6/26/2018	
Time of Inspection	*11:25*	

Comments: *No concrete, new pavement in area. Curb box painted green.*

WELL INSPECTION FORM

Site Name	*Honeywell Specialty Chemicals*	Well ID	*MW-6*
Personnel	*Dan Chamberland*		

Total Well Depth (TOC)	16.44	feet
Initial Static Water Level (TOC)	3.34	feet
Well Diameter	2.0	inches
Condition of Pro-Cover	OK	
Well Locked	yes / **no**	
Condition of J-Plug	Good	
Concrete Pad Condition	OK	
Asphalt Condition	OK	
Date of Inspection	6/26/2018	
Time of Inspection	*12:35*	

Comments: *Flush-mount well. Soft bottom.*

WELL INSPECTION FORM

Site Name	*Honeywell Specialty Chemicals*	Well ID	*MW-7*
Personnel	*Dan Chamberland*		

Total Well Depth (TOC)	13	feet
Initial Static Water Level (TOC)	3.46	feet
Well Diameter	2.0	inches
Condition of Pro-Cover	OK	
Well Locked	yes / **no**	
Condition of J-Plug	Good	
Concrete Pad Condition	OK	
Asphalt Condition	OK	
Date of Inspection	6/26/2018	
Time of Inspection	*12:10*	

Comments: *Flush-mount well. Soft bottom.*

WELL INSPECTION FORM

Site Name	*Honeywell Specialty Chemicals*	Well ID	*MW-8*
Personnel	*Dan Chamberland*		

Total Well Depth (TOC)	19	feet
Initial Static Water Level (TOC)	5.1	feet
Well Diameter	2.0	inches
Condition of Pro-Cover	OK	
Well Locked	yes / no	
Condition of J-Plug	Good	
Concrete Pad Condition	OK	
Asphalt Condition	OK	
Date of Inspection	6/26/2018	
Time of Inspection	*11:55*	

Comments: *Stick-up well. Soft bottom. Fresh paint and label.*

WELL INSPECTION FORM

Site Name	*Honeywell Specialty Chemicals*	Well ID	*MW-9*
Personnel	*Dan Chamberland*		

Total Well Depth (TOC)	16.15	feet
Initial Static Water Level (TOC)	2.76	feet
Well Diameter	2.0	inches
Condition of Pro-Cover	Damaged	
Well Locked	yes / no	
Condition of J-Plug	Good	
Concrete Pad Condition	Damaged	
Asphalt Condition	OK	
Date of Inspection	6/26/2018	
Time of Inspection	*12:00*	

Comments: *Flush mount well. Soft bottom. Top of curb box has been sheared off. The J-Plug is protected by a cone.*

WELL INSPECTION FORM

Site Name	*Honeywell Specialty Chemicals*	Well ID	*MW-10*
Personnel	*Daniel Chamberland*		

Total Well Depth (TOC)	17.84	feet
Initial Static Water Level (TOC)	4.39	feet
Well Diameter	2.0	inches
Condition of Pro-Cover	OK	
Well Locked	yes / no	
Condition of J-Plug	Good	
Concrete Pad Condition	OK	
Asphalt Condition	OK	
Date of Inspection	6/26/2018	
Time of Inspection	*12:45*	

Comments: *Stick-up well. Hard bottom. Hinge repaired, fresh paint.*

ATTACHMENT B

Groundwater Analytical Results

Sample ID: Monitoring Well 3
Sample Date: 06/26/18

Analytical Parameters	Analytical Results	Units	Practical Quantifiable Limits	Method
Total Arsenic	0.150	mg/L	0.025	EPA 6010
Soluble Arsenic	ND	mg/L	0.025	EPA 6010
Total Barium	0.246	mg/L	0.010	EPA 6010
Soluble Barium	0.180	mg/L	0.010	EPA 6010
Chloromethane	ND	µg/L	10	SW 846 8260
Vinyl chloride	ND	µg/L	10	SW 846 8260
Bromomethane	ND	µg/L	10	SW 846 8260
Chloroethane	ND	µg/L	10	SW 846 8260
Trichlorofluoromethane	ND	µg/L	10	SW 846 8260
1,1-Dichloroethene	4.1	µg/L	10	SW 846 8260
Methylene chloride	ND	µg/L	10	SW 846 8260
Trans-1,2-Dichloroethene	ND	µg/L	10	SW 846 8260
1,1-Dichloroethane	40	µg/L	10	SW 846 8260
Bromochloromethane	ND	µg/L	10	SW 846 8260
Chloroform	ND	µg/L	10	SW 846 8260
1,2-Dichloroethane	ND	µg/L	10	SW 846 8260
1,1,1-Trichloroethane	9.8	µg/L	10	SW 846 8260
Carbon tetrachloride	ND	µg/L	10	SW 846 8260
Benzene	ND	µg/L	10	SW 846 8260
1,2-Dichloropropane	ND	µg/L	10	SW 846 8260
Trichloroethene	ND	µg/L	10	SW 846 8260
2-Chloroethylvinyl ether	ND	µg/L	10	SW 846 8260
Cis-1,3-Dichloropropene	ND	µg/L	10	SW 846 8260
Trans-1,3-Dichloropropene	ND	µg/L	10	SW 846 8260
1,1,2-Trichloroethane	ND	µg/L	10	SW 846 8260
Toluene	ND	µg/L	10	SW 846 8260
Dibromochloromethane	ND	µg/L	10	SW 846 8260
Tetrachloroethene	ND	µg/L	10	SW 846 8260
Chlorobenzene	ND	µg/L	10	SW 846 8260
Ethylbenzene	ND	µg/L	10	SW 846 8260
Bromoform	ND	µg/L	10	SW 846 8260
1,1,2,2-Tetrachloroethane	ND	µg/L	10	SW 846 8260
1,3-Dichlorobenzene	ND	µg/L	10	SW 846 8260
1,4-Dichlorobenzene	ND	µg/L	10	SW 846 8260
1,2-Dichlorobenzene	ND	µg/L	10	SW 846 8260

Sample ID: Monitoring Well 5
Sample Date: 06/26/18

Analytical Parameters	Analytical Results	Units	Practical Quantifiable Limits	Method
Total Arsenic	0.122	mg/L	0.025	EPA 6010
Soluble Arsenic	ND	mg/L	0.025	EPA 6010
Total Barium	0.254	mg/L	0.010	EPA 6010
Soluble Barium	0.165	mg/L	0.010	EPA 6010
Chloromethane	ND	µg/L	10	SW 846 8260
Vinyl chloride	ND	µg/L	10	SW 846 8260
Bromomethane	ND	µg/L	10	SW 846 8260
Chloroethane	ND	µg/L	10	SW 846 8260
Trichlorofluoromethane	ND	µg/L	10	SW 846 8260
1,1-Dichloroethene	ND	µg/L	10	SW 846 8260
Methylene chloride	ND	µg/L	10	SW 846 8260
Trans-1,2-Dichloroethene	ND	µg/L	10	SW 846 8260
1,1-Dichloroethane	ND	µg/L	10	SW 846 8260
Chloroform	ND	µg/L	10	SW 846 8260
1,2-Dichloroethane	ND	µg/L	10	SW 846 8260
1,1,1-Trichloroethane	ND	µg/L	10	SW 846 8260
Carbon tetrachloride	ND	µg/L	10	SW 846 8260
Benzene	ND	µg/L	10	SW 846 8260
1,2-Dichloropropane	ND	µg/L	10	SW 846 8260
Trichloroethene	ND	µg/L	10	SW 846 8260
2-Chloroethylvinyl ether	ND	µg/L	10	SW 846 8260
Cis-1,3-Dichloropropene	ND	µg/L	10	SW 846 8260
Trans-1,3-Dichloropropene	ND	µg/L	10	SW 846 8260
1,1,2-Trichloroethane	ND	µg/L	10	SW 846 8260
Toluene	ND	µg/L	10	SW 846 8260
Dibromochloromethane	ND	µg/L	10	SW 846 8260
Tetrachloroethene	ND	µg/L	10	SW 846 8260
Chlorobenzene	ND	µg/L	10	SW 846 8260
Ethylbenzene	ND	µg/L	10	SW 846 8260
Bromoform	ND	µg/L	10	SW 846 8260
1,1,2,2-Tetrachloroethane	ND	µg/L	10	SW 846 8260
1,3-Dichlorobenzene	ND	µg/L	10	SW 846 8260
Acetone	ND	µg/L	10	SW 846 8260
2-Butanone	ND	µg/L	10	SW 846 8260
1,4-Dichlorobenzene	ND	µg/L	10	SW 846 8260
1,2-Dichlorobenzene	ND	µg/L	10	SW 846 8260

Sample ID: Trip Blank
Sample Date: 06/26/18

Analytical Parameters	Analytical Results	Units	Practical Quantifiable Limits	Method
Chloromethane	ND	µg/L	10	SW 846 8260
Vinyl chloride	ND	µg/L	10	SW 846 8260
Bromomethane	ND	µg/L	10	SW 846 8260
Chloroethane	ND	µg/L	10	SW 846 8260
Trichlorofluoromethane	ND	µg/L	10	SW 846 8260
1,1-Dichloroethene	ND	µg/L	10	SW 846 8260
Methylene chloride	ND	µg/L	10	SW 846 8260
Trans-1,2-Dichloroethene	ND	µg/L	10	SW 846 8260
1,1-Dichloroethane	ND	µg/L	10	SW 846 8260
Bromochloromethane	ND	µg/L	10	SW 846 8260
Chloroform	ND	µg/L	10	SW 846 8260
1,2-Dichloroethane	ND	µg/L	10	SW 846 8260
1,1,1-Trichloroethane	ND	µg/L	10	SW 846 8260
Carbon tetrachloride	ND	µg/L	10	SW 846 8260
Benzene	ND	µg/L	10	SW 846 8260
1,2-Dichloropropane	ND	µg/L	10	SW 846 8260
Trichloroethene	ND	µg/L	10	SW 846 8260
2-Chloroethylvinyl ether	ND	µg/L	10	SW 846 8260
Cis-1,3-Dichloropropene	ND	µg/L	10	SW 846 8260
Trans-1,3-Dichloropropene	ND	µg/L	10	SW 846 8260
1,1,2-Trichloroethane	ND	µg/L	10	SW 846 8260
Toluene	ND	µg/L	10	SW 846 8260
Dibromochloromethane	ND	µg/L	10	SW 846 8260
Tetrachloroethene	ND	µg/L	10	SW 846 8260
Chlorobenzene	ND	µg/L	10	SW 846 8260
Ethylbenzene	ND	µg/L	10	SW 846 8260
Bromoform	ND	µg/L	10	SW 846 8260
1,1,2,2-Tetrachloroethane	ND	µg/L	10	SW 846 8260
1,3-Dichlorobenzene	ND	µg/L	10	SW 846 8260
Acetone	ND	µg/L	10	SW 846 8260
2-Butanone	ND	µg/L	10	SW 846 8260
1,4-Dichlorobenzene	ND	µg/L	10	SW 846 8260
1,2-Dichlorobenzene	ND	µg/L	10	SW 846 8260

ANALYTICAL REPORT

Lab Number:	L1824199
Client:	Honeywell 20 Peobody Street Buffalo, NY 14120
ATTN:	Frank Collis
Phone:	(716) 827-6318
Project Name:	GROUNDWATER MONITORING
Project Number:	Not Specified
Report Date:	07/06/18

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: GROUNDWATER MONITORING
Project Number: Not Specified

Lab Number: L1824199
Report Date: 07/06/18

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1824199-01	MW-3	WATER	BUFFALO, NY	06/26/18 11:00	06/26/18
L1824199-02	MW-5	WATER	BUFFALO, NY	06/26/18 11:25	06/26/18
L1824199-03	TRIP BLANK	WATER	BUFFALO, NY	06/26/18 00:00	06/26/18

Project Name: GROUNDWATER MONITORING
Project Number: Not Specified

Lab Number: L1824199
Report Date: 07/06/18

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: GROUNDWATER MONITORING **Lab Number:** L1824199
Project Number: Not Specified **Report Date:** 07/06/18

Case Narrative (continued)

Report Submission

Please note that this report format does not contain typical QC parameters that were performed with these samples. As such, any QC outliers or non-conformances can only be reviewed by accessing your Alpha Customer Center account at www.alphalab.com and building a Data Usability table (format 11) in our Data Merger tool.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 07/06/18

VOLATILES

Project Name: GROUNDWATER MONITORING
Project Number: Not Specified
Lab Number: L1824199
Report Date: 07/06/18

SAMPLE RESULTS

Lab ID: L1824199-01
Client ID: MW-3
Sample Location: BUFFALO, NY

Date Collected: 06/26/18 11:00
Date Received: 06/26/18
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 07/02/18 22:58
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	--	1
1,1-Dichloroethane	40		ug/l	2.5	--	1
Chloroform	ND		ug/l	2.5	--	1
2-Chloroethylvinyl ether	ND		ug/l	10	--	1
Carbon tetrachloride	ND		ug/l	0.50	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	0.50	--	1
1,1,2-Trichloroethane	ND		ug/l	1.5	--	1
Tetrachloroethene	ND		ug/l	0.50	--	1
Chlorobenzene	ND		ug/l	2.5	--	1
Trichlorofluoromethane	ND		ug/l	2.5	--	1
1,2-Dichloroethane	ND		ug/l	0.50	--	1
1,1,1-Trichloroethane	9.8		ug/l	2.5	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	2.5	--	1
Ethylbenzene	ND		ug/l	2.5	--	1
Chloromethane	ND		ug/l	2.5	--	1
Bromomethane	ND		ug/l	2.5	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.5	--	1
1,1-Dichloroethene	4.1		ug/l	0.50	--	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	--	1
Trichloroethene	ND		ug/l	0.50	--	1
1,2-Dichlorobenzene	ND		ug/l	2.5	--	1

Project Name: GROUNDWATER MONITORING **Lab Number:** L1824199

Project Number: Not Specified **Report Date:** 07/06/18

SAMPLE RESULTS

Lab ID: L1824199-01 Date Collected: 06/26/18 11:00

Client ID: MW-3 Date Received: 06/26/18

Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	--	1
1,4-Dichlorobenzene	ND		ug/l	2.5	--	1
Bromochloromethane	ND		ug/l	2.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	104		70-130

Project Name: GROUNDWATER MONITORING
Project Number: Not Specified
Lab Number: L1824199
Report Date: 07/06/18

SAMPLE RESULTS

Lab ID: L1824199-02
Client ID: MW-5
Sample Location: BUFFALO, NY

Date Collected: 06/26/18 11:25
Date Received: 06/26/18
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 07/02/18 22:30
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	--	1
1,1-Dichloroethane	ND		ug/l	2.5	--	1
Chloroform	ND		ug/l	2.5	--	1
2-Chloroethylvinyl ether	ND		ug/l	10	--	1
Carbon tetrachloride	ND		ug/l	0.50	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	0.50	--	1
1,1,2-Trichloroethane	ND		ug/l	1.5	--	1
Tetrachloroethene	ND		ug/l	0.50	--	1
Chlorobenzene	ND		ug/l	2.5	--	1
Trichlorofluoromethane	ND		ug/l	2.5	--	1
1,2-Dichloroethane	ND		ug/l	0.50	--	1
1,1,1-Trichloroethane	ND		ug/l	2.5	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	2.5	--	1
Ethylbenzene	ND		ug/l	2.5	--	1
Chloromethane	ND		ug/l	2.5	--	1
Bromomethane	ND		ug/l	2.5	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.5	--	1
1,1-Dichloroethene	ND		ug/l	0.50	--	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	--	1
Trichloroethene	ND		ug/l	0.50	--	1
1,2-Dichlorobenzene	ND		ug/l	2.5	--	1

Project Name: GROUNDWATER MONITORING **Lab Number:** L1824199

Project Number: Not Specified **Report Date:** 07/06/18

SAMPLE RESULTS

Lab ID: L1824199-02 Date Collected: 06/26/18 11:25

Client ID: MW-5 Date Received: 06/26/18

Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	--	1
1,4-Dichlorobenzene	ND		ug/l	2.5	--	1
Bromochloromethane	ND		ug/l	2.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	104		70-130

Project Name: GROUNDWATER MONITORING
Lab Number: L1824199
Project Number: Not Specified
Report Date: 07/06/18

SAMPLE RESULTS

Lab ID: L1824199-03
Client ID: TRIP BLANK
Sample Location: BUFFALO, NY

Date Collected: 06/26/18 00:00
Date Received: 06/26/18
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 07/02/18 22:02
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	--	1
1,1-Dichloroethane	ND		ug/l	2.5	--	1
Chloroform	ND		ug/l	2.5	--	1
2-Chloroethylvinyl ether	ND		ug/l	10	--	1
Carbon tetrachloride	ND		ug/l	0.50	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	0.50	--	1
1,1,2-Trichloroethane	ND		ug/l	1.5	--	1
Tetrachloroethene	ND		ug/l	0.50	--	1
Chlorobenzene	ND		ug/l	2.5	--	1
Trichlorofluoromethane	ND		ug/l	2.5	--	1
1,2-Dichloroethane	ND		ug/l	0.50	--	1
1,1,1-Trichloroethane	ND		ug/l	2.5	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	2.5	--	1
Ethylbenzene	ND		ug/l	2.5	--	1
Chloromethane	ND		ug/l	2.5	--	1
Bromomethane	ND		ug/l	2.5	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.5	--	1
1,1-Dichloroethene	ND		ug/l	0.50	--	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	--	1
Trichloroethene	ND		ug/l	0.50	--	1
1,2-Dichlorobenzene	ND		ug/l	2.5	--	1

Project Name: GROUNDWATER MONITORING **Lab Number:** L1824199

Project Number: Not Specified **Report Date:** 07/06/18

SAMPLE RESULTS

Lab ID: L1824199-03 Date Collected: 06/26/18 00:00

Client ID: TRIP BLANK Date Received: 06/26/18

Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	--	1
1,4-Dichlorobenzene	ND		ug/l	2.5	--	1
Bromochloromethane	ND		ug/l	2.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	103		70-130

METALS

Project Name: GROUNDWATER MONITORING
Lab Number: L1824199
Project Number: Not Specified
Report Date: 07/06/18

SAMPLE RESULTS

Lab ID: L1824199-01
Client ID: MW-3
Sample Location: BUFFALO, NY
Date Collected: 06/26/18 11:00
Date Received: 06/26/18
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	0.150		mg/l	0.005	--	1	07/05/18 13:05	07/05/18 20:33	EPA 3005A	1,6010D	AB
Barium, Total	0.246		mg/l	0.010	--	1	07/05/18 13:05	07/05/18 17:37	EPA 3005A	1,6010D	AB
Dissolved Metals - Mansfield Lab											
Arsenic, Dissolved	ND		mg/l	0.005	--	1	07/03/18 14:45	07/05/18 07:40	EPA 3005A	1,6010D	PE
Barium, Dissolved	0.180		mg/l	0.010	--	1	07/03/18 14:45	07/05/18 07:40	EPA 3005A	1,6010D	PE

Project Name: GROUNDWATER MONITORING
Lab Number: L1824199
Project Number: Not Specified
Report Date: 07/06/18

SAMPLE RESULTS

Lab ID: L1824199-02
Client ID: MW-5
Sample Location: BUFFALO, NY
Date Collected: 06/26/18 11:25
Date Received: 06/26/18
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	0.122		mg/l	0.005	--	1	07/05/18 13:05	07/05/18 20:38	EPA 3005A	1,6010D	AB
Barium, Total	0.254		mg/l	0.010	--	1	07/05/18 13:05	07/05/18 17:42	EPA 3005A	1,6010D	AB
Dissolved Metals - Mansfield Lab											
Arsenic, Dissolved	ND		mg/l	0.005	--	1	07/03/18 14:45	07/05/18 08:28	EPA 3005A	1,6010D	PE
Barium, Dissolved	0.165		mg/l	0.010	--	1	07/03/18 14:45	07/05/18 08:28	EPA 3005A	1,6010D	PE

INORGANICS
&
MISCELLANEOUS

Project Name: GROUNDWATER MONITORING
Project Number: Not Specified

Lab Number: L1824199
Report Date: 07/06/18

SAMPLE RESULTS

Lab ID: L1824199-01
Client ID: MW-3
Sample Location: BUFFALO, NY

Date Collected: 06/26/18 11:00
Date Received: 06/26/18
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Turbidity	250		NTU	1.6	--	8	-	06/27/18 06:53	121,2130B	UN

Project Name: GROUNDWATER MONITORING
Project Number: Not Specified

Lab Number: L1824199
Report Date: 07/06/18

SAMPLE RESULTS

Lab ID: L1824199-02
Client ID: MW-5
Sample Location: BUFFALO, NY

Date Collected: 06/26/18 11:25
Date Received: 06/26/18
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Turbidity	280		NTU	1.6	--	8	-	06/27/18 06:53	121,2130B	UN

Project Name: GROUNDWATER MONITORING
Project Number: Not Specified

Lab Number: L1824199
Report Date: 07/06/18

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1824199-01A	Vial HCl preserved	A	NA		3.3	Y	Absent		NYTCL-8260(14)
L1824199-01B	Vial HCl preserved	A	NA		3.3	Y	Absent		NYTCL-8260(14)
L1824199-01C	Vial HCl preserved	A	NA		3.3	Y	Absent		NYTCL-8260(14)
L1824199-01D	Plastic 250ml HNO3 preserved	A	<2	<2	3.3	Y	Absent		AS-TI(180),BA-TI(180)
L1824199-01E	Plastic 250ml unpreserved	A	7	7	3.3	Y	Absent		-
L1824199-01F	Plastic 250ml unpreserved	A	7	7	3.3	Y	Absent		TURB-2130(2)
L1824199-01X	Plastic 120ml HNO3 preserved Filtrates	NA	NA			Y	Absent		BA-SI(180),AS-SI(180)
L1824199-02A	Vial HCl preserved	A	NA		3.3	Y	Absent		NYTCL-8260(14)
L1824199-02B	Vial HCl preserved	A	NA		3.3	Y	Absent		NYTCL-8260(14)
L1824199-02C	Vial HCl preserved	A	NA		3.3	Y	Absent		NYTCL-8260(14)
L1824199-02D	Plastic 250ml HNO3 preserved	A	<2	<2	3.3	Y	Absent		AS-TI(180),BA-TI(180)
L1824199-02E	Plastic 250ml unpreserved	A	7	7	3.3	Y	Absent		-
L1824199-02F	Plastic 250ml unpreserved	A	7	7	3.3	Y	Absent		TURB-2130(2)
L1824199-02X	Plastic 120ml HNO3 preserved Filtrates	NA	NA			Y	Absent		BA-SI(180),AS-SI(180)
L1824199-03A	Vial HCl preserved	A	NA		3.3	Y	Absent		NYTCL-8260(14)
L1824199-03B	Vial HCl preserved	A	NA		3.3	Y	Absent		NYTCL-8260(14)

*Values in parentheses indicate holding time in days

Project Name:	GROUNDWATER MONITORING	**Lab Number:**	L1824199
Project Number:	Not Specified	**Report Date:**	07/06/18

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related

Report Format: DU Report - No QC

Project Name:	GROUNDWATER MONITORING	**Lab Number:**	L1824199
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Data Qualifiers

projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: DU Report - No QC

Project Name:	GROUNDWATER MONITORING	**Lab Number:**	L1824199
Project Number:	Not Specified	**Report Date:**	07/06/18

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 300: DW: Bromide
EPA 6860: SCM: Perchlorate
EPA 9010: NPW and SCM: Amenable Cyanide Distillation
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Be, Cd, Cr, Cu, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 6/27/18

ALPHA Job #: L1824199

Client Information

Client: Honeywell
Address: 20 Peabody Street
Buffalo, NY 14120
Phone: 716-827-6318
Fax: 716-827-6221
Email: diana.overton@honeywell.com

Project Information

Project Name: Groundwater Monitoring
Project Location: Buffalo, NY
Project #
(Use Project name as Project #) ☐
Project Manager: Diana Overton
ALPHAQuote #:

Turn-Around Time

Standard ☑ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Billing Information

☑ Same as Client Info
PO #

Regulatory Requirement

☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Disposal Site Information

Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Soluble Metals to be filtered and preserved by the lab, Soluble Metals only need to be analyzed if Turbidity exceed 50 NTU

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☑ Lab to do
Preservation
☑ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	As,Ba-6010C (lab filter)	As,Ba-6010C	NYTCL-8260 Client Specif	TURB-2130	Sample Specific Comments	Total Bottle
24199.01	MW-3	6/26/2018	11:00	WW	DPC	X	X	X	X		6
.02	MW-5	6/26/2018	11:25	WW	DPC	X	X	X	X		6
.03	Trip Blank	6/26/2018		DI Water	DPC			X			2

Container Type: P P V P
Preservative: A C H A

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	6/26/2018 13:00	AHL	6/26/18 1305
AHL	6/26/18 1400		6/27/18 0015

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS.

Form No: 01-25 (rev. 30-Sept-2013)