Town of Babylon

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RICH SCHAFFER
SUPERVISOR

November 22, 2023

Ms. Susan Ackerman, Regional Permit Administrator
New York State of Environmental Conservation
Region 1
SUNY Stony Brook
50 Circle Road
Stony Brook, New York 11790

Re: Town of Babylon Leachate Monitoring Program, September 2023

Dear Ms. Ackerman,

The Town of Babylon has completed and forwarded the September 2023 LMP report via Microsoft One Drive. All on this correspondence should have received the document pursuant the contact information provided. If you have not received the report, please contact me at (631) 422-7640 or jguarino@townofbabylon.com.

Please feel free to contact this office with any questions.

Sincerely yours,

Joseph Guarino
Principal Environmental Analyst

JG:rm

cc: Richard Schaffer, Supervisor, Town of Babylon
Town Board of the Town of Babylon
Ronald C. Kluesener, Chief of Staff, Town of Babylon
Thomas Vetri, Commissioner, Environmental Control, Town of Babylon
Anthony Piccininni, Director of Resource Recovery, Environmental Control/Landfill, Town of Babylon
Richard Groh, Chief Environmental Analyst, Environmental Control, Town of Babylon
Linda Waring, Suffolk County Department of Public Works
Andrew Oskowsky, New York State Department of Environmental Conservation
Francesca King, Assistant Geologist, New York State Department of Environmental Conservation
Yin Zhao, New York State Department of Environmental Conservation
Richard Clarkson, New York State Department of Environmental Conservation
Tara Rutland, New York State Department of Health
Charlotte Bethoney, New York State Department of Health

TOBSWMF's Leachate Monitoring Program September 2023

Town of Babylon Department of Environmental Control

Tom Vetri, Commissioner
Prepared by Joseph Guarino, Principal Environmental Analyst
Anthony Valentino, Environmental Analyst
281 Phelps Lane
North Babylon, NY 11703
631-422-7640

November 2023

Laboratory data and summary report from September 2023 sampling for Babylon's Leachate Monitoring Program.

TOBSWMF's Leachate Monitoring Program

September 2023

As part of its solid waste infrastructure the Town of Babylon maintains four ashfills, the Southern Ashfill (SA), the Old Northern U Ashfill (ONU), the New Northern U Ashfill (NNU) and the lateral expansion of the Southern Ashfill, also known as Cell 7 (NYSDEC Permit No. 1-4720-00778/00014). These ash facilities are located on the northern and southern face of the former Babylon Landfill located on Gleam Street in West Babylon, NY.

Babylon's leachate monitoring program (LMP) samples leachate from each of Babylon's ash facilities pursuant to the requirements of 6NYCRR part 363 (formerly part 360) and/or special condition attached to their NYSDEC solid waste management operating permits. Sampling procedures are described in detail within the 2018 Update Site Analytical Plan for the Town of Babylon Solid Waste Management Facilities (SAP) (TOBDEC, 2018).

Historically for the TOBSWMF's LMP, sampling at the SA, ONU and NNU ash facilities was limited to baseline parameters. In 2018 the NYSDEC required Babylon also sample for 1,4 dioxane and PFOA/PFAS when sampling these facilities for the LMP. Leachate at Cell 7 continues to be sampled for expanded parameters (the expanded parameters list was modified as part of the updated NYSDEC Solid Waste Management Facility regulations (appendix 2)). Sampling was scheduled for June 2023 but was postponed due to procurement issues, then wet weather. Sampling of the SA, ONU, NNUP and Cell 7 were performed on September 11, 2023. The NNUS could not be sampled due to a broken pump. The sampling protocol for the LMP is detailed in the Updated SAP for the Town of Babylon Solid Waste Management Facilities (TOBDEC, 2018). Sampling at the SA and ONU is limited to the Secondary Leachate Collection and Recovery System (SLCRS). Sampling at the NNU is performed for both the Primary Leachate Collection and Recovery System (PLCRS) and SLCRS (as noted, the NNUS was not sampled). Sampling at Cell 7 was for the PLCRS. The complete laboratory report, case narrative and QA/QC package from AG Environmental / Sullivan County Labs has been attached as an appendix to this report. In addition to internal laboratory QA/QC, a trip blank for VOC's was obtained as part of the operational QA/QC requirements. The trip blank was clean.

Project narratives prepared by the laboratory for each category were reviewed. It was noted that phenolics at Cell 7 could not be run due to damage during transport. Potassium was noted to be possibly biased high at the NNUP and it was found in the batch blank. Potassium was also found in the batch blank for the ONU. Potassium was also noted to possess a potential high bias at the SA. The results for each data package were certified by the laboratory as being in compliance with the laboratory quality assurance manual.

This section of the LMP report provides a brief summary of the September 2023 leachate sampling at the TOBSWMF's. The sections that follow provide discussion of the results from each ash facility.

The following are notable observations from the September 2023 LMP sampling results:

- The NNUS facility could not be sampled due to a broken pump.
- Sampling was scheduled to occur in June 2023. Procurement issues and weather caused sampling to be postponed until September 2023.
- Manganese (16.3 mg/l) exceeded its MCL at the ONU. Manganese exceeded its MCL at the ONU in 23 of the past 40 sampling events over the life of the facility and just 3 of the previous 15 sampling events at the ONU facility since June 2016.
- pH of leachate at the ONU was 6.55, 7.82 at the SA, 7.01 at the NNU PLCRS, and 7.58 at Cell 7. All continue to be observed within an acceptable range.
- Baseline organics observed at each facility for the September 2023 LMP:
    - No baseline organics were observed above their RL at the SA facility.
    - No baseline organics were observed above their RL at the ONU.
    - Total baseline organics observed above their RL at the NNU facility, .3114 mg/l at the NNU P.
    - No individual organic compound from the baseline parameters list (SA, ONU and NNU), or summation of those compounds (TTO)[1] were observed at or above their MCL or TTO limits at any of these Babylon ash facilities during the September 2023 LMP.
- Total organics from the expanded parameters list (above RL) observed at the Cell 7 facility was 1.6 mg/l. Total Toxic Organics (TTO) (>.01 mg/l) at the Cell 7 facility was .0.757 mg/l. This is below the overall TTO limit (10 mg/l) within the Town of Babylon Discharge Certificate issued by SCDPW.
- Sulfide did not exceed its MCL at the SA, ONU, NNUP or Cell 7 facility for September 2023.
- Barium did not exceed its MCL at the ONU, SA or NNUP for September 2023. Barium exceeded its MCL (8.0 mg/l) at the Cell 7 facility for September 2023 (8.44 mg/l).
- Mercury was not detected above its mdl at the Babylon leachate facilities for September 2023.
- BOD at Cell 7 (1080 mg/l) and the NNUP (2070 mg/l) exceeded their MCL (300 mg/l) for September 2023.

[1] Suffolk County Department of Public Works Total Toxic Organics (TTO) limited to: VOC's 2.5 mg/l, Base Neutral Extractable Compounds 1.5 mg/l, Acid Extractable Compounds 1.5 mg/l and Pesticides and PCB's 1 mg/l.

- All metals on the expanded list were not analyzed for with the September 2023 LMP. This impacted the results at the Cell 7 facility and precluded the preparation of a Piper diagram for this report. The lab stated that the test/method requested by the sampler on the COC (6010/7470) does not include all metals on the expanded list. A resolution was provided and will be implemented for the next sampling event.
- Chloride at the Cell 7 facility for September 2023 was reported at <13.8 mg/l. This is significantly below its historical range at this facility. The September 2023 result for chloride at Cell 7 is viewed as suspicious. The lab believes this could have resulted from excessive sediment in the sample.
- Piper diagrams for the SA, ONU and NNUP were updated with leachate data from the September 2023 LMP. The Piper diagrams for the SA, ONU and NNUP conform to historical data. A slight shift was observed with the December 2022 data at the ONU. This was likely the result of reduced values of chloride and calcium observed with the December 2022 LMP at this facility. An updated Piper plot for Cell 7 could not be completed as the metals analysis for this facility did not provide sodium or potassium data.
- Project narratives were prepared by AG Environmental for the September 2023 LMP laboratory results. Any issues, deficiencies or flagging of results were summarized in these narratives, and can be found in the appendix of this report. It was noted that phenolics could not be sampled for Cell 7 due to damage during transport. Potassium was noted to possibly biased high at the NNUP and was found in the batch blank. Potassium was found in the batch blank for the ONU. Potassium was also noted to possess a potential high bias at the SA. Each data package was certified by the laboratory as being in compliance with its contract for Babylon's LMP both technically and for completeness.

TOBSWMF's Leachate Monitoring Program

Old Northern U

September 2023

Pursuant to NYSDEC 6NYCRR Part 363 requirements for the operation of the Town of Babylon's Old Northern U (ONU) Ashfill, leachate from that facility's secondary leachate collection and recovery system (SLCRS) was sampled in accordance with the procedures detailed in the TOBSWMF's SAP (TOBDEC, 2018). The ONU SLCRS is sampled semi-annually for baseline parameters. Pursuant to NYSDEC requirement to sample for "emerging contaminants", Babylon expanded sampling to include 1,4 dioxane and PFAS/PFOA's for this facility beginning in December 2019. Sampling was scheduled for June 2023 however procurement issues and weather delayed sampling until September 2023.

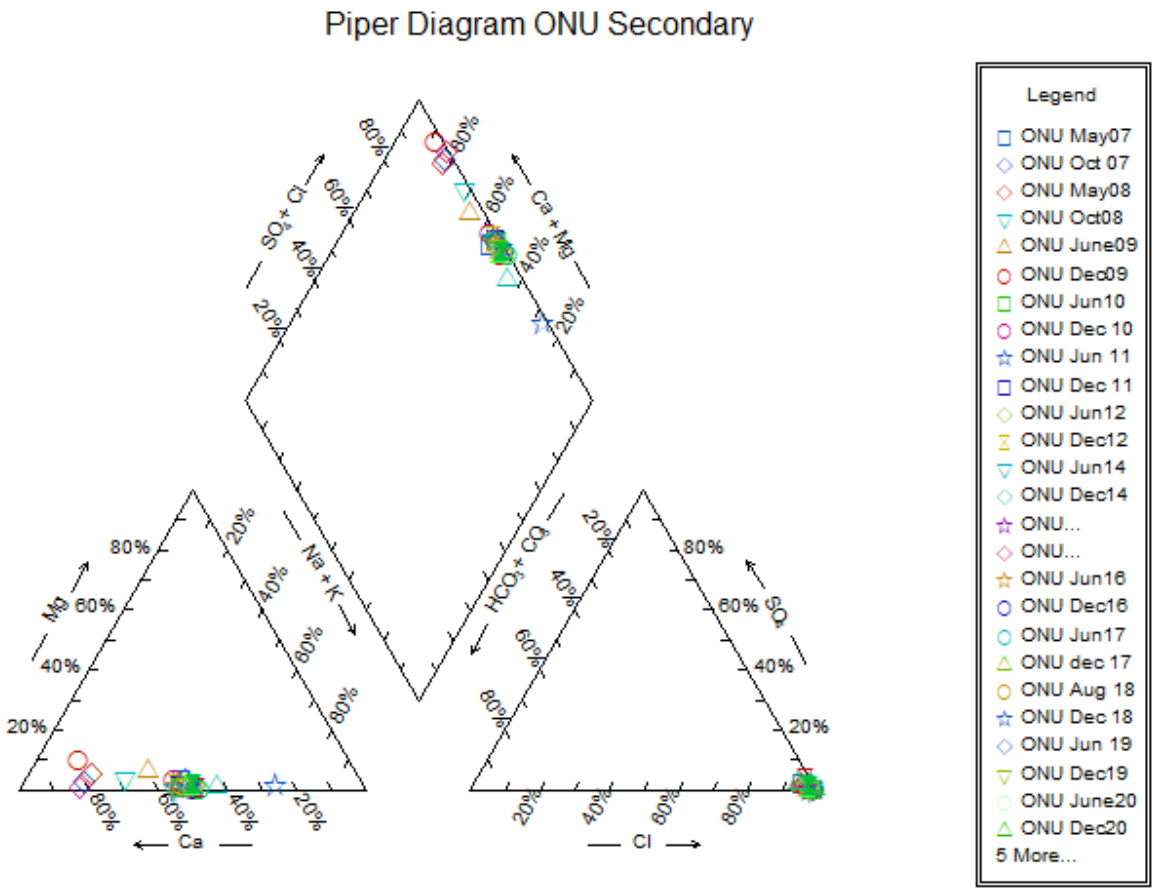
Ash has not been deposited in the ONU since it was capped in 2002 when the New Northern U (NNU) was constructed atop the facility. Leachate continues to be generated at the ONU despite the facility being capped and numerous attempts to locate the source. The LMP will continue at the ONU until there is a cessation of leachate generation. Included in this report is the September 2023 laboratory report from AG Environmental, a spreadsheet summarizing parameters of concern dating back to 1995, a Piper diagram and a brief discussion of the laboratory results.

The attached spreadsheet provides a historical overview of leachate composition and any exceedance of MCL's at the ONU. The bullets below highlight notable observations from this round of sampling at the ONU and/or provide follow-up discussion/analysis of previous reports when appropriate.

- The chemical composition of leachate from the ONU for September 2023 generally conforms to historical data from the facility.
- pH measured in the field at the ONU SLCRS for September 2023 was 6.55.
- For December 2022 chloride (5270 mg/l), calcium (1330 mg/l) , sodium (1600 mg/l), TKN (9.6 mg/l) and TDS (8800 mg/l) were observed below or at the lower extent of their historical ranges. For September 2023 these parameters returned to their historical range.
- Manganese (16.3 mg/l) exceeded its MCL for September 2023. Manganese had exceeded its MCL at the ONU in 23 of the past 40 sampling events over the life of the facility but just 3 of the previous 15 sampling events at the ONU facility since June 2016.
- Barium (2.79 mg/l) was not observed above its MCL at the ONU for September 2023.

- Arsenic was observed at .00247 mg/l and lead was not detected above its mdl at the ONU for September 2023. Low values of arsenic and lead have been intermittently observed at this facility.
- Other metals observed at the ONU at values above their reporting limit and below their MCL (where one has been established) for September 2023 include aluminum (.216 mg/l), antimony (.0034 mg/l), calcium (4200 mg/l), chromium (.009 mg/l), iron (11.7 mg/l), magnesium (79.8 mg/l), potassium (1430 mg/l), silver (.0414 mg/l) and sodium (4120 mg/l).
- 1,4 dioxane was observed at 10.3 ug/l for September 2023 at the ONU.
- No other organic compounds from the baseline list were observed at the ONU for September 2023.
- Sulfide (< 2.0 mg/l) was not detected at the ONU facility for September 2023.
- The Piper diagram from the ONU facility was updated with September 2023 data. The September 2023 plot on the Piper diagram coincides with the historical pattern for the facility. An extremely slight shift was observed in the data point for December 2022 when compared to the historical geochemical fingerprint of the facility. The reduced value of chloride and calcium are the likely cause for this slight shift. The geochemical fingerprint for this facility remains unchanged.
- PFAS/PFOA was sampled for this facility with the September 2023 LMP. Results are attached. The new lab (AG Environmental) will provide all subgroups for the next (December 2023) LMP

The next round of sampling at the ONU is scheduled for December 2023.



Note: Solid hourglass = data point for September 2023.

PARAMETERS	03 MCL	Oct_08	June_09	Dec_09	June_10	Dec_10	Jun_11	Dec_11	12-Jun	DEC_12	Jun_13	Dec_13	Jun_14	DEC_14	June_15	Dec_15
CHLORIDE	na	10300	7450	11700	19000	16000	18000	29000	24000	32200	9610 D	39500 D	13600	32800 D	11400 D	54100
SULFATE	na	152	90.3	139	<	29	16	7	7	<250	**5130**	5.41	9.64	207 D	106 D	82
Alkalinity		250	402	400	210	310	380	260	250	319	339 D	136 D	330	148 D	183 D	186
Na	ppm	869	660	37.6	4100	3600	4200	4500	6000	6110	3170	7990	3930	6780 D	3120	566
K	ppm	878	684	352	2000	1500	**20000**	2100	3200	2480	1150	3790	1030 E	3060 D	1240	4470
Ca	ppm	2850	1580	1350	5200	4800	4800	5700	6600	7920	3760	9640	4810	7920 D	3550	12800
Mg	ppm	95.4	90.8	101	23	160	95	86	82	130	209	0.481 B	0.244	37.3	35.2	11.9
pH	5 - 12.5	8.02	7.55	7.78	6.5	6.24	7	6.7	6.2	6.25		Temp	3.96	6.43	6.97	5.72
hardness																
TDS	na	25100	14200	19300	34000	25000	37000	38000	45000	49400	39800 D	80900 D	36400	64500	38500	122
PHENOL	1.5 mg/l															
PHENOLS		0.0137	0.0397	<.01	0.011	<	0.005	0.008	0.057	<.05	<.005	0.0488 D	<.005	<.005	<.005 U	<.005
IRON	na	9.75	21.7	34.2	33	74	60	86	46	83.6	62.9	0.416	63.3	13.6	17.9	11.6
MANGANESE	8 mg/l	16.9	15.5	21	5.5	36	20	21	18	34.5	41.2	0.0259	63.2	7.97	6.39	11.9
TKN	na	19.4	18.3	26.7	35	30	34	93	50	51.1	36.4 D	73.5 D	23.6	47.5 D	15.9 D	73.1
ALUMINUM	na	0.0146	0.245	0.038	<	0.37	0.45	<	0.79	0.0461 B	<.95	0.884	<	U	0.0329 B	<
ACETONE	50 mg/l				0.024	<	<	<	<	0.0049	0.005	0.036 Z	<	U	0.005	0.002
3+4 methylphenol								<	<	<						<
Methyl Ethyl Ketone	na						<	<	<	<	<	0.003 J	<	U	U	<
Arsenic	.400 mg/l				0.078	<	<	<	<	0.0049 B	<.28	0.0093 B	0.0124	U	U	<
Lead	.4 mg/l		0.0073 J	.00932J	<	<	<	<	<	0.0112	<.1	0.0135	0.0164	U	U	0.0031
Barium	8 mg/l	2	1.72	2.28	5.7	5	4.5	5.2	5.4	7.35	2.44 B	5.38	2.7	3.24	1.31	4.93
Xylene	ppb				<	<	<	<	<	<	<	<	<	U	U	<
Zinc	5 mg/l	0.0377	0.0608	0.102	<	0.17	0.14	0.22	<	0.0267	<.03	0.0096	<	0.207	0.017 B	0.0254
Beryllium					<	<	<	<	<	<.005	<.01	<	<	U	U	<
Nickel	8 mg/l	0.0119	0.0413	.0133J	<	<	<	<	<	<.04	0.03 B	0.002 B	<	U	0.002 B	<
Selenium	.4mg/l			.0171J	<	<	<	<	<	0.0171	<.23	<	<	U	U	<
Thallium		0.0249			<	<	<	<	<	<.01	<.19	<	0.123	U	U	0.0635
Silver	.4mg/l	0.0053			<	<	<	<	<	0.0039 B	0.0388 B	<	<	U	U	0.0029
Toluene					<	<	<	<	<	<	<	<	<	U	U	<
Carbon Disulfide					<	<	<	<	<	<	<	<	<	U	U	<
methylene chloride	2.5 mg/l	11 B	6.6 B		<	<	<	<	<	<	<	<	<	U	U	<
chromium										0.0071 B	0.09 B	<	0.0235	U	0.0027 B	<
Antimony										0.0055 B	<.12	0.0062 B	<	U	0.0028 B	<
4-Methyl-2-pentanone																0.003
Sulfide																

PARAMETERS	03 MCL	Oct_08	June_09	Dec_09	June_10	Dec_10	Jun_11	Dec_11	12-Jun	DEC_12	Jun_13	Dec_13	Jun_14	DEC_14	June_15	Dec_15
1,4 dioxane	ug/l															
perfluorobutanoic acid (PFBA)																
perfluoropentanoic acid (PFPeA)																
perfluorohexanoic acid(PFHxA)																
perfluoroheptanoic acid																
perfluorooctanoic acid(PFOA)																
perfluorononanoic acid(PFNA)																
perfluorodecanoic acid (PFDA)																
perfluoroundecanoic acid(PFUnA)																
perfluorododecanoic acid(PFDoA)																
perfluorotridecanoic acid(PFTriA)																
perfluorotetradecanoic acid(PFTeA)																
perfluorobutanesulfonic acid(PFBS)																
perfluorohexanesulfonic acid(PFHxS)																
perfluoroheptanesulfonic acid(PFHpS)																
perfluorooctanesulfonic acid(PFOS)																
perfluorodecanesulfonic acid(PFDS)																
perfluorooctanesulfonamide(FOSA)																
N-methylperfluorooctanesulfonamidoacetic acit(NMeFOSAA)																
N-ethylperfluorooctanesulfonamidoacetic acit(NEtFOSAA)																
6:2FTS																
8:2FTS																
total PFAS																

PARAMETERS	Jun_16	Dec_16	17-Jun	Dec_17	Aug_18	Dec_18	Jun_19	Dec_19	Jun_20	Dec_20	Jun_21	Dec_21
CHLORIDE	D 9630	D 44600	9970	348000	16400	19600	20400 D	14600 D	11600	12300	8970	40700
SULFATE	D 165	D 58	282	93.8	264	257	D 197	141 D	191	208	464	22.8 J
Alkalinity	D 271	182	143	148	293	139	245	302	196	137	157	155
Na	2390	8460	2500	6760	3720	3760	D 4560	D 3140	2230	3160	2670	9620
K	945	3870	1030	3310	1320	1570	D 1560	D 1140	937	1360	1170	3740
Ca	2960	9220	3100	8040	4290	4220	5140	D 3550	2390	3360	2770	9540
Mg	38.5	<10	19.4	0.293	19.2	11	192	71	12	7.27	8.1	0.706 J
pH	5.74	9.59/7	6.49	9.8	7.49	7.52	7.22	7.59	7.15	8.02	8.57	8.88
hardness												
TDS	23900	52800	25200	69200	28600	24000	29900	19500	13700	20900	12300	23100
PHENOL												
PHENOLS	<.005	0.297	0.0264	0.0587	0.134	0.0059	<.00001	0.0158	<.005	0.0054	<.005	0.0563
IRON	4.79	<5	4.32	<.4	2.21	1.44	31.8	13.3	6.16	1.55	3.79	<1
MANGANESE	5.07	<.5	1.63	<.01	1.23	0.62	41.8	14.5	1.3	0.556	0.26	<.1
TKN	13.7	64.3	12.6	52.2	37.3	13.3	27.1	29.1	11.2	14	10.4	90.6
ALUMINUM	0.0704 J	<10	<.0134	1.13	<10	<.2	<.2	<.2	<.2	<.2	<.2	<2
ACETONE	J < 0.0804	<.001	0.0514	0.0024 J	0.0029	<.005	<.005	<.005	<.005	<.005	<.005	0.0341
3+4 methylphenol												
Methyl Ethyl Ketone	< <.005	<.0005	.0025 J	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	0.0021 J
Arsenic	< <.5	<.0068	<.01	<.5	<.01	<.2	D <.01	<.01	<.01	<.01	<.01	<.1
Lead	0.0051	<.25	<.0013	<.4	<.25	0.0085	0.031	<.005	<.005	<.005	<.005	<.05
Barium	0.829	<10	1.32	4.9	1.34 J	1.13	2.77	2.07	0.619	1.11	0.566	5.54
Xylene	< <.005	<.0005	<.002	<.003	<.003	<.003	<.003	<.003	<.003	<.003	<.003	<.003
Zinc	0.0358	<1	<.0012	<.02	<1	<.02	<.02	<.02	<.02	<.02	<.02	<.2
Beryllium	0.0022 J	<.25	<.00057	.0036 J	<.25	<.005	<.005	0.00034 J	0.00013	0.00017 J	<.005	<.05
Nickel	< <2	<.00088	<.04	<2	<.04	<.04	<.04	<.04	0.0478	0.0193 J	0.0229 J	<.4
Selenium	< <.5	<.0062	<.01	<.5	<.01	<.2	D 0.0135	<.01	<.01	<.01	<.01	<.1
Thallium	< <.5	<.0036	<.01	<.5	0.0085 J	0.0798	<.01	<.01	<.01	<.01	<.01	<.1
Silver	B < <.5	<.0036	<.01	<.5	<.01	0.0048 J	0.0035 J	0.0047	<.01	<.01	0.015 J	
Toluene	< <.005	<.0005	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001
Carbon Disulfide	< <.005	<.0005	<.001	<.001	<.001	<.001	<.001	<.001	<.001	0.0033	<.001	<.001
methylene chloride	< <.005	<.0005	<.001	<.001	<.01	<.001	<.001	<.001	<.001	<.001	<.001	<.001
chromium	< <.5	<.0016	<.01	<.5	<.01	0.0071 J	0.0074 J	0.0489	0.0077 J	0.0031 J	<.1	
Antimony	< <3	<.003	<.06	<3	<.06	0.06	<.06	<.06	<.06	<.06	<.06	<.6
4-Methyl-2-pentanone	J < <.005	<.0005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005
Sulfide	<20	<2	<.61	9.6	<2	<.002	8	<2	1.6	<2	<2	3.2

PARAMETERS	Jun_16	Dec_16	17-Jun	Dec_17	Aug_18	Dec_18	Jun_19	Dec_19	Jun_20	Dec_20	Jun_21	Dec_21
1,4 dioxane					0.21 JH	0.66	21	18.6	0.38	0.57	0.57	2
perfluorobutanoic acid (PFBA)								180 B	73	76	200	270
perfluoropentanoic acid (PFPeA)								120	43	67	59	120
perfluorohexanoic acid(PFHxA)								160	60	82	72	170
perfluoroheptanoic acid								53	25	29	28	36
perfluorooctanoic acid(PFOA)								150	44	48	49	51
perfluorononanoic acid(PFNA)								17	7.3	8.1	8.3	2.6
perfluorodecanoic acid (PFDA)								5.4 J	2.1	1.8	J 2.3	0.66 J
perfluoroundecanoic acid(PFUnA)								ND	ND	nd	ND	ND
perfluorododecanoic acid(PFDoA)								ND	ND	nd	ND	ND
perfluorotridecanoic acid(PFTriA)								ND	ND	nd	ND	ND
perfluorotetradecanoic acid(PFTeA)								ND	ND	nd	ND	ND
perfluorobutanesulfonic acid(PFBS)								76	51	82	56	150
perfluorohexanesulfonic acid(PFHxS)								69 B	13 B	17	14	34
perfluoroheptanesulfonic acid(PFHpS)								2.8 J	0.42 J	0.47 J	0.84 J	0.31 J
perfluorooctanesulfonic acid(PFOS)								98	32	29	28	9
perfluorodecanesulfonic acid(PFDS)								ND	ND	nd	ND	ND
perfluorooctanesulfonamide(FOSA)								ND	0.76 JE	nd	ND	1.3 J
N-methylperfluorooctanesulfonamidoaceti								ND	ND	nd	ND	ND
N-ethylperfluorooctanesulfonamidoacetic								ND	ND	nd	ND	ND
6:2FTS								ND	ND	nd	ND	5
8:2FTS								ND	ND	nd	ND	0.63 J
total PFAS								931.2	351.58	440.37	517.44	850.5

PARAMETERS	Jul_22	Dec_22	Sept_23
CHLORIDE	10000	**5270**	14900
SULFATE	97.9	155	169
Alkalinity	305	322	217
Na	3970	1600	4120
K	1660	720	1430
Ca	4340	1330	4200
Mg	67.9	8.84	79.8
pH	8.62	7.96	6.55
hardness		4220	12200
TDS	19300	**8800**	25776
PHENOL			
PHENOLS	<.005	0.0098	<.05
IRON	5.99	1.53	11.7
MANGANESE	6.9	0.324	16.3
TKN	15.5	9.6	29.1
ALUMINUM	<.2	0.288	0.216
ACETONE	0.0024 J	<.005	<.005
3+4 methylphenol			
Methyl Ethyl Ketone	<.005	<.005	<.0025
Arsenic	<.01	<.01	0.00247
Lead	<.005	<.05	<.00556
Barium	0.927	0.418	2.79
Xylene	<.003	<.03	<.0075
Zinc	<.02	<.2	<.0278
Beryllium	<.005	<.005	<.000333
Nickel	0.0216 J	0.0286 J	<.0111
Selenium	<.01	<.01	<.0111
Thallium	<.01	<.01	<.0111
Silver	0.0024 J	0.0026 J	0.0414
Toluene	<.001	<.001	<.0025
Carbon Disulfide	<.001	<.001	<.0025
methylene chloride	<.001	<.001	<.0025
chromium	0.002 J	<.01	0.00936
Antimony	<.06	<.06	0.0034
4-Methyl-2-pentanone	<.005	<.005	<.0025
Sulfide	8	<2	

PARAMETERS	Jul_22	Dec_22	Sept_23
1,4 dioxane	8.4	0.39	
perfluorobutanoic acid (PFBA)	180	77	
perfluoropentanoic acid (PFPeA)	100	45	
perfluorohexanoic acid(PFHxA)	120	57	
perfluoroheptanoic acid	41	24	
perfluorooctanoic acid(PFOA)	87	60	101
perfluorononanoic acid(PFNA)	12	8.1	
perfluorodecanoic acid (PFDA)	9.7	2.1	
perfluoroundecanoic acid(PFUnA)	1.5 J	ND	
perfluorododecanoic acid(PFDoA)	ND	ND	
perfluorotridecanoic acid(PFTriA)	ND	ND	
perfluorotetradecanoic acid(PFTeA)	ND	ND	
perfluorobutanesulfonic acid(PFBS)	98	37	
perfluorohexanesulfonic acid(PFHxS)	58	20	
perfluoroheptanesulfonic acid(PFHpS)	2.7	0.94 J	
perfluorooctanesulfonic acid(PFOS)	130	36	39.1
perfluorodecanesulfonic acid(PFDS)	ND	ND	
perfluorooctanesulfonamide(FOSA)	1.2 J	ND	
N-methylperfluorooctanesulfonamidoaceti	2.6 J	ND	
N-ethylperfluorooctanesulfonamidoacetic	4.7	ND	
6:2FTS	4.2	9.9	
8:2FTS	2.7	ND	
total PFAS	855.3	377.04	
	9/21/2022		new lab
	PFsampled		

TOBSWMF's Leachate Monitoring Program

Southern Ashfill

September 2023

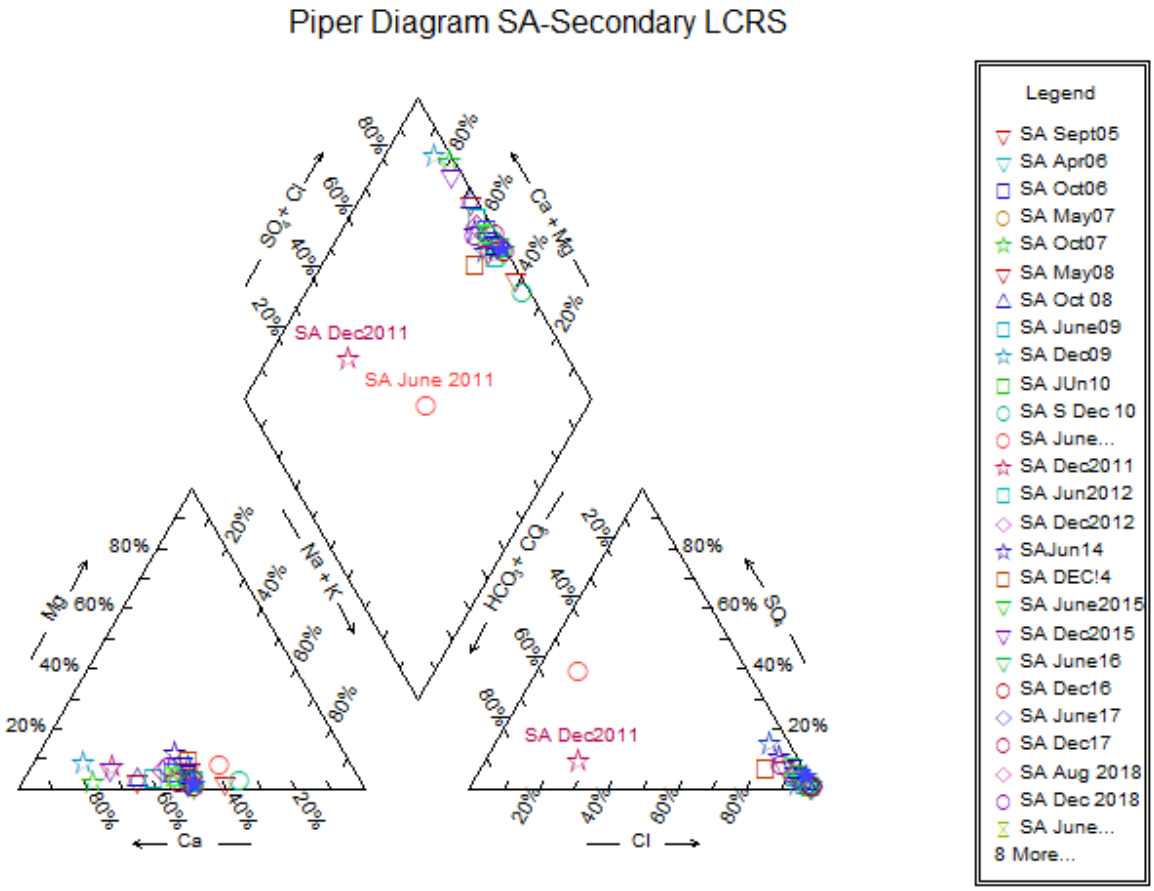
Pursuant to NYSDEC 6NYCRR Part 363 (formerly part 360) requirements for the operation of the Town of Babylon's Southern Ashfill (SA), leachate from that facility's Secondary Leachate Collection and Recovery System (SLCRS) was sampled in accordance with the procedures detailed in the TOBSWMF's SAP (TOBDEC, 2018). The SA facility requires semiannual sampling of leachate for baseline parameters from the facility's SLCRS. Pursuant to NYSDEC requirement to sample for "emerging contaminants", Babylon expanded sampling to include 1,4 dioxane and PFAS/PFOA's for this facility beginning in December 2019. Sampling was scheduled for June 2023 however procurement issues and weather delayed sampling until September 2023. This report includes the laboratory report from AG Environmental, a Piper diagram, a spreadsheet summarizing parameters of concern dating back to 1994, and a discussion of the results.

The attached spreadsheet provides a historical overview of leachate composition at the SA and any exceedance of the MCL's. The following bullets summarize any findings from this round of sampling at the SA and provide follow-up analysis or discussion when recommended from previous reports.

- Leachate indicators at the SA have been observed to be variable. Data from the September 2023 LMP at the SA fall within the range of historical data.
- A Piper diagram that includes SA data from September 2023 conforms to its established pattern.
- Lead was reported below its mdl, and arsenic (.013 mg/l) was observed within its historical range for this facility for September 2023. Low values of lead and arsenic have been observed intermittently at the SA.
- Manganese was observed below its MCL at 6.61 mg/l for September 2023. Manganese had exceeded its MCL (8 mg/l) in June 2019. The only other sampling event where manganese exceeded its MCL at the SA facility was December 2013.
- Barium was observed at .422 mg/l at the SA for September 2023.
- Other metals observed at the SA at values above their reporting limit and below their MCL (where one has been established) for September 2023 include aluminum (.995 mg/l), antimony (.025 mg/l), cadmium (.0038 mg/l), chromium (.008 mg/l), cobalt (.008 mg/l), copper (.009 mg/l), calcium (4000 mg/l), iron (20 mg/l), magnesium (70.4 mg/l), potassium (1080 mg/l), sodium (1090 mg/l), silver (.004 mg/l), and zinc (.15 mg/l).
- 1,4 dioxane was detected at 1.33 ug/l at the SA for September 2023.

- No other organics from the baseline parameters list were detected above their mdl at the SA facility for September 2023.
- Mercury was not detected (<.0002 mg/l) at the SA for September 2023.
- pH measured in the field was 7.82 at the SA facility.
- Sulfide (<1 mg/l) was not observed at the SA facility for September 2023.
- PFAS/PFOA's data from September 2023 are attached. In the future the new lab (AG Environmental) will provide all subgroups for the LMP reports.

The next round of sampling is scheduled for December 2023.



Note: Solid star indicates September 2023 data.

SA PARAMETERS	03 MCL	Aug '03	Mar '04	Sept '04	Mar '05	Sept '05	Apr'06	Oct '06	May'07	Oct'07	May_08	Oct_08	June_09
TKN	na	16.9000		21.1000	30.2000	22.3000	22.9000	19.8000	13.3000	14.2000	15.5000	20.0000	15.0000
TDS	na	18800.0000	9000.0000	21000.0000	16000.0000		7000.0000	19700.0000	15700.0000	23700.0000	17000.0000	21700.0000	14200.0000
Phenols	na	0.0170			0.0061				0.1170			0.0148	0.0103
Chloride	na	7000.0000	4750.0000	11200.0000	9250.0000	13500.0000	14700.0000	15400.0000	8400.0000	14000.0000	9500.0000	11000.0000	7500.0000
Sulfide	12												
Iron	na	5.8900	0.0448	9.4100	7.9100	5.0600	11.6000	227.0000	6.0500	2.4700	2.3000	2.2300	9.7300
Manganese	8 mg/l	5.6300	3.0900	4.6000	3.7400	4.3400	2.9100	6.7100	4.3700	2.4200	2.8600		2.37
Phenol	1.5 mg/l												
Xylene	2.5 mg/l *	1.5000											
1,2,4 Trimethylbenzene	na												
SULFATE	na	291.0000				56.0000	80.5000	51.3000	359.0000	314.0000	204.0000	126.0000	87.6000
Arsenic	.4 mg/l	0.0034						0.2630					
Acetone	na ppm	49.5000											
pH	5 - 12.5		4.0000	6.0200		5.9800	6.0900	6.3200	6.7000	6.1500	5.8900	5.7600	6.1800
Aluminum	na	0.0130	0.0415	0.0170 J	0.0475	0.0998	0.0647	6.1200	0.0620	0.0729	0.0293	0.0341	0.0962
Barium	8 mg/l	0.9800	0.6440	1.9500	1.9400	4.5100	1.6400	2.5100	1.1500	1.4500	1.1400	1.2100	1.5700
Lead		0.0017	0.0075			0.0180		0.2510	0.0040				
Zinc		0.0190		0.0140	0.0053 J		0.0136	0.8450		0.0225	0.0242	0.0368	0.0424
Toluene	2.5 mg/l *												
Cadmium	.8 mg/l	0.0003											
Vanadium		0.0005						0.0596					
Tin													
Antimony		0.0210											
Copper	1.6 mg/l	0.0029						0.1140			0.00515 J	0.0101	
Selenium	.4 mg/l	0.0270		0.0475									
Silver	.4 mg/l	0.0010								0.0252			
Berylium		0.0012											
Chromium	8 mg/l	0.0027			0.0084 J	0.0111 J		0.0426					
Nickel	8 mg/l	0.0035						0.2470					
Thallium		0.0850						0.0343				0.0202	
Carbon disulfide								0.004					
Methylene Chloride	2.5 mg/l							0.0180 B	0.0047 B		0.0058 B		0.0058
Alkalinity		320.0000			299	208	210	172.0000	284	193	259	230	290
Ammonia		10.7000	4.65	18.5	23.2	16.4	16.3	10.4000	9.75	24.8	0	14.9	13.2
Hardness		5710.0000	2340	7290	6190	9790	9570	6180.0000	5740	8110	595	5810	4450
1,4 dioxane	ug/l												

SA PARAMETERS	03 MCL	Aug '03	Mar '04	Sept '04	Mar '05	Sept '05	Apr'06	Oct '06	May'07	Oct'07	May_08	Oct_08	June_09
		Aug_03	Mar_04	Sept_04	Mar_05	Sept_05	Apr_06	Oct_06	May_07	Oct_07	May_08	Oct_08	June_09
Chloride		7000.0000	4750.0000	11200.0000	9250.0000	13500.0000	14700.0000	15400.0000	8400.0000	14000.0000	9500.0000	11000.0000	7500.0000
Sulfate		291.0000	388	120	99.2	56.0000	80.5000	51.3000	359.0000	314.0000	204.0000	126.0000	87.6000
Alkalinity		320			299	208	210	172	284	193	259	230	290
Na		2090.0000	284	1340	1390	5360	3170	2050	1920.0000	40.1000	878.0000	831.0000	739.0000
K		699	462	1300	1240	2070	1770	1260	836.0000	1590.0000	1430.0000	896.0000	828.0000
Ca		2090.0000	788	2770	2340	3760	3750	2400	2170.0000	3180.0000	2870.0000	2250.0000	1690.0000
Mg		119	91.3	86.5	85.1	97.3	49	45.9	76.3000	39.8000	57.3000	48.3000	53.2000
pH			4	6.0200		5.9800	6.0900	6.3200	6.7000	6.1500	5.8900	5.7600	6.1800
perfluorobutanoic acid (PFBA)													
perfluoropentanoic acid (PFPeA)													
perfluorohexanoic acid(PFHxA)													
perfluoroheptanoic acid													
perfluorooctanoic acid(PFOA)													
perfluorononanoic acid(PFNA)													
perfluorodecanoic acid (PFDA)													
perfluoroundecanoic acid(PFUnA)													
perfluorododecanoic acid(PFDoA)													
perfluorotridecanoic acid(PFTriA)													
perfluorotetradecanoic acid(PFTeA)													
perfluorobutanesulfonic acid(PFBS)													
perfluorohexanesulfonic acid(PFHxS)													
perfluoroheptanesulfonic acid(PFHpS)													
perfluorooctanesulfonic acid(PFOS)													
perfluorodecanesulfonic acid(PFDS)													
perfluorooctanesulfonamide(FOSA)													
N-methylperfluorooctanesulfonamidoacetic acit(NMeFOSAA)													
N-ethylperfluorooctanesulfonamidoacetic acit(NEtFOSAA)													
6:2FTS													
8:2FTS													
total PFAS													

SA PARAMETERS	03 MCL	Dec_09	10-Jun	DEC_10	June_11	11-Dec	12-Jun	DEC_12	June_13	Dec_13	14-Jun	14-Dec	June_15
TKN	na	16	8.6000	2.8000	1.4000	1.8000	39.0000	2.4600	3.3600 D	58.0000 D	1.9000 D	2.0000	54.9000
TDS	na	9560	13000.0000	9600.0000	1500.0000	320.0000	9100.0000	13800.0000	19500.0000 D	9000.0000 D	9230.0000	4520.0000	91100.0000
Phenols	na	<.01	<.01	0.003	<.001	<	<	<.05	<.005	0.0212	<.005	<.005	0.008
Chloride	na	4900	21000.0000	6300.0000	110.0000	55.0000	6200.0000	34300.0000	3780.0000 D	44700.0000 D	3140.0000 D	1840.0000 D	33600.0000
Sulfide	12											<2	<2
Iron	na	3.12	0.6700	1.8000	1.0000	26.0000	20.0000	3.4900	8.0100 B	21.2000	2.5900	1.9300	1.1500
Manganese	8 mg/l	1.61	2.6	2.7	0.33	2.2	5.7	2.73	2.72	**12.8**	5.5	2.49	0.45
Phenol	1.5 mg/l												
Xylene	2.5 mg/l *					<		<	<	<	<	U	<
1,2,4 Trimethylbenzene	na					<		<		XXXXXX			
SULFATE	na	77.7	130.0000	240.0000	450.0000	25.0000	320.0000	151.0000	5340.0000	11	515.0000	190.0000 D	124.0000
Arsenic	.4 mg/l					<	<	<.01	<.28	0.0051 B	<	U	U
Acetone	na ppm					<	<	0.001	0.003 J	0.001 J	<	U	0.041
pH	5 - 12.5	6.91	7.2000	6.8000	8.2000	7.8000	7.1000	7.1000		TEMP	4.9100	6.9500	7.1800
Aluminum	na	0.0891	<.05	0.06	0.26	1	11	<.2	<.95	0.0228 B	<	0.332	0.0512 B
Barium	8 mg/l	1.3	0.9800	0.5800	0.1100	0.0850	0.4900	0.8050	0.4900 B	4.5600	<	U	2.8300
Lead		.00427J	<	<	<	<	0.13	0.0078	<.1	0.0242	0.0086	U	0.0018 B
Zinc		0.0853	<	<	0.1000	0.6200	1.6000	0.0240	<.03	0.1590	<	0.1440	0.0234
Toluene	2.5 mg/l *			<	<	<	<	<	<	<	<	U	U
Cadmium	.8 mg/l		<	<	<	<	<	<.005	<.01	0.0016 B	<	U	U
Vanadium			<	<	<	<	<	<.05	0.03 B	<	<	U	0.0029 B
Tin													
Antimony			<	<	<	<	<	<.06	<.12	0.0067 B	<	U	0.0071 B
Copper	1.6 mg/l	0.0443	<	<	<	<	<	<.025	<.04	0.0082 B	<	0.0269	U
Selenium	.4 mg/l		<	<	<	<	<	<.005	<.23	<	<	U	U
Silver	.4 mg/l		<	<	<	<	<	<.01	<.02	0.0027 B	<	U	U
Berylium			<	<	<	<	<	<.005	<.01	<	<	U	U
Chromium	8 mg/l		<	<	<	<	<	<.01	0.07 B	0.003 B	<	U	0.0021 B
Nickel	8 mg/l		<	<	<	<	<	<.04	<.03	<	<	U	0.0018 B
Thallium			<	<	<	<	<	<.01	<.19	0.0068 B	0.0133	U	U
Carbon disulfide			<	<	<	<	<	<	<	<	<	U	U
Methylene Chloride	2.5 mg/l	.0042B	<	<	<	<	<	<	<	<	<	U	U
Alkalinity		318	230	200	590	180	360	209	275 D	202 D	273 D	338 D	102
Ammonia		13.1	7.6	1.8	0.6	0.8	14	1.08	2.72	60 D	1.99	1.89	53.8 D
Hardness		1910	5300	5100	570	220	2800	4500	4100 D	27000 D	3000 D	3100 D	20400 D
1,4 dioxane	ug/l												

SA PARAMETERS	03 MCL	Dec_09	10-Jun	DEC_10	June_11	11-Dec	12-Jun	DEC_12	June_13	Dec_13	14-Jun	14-Dec	June_15
		Dec_09	Jun_10	Dec_10	Jun_11	Dec_11	June_12	Dec_12			June_14	Dec_14	Jun_15
Chloride		4900					6200	34300			3140	1840	
Sulfate		77.7					320	151			515	190	
Alkalinity		318					360	209			273	338	
Na		40.3	2000	1900	300	27	1000	1580			782	479	8160
K		198	640	3500	21	9.2	470	550			232	192	3310
Ca		693	2000	1900	190	81	1100	1640			995	533	8440
Mg		43.7					20	75.9			141	59.7	19
pH		6.91					7.1	7.1			4.91	6.95	7.18
perfluorobutanoic acid (PFBA)													
perfluoropentanoic acid (PFPeA)													
perfluorohexanoic acid(PFHxA)													
perfluoroheptanoic acid													
perfluorooctanoic acid(PFOA)													
perfluorononanoic acid(PFNA)													
perfluorodecanoic acid (PFDA)													
perfluoroundecanoic acid(PFUnA)													
perfluorododecanoic acid(PFDoA)													
perfluorotridecanoic acid(PFTriA)													
perfluorotetradecanoic acid(PFTeA)													
perfluorobutanesulfonic acid(PFBS)													
perfluorohexanesulfonic acid(PFHxS)													
perfluoroheptanesulfonic acid(PFHpS)													
perfluorooctanesulfonic acid(PFOS)													
perfluorodecanesulfonic acid(PFDS)													
perfluorooctanesulfonamide(FOSA)													
N-methylperfluorooctanesulfonamidoacetic acit(NMeFOSAA)													
N-ethylperfluorooctanesulfonamidoacetic acit(NEtFOSAA)													
6:2FTS													
8:2FTS													
total PFAS													

SA PARAMETERS	03 MCL	Dec_15	Jun_16	Dec_16	17-Jun	Dec_17	Aug_18	Dec_18	June_19	Dec_19	Jun_20	Dec_20
TKN	na	9.4700 D	3.8800	43.2000	28.4000	24.2000	0.5800	1.8000	17.0000 D	2.9	1.2	1.3
TDS	na	16600.0000	12.6000	39900	43000.0000	33200.0000	6130.0000	6300.0000	9360.0000	6800	8290	5250
Phenols	na	<.005	<.005	0.277	0.0124	0.0103	0.0569 J	0.0028 J	<.01	0.0092	<.005	0.0051
Chloride	na	6990.0000 D	########	31100.0000	15400	57900.0000	3630.0000	2330	5830 D	5470	6860	2540
Sulfide	12		<20	<2	<.61	<2	<2	<2	6.4	<2	<2	<2
Iron	na	17.8000	2.3500	<5	6.86	11.7000	0.4540	12.8	210	2.85	21.5	64.3
Manganese	8 mg/l	4.97	1.87	<.5	3.42	3.86	2.09	1.09	8.44	5.31	6.67	4.21
Phenol	1.5 mg/l											
Xylene	2.5 mg/l *		<	<.005	<.0005	<.002	<.003	<.003	<.003	<.003	<.003	<.003
1,2,4 Trimethylbenzene	na											
SULFATE	na	263.0000 D	182.0000 D	246	221.0000	423.0000	251.0000	267.0000 D	361.0000 D	427	322	621
Arsenic	.4 mg/l	0.0048 B	<.01	<.5	<.0068	<.01	<.01	<.01	0.0599	<.01	<.01	0.0154
Acetone	na ppm	0.002 J	<	0.048	0.0755	0.0264	0.0032 J	<.005	0.0016 J	<.005	<.005	<.005
pH	5 - 12.5	7.0100	6.5300	7.21/6.5	6.18	6.95	8.08	8.05	8	7.24	8.12	8.59
Aluminum	na	0.0527 B	<	<10	<.0134	.0823 J	0.0506 J	0.564	13.5	<.2	0.531	3.86
Barium	8 mg/l	0.6040	0.4350	<10	1.62	1.08	0.205	0.17 J	0.481	0.158 J	0.264	0.189
Lead		0.0042	0.0023 J	<.25	<.0013	0.0058	0.0028 J	0.013	0.279	<.005	0.011	0.0982
Zinc		0.0109 B	0.1060	<1	0.0352	.0163 J	0.0097 J	0.0652	1.87	0.0064 J	0.0762	0.486
Toluene	2.5 mg/l *		<	<.005	<.0005	<.001	<.001	<.001	<.001	<.001	<.001	<.001
Cadmium	.8 mg/l	0.0011 B	<	<.125	<.000063	<.0025	<.0025	<.0025	0.0125	<.0025	<.0025	0.0036
Vanadium		<	<	<2.5	<.0008	<.05	<.05	0.0016 J	0.0226 J	<.05	<.05	0.0113 J
Tin												
Antimony		<	<	<3	<.003	<.06	<.06	<.06	0.0765	<.06	<.06	0.0252 J
Copper	1.6 mg/l	0.0073 B	0.0026 J	<1.25	<.0025	.011 J	0.0042 J	0.0185 J	0.36	0.0087 J	0.0374	0.188
Selenium	.4 mg/l	0.0026 B	<	<.5	<.0062	<.01	<.01	<.01	<.01	<.01	<.01	<.01
Silver	.4 mg/l	0.0035 B	<	<.5	<.0036	<.01	<.01	<.01	0.0043 J	0.0038 J	0.0028	<.01
Berylium		<	0.0009 J	<.25	0.0051	.0018 J	<.005	<.05	<.005	0.00022 J	0.00011	<.005
Chromium	8 mg/l	0.0016 B	0.0414	<.5	<.0016	<.01	0.003 J	0.0067	0.0989	0.0156	0.0342	0.0195
Nickel	8 mg/l	0.0054 B	0.0243 J	<2	<.00088	<.04	<.04	<.04	0.069	<.04	0.0352	0.0415
Thallium		0.0244	<	<.5	<.0036	.0025 J	<.01	<.01	0.0276	0.012	<.01	<.01
Carbon disulfide			<	<.005	<.0005	<.001	<.001	<.001	<.001	<.001	<.001	0.0015
Methylene Chloride	2.5 mg/l		<	<.005	<.0005	<.001	<.001	<.001	<.001	<.001	<.001	<.001
Alkalinity		261 D	178	151	206	149	225	223	183	268	199	244
Ammonia		1.28	4.39 D	57.1000	11.8	26.9	0.05 J	0.75	4.7	2.9	0.23	0.00097 J
Hardness		4700 D	3400 D	16400.0000	11800	9600	2500	2200	4000	4000	10000	1400
1,4 dioxane	ug/l						0.37 JH	0.75	0.88	<.2	0.9	0.81

SA PARAMETERS	03 MCL	Dec_15	Jun_16	Dec_16	17-Jun	Dec_17	Aug_18	Dec_18	June_19	Dec_19	Jun_20	Dec_20
		Dec_15										
Chloride												
Sulfate												
Alkalinity												
Na		329	1170	1494.3944	4180	3360	560	538	1330	843	1200	565
K		640	520	1087.2889	1770	1750	305	293	486	324	418	247
Ca		1820	1410	2053.8333	4660	4420	914	807	1760	991	1550	642
Mg		99.5	63.1	70.7500	70.6	83.7	56.4	64.2	103	105	90.6	55.2
pH		7.01	7.01		6.18	6.95	8.08	8.05	8	7.24	8.12	8.59
perfluorobutanoic acid (PFBA)										70 B	76	37
perfluoropentanoic acid (PFPeA)										110	82	48
perfluorohexanoic acid(PFHxA)										130	130	58
perfluoroheptanoic acid										52	44	30
perfluorooctanoic acid(PFOA)										130	110	86
perfluorononanoic acid(PFNA)										11	11	9.8
perfluorodecanoic acid (PFDA)										15	19	18
perfluoroundecanoic acid(PFUnA)										ND	ND	nd
perfluorododecanoic acid(PFDoA)										ND	0.95 J	nd
perfluorotridecanoic acid(PFTriA)										ND	ND	nd
perfluorotetradecanoic acid(PFTeA)										ND	ND	nd
perfluorobutanesulfonic acid(PFBS)										23	36	15
perfluorohexanesulfonic acid(PFHxS)										36 B	46 B	14
perfluoroheptanesulfonic acid(PFHpS)										ND	2.8	1.2 J
perfluorooctanesulfonic acid(PFOS)										51	110	57
perfluorodecanesulfonic acid(PFDS)										ND	ND	nd
perfluorooctanesulfonamide(FOSA)										ND	0.38 JB	nd
N-methylperfluorooctanesulfonamidoacetic acit(NMeFOSAA)										ND	ND	nd
N-ethylperfluorooctanesulfonamidoacetic acit(NEtFOSAA)										ND	ND	nd
6:2FTS										6.3 J	11 J	nd
8:2FTS										ND	ND	0.73 J
total PFAS										634.3	679.13	374.73

SA PARAMETERS	03 MCL	Jun_21	Dec_21	Jul_22	Dec_22	Sept_23
TKN	na	1.5	8	<.5	2.8	33.1
TDS	na	3670	10400	6120	7220	24390
Phenols	na	<.005	<.005	0.041	<	<.05
Chloride	na	3120	5870	3730	3970	13700
Sulfide	12	9.6	<2	<2	4.8	<1
Iron	na	0.962	0.768 J	6.57	1.43	20
Manganese	8 mg/l	2.4	3.35	7.58	1.1	6.61
Phenol	1.5 mg/l					
Xylene	2.5 mg/l *	<.003	<.003	<.003	<.003	<.0075
1,2,4 Trimethylbenzene	na					
SULFATE	na	328	329	407	389	764
Arsenic	.4 mg/l	<.01	<.1	<.01	<.01	0.0131
Acetone	na ppm	<.005	<.005	0.0019 J	<.005	<.005
pH	5 - 12.5	8.12	8.2	8.26	7.93	7.82
Aluminum	na	<.2	<2	<.2	0.25	0.995
Barium	8 mg/l	0.148	0.296 J	1.02	0.199 J	0.422
Lead		<.005	<.05	<.005	<.005	<.00556
Zinc		<.02	<.2	<.02	<.02	0.15
Toluene	2.5 mg/l *	<.001	<.001	<.001	<.001	<.0025
Cadmium	.8 mg/l	<.0025	<.025	<.0025	<.0025	0.00379
Vanadium		<.05	<.5	0.0052 J	0.0048 J	<.0111
Tin						
Antimony		<.06	<.6	<.06	<.06	0.0254
Copper	1.6 mg/l	<.025	<.25	<.025	0.005 J	0.00918
Selenium	.4 mg/l	<.01	<.1	<.01	<.01	<.00111
Silver	.4 mg/l	<.01	<.1	0.0027 J	0.0022 J	0.00437
Berylium		<.005	<.05	<.005	<.005	<.000333
Chromium	8 mg/l	<.01	<.1	0.0021 J	<.01	0.00836
Nickel	8 mg/l	0.0144	<.4	0.022 J	0.0193 J	<.00111
Thallium		<.01	<.1	<.01	<.1	<.00111
Carbon disulfide		<.001	<.001	<.001	<.001	<.0025
Methylene Chloride	2.5 mg/l	<.001	<.001	<.001	<.001	<.0025
Alkalinity		240	188	174	161	112
Ammonia		0.12	3.5	0.092 J	2.9	6.085
Hardness		4000	4000	3200	3300	11500
1,4 dioxane	ug/l	0.93	0.75	1.1	0.69	1.33

SA PARAMETERS	03 MCL	Jun_21	Dec_21	Jul_22	Dec_22	Sept_23
Chloride						
Sulfate						
Alkalinity						
Na		599	1530	1190	1090	4150
K		258	536	396	443	1080
Ca		654	1930	1540	1210	4000
Mg		52.82	79.4	65.3	66.9	70.4
pH		8.12	8.2	8.26	7.93	7.82
perfluorobutanoic acid (PFBA)		46	72		77	
perfluoropentanoic acid (PFPeA)		48	66		45	
perfluorohexanoic acid(PFHxA)		63	86		57	
perfluoroheptanoic acid		32	33		24	
perfluorooctanoic acid(PFOA)		85	100		60	123
perfluorononanoic acid(PFNA)		8.3	7.5		8.1	
perfluorodecanoic acid (PFDA)		15	12		2.1	
perfluoroundecanoic acid(PFUnA)		ND	ND		ND	
perfluorododecanoic acid(PFDoA)		ND	ND		ND	
perfluorotridecanoic acid(PFTriA)		ND	ND		ND	
perfluorotetradecanoic acid(PFTeA)		ND	ND		ND	
perfluorobutanesulfonic acid(PFBS)		15	29		37	
perfluorohexanesulfonic acid(PFHxS)		13	22		20	
perfluoroheptanesulfonic acid(PFHpS)		ND	1.1 JCL		0.94 J	
perfluorooctanesulfonic acid(PFOS)		43	42		36	76.3
perfluorodecanesulfonic acid(PFDS)		ND	ND		ND	
perfluorooctanesulfonamide(FOSA)		ND	ND		ND	
N-methylperfluorooctanesulfonamidoacetic acit(NMeFOSAA)		ND	ND		ND	
N-ethylperfluorooctanesulfonamidoacetic acit(NEtFOSAA)		1.4 J	ND		ND	
6:2FTS		ND	ND		9.9	
8:2FTS		ND	0.46 J		ND	
total PFAS		369.7	471.06		377.04	
						new lab

TOBSWMF's Leachate Monitoring Program

New Northern U Ashfill

September 2023

Pursuant to NYSDEC 6NYCRR Part 363 (formerly part 360) requirements for the operation of the Town of Babylon's New Northern U Ashfill (NNU), leachate from the NNU Primary and Secondary Leachate Collection and Recovery System (PLCRS and SLCRS) were sampled in accordance with the procedures detailed in the TOBSWMF's Updated SAP (TOBDEC, 2018). These facilities are sampled semi-annually for baseline parameters as part of Babylon's Leachate Monitoring Program (LMP). Pursuant to NYSDEC requirement to sample for "emerging contaminants", Babylon expanded sampling to include 1,4 dioxane and PFAS/PFOA's for this facility beginning in December 2019. Sampling was scheduled for June 2023, however procurement issues and the weather delayed sampling until September 2023. On the date of sampling, a pump from the NNUS facility malfunctioned and no sample could be drawn from this system. Only the NNUP system could be sampled at the NNU facility. This document includes the laboratory report from AG Environmental, a spreadsheet summarizing parameters of concern at the facility, a Piper diagram of leachate from each liner system, and a discussion of the results.

The NNU which began accepting ash in 2003 sits atop the ONU, separated by a double liner system, with each layer consisting of a bentonite blanket, liner and geocomposite. The NNU SLCRS is also separated from the ONU by the ONU cap. Both systems serve as near impermeable barriers. The elevation of the NNU system (approximately 25-30 feet above the water table) prevents groundwater infiltration from being considered a source of leachate to the system.

The attached spreadsheet provides a historical overview of leachate composition at the NNU, highlighting any exceedance of an MCL from the facility's PLCRS and SLCRS. The following discussion summarizes any noteworthy findings from the December 2022 sampling and provides follow-up analysis or discussion wherever necessary or recommended in previous reports.

- The NNUS could not be sampled due to a malfunctioning pump.
- For the September 2023 LMP pH was 7.01 at the NNU PLCRS.
- The overall leachate characteristics of the NNU PLCRS largely conform to the historical dataset for this facility.

- Lead was not detected above its mdl, and arsenic was observed at .01 mg/l at the NNUP. Low values of arsenic and lead have been intermittently observed in the NNU leachate systems.
- Mercury was not observed at the NNU PLCRS for September 2023.
- Organics from the baseline parameters list observed above their reporting limit at the NNUP for September 2023 included:

  Acetone was observed at the NNU PLCRS (.25 mg/l). Low concentrations of acetone have been observed at this facility since June 2010.

  MEK was detected at .056 mg/l at the NNUP during September 2023 sampling. Trace values of MEK have been intermittently observed at this facility.

  4 methyl/2pentanone was observed at the NNUP (.0054) (.0056) for September 2023.

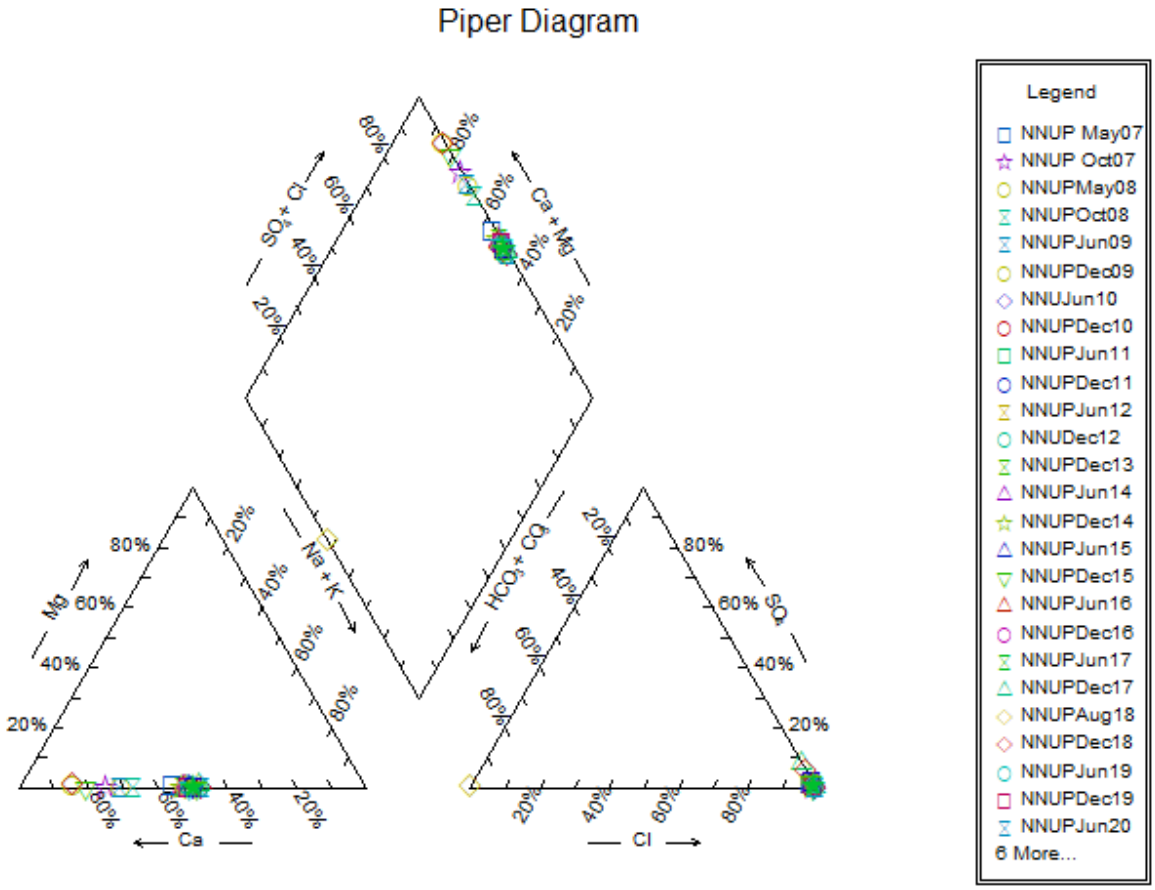
  TTO as defined on the Town of Babylon discharge certificate issued by Suffolk County Department of Public Works includes phenol. TTO at the NNUP was ND.

  Total baseline organics for the NNU PLCRS was .3114.

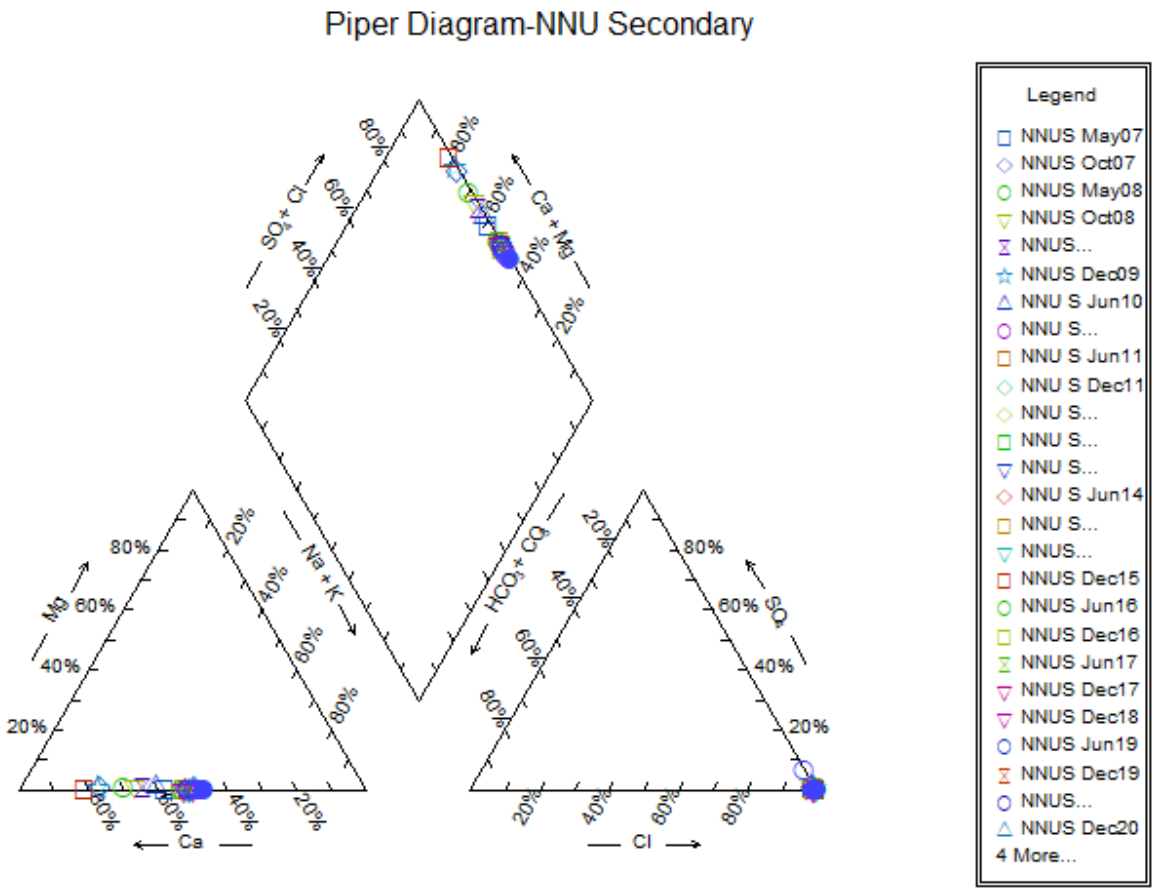
- 1,4 dioxane was observed at 1.81 ug/l at the NNU PLCRS.
- Barium was observed below its MCL at the NNU PLCRS at 1.87 mg/l for September 2023. Barium has been observed exceeding its MCL at the NNU PLCRS 5 times over 40 sampling events through the life of the facility. Barium has exceeded its MCL at the NNU SLCRS 3 times over 39 sampling events through the life of the facility. The last exceedance for barium at each of the facilities was December 2012.
- Other metals observed above their reporting limit and below their MCL at the NNU PLCRS for September 2023 include aluminum (.713 mg/l), antimony (.033 mg/l), calcium (10200 mg/l), cobalt (.013 mg/l), copper (.023 mg/l), iron (.998 mg/l), nickel ((.016 mg/l), magnesium (2.72 mg/l), manganese (.783 mg/l), potassium (3000 mg/l), sodium (10100) and zinc (.12 mg/l).
- Sulfide was observed below its MCL at the NNUP (2.7 mg/l) for the September 2023 LMP. Sulfide has exceeded its MCL at the NNUP for 8 of 15 sampling rounds since June 2016.
- BOD exceeded its MCL (300 mg/l) at the NNUP (2070 mg/l). BOD has intermittently exceeded its MCL at these facilities.
- A Piper diagram was prepared with the September 2023 data added to the historical dataset. The geochemical fingerprint for the NNUP facility matches its historical pattern.

- PFAS/PFOA's data for September 2023 is attached. The new lab will provide all subgroups for future sampling.

The next round of sampling is scheduled for December 2023.



Note: solid star represents September 2023 data.



Note: solid circle represents **December 2022** data. No data for September 2023.

NNUP PARAMETERS	95 MCL	03 MCL	Aug_03	Mar_04	Sept_04	Mar_05	Sept_05	Apr_06	Oct_06	May_07	Oct_07	May_08	Oct_08	June_09	Dec_09	Jun_10	DEC_10	Jun_2011	DEC_11	June_12
CHLORIDE	500mg/l	na	24800	6400	36100	31600	32100	18800	32600	17500	33000	30000	25300	34500	27800	51000	45000	46000	42000	55000
SULFATE	500mg/l	na		357	92.3	11.3	1.51	344	12.4	323	32.2	85.5	147	104	600	70	<	85	50	280
Alkalinity										211	130	169	128	143	157	360	230	280	220	240
Na										3080	38.6	925	1800	1160	33.9	10000	9000	9200	8700	12000
K										2410	5310	3930	3410	2960	434	6600	6000	6000	5800	7400
Ca										4930	8190	6640	6660	6150	1380	12000	11000	11000	11000	14000
Mg										14.3	0.509	0.407	0.86	1.03	3.6	3.9	6.1	8.4	68	8.6
pH	6.5-8.5	5 - 12.5	5.34	7.89	8.96	9.07	8.87	8.91	8.78	7.12	8.37	9.01	9.2	8.29	6.95	6.6	6.57	6.6	6.7	6
hardness																				
TDS	1000 mg/l	na	30700	11000	54000	46000	58000	11600	53700	30900	57000	52400	42700	50500	43300	81000	69000	88000	68000	94000
PHENOL	0.002mg/l	1.5 mg/l	0.01																	
PHENOLS				1.52		0.02	0.02		0.09	0.26		0.0888	0.0128		0.0935	0.19	0.066	0.16	0.16	0.1
IRON	0.6mg/l	na	3.64	0.09	0.08	1.81	0.1	0.13	0.04	1.41	0.02	0.0289	0.0642	0.217	**5.27**	0.58	2.2	0.54	0.9	9.3
MANGANESE	0.6mg/l	8 mg/l	19.7	0.06	0.82	0.69	0.26	0.11	0.09	0.72	0.14	0.0554	0.0848	0.168	0.528	2.1	1.1	0.88	0.94	4.6
TKN	10 mg/l	na	18.2	5.2	36.4	70.2	88.4	11.4	42.2	14.2	42.9	83.8	77.8	66.2	52.4	78	87	78	130	98
ALUMINUM	2mg/l	na		0.48	0.69	0.45	0.83	0.94	0.93	0.28	0.98	1.28	0.54	0.478	2.94	0.31	0.52	0.49	<	1.8
ACETONE	50 mg/l	50 mg/l	38.9													0.15	0.12	0.16	0.22	0.34
Methyl Ethyl Ketone	5000 ppm	na														<	0.018	<	<	0.15
Arsenic	50 ppb	400 ppb					20.9J									65	<	<	<	<
Lead	50 ppb	400 ppb		106	15.6	333	8.97J		0.06	.01J					193	<	<	<	<	<
Barium		8 mg/l	3.52	1.31	9.82	11.5	18	3.1	7.11	2.7	6.6	4.96	5.34	4.1	2.73	0.64	7	4.5	**37**	5.7
Cadmium		.8mg/l			.013J	0.01		73.1		.01J					0.0586	<	<	<	<	<
Copper		1.6		0.16		0.05			.01J	0.1		0.00314J	0.0128	.0122J	0.652	0.19	<	<	<	0.1
Selenium		.4mg/l	0.05			0.05										<	<	<	<	<
Zinc		5 mg/l	0.01	0.12		0.32	0.0097		0.19	0.19	0.04	0.0228	0.0341	0.0505	1.54	0.18	<	0.22	0.34	0.39
Carbon disulfide		mg/l				0.0076										0.007	<	0.016	0.024	0.003
BOD		300 mg/l				136			220	28.6	129	175	67	**630**	240	280		250	230	**310**
Antimony			0.01												0.0802	0.03	<	<	<	<
Beryillium																<	<	<	<	<
Chromium		8 mg/l	0.01				0.0063							.0144J	0.0344	<	<	<	<	0.38
Nickel		8 mg/l	0.01								.01J	.01J	0.0094	.0103J	0.0247	<	<	<	<	0.27
Thallium			0.1									0.308	0.0492	0.0358		<	<	<	<	<
Vanadium					.008J		.00575J									<	<	<	<	<
methylene chloride		2.5 mg/l							.02B	2.6B		.011B	11B	7B		<	<	<	<	<
Toluene											.64J					<	<	<	<	<
Mercury															0.0005	<	<	<	<	<
4-Methyl-2-pentanone																				
Iodomethane																				
sulfide mg/l		12 mg/l																		
1,4 Dioxane		ug/l																		
perfluorobutanoic acid (PFBA)		ng/l																		
perfluoropentanoic acid (PFPeA)																				
perfluorohexanoic acid(PFHxA)																				
perfluoroheptanoic acid																				
perfluorooctanoic acid(PFOA)																				
perfluorononanoic acid(PFNA)																				

NNUP PARAMETERS	95 MCL	03 MCL	Aug_03	Mar_04	Sept_04	Mar_05	Sept_05	Apr_06	Oct_06	May_07	Oct_07	May_08	Oct_08	June_09	Dec_09	Jun_10	DEC_10	Jun_2011	DEC_11	June_12
perfluorodecanoic acid (PFDA)																				
perfluoroundecanoic acid(PFUnA)																				
perfluorododecanoic acid(PFDoA)																				
perfluorotridecanoic acid(PFTriA)																				
perfluorotetradecanoic acid(PFTeA)																				
perfluorobutanesulfonic acid(PFBS)																				
perfluorohexanesulfonic acid(PFHxS)																				
perfluoroheptanesulfonic acid(PFHpS)																				
perfluorooctanesulfonic acid(PFOS)																				
perfluorodecanesulfonic acid(PFDS)																				
perfluorooctanesulfonamide(FOSA)																				
N-methylperfluorooctanesulfonamidoacetic acit(NMeFOSAA)																				
N-ethylperfluorooctanesulfonamidoacetic acit(NEtFOSAA)																				
6:2FTS																				
8:2FTS																				
Total PFAS																				

NNUP PARAMETERS	Dec_12	June_13	Dec_13	Jun_14	DEC_14	June_15	Dec_15	Jun_16	Dec_16	June_17	Dec_17	Aug_18	Dec_18	June_19	Dec_19
CHLORIDE	57800	56300	65100 D	55500 D	35300 D	59100	63300	49100	54500	43600	214000	<2	44400 D	44200	39100
SULFATE	<5	**4730**	6.82	<5	256 D	<5 U	<5	<5	<5	11.4	18.3	0.68 J	15.5	15.6	413
Alkalinity	270	255	269 D	276 D	73.5	258 D	333	285	272	245	181	296	154	327	139
Na	17200	10900	13400	15600 D	8740 D	14400	647	14400	13600	13700	13400	13200	13400 D	12600 D	7250
K	8710	5220	6180	7450 D	4340 D	6730	6910	5800	5820	5510	5190	4970	5320 D	4900 D	2980
Ca	19800	13400	16400	19100 D	11000 D	16600	17000	16600	15700	14300	15200	15100	12900 D	12400 D	8200
Mg	<5	20.5	7.24	13.4	12.2	6.62	4.75	6.58	<10	3.98	2.03	<10	4.08	3.49	4.11
pH	6.15		6.45	3.69	6.83	6.23	5.83	6.31	6.38	6.09	7.17	6.78	6.85	7.77	8.49
hardness															
TDS	111000	178000	148 D	114000	74600	175000	153000	139000	88500	125000	114000	86700	80900	79800	44900
PHENOL															
PHENOLS	0.089	0.051	0.239 D	0.12	0.096 D	0.0664 D	0.284 D	0.352 D	0.339	0.0401	0.16	0.288	0.119	0.099	0.0543
IRON	0.368	0.77	0.143	0.176	0.36	0.105	0.942	0.296	<5	0.106	.0131 J	0.585 J	0.184	0.452	0.19
MANGANESE	1.01	1.34	0.887	1.08	0.674	0.734	0.617	0.46	0.896	0.332	0.289	0.715	0.0761	0.136	0.203
TKN	72.8	126	138 D	114 D	76.3 D	135 D	159 D	105 D	113	126	111	110	89.4 D	97.9	47.9
ALUMINUM	0.12 B	0.95	0.0998 B	<.2	U	0.137 B	0.233	0.109 J	<10	<.0134	0.237	<10	0.323	0.507	0.0731 J
ACETONE	0.34	0.47 E	0.38 E	0.21 E	0.28 E	0.29 D	0.48 D	0.31 D	0.591	0.404	.184 D	0.555	0.116	0.11	0.0806
Methyl Ethyl Ketone	0.036	0.062	0.048 Z	0.03	0.031	0.041	0.047	0.034	0.0495	0.0193	0.0205	0.0442	0.0067	0.0062 J	0.0036 J
Arsenic	5.7 B	<	3.7 B	58.3	U	U	9 B	8.6 J	<500	<6.8	<500 D	<500	<10	<200	<10
Lead	28.7	215	7.5	8.2	U	U	32	12.4	<250	<25.4	286	<250	21.8	71.6	<5
Barium	11.7	3.85 B	2.94	3.2	3.01	3.73	3.86	3.39	<10	3.14	2.57	2.84 J	2.57	2.74	1.75
Cadmium	<	0.02 B	<	<	U	U	<	<	<.125	<.000063	<.0025	0.0176 J	<.0125 D	<.05 D	0.00089 J
Copper	<	<	0.0061 B	<	0.035	U	<	0.004 J	<1.25	<.0025	**2.97**	<1.25	0.0298	0.0081 J	<.025
Selenium	0.0154	<	<	0.0058	U	0.0029 B	0.0036 B	<	<.5	<.0062	<.01	<.5	0.149 D	0.167 JD	0.0154
Zinc	0.065	0.15 B	0.0151 B	0.0223	0.236	0.0156 B	0.0557	0.01 J	<1	<.0012	**9.8**	0.547 J	<.1 D	0.121 JD	0.0067 J
Carbon disulfide	<	<	<	<	U	U	<	<	<.005	<.0005	0.0021	0.0017	0.0032	<.001	<.001
BOD	<	281	**405**	**328**	79	**402**	**623**	**412**	239	157	**356**	**363**	**310** D	**861** D	179
Antimony	0.0089 B	<	<	<	U	0.0134 B	0.006 B	0.0136 J	<3	<.003	<.06	<3	<.06	<.06	0.0175 J
Beryillium	<	<	<	<	U	U	<	0.003 J	<.25	<.00057	0.006	<.25	<.025	0.0023 JD	<.005
Chromium	0.005 B	0.14 B	0.0042 B	0.012	0.0218	0.0092 B	0.0984	0.0593	<.5	0.0102	0.0215	<.5	0.0285	0.0698	0.0132
Nickel	<	<	<	<	U	0.0025 B	0.0168	0.0029 J	<2	<.00088	<.04	<2	0.0018 J	<.04	<.04
Thallium	0.0072 B	<	<	<	U	0.004 B	<	<	<.5	<.0036	<.01	<.5	0.0094 J	0.0235	<.01
Vanadium	0.0037 B	<	0.0022 B	<	U	0.003 B	0.0074 B	<	<2.5	<.0008	<.05	<2.5	<.05	<.05	<.05
methylene chloride	<	<	<	<	U	U	<	<	<.005	<.0005	<.001	<.001	<.001	<.001	<.001
Toluene	<	<	<	<	U	U	<	<	<.005	<.0005	<.001	<.001	<.001	<.001	<.001
Mercury	<	0.00017 B	<	<	U	U	<	<	<.0002	<.000023	<.0002	<.0002	<.0002	0.00013 J	0.00022
4-Methyl-2-pentanone	0.005	0.008	0.009	<	U	0.006	0.01	0.006	0.013	<.0005	.0046 J	0.0081	0.0014 J	0.0025 J	<.005
Iodomethane															
sulfide mg/l								**35.4**	<2	3	**88**	**147**	8	**72**	**25.6**
1,4 Dioxane												1 H	5.4	4.8	3.8
perfluorobutanoic acid (PFBA)															250 B
perfluoropentanoic acid (PFPeA)															130
perfluorohexanoic acid(PFHxA)															230
perfluoroheptanoic acid															42
perfluorooctanoic acid(PFOA)															62
perfluorononanoic acid(PFNA)															3 J

NNUP PARAMETERS	Dec_12	June_13	Dec_13	Jun_14	DEC_14	June_15	Dec_15	Jun_16	Dec_16	June_17	Dec_17	Aug_18	Dec_18	June_19	Dec_19
perfluorodecanoic acid (PFDA)															ND
perfluoroundecanoic acid(PFUnA)															ND
perfluorododecanoic acid(PFDoA)															ND
perfluorotridecanoic acid(PFTriA)															ND
perfluorotetradecanoic acid(PFTeA)															ND
perfluorobutanesulfonic acid(PFBS)															210
perfluorohexanesulfonic acid(PFHxS)															11 B
perfluoroheptanesulfonic acid(PFHpS)															ND
perfluorooctanesulfonic acid(PFOS)															9.8
perfluorodecanesulfonic acid(PFDS)															ND
perfluorooctanesulfonamide(FOSA)															ND
N-methylperfluorooctanesulfonamidoacetic acil															ND
N-ethylperfluorooctanesulfonamidoacetic acit(N															ND
6:2FTS															ND
8:2FTS															ND
Total PFAS															947.8

NNUP PARAMETERS	Jun_20	Dec_20	Jun_21	Dec_21	Jul_22	Dec_22	Sept_23
CHLORIDE	60800	24500	29100	68800	17200	17500	36800
SULFATE	24.7	**2670**	784	25.5	**1390**	419	155
Alkalinity	172	80.3	139	281	70	48.7	216
Na	10100	6420	6870	12700	<5	4810	10100
K	4040	2780	3070	4680	2270	2100	3000
Ca	11300	6400	7340	13900	6410	4980	10200
Mg	2	16	3.75	5.29	**42.8**	1.44	2.72
pH	6.96	8.56	7.92	7.78	7.58	8.47	7.01
hardness		16200	21200	29600	12200	3780	31700
TDS	70300	39900	40400	30800	29400	29200	61469
PHENOL							
PHENOLS	0.118	0.0302	0.0348	0.222	<.01	0.0375	<.05
IRON	0.368	0.247	0.324	0.495 J	0.071	0.09 J	0.998
MANGANESE	0.335	0.53	0.197	0.476	1.49	0.0787	0.783
TKN	107	61.1	75.8	103	24.8	29.7	63.5
ALUMINUM	<1	0.236	0.21	<20	0.53	0.868	0.0328
ACETONE	0.375	0.173	0.172	0.293	0.0029 J	0.105	0.25
Methyl Ethyl Ketone	0.0412	0.0064	0.0187	0.0412	<.005	0.0084	0.056
Arsenic	<50	<10	<10	<100	<10	<10	10.2
Lead	<25	4.7J	J 5 J	<50	70.7	<50	<.0056
Barium	2.24	1.59	1.44	2.94	0.521	1	1.87
Cadmium	<.0125	0.0194	<.0025	<.025	0.0088	<.0025	0.00571
Copper	0.103	0.211	<.025	0.088 J	0.0553	<.025	0.0225
Selenium	<.052	<.01	<.01	<.1	<1	<.01	0.00894
Zinc	0.12	0.096	<.02	<.2	0.58	<.2	0.12
Carbon disulfide	<.001	<.001	<.001	0.0011	<.001	0.0027	<.0025
BOD	184	89.7	124	**390**	<100	76	**2070**
Antimony	<.3	0.026 J	<.06	<.6	0.087	<.6	0.0328
Beryillium	0.00085	<.005	<.005	<.05	<.005	0.00079 J	<.000333
Chromium	0.237	0.0301	<.01	0.099 J	0.0031 J	<.01	0.0215
Nickel	0.111	0.0401	<.0155 J	<.4	0.045	0.0274 J	0.0159
Thallium	0.0528	<.01	<.01	<.1	<.01	<.1	<.00111
Vanadium	<.25	<.05	0.0085 J	<.5	<.05	0.0107 J	<.0111
methylene chloride	<.001	<.001	<.001	<.001	<.001	<.001	<.0025
Toluene	<.001	<.001	<.001	<.001	<.001	<.001	<.0025
Mercury	<.0002	<.0002	<.0002	<.0002	0.00029	<.0002	<.0002
4-Methyl-2-pentanone	0.0052	<.005	<.005	0.0051	<.005	0.0012 J	0.0054
Iodomethane	0.0043	<.004	<.004	<.004	<.004	<.004	<.0025
sulfide mg/l	**17.6**	<2	**41.6**	**19.2**	3.2	3.2	1.81
1,4 Dioxane	2.9	2.3	1.9	2.3	0.78	1.2	
perfluorobutanoic acid (PFBA)	270	150	200	260	260	190	
perfluoropentanoic acid (PFPeA)	130	120	130	120	130	130	
perfluorohexanoic acid(PFHxA)	190	170	160	150	140	190	
perfluoroheptanoic acid	31	39	33	25	22	41	
perfluorooctanoic acid(PFOA)	43	54	31	36	19	45	16.4
perfluorononanoic acid(PFNA)	2.5	4.5	1.9	2.1	0.88 J	1.8	

NNUP PARAMETERS	Jun_20	Dec_20	Jun_21	Dec_21	Jul_22	Dec_22	Sept_23
perfluorodecanoic acid (PFDA)	0.66 J	1.8 J	0.57 J	0.42 J	0.29 J	0.48 J	
perfluoroundecanoic acid(PFUnA)	ND	nd	ND	ND	ND	ND	
perfluorododecanoic acid(PFDoA)	ND	nd	ND	ND	ND	ND	
perfluorotridecanoic acid(PFTriA)	ND	nd	ND	ND	ND	ND	
perfluorotetradecanoic acid(PFTeA)	Nd	nd	ND	ND	ND	ND	
perfluorobutanesulfonic acid(PFBS)	230	190	170	200	320	150	
perfluorohexanesulfonic acid(PFHxS)	14 B	9.9	10	13	9.1	7.2	
perfluoroheptanesulfonic acid(PFHpS)	0.29 J	.19 J	ND	ND	ND	ND	
perfluorooctanesulfonic acid(PFOS)	12	12	3.9	8	2.4	3.8	ND
perfluorodecanesulfonic acid(PFDS)	ND	nd	ND	ND	ND	ND	
perfluorooctanesulfonamide(FOSA)	0.7 JB	nd	0.98 J	ND	ND	ND	
N-methylperfluorooctanesulfonamidoacetic acit	ND	nd	ND	ND	ND	ND	
N-ethylperfluorooctanesulfonamidoacetic acit(N	ND	nd	ND	ND	ND	ND	
6:2FTS	4.3 J	6	3 J	5.2	4.8	4.7	
8:2FTS	ND	.59 J	ND	ND	ND	ND	
Total PFAS	928.45	755.4	744.35	819.72	908.47	763.98	
					9/21/2022		
					PF sampled		

NNUSPARAMETERS	95 MCL	03 MCL	Aug '03	Mar '04	Sept '04	Mar '05	Sept '05	April '06	oct '06	May '07	Oct'07	May_08	Oct_08	June_09	Dec_09	Jun_10	DEC_10	Jun_2011	DEC_11	Jun_12
CHLORIDE	500mg/l	na	11400.0	15800.0	5700.0	16500.0	12000.0	14900.0	16400.0	16700.0	22000.0	23600	13600	11300	31300	39000	51000	37000	52000	54000
SULFATE	500mg/l	na		396.00	657.00	751.00	1070.00	1140.00	440.00	110.00	128.00	144	357	60.9	0	100	5	7	<5	5
Alkalinity										144.00	227.00	204	140	145	157	140	180	180	130	180
Na										3710.00	42.30	933	1220	897	970	5200	12000	8700	8800	11000
K										3430.00	3200.00	3450	1680	1490	2540	5200	7900	5600	5800	7100
Ca										6890.00	5410.00	5890	3780	2760	7350	11000	14000	11000	11000	13000
Mg										0.83	13.10	6.43	28.9	7.28	13.9	31	13	9.8	8.8	11
pH	6.5-8.5	5 - 12.5	5.52	7.33	7.17	6.76	7.36	7.96	6.99	9.93	9.58	9.2	9.11	6.77	7.28	6.6	6.4	6.8	6.7	6.3
TDS	1000 mg/l	na	24200.0	6200.0	16000.0	27000.0	18000.0	8810.0	31400.0	29700.0	36500.0	40000	30900	21500	51500	70000	82000	85000	70000	91000
PHENOL	0.002mg/l	1.5 mg/l																		
PHENOLS				1.9		0.0			0.0	0.3		0.051	0.0173	0.0142		0.01	0.2	0.11	0.14	0.31
IRON	0.6mg/l	na	2.09	0.01	2.98	1.48	4.87	0.58	4.79		0.49	5.26	2.78	2.09	0.827	2.4	12	0.71	0.7	1.3
MANGANESE	0.6mg/l	8 mg/l	7.87	4.95	2.74	2.02	1.10	2.89	1.32	0.22	1.02	0.596	1.71	1.44	2.27	3.6	<	0.95	0.98	1.5
TKN	10 mg/l	na		4.64	13.40	6.65	7.06	4.20	5.20	32.20	22.00	20.8	16.2	35.4	78.8	64	96	78	140	110
ALUMINUM	2mg/l	na	1.53	0.05	0.13	0.35	7.71	0.59	9.41	0.65	0.05	0.908	0.0352	0.243		0.2	0.5	0.63	<.1	<
ACETONE	5 ppb	50 mg/l														0.037	0.14	0.19	0.2	0.35
Methyl Ethyl Ketone	5 ppb	ppm														<	0.02	<	0.033	0.05
Arsenic	50 ppb	400 ppb		17.00 J					0.04							100	<	<	<	<
Lead	50 ppb	400 ppb				22.00	21.50		110.00	20.00	10.00 J	27.8	10.3	25	3.8	<	<	<	<	<
Barium		8 mg/l	2.36	1.26	0.96	2.15	1.33	0.58	2.02	6.13	5.45	3.84	1.94	3.53	7.62	**9.6**	**10**	5.3	5.4	6.2
Cadmium		.8mg/l	0.01	0.02		0.01	0.01 J	0.01	0.09			0.0107				<	<	<	<	<
Copper		1.6mg/l	0.01	0.02 J		0.03	0.04	0.02	0.33		0.00 J	0.12	0.115	0.176	0.0087	0.06	<	<	<	<
Zinc		5 mg/l	0.40	0.26		0.19	0.25	0.12	1.09	0.02	0.04	1.09	0.142	0.11	0.0323	0.37	0.12	0.1	0.33	0.21
Antimony			0.01	0.02 J												0.2	<	<	<	<
Beryillium			0.00													<	<	<	<	<
Chromium		8 mg/l	0.01				0.04		0.06			0.184	0.00866 J	0.0279		<	<	<	<	<
Nickel		8 mg/l	0.02	0.02			0.07		0.03			0.244	0.0146 J	0.0204	0.00646	<	<	<	<	<
Selenium		.4mg/l	0.04						0.03							<	<	<	<	<
Thallium			0.09									0.0277	0.0303	0.0189	0.0258	<	<	<	<	<
Vanadium			0.00	0.01 J												<	<	<	<	<
Silver		.4mg/l		0.02 J											.00838J	<	<	<	<	<
methylene chloride		2.5 mg/l							0.02 B	3.70 B		0.026 B	11 B	11 B	10B	<	<	<	<	<
ammonia												34.8	7.33	31	77	61	93	64	72	98
hardness												762	9550	6930	18400	27000	36000	26000	27000	33000
carbon disulfide																		0.012	0.007	<
4methyl2pentano	ppb																			
2 hexanone																				
Iodomethane																				
sulfide	12 mg/l																			
BOD	300 mg/l																			
1,4 dioxane	ug/l																			
perfluorobutanoic acid (PFBA)		ng/l																		
perfluoropentanoic acid (PFPeA)																				
perfluorohexanoic acid(PFHxA)																				
perfluoroheptanoic acid																				
perfluorooctanoic acid(PFOA)																				

NNUSPARAMETERS	95 MCL	03 MCL	Aug '03	Mar '04	Sept '04	Mar '05	Sept '05	April '06	oct '06	May '07	Oct'07	May_08	Oct_08	June_09	Dec_09	Jun_10	DEC_10	Jun_2011	DEC_11	Jun_12
perfluorononanoic acid(PFNA)																				
perfluorodecanoic acid (PFDA)																				
perfluoroundecanoic acid(PFUnA)																				
perfluorododecanoic acid(PFDoA)																				
perfluorotridecanoic acid(PFTriA)																				
perfluorotetradecanoic acid(PFTeA)																				
perfluorobutanesulfonic acid(PFBS)																				
perfluorohexanesulfonic acid(PFHxS)																				
perfluoroheptanesulfonic acid(PFHpS)																				
perfluorooctanesulfonic acid(PFOS)																				
perfluorodecanesulfonic acid(PFDS)																				
perfluorooctanesulfonamide(FOSA)																				
N-methylperfluorooctanesulfonamidoacetic acit(NMeFOSAA)																				
N-ethylperfluorooctanesulfonamidoacetic acit(NEtFOSAA)																				
6:2FTS																				
8:2FTS																				
total PFAS																				

NNUSPARAMETERS	95 MCL	Dec_12	June_13	13-Dec	Jun_14	DEC_14	June_15	Dec_15	Jun_16	Dec_16	June_17	Dec_17	Aug_18	Dec_18	June _19	Dec_19
CHLORIDE	500mg/l	48000	51600 D	99700 D	52600	38500 D	96800 D	58100	47900	63300 D	44500.0	48300 D	<2	47700 D	41700	51900
SULFATE	500mg/l	<5	**4820** D	<5	<5	191 D	<5 U	<5	337	<5	<.21	<5	0.32 J	2.4 J	<5	<50
Alkalinity		153	123 D	240 D	210 D	89.1	126	217	211	392	241	240	331	227	217	215
Na		13400	12100	13600	13800 D	9780 D	13900	597	14800	16000	10800.00	12800 D	13100	13800 D	10700 D	9050
K		7160	5680	6280	6820 D	4830 D	6220	6310	5970	6620	4540.00	5160 D	4990	5500 D	4340 D	3880
Ca		16100	14200	15400	16700 D	12100 D	16600	15900	17900	17600	12200.00	15200 D	14900	14600 D	11400 D	10400
Mg		6.35	12.7 B	5.05	13	13.1	7.78	4.58	5.64	<10	7.67	3.46	4.02 J	4.65	3.63	2.92
pH	6.5-8.5	6.26		6.06	3.96	6.76	6.31	5.82	6.35	6.37	5.74	7.42	6.63	6.65	6.94	7.74
TDS	1000 mg/l	106000	159000 D	138000	110000	79400	151000	141000	139000	94300	87000.00	112000	89400	78100	69700	60700
PHENOL	0.002mg/l															
PHENOLS		<.025	0.105	0.27 D	0.109	0.0918 D	0.041	0.13 D	0.206 D	0.334	0.06	.15 D	0.416	0.247	0.16	0.209
IRON	0.6mg/l	0.715	0.26 B	0.129	0.934	0.45	0.121	2.78	0.246	<5	0.12	<1 D	<1	0.0524	0.204	0.0975
MANGANESE	0.6mg/l	1.49	1.41 B	0.868	0.941	0.786	0.981	1.12	0.814	0.72	0.58	0.534	0.637	0.432	0.425	0.414
TKN	10 mg/l	126	124 D	130 D	107 D	87.5 D	100 D	140	101 D	110	126.00	127	122	103 D	56.9	75.1
ALUMINUM	2mg/l	0.0426 B	<	0.0219 B	<	0.214		U 0.449	<	<10	<.0134	<.2	<10	0.0375 J	<.2	<.4
ACETONE	5 ppb	0.43	0.46 E	0.61 EZ	0.23 E	0.33 E	0.31 D	0.43 D	0.34 D	0.494	0.59	.306 D	0.608	0.318 D	0.224 D	0.331
Methyl Ethyl Ketone	5 ppb	0.051	0.069	0.069	0.028 D	0.036	0.037	0.065	0.045	0.0446	0.02	0.0377	0.046	0.0487	0.0241	0.0523
Arsenic	50 ppb	11	<	6.2 B	57.7	U	1.9 B	3.2 B	10.1	<500	<6.8	<500 D	<500	<10	<200 D	<.02
Lead	50 ppb	29.4	126 B	37.9	20	U	1.8 B	6.1	14.4	<250	20.10	57	<250	24.1	61.8	<10
Barium		9.29	4.88 B	2.81	3.75	3.37	3.43	3.45	3.17	<10	2.59	2.64	2.79 J	2.52	2.07	2.1
Cadmium		<	<	<	<	U	U	<	<	<.125	<.063	<.125 D	<.125	<.0125 D	<.05 D	0.0027
Copper		<	<	<	<	0.0375	U	0.0064 B	0.0046 J	<1.25	0.11	0.455	<2.5	<.025	<.025	<.05
Zinc		0.0243	<	0.0184 B	0.0223	0.251	0.0196 B	0.0601	0.0146 J	<1	0.65	1.42	0.143 J	<.1 D	0.0988 JD	0.0117 J
Antimony		0.0061 B	<	0.0057 B	<	U	0.012 B	0.008 B	0.0189 J	<3	<.003	<.06	<3	<.06	<.06	<.12
Beryillium		<	<	<	<	U	U	<	0.0022 J	<.25	<.00057	0.0058	<.25	<.025 D	0.0022 JD	<.01
Chromium		<	0.12 B	0.0133	0.136	0.0112	0.0114	0.192	0.0079 J	<.5	<.0016	.006 J	<.5	0.0082 J	0.094	<.02
Nickel		<	<	<	<	U	0.0018 B	0.0468	<	<2	<.00088	<.04	<2	<.04	<.04	<.08
Selenium		0.0169	<	<	<	U	0.0061	<	<	<.5	<.0062	.0068 J	<.5	<.01	0.204 D	0.0242
Thallium		<	<	0.0012 B	<	U	0.0049 B	0.0069 B	<	<.5	<.0036	<.01	<.5	0.0161	0.0289	<.02
Vanadium		0.0038 B	<	0.0032 B	<	U	0.0019 B	0.0084 B	0.0043 J	<2.5	<.0008	<.05	<2.5	<.05	<.05	<.1
Silver		<	0.0288 B	<	<	U	U	<	<	<.5	<.0036	<.01	<.5	<.05 D	<.01	<.02
methylene chloride		<	<	<	<	U	U	<	<	<.005	<.0005	<.001	<.001	<.001	<.001	<.001
ammonia		72.3	124 D	139 D	120 D	95.7 D	124 D	157 D	149 D	154	120	121	20.1	96.2 D	93.7 D	95.6
hardness		32400	36600 D	37600 D	32200 D	27500 D	38400 D	38600 D	37400 D	40000	31200	34400	8000	32000	29000	30000
carbon disulfide		<	<	<	<	U	U	<	<	<.005	0.0778	0.0051	<.001	0.0118	0.001	<.001
4methyl2pentano	ppb	0.006	0.009	0.009	<	U	0.006	0.016	0.008	0.0139	<.0005	0.0079	0.0077	0.0074	0.0049 J	0.0072
2 hexanone								0.002 J	<	<.005	<.0005	<.005	<.005	<.005	<.005	<.005
Iodomethane																
sulfide	12 mg/l								**20.2**	<2	5.4	**126**	**170**	**64**	**72**	**24**
BOD	300 mg/l											**387**	**356**	294	254 D	228
1,4 dioxane	ug/l												0.96 H	3.3	2.1	3.9
perfluorobutanoic acid (PFBA)																260 B
perfluoropentanoic acid (PFPeA)																140
perfluorohexanoic acid(PFHxA)																190
perfluoroheptanoic acid																32
perfluorooctanoic acid(PFOA)																32

NNUSPARAMETERS	95 MCL	Dec_12	June_13	13-Dec	Jun_14	DEC_14	June_15	Dec_15	Jun_16	Dec_16	June_17	Dec_17	Aug_18	Dec_18	June _19	Dec_19	
perfluorononanoic acid(PFNA)																ND	
perfluorodecanoic acid (PFDA)																ND	
perfluoroundecanoic acid(PFUnA)																ND	
perfluorododecanoic acid(PFDoA)																ND	
perfluorotridecanoic acid(PFTriA)																ND	
perfluorotetradecanoic acid(PFTeA)																ND	
perfluorobutanesulfonic acid(PFBS)																250	
perfluorohexanesulfonic acid(PFHxS)																11	B
perfluoroheptanesulfonic acid(PFHpS)																ND	
perfluorooctanesulfonic acid(PFOS)																7.1	J
perfluorodecanesulfonic acid(PFDS)																ND	
perfluorooctanesulfonamide(FOSA)																ND	
N-methylperfluorooctanesulfonamidoacetic acit(NMeFOSAA)																ND	
N-ethylperfluorooctanesulfonamidoacetic acit(NEtFOSAA)																ND	
6:2FTS																ND	
8:2FTS																ND	
total PFAS																922.1	

NNUSPARAMETERS	95 MCL	Jun_20	Dec_20	Jun_21	Dec_21	Jul_22	Dec_22	Sept_23
CHLORIDE	500mg/l	61600	45900	46600	48900	45100	42400	no sample
SULFATE	500mg/l	8.9	65.9	J **4250**	6.2	7.6	33.5	broken
Alkalinity		140	176	268	272	180	147	pump
Na		10600	10400	12700	14100	14800	10200	
K		4300	4680	5480	5220	5920	4280	
Ca		11900	11100	13000	15300	15800	9680	
Mg		2.02	2.3	3.06	5.8	6.45	9.96	
pH	6.5-8.5	6.66	7.37	7.45	7.56	7.5	7	
TDS	1000 mg/l	70800	71200	63600	35400	13700	52000	
PHENOL	0.002mg/l							
PHENOLS		0.104	0.256	0.0862	0.165	0.151	0.654	
IRON	0.6mg/l	0.108	0.185	0.0447	3.67	3.69	<2	
MANGANESE	0.6mg/l	0.322	0.312	0.146	0.431	0.2	0.244	
TKN	10 mg/l	106	113	107	116	19.9	18	
ALUMINUM	2mg/l	<1	0.0446	J 0.144	<20	<1	1.96	
ACETONE	5 ppb	0.333	0.617	0.597	0.336	0.402	0.376	
Methyl Ethyl Ketone	5 ppb	0.0406	0.0718	0.036	0.0367	0.0405	0.0364	
Arsenic	50 ppb	<50	<10	11.6	<100	<50	<200	
Lead	50 ppb	<25	<5	4.8 J	<50	<500	<100	
Barium		2.3	2.42	2.6	2.83	2.18	2.14	
Cadmium		<.0125	<.0025	<.0025	<.025	<.0125	<.05	
Copper		0.0895	<.025	<.025	0.099 J	<.25	<.5	
Zinc		0.0405	<.02	<.02	<.2	<2	<.4	
Antimony		<.3	<.06	<.06	<.6	<.3	<1.2	
Beryillium		0.00089	<.005	<.005	<.05	<.025	<.1	
Chromium		0.232	0.0201	<.01	0.538	0.091	<.2	
Nickel		0.112	0.0281	J 0.0236	0.086 J	0.0955 J	<.8	
Selenium		0.0468	<.01	<.01	<.1	<1	<.2	
Thallium		0.054	<.01	<.01	<.1	<1	<.2	
Vanadium		<.25	0.0062	J 0.01	<.5	0.0204 J	<1	
Silver		0.0287	<.01	<.01	0.018 J	0.0118 J	0.0342 J	
methylene chloride		<.001	<.001	<.001	<.001	<.001	<.001	
ammonia		98.3	107	142	145	71.6	95.7	
hardness		30800	32000	1000	31000	26000	4160	
carbon disulfide		0.0018	0.0034	<.001	<.001	0.0015	<.001	
4methyl2pentano	ppb	0.0056	0.0064	<.005	0.0048 J	<.005	0.0056	
2 hexanone		<.005	<.005	<.005	<.005	<.005	<.005	
Iodomethane		0.0043	<.004	<.004	<.005	<.004	<.004	
sulfide	12 mg/l	**12.8**	<2	**83.2**	**91.2**	**101**	**33.6**	
BOD	300 mg/l	180	167	265	**347**	110	157	
1,4 dioxane	ug/l	2.7	2.6	3.8	2.8	3.3	3.5	
perfluorobutanoic acid (PFBA)		270	210	270	280	230	240	
perfluoropentanoic acid (PFPeA)		130	150	130	130	120	110	
perfluorohexanoic acid(PFHxA)		190	170	150	150	150	160	
perfluoroheptanoic acid		30	29	24	25	31	27	
perfluorooctanoic acid(PFOA)		36	28	34	32	31	35	

NNUSPARAMETERS	95 MCL	Jun_20		Dec_20		Jun_21		Dec_21		Jul_22		Dec_22		Sept_23
perfluorononanoic acid(PFNA)		1.8	J	1.6	J	1.4	J	1.7	J	1.7		2.6		
perfluorodecanoic acid (PFDA)		0.72	J	0.58	J	0.68	J	0.47	J	0.53	J	0.83	J	
perfluoroundecanoic acid(PFUnA)		ND		nd		ND		ND		ND		ND		
perfluorododecanoic acid(PFDoA)		ND		nd		ND		ND		ND		ND		
perfluorotridecanoic acid(PFTriA)		ND		nd		ND		ND		ND		ND		
perfluorotetradecanoic acid(PFTeA)		ND		nd		ND		ND		ND		ND		
perfluorobutanesulfonic acid(PFBS)		240		280		220		200		190		230		
perfluorohexanesulfonic acid(PFHxS)		12	B	12		12		12		7.2		12		
perfluoroheptanesulfonic acid(PFHpS)		ND		nd		0.19	J	ND		ND		ND		
perfluorooctanesulfonic acid(PFOS)		9.1		6.9		6		7		5.5		9.8		
perfluorodecanesulfonic acid(PFDS)		ND		nd		ND		ND		ND		ND		
perfluorooctanesulfonamide(FOSA)		3.1	B	nd		ND		ND		ND		ND		
N-methylperfluorooctanesulfonamidoacetic acit(NMeFOSAA)		ND		nd		ND		ND		ND		ND		
N-ethylperfluorooctanesulfonamidoacetic acit(NEtFOSAA)		ND		nd		ND		ND		ND		ND		
6:2FTS		3.5	J	2.7	J	4.5		4.6		2.8	J	5		
8:2FTS		ND		nd		ND		ND		ND		ND		
total PFAS		926.22		890.78		852.77		842.77		769.73		832.23		
										9/21/2022				
										PFsampled				

TOBSWMF's Leachate Monitoring Program

Cell 7

September 2023

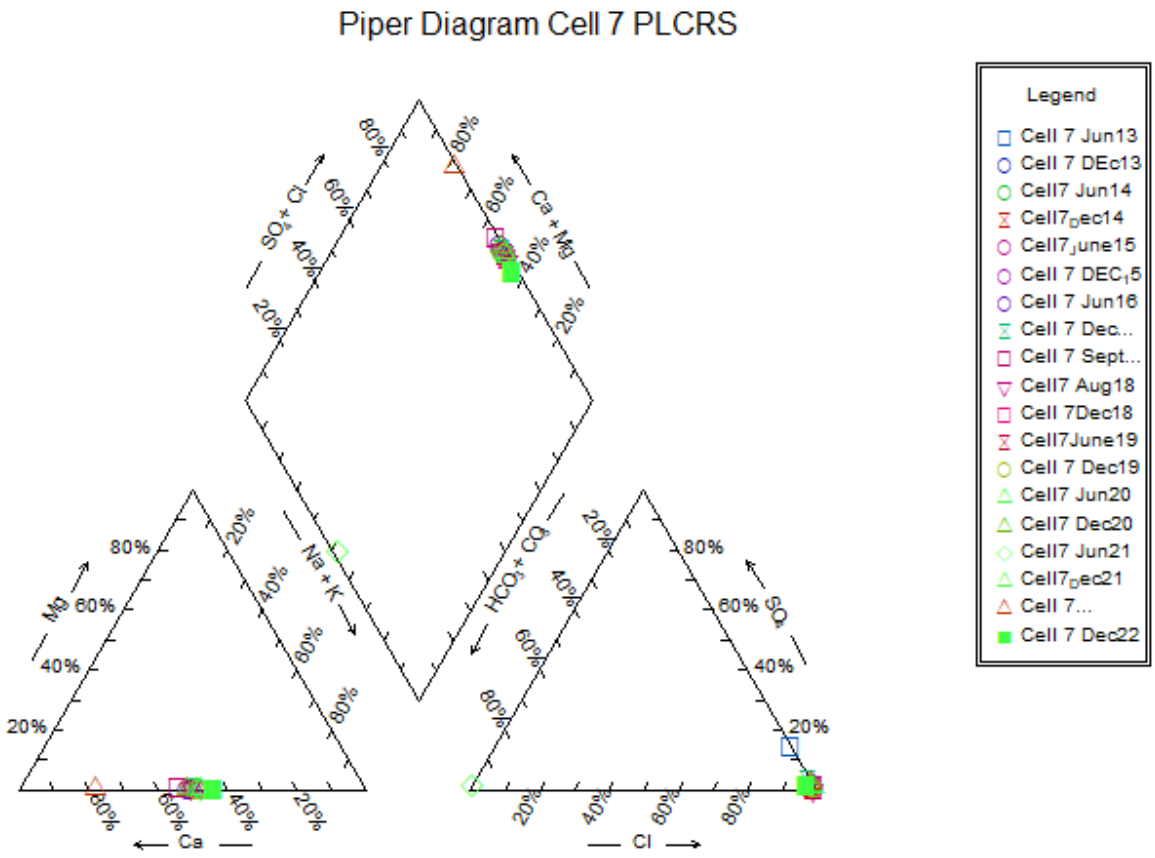
Pursuant to the NYSDEC operating permit for the operation of the Cell 7 Ashfill (Cell 7), leachate from that facility's PLCRS was sampled in accordance with the procedures detailed in the TOBSWMF's SAP (TOBDEC, 2018). The Cell 7 operating permit requires semiannual sampling of leachate for expanded parameters plus a scan for dioxins and furans from the facility's PLCRS. The expanded parameters list is found within 6NYCRR part 363-4.6(h) and includes 1,4 dioxane, fluorinated alkyl substances (PFOA's) and various other additional parameters (appendix 2) not found previously in NYCRR part 360. Sampling was scheduled for June 2023, however procurement issues and the weather postponed sampling until September 2023. This report includes the laboratory report from AG Environmental, a spreadsheet summarizing the results, a Piper diagram and brief discussion.

- Chloride was reported at <13.8 mg/l, below its mdl for September 2023. This result is viewed as suspicious. After inquiry by the Town of Babylon, the lab responded that the reading was accurate however excessive sediment in the sample may have impacted the result (appendix 1).
- Due to an incorrect entry on the COC a reduced suite of metals was sampled in September 2023. Results for sodium and potassium was not reported therefor Piper diagram could not be plotted. This oversite has been corrected and regular sampling will continue in December 2023.
- For September 2023 pH at Cell 7 was measured at 7.58.
- Analysis for 2378 TCDD for September 2023 was ND (Reporting limit 10 pg/l). After inquiry by the Town of Babylon, the lab responded that TCDF was not run as it was not requested on the COC (appendix 1). The lab was advised to correct this in future sampling events.
- Analysis for 1,4 dioxane for September 2023 was reported at 3.5 ug/l.
- Mercury was not detected at Cell 7 for September 2023.
- Organics from the expanded parameters list observed during September 2023 included acetone (.32 mg/l), MEK (.046 mg/l), 3-4 methylphenol (.46 mg/l), 4methy-2pentanone (.0046 mg/l), Di-n-butylphtalate (.077 mg/l), 2 hexanone (.0011 mg/l), and phenol (.68 mg/L). Total expanded organics observed for September 2023 was 1.6 mg/l.
- TTO as defined in the SCDPW leachate discharge permit (>.01 mg/l) observed at the Cell 7 facility for September 2023 is .757 mg/l. This is below the overall TTO limit of 10 mg/l, below the limit for acid extractable organic compounds of 1.5 mg/l (.68 mg/l – phenol) and

below the limit for base neutral extractable organic compounds of 1.5 mg/l (.077 mg/l – di-n-butylphthalate) set forth in the Town of Babylon Discharge Certification issued by SCDPW.

- Barium was observed at 8.44 mg/l at the Cell 7 facility, exceeding its MCL (8 mg/l). Barium has exceeded its MCL at the Cell 7 facility three times over its lifetime.
- Other metals observed above their mdl include calcium (14800 mg/l), magnesium (4.34 mg/l) and silver (.154 mg/l). An oversite on the COC for this facility caused a smaller array of metals to be sampled at this facility. This oversite was discussed with the new lab and should be resolved for the next round of sampling.
- Sulfide was detected 4.6 mg/l for September 2023 LMP at the Cell 7 facility. Sulfide has exceeded its MCL in 4 of 18 samples over the life of the facility, and three of the past seven since June 2020.
- BOD at Cell 7 (1080 mg/l) for September 2023 exceeded its MCL (300 mg/l).
- PFAS/PFOA and 1,4 dioxane results are included in appendix 1. Subgroups will be added to the analysis in the next scheduled sampling.

The next round of sampling for leachate at the Cell 7 facility is scheduled for December 2023.



Note: solid green square represents **December 2022** data. A Piper plot could not be undertaken for September 2023 due to lack of potassium and sodium results in the lab report.

	CELL 7 PLCRS													
				07/01/13	3/13/2014	3/13/2014	06/25/14	12/12/14	06/16/15	12/14/2015				
				7/1/2013	13-Dec	DUP_1213	6/25/2014	12/12/2014	6/16/2015	12/14/2015	6/20/2016	Jan-17	Sept_17	Dec_17
TestNo	Analyte	CAS	Units											
	pH				7.88	1/30/2014	5.91	6.93	6.95		6.01	8.21	6.48	
	DO		mg/l		2.24	1/30/2014	1.31	0.86	1.77		0.87	1.87	0.53	
	Spec cond				61484		50900	45794	48822		56196	25443	65674	
	ORP						-256.4	-281.9	-276.2		-79.5	11.5	-326.5	
SW8270C	Pyrene	129-00-0	µg/L	10 U	10 U		ND U	ND U	ND U		10U	<2.5		<5.0
SW8270C	Safrole	94-59-7	µg/L	10 U	10 U		ND U	ND U	ND U	10 U	10U	<2.5		<5.0
SW9014	Cyanide	57-12-5	UG/L	10.0 U	10 U		50.0 U	10 U	20 U	10 U	10U	<2.9	<10	
SW9060	Total Organic Carbon		mg/L	51.6 D	108 D		35.2	88.0 D	21.3	2.5	22.6	<0.63	43.2	
E1613	Dioxin		Pg/L	1.0 U	10 U		ND	ND	ND U	10 U	10 U			
E300.0	Bromide	24959-67-9	mg/L	308 D	336 D			311 D	ND U	230 D	248D	117	373	
E300.0	Sulfate	14808-79-8	mg/L	5140 D	55 D		157 D	270 D	720 D	364 D	329D	338	375	
E351.2	Nitrogen, Kjeldahl, Total		mg/L	63.6 D	95 D		85.0 D	61.2 D	49.7 D	52.0 D	57.2D	17.1	67	
E353.2	Nitrate as N	14797-55-8	mg/L	2.50 U	2.00 U		2.00 U	0.100 U	0.100 U	0.10 U	.1U	<0.0050	<.05	
E353.2	Nitrite as N	14797-65-0	mg/L	0.100 U	0.100 U		0.100 U	0.100 U	0.100 U	0.10 U	.1U	<0.0050	<.05	
E410.4	Chemical Oxygen Demand		mg/L	517 D	1220 D		445 D	852 D	550 D	175 D	1400 D	560	1560	
E420.1	Phenolics, Total Recoverable		µg/L	49.4 D	309 D		66.6	47.5	54.8 D	5.0 U	41.9	76.2	110	
M3500-Cr D	Chromium, Hexavalent	18540-29-9	mg/L	0.0200 U	0.0200 U		0.0200 U	0.0200 U	0.0200 U	0.02 U	0.0200 U	<0.0030	<.1	
SM2120B	Color		units	75 D	150 D		200 D	150 D	75.0 D	15.0	25.0	40.0	25	
SM2320B	Alkalinity, Total (As CaCO3)		mg/L	181 D	266 D		223 D	273 D	175 D	119 D	122	78.6	160	
SM2340C	Hardness (As CaCO3)		mg/L	17200 D	13100 D		14200 D	17700 D	17800 D	13200 D	25800 D	6400	19600	
SM2540C	Total Dissolved Solids		mg/L	93900 D	39300 D		49400	51700	74000	55500	61100	2960	74800	
SM4500-CL-	Chloride	16887-00-6	mg/L	23500 D	21600 D		21800 D	27900 D	26500 D	18400 D	18600 D	**8320**	31600	
SM4500-NH	Nitrogen, Ammonia (As N)	7664-41-7	mg/L	55.8 D	89.5 D		79.0 D	58.1 D	63.9 D	46.3 D	66.5 D	16.3	56.4	
SM5210B	Biochemical Oxygen Demand		mg/L	42	101		30	266	25	10 U	4	<3.3	43.5	
SW6010B	Aluminum	7429-90-5	UG/L	190 U	28.0 B		43.9 B	200 U	17.6 BN	39.5 B	200 U	200 U		
SW6010B	Antimony	7440-36-0	UG/L	24.0 U	4.0 B		15.8 B	60.0 U	13.2 BN	10.9 B	15.7 J	20.3 J		
SW6010B	Arsenic	7440-38-2	UG/L	56.0 U	8.4 B		39.0	19.1	11.4 N	21.1	19.9	7.6 J		
SW6010B	Barium	7440-39-3	UG/L	3170 B	2430		3490	2750	3940	2790	4250	954		
SW6010B	Beryllium	7440-41-7	UG/L	2.0 U	0.14 U		0.091 U	5.00 U	0.15 U	0.20 U	1.4 J	0.61 J		
SW6010B	Boron	7440-42-8	UG/L	958 B	381		333	666	673	480	651	429		
SW6010B	Cadmium	7440-43-9	UG/L	2.0 U	0.11 U		0.14 U	5.00 U	0.16 U	0.10 U	2.5 U	2.8	<2.5	
SW6010B	Calcium	7440-70-2	UG/L	6610000	6300000		7460000	7100000 D	7360000	5490000 DE	8830000	2570000	7180000	
SW6010B	Chromium	7440-47-3	UG/L	8.0 U	3.2 B		3.8 B	10.0 U	2.8 B	41.9	10 U	10 U		
SW6010B	Cobalt	7440-48-4	UG/L	8.0 U	0.19 U		0.16 U	50.0 U	1.5 B	0.20 U	50 U	2.6 J		
SW6010B	Copper	7440-50-8	UG/L	90.0 B	13.1 B		4.3 B	28.9	0.37 U	4.0 B	10.4 J	25 U		
SW6010B	Iron	7439-89-6	UG/L	896 B	839		1560	1480	894	3110	1230	1680	260	
SW6010B	Lead	7439-92-1	UG/L	20.0 U	10.6		7.7	3.00 U	0.85 UN	1.3 UN	5.8	<50	<100	
SW6010B	Magnesium	7439-95-4	UG/L	9900 B	3710 B		4560 B	7160	8620	9510	10400	8040	24000	
SW6010B	Manganese	7439-96-5	UG/L	2640	1690		2300	852	2100	672	755	304	861	
SW6010B	Nickel	7440-02-0	UG/L	6.0 U	0.34 U		0.29 U	40.0 U	2.8 B	0.30 U	40 U	3.1 J		
SW6010B	Potassium	7440-09-7	UG/L	2990000	3570000		3910000	3990000 D	3860000	2900000 D	4170000	1270000	415000	
SW6010B	Selenium	7782-49-2	UG/L	46.0 U	2.2 B		1.7 B	5.00 U	2.7 UN	2.2 UN	10 U	10 U		
SW6010B	Silver	7440-22-4	UG/L	4.0 U	0.43 U		0.37 U	10.0 U	0.87 UN	0.50 U	10 U			
SW6010B	Sodium	7440-23-5	UG/L	6310000	5760000		6490000	6240000 D	6230000	4870000 DE	7100000	2190000	6730000	
SW6010B	Thallium	7440-28-0	UG/L	38.0 U	1.3 U		4.6 B	10.0 U	1.0 U	1.9 U	10 U	10 U		
SW6010B	Tin	7440-31-5	UG/L	14.0 U	3.7 B		7.7 B	40.0 U	6.6	3.4 B	3.2 J	50 U		
SW6010B	Vanadium	7440-62-2	UG/L	6.0 U	6.4 B		3.7 B	50.0 U	5.4 B	5.0 B	50 U	1.6 J		

	CELL 7 PLCRS													
				07/01/13	3/13/2014	3/13/2014	06/25/14	12/12/14	06/16/15	12/14/2015				
				7/1/2013	13-Dec	DUP_1213	6/25/2014	12/12/2014	6/16/2015	12/14/2015	6/20/2016	Jan-17	Sept_17	Dec_17
SW6010B	Zinc	7440-66-6	UG/L	6.0 U	8.7 B		11.5 B	154	12.8 BN	1.6 U	4.2 J	20 U		
SW7470	Mercury	7439-97-6	UG/L	0.18 B	1.2 B		0.10 U	0.3	0.10 U	0.10 U	0.20 U	<0.2	.039J	
SW8081/808	4,4´-DDD	72-54-8	µg/L	ND U	ND U		ND U	ND U	0.10 U	0.10 U	0.10 U	.1 U		<0.10
SW8081/808	4,4´-DDE	72-55-9	µg/L	ND U	ND U		ND U	ND U	0.10 U	0.10 U	0.10 U	.1 U		<0.10
SW8081/808	4,4´-DDT	50-29-3	µg/L	ND U	ND U		ND U	ND U	0.10 U	0.10 U	0.10 U	.1 U		<0.10
SW8081/808	Aldrin	309-00-2	µg/L	ND U	ND U		ND U	ND U	0.050 U	0.050 U	0.050 U	.05 U		<0.050
SW8081/808	alpha-BHC	319-84-6	µg/L	ND U	ND U		ND U	ND U	0.050 U	0.050 U	0.050 U	.05 U		<0.050
SW8081/808	Aroclor 1016	12674-11-2	µg/L	ND U	ND U		ND U	ND U	1.0 U	1.0 U	1.0 U	1 U		<1.0
SW8081/808	Aroclor 1221	11104-28-2	µg/L	ND U	ND U		ND U	ND U	2.0 U	2.0 U	2.0 U	2 U		<2.0
SW8081/808	Aroclor 1232	11141-16-5	µg/L	ND U	ND U		ND U	ND U	1.0 U	1.0 U	1.0 U	1 U		<1.0
SW8081/808	Aroclor 1242	53469-21-9	µg/L	ND U	ND U		ND U	ND U	1.0 U	1.0 U	1.0 U	1 U		<1.0
SW8081/808	Aroclor 1248	12672-29-6	µg/L	ND U	ND U		ND U	ND U	1.0 U	1.0 U	1.0 U	1 U		<1.0
SW8081/808	Aroclor 1254	11097-69-1	µg/L	ND U	ND U		ND U	ND U	1.0 U	1.0 U	1.0 U	1 U		<1.0
SW8081/808	Aroclor 1260	11096-82-5	µg/L	ND U	ND U		ND U	ND U	1.0 U	1.0 U	1.0 U	1 U		<1.0
SW8081/808	beta-BHC	319-85-7	µg/L	ND U	ND U		ND U	ND U	0.050 U	0.050 U	0.050 U	.05 U		0.14
SW8081/808	Chlordane	57-74-9	µg/L	ND U	ND U		ND U	ND U	1.0 U	1.0 U	1.0 U			
SW8081/808	delta-BHC	319-86-8	µg/L	ND U	ND U		ND U	ND U	0.050 U	0.050 U	0.050 U	.05 U		<0.050
SW8081/808	Dieldrin	60-57-1	µg/L	ND U	ND U		ND U	ND U	0.10 U	0.10 U	0.10 U	.1 U		<0.10
SW8081/808	Endosulfan I	959-98-8	µg/L	ND U	ND U		ND U	ND U	0.050 U	0.050 U	0.050 U	.05 U		<0.050
SW8081/808	Endosulfan II	33213-65-9	µg/L	ND U	ND U		ND U	ND U	0.10 U	0.10 U	0.10 U	.1 U		<0.10
SW8081/808	Endosulfan sulfate	1031-07-8	µg/L	ND U	ND U		ND U	ND U	0.10 U	0.10 U	0.10 U	.1 U		<0.10
SW8081/808	Endrin	72-20-8	µg/L	ND U	ND U		ND U	ND U	0.10 U	0.10 U	0.10 U	.1 U		<0.10
SW8081/808	Endrin aldehyde	7421-93-4	µg/L	ND U	ND U		ND U	ND U	0.10 U	0.10 U	0.10 U	.1 U		<0.10
SW8081/808	gamma-BHC	58-89-9	µg/L	ND U	ND U		ND U	ND U	0.050 U	0.050 U	0.050 U	.05 U		<0.050
SW8081/808	Heptachlor	76-44-8	µg/L	ND U	ND U		ND U	ND U	0.050 U	0.050 U	0.050 U	.05 U		0.61
SW8081/808	Heptachlor epoxide	1024-57-3	µg/L	ND U	ND U		ND U	ND U	0.050 U	0.050 U	0.050 U	.05 U		<0.050
SW8081/808	Methoxychlor	72-43-5	µg/L	ND U	ND U		ND U	ND U	0.50 U	0.50 U	0.50 U	.5 U		<0.50
SW8081/808	Toxaphene	8001-35-2	µg/L	ND U	ND U		ND U	ND U	5.0 U	5.0 U	5.0 U	5 U		<5.0
SW8141A	Dimethoate	60-51-5	µg/L	ND U	ND U		ND U	ND U	1.0 U	1.0 U	1.0 U	.96 U		<.96
SW8141A	Disulfoton	298-04-4	µg/L	ND U	ND U		ND U	ND U	1.0 U	1.0 U	1.0 U	.96 U		<.96
SW8141A	Methyl parathion	298-00-0	µg/L	ND U	ND U		ND U	ND U	1.0 U	1.0 U	1.0 U	.96 U		<.96
SW8141A	Parathion	56-38-2	µg/L	ND U	ND U		ND U	ND U	1.0 U	1.0 U	1.0 U	.96 U		<.96
SW8141A	Phorate	298-02-2	µg/L	ND U	ND U		ND U	ND U	1.0 U	1.0 U	1.0 U	.96 U		
SW8141A	Thionazin	297-97-2	µg/L	ND U	10 U		ND U					<2.5		<5.0
SW8151	2,4,5-T	93-76-5	µg/L	ND U	ND U		ND U	0.25 U	0.25 U	0.25 U	0.25 U	.047 J		<0.25
SW8151	2,4,5-TP (Silvex)	93-72-1	µg/L	ND U	ND U		0.33 P	0.25 U	0.25 U	0.25 U	0.25 U	.25 U		<0.25
SW8151	2,4-D	94-75-7	µg/L	3.2 P	ND U		0.26 PJ	0.50 U	0.57 P	0.52 P	0.50 U	.5 U		0.28 J
SW8151	Dinoseb	88-85-7	µg/L	ND	ND U		ND U	1.3	0.37 P	0.76 P	0.20 U	.085 J		<0.20
SW8260B	1,1,1,2-Tetrachloroethane	630-20-6	µg/L	ND U	ND U		ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	1,1,1-Trichloroethane	71-55-6	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	1,1,2,2-Tetrachloroethane	79-34-5	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	1,1,2-Trichloroethane	79-00-5	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	1,1-Dichloroethane	75-34-3	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	1,1-Dichloroethene	75-35-4	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	1,1-Dichloropropene	563-58-6	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	1,2,3-Trichloropropane	96-18-4	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	1,2-Dibromo-3-chloropropane	96-12-8	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	1,2-Dibromoethane	106-93-4	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	1,2-Dichlorobenzene	95-50-1	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0

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SW8260B	1,2-Dichloroethane	107-06-2	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	1,2-Dichloropropane	78-87-5	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	1,3-Dichlorobenzene	541-73-1	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	1,3-Dichloropropane	142-28-9	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	1,4-Dichlorobenzene	106-46-7	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
	1,4-Dioxane (p-Dioxane)		ug/l											<100
SW8260B	2,2-Dichloropropane	594-20-7	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	2-Butanone	78-93-3	µg/L	17	41 Z	39 DZ	23	35	16	5 U	5.0 U	<0.50	15.3	9.2
SW8260B	2-Hexanone	591-78-6	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<5.0	<5.0
SW8260B	4-Methyl-2-pentanone	108-10-1	µg/L	1 J	3 J	3 DJ	2 J	2 J	1 J	5 U	5.0 U	<0.50	<5.0	1.3 J
SW8260B	Acetone	67-64-1	µg/L	120	260 E	270 D	110	300 E	110	5 U	5.0 U	15.6	209	77.1
SW8260B	Acetonitrile	75-05-8	µg/L	ND U	28	25 D	35	100	49	40	5.0 U	<2.5	<5.0	<5.0
SW8260B	Acrolein	107-02-8	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Acrylonitrile	107-13-1	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Allyl Chloride	107-05-1	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Benzene	71-43-2	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Bromochloromethane	74-97-5	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Bromodichloromethane	75-27-4	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Bromoform	75-25-2	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Bromomethane	74-83-9	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Carbon disulfide	75-15-0	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Carbon tetrachloride	56-23-5	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Chlorobenzene	108-90-7	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Chloroethane	75-00-3	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Chloroform	67-66-3	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Chloromethane	74-87-3	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Chloroprene	126-99-8	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	cis-1,2-Dichloroethene	156-59-2	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	cis-1,3-Dichloropropene	10061-01-5	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Dibromochloromethane	124-48-1	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Dibromomethane	74-95-3	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Dichlorodifluoromethane	75-71-8	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Ethyl Methacrylate	97-63-2	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Ethylbenzene	100-41-4	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Iodomethane	74-88-4	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	2 J	<0.50	<1.0	<1.0
SW8260B	Isobutyl alcohol	78-83-1	µg/L	ND U	ND U	ND U	14 J	ND U	25 U	25 U	25 U			
SW8260B	Methacrylonitrile	126-98-7	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Methyl Methacrylate	80-62-6	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Methylene chloride	75-09-2	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Propionitrile	107-12-0	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<2.0	<4.0	<4.0
SW8260B	Silane, methoxytrimethyl-		ug/L	5 JN										
SW8260B	Silanol, trimethyl-		ug/L	19 JN				15 JN		13 JN				
SW8260B	Styrene	100-42-5	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Tetrachloroethene	127-18-4	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Toluene	108-88-3	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	trans-1,2-Dichloroethene	156-60-5	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	trans-1,3-Dichloropropene	10061-02-6	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	trans-1,4-Dichloro-2-butene	110-57-6	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Trichloroethene	79-01-6	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0

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SW8260B	Trichlorofluoromethane	75-69-4	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Trimethylsilyl fluoride+Sulfur diox		ug/L	220 JN										
SW8260B	Vinyl acetate	108-05-4	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Vinyl chloride	75-01-4	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Xylene (total)	1330-20-7	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<2.0	<2.0
SW8270C	1,2,4,5-Tetrachlorobenzene	95-94-3	µg/L	ND U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	1,2,4-Trichlorobenzene	120-82-1	µg/L	ND U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	1,2-Dichlorobenzene	95-50-1	µg/L	ND U	10 U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	1,3,5-Trinitrobenzene	99-35-4	µg/L	ND U	ND U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	1,3-Dichlorobenzene	541-73-1	µg/L	ND U	10 U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	1,3-Dinitrobenzene	99-65-0	µg/L	ND U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	1,4-Dichlorobenzene	106-46-7	µg/L	ND U	10 U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	1,4-Naphthoquinone	130-15-4	µg/L	ND U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	1-Naphthylamine	134-32-7	µg/L	ND U	10 U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	2,2´-oxybis(1-chloropropane)	108-60-1	µg/L	ND U	ND U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	2,3,4,6-Tetrachlorophenol	58-90-2	µg/L	ND U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	2,4,5-Trichlorophenol	95-95-4	µg/L	25 U	25 U	ND U	ND U	ND U	25 U	25 U	25 U	<2.5		<5.0
SW8270C	2,4,6-Trichlorophenol	88-06-2	µg/L	10 U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	2,4-Dichlorophenol	120-83-2	µg/L	ND U	10 U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	2,4-Dimethylphenol	105-67-9	µg/L	10 U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	2,4-Dinitrophenol	51-28-5	µg/L	ND U	25 U	ND U	ND U	ND U	25 U	25 U	25 U	<5.0		<10.0
SW8270C	2,4-Dinitrotoluene	121-14-2	µg/L	ND U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	2,6-Dichlorophenol	87-65-0	µg/L	10 U	ND U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	2,6-Dinitrotoluene	606-20-2	µg/L	10 U	10 U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	2-Acetylaminofluorene	53-96-3	µg/L	ND U	ND U	ND U	ND U	ND U	20 U	20 U	20 U	<2.5		<5.0
SW8270C	2-Chloronaphthalene	91-58-7	µg/L	10 U	10 U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	2-Chlorophenol	95-57-8	µg/L	10 U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	2-Methylnaphthalene	91-57-6	µg/L	10 U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<0.17		<5.0
SW8270C	2-Methylphenol	95-48-7	µg/L	ND U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	2-Naphthylamine	91-59-8	µg/L	10 U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	2-Nitroaniline	88-74-4	µg/L	25 U	25 U	100 U	ND U	ND U	25 U	25 U	25 U	<2.5		<5.0
SW8270C	2-Nitrophenol	88-75-5	µg/L	10 U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	3,3´-Dichlorobenzidine	91-94-1	µg/L	ND U	ND U	80 U	ND U	ND U	20 U	20 U	20 U	<2.5		<5.0
SW8270C	3,3´-Dimethylbenzidine	119-93-7	µg/L	10 U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	3-Methylcholanthrene	56-49-5	µg/L	ND U	10 U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	3-Methylphenol/4-Methylphenol	12-03-3	µg/L	9 J	150	170 D	ND U	9 J	41	10 U	10 U			16.8
SW8270C	3-Nitroaniline	99-09-2	µg/L	ND U	25 U	ND U	ND U	ND U	25 U	25 U	25 U	<2.5		<5.0
SW8270C	4,6-Dinitro-2-methylphenol	534-52-1	µg/L	ND U	ND U	ND U	ND U	ND U	25 U	25 U	25 U	<5.0		<10.0
SW8270C	4-Aminobiphenyl	92-67-1	µg/L	20 U	ND U	80 U	ND U	ND U	20 U	20 U	20 U	<2.5		<5.0
SW8270C	4-Bromophenyl-phenylether	101-55-3	µg/L	10 U	ND U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	4-Chloro-3-methylphenol	59-50-7	µg/L	10 U	10 U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	4-Chloroaniline	106-47-8	µg/L	10 U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	4-Chlorophenyl-phenylether	7005-72-3	µg/L	10 U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	4-Nitroaniline	100-01-6	µg/L	25 U	ND U	100 U	ND U	ND U	25 U	25 U	25 U	<2.5		<5.0
SW8270C	4-Nitrophenol	100-02-7	µg/L	25 U	ND U	100 U	ND U	ND U	25 U	25 U	25 U	<5.0		<10.0
SW8270C	5-Nitro-o-toluidine	99-55-8	µg/L	10 U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0

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SW8270C	7,12-Dimethylbenz(a)anthracene	57-97-6	µg/L	10 U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Acenaphthene	83-32-9	µg/L	10 U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<0.22		<5.0
SW8270C	Acenaphthylene	208-96-8	µg/L	10 U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<0.21		<5.0
SW8270C	Acetophenone	98-86-2	µg/L	10 U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		1.2 J
SW8270C	Anthracene	120-12-7	µg/L	10 U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		0.61 J
SW8270C	Benzo(a)anthracene	56-55-3	µg/L	10 U	ND U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Benzo(a)pyrene	50-32-8	µg/L	10 U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Benzo(b)fluoranthene	205-99-2	µg/L	10 U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Benzo(g,h,i)perylene	191-24-2	µg/L	ND U	ND U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Benzo(k)fluoranthene	207-08-9	µg/L	ND U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Benzyl alcohol	100-51-6	µg/L	1	ND U	40 U	ND U	4 J	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Bis(2-chloroethoxy)methane	111-91-1	µg/L	ND U	ND U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Bis(2-chloroethyl)ether	111-44-4	µg/L	ND U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Bis(2-ethylhexyl)phthalate	117-81-7	µg/L	10 U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		1.0 J
SW8270C	Butyl benzyl phthalate	85-68-7	µg/L	10 U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Chlorobenzilate	510-15-6	µg/L	ND U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Chrysene	218-01-9	µg/L	ND U	ND U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Diallate	2303-16-4	µg/L	ND U	10 U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Dibenzo(a,h)anthracene	53-70-3	µg/L	ND U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Dibenzofuran	132-64-9	µg/L	ND U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Diethylphthalate	84-66-2	µg/L	10 U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		0.15 J
SW8270C	Dimethylphthalate	131-11-3	µg/L	ND U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Di-n-butyl phthalate	84-74-2	µg/L	10 U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Di-n-octyl phthalate	117-84-0	µg/L	10 U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Ethyl methanesulfonate	62-50-0	µg/L	ND U	10 U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Famphur	52-85-7	µg/L	10 U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<5.0		<10.0
SW8270C	Fluoranthene	206-44-0	µg/L	ND U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Fluorene	86-73-7	µg/L	ND U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<0.17		<5.0
SW8270C	Hexachlorobenzene	118-74-1	µg/L	ND U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Hexachlorobutadiene	87-68-3	µg/L	10 U	ND U	40 U	ND U	ND U	10 U	10 U	10 U			<5
SW8270C	Hexachlorocyclopentadiene	77-47-4	µg/L	ND U	ND U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Hexachloroethane	67-72-1	µg/L	ND U	10 U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Hexachloropropene	1888-71-7	µg/L	ND U	10 U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Indeno(1,2,3-cd)pyrene	193-39-5	µg/L	10 U	ND U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Isodrin	465-73-6	µg/L	10 U	ND U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Isophorone	78-59-1	µg/L	10 U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Isosafrole	120-58-1	µg/L	ND U	ND U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Kepone	143-50-0	µg/L	ND U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<5.0		<10.0
SW8270C	Methapyrilene	91-80-5	µg/L	ND U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Methyl methanesulfonate	66-27-3	µg/L	ND U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Naphthalene	91-20-3	µg/L	10 U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<0.18		<5.0
SW8270C	Nitrobenzene	98-95-3	µg/L	10 U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	N-Nitrosodiethylamine	55-18-5	µg/L	10 U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	N-Nitrosodimethylamine	62-75-9	µg/L	ND U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0

	CELL 7 PLCRS													
				07/01/13	3/13/2014	3/13/2014	06/25/14	12/12/14	06/16/15	12/14/2015				
				7/1/2013	13-Dec	DUP_1213	6/25/2014	12/12/2014	6/16/2015	12/14/2015	6/20/2016	Jan-17	Sept_17	Dec_17
SW8270C	N-Nitroso-di-n-butylamine	924-16-3	µg/L	ND U	ND U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5
SW8270C	N-Nitroso-di-n-propylamine	621-64-7	µg/L	ND U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5
SW8270C	N-Nitrosodiphenylamine	86-30-6	µg/L	10 U	ND U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	N-Nitrosomethylethylamine	10595-95-6	µg/L	10 U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	N-Nitrosopiperidine	100-75-4	µg/L	ND U	ND U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	N-Nitrosopyrrolidine	930-55-2	µg/L	10 U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	O,O,O-Triethylphosphorothioate	126-68-1	µg/L	ND U	10 U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	o-Toluidine	95-53-4	µg/L	ND U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	p-Dimethylaminoazobenzene	60-11-7	µg/L	10 U	ND U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Pentachlorobenzene	608-93-5	µg/L	ND U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Pentachloronitrobenzene	82-68-8	µg/L	ND U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Pentachlorophenol	87-86-5	µg/L	ND U	25 U	100 U	ND U	ND U	25 U	25 U	25 U	<5.0		<10.0
SW8270C	Phenacetin	62-44-2	µg/L	10 U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Phenanthrene	85-01-8	µg/L	ND U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<0.17		<5.0
SW8270C	Phenol	108-95-2	µg/L	20	10 U	40 U	ND U	34	6 J	10 U	10 U	<2.5		19.4
SW8270C	p-Phenylenediamine	106-50-3	µg/L	10 U	10 U	ND U	ND U	ND U	10 U	10 U	10 U			<5.0
SW8270C	Pronamide	23950-58-5	µg/L	10 U	10 U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
	Sulfide	18496-25-8	mg/L		2.00 U		2.00 U	**25.3**	2 U		20 U	<0.61	6.4	
EPA1613B	2378-TCDF		pg/l				ND		2 U					ND
EPA1613B	2378-TCDD		pg/l				ND		2 U		10 U			ND
ASTM D517	Total Uranium	7440-61-1	ng/l											1.07 ± 0.050 (0.193) C:NA T:NA
EPA 537	Perfluorobutanesulfonic acid PFBS	375-73-5	ng/l											<84
EPA 537	Perfluoroheptanoic acid PFHpA	375-85-9	ng/l											23
EPA 537	Perfluorohexanesulfonic acid PFHxS	355-46-4	ng/l											13 J
EPA 537	Perfluorononanoic acid PFNA	375-95-1	ng/l											<19
EPA 537	Perfluorooctanesulfonic acid PFOS	1763-23-1	ng/l											<38
EPA 537	Perfluorooctanoic acid PFOA	335-67-1	ng/l											29
EPA 903.1	Radium-226	13982-63-3	ng/l											3.02 ± 1.28 (1.13) C:NA T:33%
EPA 904.0	Radium-228	15262-20-1	ng/l											4.14 ± 1.79 (2.70) C:75% T:16%
	6:2 FTS		ng/l											
	8:2 FTS		ng/l											
	N-ethyl perfluorooctandsulfamidoacetic acidNEtFOSAA		ng/l											
	N-methylperflurooctansulfamicacetic acid NMeFOSAA		ng/l											
	perfluorobutanoic acid PFBA		ng/l											
	perfluorodecansulfonic acid PFDS		ng/l											
	perfluorodecanoic acid PFDA		ng/l											
	perfluorododecanoic acid PFDoA		ng/l											
	perfluoroheptanesulfonic acid PFHps		ng/l											
	perfluorohexanoic acid PFHxA		ng/l											
	perfluorooctane sulfonamide FOSA		ng/l											
	perfluoropentanoic acid PFPeA		ng/l											
	perfluorotetradecanoic acid PFTeA		ng/l											
	perfluorotridecnaoic acid PFTriA		ng/l											
	perfluoroundecanoic acid PFUnA		ng/l											

	CELL 7 PLCRS													
				07/01/13	3/13/2014	3/13/2014	06/25/14	12/12/14	06/16/15	12/14/2015				
				7/1/2013	13-Dec	DUP_1213	6/25/2014	12/12/2014	6/16/2015	12/14/2015	6/20/2016	Jan-17	Sept_17	Dec_17
	n-Nitrosomorpholine													
	Dimethylbenz(A) Antracene													
	Bis(2-chloroisopropyl)ether													
	total PFOA/PFAS													

CELL 7 PLCRS												
	Aug_18		Dec_18		Jun_19		Dec_19		June_20		Dec_20	June_21
Analyte												
pH	7.11		7.43		7.81		7.48		7.36		7.93	7.25
DO	0.05		2.01		0		1.7		2.59		2.02	2.42
Spec cond	788		1112		876		2194		>20,000		>20,000	>20,000
ORP	-55.8		-75.1		-96.3		-79.2		-73.9		-102.4	-65.3
Pyrene	U		<5		<5.0		<.25		<5		<5.0	<5.0
Safrole	U		<5		<5.0		<.25		<5		<5.0	<5.0
Cyanide	<10		21.3		4.6J		7		4.7	J	3.2J	4.3 J
Total Organic Carbon	94.7		84.8		257 D		147		69.2		28.8	131
Dioxin												
Bromide	353		350		516		422		480		260	764
Sulfate	10.3		6.5		7.2		335		129 D		305J D	3.8
Nitrogen, Kjeldahl, Total	51.2		56.3		104 D		65.2 D		93.8 D		21.6	15.8
Nitrate as N	<.05		0.051		0.090		<0.50 D		<0.050		<0.25 D	<.25
Nitrite as N	<.05		<.05		<0.050		<0.050		<0.050		<0.050	<.05
Chemical Oxygen Demand	1810		1690		3870		3410		2240		1120	3240
Phenolics, Total Recoverable	236		177				358 D		278 D		35.3	188
Chromium, Hexavalent	<.1D		<.02		<.02		<.02		<.02		0.052	<0.020
Color			15				50.0				250 D	60.0
Alkalinity, Total (As CaCO3)	275		216		336		223		176		123	282
Hardness (As CaCO3)	20400		20100		28800		26700		28400		15800	30000
Total Dissolved Solids	54000		54400		74600		62000		58800		34000	65200
Chloride	30500		29600		50600		48500		49500		22700	**0.36**
Nitrogen, Ammonia (As N)	51.7D		29.8		93.3		78.7		82.2		50.7 D	108
Biochemical Oxygen Demand	137D		134		494		235		103		46.8 D	179
Aluminum	<10000 D		<200		<1000 D		77.6J D		<1000 D		311	<10000
Antimony	<3000 D		18.8J		<300 D		45.4J D		<300 D		19.2J	<3000
Arsenic	<500 D		<10.0		<50.0 D		28.4 D		<50.0 D		<10.0	<500
Barium	3580J D		3130		6450 D		5840 D		5550 D		3160	6450 J
Beryllium	<250 D		<5.0		1.7J D		<10.0 D		0.58J D		0.20J	<250
Boron	612J D		718		334 D		1040 D		92.5J D		594	740 J
Cadmium	<125 D		14.4J D		<12.5 D		<5.0 D		<12.5 D		<2.5	<125
Calcium	8140000 D		7430000		9750000 D		9300000 D		9900000 D		6120000 D	13000000
Chromium	<500 D		<10.0		46.1J D		<20.0 D		157 D		11.4	<500
Cobalt	<2500 D		5.0J		<250 D		<100 D		<250 D		<50.0	<2500
Copper	<1250 D		<25.0		59.0J D		<50.0 D		56.0J D		<25.0	<1250
Iron	10600 D		362		150 D		388 D		109 D		702	<1000
Lead	<250 D		<50.0 D		<25.0 D		<10.0 D		<25.0 D		<5.0	<250
Magnesium	18100 D		11400		4420 D		11100 D		6450 D		7170	10600
Manganese	3250 D		649		1440 D		750 D		221 D		255	496 J
Nickel	<2000 D		<40.0		<200 D		<80.0 D		72.0J D		26.2J	<2000
Potassium	3930000 D		4600000 D		6390000 D		5700000 D		5550000 D		3160000 D	8100000
Selenium	<500 D		<10.0		125 D		17.8J D		<50.0 D		<10.0	<500
Silver	<500 D		<10.0		<50.0 D		<20.0 D		18.8J D		<10.0	<500
Sodium	6910000 D		6870000 D		9900000 D		7950000 D		8800000 D		4860000 D	11800000
Thallium	<500 D		4.5J		<50.0 D		<20.0 D		<50.0 D		<10.0	<500
Tin	<2500 D		<50.0		<250 D		<100 D		<250 D		<50.0	<2500
Vanadium	<2500 D		<50.0		<250 D		13.6J D		<250 D		10.0J	<2500

CELL 7 PLCRS										
	Aug_18		Dec_18	Jun_19	Dec_19		June_20		Dec_20	June_21
Zinc	<1000 D		16.8J D	132 D	<40.0 D		<100 D		<20.0	<1000
Mercury	<.2		<0.20	0.15J	0.15J		<.2		<0.200	<0.20
4,4´-DDD	<0.10		<0.10	<0.10	<0.10		<.1		<0.10	<0.094
4,4´-DDE	<0.10		<0.10	<0.10	<0.10		<.1		<0.10	<0.094
4,4´-DDT	<0.10		<0.10	<0.10	<0.10		<.1		0.023J	<0.094
Aldrin	<0.050		<0.050	<0.050	<0.050		<.05		<0.050	<0.047
alpha-BHC	<0.050		<.05	<0.050	<.05		<.05		<0.050	<0.047
Aroclor 1016	<1.0		<1.0	<1.0	<1.0		<1		<1.0	<0.94
Aroclor 1221	<2.0		<2.0	<2.0	<2.0		<1		<1.0	<0.94
Aroclor 1232	<1.0		<1.0	<1.0	<1.0		<1		<1.0	<0.94
Aroclor 1242	<1.0		<1.0	<1.0	<1.0		<1		<1.0	<0.94
Aroclor 1248	<1.0		<1.0	<1.0	<1.0		<1		<1.0	<0.94
Aroclor 1254	<1.0		<1.0	<1.0	0.68J		<1		<1.0	<0.94
Aroclor 1260	<1.0		<1.0	<1.0	<1.0		<1		<1.0	<0.94
beta-BHC	<.05		<.05	<0.050	<.05		<.05		<0.050	<0.047
Chlordane										
delta-BHC	<.05		<.05	<0.050	<.05		<.05		<0.050	0.75
Dieldrin	<0.10		<0.10	<0.10	<0.10		<.1		<0.10	<0.094
Endosulfan I	<0.050		<0.050	<0.050	<0.050		<.05		<0.050	<0.047
Endosulfan II	<0.10		<0.10	<0.10	<0.10		<.1		<0.10	<0.094
Endosulfan sulfate	<0.10		<0.10	<0.10	<0.10		<.1		<0.10	<0.094
Endrin	<0.10		<0.10	<0.10	<0.10		<.1		<0.10	<0.094
Endrin aldehyde	<0.10		<0.10	<0.10	<0.10		<.1		0.026J	<0.094
gamma-BHC	<.05		<.05	<0.050	<.05		<.05		<0.050	<0.047
Heptachlor	<.05		<0.050	<0.050	<0.050		<.05		<0.050	0.23
Heptachlor epoxide	<0.050		<0.050	<0.050	<0.050		<.05		<0.050	<0.047
Methoxychlor	<0.50		<0.50	<0.50	<0.50		<.5		<0.50	<0.47
Toxaphene	<5.0		<5.0	<5.0	<5.0		<.5		<5.0	<4.7
Dimethoate	<.95		<5	<5	<.25		<5		<5.0	<5.0
Disulfoton	<.95		<5	<5.0			<5		<5.0	<5.0
Methyl parathion	<.95		<5	<5.0	<.25		<5		<5	<5.0
Parathion	<.95		<5	<5.0	<.25		<5		<5.0	<5.0
Phorate										
Thionazin	U		<5		<.25		<5		<5.0	<5.0
2,4,5-T	0.055J		0.19J	<0.25	<0.25		0.12	J	<0.25	1.9
2,4,5-TP (Silvex)	<0.25		<0.25	<0.25	0.16J		<.25		0.12J	2.0
2,4-D	<0.50		1.4	1.7	1.0		1.3		1.4	11.6
Dinoseb	0.14J		0.16J	0.30	0.43		<.2		<0.20	1.2
1,1,1,2-Tetrachloroethane	<1.0		<1.0	<1.0	<1		<1		<1.0	<1.0
1,1,1-Trichloroethane	<1.0		<1.0	<1.0	<1.0		<1		<1.0	<1.0
1,1,2,2-Tetrachloroethane	<1.0		<1.0	<1.0	<1.0		<1		<1.0	<1.0
1,1,2-Trichloroethane	<1.0		<1.0	<1.0	<1.0		<1		<1.0	<1.0
1,1-Dichloroethane	<1.0		<1.0	<1.0	<1.0		<1		<1.0	<1.0
1,1-Dichloroethene	<1.0		<1.0	<1.0	<1.0		<1		<1.0	<1.0
1,1-Dichloropropene	<1.0		<1.0	<1.0	<1.0		<1		<1.0	<1.0
1,2,3-Trichloropropane	<1.0		<1.0	<1.0	<1.0		<1		<1.0	<1.0
1,2-Dibromo-3-chloropropane	<1.0		<1.0	<1.0	<1.0		<1		<1.0	<1.0
1,2-Dibromoethane	<1.0		<1.0	<1.0	<1.0		<1		<1.0	<1.0
1,2-Dichlorobenzene	<1.0		<1.0	<1.0	<1.0		<1		<1.0	<1.0

CELL 7 PLCRS							
	Aug_18	Dec_18	Jun_19	Dec_19	June_20	Dec_20	June_21
1,2-Dichloroethane	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
1,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
1,3-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
1,3-Dichloropropane	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
1,4-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
1,4-Dioxane (p-Dioxane)	0.59	2.7	<100 SIM 2.4ug/l	4.2	<100 SIM 3.3 ug/l	1.7	4.2
2,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
2-Butanone	16.7	14.4	10.8	13.1	14.2	3.6J	22.9
2-Hexanone	<5.0	<5.0	<5.0	<5.0	<5	<5.0	<5.0
4-Methyl-2-pentanone	1.8J	1.6J	1.4J	<5.0	<5	<5.0	<5.0
Acetone	274 D	195	103	179	124	49.7	267
Acetonitrile	62.9	156	128	193	<5	<5.0	191
Acrolein	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
Acrylonitrile	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
Allyl Chloride	<1.0	<1.0	<1.0	<1.0	<4	<4.0	<4.0
Benzene	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
Bromochloromethane	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
Bromodichloromethane	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
Bromoform	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
Bromomethane	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
Carbon disulfide	<1.0	1.1	<1.0	<1.0	<1	1.1	<1.0
Carbon tetrachloride	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
Chlorobenzene	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
Chloroethane	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
Chloroform	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
Chloromethane	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
Chloroprene	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
cis-1,2-Dichloroethene	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
cis-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
Dibromochloromethane	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
Dibromomethane	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
Dichlorodifluoromethane	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
Ethyl Methacrylate	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
Iodomethane	<1.0	<1.0	<1.0	<1.0	4.2	<4.0	<4.0
Isobutyl alcohol				5.8JJ	<20	<20.0	<20.0
Methacrylonitrile	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
Methyl Methacrylate	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
Methylene chloride	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
Propionitrile	<4.0	<4.0	<4.0	<4.0	<4	<4.0	<4.0
Silane, methoxytrimethyl-			<1.0				
Silanol, trimethyl-							20.2 J
Styrene	<1.0	<1.0	<1.0		<1	<1.0	<1.0
Tetrachloroethene	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
Toluene	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
trans-1,2-Dichloroethene	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
trans-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
trans-1,4-Dichloro-2-butene	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0

CELL 7 PLCRS												
	Aug_18		Dec_18		Jun_19		Dec_19		June_20		Dec_20	June_21
Trichlorofluoromethane	<1.0		<1.0		<1.0		<1.0		<1		<1.0	<1.0
Trimethylsilyl fluoride+Sulfur diox												
Vinyl acetate	<1.0		<1.0		<1.0		<1.0		<1		<1.0	<1.0
Vinyl chloride	<1.0		<1.0		<1.0		<1.0		<1		<1.0	<1.0
Xylene (total)	<3.0		<3.0		<3.0		<3.0		<3		<3.0	<3.0
1,2,4,5-Tetrachlorobenzene	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
1,2,4-Trichlorobenzene	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
1,2-Dichlorobenzene	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
1,3,5-Trinitrobenzene	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
1,3-Dichlorobenzene	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
1,3-Dinitrobenzene	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
1,4-Dichlorobenzene	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
1,4-Naphthoquinone	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
1-Naphthylamine	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
2,2´-oxybis(1-chloropropane)			<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
2,3,4,6-Tetrachlorophenol	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
2,4,5-Trichlorophenol	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
2,4,6-Trichlorophenol	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
2,4-Dichlorophenol	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
2,4-Dimethylphenol	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
2,4-Dinitrophenol	U		<10.0		<10.0		<50.0 D		<10		<10.0	<10.0
2,4-Dinitrotoluene	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
2,6-Dichlorophenol	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
2,6-Dinitrotoluene	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
2-Acetylaminofluorene	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
2-Chloronaphthalene	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
2-Chlorophenol	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
2-Methylnaphthalene	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
2-Methylphenol	0.328		<5.0		1.0J		<25.0 D		0.63	J	<5.0	<5.0
2-Naphthylamine	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
2-Nitroaniline	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
2-Nitrophenol	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
3,3´-Dichlorobenzidine	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
3,3´-Dimethylbenzidine	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
3-Methylcholanthrene	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
3-Methylphenol/4-Methylphenol	46.8		39.1		110 D				44.4		1.2J	83.3
3-Nitroaniline	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
4,6-Dinitro-2-methylphenol	U		<10.0		<10.0		<50.0 D		<10		<10.0	<10.0
4-Aminobiphenyl	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
4-Bromophenyl-phenylether	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
4-Chloro-3-methylphenol	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
4-Chloroaniline	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
4-Chlorophenyl-phenylether	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
4-Nitroaniline	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
4-Nitrophenol	U		<10.0		<10.0		<50.0 D		<10		<10.0	<10.0
5-Nitro-o-toluidine	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0

CELL 7 PLCRS								
	Aug_18	Dec_18	Jun_19	Dec_19	June_20	Dec_20	June_21
7,12-Dimethylbenz(a)anthracene		<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Acenaphthene	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Acenaphthylene	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Acetophenone	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Anthracene	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Benzo(a)anthracene	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Benzo(a)pyrene	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Benzo(b)fluoranthene	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Benzo(g,h,i)perylene	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Benzo(k)fluoranthene	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Benzyl alcohol	U	<5.0	<5.0	<25.0 D	<5	0.88J	<5.0
Bis(2-chloroethoxy)methane	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5
Bis(2-chloroethyl)ether	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5
Bis(2-ethylhexyl)phthalate	U	<5.0	<5.0	8.9J D	<5	<5.0	<5
Butyl benzyl phthalate	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Chlorobenzilate	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Chrysene	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Diallate	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Dibenzo(a,h)anthracene	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Dibenzofuran	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Diethylphthalate	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Dimethylphthalate	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Di-n-butyl phthalate	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Di-n-octyl phthalate	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Ethyl methanesulfonate	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Famphur	<.95	<10.0	<10.0	<50.0 D	<10	<10.0	<20.0
Fluoranthene	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Fluorene	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Hexachlorobenzene	U	<5.0	<5.0	<.25	<5	<5.0	<5.0
Hexachlorobutadiene	U	<5	<5	<025	<5	<5.0	<5.0
Hexachlorocyclopentadiene	U	<5	<5.0	<25.0 D	<5	<5.0	<5.0
Hexachloroethane	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Hexachloropropene	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Indeno(1,2,3-cd)pyrene	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Isodrin	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Isophorone	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Isosafrole	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Kepone	U	<10.0	<10.0	<50.0 D	<10	<10.0	<20.0
Methapyrilene	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Methyl methanesulfonate	U	<5		<25.0 D	<5	<5.0	<5.0
Naphthalene	U	<5.0	<5.0	<25.0 D	<5	<5.0	0.62 J
Nitrobenzene	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
N-Nitrosodiethylamine	U	<5	<5.0	<25.0 D	<5	<5.0	<5.0
N-Nitrosodimethylamine	U	<5	<5.0	<25.0 D	<5	<5.0	<5.0

CELL 7 PLCRS												
	Aug_18		Dec_18		Jun_19		Dec_19		June_20		Dec_20	June_21
N-Nitroso-di-n-butylamine	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
N-Nitroso-di-n-propylamine	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
N-Nitrosodiphenylamine	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
N-Nitrosomethylethylamine	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
N-Nitrosopiperidine	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
N-Nitrosopyrrolidine	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
O,O,O-Triethylphosphorothioate	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
o-Toluidine	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
p-Dimethylaminoazobenzene	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
Pentachlorobenzene	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
Pentachloronitrobenzene	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
Pentachlorophenol	2.37		<10.0		<10.0		<50.0 D		<10		<10.0	<10.0
Phenacetin	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
Phenanthrene	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
Phenol	52.2		31.4		115 D		70.0 D		87.1	D	3.1J	62.7
p-Phenylenediamine	U		<5		<10.0		<50		<10		<10.0	<6900
Pronamide	U		<5.0		<5.0		<.25		<5		<5.0	<5.0
Sulfide	1.6J		8		8.0		4.8		**25.6**		<2.0	**16.0**
2378-TCDF	ND		ND				ND		ND		ND	ND
2378-TCDD	ND		ND		ND		ND		ND		ND	ND
Total Uranium	0.347 ± 0.013 (0.262) C:NA T:NA		.855+-.049 (2.62) C:NA T:NA		0.281 ± 0.014 (0.262) C:NA T:NA		0.789 ± 0.039 (0.262) C:NA T:NA		0.751 ± 0.045 (2.620) C:NA T:NA		0.526 ± 0.049 (2.620) C:NA T:NA	1.09 ± 0.061 (2.620) C:NA T:NA
Perfluorobutanesulfonic acid PFBS	130		130				170		160		120	240
Perfluoroheptanoic acid PFHpA	19		18				24		26		35	26
Perfluorohexanesulfonic acid PFHxS	4.7		4.2				11	B	8.6	B	5.9	8.2
Perfluorononanoic acid PFNA	1.7		1.2				1.4	J	5		2	nd
Perfluorooctanesulfonic acid PFOS	3.3		2				3		16		4	nd
Perfluorooctanoic acid PFOA	22		22				32		50		47	38
Radium-226	6.34 ± 2.29 (1.80) C:NA T:42%		15.7 ± 7.46 (2.36) C:NA T:88%		9.05 ± 2.77 (0.511) C:NA T:85%		2.93 ± 1.62 (1.44) C:NA T:61%		3.77 ± 2.18 (0.852) C:NA T:43%		1.21 ± 0.852 (0.938) C:NA T:89%	3.05 ± 2.60 (3.15) C:NA T:94%
Radium-228	10.2 ± 3.75 (5.39) C:72% T:85%		6.62 ± 2.38 (3.68) C:80% T:89%		6.45 ± 1.59 (1.46) C:78% T:52%		3.90 ± 2.48 (4.69) C:81% T:24%		7.79 ± 2.29 (2.88) C:78% T:33%		3.50 ± 1.31 (2.03) C:79% T:37%	8.59 ± 3.67 (5.94) C:70% T:92%
6:2 FTS	5.4		6.6				11	J	10	J	6.2	nd
8:2 FTS	ND		ND				ND		ND		ND	nd
N-ethyl perfluorooctandsulfamidoacetic acidNEtFOSAA	19U		ND				ND		ND		ND	nd
N-methylperflurooctansulfamicacetic acid NMeFOSAA	19U		ND				ND		ND		ND	nd
perfluorobutanoic acid PFBA	260		170				180		260	B	170	310
perfluorodecansulfonic acid PFDS	19U		ND				ND		ND		ND	nd
perfluorodecanoic acid PFDA	4.5		0.44				0.38	J	3.2		0.55	J nd
perfluorododecanoic acid PFDoA	19U		ND				ND		ND		ND	nd
perfluoroheptanesulfonic acid PFHps	19U		ND				ND		0.26	J	ND	nd
perfluorohexanoic acid PFHxA	210		250				320		370		350	430
perfluorooctane sulfonamide FOSA	19U		ND				1	J	2.2	B	ND	nd
perfluoropentanoic acid PFPeA	100		94				130		140		120	190
perfluorotetradecanoic acid PFTeA	19U		ND				ND		ND		ND	nd
perfluorotridecnaoic acid PFTriA	19U		ND				ND		ND		ND	nd
perfluoroundecanoic acid PFUnA	19U		ND				ND		ND		ND	nd

CELL 7 PLCRS								
	Aug_18	Dec_18	Jun_19	Dec_19	June_20	Dec_20	June_21	
n-Nitrosomorpholine	U							
Dimethylbenz(A) Antracene	U							
Bis(2-chloroisopropyl)ether	U							
total PFOA/PFAS	760.6	698.44		883.78	1051.26	860.65	1242.2	

CELL 7 PLCRS				
	Dec_21	July_22		Sept_23
Analyte				
pH	7.01	7.18		7.58
DO	4.24	4.02		0.58
Spec cond	>20,000	>20,000		>20,000
ORP	-60.6	-62.4		-35.2
Pyrene	<5.0	<4.8		<47
Safrole	<5.0			
Cyanide	34.0	26.7		<10
Total Organic Carbon	273 D	227 D		397
Dioxin				<10
Bromide	534	580		504
Sulfate	171	**1840J D**		<100
Nitrogen, Kjeldahl, Total	248	164 D		106
Nitrate as N	<.05	0.25 D		0.954
Nitrite as N	<.05	<0.050		<
Chemical Oxygen Demand	3080	3800		6560
Phenolics, Total Recoverable	689	351 D		NULL
Chromium, Hexavalent	<0.020	<.02		<.01
Color	70.0 D	60		1000
Alkalinity, Total (As CaCO3)	344	257		323
Hardness (As CaCO3)	43000			36900
Total Dissolved Solids	37700	19200		107206
Chloride	63200	89700		**<13.8**
Nitrogen, Ammonia (As N)	356 D	155		55.7
Biochemical Oxygen Demand	**529 D**	294		**1080**
Aluminum	<20000	223		Null
Antimony	<600 D	37.9		Null
Arsenic	<100 D	18.6		<150
Barium	**8190 D**	**9900**		**8440**
Beryllium	<50.0 D	<5.0		Null
Boron	793 D	706		
Cadmium	<25.0 D	<2.5		<30
Calcium	14900000 D	17200000 D		14800000
Chromium	<100 D	5.9J		<50
Cobalt	<500 D	<50.0		Null
Copper	386 D	22.2J		Null
Iron	<1000 D	3750		Null
Lead	<50.0 D	8.9		<50
Magnesium	4910 D	3990		4340
Manganese	526 D	1220		Null
Nickel	<400 D	24.8J		Null
Potassium	8790000 D	9720000 D		Null
Selenium	<100 D	11.1		<250
Silver	14.5J D	<10.0		154
Sodium	13900000 D	<5000		Null
Thallium	<100 D	8.8J		Null
Tin	<500 D	<50.0		
Vanadium	48.2J D	11.0J		Null

CELL 7 PLCRS				
	Dec_21	July_22		Sept_23
Zinc	<200 D	23.5		Null
Mercury	<0.20	0.090J		<2
4,4´-DDD	<0.094	<0.096		<0.009
4,4´-DDE	<0.094	<0.096		<0.009
4,4´-DDT	<0.094	<0.096		<0.009
Aldrin	<0.047	<0.048		<.001
alpha-BHC	<0.047	<0.048		<.005
Aroclor 1016	<0.94	<0.95		<10
Aroclor 1221	<0.94	<0.95		<10
Aroclor 1232	<0.94	<0.95		<10
Aroclor 1242	<0.94	<0.95		<10
Aroclor 1248	<0.94	<0.95		<10
Aroclor 1254	<0.94	<0.95		<10
Aroclor 1260	<0.94	<0.95		<10
beta-BHC	<0.047	<0.048		<0.005
Chlordane				<0.094
delta-BHC	<0.047	<0.048		<0.005
Dieldrin	<0.094	<0.096		<0.001
Endosulfan I	<0.047	<0.048		<0.009
Endosulfan II	<0.094	<0.096		<0.009
Endosulfan sulfate	<0.094	<0.096		<0.005
Endrin	<0.094	<0.096		<0.009
Endrin aldehyde	<0.094	<0.096		<0.009
gamma-BHC	<0.047	<0.048		<.005
Heptachlor	<0.047	0.59		<0.009
Heptachlor epoxide	<0.047	<0.048		<0.009
Methoxychlor	<0.47	<0.48		<0.094
Toxaphene	<4.7	<4.8		<0.24
Dimethoate	<5.0			
Disulfoton	<5.0			
Methyl parathion	<5.0			
Parathion	<5.0			
Phorate				
Thionazin	<5.0			
2,4,5-T	<200 D	<0.25		<2.4
2,4,5-TP (Silvex)	<200 D	<0.25		<2.4
2,4-D	<200 D	3.3		<4.9
Dinoseb	<200 D	1.4		<4.9
1,1,1,2-Tetrachloroethane	<1.0	<1.0		<2.5
1,1,1-Trichloroethane	<1.0	<1.0		<2.5
1,1,2,2-Tetrachloroethane	<1.0	<1.0		<2.5
1,1,2-Trichloroethane	<1.0	<1.0		<2.5
1,1-Dichloroethane	<1.0	<1.0		<2.5
1,1-Dichloroethene	<1.0	<1.0		<.2
1,1-Dichloropropene	<1.0	<1.0		<0.20
1,2,3-Trichloropropane	<1.0	<1.0		<0.20
1,2-Dibromo-3-chloropropane	<1.0	<1.0		<0.20
1,2-Dibromoethane	<1.0	<1.0		<0.20
1,2-Dichlorobenzene	<1.0	<1.0		<0.20

CELL 7 PLCRS				
	Dec_21	July_22		Sept_23
1,2-Dichloroethane	<1.0	<1.0		<0.20
1,2-Dichloropropane	<1.0	<1.0		<0.20
1,3-Dichlorobenzene	<1.0	<1.0		
1,3-Dichloropropane	<1.0	<1.0		
1,4-Dichlorobenzene	<1.0	<1.0		
1,4-Dioxane (p-Dioxane)	4.1	5.7		3.5
2,2-Dichloropropane	<1.0	<1.0		
2-Butanone	27.2	55.8		46
2-Hexanone	<5.0	<5.0		1.1
4-Methyl-2-pentanone	2.1J	2.5J		4.6
Acetone	308 D	394 D		320
Acetonitrile	<5.0	<5.0		
Acrolein	<1.0	<1.0		<0.20
Acrylonitrile	<1.0	<1.0		<0.20
Allyl Chloride	<4.0	<4.0		
Benzene	<1.0	<1.0		<0.20
Bromochloromethane	<1.0	<1.0		<0.20
Bromodichloromethane	<1.0	<1.0		<0.20
Bromoform	<1.0	<1.0		<0.20
Bromomethane	<1.0	<1.0		<0.20
Carbon disulfide	<1.0	<1.0		0.94
Carbon tetrachloride	<1.0	<1.0		<0.20
Chlorobenzene	<1.0	<1.0		<0.20
Chloroethane	<1.0	<1.0		<0.20
Chloroform	<1.0	<1.0		<0.20
Chloromethane	<1.0	<1.0		<0.20
Chloroprene	<1.0	<1.0		
cis-1,2-Dichloroethene	<1.0	<1.0		<0.20
cis-1,3-Dichloropropene	<1.0	<1.0		<0.20
Dibromochloromethane	<1.0	<1.0		<0.20
Dibromomethane	<1.0	<1.0		<0.20
Dichlorodifluoromethane	<1.0	<1.0		
Ethyl Methacrylate	<1.0	<1.0		
Ethylbenzene	<1.0	<1.0		<.2
Iodomethane	<4.0	<4.0		<.2
Isobutyl alcohol	11.7J			
Methacrylonitrile	<1.0	<1.0		
Methyl Methacrylate	<1.0	<1.0		<.2
Methylene chloride	<1.0	<1.0		<.2
Propionitrile	<4.0	<4.0		
Silane, methoxytrimethyl-	29.4J			
Silanol, trimethyl-	31.9J			
Styrene	<1.0	<1.0		<0.20
Tetrachloroethene	<1.0	<1.0		<0.20
Toluene	<1.0	<1.0		<0.20
trans-1,2-Dichloroethene	<1.0	<1.0		<0.20
trans-1,3-Dichloropropene	<1.0	<1.0		<0.20
trans-1,4-Dichloro-2-butene	<1.0	<1.0		<0.20
Trichloroethene	<1.0	<1.0		<0.20

CELL 7 PLCRS				
	Dec_21	July_22		Sept_23
Trichlorofluoromethane	<1.0	<1.0		<0.20
Trimethylsilyl fluoride+Sulfur diox	5.6J			
Vinyl acetate	<1.0	<1.0		
Vinyl chloride	<1.0	<1.0		<.2
Xylene (total)	<3.0	<3.0		<7.5
1,2,4,5-Tetrachlorobenzene	<5.0			< 47
1,2,4-Trichlorobenzene	<5.0	<4.8		< 47
1,2-Dichlorobenzene	<5.0	<4.8		
1,3,5-Trinitrobenzene	<5.0			
1,3-Dichlorobenzene	<5.0	<4.8		
1,3-Dinitrobenzene	<5.0	<4.8		<47
1,4-Dichlorobenzene	<5.0	<4.8		<47
1,4-Naphthoquinone	<5.0			
1-Naphthylamine	<5.0			
2,2´-oxybis(1-chloropropane)	<5.0	<4.8		<47
2,3,4,6-Tetrachlorophenol	<5.0	<4.8		
2,4,5-Trichlorophenol	<5.0	<4.8		
2,4,6-Trichlorophenol	<5.0	<10.0		< 47
2,4-Dichlorophenol	<5.0	<4.8		< 47
2,4-Dimethylphenol	<5.0	<4.8		< 47
2,4-Dinitrophenol	<10.0	<9.5		< 47
2,4-Dinitrotoluene	<5.0	<4.8		< 47
2,6-Dichlorophenol	<5.0			
2,6-Dinitrotoluene	<5.0	<4.8		<47
2-Acetylaminofluorene	<5.0			
2-Chloronaphthalene	<5.0	<4.8		< 47
2-Chlorophenol	<5.0	<4.8		< 47
2-Methylnaphthalene	<5.0	<4.8		< 47
2-Methylphenol	1.8J	<4.8		< 47
2-Naphthylamine	<5.0			
2-Nitroaniline	<5.0	<4.8		
2-Nitrophenol	<5.0	<4.8		<47
3,3´-Dichlorobenzidine	<5.0	<4.8		<47
3,3´-Dimethylbenzidine	<5.0			
3-Methylcholanthrene	<5.0			
3-Methylphenol/4-Methylphenol	305 D	263 D		460
3-Nitroaniline	<5.0	<4.8		
4,6-Dinitro-2-methylphenol	<10.0	<9.5		<47
4-Aminobiphenyl	<5.0			
4-Bromophenyl-phenylether	<5.0	<4.8		< 47
4-Chloro-3-methylphenol	<5.0	<4.8		< 47
4-Chloroaniline	<5.0	<4.8		< 47
4-Chlorophenyl-phenylether	<5.0	<4.8		
4-Nitroaniline	<5.0	<4.8		
4-Nitrophenol	<10.0	<9.5		<47
5-Nitro-o-toluidine	<5.0			

CELL 7 PLCRS				
	Dec_21	July_22		Sept_23
7,12-Dimethylbenz(a)anthracene	<5.0			
Acenaphthene	<5.0	<4.8		< 47
Acenaphthylene	<5.0	<4.8		< 47
Acetophenone	<5.0	<4.8		
Anthracene	<5.0	0.79J		< 47
Benzo(a)anthracene	<5.0	<4.8		< 47
Benzo(a)pyrene	<5.0	<4.8		< 47
Benzo(b)fluoranthene	<5.0	<4.8		< 47
Benzo(g,h,i)perylene	<5.0	<4.8		< 47
Benzo(k)fluoranthene	<5.0	<4.8		< 47
Benzyl alcohol	<5.0			
Bis(2-chloroethoxy)methane	<5.0	<4.8		< 47
Bis(2-chloroethyl)ether	<5.0	<4.8		< 47
Bis(2-ethylhexyl)phthalate	<5.0	<4.8		< 47
Butyl benzyl phthalate	<5.0	<4.8		<47
Chlorobenzilate	<5.0			
Chrysene	<5.0	<4.8		<47
Diallate	<5.0			
Dibenzo(a,h)anthracene	<5.0	<4.8		<47
Dibenzofuran	<5.0	<4.8		
Diethylphthalate	<5.0	<4.8		< 47
Dimethylphthalate	<5.0	<4.8		< 47
Di-n-butyl phthalate	<5.0	150 D		77
Di-n-octyl phthalate	<5.0	<4.8		< 47
Ethyl methanesulfonate	<5.0			
Famphur	<20.0	<20.0		
Fluoranthene	<5.0	<4.8		< 47
Fluorene	<5.0	<4.8		< 47
Hexachlorobenzene	<5.0	<4.8		< 47
Hexachlorobutadiene				< 47
Hexachlorocyclopentadiene	<5.0	<4.8		< 47
Hexachloroethane	<5.0	<4.8		< 47
Hexachloropropene	<5.0			
Indeno(1,2,3-cd)pyrene	<5.0	<4.8		<47
Isodrin	<5.0			
Isophorone	<5.0	<4.8		<47
Isosafrole	<5.0			
Kepone	<20.0	<20.0		
Methapyrilene	<5.0			
Methyl methanesulfonate	<5.0			
Naphthalene	<5.0	<4.8		<47
Nitrobenzene	<5.0	<4.8		
N-Nitrosodiethylamine	<5.0			< 47
N-Nitrosodimethylamine	<5.0			< 47

CELL 7 PLCRS				
	Dec_21	July_22		Sept_23
N-Nitroso-di-n-butylamine	<5.0			
N-Nitroso-di-n-propylamine	<5.0	<4.8		< 47
N-Nitrosodiphenylamine	<5.0	<4.8		< 47
N-Nitrosomethylethylamine	<5.0			
N-Nitrosopiperidine	<5.0			
N-Nitrosopyrrolidine	<5.0			
O,O,O-Triethylphosphorothioate	<5.0			
o-Toluidine	<5.0			
p-Dimethylaminoazobenzene	<5.0			
Pentachlorobenzene	<5.0			
Pentachloronitrobenzene	<5.0			
Pentachlorophenol	<10.0			<47
Phenacetin	<5.0			
Phenanthrene	<5.0	<4.8		< 47
Phenol	350 D	<4.8		680
p-Phenylenediamine	<6900	<6900		
Pronamide	<5.0			
Sulfide	**20.8**	3.2		4.6
2378-TCDF	ND	ND		ND
2378-TCDD	ND	ND		ND
Total Uranium	5.13 ± 0.424 (26.200) C:NA T:NA	0.203 ± 0.010 (2.620) C:NA T:NA	mg/l	<.001
Perfluorobutanesulfonic acid PFBS	280	302		
Perfluoroheptanoic acid PFHpA	33	38.9		
Perfluorohexanesulfonic acid PFHxS	7	5.07		
Perfluorononanoic acid PFNA	1.1	ND		
Perfluorooctanesulfonic acid PFOS	2.1	2.42		<5
Perfluorooctanoic acid PFOA	33	39.8		43.8
Radium-226	4.57 ± 3.05 (3.27) C:NA T:98%	3.74 ± 1.37 (0.317) C:NA T:106%	pCi/L	<10
Radium-228	7.45 ± 4.64 (8.93) C:56% T:91%	9.86 ± 3.71 (5.57) C:76% T:88%	pCi/L	11.3
6:2 FTS	6	5.46		
8:2 FTS	ND	1.6		
N-ethyl perfluorooctandsulfamidoacetic acidNEtFOSAA	ND	ND		
N-methylperflurooctansulfamicacetic acid NMeFOSAA	ND	ND		
perfluorobutanoic acid PFBA	440	362		
perfluorodecansulfonic acid PFDS	ND	ND		
perfluorodecanoic acid PFDA	0.58	ND		
perfluorododecanoic acid PFDoA	ND	ND		
perfluoroheptanesulfonic acid PFHps	ND	ND		
perfluorohexanoic acid PFHxA	560	615		
perfluorooctane sulfonamide FOSA	ND	ND		
perfluoropentanoic acid PFPeA	180	231		
perfluorotetradecanoic acid PFTeA	ND	ND		
perfluorotridecnaoic acid PFTriA	ND	ND		
perfluoroundecanoic acid PFUnA	ND	ND		

CELL 7 PLCRS				
	Dec_21	July_22		Sept_23
n-Nitrosomorpholine				
Dimethylbenz(A) Antracene				
Bis(2-chloroisopropyl)ether				
total PFOA/PFAS	1542.78	1603.25		

Appendix 1

September 2023 AG Environmental Lab Report and QA/QC

AG ENVIRONMENTAL RSC, LLC

LABORATORY CERTIFICATE OF RESULTS

NYSDOH ELAP # 12081
PA DEP # 68-05705
FLORIDA (Legionella) # E871152

86 Queen Mountain Road, Ferndale, New York, 12734 / Phone: 845.704.8151 / Fax: 845.414.0051

Original Report #: 42462
LCR Issue Date: 10/12/2023

Bill-to Customer Information (C53579)		**Water Source Location X53579-02**	
Customer Name:	Town of Babylon	**Source Name:**	Town of Babylon - Landfill
Address:	200 E. Sunrsie Highway	**Address:**	281 Phelps Lane
Town:	LINDENHURST **State:** NY **Zip:** 11757	**Town:**	North Babylon **State:** NY **Zip:** 11703
Phone:	631-957-3025	**PWSID/SPDES:**	N/A
Email:	klynch@townofbabylon.com	**Contact Name:**	
Fax:		**Phone:**	631-957-3025

Sample(s) delivered on 09/12/2023 **at** 10:00 AM **From COC#:** 37779

Sample#	MTX	Sample Point	Sampled Date & Time	Temp	Pres. Y/N/T	Res Cl	Int	Anal/Prep Date & Time	Analyte/Test Method	Comment (see table)	Results	MCL/SMCL (Limits)
S000130574	SW-G	ONU SLCRS	09/11/2023 08:20 AM	11.9°C	N		BN	09/13/2023 06:33 AM	Hardness,300,Color,cr+6 By Various Methods	Y 23I0809-04/	Bromide : 226 mg/L Chloride : 14900 mg/L Sulfate : 169 mg/L Color : 250 color units Hexavalent Chromium : <0.0100 mg/L Hardness : 12200 mg/L	
S000166266	SW-G	ONU SLCRS	09/11/2023 08:20 AM	11.9°C	Y		BN	09/12/2023 03:16 PM	Nitrate-Nitrite as (N) by Systea (1-Reagent) Method	N B90222	Nitrate-Nitrite (as N) : 1.009 mg/L	
S000130578	SW-G	ONU SLCRS	09/11/2023 08:20 AM	11.9°C	Y		BN	09/20/2023 08:56 AM	TAL/TCL Metals List by EPA 200.7/200.8 method	Y 23I0809-07/	See attached : See Attached	
S000130570	SW-G	ONU SLCRS	09/11/2023 08:20 AM	11.9°C	N		BN	09/12/2023 03:50 PM	BOD 5-Day SM 5210B Method	N BOD-00313	BOD, 5 day : 100 mg/L	
S000083739	SW-G	ONU SLCRS	09/11/2023 08:20 AM	11.9°C	N		BN	09/17/2023 01:29 PM	Alkalinity by Analytical Method: SM22 2320B	AL---900029	Alkalinity : 217 mg/L	
S000130577	SW-G	ONU SLCRS	09/11/2023 08:20 AM	11.9°C	Y		BN	09/18/2023 09:00 AM	Volatile Organic Compounds w/ Top 10 identified compounds (TICs) by EPA 8260 Method	Y 23I0809-06/	See attached : See Attached	See Attached
S000130573	SW-G	ONU SLCRS	09/11/2023 08:20 AM	11.9°C	N		BN	09/12/2023 03:42 PM	Total Dissolved Solids by SM22 2540C Method	TDS-00192	Total Dissolved Solids : 25776 mg/L	
S000130576	SW-G	ONU SLCRS	09/11/2023 08:20 AM	11.9°C	Y		BN	09/23/2023 01:47 PM	Total Organic Carbon by SM22 5310B	Y 23I0809-05/	TOC : 10.9 mg/L	
S000130575	SW-G	ONU SLCRS	09/11/2023 08:20 AM	11.9°C	N		BN	09/12/2023 02:38 PM	Nitrite as (N) by Method SM22 4500-NO2-B	N I-00088	Nitrite as (N) : 0.07 mg/L	
S000130569	SW-G	ONU SLCRS	09/11/2023 08:20 AM	11.9°C	Y		BN	09/15/2023 11:15 AM	Sulfide by SM 4500-S2 D Method	Y 23I0809-01/	Sulfide : <1.0 mg/L	<= 1.0 mg/L for UV Kit
S000130572	SW-G	ONU SLCRS	09/11/2023 08:20 AM	11.9°C	Y		BN	09/20/2023 08:31 AM	Cyanide by EPA Method 4500 CN C-2016	Y 23I0809-03/	Cyanide : <10.0 ug/L	200 ug/L
S000130571	SW-G	ONU SLCRS	09/11/2023 08:20 AM	11.9°C	N		BN	09/18/2023 11:16 AM	PFAS/PFOS by Method 537m	Y 23I0809-02/	Perfluorooctanesulfonic Acid : 39.1 ng/L **HIGH** Perfluorooctanoic Acid : 101 ng/L **HIGH**	10 ng/L 10 ng/L
S000130566	SW-G	ONU SLCRS	09/11/2023 08:20 AM	11.9°C	Y		BN	09/12/2023 02:21 PM	COD,NH3,NO3, TKN by Various Methods	N COD-00050B	COD : 286 mg/L NH3 : 31.132 mg/L Nitrate : 0.944 mg/L TKN : 29.1 mg/L	

Sample#	MTX	Sample Point	Sampled Date & Time	Temp	Pres. Y/N/T	Res Cl	Int	Anal/Prep Date & Time	Analyte/Test Method	Comment (see table)	Results	MCL/SMCL (Limits)
S000165576	SW-G	ONU SLCRS	09/11/2023 08:20 AM	11.9°C	N		BN	09/18/2023 08:43 AM	1,4 Dioxane by Method 8270D SIM	Y 23I0809-08/	1,4 Dioxane : 10.3 ug/L **HIGH**	1.0 ug/L
S000165699	SW-G	ONU SLCRS	09/11/2023 08:20 AM	11.9°C	Y		BN	09/18/2023 02:34 PM	Total Phenolics by EPA 420.1 Method	Y 23I0809-09/	Total Phenolics : <0.0500 mg/L	

Comment Table: Y - Sample ran at York Laboratories ELAP #10854 & ELAP #12058 | N - No Comment |
Remarks:

Authorized By:

Krista Chilson
Quality Assurance

Sullivan County Labs

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A — Required Client Information:

Company:	Town of Babylon
Address:	281 Phelps Lane
	North Babylon, NY 11703
Email:	Jguarino@TownofBabylon.com
Phone:	631-422-7640 Fax
Requested Due Date:	

Section B — Required Project Information:

Report To:	Joe Guarino
Copy To:	
Purchase Order #:	
Project Name:	Leachates Part 360 Baseline Parameters
Project #:	

Section C — Invoice Information:

Attention:	
Company Name:	
Address:	
Quote:	
Project Manager:	
Profile #:	

Regulatory Analysis?

State Location: NY

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	NaOH & Zinc Acetate	Methanol	Other	Analyses Test	8260 VOCs + TICs	Metals / Mercury	Hardness, 300.0, NO2 / NO3	NO2	COD,NH3,NO3,TKN	TOC	Cyanide	Sulfide	1,4 Dioxane	PFAs by 537	BOD	TDS	Alkalinity	Phenols			Residual Chlorine (Y/N)
	Number of Bottles per Analysis																3	1	1	1	1	2	1	1	1	2	1	1	1	1			
1	NNU PLCRS	WT	G	9/11/2023	840		18	X	X	X	X	X	X				3	1	1	1	1	2	1	1	1	2	1	1	1	1			
2	NNU SLCRS NO SAMPLE / Pump Back	WT	G	9/11/2023	NA		18	X	X	X	X	X	X				3	1	1	1	1	2	1	1	1	2	1	1	1	1			Pump Backed 11.9
3	ONU SLCRS	WT	G	9/11/2023	820		18	X	X	X	X	X	X				3	1	1	1	1	2	1	1	1	2	1	1	1	1			
4	SA SLCRS	WT	G	9/11/2023	930		18	X	X	X	X	X	X				3	1	1	1	1	2	1	1	1	2	1	1	1	1			
5	MS / MSD (ONU SLCRS)	WT	G	9/11/2023	820		18	X	X	X	X	X	X				3	1	1	1	1	2	1	1	1	2	1	1	1	1			
6	Trip Blank	DI	LAB	9/11/2023	LAB		3				X						3																
7																																
8																																
9																																
10																																
11																																
12																																

	3 - 40mL vials HCL	1 - 250 mL HNO3	1 - 1 Liter Unpre. Plastic	1 - 1 Liter Unpre. Plastic	1- 250 Amber Glass w/H2SO4	2 - 40 mL vials w/HCL	1 - 250 mL Plastic w/NaOH	1 Ltr Plas. NaOH & Zinc Acetat	1 - 500 mL Amber Unpreserved	2 - 250 mL Plastic Unpreserved	1 - 1 Liter Plastic Unpreserved	1 - 1 Liter Plastic Unpreserved	1 - 500 mL Plastic Unpreserved	1 - 1 Liter Amber w/H2SO4
Number of Bottles per Analysis	3	1	1	1	1	2	1	1	1	2	1	1	1	1

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Leachates / Part 360 Baseline Parameters	Brian Nichols / Zion Environmental, LLC	9-12-23					

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Brian Nichols

SIGNATURE of SAMPLER: Brian Nichols

DATE Signed: 9-12-2023 / 9/12/2023

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

(AG ENVIRONMENTAL, RSC, LLC.
Sullivan County Labs)
Water sample submission form

New York State Chain-of-Custody
NON-POTABLE

NYSDOH ELAP # 12081
PA DEP # 68-05705
FLORIDA (Legionella) # E871152

86 Queen Mountain Road, Ferndale, New York, 12734 / Phone: 845.704.8151 / Fax: 845.414.0051

COC#: 37779
CRN:

Bill-to Customer Information: (C53579)		**Well/System Location Information (X53579-02)**	
Customer Name:	Town of Babylon	**Name**	Town of Babylon - Landfill
Address:	200 E. Sunrsie Highway	**Address:**	281 Phelps Lane
Town:	LINDENHURST **State:** NY **Zip:** 11757	**Town:**	North Babylon **State:** NY **Zip:** 11703
Phone:	[P]: / [EP]: 631-957-3025	**SPEDES:**	N/A
Email:	klynch@townofbabylon.com	**Contact Name:**	
Fax:		**Phone:**	631-957-3025

Notes:

10 CRR-NY 5-1.74 of the NY State Code requires the owner of a public water system shall ensure the approved environmental laboratory performing the analyses sends laboratory results to the Dept. of Health in a manner prescribed by them. Initial here _____ if you want us to forward your results to the Dept. of Health. *Note: It is your responsibility to verify that they receive it.*

Customer Sample Collection Data

Bottle Sample#	C/G	Sample Point	Date Sampled	Intl	Prsv	Ver pH	On Ice	Test ELAP/EPA Method	Comments/Sample Temp
S000130574	G	ONU SLCRS	09/11/2023 08:20 AM	BN	UNP	S	YES	Hardness,300,Color,cr+6 By Various Methods	/ 11.9°C
S000166266	G	ONU SLCRS	09/11/2023 08:20 AM	BN	H2SO4		YES	Nitrate-Nitrite as (N) by Systea (1-Reagent) Method	/ 11.9°C
S000130578	G	ONU SLCRS	09/11/2023 08:20 AM	BN	HNO3	S	YES	TAL/TCL Metals List by EPA 200.7/200.8 method	/ 11.9°C
S000130570	G	ONU SLCRS	09/11/2023 08:20 AM	BN	UNP		YES	BOD 5-Day SM 5210B Method	/ 11.9°C
S000083739	G	ONU SLCRS	09/11/2023 08:20 AM	BN	UNP		YES	Alkalinity by Analytical Method: SM22 2320B	/ 11.9°C
S000130577	G	ONU SLCRS	09/11/2023 08:20 AM	BN	HCL	S	YES	Volatile Organic Compounds w/ Top 10 identified compounds (TICs) by EPA 8260 Method	/ 11.9°C
S000130573	G	ONU SLCRS	09/11/2023 08:20 AM	BN	UNP		YES	Total Dissolved Solids by SM22 2540C Method	/ 11.9°C
S000130576	G	ONU SLCRS	09/11/2023 08:20 AM	BN	HCL	S	YES	Total Organic Carbon by SM22 5310B	/ 11.9°C

Customer Sample Collection Data									
Bottle Sample#	**C/G**	**Sample Point**	**Date Sampled**	**Intl**	**Prsv**	**Ver pH**	**On Ice**	**Test ELAP/EPA Method**	**Comments/Sample Temp**
S000130575	G	ONU SLCRS	09/11/2023 08:20 AM	BN	UNP		YES	Nitrite as (N) by Method SM22 4500-NO2-B	/ 11.9°C
S000130569	G	ONU SLCRS	09/11/2023 08:20 AM	BN	NAOH/ZnAcetate	S	YES	Sulfide by SM 4500-S2 D Method	/ 11.9°C
S000130572	G	ONU SLCRS	09/11/2023 08:20 AM	BN	NaOH	S	YES	Cyanide by EPA Method 4500 CN C-2016	/ 11.9°C
S000130571	G	ONU SLCRS	09/11/2023 08:20 AM	BN	UNP	S	YES	PFAS/PFOS by Method 537m	/ 11.9°C
S000130566	G	ONU SLCRS	09/11/2023 08:20 AM	BN	H2SO4		YES	COD,NH3,NO3, TKN by Various Methods	/ 11.9°C
S000165576	G	ONU SLCRS	09/11/2023 08:20 AM	BN	UNP	S	YES	1,4 Dioxane by Method 8270D SIM	/ 11.9°C
S000165699	G	ONU SLCRS	09/11/2023 08:20 AM	BN	H2SO4	S	YES	Total Phenolics by EPA 420.1 Method	/ 11.9°C

Relinquished By*:	SIGN HERE	Relinquished To:	Kristi C.	Received Date	09/12/2023	Received Time	10:00 AM
Relinquished By*:		Relinquished To:		Received Date		Received Time	

*By signing, customer acknowledges that some samples may be sent to a sister (certified) LAB for analysis. Samples cannot be logged in and turnaround time clock will not start until any ambiguities are resolved. By executing this document, the client has read and agrees to be bound by Sullivan County Labs terms and conditions found on www.SullivanCountyLabs.com. Public water systems are required to report results to the local Dept. of Health office. When necessary, we reserve the right to subcontract testing to accredited laboratories that are certified by the state from which the sample was taken. Circumstances might require us to send your sample to an affiliated lab, either due to instrument backlog, hold time limitations, or non-accreditation in a particular test. You are giving us permission to do so by signing this COC. The alternate lab will be shown on your ceritificate of results with its approved ELAP #. The test reports relate only to the samples as received. By signing, the customer confirms that they provided all information pertaining to the documented samples.

Technical Report

prepared for:

Sullivan County Labs
86 Queen Mountain Road
Ferndale NY, 12734
Attention: Jerry Berger

Report Date: 09/25/2023
Client Project ID: X53579-02/37779
York Project (SDG) No.: 23I0809

Report Date: 09/25/2023
Client Project ID: X53579-02/37779
York Project (SDG) No.: 23I0809

Sullivan County Labs
86 Queen Mountain Road
Ferndale NY, 12734
Attention: Jerry Berger

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on September 13, 2023 and listed below. The project was identified as your project: **X53579-02/37779**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Sample and Analysis Qualifiers section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the Sample and Data Qualifiers Relating to This Work Order section of this report and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

York Sample ID	Client Sample ID	Matrix	Date Collected	Date Received
23I0809-01	S000130569	Water	09/11/2023	09/13/2023
23I0809-02	S000130571	Water	09/11/2023	09/13/2023
23I0809-03	S000130572	Water	09/11/2023	09/13/2023
23I0809-04	S000130574	Water	09/11/2023	09/13/2023
23I0809-05	S000130576	Water	09/11/2023	09/13/2023
23I0809-06	S000130577	Water	09/11/2023	09/13/2023
23I0809-07	S000130578	Water	09/11/2023	09/13/2023
23I0809-08	S000165576	Water	09/11/2023	09/13/2023
23I0809-09	S000165699	Water	09/11/2023	09/13/2023

General Notes for York Project (SDG) No.: 23I0809

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All analyses conducted met method or Laboratory SOP requirements. See the Sample and Data Qualifiers Section for further information.
6. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
7. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.
8. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058.

Approved By: 

Date: 09/25/2023

Cassie L. Mosher
Laboratory Manager

Sample Information

Client Sample ID: S000130569 **York Sample ID:** 23I0809-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0809	X53579-02/37779	Water	September 11, 2023 8:20 am	09/13/2023

Sulfide

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
18496-25-8	Sulfide	ND		mg/L	1.0	1	SM 4500-S F	09/15/2023 11:15	09/18/2023 07:35	VR
							Certifications:	CTDOH-PH-0723,NJDEP-CT005,NELAC-NY10854,PADEP-68-044		

Sample Information

Client Sample ID: S000130571 **York Sample ID:** 23I0809-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0809	X53579-02/37779	Water	September 11, 2023 8:20 am	09/13/2023

PFAS by EPA 537 m

Log-in Notes:

Sample Notes:

Sample Prepared by Method: SPE Ext-PFAS-EPA 537.1M

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
335-67-1	*** Perfluorooctanoic acid (PFOA)**	**101**		ng/L	9.26	10	EPA 537m	09/18/2023 11:16	09/20/2023 13:50	ESJ
							Certifications:			
1763-23-1	*** Perfluorooctanesulfonic acid (PFOS)**	**39.1**	PF-CC V-L	ng/L	9.26	10	EPA 537m	09/18/2023 11:16	09/20/2023 13:50	ESJ
							Certifications:			

Surrogate Recoveries	Result	Acceptance Range
Surrogate: M3PFBS	*95.4 %*	*25-150*
Surrogate: M5PFHxA	*86.2 %*	*25-150*
Surrogate: M4PFHpA	*112 %*	*25-150*
Surrogate: M3PFHxS	*87.0 %*	*25-150*
Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)	*78.8 %*	*25-150*
Surrogate: M6PFDA	*93.9 %*	*25-150*
Surrogate: M7PFUdA	*81.3 %*	*25-150*
Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	*45.7 %*	*25-150*
Surrogate: M2PFTeDA	*29.1 %*	*10-150*
Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)	*83.0 %*	*25-150*
Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	*87.3 %*	*25-150*
Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	*133 %*	*25-150*
Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	*56.7 %*	*10-150*
Surrogate: d3-N-MeFOSAA	*71.2 %*	*25-150*

Sample Information

Client Sample ID: **S000130571** **York Sample ID:** **23I0809-02**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0809	X53579-02/37779	Water	September 11, 2023 8:20 am	09/13/2023

PFAS by EPA 537 m **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: SPE Ext-PFAS-EPA 537.1M

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Surrogate: d5-N-EtFOSAA	*67.6 %*		*25-150*						
	Surrogate: M2-6:2 FTS	*500 %*	PFSu-H	*25-200*						
	Surrogate: M2-8:2 FTS	*159 %*		*25-200*						
	Surrogate: M9PFNA	*81.8 %*		*25-150*						

Sample Information

Client Sample ID: **S000130572** **York Sample ID:** **23I0809-03**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0809	X53579-02/37779	Water	September 11, 2023 8:20 am	09/13/2023

Cyanide, Total **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
57-12-5	Cyanide, total	ND		mg/L	0.0100	1	SM 4500 CN C-2016 / E-201(	09/20/2023 08:31	09/20/2023 12:09	VR
							Certifications:	NELAC-NY10854,CTDOH-PH-0723,NJDEP-CT005,PADEP-68-044		

Sample Information

Client Sample ID: **S000130574** **York Sample ID:** **23I0809-04**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0809	X53579-02/37779	Water	September 11, 2023 8:20 am	09/13/2023

Hardness, total (as CaCO3) **Log-in Notes:** HT-04 **Sample Notes:**

Sample Prepared by Method: EPA 200.7

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Hardness, Total	**12200**		mg/L	11.1	10	SM 2340B-2011	09/21/2023 08:28	09/22/2023 13:42	CEG
							Certifications:	NELAC-NY10854,CTDOH-PH-0723,NJDEP-CT005		

Bromide **Log-in Notes:** HT-04 **Sample Notes:**

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst

Sample Information

Client Sample ID: S000130574 **York Sample ID:** 23I0809-04

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0809	X53579-02/37779	Water	September 11, 2023 8:20 am	09/13/2023

Bromide

Log-in Notes: HT-04 **Sample Notes:**

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
24959-67-9	**Bromide**	**226**		mg/L	2.00	10	EPA 300.0	09/21/2023 10:57	09/21/2023 10:57	VR
							Certifications:	NELAC-NY10854,NJDEP-CT005,PADEP-68-04440		

Chloride

Log-in Notes: HT-04 **Sample Notes:**

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
16887-00-6	**Chloride**	**14900**		mg/L	27.6	200	400	EPA 300.0	09/21/2023 12:28	09/21/2023 12:28	VR
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		

Sulfate as SO4

Log-in Notes: HT-04 **Sample Notes:**

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14808-79-8	**Sulfate**	**169**		mg/L	10.0	10	EPA 300.0	09/21/2023 10:57	09/21/2023 10:57	VR
							Certifications:	NELAC-NY10854,CTDOH-PH-0723,NJDEP-CT005,PADEP-68-04		

Color, Apparent

Log-in Notes: HT-04 **Sample Notes:**

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Color	**250**		Color Units (Pt-Co)	125	25	SM 2120B	09/13/2023 20:23	09/13/2023 20:23	AA
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		
	*** pH**	**6.28**		Color Units (Pt-Co)	0.500	1	SM 2120B	09/13/2023 20:23	09/13/2023 20:23	AA
							Certifications:			

Hexavalent Chromium

Log-in Notes: HT-04 **Sample Notes:**

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
18540-29-9	Chromium, Hexavalent	ND	HT-02	mg/L	0.0100	1	SM 3500-Cr B	09/13/2023 18:33	09/13/2023 23:19	SMK
							Certifications:	NELAC-NY10854,NJDEP-CT005,CTDOH-PH-0723,PADEP-68-044		

Sample Information

Client Sample ID: S000130576 **York Sample ID:** 23I0809-05

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0809	X53579-02/37779	Water	September 11, 2023 8:20 am	09/13/2023

Analyzed by: Phoenix Environmental Labs, Inc.

Sample Information

Client Sample ID: S000130576 **York Sample ID:** 23I0809-05

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0809	X53579-02/37779	Water	September 11, 2023 8:20 am	09/13/2023

Analyzed by: Phoenix Environmental Labs, Inc.

SM5310B-14 **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: SM5310B-14

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
PHNX - TOC	**Total Organic Carbon**	**10.9**		mg/L	1.0	1.0	1	SM5310B-14	09/23/2023 13:47	09/23/2023 13:47	CT007
								Certifications:			

Sample Information

Client Sample ID: S000130577 **York Sample ID:** 23I0809-06

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0809	X53579-02/37779	Water	September 11, 2023 8:20 am	09/13/2023

Volatile Organics, NYSDEC Part 360 Expanded List **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	2.5	5.0	1	EPA 8260C	09/18/2023 09:00	09/18/2023 17:02	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12		
71-55-6	1,1,1-Trichloroethane	ND		ug/L	2.5	5.0	1	EPA 8260C	09/18/2023 09:00	09/18/2023 17:02	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12		
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	2.5	5.0	1	EPA 8260C	09/18/2023 09:00	09/18/2023 17:02	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12		
79-00-5	1,1,2-Trichloroethane	ND		ug/L	2.5	5.0	1	EPA 8260C	09/18/2023 09:00	09/18/2023 17:02	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12		
75-34-3	1,1-Dichloroethane	ND		ug/L	2.5	5.0	1	EPA 8260C	09/18/2023 09:00	09/18/2023 17:02	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12		
75-35-4	1,1-Dichloroethylene	ND		ug/L	2.5	5.0	1	EPA 8260C	09/18/2023 09:00	09/18/2023 17:02	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12		
563-58-6	1,1-Dichloropropylene	ND		ug/L	2.5	5.0	1	EPA 8260C	09/18/2023 09:00	09/18/2023 17:02	SMA
								Certifications:	NELAC-NY10854,NJDEP-CT005,NELAC-NY12058		
96-18-4	1,2,3-Trichloropropane	ND		ug/L	2.5	5.0	1	EPA 8260C	09/18/2023 09:00	09/18/2023 17:02	SMA
								Certifications:	NELAC-NY10854,NJDEP-CT005,NELAC-NY12058,PADEP-68-04		
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	2.5	5.0	1	EPA 8260C	09/18/2023 09:00	09/18/2023 17:02	SMA
								Certifications:	NELAC-NY10854,NJDEP-CT005,NELAC-NY12058,PADEP-68-04		
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	2.5	5.0	1	EPA 8260C	09/18/2023 09:00	09/18/2023 17:02	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12		

Sample Information

Client Sample ID: S000130577 **York Sample ID:** 23I0809-06

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0809	X53579-02/37779	Water	September 11, 2023 8:20 am	09/13/2023

Volatile Organics, NYSDEC Part 360 Expanded List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
106-93-4	1,2-Dibromoethane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12	09/18/2023 17:02	SMA
95-50-1	1,2-Dichlorobenzene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12	09/18/2023 17:02	SMA
107-06-2	1,2-Dichloroethane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12	09/18/2023 17:02	SMA
78-87-5	1,2-Dichloropropane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12	09/18/2023 17:02	SMA
541-73-1	1,3-Dichlorobenzene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12	09/18/2023 17:02	SMA
142-28-9	1,3-Dichloropropane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00 NELAC-NY10854,NJDEP-CT005,NELAC-NY12058,PADEP-68-04	09/18/2023 17:02	SMA
106-46-7	1,4-Dichlorobenzene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12	09/18/2023 17:02	SMA
594-20-7	2,2-Dichloropropane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00 NELAC-NY10854,NJDEP-CT005,NELAC-NY12058,PADEP-68-04	09/18/2023 17:02	SMA
78-93-3	2-Butanone	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12	09/18/2023 17:02	SMA
591-78-6	2-Hexanone	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12	09/18/2023 17:02	SMA
108-10-1	4-Methyl-2-pentanone	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12	09/18/2023 17:02	SMA
67-64-1	Acetone	ND		ug/L	5.0	10	1	EPA 8260C Certifications:	09/18/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12	09/18/2023 17:02	SMA
107-02-8	Acrolein	ND		ug/L	5.0	10	1	EPA 8260C Certifications:	09/18/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12	09/18/2023 17:02	SMA
107-13-1	Acrylonitrile	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12	09/18/2023 17:02	SMA
71-43-2	Benzene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12	09/18/2023 17:02	SMA
74-97-5	Bromochloromethane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00 NELAC-NY10854,NJDEP-CT005,NELAC-NY12058,PADEP-68-04	09/18/2023 17:02	SMA
75-27-4	Bromodichloromethane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12	09/18/2023 17:02	SMA
75-25-2	Bromoform	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12	09/18/2023 17:02	SMA
74-83-9	Bromomethane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12	09/18/2023 17:02	SMA

Sample Information

Client Sample ID: S000130577 **York Sample ID:** 23I0809-06

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0809	X53579-02/37779	Water	September 11, 2023 8:20 am	09/13/2023

Volatile Organics, NYSDEC Part 360 Expanded List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-15-0	Carbon disulfide	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:02	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
56-23-5	Carbon tetrachloride	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:02	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
108-90-7	Chlorobenzene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:02	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
75-00-3	Chloroethane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:02	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
67-66-3	Chloroform	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:02	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
74-87-3	Chloromethane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:02	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:02	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:02	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
124-48-1	Dibromochloromethane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:02	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
74-95-3	Dibromomethane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:02	SMA NELAC-NY10854,NJDEP-CT005,NELAC-NY12058,PADEP-68-04
75-71-8	Dichlorodifluoromethane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:02	SMA NELAC-NY10854,NJDEP-CT005,NELAC-NY12058,PADEP-68-04
100-41-4	Ethyl Benzene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:02	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
87-68-3	Hexachlorobutadiene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:02	SMA NELAC-NY10854,NJDEP-CT005,NELAC-NY12058,PADEP-68-04
74-88-4	* Iodomethane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:02	SMA
80-62-6	Methyl Methacrylate	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:02	SMA NELAC-NY10854,NJDEP-CT005,NELAC-NY12058
108-87-2	Methylcyclohexane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:02	SMA NELAC-NY10854,NJDEP-CT005,NELAC-NY12058,PADEP-68-04
75-09-2	Methylene chloride	ND		ug/L	2.5	10	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:02	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
91-20-3	Naphthalene	ND		ug/L	2.5	10	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:02	SMA NELAC-NY10854,NJDEP-CT005,NELAC-NY12058,PADEP-68-04
95-47-6	o-Xylene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:02	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,PADEP-68

Sample Information

Client Sample ID: S000130577 **York Sample ID:** 23I0809-06

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0809	X53579-02/37779	Water	September 11, 2023 8:20 am	09/13/2023

Volatile Organics, NYSDEC Part 360 Expanded List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
179601-23-1	p- & m- Xylenes	ND		ug/L	5.0	10	1	EPA 8260C Certifications:	09/18/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,PADEP-68-	09/18/2023 17:02	SMA
100-42-5	Styrene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12	09/18/2023 17:02	SMA
127-18-4	Tetrachloroethylene	ND	QL-02	ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12	09/18/2023 17:02	SMA
108-88-3	Toluene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12	09/18/2023 17:02	SMA
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12	09/18/2023 17:02	SMA
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12	09/18/2023 17:02	SMA
110-57-6	trans-1,4-dichloro-2-butene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00 NELAC-NY10854,NJDEP-CT005,NELAC-NY12058,PADEP-68-04	09/18/2023 17:02	SMA
79-01-6	Trichloroethylene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12	09/18/2023 17:02	SMA
75-69-4	Trichlorofluoromethane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12	09/18/2023 17:02	SMA
75-01-4	Vinyl Chloride	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12	09/18/2023 17:02	SMA
1330-20-7	Xylenes, Total	ND		ug/L	7.5	15	1	EPA 8260C Certifications:	09/18/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12	09/18/2023 17:02	SMA

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*104 %*	*65-135*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*100 %*	*86-118*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*99.6 %*	*81-114*

Volatile Organics, Tentatively Identified Cmpds.

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Tentatively Identified Compounds	0.0		ug/L			1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:02	SMA

Sample Information

Client Sample ID: **S000130578** **York Sample ID:** **23I0809-07**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0809	X53579-02/37779	Water	September 11, 2023 8:20 am	09/13/2023

Metals, Target Analyte, ICP

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7429-90-5	**Aluminum**	**0.216**		mg/L	0.0556	1	EPA 6010D	09/20/2023 08:56	09/21/2023 14:11	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		
7440-39-3	**Barium**	**2.79**		mg/L	0.0278	1	EPA 6010D	09/20/2023 08:56	09/21/2023 14:11	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		
7440-70-2	**Calcium**	**4200**		mg/L	0.556	10	EPA 6010D	09/20/2023 08:56	09/21/2023 18:32	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		
7440-47-3	**Chromium**	**0.00936**		mg/L	0.00556	1	EPA 6010D	09/20/2023 08:56	09/21/2023 14:11	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		
7440-48-4	Cobalt	ND		mg/L	0.00444	1	EPA 6010D	09/20/2023 08:56	09/21/2023 14:11	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-044		
7440-50-8	Copper	ND		mg/L	0.0222	1	EPA 6010D	09/20/2023 08:56	09/21/2023 14:11	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-044		
7439-89-6	**Iron**	**11.7**		mg/L	0.278	1	EPA 6010D	09/20/2023 08:56	09/21/2023 14:11	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		
7439-92-1	Lead	ND		mg/L	0.00556	1	EPA 6010D	09/20/2023 08:56	09/21/2023 14:11	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-044		
7439-95-4	**Magnesium**	**79.8**		mg/L	0.0556	1	EPA 6010D	09/20/2023 08:56	09/21/2023 14:11	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		
7439-96-5	**Manganese**	**16.3**		mg/L	0.00556	1	EPA 6010D	09/20/2023 08:56	09/21/2023 14:11	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		
7440-02-0	Nickel	ND		mg/L	0.0111	1	EPA 6010D	09/20/2023 08:56	09/21/2023 14:11	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-044		
7440-09-7	**Potassium**	**1430**	B	mg/L	0.556	10	EPA 6010D	09/20/2023 08:56	09/21/2023 18:32	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		
7440-22-4	**Silver**	**0.0414**		mg/L	0.00556	1	EPA 6010D	09/20/2023 08:56	09/21/2023 14:11	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		
7440-23-5	**Sodium**	**4120**		mg/L	5.56	10	EPA 6010D	09/20/2023 08:56	09/21/2023 18:32	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		
7440-62-2	Vanadium	ND		mg/L	0.0111	1	EPA 6010D	09/20/2023 08:56	09/21/2023 14:11	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-044		
7440-66-6	Zinc	ND		mg/L	0.0278	1	EPA 6010D	09/20/2023 08:56	09/21/2023 14:11	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-044		

Metals, Target Analyte, ICPMS

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-36-0	**Antimony**	**3.40**	M-CCV 1	ug/L	1.11	1	EPA 6020B	09/19/2023 16:11	09/20/2023 17:20	cw
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		

Sample Information

Client Sample ID: **S000130578** **York Sample ID:** **23I0809-07**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0809	X53579-02/37779	Water	September 11, 2023 8:20 am	09/13/2023

Metals, Target Analyte, ICPMS

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	**Arsenic**	**2.47**		ug/L	1.11	1	EPA 6020B	09/19/2023 16:11	09/20/2023 17:20	cw
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		
7440-41-7	Beryllium	ND	M-CCV 1	ug/L	0.333	1	EPA 6020B	09/19/2023 16:11	09/20/2023 17:20	cw
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-044		
7440-43-9	Cadmium	ND	M-CCV 1	ug/L	0.556	1	EPA 6020B	09/19/2023 16:11	09/20/2023 17:20	cw
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-044		
7782-49-2	Selenium	ND	M-CCV 1	ug/L	1.11	1	EPA 6020B	09/19/2023 16:11	09/20/2023 17:20	cw
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-044		
7440-28-0	Thallium	ND	M-CCV 1	ug/L	1.11	1	EPA 6020B	09/19/2023 16:11	09/20/2023 17:20	cw
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-044		

Mercury by 7470/7471

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA SW846-7470A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		mg/L	0.0002	1	EPA 7470	09/21/2023 07:34	09/21/2023 07:34	PFA
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-044		

Sample Information

Client Sample ID: **S000165576** **York Sample ID:** **23I0809-08**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0809	X53579-02/37779	Water	September 11, 2023 8:20 am	09/13/2023

Semi-Volatiles, 1,4-Dioxane 8270 SIM-Aqueous

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3535A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
123-91-1	**1,4-Dioxane**	**10.3**		ug/L	0.300	1	EPA 8270D SIM	09/18/2023 08:43	09/19/2023 16:36	KH
							Certifications:	NJDEP-CT005,NELAC-NY10854		

	Surrogate Recoveries	Result	Acceptance Range
17647-74-4	*Surrogate: 1,4-Dioxane-d8*	*92.6 %*	*36.6-118*

Sample Information

Client Sample ID: **S000165699** **York Sample ID:** **23I0809-09**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0809	X53579-02/37779	Water	September 11, 2023 8:20 am	09/13/2023

Phenols, total

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
64743-03-9	Phenols, total	ND		mg/L	0.0500	1	EPA 420.1/2	09/18/2023 14:34	09/20/2023 06:50	VR
							Certifications:	NELAC-NY10854,CTDOH-PH-0723,NJDEP-CT005,PADEP-68-044		

Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
23I0809-06	S000130577	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C

Sample and Data Qualifiers Relating to This Work Order

QR-01	Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit. QC batch accepted based on LCS and/or LCSD QC results.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QL-02	This LCS analyte is outside Laboratory Recovery limits due the analyte behavior using the referenced method. The reference method has certain limitations with respect to analytes of this nature.
PFSu-H	The isotopically labeled surrogate recovered above lab control limits due to a matrix effect. Isotope Dilution was applied.
PF-CCV-L	The CCV recovery was slightly below acceptable limits for the qualified compound. However, sample results are not biased low because results are corrected for isotope recovery.
M-CCV1	The recovery for this element in the Continuing Calibration Verification (CCV) exceeded 110% of the expected value. Positive detections may be biased high.
HT-04	NON-COMPLIANT- Client requested analysis be conducted outside of holding times.
HT-02	NON-COMPLIANT-This sample was received outside the EPA recommended holding time.
B	Analyte is found in the associated analysis batch blank. For volatiles, methylene chloride and acetone are common lab contaminants.

Definitions and Other Explanations

*	Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.
ND	NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)
RL	REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
LOQ	LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence. This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon current NELAC/TNI Standards and applies to all analyses.
LOD	LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.
MDL	METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.
Reported to	This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.
NR	Not reported
RPD	Relative Percent Difference
Wet	The data has been reported on an as-received (wet weight) basis
Low Bias	Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
High Bias	High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
Non-Dir.	Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.

For analyses by EPA SW-846-8270D, the Limit of Quantitation (LOQ) reported for benzidine is based upon the lowest standard used for calibration and is not a verified LOQ due to this compound's propensity for oxidative losses during extraction/concentration procedures and non-reproducible chromatographic performance.

YORK ANALYTICAL LABORATORIES INC

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

ALL SHADED AREAS are for LAB USE ONLY

Company: **AG ENVIRONMENTAL, RSC, LLC. Sullivan County Labs**	Billing Information:
Address: **86 Queen Mountain Road, Ferndale**	
Report To:	Email To: **results@sullivancountylabs.com**
Copy To:	Site Collection Info/Address: **281 Phelps Lane**
Customer Project Name/Number: **X53579-02 / 37779**	State: County/City: Time Zone Collected: **New York / Sullivan** [ ]PT [ ]MT [ ]CT [ ]ET
Phone: **845.704.8151** Email: **info@sullivancountylabs.com**	Site/Facility ID #: / Compliance Monitoring? [ ] Yes [ ] No
Collected By (print):	Purchase Order # : Quote #: / DW PWS ID #: DW Location Code:
Collected By (signature):	Turnaround Date Required: / Immediately Packed on Ice: [ ] Yes [ ] No
Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: _____ [ ] Hold: _____	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply) / Field Filtered (if applicable): [ ] Yes [ ] No Analysis: _____

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Container Preservative Type **

54	U	4	U	3	3	1	U	2		

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other _____

Lab Project Manager:

23I0809

Analyses

Customer Sample ID	Matrix *	Comp/ Grab	Collected (or Composite Start) Date	Time	Sample Location	Sulfide by SM 4500-S2 D Method	PFAS/PFOS by Method 537m	Cyanide by EPA Method 4500 CN C-2016	Hardness,300,Color,cr+6 By Various Methods	Total Organic Carbon by SM22 5310B	Volatile Organic Compounds w/ Top 10 identified compounds (TICs) by EPA 8260 Method	TAL/TCL Metals List by EPA 200.7/200.8 method	1,4 Dioxane by Method 8270D SIM	Total Phenolics by EPA 420.1 Method				
S000130569	SW	G	09/11	08:20am	ONU SLCRS	X												
S000130571	SW	G	09/11	08:20am	ONU SLCRS		X											
S000130572	SW	G	09/11	08:20am	ONU SLCRS			X										
S000130574	SW	G	09/11	08:20am	ONU SLCRS				X									
S000130576	SW	G	09/11	08:20am	ONU SLCRS					X								
S000130577	SW	G	09/11	08:20am	ONU SLCRS						X							
S000130578	SW	G	09/11	08:20am	ONU SLCRS							X						
S000165576	SW	G	09/11	08:20am	ONU SLCRS								X					
S000165699	SW	G	09/11	08:20am	ONU SLCRS									X				

Lab Profile / Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y	N	NA
Custody Signatures Present	Y	N	NA
Collector Signature Present	Y	N	NA
Bottles Intact	Y	N	NA
Correct Bottles	Y	N	NA
Sufficient Volume	Y	N	NA
Samples Received on Ice	Y	N	NA
VOA - Headspace Acceptable	Y	N	NA
USDA Regulated Soils	Y	N	NA
Samples in Holding Time	Y	N	NA
Residual Chlorine Present	Y	N	NA
CL Strips: _____			
Sample pH Acceptable	Y	N	NA
pH Strips: _____			
Sulfide Present	Y	N	NA
Lead Acetate Strips: _____			

LAB USE ONLY:

Lab Sample # / Comments:

Plastic/1000/NAOH/Zn Acetate
Plastic/250 x2 /Unpreserved
Plastic/250/Sodium Hydroxide
Plastic/1000/Unpreserved
Glass Vial with Teflon Top/2x40 ml Vials/Hydrochloric Acid
Glass Vial with Teflon Top/40x2/Hydrochloric Acid
Plastic/250/Nitric Acid
Glass-tinted/500/Unpreserved
Glass-tinted/1000/Sulfuric Acid

Customer Remarks / Special Conditions / Possible Hazards:

- Sulfide Lower Limit of det. < 1.0 mg/L
- Hardness,300,Color,cr+6 (not included NO2/NO3)
- TAL List Metals.: Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Cobalt, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium

Type of Ice Used: Wet Blue Dry None

Packing Material Used:

Radchem samples(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #:

Samples received via: FEDEX UPS Client Courier Other

LAB Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#: _____
Cooler 1 Temp Upon Receipt: ___oC
Cooler 1 Therm Corr. Factor: ___oC
Cooler 2 Corrected Temp: ___oC
Comments:
Code:754.20

5.4

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time: 9/13 1000	MTJL LAB USE ONLY Table #:
Relinquished by/Company: (Signature)	Date/Time: 9/13 2:50	Received by/Company: (Signature)	Date/Time: 9/13/23 1450	Acctnum: Template: Prelogin: PM: PB:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	

Trip Blanck Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO

Page: 1 of: 1

AG Environmental
RSC LLC

To Whom it May Concern,

There were no field notes given on the samples brought in for Town of Babylon ONU SLCRS. Cr+6 was ran out of holding time. Both PFOS and PFOA were above the MCL of 10 ng/L. Barium was over the 2,000 MCL and Dioxane was over the 1.0 MCL.

Signed,

Krista Chilson

Quality Assurance Officer

845-704-8151 (x413)

845-747-9759
www.agerny.com
86 Queen Mountain Rd
Ferndale NY 12734
info@agerny.com

AG Environmental
RSC LLC

To Whom it May Concern,

The QC Data for Town of Babylon ONU SLCRS is attached. The following comment was made for cadmium, selenium, thallium, antimony, and beryllium. “The recovery for this element in the Continuing Calibration Verification (CCV) exceeded 110% of the expected value. Positive detections may be biased high.” Potassium also had the following comment “Analyte is found in the associated analysis batch blank. For volatiles, methylene chloride and acetone are common lab contaminants.” The following comment was made for tetrachloroethylene “This LCS analyte is outside Laboratory Recovery limits due the analyte behavior using the referenced method. The reference method has certain limitations with respect to analytes of this nature.”

Krista Chilson

Quality Assurance Officer

845-704-8151 (x413)

AG Environmental
RSC LLC

To Whom it May Concern,

There were no field notes given on the samples brought in for Town of Babylon SA SLCRS. Cr+6 was ran out of holding time. PFAS, antimony, arsenic, and dioxane all came back over their respective MCLs.

Signed,

Krista Chilson

Quality Assurance Officer

845-704-8151 (x413)

AG Environmental
RSC LLC

To Whom it May Concern,

The QC Data for Town of Babylon SA SLCRS is attached. The following comment was made for cadmium, thallium, beryllium, potassium, zinc, antimony, and selenium. “The recovery for this element in the Continuing Calibration Verification (CCV) exceeded 110% of the expected value. Positive detections may be biased high.” Tetrachloroethylene had the following comment “This LCS analyte is outside Laboratory Recovery limits due the analyte behavior using the referenced method. The reference method has certain limitations with respect to analytes of this nature.”

Signed,

Krista Chilson - Quality Assurance Officer

845-747-9759
www.agerny.com
86 Queen Mountain Rd
Ferndale NY 12734
info@agerny.com

AG ENVIRONMENTAL RSC, LLC

LABORATORY CERTIFICATE OF RESULTS

NYSDOH ELAP # 12081
PA DEP # 68-05705
FLORIDA (Legionella) # E871152

86 Queen Mountain Road, Ferndale, New York, 12734 / Phone: 845.704.8151 / Fax: 845.414.0051

Original Report #: 42481
LCR Issue Date: 10/12/2023

Bill-to Customer Information (C53579)		**Water Source Location X53579-02**	
Customer Name:	Town of Babylon	**Source Name:**	Town of Babylon - Landfill
Address:	200 E. Sunrsie Highway	**Address:**	281 Phelps Lane
Town:	LINDENHURST **State:** NY **Zip:** 11757	**Town:**	North Babylon **State:** NY **Zip:** 11703
Phone:	631-957-3025	**PWSID/SPDES:**	N/A
Email:	klynch@townofbabylon.com	**Contact Name:**	
Fax:		**Phone:**	631-957-3025

Sample(s) delivered on 09/12/2023 **at** 10:00 AM **From COC#:** 37777

Sample#	MTX	Sample Point	Sampled Date & Time	Temp	Pres. Y/N/T	Res Cl	Int	Anal/Prep Date & Time	Analyte/Test Method	Comment (see table)	Results	MCL/SMCL (Limits)
S000115203	SW-G	SA SLCRS	09/11/2023 09:30 AM	11.9°C	N		BN	09/17/2023 01:29 PM	Alkalinity by Analytical Method: SM22 2320B	AL---900029	Alkalinity : 112 mg/l	
S000130591	SW-G	SA SLCRS	09/11/2023 09:30 AM	11.9°C	N		BN	09/12/2023 03:50 PM	BOD 5-Day SM 5210B Method	N BOD-00313	BOD, 5 day : 24.2 mg/L	
S000130596	SW-G	SA SLCRS	09/11/2023 09:30 AM	11.9°C	Y		BN	09/15/2023 11:15 AM	Sulfide by SM 4500-S2 D Method	Y 23I0815-04/	Sulfide : <1.0 mg/L	<= 1.0 mg/L for UV Kit
S000130593	SW-G	SA SLCRS	09/11/2023 09:30 AM	11.9°C	N		BN	09/12/2023 03:42 PM	Total Dissolved Solids by SM22 2540C Method	TDS-00192	Total Dissolved Solids : 24390 mg/L	
S000130600	SW-G	SA SLCRS	09/11/2023 09:30 AM	11.9°C	N		BN	09/12/2023 02:38 PM	Nitrite as (N) by Method SM22 4500-NO2-B	N I-00088	Nitrite as (N) : 1.953 mg/L	
S000130592	SW-G	SA SLCRS	09/11/2023 09:30 AM	11.9°C	Y		BN	09/20/2023 08:31 AM	Cyanide by EPA Method 4500 CN C-2016	Y 23I0815-01/	Cyanide : <10.0 ug/L	200 ug/L
S000130594	SW-G	SA SLCRS	09/11/2023 09:30 AM	11.9°C	N		BN	09/18/2023 11:16 AM	PFAS/PFOS by Method 537m	Y 23I0815-02/	Perfluorooctanesulfonic Acid : 76.3 ng/L **HIGH** Perfluorooctanoic Acid : 123 ng/L **HIGH**	10 ng/L 10 ng/L
S000130602	SW-G	SA SLCRS	09/11/2023 09:30 AM	11.9°C	Y		BN	09/12/2023 02:21 PM	COD,NH3,NO3, TKN by Various Methods	N COD-00050B	COD : 308 mg/L NH3 : 6.085 mg/L Nitrate : 3.816 mg/L TKN : 33.1 mg/L	
S000165614	SW-G	SA SLCRS	09/11/2023 09:30 AM	11.9°C	N		BN	09/18/2023 08:43 AM	1,4 Dioxane by Method 8270D SIM	Y 23I0815-08/	1,4 Dioxane : 1.33 ug/L	1.0 ug/L
S000165731	SW-G	SA SLCRS	09/11/2023 09:30 AM	11.9°C	Y		BN	09/18/2023 02:34 PM	Total Phenolics by EPA 420.1 Method	Y 23I0815-09/	Total Phenolics : <0.0500 mg/L	
S000130601	SW-G	SA SLCRS	09/11/2023 09:30 AM	11.9°C	Y		BN	09/20/2023 11:15 AM	TAL/TCL Metals List by EPA 200.7/200.8 method	Y 23I0815-07/	See attached : See Attached	
S000130597	SW-G	SA SLCRS	09/11/2023 09:30 AM	11.9°C	Y		BN	09/18/2023 09:00 AM	Volatile Organic Compounds w/ Top 10 identified compounds (TICs) by EPA 8260 Method	Y 23I0815-05/	See attached : See Attached	See Attached
S000130598	SW-G	SA SLCRS	09/11/2023 09:30 AM	11.9°C	Y		BN	09/23/2023 01:31 PM	Total Organic Carbon by SM22 5310B	Y 23I0815-06/	TOC : 14.6 mg/L	

Sample#	MTX	Sample Point	Sampled Date & Time	Temp	Pres. Y/N/T	Res Cl	Int	Anal/Prep Date & Time	Analyte/Test Method	Comment (see table)	Results	MCL/SMCL (Limits)
S000130595	SW-G	SA SLCRS	09/11/2023 09:30 AM	11.9°C	N		BN	09/13/2023 06:33 PM	Hardness,300,Color,cr+6 By Various Methods	Y 23I0815-03/	Bromide : 154 mg/L Chloride : 13700 mg/L Sulfate : 764 mg/L Color : 250 color units Hexavalent Chromium : <0.0100 mg/L Hardness : 11500 mg/L	
S000165117	SW-G	SA SLCRS	09/11/2023 09:30 AM	11.9°C	Y		BN	09/12/2023 03:16 PM	Nitrate-Nitrite as (N) by Systea (1-Reagent) Method	N B90222	Nitrate-Nitrite (as N) : 3.467 mg/L	

Comment Table: Y - Sample ran at York Laboratories ELAP #10854 & ELAP #12058 | N - No Comment |
Remarks:

Authorized By:

Krista Chilson
Quality Assurance

Sullivan County Labs

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page :	1	Of	1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Town of Babylon	Report To:	Joe Guarino	Attention:	
Address:	281 Phelps Lane	Copy To:		Company Name:	
	North Babylon, NY 11703			Address:	
Email:	Jguarino@TownofBabylon.com	Purchase Order #:		Quote:	
Phone:	631-422-7640 Fax	Project Name:	Leachates Part 360 Baseline Parameters	Project Manager:	
Requested Due Date:		Project #:		Profile #:	

Regulatory Agency	State / Location
	NY

SAMPLE ID: One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH	NaOH & Zinc Acetate	Methanol	Other
1	NNU PLCRS	WT	G	9/11/2023	840		18	X	X	X	X	X	X		
2	~~NNU SLCRS~~ NO SAMPLE / Pump Broken	~~WT~~	~~G~~	~~9/11/2023~~	NA		~~18~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~		
3	ONU SLCRS	WT	G	9/11/2023	820		18	X	X	X	X	X	X		
4	SA SLCRS	WT	G	9/11/2023	930		18	X	X	X	X	X	X		
5	MS / MSD (ONU SLCRS)	WT	G	9/11/2023	820		18	X	X	X	X	X	X		
6	Trip Blank	DI	LAB	9/11/2023	LAB		3				X				
7															
8															
9															
10															
11															
12															

Analyses Test — Number of Bottles per Analysis

ITEM #	8260 VOCs + TICs	Metals / Mercury	Hardness, 300.0, NO2 / NO3	NO2	COD,NH3,NO3,TKN	TOC	Cyanide	Sulfide	1,4 Dioxane	PFAs by 537	BOD	TDS	Alkalinity	Phenols			Residual Chlorine (Y/N)	
(bottles)	3	1	1	1	1	2	1	1	1	2	1	1	1	1				
1	3	1	1	1	1	2	1	1	1	2	1	1	1	1				
2	~~3~~	~~1~~	~~1~~	~~1~~	~~1~~	~~2~~	~~1~~	~~1~~	~~1~~	~~2~~	~~1~~	~~1~~	~~1~~	~~1~~				→ Pump Broken
3	3	1	1	1	1	2	1	1	1	2	1	1	1	1				
4	3	1	1	1	1	2	1	1	1	2	1	1	1	1				
5	3	1	1	1	1	2	1	1	1	2	1	1	1	1				
6	3																	
7																		
8–12 (bottle types)	3 - 40mL vials HCL	1 - 250 mL HNO3	1 - 1 Liter Unpre. Plastic	1 - 1 Liter Unpre. Plastic	1 - 250 Amber Glass w/H2SO4	2 - 40 mL vials w/HCL	1 - 250 mL Plastic w/NaOH	1 Ltr Plas. NaOH & Zinc Acetat	1 - 500 mL Amber Unpreserve	2 - 250 mL Plastic Unpreserve	1 - 1 Liter Plastic Unpreserved	1 - 1 Liter Plastic Unpreserved	1 - 500 mL Plastic Unpreserve	1 - 1 Liter Amber w/H2SO4				

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Leachates / Part 360 Baseline Parameters	Brian Nichols / Zion Environmental, LLC	9-12-23								
							TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Brian Nichols

SIGNATURE of SAMPLER: [signature] DATE Signed: 9-12-2023

[signature] 9/12/2023

(AG ENVIRONMENTAL, RSC, LLC.
Sullivan County Labs)
Water sample submission form

New York State Chain-of-Custody
NON-POTABLE

NYSDOH ELAP # 12081
PA DEP # 68-05705
FLORIDA (Legionella) # E871152

86 Queen Mountain Road, Ferndale, New York, 12734 / Phone: 845.704.8151 / Fax: 845.414.0051

COC#: 37777
CRN:

Bill-to Customer Information: (C53579)		**Well/System Location Information (X53579-02)**	
Customer Name:	Town of Babylon	**Name**	Town of Babylon - Landfill
Address:	200 E. Sunrsie Highway	**Address:**	281 Phelps Lane
Town:	LINDENHURST **State:** NY **Zip:** 11757	**Town:**	North Babylon **State:** NY **Zip:** 11703
Phone:	[P]: / [EP]: 631-957-3025	**SPEDES:**	N/A
Email:	klynch@townofbabylon.com	**Contact Name:**	
Fax:		**Phone:**	631-957-3025

Notes:

10 CRR-NY 5-1.74 of the NY State Code requires the owner of a public water system shall ensure the approved environmental laboratory performing the analyses sends laboratory results to the Dept. of Health in a manner prescribed by them. Initial here _____ if you want us to forward your results to the Dept. of Health. *Note: It is your responsibility to verify that they receive it.*

Customer Sample Collection Data

Bottle Sample#	C/G	Sample Point	Date Sampled	Intl	Prsv	Ver pH	On Ice	Test ELAP/EPA Method	Comments/Sample Temp
S000115203	G	SA SLCRS	09/11/2023 09:30 AM	BN	UNP		YES	Alkalinity by Analytical Method: SM22 2320B	/ 11.9°C
S000130591	G	SA SLCRS	09/11/2023 09:30 AM	BN	UNP		YES	BOD 5-Day SM 5210B Method	/ 11.9°C
S000130596	G	SA SLCRS	09/11/2023 09:30 AM	BN	NAOH/ZnAcetate	S	YES	Sulfide by SM 4500-S2 D Method	/ 11.9°C
S000130593	G	SA SLCRS	09/11/2023 09:30 AM	BN	UNP		YES	Total Dissolved Solids by SM22 2540C Method	/ 11.9°C
S000130600	G	SA SLCRS	09/11/2023 09:30 AM	BN	UNP		YES	Nitrite as (N) by Method SM22 4500-NO2-B	/ 11.9°C
S000130592	G	SA SLCRS	09/11/2023 09:30 AM	BN	NaOH	S	YES	Cyanide by EPA Method 4500 CN C-2016	/ 11.9°C
S000130594	G	SA SLCRS	09/11/2023 09:30 AM	BN	UNP	S	YES	PFAS/PFOS by Method 537m	/ 11.9°C
S000130602	G	SA SLCRS	09/11/2023 09:30 AM	BN	H2SO4		YES	COD,NH3,NO3, TKN by Various Methods	/ 11.9°C

Customer Sample Collection Data

Bottle Sample#	C/G	Sample Point	Date Sampled	Intl	Prsv	Ver pH	On Ice	Test ELAP/EPA Method	Comments/Sample Temp
S000165614	G	SA SLCRS	09/11/2023 09:30 AM	BN	UNP	S	YES	1,4 Dioxane by Method 8270D SIM	/ 11.9°C
S000165731	G	SA SLCRS	09/11/2023 09:30 AM	BN	H2SO4	S	YES	Total Phenolics by EPA 420.1 Method	/ 11.9°C
S000130601	G	SA SLCRS	09/11/2023 09:30 AM	BN	HNO3	S	YES	TAL/TCL Metals List by EPA 200.7/200.8 method	/ 11.9°C
S000130597	G	SA SLCRS	09/11/2023 09:30 AM	BN	HCL	S	YES	Volatile Organic Compounds w/ Top 10 identified compounds (TICs) by EPA 8260 Method	/ 11.9°C
S000130598	G	SA SLCRS	09/11/2023 09:30 AM	BN	HCL	S	YES	Total Organic Carbon by SM22 5310B	/ 11.9°C
S000130595	G	SA SLCRS	09/11/2023 09:30 AM	BN	UNP	S	YES	Hardness,300,Color,cr+6 By Various Methods	/ 11.9°C
S000165117	G	SA SLCRS	09/11/2023 09:30 AM	BN	H2SO4		YES	Nitrate-Nitrite as (N) by Systea (1-Reagent) Method	/ 11.9°C

Relinquished By*:	SIGN HERE	Relinquished To:		Received Date	09/12/2023	Received Time	10:00AM
Relinquished By*:		Relinquished To:		Received Date		Received Time	

*By signing, customer acknowledges that some samples may be sent to a sister (certified) LAB for analysis. Samples cannot be logged in and turnaround time clock will not start until any ambiguities are resolved. By executing this document, the client has read and agrees to be bound by Sullivan County Labs terms and conditions found on www.SullivanCountyLabs.com. Public water systems are required to report results to the local Dept. of Health office. When necessary, we reserve the right to subcontract testing to accredited laboratories that are certified by the state from which the sample was taken. Circumstances might require us to send your sample to an affiliated lab, either due to instrument backlog, hold time limitations, or non-accreditation in a particular test. You are giving us permission to do so by signing this COC. The alternate lab will be shown on your ceritificate of results with its approved ELAP #. The test reports relate only to the samples as received. By signing, the customer confirms that they provided all information pertaining to the documented samples.

Technical Report

prepared for:

Sullivan County Labs
86 Queen Mountain Road
Ferndale NY, 12734
Attention: Jerry Berger

Report Date: 09/25/2023
Client Project ID: X53579-02/37777
York Project (SDG) No.: 23I0815

Report Date: 09/25/2023
Client Project ID: X53579-02/37777
York Project (SDG) No.: 23I0815

Sullivan County Labs
86 Queen Mountain Road
Ferndale NY, 12734
Attention: Jerry Berger

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on September 13, 2023 and listed below. The project was identified as your project: **X53579-02/37777**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Sample and Analysis Qualifiers section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the Sample and Data Qualifiers Relating to This Work Order section of this report and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

York Sample ID	Client Sample ID	Matrix	Date Collected	Date Received
23I0815-01	S000130592	Water	09/11/2023	09/13/2023
23I0815-02	S000130594	Water	09/11/2023	09/13/2023
23I0815-03	S000130595	Water	09/11/2023	09/13/2023
23I0815-04	S000130596	Water	09/11/2023	09/13/2023
23I0815-05	S000130597	Water	09/11/2023	09/13/2023
23I0815-06	S000130598	Water	09/11/2023	09/13/2023
23I0815-07	S000130601	Water	09/11/2023	09/13/2023
23I0815-08	S000165614	Water	09/11/2023	09/13/2023
23I0815-09	S000165731	Water	09/11/2023	09/13/2023

General Notes for York Project (SDG) No.: 23I0815

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All analyses conducted met method or Laboratory SOP requirements. See the Sample and Data Qualifiers Section for further information.
6. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
7. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.
8. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058.

Approved By: 

Date: 09/25/2023

Cassie L. Mosher
Laboratory Manager

Sample Information

Client Sample ID: S000130592 **York Sample ID:** 23I0815-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0815	X53579-02/37777	Water	September 11, 2023 9:30 am	09/13/2023

Cyanide, Total

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
57-12-5	Cyanide, total	ND		mg/L	0.0100	1	SM 4500 CN C-2016 / E-2016	09/20/2023 08:31	09/20/2023 12:09	VR
							Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP-CT005,PADEP-68-044			

Sample Information

Client Sample ID: S000130594 **York Sample ID:** 23I0815-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0815	X53579-02/37777	Water	September 11, 2023 9:30 am	09/13/2023

PFAS by EPA 537 m

Log-in Notes:

Sample Notes:

Sample Prepared by Method: SPE Ext-PFAS-EPA 537.1M

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
335-67-1	*** Perfluorooctanoic acid (PFOA)**	**123**		ng/L	4.63	5	EPA 537m	09/18/2023 11:16	09/19/2023 20:39	ESJ
							Certifications:			
1763-23-1	*** Perfluorooctanesulfonic acid (PFOS)**	**76.3**	PF-CC V-L	ng/L	4.63	5	EPA 537m	09/18/2023 11:16	09/19/2023 20:39	ESJ
							Certifications:			

Surrogate Recoveries	Result		Acceptance Range
Surrogate: M3PFBS	*65.8 %*		*25-150*
Surrogate: M5PFHxA	*60.7 %*		*25-150*
Surrogate: M4PFHpA	*77.5 %*		*25-150*
Surrogate: M3PFHxS	*67.4 %*		*25-150*
Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)	*83.0 %*		*25-150*
Surrogate: M6PFDA	*50.4 %*		*25-150*
Surrogate: M7PFUdA	*35.0 %*		*25-150*
Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	*23.8 %*	PFSu-L	*25-150*
Surrogate: M2PFTeDA	*21.1 %*		*10-150*
Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)	*51.6 %*		*25-150*
Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	*45.3 %*		*25-150*
Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	*90.2 %*		*25-150*
Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	*34.4 %*		*10-150*
Surrogate: d3-N-MeFOSAA	*49.1 %*		*25-150*

Sample Information

Client Sample ID: S000130594 **York Sample ID:** 23I0815-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0815	X53579-02/37777	Water	September 11, 2023 9:30 am	09/13/2023

PFAS by EPA 537 m

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: SPE Ext-PFAS-EPA 537.1M

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Surrogate: d5-N-EtFOSAA	*47.2 %*		*25-150*						
	Surrogate: M2-6:2 FTS	*150 %*		*25-200*						
	Surrogate: M2-8:2 FTS	*52.0 %*		*25-200*						
	Surrogate: M9PFNA	*66.1 %*		*25-150*						

Sample Information

Client Sample ID: S000130595 **York Sample ID:** 23I0815-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0815	X53579-02/37777	Water	September 11, 2023 9:30 am	09/13/2023

Hardness, total (as CaCO3)

Log-in Notes: HT-04 **Sample Notes:**

Sample Prepared by Method: EPA 200.7

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Hardness, Total	**11500**		mg/L	11.1	10	SM 2340B-2011	09/21/2023 08:28	09/22/2023 13:45	CEG
							Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP-CT005			

Bromide

Log-in Notes: HT-04 **Sample Notes:**

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
24959-67-9	**Bromide**	**154**		mg/L	2.00	10	EPA 300.0	09/21/2023 11:17	09/21/2023 11:17	VR
							Certifications: NELAC-NY10854,NJDEP-CT005,PADEP-68-04440			

Chloride

Log-in Notes: HT-04 **Sample Notes:**

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
16887-00-6	**Chloride**	**13700**		mg/L	27.6	200	400	EPA 300.0	09/21/2023 12:55	09/21/2023 12:55	VR
								Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		

Sulfate as SO4

Log-in Notes: HT-04 **Sample Notes:**

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14808-79-8	**Sulfate**	**764**		mg/L	100	100	EPA 300.0	09/21/2023 13:14	09/21/2023 13:14	VR
							Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP-CT005,PADEP-68-04			

Sample Information

Client Sample ID: S000130595 **York Sample ID:** 23I0815-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0815	X53579-02/37777	Water	September 11, 2023 9:30 am	09/13/2023

Color, Apparent

Log-in Notes: HT-04 **Sample Notes:**

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Color	**250**		Color Units (Pt-Co)	125	25	SM 2120B	09/13/2023 20:23	09/13/2023 20:23	AA
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		
	*** pH**	**6.82**		Color Units (Pt-Co)	0.500	1	SM 2120B	09/13/2023 20:23	09/13/2023 20:23	AA
							Certifications:			

Hexavalent Chromium

Log-in Notes: HT-04 **Sample Notes:**

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
18540-29-9	Chromium, Hexavalent	ND	HT-02	mg/L	0.0100	1	SM 3500-Cr B	09/13/2023 18:33	09/13/2023 23:19	SMK
							Certifications:	NELAC-NY10854,NJDEP-CT005,CTDOH-PH-0723,PADEP-68-044		

Sample Information

Client Sample ID: S000130596 **York Sample ID:** 23I0815-04

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0815	X53579-02/37777	Water	September 11, 2023 9:30 am	09/13/2023

Sulfide

Log-in Notes: HT-04 **Sample Notes:**

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
18496-25-8	Sulfide	ND		mg/L	1.0	1	SM 4500-S F	09/15/2023 11:15	09/18/2023 07:35	VR
							Certifications:	CTDOH-PH-0723,NJDEP-CT005,NELAC-NY10854,PADEP-68-044		

Sample Information

Client Sample ID: S000130597 **York Sample ID:** 23I0815-05

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0815	X53579-02/37777	Water	September 11, 2023 9:30 am	09/13/2023

Volatile Organics, NYSDEC Part 360 Expanded List

Log-in Notes: HT-04 **Sample Notes:**

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	2.5	5.0	1	EPA 8260C	09/18/2023 09:00	09/18/2023 17:30	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12		

Sample Information

Client Sample ID: S000130597 **York Sample ID:** 23I0815-05

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0815	X53579-02/37777	Water	September 11, 2023 9:30 am	09/13/2023

Volatile Organics, NYSDEC Part 360 Expanded List

Log-in Notes: HT-04 **Sample Notes:**

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
79-00-5	1,1,2-Trichloroethane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
75-34-3	1,1-Dichloroethane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
75-35-4	1,1-Dichloroethylene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
563-58-6	1,1-Dichloropropylene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA NELAC-NY10854,NJDEP-CT005,NELAC-NY12058
96-18-4	1,2,3-Trichloropropane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA NELAC-NY10854,NJDEP-CT005,NELAC-NY12058,PADEP-68-04
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA NELAC-NY10854,NJDEP-CT005,NELAC-NY12058,PADEP-68-04
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
106-93-4	1,2-Dibromoethane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
95-50-1	1,2-Dichlorobenzene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
107-06-2	1,2-Dichloroethane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
78-87-5	1,2-Dichloropropane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
541-73-1	1,3-Dichlorobenzene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
142-28-9	1,3-Dichloropropane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA NELAC-NY10854,NJDEP-CT005,NELAC-NY12058,PADEP-68-04
106-46-7	1,4-Dichlorobenzene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
594-20-7	2,2-Dichloropropane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA NELAC-NY10854,NJDEP-CT005,NELAC-NY12058,PADEP-68-04
78-93-3	2-Butanone	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
591-78-6	2-Hexanone	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12

Sample Information

Client Sample ID: S000130597 **York Sample ID:** 23I0815-05

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0815	X53579-02/37777	Water	September 11, 2023 9:30 am	09/13/2023

Volatile Organics, NYSDEC Part 360 Expanded List

Log-in Notes: HT-04 **Sample Notes:**

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
67-64-1	Acetone	ND		ug/L	5.0	10	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
107-02-8	Acrolein	ND		ug/L	5.0	10	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
107-13-1	Acrylonitrile	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
71-43-2	Benzene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
74-97-5	Bromochloromethane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA NELAC-NY10854,NJDEP-CT005,NELAC-NY12058,PADEP-68-04
75-27-4	Bromodichloromethane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
75-25-2	Bromoform	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
74-83-9	Bromomethane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
75-15-0	Carbon disulfide	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
56-23-5	Carbon tetrachloride	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
108-90-7	Chlorobenzene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
75-00-3	Chloroethane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
67-66-3	Chloroform	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
74-87-3	Chloromethane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
124-48-1	Dibromochloromethane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
74-95-3	Dibromomethane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA NELAC-NY10854,NJDEP-CT005,NELAC-NY12058,PADEP-68-04

Sample Information

Client Sample ID: S000130597 **York Sample ID:** 23I0815-05

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0815	X53579-02/37777	Water	September 11, 2023 9:30 am	09/13/2023

Volatile Organics, NYSDEC Part 360 Expanded List

Log-in Notes: HT-04 **Sample Notes:**

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-71-8	Dichlorodifluoromethane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA NELAC-NY10854,NJDEP-CT005,NELAC-NY12058,PADEP-68-04
100-41-4	Ethyl Benzene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
87-68-3	Hexachlorobutadiene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA NELAC-NY10854,NJDEP-CT005,NELAC-NY12058,PADEP-68-04
74-88-4	* Iodomethane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA
80-62-6	Methyl Methacrylate	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA NELAC-NY10854,NJDEP-CT005,NELAC-NY12058
108-87-2	Methylcyclohexane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA NELAC-NY10854,NJDEP-CT005,NELAC-NY12058,PADEP-68-04
75-09-2	Methylene chloride	ND		ug/L	2.5	10	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
91-20-3	Naphthalene	ND		ug/L	2.5	10	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA NELAC-NY10854,NJDEP-CT005,NELAC-NY12058,PADEP-68-04
95-47-6	o-Xylene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,PADEP-68
179601-23-1	p- & m- Xylenes	ND		ug/L	5.0	10	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,PADEP-68
100-42-5	Styrene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
127-18-4	Tetrachloroethylene	ND	QL-02	ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
108-88-3	Toluene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
110-57-6	trans-1,4-dichloro-2-butene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA NELAC-NY10854,NJDEP-CT005,NELAC-NY12058,PADEP-68-04
79-01-6	Trichloroethylene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
75-69-4	Trichlorofluoromethane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
75-01-4	Vinyl Chloride	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12

Sample Information

Client Sample ID: S000130597 **York Sample ID:** 23I0815-05

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0815	X53579-02/37777	Water	September 11, 2023 9:30 am	09/13/2023

Volatile Organics, NYSDEC Part 360 Expanded List

Log-in Notes: HT-04 **Sample Notes:**

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
1330-20-7	Xylenes, Total	ND		ug/L	7.5	15	1	EPA 8260C Certifications:	09/18/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12	09/18/2023 17:30	SMA

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*104 %*	*65-135*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*99.8 %*	*86-118*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*99.3 %*	*81-114*

Volatile Organics, Tentatively Identified Cmpds.

Log-in Notes: HT-04 **Sample Notes:**

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Tentatively Identified Compounds	0.0		ug/L			1	EPA 8260C Certifications:	09/18/2023 09:00	09/18/2023 17:30	SMA

Sample Information

Client Sample ID: S000130598 **York Sample ID:** 23I0815-06

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0815	X53579-02/37777	Water	September 11, 2023 9:30 am	09/13/2023

Analyzed by: Phoenix Environmental Labs, Inc.

SM5310B-14

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: SM5310B-14

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
PHNX - TOC	**Total Organic Carbon**	**14.6**		mg/L	2.0	2.0	2	SM5310B-14 Certifications:	09/23/2023 13:31	09/23/2023 13:31	CT007

Sample Information

Client Sample ID: S000130601 **York Sample ID:** 23I0815-07

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0815	X53579-02/37777	Water	September 11, 2023 9:30 am	09/13/2023

Sample Information

Client Sample ID: **S000130601** **York Sample ID:** **23I0815-07**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0815	X53579-02/37777	Water	September 11, 2023 9:30 am	09/13/2023

Metals, Target Analyte, ICP

Log-in Notes: HT-04 **Sample Notes:**

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7429-90-5	**Aluminum**	**0.995**		mg/L	0.0556	1	EPA 6010D	09/20/2023 11:15	09/21/2023 18:15	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		
7440-39-3	**Barium**	**0.422**		mg/L	0.0278	1	EPA 6010D	09/20/2023 11:15	09/21/2023 18:15	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		
7440-70-2	**Calcium**	**4000**		mg/L	5.56	100	EPA 6010D	09/20/2023 11:15	09/22/2023 14:39	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		
7440-47-3	**Chromium**	**0.00836**		mg/L	0.00556	1	EPA 6010D	09/20/2023 11:15	09/21/2023 18:15	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		
7440-48-4	**Cobalt**	**0.00797**		mg/L	0.00444	1	EPA 6010D	09/20/2023 11:15	09/21/2023 18:15	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		
7440-50-8	**Copper**	**0.0918**		mg/L	0.0222	1	EPA 6010D	09/20/2023 11:15	09/21/2023 18:15	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		
7439-89-6	**Iron**	**20.0**		mg/L	0.278	1	EPA 6010D	09/20/2023 11:15	09/21/2023 18:15	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		
7439-92-1	Lead	ND		mg/L	0.00556	1	EPA 6010D	09/20/2023 11:15	09/21/2023 18:15	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-044		
7439-95-4	**Magnesium**	**70.4**		mg/L	0.0556	1	EPA 6010D	09/20/2023 11:15	09/21/2023 18:15	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		
7439-96-5	**Manganese**	**6.61**		mg/L	0.00556	1	EPA 6010D	09/20/2023 11:15	09/21/2023 18:15	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		
7440-02-0	Nickel	ND		mg/L	0.0111	1	EPA 6010D	09/20/2023 11:15	09/21/2023 18:15	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-044		
7440-09-7	**Potassium**	**1080**	M-CCV 1	mg/L	5.56	100	EPA 6010D	09/20/2023 11:15	09/22/2023 14:39	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		
7440-22-4	**Silver**	**0.0437**		mg/L	0.00556	1	EPA 6010D	09/20/2023 11:15	09/21/2023 18:15	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		
7440-23-5	**Sodium**	**4150**		mg/L	55.6	100	EPA 6010D	09/20/2023 11:15	09/22/2023 14:39	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		
7440-62-2	Vanadium	ND		mg/L	0.0111	1	EPA 6010D	09/20/2023 11:15	09/21/2023 18:15	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-044		
7440-66-6	**Zinc**	**0.150**	M-CCV 1	mg/L	0.0278	1	EPA 6010D	09/20/2023 11:15	09/21/2023 18:15	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		

Metals, Target Analyte, ICPMS

Log-in Notes: HT-04 **Sample Notes:**

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-36-0	**Antimony**	**25.4**	M-CCV 1	ug/L	1.11	1	EPA 6020B	09/19/2023 16:11	09/20/2023 17:23	cw
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		
7440-38-2	**Arsenic**	**13.1**		ug/L	1.11	1	EPA 6020B	09/19/2023 16:11	09/20/2023 17:23	cw
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		

Sample Information

Client Sample ID: S000130601 **York Sample ID:** 23I0815-07

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0815	X53579-02/37777	Water	September 11, 2023 9:30 am	09/13/2023

Metals, Target Analyte, ICPMS

Log-in Notes: HT-04 **Sample Notes:**

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-41-7	Beryllium	ND	M-CCV 1	ug/L	0.333	1	EPA 6020B Certifications:	09/19/2023 16:11	09/20/2023 17:23 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-044	cw
7440-43-9	**Cadmium**	**3.79**	M-CCV 1	ug/L	0.556	1	EPA 6020B Certifications:	09/19/2023 16:11	09/20/2023 17:23 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04	cw
7782-49-2	Selenium	ND	M-CCV 1	ug/L	1.11	1	EPA 6020B Certifications:	09/19/2023 16:11	09/20/2023 17:23 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-044	cw
7440-28-0	Thallium	ND	M-CCV 1	ug/L	1.11	1	EPA 6020B Certifications:	09/19/2023 16:11	09/20/2023 17:23 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-044	cw

Mercury by 7470/7471

Log-in Notes: HT-04 **Sample Notes:**

Sample Prepared by Method: EPA SW846-7470A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		mg/L	0.0002	1	EPA 7470 Certifications:	09/21/2023 07:36	09/21/2023 07:36 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-044	PFA

Sample Information

Client Sample ID: S000165614 **York Sample ID:** 23I0815-08

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0815	X53579-02/37777	Water	September 11, 2023 9:30 am	09/13/2023

Semi-Volatiles, 1,4-Dioxane 8270 SIM-Aqueous

Log-in Notes: HT-04 **Sample Notes:**

Sample Prepared by Method: EPA 3535A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
123-91-1	**1,4-Dioxane**	**1.33**		ug/L	0.300	1	EPA 8270D SIM Certifications:	09/18/2023 08:43	09/19/2023 16:53 NJDEP-CT005,NELAC-NY10854	KH

	Surrogate Recoveries	Result	Acceptance Range
17647-74-4	*Surrogate: 1,4-Dioxane-d8*	*106 %*	*36.6-118*

Sample Information

Client Sample ID: S000165731 **York Sample ID:** 23I0815-09

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0815	X53579-02/37777	Water	September 11, 2023 9:30 am	09/13/2023

Sample Information

Client Sample ID: S000165731 **York Sample ID:** 23I0815-09

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0815	X53579-02/37777	Water	September 11, 2023 9:30 am	09/13/2023

Phenols, total

Log-in Notes: HT-04 **Sample Notes:**

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
64743-03-9	Phenols, total	ND		mg/L	0.0500	1	EPA 420.1/2	09/18/2023 14:34	09/20/2023 06:50	VR
							Certifications:	NELAC-NY10854,CTDOH-PH-0723,NJDEP-CT005,PADEP-68-044		

Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
23I0815-05	S000130597	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C

Sample and Data Qualifiers Relating to This Work Order

QR-01	Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit. QC batch accepted based on LCS and/or LCSD QC results.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QL-02	This LCS analyte is outside Laboratory Recovery limits due the analyte behavior using the referenced method. The reference method has certain limitations with respect to analytes of this nature.
PFSu-L	The isotopically labeled surrogate recovered below lab control limits due to a matrix effect. Isotope Dilution was applied.
PF-CCV-L	The CCV recovery was slightly below acceptable limits for the qualified compound. However, sample results are not biased low because results are corrected for isotope recovery.
M-CCV1	The recovery for this element in the Continuing Calibration Verification (CCV) exceeded 110% of the expected value. Positive detections may be biased high.
HT-04	NON-COMPLIANT- Client requested analysis be conducted outside of holding times.
HT-02	NON-COMPLIANT-This sample was received outside the EPA recommended holding time.

Definitions and Other Explanations

*	Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.
ND	NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)
RL	REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
LOQ	LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence. This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon current NELAC/TNI Standards and applies to all analyses.
LOD	LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.
MDL	METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.
Reported to	This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.
NR	Not reported
RPD	Relative Percent Difference
Wet	The data has been reported on an as-received (wet weight) basis
Low Bias	Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
High Bias	High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
Non-Dir.	Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.

For analyses by EPA SW-846-8270D, the Limit of Quantitation (LOQ) reported for benzidine is based upon the lowest standard used for calibration and is not a verified LOQ due to this compound's propensity for oxidative losses during extraction/concentration procedures and non-reproducible chromatographic performance.

YORK ANALYTICAL LABORATORIES INC

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

ALL SHADED AREAS are for LAB USE ONLY

Company: **AG ENVIRONMENTAL, RSC, LLC.**
Sullivan County Labs
Address: **86 Queen Mountain Road, Ferndale**

Billing Information:

Report To:

Email To:
results@sullivancountylabs.com

Copy To:

Site Collection Info/Address:
281 Phelps Lane

Customer Project Name/Number:
X53579-02 / 37777

State: County/City: Time Zone Collected:
New York / Sullivan [ ]PT [ ]MT [ ]CT [ ]ET

Phone: **845.704.8151**
Email: **info@sullivancountylabs.com**

Site/Facility ID #:

Compliance Monitoring?
[ ] Yes [ ] No

Collected By (print):

Purchase Order # :
Quote #:

DW PWS ID #:
DW Location Code:

Collected By (signature):

Turnaround Date Required:

Immediately Packed on Ice:
[ ] Yes [ ] No

Sample Disposal:
[ ] Dispose as appropriate
[ ] Return
[ ] Archive: _____
[ ] Hold: _____

Rush:
[ ] Same Day [ ] Next Day
[ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day

(Expedite Charges Apply)

Field Filtered (if applicable):
[ ] Yes [ ] No

Analysis: _____

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Container Preservative Type **

4	U	U	54	3	3	1	U	2		

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other _____

Lab Project Manager:

23I0815

Analyses

Customer Sample ID	Matrix *	Comp/ Grab	Collected (or Composite Start) Date	Time	Sample Location	Cyanide by EPA Method 4500 CN C-2016	PFAS/PFOS by Method 537m	Hardness,300,Color,cr+6 By Various Methods	Sulfide by SM 4500-S2 D Method	Volatile Organic Compounds w/ Top 10 Identified compounds (TICs) by EPA 8260 Method	Total Organic Carbon by SM22 5310B	TAL/TCL Metals List by EPA 200.7/200.8 method	1,4 Dioxane by Method 8270D SIM	Total Phenolics by EPA 420.1 Method				
S000130592	SW	G	09/11	09:30am	SA SLCRS	X												
S000130594	SW	G	09/11	09:30am	SA SLCRS		X											
S000130595	SW	G	09/11	09:30am	SA SLCRS			X										
S000130596	SW	G	09/11	09:30am	SA SLCRS				X									
S000130597	SW	G	09/11	09:30am	SA SLCRS					X								
S000130598	SW	G	09/11	09:30am	SA SLCRS						X							
S000130601	SW	G	09/11	09:30am	SA SLCRS							X						
S000165614	SW	G	09/11	09:30am	SA SLCRS								X					
S000165731	SW	G	09/11	09:30am	SA SLCRS									X				

Lab Profile / Line:

Lab Sample Receipt Checklist:			
Custody Seals Present/Intact	Y	N	NA
Custody Signatures Present	Y	N	NA
Collector Signature Present	Y	N	NA
Bottles Intact	Y	N	NA
Correct Bottles	Y	N	NA
Sufficient Volume	Y	N	NA
Samples Received on Ice	Y	N	NA
VOA - Headspace Acceptable	Y	N	NA
USDA Regulated Soils	Y	N	NA
Samples in Holding Time	Y	N	NA
Residual Chlorine Present	Y	N	NA
CL Strips: _____			
Sample pH Acceptable	Y	N	NA
pH Strips: _____			
Sulfide Present	Y	N	NA
Lead Acetate Strips: _____			

LAB USE ONLY:

Lab Sample # / Comments:

Plastic/250/Sodium Hydroxide	
Plastic/250 x2 /Unpreserved	
Plastic/1000/Unpreserved	
Plastic/1000/NAOH/Zn Acetate	
Glass Vial with Teflon Top/40x2/Hydrochloric Acid	
Glass Vial with Teflon Top/2x40 ml Vials/Hydrochloric Acid	
Plastic/250/Nitric Acid	
Glass-tinted/500/Unpreserved	
Glass-tinted/1000/Sulfuric Acid	

Customer Remarks / Special Conditions / Possible Hazards:

- Hardness,300,Color,cr+6 (not included NO2/NO3)
- Sulfide Lower Limit of det. < 1.0 mg/L
- TAL List Metals.: Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Cobalt, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium

Type of Ice Used: Wet Blue Dry None

Packing Material Used:

Radchem samples(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #:

Samples received via:
FEDEX UPS Client Courier Other

LAB Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#: _____
Cooler 1 Temp Upon Receipt: ___oC
Cooler 1 Therm Corr. Factor: ___oC
Cooler 2 Corrected Temp: ____oC
Comments:
Code:754.20

5.4

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
SCL	2:14pm 9-12-23		9/13 1000
Relinquished by/Company: (Signature)	Date/Time: 9/13 2:50	Received by/Company: (Signature)	Date/Time: 9/13/23 1450
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Trip Blanck Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO

Page: 1 of: 1

AG ENVIRONMENTAL RSC, LLC

LABORATORY CERTIFICATE OF RESULTS

NYSDOH ELAP # 12081
PA DEP # 68-05705
FLORIDA (Legionella) # E871152

86 Queen Mountain Road, Ferndale, New York, 12734 / Phone: 845.704.8151 / Fax: 845.414.0051

Original Report #: 42459
LCR Issue Date: 10/12/2023

Bill-to Customer Information (C53579)		**Water Source Location X53579-02**	
Customer Name:	Town of Babylon	**Source Name:**	Town of Babylon - Landfill
Address:	200 E. Sunrsie Highway	**Address:**	281 Phelps Lane
Town:	LINDENHURST **State:** NY **Zip:** 11757	**Town:**	North Babylon **State:** NY **Zip:** 11703
Phone:	631-957-3025	**PWSID/SPDES:**	N/A
Email:	klynch@townofbabylon.com	**Contact Name:**	
Fax:		**Phone:**	631-957-3025

Sample(s) delivered on 09/12/2023 **at** 10:00 AM **From COC#:** A2178

Sample#	MTX	Sample Point	Sampled Date & Time	Temp	Pres. Y/N/T	Res Cl	Int	Anal/Prep Date & Time	Analyte/Test Method	Comment (see table)	Results	MCL/SMCL (Limits)
S000130588	SW-G	NNU PLCRS	09/11/2023 08:40 AM	11.9°C	Y	-	BN	09/19/2023 09:00 AM	Volatile Organic Compounds w/ Top 10 identified compounds (TICs) by EPA 8260 Method	Y 23I0821-06/	See attached : See Attached	See Attached
S000130585	SW-G	NNU PLCRS	09/11/2023 08:40 AM	11.9°C	Y	-	BN	09/20/2023 08:56 AM	TAL/TCL Metals List by EPA 200.7/200.8 method	Y 23I0821-04/	See attached : See Attached	
S000130580	SW-G	NNU PLCRS	09/11/2023 08:40 AM	11.9°C	N	-	BN	09/13/2023 06:33 PM	Hardness,300,Color,cr+6 By Various Methods	Y 23I0821-01/	Bromide : 621 mg/L Chloride : 36800 mg/L Sulfate : 155 mg/L Color : 500 color units Hexavalent Chromium : <0.0100 mg/L Hardness : 31700 mg/L	
S000130586	SW-G	NNU PLCRS	09/11/2023 08:40 AM	11.9°C	N	-	BN	09/12/2023 02:38 PM	Nitrite as (N) by Method SM22 4500-NO2-B	N I-00088	Nitrite as (N) : 0.069 mg/L	
S000130589	SW-G	NNU PLCRS	09/11/2023 08:40 AM	11.9°C	Y	-	BN	09/12/2023 02:21 PM	COD,NH3,NO3, TKN by Various Methods	N COD-00050B	COD : 1282 mg/L NH3 : 20.399 mg/L Nitrate : 1.024 mg/L TKN : 63.5 mg/L	
S000130587	SW-G	NNU PLCRS	09/11/2023 08:40 AM	11.9°C	Y	-	BN	09/23/2023 03:04 PM	Total Organic Carbon by SM22 5310B	Y 23I0821-05/	TOC : 168 mg/L	
S000130584	SW-G	NNU PLCRS	09/11/2023 08:40 AM	11.9°C	Y	-	BN	09/20/2023 08:31 AM	Cyanide by EPA Method 4500 CN C-2016	Y 23I0821-03/	Cyanide : <10.0 ug/L	200 ug/L
S000130590	SW-G	NNU PLCRS	09/11/2023 08:40 AM	11.9°C	Y	-	BN	09/15/2023 11:15 AM	Sulfide by SM 4500-S2 D Method	Y 23I0821-07/	Sulfide : 2.7 mg/L **HIGH**	<= 1.0 mg/L for UV Kit
S000165621	SW-G	NNU PLCRS	09/11/2023 08:40 AM	11.9°C	N	-	BN	09/18/2023 08:43 AM	1,4 Dioxane by Method 8270D SIM	Y 23I0821-08/	1,4 Dioxane : 1.81 ug/L **HIGH**	1.0 ug/L
S000130581	SW-G	NNU PLCRS	09/11/2023 08:40 AM	11.9°C	N	-	BN	09/18/2023 11:16 AM	PFAS/PFOS by Method 537m	Y 23I0821-02/	Perfluorooctanesulfonic Acid : <4.63 ng/L Perfluorooctanoic Acid : 16.4 ng/L **HIGH**	10 ng/L 10 ng/L
S000130583	SW-G	NNU PLCRS	09/11/2023 08:40 AM	11.9°C	N	-	BN	09/12/2023 03:50 PM	BOD 5-Day SM 5210B Method	N BOD-00313	BOD, 5 day : 2070 mg/L	
S000130582	SW-G	NNU PLCRS	09/11/2023 08:40 AM	11.9°C	N	-	BN	09/12/2023 03:42 PM	Total Dissolved Solids by SM22 2540C Method	TDS-00192	Total Dissolved Solids : 61469 mg/L	
S000115202	SW-G	NNU PLCRS	09/11/2023 08:40 AM	11.9°C	N	-	BN	09/17/2023 01:29 PM	Alkalinity by Analytical Method: SM22 2320B	AL---900029	Alkalinity : 216 mg/l	

Sample#	MTX	Sample Point	Sampled Date & Time	Temp	Pres. Y/N/T	Res Cl	Int	Anal/Prep Date & Time	Analyte/Test Method	Comment (see table)	Results	MCL/SMCL (Limits)
S000165696	SW-G	NNU PLCRS	09/11/2023 08:40 AM	11.9°C	Y	-	BN	09/20/2023 02:33 PM	Total Phenolics by EPA 420.1 Method	Y 23I0821-09/	Total Phenolics : <0.0500 mg/L	
S000166306	SW-G	NNU PLCRS	09/11/2023 08:40 AM	11.9°C	Y	-	BN	09/12/2023 05:31 PM	Nitrate-Nitrite as (N) by Systea (1-Reagent) Method	N B90222	Nitrate-Nitrite (as N) : 1.024 mg/L	

Comment Table: Y - Sample ran at York Laboratories ELAP #10854 & ELAP #12058 | N - No Comment |
Remarks: Amended to add sample 166306

Authorized By:

Krista Chilson
Quality Assurance

Sullivan County Labs

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		Section B Required Project Information:	Section C Invoice Information:
Company: Town of Babylon		Report To: Joe Guarino	Attention:
Address: 281 Phelps Lane		Copy To:	Company Name:
North Babylon, NY 11703			Address:
Email: Jguarino@TownofBabylon.com		Purchase Order #:	Quote:
Phone: 631-422-7640	Fax	Project Name: Leachates Part 360 Baseline Parameters	Project Manager:
Requested Due Date:		Project #:	Profile #:

Regulatory Agency: NY

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique MATRIX: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	NaOH & Zinc Acetate	Methanol	Other	Analyses Test: 8260 VOCs + TICs	Metals / Mercury	Hardness, 300.0, NO2 / NO3	NO2	COD,NH3,NO3,TKN	TOC	Cyanide	Sulfide	1,4 Dioxane	PFAs by 537	BOD	TDS	Alkalinity	Phenols	Residual Chlorine (Y/N)	
																3	1	1	1	1	2	1	1	1	2	1	1	1	1	
1	NNU PLCRS	WT	G	9/11/2023	840		18	X	X	X	X	X	X			3	1	1	1	1	2	1	1	1	2	1	1	1	1	11.9@
2	NNU SLCRS NO SAMPLE / Pump Broke	WT	G	9/11/2023	NA		18	X	X	X	X	X	X			3	1	1	1	1	2	1	1	1	2	1	1	1	1	Pump Broken
3	ONU SLCRS	WT	G	9/11/2023	820		18	X	X	X	X	X	X			3	1	1	1	1	2	1	1	1	2	1	1	1	1	
4	SA SLCRS	WT	G	9/11/2023	930		18	X	X	X	X	X	X			3	1	1	1	1	2	1	1	1	2	1	1	1	1	
5	MS / MSD (ONU SLCRS)	WT	G	9/11/2023	820		18	X	X	X	X	X	X			3	1	1	1	1	2	1	1	1	2	1	1	1	1	
6	Trip Blank	DI	LAB	9/11/2023	LAB		3				X					3														
7																														
8																														
9																														
10																														
11																														
12																														
																3 - 40mL vials HCL	1 - 250 mL HNO3	1 - 1 Liter Unpre. Plastic	1 - 1 Liter Unpre. Plastic	1 - 250 Amber Glass w/H2SO4	2 - 40 mL vials w/HCL	1 - 250 mL Plastic w/NaOH	1 Ltr Plas. NaOH & Zinc Acetat	1 - 500 mL Amber Unpreserve	2 - 250 mL Plastic Unpreserve	1 - 1 Liter Plastic Unpreserved	1 - 1 Liter Plastic Unpreserved	1 - 500 mL Plastic Unpreserve	1 - 1 Liter Amber w/H2SO4		

ANALYSIS SUMMARY	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Leachates / Part 360 Baseline Parameters	Brian Nichols / Zion Environmental, LLC	9-12-23					

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Brian Nichols

SIGNATURE of SAMPLER: Brian Nichols

DATE Signed: 9-12-2023 / 9/12/2023 10:00 AM

TEMP in C	Received on ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

(AG ENVIRONMENTAL, RSC, LLC.
Sullivan County Labs)
Water sample submission form

New York State Chain-of-Custody
NON-POTABLE

NYSDOH ELAP # 12081
PA DEP # 68-05705
FLORIDA (Legionella) # E871152

86 Queen Mountain Road, Ferndale, New York, 12734 / Phone: 845.704.8151 / Fax: 845.414.0051

COC#: 37776
CRN:

Bill-to Customer Information: (C53579)		**Well/System Location Information (X53579-02)**	
Customer Name:	Town of Babylon	**Name**	Town of Babylon - Landfill
Address:	200 E. Sunrsie Highway	**Address:**	281 Phelps Lane
Town:	LINDENHURST **State:** NY **Zip:** 11757	**Town:**	North Babylon **State:** NY **Zip:** 11703
Phone:	[P]: / [EP]: 631-957-3025	**SPEDES:**	N/A
Email:	klynch@townofbabylon.com	**Contact Name:**	
Fax:		**Phone:**	631-957-3025

Notes:

10 CRR-NY 5-1.74 of the NY State Code requires the owner of a public water system shall ensure the approved environmental laboratory performing the analyses sends laboratory results to the Dept. of Health in a manner prescribed by them. Initial here _____ if you want us to forward your results to the Dept. of Health. *Note: It is your responsibility to verify that they receive it.*

Customer Sample Collection Data

Bottle Sample#	C/G	Sample Point	Date Sampled	Intl	Prsv	Ver pH	On Ice	Test ELAP/EPA Method	Comments/Sample Temp
S000130588	G	NNU PLCRS	09/11/2023 08:40 AM	BN	HCL	S	YES	Volatile Organic Compounds w/ Top 10 identified compounds (TICs) by EPA 8260 Method	/ 11.9°C
S000130585	G	NNU PLCRS	09/11/2023 08:40 AM	BN	HNO3	S	YES	TAL/TCL Metals List by EPA 200.7/200.8 method	/ 11.9°C
S000130580	G	NNU PLCRS	09/11/2023 08:40 AM	BN	UNP	S	YES	Hardness,300,Color,cr+6 By Various Methods	/ 11.9°C
S000130586	G	NNU PLCRS	09/11/2023 08:40 AM	BN	UNP		YES	Nitrite as (N) by Method SM22 4500-NO2-B	/ 11.9°C
S000130589	G	NNU PLCRS	09/11/2023 08:40 AM	BN	H2SO4		YES	COD,NH3,NO3, TKN by Various Methods	/ 11.9°C
S000130587	G	NNU PLCRS	09/11/2023 08:40 AM	BN	HCL	S	YES	Total Organic Carbon by SM22 5310B	/ 11.9°C
S000130584	G	NNU PLCRS	09/11/2023 08:40 AM	BN	NaOH	S	YES	Cyanide by EPA Method 4500 CN C-2016	/ 11.9°C
S000130590	G	NNU PLCRS	09/11/2023 08:40 AM	BN	NAOH/ZnAcetate	S	YES	Sulfide by SM 4500-S2 D Method	/ 11.9°C

Customer Sample Collection Data									
Bottle Sample#	**C/G**	**Sample Point**	**Date Sampled**	**Intl**	**Prsv**	**Ver pH**	**On Ice**	**Test ELAP/EPA Method**	**Comments/Sample Temp**
S000165621	G	NNU PLCRS	09/11/2023 08:40 AM	BN	UNP	S	YES	1,4 Dioxane by Method 8270D SIM	/ 11.9°C
S000130581	G	NNU PLCRS	09/11/2023 08:40 AM	BN	UNP	S	YES	PFAS/PFOS by Method 537m	/ 11.9°C
S000130583	G	NNU PLCRS	09/11/2023 08:40 AM	BN	UNP		YES	BOD 5-Day SM 5210B Method	/ 11.9°C
S000130582	G	NNU PLCRS	09/11/2023 08:40 AM	BN	UNP		YES	Total Dissolved Solids by SM22 2540C Method	/ 11.9°C
S000115202	G	NNU PLCRS	09/11/2023 08:40 AM	BN	UNP		YES	Alkalinity by Analytical Method: SM22 2320B	/ 11.9°C
S000165696	G	NNU PLCRS	09/11/2023 08:40 AM	BN	H2SO4	S	YES	Total Phenolics by EPA 420.1 Method	/ 11.9°C

Relinquished By*:	← SIGN HERE	Relinquished To:		Received Date	09/12/2023	Received Time	10:00 AM
Relinquished By*:		Relinquished To:		Received Date		Received Time	

*By signing, customer acknowledges that some samples may be sent to a sister (certified) LAB for analysis. Samples cannot be logged in and turnaround time clock will not start until any ambiguities are resolved. By executing this document, the client has read and agrees to be bound by Sullivan County Labs terms and conditions found on www.SullivanCountyLabs.com. Public water systems are required to report results to the local Dept. of Health office. When necessary, we reserve the right to subcontract testing to accredited laboratories that are certified by the state from which the sample was taken. Circumstances might require us to send your sample to an affiliated lab, either due to instrument backlog, hold time limitations, or non-accreditation in a particular test. You are giving us permission to do so by signing this COC. The alternate lab will be shown on your ceritificate of results with its approved ELAP #. The test reports relate only to the samples as received. By signing, the customer confirms that they provided all information pertaining to the documented samples.

(AG ENVIRONMENTAL, RSC, LLC.
SULLIVAN COUNTY LABS)
Water sample submission form

New York State Chain-of-Custody
WASTEWATER

AMENDED REPORT: Replaces COC #: 37776

NYSDOH ELAP # 12081
PA DEP # 68-05705
FLORIDA (Legionella) # E871152

86 Queen Mountain Road, Ferndale, New York, 12734 / Phone: 845.704.8151 / Fax: 845.414.0051

AMENDED COC # : A2178
CRN:

Bill-to Customer Information: (C53579)		**Well/System Location Information (X53579-02)**	
Customer Name:	Town of Babylon	Name	Town of Babylon - Landfill
Address:	200 E. Sunrsie Highway	Address:	281 Phelps Lane
Town:	LINDENHURST **State:** NY **Zip:** 11757	Town:	North Babylon **State:** NY **Zip:** 11703
Phone:	[P]: / [EP]: 631-957-3025	SPEDES:	N/A
Email:	klynch@townofbabylon.com	Contact Name:	
Fax:		Phone:	631-957-3025

Notes:

10 CRR-NY 5-1.74 of the NY State Code requires the owner of a public water system shall ensure the approved environmental laboratory performing the analyses sends laboratory results to the Dept. of Health in a manner prescribed by them. Initial here _____ if you want us to forward your results to the Dept. of Health. *Note: It is your responsibility to verify that they receive it.*

Customer Sample Collection Data

Bottle Sample#	C/G	Sample Point	Date Sampled	Intl	Prsv	Ver pH	On Ice	Test ELAP/EPA Method	Comments/Sample Temp
S000130588	G	NNU PLCRS	09/11/2023 08:40 AM	BN	HCL	S	YES	Volatile Organic Compounds w/ Top 10 identified compounds (TICs) by EPA 8260 Method	/ 11.9°C
S000130585	G	NNU PLCRS	09/11/2023 08:40 AM	BN	HNO3	S	YES	TAL/TCL Metals List by EPA 200.7/200.8 method	/ 11.9°C
S000130580	G	NNU PLCRS	09/11/2023 08:40 AM	BN	UNP	S	YES	Hardness,300,Color,cr+6 By Various Methods	/ 11.9°C
S000130586	G	NNU PLCRS	09/11/2023 08:40 AM	BN	UNP		YES	Nitrite as (N) by Method SM22 4500-NO2-B	/ 11.9°C
S000130589	G	NNU PLCRS	09/11/2023 08:40 AM	BN	H2SO4		YES	COD,NH3,NO3, TKN by Various Methods	/ 11.9°C
S000130587	G	NNU PLCRS	09/11/2023 08:40 AM	BN	HCL	S	YES	Total Organic Carbon by SM22 5310B	/ 11.9°C
S000130584	G	NNU PLCRS	09/11/2023 08:40 AM	BN	NaOH	S	YES	Cyanide by EPA Method 4500 CN C-2016	/ 11.9°C
S000130590	G	NNU PLCRS	09/11/2023 08:40 AM	BN	NAOH/ZnAcetate	S	YES	Sulfide by SM 4500-S2 D Method	/ 11.9°C

Customer Sample Collection Data									
Bottle Sample#	**C/G**	**Sample Point**	**Date Sampled**	**Intl**	**Prsv**	**Ver pH**	**On Ice**	**Test ELAP/EPA Method**	**Comments/Sample Temp**
S000165621	G	NNU PLCRS	09/11/2023 08:40 AM	BN	UNP	S	YES	1,4 Dioxane by Method 8270D SIM	/ 11.9°C
S000130581	G	NNU PLCRS	09/11/2023 08:40 AM	BN	UNP	S	YES	PFAS/PFOS by Method 537m	/ 11.9°C
S000130583	G	NNU PLCRS	09/11/2023 08:40 AM	BN	UNP		YES	BOD 5-Day SM 5210B Method	/ 11.9°C
S000130582	G	NNU PLCRS	09/11/2023 08:40 AM	BN	UNP		YES	Total Dissolved Solids by SM22 2540C Method	/ 11.9°C
S000115202	G	NNU PLCRS	09/11/2023 08:40 AM	BN	UNP		YES	Alkalinity by Analytical Method: SM22 2320B	/ 11.9°C
S000165696	G	NNU PLCRS	09/11/2023 08:40 AM	BN	H2SO4	S	YES	Total Phenolics by EPA 420.1 Method	/ 11.9°C
S000166306	G	NNU PLCRS	09/11/2023 08:40 AM	BN	H2SO4		YES	Nitrate-Nitrite as (N) by Systea (1-Reagent) Method	/ 11.9°C

Relinquished By*:		Relinquished To:	Kristi C.	Received Date	09/12/2023	Received Time	10:00 AM
Relinquished By*:		Relinquished To:		Received Date		Received Time	

*By signing, customer acknowledges that some samples may be sent to a sister (certified) LAB for analysis. Samples cannot be logged in and turnaround time clock will not start until any ambiguities are resolved. By executing this document, the client has read and agrees to be bound by Sullivan County Labs terms and conditions found on www.SullivanCountyLabs.com. Public water systems are required to report results to the local Dept. of Health office. When necessary, we reserve the right to subcontract testing to accredited laboratories that are certified by the state from which the sample was taken. Circumstances might require us to send your sample to an affiliated lab, either due to instrument backlog, hold time limitations, or non-accreditation in a particular test. You are giving us permission to do so by signing this COC. The alternate lab will be shown on your ceritificate of results with its approved ELAP #. The test reports relate only to the samples as received. By signing, the customer confirms that they provided all information pertaining to the documented samples.

Amendment remarks : Amended to add sample 166306

Technical Report

prepared for:

Sullivan County Labs
86 Queen Mountain Road
Ferndale NY, 12734
Attention: Jerry Berger

Report Date: 09/25/2023
Client Project ID: X53579-02/37776
York Project (SDG) No.: 23I0821

CT Cert. No. PH-0723 New Jersey Cert. No. CT005 and NY037 New York Cert. Nos. 10854 and 12058 PA Cert. No. 68-04440

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Report Date: 09/25/2023
Client Project ID: X53579-02/37776
York Project (SDG) No.: 23I0821

Sullivan County Labs
86 Queen Mountain Road
Ferndale NY, 12734
Attention: Jerry Berger

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on September 13, 2023 and listed below. The project was identified as your project: **X53579-02/37776**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Sample and Analysis Qualifiers section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the Sample and Data Qualifiers Relating to This Work Order section of this report and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

York Sample ID	Client Sample ID	Matrix	Date Collected	Date Received
23I0821-01	S000130580	Water	09/11/2023	09/13/2023
23I0821-02	S000130581	Water	09/11/2023	09/13/2023
23I0821-03	S000130584	Water	09/11/2023	09/13/2023
23I0821-04	S000130585	Water	09/11/2023	09/13/2023
23I0821-05	S000130587	Water	09/11/2023	09/13/2023
23I0821-06	S000130588	Water	09/11/2023	09/13/2023
23I0821-07	S000130590	Water	09/11/2023	09/13/2023
23I0821-08	S000165621	Water	09/11/2023	09/13/2023
23I0821-09	S000165696	Water	09/11/2023	09/13/2023

General Notes for York Project (SDG) No.: 23I0821

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All analyses conducted met method or Laboratory SOP requirements. See the Sample and Data Qualifiers Section for further information.
6. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
7. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.
8. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058.

Approved By: 

Date: 09/25/2023

Cassie L. Mosher
Laboratory Manager

Sample Information

Client Sample ID: S000130580 **York Sample ID:** 23I0821-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0821	X53579-02/37776	Water	September 11, 2023 8:40 am	09/13/2023

Hardness, total (as CaCO3)

Log-in Notes: HT-04 **Sample Notes:**

Sample Prepared by Method: EPA 200.7

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Hardness, Total	**31700**		mg/L	11.1	10	SM 2340B-2011	09/21/2023 08:28	09/22/2023 13:50	CEG
							Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP-CT005			

Bromide

Log-in Notes: HT-04 **Sample Notes:**

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
24959-67-9	**Bromide**	**621**		mg/L	20.0	100	EPA 300.0	09/21/2023 14:42	09/21/2023 14:42	VR
							Certifications: NELAC-NY10854,NJDEP-CT005,PADEP-68-04440			

Chloride

Log-in Notes: HT-04 **Sample Notes:**

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
16887-00-6	**Chloride**	**36800**		mg/L	69.0	500	1000	EPA 300.0	09/21/2023 14:32	09/21/2023 14:32	VR
								Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		

Sulfate as SO4

Log-in Notes: HT-04 **Sample Notes:**

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14808-79-8	**Sulfate**	**155**		mg/L	10.0	10	EPA 300.0	09/21/2023 11:36	09/21/2023 11:36	VR
							Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP-CT005,PADEP-68-04			

Color, Apparent

Log-in Notes: HT-04 **Sample Notes:**

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Color	**500**		Color Units (Pt-Co)	250	50	SM 2120B	09/13/2023 20:23	09/13/2023 20:23	AA
							Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04			
	*** pH**	**6.96**		Color Units (Pt-Co)	0.500	1	SM 2120B	09/13/2023 20:23	09/13/2023 20:23	AA
							Certifications:			

Hexavalent Chromium

Log-in Notes: HT-04 **Sample Notes:**

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
18540-29-9	Chromium, Hexavalent	ND	HT-02	mg/L	0.0100	1	SM 3500-Cr B	09/13/2023 18:33	09/13/2023 23:19	SMK
							Certifications: NELAC-NY10854,NJDEP-CT005,CTDOH-PH-0723,PADEP-68-044			

Sample Information

Client Sample ID: **S000130581** **York Sample ID:** **23I0821-02**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0821	X53579-02/37776	Water	September 11, 2023 8:40 am	09/13/2023

PFAS by EPA 537 m **Log-in Notes:** HT-04 **Sample Notes:**

Sample Prepared by Method: SPE Ext-PFAS-EPA 537.1M

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
335-67-1	* **Perfluorooctanoic acid (PFOA)**	**16.4**		ng/L	4.63	5	EPA 537m Certifications:	09/18/2023 11:16	09/19/2023 21:05	ESJ
1763-23-1	* Perfluorooctanesulfonic acid (PFOS)	ND	PF-CC V-L	ng/L	4.63	5	EPA 537m Certifications:	09/18/2023 11:16	09/19/2023 21:05	ESJ

Surrogate Recoveries	Result		Acceptance Range
Surrogate: M3PFBS	*72.7 %*		*25-150*
Surrogate: M5PFHxA	*78.8 %*		*25-150*
Surrogate: M4PFHpA	*95.8 %*		*25-150*
Surrogate: M3PFHxS	*69.6 %*		*25-150*
Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)	*66.5 %*		*25-150*
Surrogate: M6PFDA	*57.5 %*		*25-150*
Surrogate: M7PFUdA	*50.5 %*		*25-150*
Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	*46.8 %*		*25-150*
Surrogate: M2PFTeDA	*49.5 %*		*10-150*
Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)	*28.8 %*		*25-150*
Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	*57.9 %*		*25-150*
Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	*94.1 %*		*25-150*
Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	*37.5 %*		*10-150*
Surrogate: d3-N-MeFOSAA	*54.8 %*		*25-150*
Surrogate: d5-N-EtFOSAA	*50.3 %*		*25-150*
Surrogate: M2-6:2 FTS	*239 %*	PFSu-H	*25-200*
Surrogate: M2-8:2 FTS	*123 %*		*25-200*
Surrogate: M9PFNA	*76.3 %*		*25-150*

Sample Information

Client Sample ID: **S000130584** **York Sample ID:** **23I0821-03**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0821	X53579-02/37776	Water	September 11, 2023 8:40 am	09/13/2023

Cyanide, Total **Log-in Notes:** HT-04 **Sample Notes:**

Sample Information

Client Sample ID: **S000130584** **York Sample ID:** **23I0821-03**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0821	X53579-02/37776	Water	September 11, 2023 8:40 am	09/13/2023

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
57-12-5	Cyanide, total	ND		mg/L	0.0100	1	SM 4500 CN C-2016 / E-201(	09/20/2023 08:31	09/20/2023 13:06	VR
							Certifications:	NELAC-NY10854,CTDOH-PH-0723,NJDEP-CT005,PADEP-68-044		

Sample Information

Client Sample ID: **S000130585** **York Sample ID:** **23I0821-04**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0821	X53579-02/37776	Water	September 11, 2023 8:40 am	09/13/2023

Metals, Target Analyte, ICP **Log-in Notes:** HT-04 **Sample Notes:**

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7429-90-5	**Aluminum**	**0.713**		mg/L	0.0556	1	EPA 6010D	09/20/2023 08:56	09/21/2023 14:43	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		
7440-39-3	**Barium**	**1.87**		mg/L	0.0278	1	EPA 6010D	09/20/2023 08:56	09/21/2023 14:43	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		
7440-70-2	**Calcium**	**10200**		mg/L	0.556	10	EPA 6010D	09/20/2023 08:56	09/21/2023 18:45	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		
7440-47-3	**Chromium**	**0.0215**		mg/L	0.00556	1	EPA 6010D	09/20/2023 08:56	09/21/2023 14:43	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		
7440-48-4	**Cobalt**	**0.0131**		mg/L	0.00444	1	EPA 6010D	09/20/2023 08:56	09/21/2023 14:43	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		
7440-50-8	**Copper**	**0.0225**		mg/L	0.0222	1	EPA 6010D	09/20/2023 08:56	09/21/2023 14:43	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		
7439-89-6	**Iron**	**0.998**		mg/L	0.278	1	EPA 6010D	09/20/2023 08:56	09/21/2023 14:43	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		
7439-92-1	Lead	ND		mg/L	0.00556	1	EPA 6010D	09/20/2023 08:56	09/21/2023 14:43	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-044		
7439-95-4	**Magnesium**	**2.72**		mg/L	0.0556	1	EPA 6010D	09/20/2023 08:56	09/21/2023 14:43	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		
7439-96-5	**Manganese**	**0.783**		mg/L	0.00556	1	EPA 6010D	09/20/2023 08:56	09/21/2023 14:43	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		
7440-02-0	**Nickel**	**0.0159**		mg/L	0.0111	1	EPA 6010D	09/20/2023 08:56	09/21/2023 14:43	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		
7440-09-7	**Potassium**	**3000**	B, M-CCV 1	mg/L	5.56	100	EPA 6010D	09/20/2023 08:56	09/22/2023 14:33	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		
7440-22-4	**Silver**	**0.130**		mg/L	0.00556	1	EPA 6010D	09/20/2023 08:56	09/21/2023 14:43	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		

Sample Information

Client Sample ID: **S000130585** **York Sample ID:** **23I0821-04**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0821	X53579-02/37776	Water	September 11, 2023 8:40 am	09/13/2023

Metals, Target Analyte, ICP

Log-in Notes: HT-04 **Sample Notes:**

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-23-5	**Sodium**	**10100**		mg/L	5.56	10	EPA 6010D	09/20/2023 08:56	09/21/2023 18:45	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		
7440-62-2	Vanadium	ND		mg/L	0.0111	1	EPA 6010D	09/20/2023 08:56	09/21/2023 14:43	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-044		
7440-66-6	**Zinc**	**0.120**		mg/L	0.0278	1	EPA 6010D	09/20/2023 08:56	09/21/2023 14:43	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		

Metals, Target Analyte, ICPMS

Log-in Notes: HT-04 **Sample Notes:**

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-36-0	**Antimony**	**32.8**	M-CCV 1	ug/L	1.11	1	EPA 6020B	09/19/2023 16:11	09/20/2023 17:48	cw
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		
7440-38-2	**Arsenic**	**10.2**		ug/L	1.11	1	EPA 6020B	09/19/2023 16:11	09/20/2023 17:48	cw
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		
7440-41-7	Beryllium	ND	M-CCV 1	ug/L	0.333	1	EPA 6020B	09/19/2023 16:11	09/20/2023 17:48	cw
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-044		
7440-43-9	**Cadmium**	**5.71**	M-CCV 1	ug/L	0.556	1	EPA 6020B	09/19/2023 16:11	09/20/2023 17:48	cw
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		
7782-49-2	**Selenium**	**8.94**		ug/L	1.11	1	EPA 6020B	09/19/2023 16:11	09/20/2023 17:48	cw
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		
7440-28-0	Thallium	ND	M-CCV 1	ug/L	1.11	1	EPA 6020B	09/19/2023 16:11	09/20/2023 17:48	cw
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-044		

Mercury by 7470/7471

Log-in Notes: HT-04 **Sample Notes:**

Sample Prepared by Method: EPA SW846-7470A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		mg/L	0.0002	1	EPA 7470	09/21/2023 07:36	09/21/2023 07:36	PFA
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-044		

Sample Information

Client Sample ID: **S000130587** **York Sample ID:** **23I0821-05**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0821	X53579-02/37776	Water	September 11, 2023 8:40 am	09/13/2023

Analyzed by: **Phoenix Environmental Labs, Inc.**

Sample Information

Client Sample ID: S000130587 **York Sample ID:** 23I0821-05

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0821	X53579-02/37776	Water	September 11, 2023 8:40 am	09/13/2023

Analyzed by: Phoenix Environmental Labs, Inc.

SM5310B-14 **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: SM5310B-14

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
PHNX - TOC	**Total Organic Carbon**	**168**		mg/L	20	20	20	SM5310B-14	09/23/2023 15:04	09/23/2023 15:04	CT007
								Certifications:			

Sample Information

Client Sample ID: S000130588 **York Sample ID:** 23I0821-06

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0821	X53579-02/37776	Water	September 11, 2023 8:40 am	09/13/2023

Volatile Organics, NYSDEC Part 360 Expanded List **Log-in Notes:** HT-04 **Sample Notes:**

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	2.5	5.0	1	EPA 8260C	09/19/2023 09:00	09/19/2023 12:43	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12		
71-55-6	1,1,1-Trichloroethane	ND		ug/L	2.5	5.0	1	EPA 8260C	09/19/2023 09:00	09/19/2023 12:43	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12		
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	2.5	5.0	1	EPA 8260C	09/19/2023 09:00	09/19/2023 12:43	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12		
79-00-5	1,1,2-Trichloroethane	ND		ug/L	2.5	5.0	1	EPA 8260C	09/19/2023 09:00	09/19/2023 12:43	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12		
75-34-3	1,1-Dichloroethane	ND		ug/L	2.5	5.0	1	EPA 8260C	09/19/2023 09:00	09/19/2023 12:43	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12		
75-35-4	1,1-Dichloroethylene	ND		ug/L	2.5	5.0	1	EPA 8260C	09/19/2023 09:00	09/19/2023 12:43	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12		
563-58-6	1,1-Dichloropropylene	ND		ug/L	2.5	5.0	1	EPA 8260C	09/19/2023 09:00	09/19/2023 12:43	SMA
								Certifications:	NELAC-NY10854,NJDEP-CT005,NELAC-NY12058		
96-18-4	1,2,3-Trichloropropane	ND		ug/L	2.5	5.0	1	EPA 8260C	09/19/2023 09:00	09/19/2023 12:43	SMA
								Certifications:	NELAC-NY10854,NJDEP-CT005,NELAC-NY12058,PADEP-68-04		
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	2.5	5.0	1	EPA 8260C	09/19/2023 09:00	09/19/2023 12:43	SMA
								Certifications:	NELAC-NY10854,NJDEP-CT005,NELAC-NY12058,PADEP-68-04		
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	2.5	5.0	1	EPA 8260C	09/19/2023 09:00	09/19/2023 12:43	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12		

Sample Information

Client Sample ID: S000130588 **York Sample ID:** 23I0821-06

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0821	X53579-02/37776	Water	September 11, 2023 8:40 am	09/13/2023

Volatile Organics, NYSDEC Part 360 Expanded List

Log-in Notes: HT-04 **Sample Notes:**

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
106-93-4	1,2-Dibromoethane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/19/2023 09:00	09/19/2023 12:43	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
95-50-1	1,2-Dichlorobenzene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/19/2023 09:00	09/19/2023 12:43	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
107-06-2	1,2-Dichloroethane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/19/2023 09:00	09/19/2023 12:43	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
78-87-5	1,2-Dichloropropane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/19/2023 09:00	09/19/2023 12:43	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
541-73-1	1,3-Dichlorobenzene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/19/2023 09:00	09/19/2023 12:43	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
142-28-9	1,3-Dichloropropane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/19/2023 09:00	09/19/2023 12:43	SMA NELAC-NY10854,NJDEP-CT005,NELAC-NY12058,PADEP-68-04
106-46-7	1,4-Dichlorobenzene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/19/2023 09:00	09/19/2023 12:43	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
594-20-7	2,2-Dichloropropane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/19/2023 09:00	09/19/2023 12:43	SMA NELAC-NY10854,NJDEP-CT005,NELAC-NY12058,PADEP-68-04
78-93-3	**2-Butanone**	**56**		ug/L	25	50	10	EPA 8260C Certifications:	09/20/2023 09:00	09/20/2023 12:04	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY1
591-78-6	2-Hexanone	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/19/2023 09:00	09/19/2023 12:43	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
108-10-1	**4-Methyl-2-pentanone**	**5.4**		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/19/2023 09:00	09/19/2023 12:43	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY1
67-64-1	**Acetone**	**250**	QL-02	ug/L	50	100	10	EPA 8260C Certifications:	09/20/2023 09:00	09/20/2023 12:04	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY1
107-02-8	Acrolein	ND		ug/L	5.0	10	1	EPA 8260C Certifications:	09/19/2023 09:00	09/19/2023 12:43	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
107-13-1	Acrylonitrile	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/19/2023 09:00	09/19/2023 12:43	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
71-43-2	Benzene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/19/2023 09:00	09/19/2023 12:43	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
74-97-5	Bromochloromethane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/19/2023 09:00	09/19/2023 12:43	SMA NELAC-NY10854,NJDEP-CT005,NELAC-NY12058,PADEP-68-04
75-27-4	Bromodichloromethane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/19/2023 09:00	09/19/2023 12:43	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
75-25-2	Bromoform	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/19/2023 09:00	09/19/2023 12:43	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12
74-83-9	Bromomethane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/19/2023 09:00	09/19/2023 12:43	SMA CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12

Sample Information

Client Sample ID: S000130588 **York Sample ID:** 23I0821-06

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0821	X53579-02/37776	Water	September 11, 2023 8:40 am	09/13/2023

Volatile Organics, NYSDEC Part 360 Expanded List

Log-in Notes: HT-04 **Sample Notes:**

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-15-0	Carbon disulfide	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/19/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12	09/19/2023 12:43	SMA
56-23-5	Carbon tetrachloride	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/19/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12	09/19/2023 12:43	SMA
108-90-7	Chlorobenzene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/19/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12	09/19/2023 12:43	SMA
75-00-3	Chloroethane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/19/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12	09/19/2023 12:43	SMA
67-66-3	Chloroform	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/19/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12	09/19/2023 12:43	SMA
74-87-3	Chloromethane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/19/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12	09/19/2023 12:43	SMA
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/19/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12	09/19/2023 12:43	SMA
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/19/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12	09/19/2023 12:43	SMA
124-48-1	Dibromochloromethane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/19/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12	09/19/2023 12:43	SMA
74-95-3	Dibromomethane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/19/2023 09:00 NELAC-NY10854,NJDEP-CT005,NELAC-NY12058,PADEP-68-04	09/19/2023 12:43	SMA
75-71-8	Dichlorodifluoromethane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/19/2023 09:00 NELAC-NY10854,NJDEP-CT005,NELAC-NY12058,PADEP-68-04	09/19/2023 12:43	SMA
100-41-4	Ethyl Benzene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/19/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12	09/19/2023 12:43	SMA
87-68-3	Hexachlorobutadiene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/19/2023 09:00 NELAC-NY10854,NJDEP-CT005,NELAC-NY12058,PADEP-68-04	09/19/2023 12:43	SMA
74-88-4	* Iodomethane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/19/2023 09:00	09/19/2023 12:43	SMA
80-62-6	Methyl Methacrylate	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/19/2023 09:00 NELAC-NY10854,NJDEP-CT005,NELAC-NY12058	09/19/2023 12:43	SMA
108-87-2	Methylcyclohexane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/19/2023 09:00 NELAC-NY10854,NJDEP-CT005,NELAC-NY12058,PADEP-68-04	09/19/2023 12:43	SMA
75-09-2	Methylene chloride	ND		ug/L	2.5	10	1	EPA 8260C Certifications:	09/19/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12	09/19/2023 12:43	SMA
91-20-3	Naphthalene	ND		ug/L	2.5	10	1	EPA 8260C Certifications:	09/19/2023 09:00 NELAC-NY10854,NJDEP-CT005,NELAC-NY12058,PADEP-68-04	09/19/2023 12:43	SMA
95-47-6	o-Xylene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/19/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,PADEP-68	09/19/2023 12:43	SMA

Sample Information

Client Sample ID: **S000130588** **York Sample ID:** **23I0821-06**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0821	X53579-02/37776	Water	September 11, 2023 8:40 am	09/13/2023

Volatile Organics, NYSDEC Part 360 Expanded List

Log-in Notes: HT-04 **Sample Notes:**

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
179601-23-1	p- & m- Xylenes	ND		ug/L	5.0	10	1	EPA 8260C Certifications:	09/19/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,PADEP-68-	09/19/2023 12:43	SMA
100-42-5	Styrene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/19/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12	09/19/2023 12:43	SMA
127-18-4	Tetrachloroethylene	ND	QL-02	ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/19/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12	09/19/2023 12:43	SMA
108-88-3	Toluene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/19/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12	09/19/2023 12:43	SMA
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/19/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12	09/19/2023 12:43	SMA
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/19/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12	09/19/2023 12:43	SMA
110-57-6	trans-1,4-dichloro-2-butene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/19/2023 09:00 NELAC-NY10854,NJDEP-CT005,NELAC-NY12058,PADEP-68-04	09/19/2023 12:43	SMA
79-01-6	Trichloroethylene	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/19/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12	09/19/2023 12:43	SMA
75-69-4	Trichlorofluoromethane	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/19/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12	09/19/2023 12:43	SMA
75-01-4	Vinyl Chloride	ND		ug/L	2.5	5.0	1	EPA 8260C Certifications:	09/19/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12	09/19/2023 12:43	SMA
1330-20-7	Xylenes, Total	ND		ug/L	7.5	15	1	EPA 8260C Certifications:	09/19/2023 09:00 CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,NELAC-NY12	09/19/2023 12:43	SMA

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*113 %*	*65-135*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*99.1 %*	*86-118*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*97.6 %*	*81-114*

Volatile Organics, Tentatively Identified Cmpds.

Log-in Notes: HT-04 **Sample Notes:**

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
NA	**Methanethiol isomer**	**88**	J	ug/L			1	EPA 8260C Certifications:	09/19/2023 09:00	09/19/2023 12:43	SMA

Sample Information

Client Sample ID: S000130590 **York Sample ID:** 23I0821-07

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0821	X53579-02/37776	Water	September 11, 2023 8:40 am	09/13/2023

Sulfide **Log-in Notes:** HT-04 **Sample Notes:**

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
18496-25-8	**Sulfide**	**2.7**		mg/L	1.0	1	SM 4500-S F	09/15/2023 11:15	09/18/2023 07:35	VR
							Certifications:	CTDOH-PH-0723,NJDEP-CT005,NELAC-NY10854,PADEP-68-04		

Sample Information

Client Sample ID: S000165621 **York Sample ID:** 23I0821-08

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0821	X53579-02/37776	Water	September 11, 2023 8:40 am	09/13/2023

Semi-Volatiles, 1,4-Dioxane 8270 SIM-Aqueous **Log-in Notes:** HT-04 **Sample Notes:**

Sample Prepared by Method: EPA 3535A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
123-91-1	**1,4-Dioxane**	**1.81**		ug/L	0.300	1	EPA 8270D SIM	09/18/2023 08:43	09/19/2023 17:29	KH
							Certifications:	NJDEP-CT005,NELAC-NY10854		

	Surrogate Recoveries	Result	Acceptance Range
17647-74-4	*Surrogate: 1,4-Dioxane-d8*	*101 %*	*36.6-118*

Sample Information

Client Sample ID: S000165696 **York Sample ID:** 23I0821-09

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0821	X53579-02/37776	Water	September 11, 2023 8:40 am	09/13/2023

Phenols, total **Log-in Notes:** HT-04 **Sample Notes:**

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
64743-03-9	Phenols, total	ND		mg/L	0.0500	1	EPA 420.1/2	09/20/2023 14:33	09/20/2023 19:11	SMK
							Certifications:	NELAC-NY10854,CTDOH-PH-0723,NJDEP-CT005,PADEP-68-044		

Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
23I0821-06	S000130588	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C

Sample and Data Qualifiers Relating to This Work Order

QR-01	Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit. QC batch accepted based on LCS and/or LCSD QC results.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QL-02	This LCS analyte is outside Laboratory Recovery limits due the analyte behavior using the referenced method. The reference method has certain limitations with respect to analytes of this nature.
PFSu-H	The isotopically labeled surrogate recovered above lab control limits due to a matrix effect. Isotope Dilution was applied.
PF-CCV-L	The CCV recovery was slightly below acceptable limits for the qualified compound. However, sample results are not biased low because results are corrected for isotope recovery.
M-CCV1	The recovery for this element in the Continuing Calibration Verification (CCV) exceeded 110% of the expected value. Positive detections may be biased high.
J	Detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL/LOD) or in the case of a TIC, the result is an estimated concentration.
HT-04	NON-COMPLIANT- Client requested analysis be conducted outside of holding times.
HT-02	NON-COMPLIANT-This sample was received outside the EPA recommended holding time.
B	Analyte is found in the associated analysis batch blank. For volatiles, methylene chloride and acetone are common lab contaminants.

Definitions and Other Explanations

*	Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.
ND	NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)
RL	REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
LOQ	LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence. This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon current NELAC/TNI Standards and applies to all analyses.
LOD	LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.
MDL	METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.
Reported to	This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.
NR	Not reported
RPD	Relative Percent Difference
Wet	The data has been reported on an as-received (wet weight) basis
Low Bias	Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
High Bias	High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.

Non-Dir. Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.

For analyses by EPA SW-846-8270D, the Limit of Quantitation (LOQ) reported for benzidine is based upon the lowest standard used for calibration and is not a verified LOQ due to this compound's propensity for oxidative losses during extraction/concentration procedures and non-reproducible chromatographic performance.

YORK ANALYTICAL LABORATORIES INC

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

ALL SHADED AREAS are for LAB USE ONLY

Company: **AG ENVIRONMENTAL, RSC, LLC.** **Sullivan County Labs**	Billing Information:
Address: **86 Queen Mountain Road, Ferndale**	
Report To:	Email To: **results@sullivancountylabs.com**
Copy To:	Site Collection Info/Address: **281 Phelps Lane**
Customer Project Name/Number: **X53579-02 / 37776**	State: County/City: Time Zone Collected: **New York / Sullivan** [ ]PT [ ]MT [ ]CT [ ]ET
Phone: **845.704.8151** Email: **info@sullivancountylabs.com**	Site/Facility ID #: / Compliance Monitoring? [ ] Yes [ ] No
Collected By (print):	Purchase Order # : Quote #: / DW PWS ID #: DW Location Code:
Collected By (signature):	Turnaround Date Required: / Immediately Packed on Ice: [ ] Yes [ ] No
Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: _____ [ ] Hold: _____	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply) / Field Filtered (if applicable): [ ] Yes [ ] No Analysis: _____

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Container Preservative Type **

U	U	4	1	3	3	54	U	2		

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other _____

Lab Project Manager:

23I0821

Analyses

Lab Profile / Line:

Customer Sample ID	Matrix *	Comp/ Grab	Collected (or Composite Start) Date	Time	Sample Location	Hardness,300,Color,cr+6 By Various Methods	PFAS/PFOS by Method 537m	Cyanide by EPA Method 4500 CN C-2016	TAL/TCL Metals List by EPA 200.7/200.8 method	Total Organic Carbon by SM22 5310B	Volatile Organic Compounds w/Top 10 identified compounds (TICs) by EPA 8260 Method	Sulfide by SM 4500-S2 D Method	1,4 Dioxane by Method 8270D SIM	Total Phenolics by EPA 420.1 Method				Lab Sample Receipt Checklist:			
S000130580	SW	G	09/11	08:40am	NNU PLCRS	X												Custody Seals Present/Intact	Y	N	NA
S000130581	SW	G	09/11	08:40am	NNU PLCRS		X											Custody Signatures Present	Y	N	NA
S000130584	SW	G	09/11	08:40am	NNU PLCRS			X										Collector Signature Present	Y	N	NA
S000130585	SW	G	09/11	08:40am	NNU PLCRS				X									Bottles Intact	Y	N	NA
S000130587	SW	G	09/11	08:40am	NNU PLCRS					X								Correct Bottles	Y	N	NA
S000130588	SW	G	09/11	08:40am	NNU PLCRS						X							Sufficient Volume	Y	N	NA
S000130590	SW	G	09/11	08:40am	NNU PLCRS							X						Samples Received on Ice	Y	N	NA
S000165621	SW	G	09/11	08:40am	NNU PLCRS								X					VOA - Headspace Acceptable	Y	N	NA
S000165696	SW	G	09/11	08:40am	NNU PLCRS									X				USDA Regulated Soils	Y	N	NA
																		Samples in Holding Time	Y	N	NA
																		Residual Chlorine Present	Y	N	NA
																		CL Strips: _____			
																		Sample pH Acceptable	Y	N	NA
																		pH Strips: _____			
																		Sulfide Present	Y	N	NA
																		Lead Acetate Strips: _____			
																		LAB USE ONLY:			
																		Lab Sample # / Comments:			
																		Plastic/1000/Unpreserved			
																		Plastic/250 x2 /Unpreserved			
																		Plastic/250/Sodium Hydroxide			
																		Plastic/250/Nitric Acid			
																		Glass Vial with Teflon Top/2x40 ml Vials/Hydrochloric Acid			
																		Glass Vial with Teflon Top/40x2/Hydrochloric Acid			
																		Plastic/1000/NAOH/Zn Acetate			
																		Glass-tinted/500/Unpreserved			
																		Glass-tinted/1000/Sulfuric Acid			

Customer Remarks / Special Conditions / Possible Hazards:

- Hardness,300,Color,cr+6 (not included NO2/NO3)
- TAL List Metals.: Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Cobalt, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium
- Sulfide Lower Limit of det. < 1.0 mg/L

Type of Ice Used: Wet Blue Dry None

Packing Material Used:

Radchem samples(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #:

Samples received via: FEDEX UPS Client Courier Other

LAB Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#: _____
Cooler 1 Temp Upon Receipt: ___oC
Cooler 1 Therm Corr. Factor: ___oC
Cooler 2 Corrected Temp: ___oC
Comments:
Code:754.20 5.4

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time: 9/13 1000	MTJL LAB USE ONLY
Relinquished by/Company: (Signature)	Date/Time: 9/13 2:50	Received by/Company: (Signature)	Date/Time: 9/13/23 1450	Table #: / Acctnum: / Template: / Prelogin: / PM: / PB:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	

Trip Blanck Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO

Page: 1 of: 1

AG Environmental
RSC LLC

To Whom it May Concern,

There were no field notes given on the samples brought in for Town of Babylon NNU PLCRS. Cr+6 was ran out of holding time. PFOA exceeded the MCL of 10ng/L. Sulfide, dioxane, cadmium, arsenic, and antimony all came back high.

Signed,

Krista Chilson

Quality Assurance Officer

845-704-8151 (x413)

AG Environmental
RSC LLC

To Whom it May Concern,

The QC Data for Town of Babylon NNU PLCRS is attached. The following comment was made for cadmium, thallium, antimony, beryllium, and potassium. “The recovery for this element in the Continuing Calibration Verification (CCV) exceeded 110% of the expected value. Positive detections may be biased high.” Potassium also had the following comment “Analyte is found in the associated analysis batch blank. For volatiles, methylene chloride and acetone are common lab contaminants.” Methanethidisomer had the following comment “Detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL/LOD) or in the case of a TIC, the result is an estimated concentration.” Tetrachloroethylene and acetone had the following comment “This LCS analyte is outside Laboratory Recovery limits due the analyte behavior using the referenced method. The reference method has certain limitations with respect to analytes of this nature.

Signed,

Krista Chilson - Quality Assurance Officer

845-747-9759
www.agerny.com
86 Queen Mountain Rd
Ferndale NY 12734
info@agerny.com

AG Environmental
RSC LLC

845-747-9759
www.agerny.com
86 Queen Mountain Rd
Ferndale NY 12734
info@agerny.com

Sullivan County Labs

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Town of Babylon	Report To: Joe Guarino	Attention:
Address: 281 Phelps Lane	Copy To:	Company Name:
North Babylon, NY 11703		Address:
Email: Jguarino@TownofBabylon.com	Purchase Order #:	Quote:
Phone: 631-422-7640 Fax	Project Name: Cell 7 Leachate Expanded 360 Parameters	Project Manager:
Requested Due Date:	Project #:	Profile #:

Regulatory Agency

State / Location: NY

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique MATRIX: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	NaOH & Zinc Acetate	Methanol	Other	Analyses Test	Number of Bottles per Analysis	Residual Chlorine (Y/N)	
																3		
1	Cell 7 PLCRS	WT	G	9/11/2023	900		18	X	X	X	X	X	X			8260 VOC + TICs	3		11.9°C
2																6010 / 7470	1		
3																Br,Cl,SO4,Color,Cr+6	1		
4																NO2, NO3, Hardness 300.0	1		
5																COD,NH3,NO3,TKN	1		
6																TOC by 5310	2		
7																Cyanide, Total	1		
8																Sulfide	1		
9																1,4 Dioxane by 8270 SIM	1		
10																PFAs by 537	2		
11																BOD	1		
12																TDS	1		
																Alkalinity	1		
																Phenols	1		
																3 - 40mL vials HCL			
																1 - 250 mL HNO3			
																1 - 1 Liter Unpre. Plastic			
																1 - 1 Liter Unpre. Plastic			
																1- 250 Amber Glass w/H2SO4			
																2 - 40 mL vials w/HCL			
																1 - 250 mL Plastic w/NaOH			
																1 Ltr Plas. NaOH & Zinc Acetat			
																1 - 500 mL Amber Unpreserved			
																2 - 250 mL Plastic Unpreserved			
																1 - 1 Liter Plastic Unpreserved			
																1 - 1 Liter Plastic Unpreserved			
																1 - 500 mL Plastic Unpreserved			
																1 - 1 Liter Amber w/H2SO4			

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Cell 7 Leachate Expanded 360 Parameters	Brian Nichols / Zion Environmental, LLC	9-12-23					

SAMPLER NAME AND SIGNATURE			TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	Brian Nichols					
SIGNATURE of SAMPLER:	Brian Nichols	DATE Signed: 9-12-2023 9/12/2023				

Sullivan County Labs

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Town of Babylon	Report To:	Joe Guarino	Attention:	
Address:	281 Phelps Lane	Copy To:		Company Name:	
	North Babylon, NY 11703			Address:	
Email:	Jguarino@TownofBabylon.com	Purchase Order #:		Quote:	
Phone:	631-422-7640 Fax	Project Name:	Cell 7 Leachate Expanded 360 Parameters	Project Manager:	
Requested Due Date:		Project #:		Profile #:	

Regulatory Agency	State / Location
	NY

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	NaOH & Zinc Acetate	Methanol	Other	Analyses Test	Number of Bottles per Analysis	Residual Chlorine (Y/N)
																	2	
																8270	2	
																8081	2	
																8082 (PCB)	2	
																8151 Herbicides	2	
																Radium 228	1	
																Radium 226	1	
																Uranium	1	
																Dioxin by 1613	2	
1	Cell 7 PLCRS	WT	G	9/11/2023	900		13	X		X	X					X	X	
2																X	X	
3																X	X	
4																X	X	
5																X	X	
6																X	X	
7																X	X	
8																2 - 1 Liter Amber Glass	1	
9																2 - 1 Liter Amber Unpreserved	1	
10																2 - 1 Liter Amber Unpreserved	1	
11																2 - 1 Liter Amber Unpreserved	1	
12																1 - 1 Liter Plastic w/HNO3	1	
																1 - 1 Liter Plastic w/HNO3	1	
																1 - 1 Liter Plastic w/HNO3	1	
																2 - 1 Liter Amber Unpreserved	2	

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Cell 7 Leachate Expanded 360 Parameters	Brian Nichols / Zion Environmental, LLC	9-12-23					

SAMPLER NAME AND SIGNATURE			
PRINT Name of SAMPLER:	Brian Nichols		
SIGNATURE of SAMPLER:		DATE Signed:	9-12-2023 9/12/2023

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

(AG ENVIRONMENTAL, RSC, LLC.
Sullivan County Labs)
Water sample submission form

New York State Chain-of-Custody
NON-POTABLE

NYSDOH ELAP # 12081
PA DEP # 68-05705
FLORIDA (Legionella) # E871152

86 Queen Mountain Road, Ferndale, New York, 12734 / Phone: 845.704.8151 / Fax: 845.414.0051

COC#: 37782
CRN:

Bill-to Customer Information: (C53579)		**Well/System Location Information (X53579-02)**	
Customer Name:	Town of Babylon	**Name**	Town of Babylon - Landfill
Address:	200 E. Sunrsie Highway	**Address:**	281 Phelps Lane
Town:	LINDENHURST **State:** NY **Zip:** 11757	**Town:**	North Babylon **State:** NY **Zip:** 11703
Phone:	[P]: / [EP]: 631-957-3025	**SPEDES:**	N/A
Email:	klynch@townofbabylon.com	**Contact Name:**	
Fax:		**Phone:**	631-957-3025

Notes:

10 CRR-NY 5-1.74 of the NY State Code requires the owner of a public water system shall ensure the approved environmental laboratory performing the analyses sends laboratory results to the Dept. of Health in a manner prescribed by them. Initial here _____ if you want us to forward your results to the Dept. of Health. *Note: It is your responsibility to verify that they receive it.*

Customer Sample Collection Data

Bottle Sample#	C/G	Sample Point	Date Sampled	Intl	Prsv	Ver pH	On Ice	Test ELAP/EPA Method	Comments/Sample Temp
S000130617	G	CELL 7 PLCRS	09/11/2023 09:00 AM	BN	NaOH	S	YES	Cyanide by EPA Method 4500 CN C-2016	/ 11.9°C
S000130614	G	CELL 7 PLCRS	09/11/2023 09:00 AM	BN	UNP	S	YES	PFAS/PFOS by Method 537m	/ 11.9°C
S000130616	G	CELL 7 PLCRS	09/11/2023 09:00 AM	BN	UNP	S	YES	TLCP RCRA by 6010 /7470 Method	/ 11.9°C
S000115152	G	CELL 7 PLCRS	09/11/2023 09:00 AM	BN	UNP		YES	Alkalinity by Analytical Method: SM22 2320B	/ 11.9°C
S000130605	G	CELL 7 PLCRS	09/11/2023 09:00 AM	BN	H2SO4		YES	COD,NH3,NO3, TKN by Various Methods	/ 11.9°C
S000130615	G	CELL 7 PLCRS	09/11/2023 09:00 AM	BN	UNP		YES	Total Dissolved Solids by SM22 2540C Method	/ 11.9°C
S000130613	G	CELL 7 PLCRS	09/11/2023 09:00 AM	BN	H2SO4		YES	Nitrate-Nitrite as (N) by Systea (1-Reagent) Method	/ 11.9°C
S000130619	G	CELL 7 PLCRS	09/11/2023 09:00 AM	BN	HCL	S	YES	Total Organic Carbon by SM22 5310B	/ 11.9°C

Customer Sample Collection Data									
Bottle Sample#	**C/G**	**Sample Point**	**Date Sampled**	**Intl**	**Prsv**	**Ver pH**	**On Ice**	**Test ELAP/EPA Method**	**Comments/Sample Temp**
S000130618	G	CELL 7 PLCRS	09/11/2023 09:00 AM	BN	HCL	S	YES	Volatile Organic Compounds w/ Top 10 identified compounds (TICs) by EPA 8260 Method	/ 11.9°C
S000130611	G	CELL 7 PLCRS	09/11/2023 09:00 AM	BN	UNP	S	YES	Hardness,300,Color,cr+6 By Various Methods	/ 11.9°C
S000130606	G	CELL 7 PLCRS	09/11/2023 09:00 AM	BN	UNP		YES	BOD 5-Day SM 5210B Method	/ 11.9°C
S000130607	G	CELL 7 PLCRS	09/11/2023 09:00 AM	BN	UNP	S	YES	Pesticides by EPA 8081	/ 11.9°C
S000130612	G	CELL 7 PLCRS	09/11/2023 09:00 AM	BN	HNO3	S	YES	Uranium by EPA 200.8 Method	/ 11.9°C
S000130610	G	CELL 7 PLCRS	09/11/2023 09:00 AM	BN	HNO3	S	YES	Radium 226/228 by methods 903.1/904.1	/ 11.9°C
S000130620	G	CELL 7 PLCRS	09/11/2023 09:00 AM	BN	NAOH/ZnAcetate	S	YES	Sulfide by SM 4500-S2 D Method	/ 11.9°C
S000130608	G	CELL 7 PLCRS	09/11/2023 09:00 AM	BN	UNP	S	YES	PCBs by EPA 8082A Method	/ 11.9°C
S000130609	G	CELL 7 PLCRS	09/11/2023 09:00 AM	BN	UNP	S	YES	Herbicides by EPA 8151A Method	/ 11.9°C
S000165623	G	CELL 7 PLCRS	09/11/2023 09:00 AM	BN	UNP	S	YES	1,4 Dioxane by Method 8270D SIM	/ 11.9°C
S000165676	G	CELL 7 PLCRS	09/11/2023 09:00 AM	BN	H2SO4	S	YES	Total Phenolics by EPA 420.1 Method	/ 11.9°C
S000130603	G	CELL 7 PLCRS	09/11/2023 09:00 AM	BN	UNP	S	YES	Semivolatile organic compounds (SVOCs) by EPA 625.1 Method	/ 11.9°C
S000130604	G	CELL 7 PLCRS	09/11/2023 09:00 AM	BN	UNP	S	YES	DIOXIN by EPA 1613 Method	/ 11.9°C

Relinquished By*:	SIGN HERE	Relinquished To:	Kristie C.	Received Date	09/12/2023	Received Time	10:00 AM
Relinquished By*:		Relinquished To:		Received Date		Received Time	

*By signing, customer acknowledges that some samples may be sent to a sister (certified) LAB for analysis. Samples cannot be logged in and turnaround time clock will not start until any ambiguities are resolved. By executing this document, the client has read and agrees to be bound by Sullivan County Labs terms and conditions found on www.SullivanCountyLabs.com. Public water systems are required to report results to the local Dept. of Health office. When necessary, we reserve the right to subcontract testing to accredited laboratories that are certified by the state from which the sample was taken. Circumstances might require us to send your sample to an affiliated lab, either due to instrument backlog, hold time limitations, or non-accreditation in a particular test. You are giving us permission to do so by signing this COC. The alternate lab will be shown on your certificate of results with its approved ELAP #. The test reports relate only to the samples as received. By signing, the customer confirms that they provided all information pertaining to the documented samples.

Technical Report

prepared for:

Sullivan County Labs
86 Queen Mountain Road
Ferndale NY, 12734
Attention: Jerry Berger

Report Date: 10/11/2023
Client Project ID: C53579-02 137782
York Project (SDG) No.: 23I0968

Report Date: 10/11/2023
Client Project ID: C53579-02 137782
York Project (SDG) No.: 23I0968

Sullivan County Labs
86 Queen Mountain Road
Ferndale NY, 12734
Attention: Jerry Berger

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on September 15, 2023 and listed below. The project was identified as your project: **C53579-02 137782**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Sample and Analysis Qualifiers section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the Sample and Data Qualifiers Relating to This Work Order section of this report and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

York Sample ID	Client Sample ID	Matrix	Date Collected	Date Received
23I0968-01	S000130617	Water	09/11/2023	09/15/2023
23I0968-02	S000130614	Water	09/11/2023	09/15/2023
23I0968-03	S000130616	Water	09/11/2023	09/15/2023
23I0968-04	S000130618	Water	09/11/2023	09/15/2023
23I0968-05	S000130611	Water	09/11/2023	09/15/2023
23I0968-06	S000130612	Water	09/11/2023	09/15/2023
23I0968-07	S000130610	Water	09/11/2023	09/15/2023
23I0968-08	S000130620	Water	09/11/2023	09/15/2023
23I0968-09	S000130619	Water	09/11/2023	09/15/2023

General Notes for York Project (SDG) No.: 23I0968

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All analyses conducted met method or Laboratory SOP requirements. See the Sample and Data Qualifiers Section for further information.
6. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
7. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.
8. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058.

Approved By: 

Date: 10/11/2023

Cassie L. Mosher
Laboratory Manager

Sample Information

Client Sample ID: S000130617 **York Sample ID:** 23I0968-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0968	C53579-02 137782	Water	September 11, 2023 9:00 am	09/15/2023

Cyanide, Total

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
57-12-5	Cyanide, total	ND		mg/L	0.0100	1	SM 4500 CN C-2016 / E-201(	09/22/2023 14:32	09/22/2023 17:07	SL
							Certifications:	NELAC-NY10854,CTDOH-PH-0723,NJDEP-CT005,PADEP-68-044		

Sample Information

Client Sample ID: S000130614 **York Sample ID:** 23I0968-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0968	C53579-02 137782	Water	September 11, 2023 9:00 am	09/15/2023

PFAS by EPA 537 m

Log-in Notes:

Sample Notes:

Sample Prepared by Method: SPE Ext-PFAS-EPA 537.1M

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
335-67-1	* **Perfluorooctanoic acid (PFOA)**	**43.8**		ng/L	5.00	5	EPA 537m	09/25/2023 14:01	09/26/2023 17:17	ESJ
							Certifications:			
1763-23-1	* Perfluorooctanesulfonic acid (PFOS)	ND		ng/L	5.00	5	EPA 537m	09/25/2023 14:01	09/26/2023 17:17	ESJ
							Certifications:			

Surrogate Recoveries	Result		Acceptance Range
Surrogate: M3PFBS	*77.2 %*		*25-150*
Surrogate: M5PFHxA	*62.8 %*		*25-150*
Surrogate: M4PFHpA	*96.4 %*		*25-150*
Surrogate: M3PFHxS	*97.5 %*		*25-150*
Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)	*106 %*		*25-150*
Surrogate: M6PFDA	*102 %*		*25-150*
Surrogate: M7PFUdA	*88.4 %*		*25-150*
Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	*69.7 %*		*25-150*
Surrogate: M2PFTeDA	*30.9 %*		*10-150*
Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)	*30.0 %*		*25-150*
Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	*89.8 %*		*25-150*
Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	*107 %*		*25-150*
Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	*8.23 %*	PFSu-L	*10-150*

Sample Information

Client Sample ID: **S000130614** **York Sample ID:** **23I0968-02**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0968	C53579-02 137782	Water	September 11, 2023 9:00 am	09/15/2023

PFAS by EPA 537 m

Log-in Notes:

Sample Notes:

Sample Prepared by Method: SPE Ext-PFAS-EPA 537.1M

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Surrogate: d3-N-MeFOSAA	*77.7 %*			*25-150*					
	Surrogate: d5-N-EtFOSAA	*88.0 %*			*25-150*					
	Surrogate: M2-6:2 FTS	*232 %*	PFSu-H		*25-200*					
	Surrogate: M2-8:2 FTS	*172 %*			*25-200*					
	Surrogate: M9PFNA	*106 %*			*25-150*					

Sample Information

Client Sample ID: **S000130616** **York Sample ID:** **23I0968-03**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0968	C53579-02 137782	Water	September 11, 2023 9:00 am	09/15/2023

Metals, TCLP RCRA

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	ND		mg/L	0.150	1	EPA 6010D/1311	10/03/2023 08:48	10/03/2023 21:07	CEG
							Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-044			
7440-39-3	**Barium**	**8.44**		mg/L	0.250	1	EPA 6010D/1311	10/03/2023 08:48	10/03/2023 21:07	CEG
							Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04			
7440-43-9	Cadmium	ND		mg/L	0.030	1	EPA 6010D/1311	10/03/2023 08:48	10/03/2023 21:07	CEG
							Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-044			
7440-47-3	Chromium	ND		mg/L	0.050	1	EPA 6010D/1311	10/03/2023 08:48	10/03/2023 21:07	CEG
							Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-044			
7439-92-1	Lead	ND		mg/L	0.050	1	EPA 6010D/1311	10/03/2023 08:48	10/03/2023 21:07	CEG
							Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-044			
7782-49-2	Selenium	ND		mg/L	0.250	1	EPA 6010D/1311	10/03/2023 08:48	10/03/2023 21:07	CEG
							Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-044			
7440-22-4	**Silver**	**0.154**	M-CCV 1	mg/L	0.050	1	EPA 6010D/1311	10/03/2023 08:48	10/03/2023 21:07	CEG
							Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04			

Mercury, TCLP

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-7470A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		mg/L	0.002000	10	EPA 7470/1311	09/20/2023 08:16	09/20/2023 08:16	PA
							Certifications: NELAC-NY10854,NJDEP-CT005,CTDOH-PH-0723			

Sample Information

Client Sample ID: **S000130616** **York Sample ID:** **23I0968-03**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0968	C53579-02 137782	Water	September 11, 2023 9:00 am	09/15/2023

TCLP Extraction for METALS EPA 1311

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW 846-1311 TCLP ext. for metals

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	TCLP Extraction	Completed		N/A	1.00	1	EPA 1311	09/19/2023 08:04	09/19/2023 08:28	TAJ
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005		

Sample Information

Client Sample ID: **S000130618** **York Sample ID:** **23I0968-04**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0968	C53579-02 137782	Water	September 11, 2023 9:00 am	09/15/2023

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D	09/26/2023 09:00	09/26/2023 14:53	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT		
71-55-6	1,1,1-Trichloroethane	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D	09/26/2023 09:00	09/26/2023 14:53	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT		
79-34-5	1,1,2,2-Tetrachloroethane	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D	09/26/2023 09:00	09/26/2023 14:53	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT		
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D	09/26/2023 09:00	09/26/2023 14:53	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT		
79-00-5	1,1,2-Trichloroethane	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D	09/26/2023 09:00	09/26/2023 14:53	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT		
75-34-3	1,1-Dichloroethane	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D	09/26/2023 09:00	09/26/2023 14:53	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT		
75-35-4	1,1-Dichloroethylene	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D	09/26/2023 09:00	09/26/2023 14:53	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT		
87-61-6	1,2,3-Trichlorobenzene	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D	09/26/2023 09:00	09/26/2023 14:53	SMA
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP-CT005,PADEP-68-04		
96-18-4	1,2,3-Trichloropropane	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D	09/26/2023 09:00	09/26/2023 14:53	SMA
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP-CT005,PADEP-68-04		
120-82-1	1,2,4-Trichlorobenzene	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D	09/26/2023 09:00	09/26/2023 14:53	SMA
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP-CT005,PADEP-68-04		
95-63-6	1,2,4-Trimethylbenzene	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D	09/26/2023 09:00	09/26/2023 14:53	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT		

Sample Information

Client Sample ID: S000130618 **York Sample ID:** 23I0968-04

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0968	C53579-02 137782	Water	September 11, 2023 9:00 am	09/15/2023

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
96-12-8	1,2-Dibromo-3-chloropropane	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT	SMA
106-93-4	1,2-Dibromoethane	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT	SMA
95-50-1	1,2-Dichlorobenzene	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT	SMA
107-06-2	1,2-Dichloroethane	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT	SMA
78-87-5	1,2-Dichloropropane	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT	SMA
108-67-8	1,3,5-Trimethylbenzene	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT	SMA
541-73-1	1,3-Dichlorobenzene	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT	SMA
106-46-7	1,4-Dichlorobenzene	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT	SMA
123-91-1	1,4-Dioxane	ND	HT-01, HT-PR	ug/L	40	40	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53 NELAC-NY10854,NELAC-NY12058,NJDEP-CT005,PADEP-68-04	SMA
78-93-3	**2-Butanone**	**46**	HT-01, HT-PR	ug/L	2.0	5.0	10	EPA 8260D Certifications:	09/27/2023 12:30	09/27/2023 21:22 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-C	SMA
591-78-6	**2-Hexanone**	**1.1**	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-C	SMA
108-10-1	**4-Methyl-2-pentanone**	**4.6**	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-C	SMA
67-64-1	**Acetone**	**320**	HT-01, HT-PR, ICVE, QL-02	ug/L	10	20	10	EPA 8260D Certifications:	09/27/2023 12:30	09/27/2023 21:22 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-C	SMA
107-02-8	Acrolein	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT	SMA
107-13-1	Acrylonitrile	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT	SMA
71-43-2	Benzene	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT	SMA
74-97-5	Bromochloromethane	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53 NELAC-NY10854,NELAC-NY12058,NJDEP-CT005,PADEP-68-04	SMA
75-27-4	Bromodichloromethane	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT	SMA
75-25-2	Bromoform	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT	SMA

Sample Information

Client Sample ID: **S000130618** **York Sample ID:** **23I0968-04**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0968	C53579-02 137782	Water	September 11, 2023 9:00 am	09/15/2023

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
74-83-9	Bromomethane	ND	CCVE, HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT
75-15-0	**Carbon disulfide**	**0.94**	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT
56-23-5	Carbon tetrachloride	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT
108-90-7	Chlorobenzene	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT
75-00-3	Chloroethane	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT
67-66-3	Chloroform	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT
74-87-3	Chloromethane	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT
156-59-2	cis-1,2-Dichloroethylene	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT
10061-01-5	cis-1,3-Dichloropropylene	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT
110-82-7	Cyclohexane	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53	SMA NELAC-NY10854,NELAC-NY12058,NJDEP-CT005,PADEP-68-04
124-48-1	Dibromochloromethane	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT
74-95-3	Dibromomethane	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53	SMA NELAC-NY10854,NELAC-NY12058,NJDEP-CT005,PADEP-68-04
75-71-8	Dichlorodifluoromethane	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53	SMA NELAC-NY10854,NELAC-NY12058,NJDEP-CT005,PADEP-68-04
100-41-4	Ethyl Benzene	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT
87-68-3	Hexachlorobutadiene	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53	SMA NELAC-NY10854,NELAC-NY12058,NJDEP-CT005,PADEP-68-04
98-82-8	Isopropylbenzene	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT
79-20-9	**Methyl acetate**	**2.5**	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53	SMA NELAC-NY10854,NELAC-NY12058,NJDEP-CT005,PADEP-68-04
1634-04-4	**Methyl tert-butyl ether (MTBE)**	**0.28**	J, HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53	SMA CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT
108-87-2	Methylcyclohexane	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53	SMA NELAC-NY10854,NELAC-NY12058,NJDEP-CT005,PADEP-68-04

Sample Information

Client Sample ID: S000130618 **York Sample ID:** 23I0968-04

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0968	C53579-02 137782	Water	September 11, 2023 9:00 am	09/15/2023

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-09-2	Methylene chloride	ND	HT-01, HT-PR	ug/L	1.0	2.0	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT	SMA
104-51-8	n-Butylbenzene	ND	HT-01, HT-PR, QL-02	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT	SMA
103-65-1	n-Propylbenzene	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT	SMA
95-47-6	o-Xylene	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,PADEP-68	SMA
179601-23-1	p- & m- Xylenes	ND	HT-01, HT-PR	ug/L	0.50	1.0	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,PADEP-68	SMA
99-87-6	p-Isopropyltoluene	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT	SMA
135-98-8	sec-Butylbenzene	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT	SMA
100-42-5	Styrene	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT	SMA
75-65-0	**tert-Butyl alcohol (TBA)**	**47**	HT-01, HT-PR	ug/L	0.50	1.0	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53 NELAC-NY10854,NELAC-NY12058,NJDEP-CT005,PADEP-68-0	SMA
98-06-6	tert-Butylbenzene	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT	SMA
127-18-4	Tetrachloroethylene	ND	HT-01, HT-PR, ICVE, QL-02, CCVE	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT	SMA
108-88-3	Toluene	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT	SMA
156-60-5	trans-1,2-Dichloroethylene	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT	SMA
10061-02-6	trans-1,3-Dichloropropylene	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT	SMA
110-57-6	trans-1,4-dichloro-2-butene	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT	SMA
79-01-6	Trichloroethylene	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT	SMA
75-69-4	Trichlorofluoromethane	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT	SMA
75-01-4	Vinyl Chloride	ND	HT-01, HT-PR	ug/L	0.20	0.50	1	EPA 8260D Certifications:	09/26/2023 09:00	09/26/2023 14:53 CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT	SMA

Sample Information

Client Sample ID: S000130618 **York Sample ID:** 23I0968-04

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0968	C53579-02 137782	Water	September 11, 2023 9:00 am	09/15/2023

Volatile Organics, 8260 - Comprehensive

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
1330-20-7	Xylenes, Total	ND	HT-01, HT-PR	ug/L	0.60	1.5	1	EPA 8260D	09/26/2023 09:00	09/26/2023 14:53	SMA
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP-CT		

	Surrogate Recoveries	Result		Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*118 %*	HT-01, HT-PR	*69-130*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*96.8 %*	HT-01, HT-PR	*81-117*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*98.3 %*	HT-01, HT-PR	*79-122*

Volatile Organics, Tentatively Identified Cmpds.

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
NA	**Disiloxane hexamethyl isomer**	**35**	J, HT-PR, HT-01	ug/L			1	EPA 8260C	09/26/2023 09:00	09/26/2023 14:53	SMA
								Certifications:			

Sample Information

Client Sample ID: S000130611 **York Sample ID:** 23I0968-05

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0968	C53579-02 137782	Water	September 11, 2023 9:00 am	09/15/2023

Calcium by EPA 200.7

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 200.7

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-70-2	**Calcium**	**14800**		mg/L	0.556	10	EPA 200.7	10/04/2023 08:53	10/04/2023 18:04	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		

Hardness, total (as CaCO3)

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 200.7

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Hardness, Total	**36900**		mg/L	11.1	10	SM 2340B-2011	10/04/2023 08:53	10/04/2023 18:04	CEG
							Certifications:	NELAC-NY10854,CTDOH-PH-0723,NJDEP-CT005		

Magnesium by EPA 200.7

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 200.7

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst

Sample Information

Client Sample ID: S000130611 **York Sample ID:** 23I0968-05

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0968	C53579-02 137782	Water	September 11, 2023 9:00 am	09/15/2023

Magnesium by EPA 200.7

Log-in Notes: Sample Notes:

Sample Prepared by Method: EPA 200.7

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-95-4	**Magnesium**	**4.34**		mg/L	0.556	10	EPA 200.7	10/04/2023 08:53	10/04/2023 18:04	CEG
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		

Bromide

Log-in Notes: Sample Notes:

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
24959-67-9	**Bromide**	**504**		mg/L	20.0	100	EPA 300.0	09/27/2023 01:38	09/27/2023 01:38	NJO
							Certifications:	NELAC-NY10854,NJDEP-CT005,PADEP-68-04440		

Chloride

Log-in Notes: Sample Notes:

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
16887-00-6	Chloride	ND	E-dil	mg/L	13.8	100	200	EPA 300.0	10/02/2023 11:49	10/02/2023 11:59	NJO
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-044		

Sulfate as SO4

Log-in Notes: Sample Notes:

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14808-79-8	Sulfate	ND		mg/L	100	100	EPA 300.0	09/27/2023 01:38	09/27/2023 01:38	NJO
							Certifications:	NELAC-NY10854,CTDOH-PH-0723,NJDEP-CT005,PADEP-68-044		

Chromium, Hexavalent

Log-in Notes: Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
18540-29-9	Chromium, Hexavalent	ND	HT-04	mg/L	0.0100	1	EPA 7196A	09/15/2023 20:54	09/15/2023 21:54	SMK
							Certifications:	NELAC-NY10854,CTDOH-PH-0723,NJDEP-CT005,PADEP-68-044		

Color, Apparent

Log-in Notes: Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Color	**1000**	HT-01	Color Units (Pt-Co)	500	100	SM 2120B	09/15/2023 22:15	09/15/2023 22:15	AA
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP-CT005,PADEP-68-04		
	*** pH**	**6.44**	HT-01	Color Units (Pt-Co)	0.500	1	SM 2120B	09/15/2023 22:15	09/15/2023 22:15	AA
							Certifications:			

Sample Information

Client Sample ID: **S000130612** **York Sample ID:** **23I0968-06**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0968	C53579-02 137782	Water	September 11, 2023 9:00 am	09/15/2023

Analyzed by: Summit Environmental (SUB)

Uranium by EPA 200.8 **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA 200.8

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-61-1	Uranium	See Attached		See Attached			EPA 200.8 Certifications:	09/11/2023 09:00		

Sample Information

Client Sample ID: **S000130610** **York Sample ID:** **23I0968-07**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0968	C53579-02 137782	Water	September 11, 2023 9:00 am	09/15/2023

Analyzed by: Summit Environmental (SUB)

Radioactivity **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Radium 228	See Attached		See Attached			EPA 900/903/908 Certifications:	09/11/2023 09:00		
	Radium 226	See Attached		See Attached			EPA 900/903/908 Certifications:	09/11/2023 09:00		

Sample Information

Client Sample ID: **S000130620** **York Sample ID:** **23I0968-08**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0968	C53579-02 137782	Water	September 11, 2023 9:00 am	09/15/2023

Sulfide **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
18496-25-8	**Sulfide**	**4.6**	HT-02	mg/L	1.0	1	SM 4500-S F Certifications:	10/04/2023 07:47	10/04/2023 07:47	VR
								CTDOH-PH-0723,NJDEP-CT005,NELAC-NY10854,PADEP-68-04		

Sample Information

Client Sample ID: S000130619 **York Sample ID:** 23I0968-09

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23I0968	C53579-02 137782	Water	September 11, 2023 9:00 am	09/15/2023

Analyzed by: Phoenix Environmental Labs, Inc.

SM5310B-14

Log-in Notes:

Sample Notes:

Sample Prepared by Method: SM5310B-14

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
PHNX - TOC	**Total Organic Carbon**	**397**		mg/L	40	40	40	SM5310B-14	09/30/2023 13:07	09/30/2023 13:07	CT007
								Certifications:			

Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
23I0968-04	S000130618	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C

Sample and Data Qualifiers Relating to This Work Order

ICVE	The value reported is ESTIMATED. The value is estimated due to its behavior during initial calibration verification (recovery exceeded 30% of expected value).
CCVE	The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% Difference for average Rf or >20% Drift for quadratic fit).
E-dil	Actual amount is greater than the reported value. Error capacity of the analysis is compromised by further dilution.
EXT-COMP	Completed
HT-01	This result was reported from an analysis conducted outside of the EPA recommended holding time.
HT-02	NON-COMPLIANT-This sample was received outside the EPA recommended holding time.
B	Analyte is found in the associated analysis batch blank. For volatiles, methylene chloride and acetone are common lab contaminants.
HT-PR	Sample was prepared outside of the recommended holding time.
See Attach	See Attached
J	Detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL/LOD) or in the case of a TIC, the result is an estimated concentration.
M-CCV1	The recovery for this element in the Continuing Calibration Verification (CCV) exceeded 110% of the expected value. Positive detections may be biased high.
PFSu-H	The isotopically labeled surrogate recovered above lab control limits due to a matrix effect. Isotope Dilution was applied.
PFSu-L	The isotopically labeled surrogate recovered below lab control limits due to a matrix effect. Isotope Dilution was applied.
QL-02	This LCS analyte is outside Laboratory Recovery limits due the analyte behavior using the referenced method. The reference method has certain limitations with respect to analytes of this nature.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
HT-04	NON-COMPLIANT- Client requested analysis be conducted outside of holding times.

Definitions and Other Explanations

*	Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.
ND	NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)
RL	REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
LOQ	LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence. This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon current NELAC/TNI Standards and applies to all analyses.
LOD	LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.
MDL	METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.
Reported to	This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.
NR	Not reported
RPD	Relative Percent Difference
Wet	The data has been reported on an as-received (wet weight) basis

Low Bias — Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.

High Bias — High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.

Non-Dir. — Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.

For analyses by EPA SW-846-8270D, the Limit of Quantitation (LOQ) reported for benzidine is based upon the lowest standard used for calibration and is not a verified LOQ due to this compound's propensity for oxidative losses during extraction/concentration procedures and non-reproducible chromatographic performance.

York Analytical Laboratories, Inc.
120 Research Drive, Stratford, CT 06615
132-02 89th Ave, Queens, NY 11418
clientservices@yorklab.com
www.yorklab.com

Field Chain-of-Custody Record

NOTE: YORK's Standard Terms & Conditions are listed on the back side of this document.
This document serves as your written authorization for YORK to proceed with the analyses requested below.
Your signature binds you to YORK's Standard Terms & Conditions.

YORK Project No. 23I0968

Page ____ of ____

YOUR Information	Report To:	Invoice To:
Company: Sullivan County Labs	Company:	Company:
Address: 86 Queen Mtn Rd Fremble NY 12784	Address:	Address:
Phone: 845 704 6151 x413	Phone:	Phone:
Contact: Krista Chilson	Contact:	Contact:
E-mail: krista.chilson@sullivancountylabs.com	E-mail:	E-mail:

YOUR Project Number: C53579-02 135782

YOUR Project Name:

YOUR PO#:

Turn-Around Time

- RUSH - Next Day
- RUSH - Two Day
- RUSH - Three Day
- RUSH - Four Day
- Standard (5-7 Day) ✓

Please print clearly and legibly. All information must be complete. Samples will not be logged in and the turn-around-time clock will not begin until any questions by YORK are resolved.

Samples Collected by: (print your name above and sign below)

Matrix Codes

S - soil / solid
GW - groundwater
DW - drinking water
WW - wastewater
O - Oil ; Other

Samples From

New York
New Jersey
Connecticut
Pennsylvania
Other

Report / EDD Type (circle selections)

Summary Report | CT RCP | Standard Excel EDD
QA Report | CT RCP DQA/DUE | EQuIS (Standard)
NY ASP A Package | NJDEP Reduced Deliverables | NYSDEC EQuIS
NY ASP B Package | NJDKQP | NJDEP SRP HazSite
Other:

YORK Reg. Comp.

Compared to the following Regulation(s): (please fill in)

Sample Identification	Sample Matrix	Date/Time Sampled	Analysis Requested	Container Description
S000130617	SW	9/11/23 9am	Cyanide by 4500 CN C-2016	
S000130614	SW	"	PFAS by 537	
S000130616	SW	"	TCLP RCRA by 6010/7470	
S000130618	SW	"	VOCs w/TICs by 8260	
S000130611	SW	"	Hardness, Boo, Color, Cr+6	
S000130607 not rec	SW	"	Pesticides by 8081	
S000130612	SW	"	Uranium by 200.8	
S000130610	SW	"	Radium 226/228	
S000130620	SW	"	Sulfide by 4500-S2 D	
S000130605 Sample not rec	SW	"	PCBs by 8082A	

Comments:

Preservation: (check all that apply)
HCl ___ MeOH ___ HNO_3 ___ H_2SO_4 ___ NaOH ___ ZnAc ___
Ascorbic Acid ___ Other: ___

Special Instruction
Field Filtered ____
Lab to Filter ____

Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time
Krista C.	9/12/23 4:04pm	AF for Jeff Menendez	9/14/23
Samples Received by / Company	Date/Time	Samples Relinquished by / Company	Date/Time
Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time

Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time
AF for Jeff Menendez	9/14/23	AF for Jeff Menendez	9/14/23
Samples Received by / Company	Date/Time		
Samples Received in LAB by	Date/Time	Temp. Received at Lab	
AF	9/14/23 1515	6.0 Degrees C	

York Analytical Laboratories, Inc.
120 Research Drive, Stratford, CT 06615
132-02 89th Ave, Queens, NY 11418
clientservices@yorklab.com
www.yorklab.com

Field Chain-of-Custody Record

NOTE: YORK's Standard Terms & Conditions are listed on the back side of this document.
This document serves as your written authorization for YORK to proceed with the analyses requested below.
Your signature binds you to YORK's Standard Terms & Conditions.

YORK Project No. 23I0968

Page ____ of ____

YOUR Information	Report To:	Invoice To:	YOUR Project Number	Turn-Around Time
Company:	Company:	Company:		RUSH - Next Day
Address:	Address:	Address:	YOUR Project Name	RUSH - Two Day
Phone:	Phone:	Phone:		RUSH - Three Day
Contact:	Contact:	Contact:		RUSH - Four Day
E-mail:	E-mail:	E-mail:	YOUR PO#:	Standard (5-7 Day)

Please print clearly and legibly. All information must be complete. Samples will not be logged in and the turn-around-time clock will not begin until any questions by YORK are resolved.

Samples Collected by: (print your name above and sign below)

Matrix Codes
S - soil / solid
GW - groundwater
DW - drinking water
WW - wastewater
O - Oil ; Other

Samples From
New York
New Jersey
Connecticut
Pennsylvania
Other

Report / EDD Type (circle selections)
Summary Report; CT RCP; Standard Excel EDD
QA Report; CT RCP DQA/DUE; EQuIS (Standard)
NY ASP A Package; NJDEP Reduced Deliverables; NYSDEC EQuIS
NY ASP B Package; NJDKQP; NJDEP SRP HazSite
Other:

YORK Reg. Comp.
Compared to the following Regulation(s): (please fill in)

Sample Identification	Sample Matrix	Date/Time Sampled	Analysis Requested	Container Description
S000130600 9	SW	9/11/23 9pm	Herbicides by 8151A	
S000 1605623 (not rec'd)	SW	"	1,4 Dioxane by 8270D	
S000 160560 6	SW	"	Phenols by 420.1	
S000 130600 3	SW	"	SVOC by 625.1	
S000 130619	SW	"	TOC	

Comments:

Preservation: (check all that apply)
HCl ___ MeOH ___ HNO_3 ___ H_2SO_4 ___ NaOH ___ ZnAc ___
Ascorbic Acid ___ Other: ___

Special Instruction
Field Filtered ____
Lab to Filter ____

Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time	Samples Relinquished by / Company	Date/Time
Samples Received by / Company	**Date/Time**	**Samples Relinquished by / Company**	**Date/Time**	**Samples Received by / Company**	**Date/Time**
Samples Relinquished by / Company	**Date/Time**	**Samples Received by / Company**	**Date/Time**	**Samples Received in LAB by** Date/Time	**Temp. Received at Lab**
					Degrees C

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

October 11, 2023

Phil Murphy
York Analytical Laboratories, Inc.
120 Research Drive
Stratford, CT 06615
TEL: (203) 325-1371
FAX:

RE: 23I0968

Dear Phil Murphy:

Order No.: 23091521

Summit Environmental Technologies, Inc. received 2 sample(s) on 9/21/2023 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Holly Florea

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Case Narrative

WO#: **23091521**
Date: **10/11/2023**

CLIENT: York Analytical Laboratories, Inc.
Project: 23I0968

WorkOrder Narrative:
This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Summit Environmental Technologies, Inc., Work Order Number assigned to this report.

Summit Environmental Technologies, Inc., holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

 The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Summit Environmental Technologies, Inc. is not responsible for use or interpretation of the data included herein.

All results for Solid Samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

Analytical Sequence Sample Notes:
23091521-002A Radium-228_DW(904.0): Sample dilution due to sample matrix.

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Workorder Sample Summary

WO#: **23091521**
11-Oct-23

CLIENT: York Analytical Laboratories, Inc.
Project: 23I0968

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
23091521-001	S000130612		9/11/2023 9:00:00 AM	9/21/2023 1:20:00 PM	Drinking Water
23091521-002	S000130610		9/11/2023 9:00:00 AM	9/21/2023 1:20:00 PM	Drinking Water

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Analytical Report

(consolidated)

WO#: **23091521**

Date Reported: **10/11/2023**

CLIENT: York Analytical Laboratories, Inc. **Collection Date:** 9/11/2023 9:00:00 AM

Project: 23I0968

Lab ID: 23091521-002 **Matrix:** DRINKING WATER

Client Sample ID: S000130610

Analyses	Result	PQL	Qual	Units	Uncertainty	DF	Date Analyzed
RADIUM-226 (903.0)					**E903.0**	**E903-904**	Analyst: **HDJ**
Radium-226	ND	10.0		pCi/L	± 0.84	1	10/6/2023 10:22:00 AM
Yield	1.00					1	10/6/2023 10:22:00 AM
RADIUM-228 (904.0)					**E904.0**	**E903-904**	Analyst: **HDJ**
Radium-228	11.3	10.0	*	pCi/L	± 5.81	1	10/5/2023 3:29:00 PM
Yield	0.950					1	10/5/2023 3:29:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
ND	Not Detected	OG1	
P	Second column confirmation exceeds	PL	Permit Limit

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC. Analytical Laboratories

Summit Environmental Technologies, Inc.
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Analytical Report

(consolidated)

WO#: **23091521**

Date Reported: **10/11/2023**

CLIENT: York Analytical Laboratories, Inc. **Collection Date:** 9/11/2023 9:00:00 AM

Project: 23I0968

Lab ID: 23091521-001 **Matrix:** DRINKING WATER

Client Sample ID: S000130612

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
METALS (200.8)				**E200.8**	**E200.8**	Analyst: **RJE**
Uranium	ND	0.00100		mg/L	1	9/26/2023 6:20:00 AM

Qualifiers:				
	B	Analyte detected in the associated Method Blank	H	Holding times for preparation or analysis exceeded
	M	Manual Integration used to determine area response	ND	Not Detected
	PL	Permit Limit	R	RPD outside accepted recovery limits
	RL	Reporting Detection Limit	W	Sample container temperature is out of limit as specified at testcode

Original

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QC SUMMARY REPORT

WO#: **23091521**

11-Oct-23

Client: York Analytical Laboratories, Inc.

Project: 23I0968 **BatchID:** **68923**

Sample ID: **MB-68923**	SampType: **MBLK**	TestCode: **Mtl-ICPMS_N**	Units: **mg/L**	Prep Date: **9/23/2023**	RunNo: **171423**
Client ID: **PBW**	Batch ID: **68923**	TestNo: **E200.8**	**E200.8**	Analysis Date: **9/25/2023**	SeqNo: **4611511**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Uranium	ND	0.00100									

Sample ID: **LCS-68923**	SampType: **LCS**	TestCode: **Mtl-ICPMS_N**	Units: **mg/L**	Prep Date: **9/23/2023**	RunNo: **171423**
Client ID: **LCSW**	Batch ID: **68923**	TestNo: **E200.8**	**E200.8**	Analysis Date: **9/25/2023**	SeqNo: **4611512**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Uranium	0.0549	0.00100	0.0500	0	110	85	115				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

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QC SUMMARY REPORT

WO#: **23091521**

11-Oct-23

Client: York Analytical Laboratories, Inc.
Project: 23I0968 **BatchID:** **68923**

Sample ID: **MB-68923**	SampType: **MBLK**	TestCode: **Mtl-ICPMS_N**	Units: **mg/L**	Prep Date: **9/23/2023**	RunNo: **171396**
Client ID: **PBW**	Batch ID: **68923**	TestNo: **E200.8**	**E200.8**	Analysis Date: **9/25/2023**	SeqNo: **4610668**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Uranium	ND	0.00100									QC-

Sample ID: **LCS-68923**	SampType: **LCS**	TestCode: **Mtl-ICPMS_N**	Units: **mg/L**	Prep Date: **9/23/2023**	RunNo: **171396**
Client ID: **LCSW**	Batch ID: **68923**	TestNo: **E200.8**	**E200.8**	Analysis Date: **9/25/2023**	SeqNo: **4610669**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Uranium	0.0398	0.00100	0.0500	0	79.6	85	115				SQC-

Sample ID: **23091521-001AMS**	SampType: **MS**	TestCode: **Mtl-ICPMS_N**	Units: **mg/L**	Prep Date: **9/23/2023**	RunNo: **171396**
Client ID: **S000130612**	Batch ID: **68923**	TestNo: **E200.8**	**E200.8**	Analysis Date: **9/25/2023**	SeqNo: **4610671**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum(Al)	0.0612	0.00500	0.0250	0.0555	22.6	70	130				SQV-
Antimony(Sb)	ND	0.00100	0.0250	0	0	70	130				SQC-QV-
Arsenic(As)	0.211	0.00100	0.0250	0.156	221	70	130				SQMR
Barium(Ba)	ND	0.00100	0.0250	0	0	70	130				SQC-
Beryllium(Be)	ND	0.00100	0.0250	0	0	70	130				S
Boron(B)	0.00946	0.00500	0.0250	0.00930	0.644	70	130				3SMB+QC+
Cadmium(Cd)	0.0115	0.00100	0.0250	0.00246	36.2	70	130				SQC-
Chromium(Cr)	0.0658	0.00100	0.0250	0.0472	74.4	70	130				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

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QC SUMMARY REPORT

WO#: **23091521**

11-Oct-23

Client: York Analytical Laboratories, Inc.

Project: 23I0968 **BatchID:** **68923**

Sample ID: **23091521-001AMS** SampType: **MS** TestCode: **Mtl-ICPMS_N** Units: **mg/L** Prep Date: **9/23/2023** RunNo: **171396**

Client ID: **S000130612** Batch ID: **68923** TestNo: **E200.8** **E200.8** Analysis Date: **9/25/2023** SeqNo: **4610671**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cobalt(Co)	0.0143	0.00100	0.0250	0.00320	44.5	70	130				S
Copper(Cu)	0.0528	0.00100	0.0250	0.0474	21.8	70	130				S
Lead(Pb)	0.0497	0.00100	0.0250	0.0121	150	70	130				S
Manganese(Mn)	0.287	0.00100	0.0250	0.263	95.9	70	130				
Molybdenum(Mo)	0.101	0.00100	0.0250	0.0752	104	70	130				QC-
Nickel(Ni)	0.0485	0.00100	0.0250	0.0333	60.5	70	130				SQMR
Selenium(Se)	1.04	0.00100	0.0250	0.754	1160	70	130				SQMR
Silver(Ag)	0.00505	0.00100	0.0125	0.000346	37.6	70	130				SQC-
Thallium(Tl)	0.0397	0.00100	0.0250	0.0000660	159	70	130				S
Thorium(Th)	0.0671	0.00500	0.0250	0	269	70	130				SQC-
Uranium(U)	0.0465	0.00100	0.0250	0	186	70	130				SQC-
Vanadium(V)	0.0259	0.00100	0.0250	0.00652	77.6	70	130				QC+
Zinc(Zn)	0.0231	0.00500	0.0250	0.0186	18.3	70	130				S

Sample ID: **23091521-001AMSD** SampType: **MSD** TestCode: **Mtl-ICPMS_N** Units: **mg/L** Prep Date: **9/23/2023** RunNo: **171396**

Client ID: **S000130612** Batch ID: **68923** TestNo: **E200.8** **E200.8** Analysis Date: **9/25/2023** SeqNo: **4610672**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Uranium	0.0460	0.00100	0.0250	0	184	70	130	0.0465	1.15	20	SQC-

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

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QC SUMMARY REPORT

WO#: **23091521**

11-Oct-23

Client: York Analytical Laboratories, Inc.

Project: 23I0968 **BatchID:** **68923**

Sample ID: **MB-68923**	SampType: **MBLK**	TestCode: **Mtl-ICPMS_D**	Units: **mg/L**	Prep Date: **9/23/2023**	RunNo: **171492**
Client ID: **PBW**	Batch ID: **68923**	TestNo: **E200.8**	**E200.8**	Analysis Date: **9/25/2023**	SeqNo: **4613837**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Uranium	ND	0.00100									

Sample ID: **LCS-68923**	SampType: **LCS**	TestCode: **Mtl-ICPMS_D**	Units: **mg/L**	Prep Date: **9/23/2023**	RunNo: **171492**
Client ID: **LCSW**	Batch ID: **68923**	TestNo: **E200.8**	**E200.8**	Analysis Date: **9/25/2023**	SeqNo: **4613839**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Uranium	0.0549	0.00100	0.0500	0	110	85	115				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

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QC SUMMARY REPORT

WO#: **23091521**

11-Oct-23

Client: York Analytical Laboratories, Inc.

Project: 23I0968 **BatchID:** **69154**

Sample ID: **MB-69154** SampType: **MBLK** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **10/2/2023** RunNo: **172401**

Client ID: **PBW** Batch ID: **69154** TestNo: **E904.0** **E903-904** Analysis Date: **10/5/2023** SeqNo: **4644784**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						
Yield	0.980			0	0						

Sample ID: **LCS-69154** SampType: **LCS** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **10/2/2023** RunNo: **172401**

Client ID: **LCSW** Batch ID: **69154** TestNo: **E904.0** **E903-904** Analysis Date: **10/5/2023** SeqNo: **4644785**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.77	1.00	5.000	0	75.4	70	130				
Yield	0.970			0	0						

Sample ID: **LCSD-69154** SampType: **LCSD** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **10/2/2023** RunNo: **172401**

Client ID: **LCSS02** Batch ID: **69154** TestNo: **E904.0** **E903-904** Analysis Date: **10/5/2023** SeqNo: **4644786**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.59	1.00	5.000	0	71.8	70	130	3.770	4.89	20	
Yield	1.00			0	0			0.9700	3.05		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

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QC SUMMARY REPORT

WO#: **23091521**

11-Oct-23

Client: York Analytical Laboratories, Inc.

Project: 23I0968 **BatchID:** **69154**

Sample ID: **RLC-69154** SampType: **RLC** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **10/2/2023** RunNo: **172401**

Client ID: **BatchQC** Batch ID: **69154** TestNo: **E904.0** **E903-904** Analysis Date: **10/5/2023** SeqNo: **4644788**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00	1.000	0	65.0	50	150				
Yield	1.00			0	0						

Sample ID: **23091718-001AMS** SampType: **MS** TestCode: **Radium-228_** Units: **pCi/L** Prep Date: **10/2/2023** RunNo: **172401**

Client ID: **BatchQC** Batch ID: **69154** TestNo: **E904.0** **E903-904** Analysis Date: **10/5/2023** SeqNo: **4644790**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.70	1.00	5.000	0	74.0	70	130				
Yield	0.850			0.9700	0						

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

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QC SUMMARY REPORT

WO#: **23091521**

11-Oct-23

Client: York Analytical Laboratories, Inc.

Project: 23I0968 **BatchID:** **69154**

Sample ID: **MB-69154** SampType: **MBLK** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **10/2/2023** RunNo: **172415**
Client ID: **PBW** Batch ID: **69154** TestNo: **E903.0** **E903-904** Analysis Date: **10/6/2023** SeqNo: **4645033**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									
Yield	0.980										

Sample ID: **LCS-69154** SampType: **LCS** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **10/2/2023** RunNo: **172415**
Client ID: **LCSW** Batch ID: **69154** TestNo: **E903.0** **E903-904** Analysis Date: **10/6/2023** SeqNo: **4645034**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.55	1.00	5.000	0	91.0	70	130				

Sample ID: **LCSD-69154** SampType: **LCSD** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **10/2/2023** RunNo: **172415**
Client ID: **LCSS02** Batch ID: **69154** TestNo: **E903.0** **E903-904** Analysis Date: **10/6/2023** SeqNo: **4645035**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.00	1.00	5.000	0	100	70	130	4.550	9.42	20	

Sample ID: **RLC-69154** SampType: **RLC** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **10/2/2023** RunNo: **172415**
Client ID: **BatchQC** Batch ID: **69154** TestNo: **E903.0** **E903-904** Analysis Date: **10/6/2023** SeqNo: **4645037**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

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QC SUMMARY REPORT

WO#: **23091521**

11-Oct-23

Client: York Analytical Laboratories, Inc.

Project: 23I0968 **BatchID:** **69154**

Sample ID: **RLC-69154** SampType: **RLC** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **10/2/2023** RunNo: **172415**
Client ID: **BatchQC** Batch ID: **69154** TestNo: **E903.0** **E903-904** Analysis Date: **10/6/2023** SeqNo: **4645037**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00	1.000	0	94.0	50	150				

Sample ID: **RLCD-69154** SampType: **RLC** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **10/2/2023** RunNo: **172415**
Client ID: **BatchQC** Batch ID: **69154** TestNo: **E903.0** **E903-904** Analysis Date: **10/6/2023** SeqNo: **4645038**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00	1.000	0	97.0	50	150				

Sample ID: **23091718-001AMS** SampType: **MS** TestCode: **Radium-226_** Units: **pCi/L** Prep Date: **10/2/2023** RunNo: **172415**
Client ID: **BatchQC** Batch ID: **69154** TestNo: **E903.0** **E903-904** Analysis Date: **10/6/2023** SeqNo: **4645039**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.33	1.00	5.000	0	107	70	130				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
ND	Not Detected	OG1		P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Original

Qualifiers and Acronyms

WO#: **23091521**
Date: **10/11/2023**

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected above the MDL.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
D	The result is reported from a dilution.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*****	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
d	Manual integration in which peak was deleted
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B	The analyte was detected in the Method Blank at a concentration greater than the RL.
MB+	The analyte was detected in the Method Blank at a concentration greater than the MDL.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
W	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
Z	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

Acronyms

ND	Not Detected	**RL**	Reporting Limit
QC	Quality Control	**MDL**	Method Detection Limit
MB	Method Blank	**LOD**	Level of Detection
LCS	Laboratory Control Sample	**LOQ**	Level of Quantitation
LCSD	Laboratory Control Sample Duplicate	**PQL**	Practical Quantitation Limit
QCS	Quality Control Sample	**CRQL**	Contract Required Quantitation Limit
DUP	Duplicate	**PL**	Permit Limit
MS	Matrix Spike	**RegLvl**	Regulatory Limit
MSD	Matrix Spike Duplicate	**MCL**	Maximum Contamination Limit
RPD	Relative Percent Different	**MinCL**	Minimum Compound Limit
ICV	Initial Calibration Verification	**RA**	Reanalysis
ICB	Initial Calibration Blank	**RE**	Reextraction
CCV	Continuing Calibration Verification	**TIC**	Tentatively Identified Compound
CCB	Continuing Calibration Blank	**RT**	Retention Time
RLC	Reporting Limit Check	**CF**	Calibration Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.

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Website: http://www.settek.com

Accreditation Program Analytes Report

WO#: **23091521**

11-Oct-23

Client: York Analytical Laboratories, Inc. **State:** NY

Project: 23I0968 **Program Name:** NY_DW_WW_S

Test Name	Matrix	Analyte	Status
Metals (200.8)	Drinking Water	Uranium, Total	A
Radium-226 (903.0)	Drinking Water	Radium-226	A
Radium-226 (903.0)	Drinking Water	Yield	A
Radium-228 (904.0)	Drinking Water	Radium-228	A
Radium-228 (904.0)	Drinking Water	Yield	A

Key			Key		
DW_WW_SCM_NE	A	Accredited	DW_WW_SCM_NE	N	Not Accredited

Original #1

[redacted]

23091521

YORK
Analytical Laboratories, Inc.

9/15/2023

SUBCONTRACT Notification, Purchase Order and Chain-of-Custody

York Project No.: 23I0968

This information is being sent to inform you that York intends to subcontract certain samples to another licensed laboratory for specific parameters that we cannot perform in-house. The specific paramters that will be subcontracted are detailed below. Do not contact the subcontract laboratory directly. Please contact the YORK project manager for further information.

Note: E-mail lab reports to: York_Lab_Report@yorklab.com **Mail/Fax Hard Copies to:** York Analytical at the address below

SENDING LABORATORY:
York Analytical Laboratories, Inc. - Stratf(
120 Research Drive
Stratford, CT 06615
Phone: 203.325.1371
Fax: 203.357.0166
Contact: **York Analytical**

RECEIVING LABORATORY:
Summit Environmental (SUB)
3310 Win Street
Cuyahoga Falls, OH 44223
Phone :(800) 278-0140
Fax: (330) 253-4489

York Ref: 23I0968-06

Sample ID: S000130612 Matrix: Water Date Sampled: 09/11/2023 09:00

Analysis Needed	Date Due	Holding Time Expires	Comments
Uranium by EPA 200.8	10/06/2023 19:00	03/09/2024 09:00	

Containers Supplied:
08_1000mL Plastic pH <2 w/ HNO3 (A)

Page 1 of 1

York Ref: 23I0968-07

Sample ID: S000130610 Matrix: Water Date Sampled : 09/11/2023 09:00

Analysis Needed	Date Due	Holding Time Expires	Comments
Radioactivity	10/06/2023 19:00	09/18/2023 09:00	Rad 226-228 only

Containers Supplied:
08_1000mL Plastic pH <2 w/ HNO3 (A) 08_1000mL Plastic pH <2 w/ HNO3 (B)

CPM: A:31 B: MW Cooler No FC, FedEx
CPM(A): 6:34 PH:1 CPM(B): 18 PH:1
7:31 PH:1
Temp: 18.7+0.1 = 18.8°C

York Purchase Order No.: 23I0968 Samples from State of: NY

Deliverables required: **Data Pkg DUE:**

EDDs required: **Special Info:**

Reporting level: MDL/LOD

Chain-of-Custody Information

Aidan E. Pagano	9/18/23 ~~9/15/2023~~	[signature]	9/21/23 13:20
Released By York Sample Control	Date	Received By	Date
Received By	Date	Received in Subcontract Lab By	Date

Page 1 of 1

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

Sample Log-In Check List

Client Name: **YOR-CT-06615** Work Order Number: **23091521** RcptNo: **1**

Logged by:	**Meghan Weinberg**	**9/21/2023 1:20:00 PM**
Completed By:	**Salwa A. Najjar**	**9/22/2023 3:55:09 PM**
Reviewed By:	**Holly Florea**	**9/25/2023 10:29:01 AM**

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	FedEx		

Log In

3.	Coolers are present?	Yes ☑	No ☐	NA ☐
4.	Shipping container/cooler in good condition?	Yes ☑	No ☐	
	Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
	No. Seal Date: Signed By:			
5.	Was an attempt made to cool the samples?	Yes ☐	No ☑	NA ☐
6.	Were all samples received at a temperature of >0° C to 6.0°C	Yes ☐	No ☑	NA ☐
		Not required		
7.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
8.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
9.	Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
10.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
11.	Is the headspace in the VOA vials less than 1/4 inch or 6 mm?	Yes ☐	No ☐	No VOA Vials ☑
12.	Were any sample containers received broken?	Yes ☐	No ☑	
13.	Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
14.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
15.	Is it clear what analyses were requested?	Yes ☑	No ☐	
16.	Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

Special Handling (if applicable)

17.	Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: Date:

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

18. Additional remarks:

Cooler Information

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	18.8	Good	Not Present			

AG ENVIRONMENTAL RSC, LLC

LABORATORY CERTIFICATE OF RESULTS

NYSDOH ELAP # 12081
PA DEP # 68-05705
FLORIDA (Legionella) # E871152

86 Queen Mountain Road, Ferndale, New York, 12734 / Phone: 845.704.8151 / Fax: 845.414.0051

Original Report #: 43054
LCR Issue Date: 10/25/2023

Bill-to Customer Information (C53579)		**Water Source Location X53579-02**	
Customer Name:	Town of Babylon	**Source Name:**	Town of Babylon - Landfill
Address:	200 E. Sunrsie Highway	**Address:**	281 Phelps Lane
Town:	LINDENHURST **State:** NY **Zip:** 11757	**Town:**	North Babylon **State:** NY **Zip:** 11703
Phone:	631-957-3025	**PWSID/SPDES:**	N/A
Email:	klynch@townofbabylon.com	**Contact Name:**	
Fax:		**Phone:**	631-957-3025

Sample(s) delivered on 09/12/2023 **at** 10:00 AM **From COC#:** 37782

Sample#	MTX	Sample Point	Sampled Date & Time	Temp	Pres. Y/N/T	Res Cl	Int	Anal/Prep Date & Time	Analyte/Test Method	Comment (see table)	Results	MCL/SMCL (Limits)
S000130617	SW-G	CELL 7 PLCRS	09/11/2023 09:00 AM	11.9°C	Y		BN	09/22/2023 02:32 PM	Cyanide by EPA Method 4500 CN C-2016	Y 23I0968-01/	Cyanide : <10.0 ug/L	200 ug/L
S000130614	SW-G	CELL 7 PLCRS	09/11/2023 09:00 AM	11.9°C	N		BN	09/25/2023 02:01 PM	PFAS/PFOS by Method 537m	Y 23I0968-02/	Perfluorooctanesulfonic Acid : <5.00 ng/L Perfluorooctanoic Acid : 43.8 ng/L **HIGH**	10 ng/L 10 ng/L
S000130616	SW-G	CELL 7 PLCRS	09/11/2023 09:00 AM	11.9°C	N		BN	10/03/2023 08:48 AM	TLCP RCRA by 6010 /7470 Method	Y 23I0968-03/	see attached : See Attached	
S000115152	SW-G	CELL 7 PLCRS	09/11/2023 09:00 AM	11.9°C	N		BN	09/17/2023 01:29 PM	Alkalinity by Analytical Method: SM22 2320B	AL---900029	Alkalinity : 323 mg/l	
S000130605	SW-G	CELL 7 PLCRS	09/11/2023 09:00 AM	11.9°C	Y		BN	09/12/2023 03:16 PM	COD,NH3,NO3, TKN by Various Methods	N B90222	COD : 6560 mg/L NH3 : 55.721 mg/L Nitrate : 0.954 mg/L TKN : 106 mg/L	
S000130615	SW-G	CELL 7 PLCRS	09/11/2023 09:00 AM	11.9°C	N		BN	09/12/2023 03:42 PM	Total Dissolved Solids by SM22 2540C Method	N TDS-00192	Total Dissolved Solids : 107206 mg/L	
S000130613	SW-G	CELL 7 PLCRS	09/11/2023 09:00 AM	11.9°C	Y		BN	09/12/2023 03:16 PM	Nitrate-Nitrite as (N) by Systea (1-Reagent) Method	N B90222	Nitrate-Nitrite (as N) : 0.964 mg/L	
S000130619	SW-G	CELL 7 PLCRS	09/11/2023 09:00 AM	11.9°C	Y		BN	09/30/2023 01:07 PM	Total Organic Carbon by SM22 5310B	Y 23I0968-09/	TOC : 397 mg/L	
S000130618	SW-G	CELL 7 PLCRS	09/11/2023 09:00 AM	11.9°C	Y		BN	09/26/2023 09:00 AM	Volatile Organic Compounds w/ Top 10 identified compounds (TICs) by EPA 8260 Method	Y 23I0968-04/	See attached : See Attached	See Attached
S000130611	SW-G	CELL 7 PLCRS	09/11/2023 09:00 AM	11.9°C	N		BN	09/15/2023 08:54 PM	Hardness,300,Color,cr+6 By Various Methods	Y 23I0968-05/	Bromide : 504 mg/L Chloride : <100 mg/L Sulfate : <100 mg/L Color : 1000 color units Hexavalent Chromium : <0.0100 mg/L Hardness : 36900 mg/L	
S000130606	SW-G	CELL 7 PLCRS	09/11/2023 09:00 AM	11.9°C	N		BN	09/12/2023 03:50 PM	BOD 5-Day SM 5210B Method	N BOD-00313	BOD, 5 day : 1080 mg/L	
S000130607	SW-G	CELL 7 PLCRS	09/11/2023 09:00 AM	11.9°C	N		BN	09/14/2023 11:47 AM	Pesticides by EPA 8081	PH CO99453/	See Attached : See Attached	Attached

Sample#	MTX	Sample Point	Sampled Date & Time	Temp	Pres. Y/N/T	Res Cl	Int	Anal/Prep Date & Time	Analyte/Test Method	Comment (see table)	Results	MCL/SMCL (Limits)
S000130612	SW-G	CELL 7 PLCRS	09/11/2023 09:00 AM	11.9°C	Y		BN	09/11/2023 09:00 AM	Uranium by EPA 200.8 Method	Y 23I0968-06/	Uranium : See Attached	
S000130610	SW-G	CELL 7 PLCRS	09/11/2023 09:00 AM	11.9°C	Y		BN	09/11/2023 09:00 AM	Radium 226/228 by methods 903.1/904.1	Y 23I0968-07/	Radium 228 : See Attached Radium 226 : See Attached	
S000130620	SW-G	CELL 7 PLCRS	09/11/2023 09:00 AM	11.9°C	Y		BN	10/04/2023 07:47 AM	Sulfide by SM 4500-S2 D Method	Y 23I0968-08/	Sulfide : 4.6 mg/L	<= 1.0 mg/L for UV Kit
S000130608	SW-G	CELL 7 PLCRS	09/11/2023 09:00 AM	11.9°C	N		BN	09/14/2023 11:47 AM	PCBs by EPA 8082A Method	PH CO99454/	TOTAL PCB : <10 ug/L Aroclor-1016 : <10 ug/L Aroclor-1221 : <10 ug/L Aroclor-1232 : <10 ug/L Aroclor-1242 : <10 ug/L Aroclor-1248 : <10 ug/L Aroclor-1254 : <10 ug/L Aroclor-1260 : <10 ug/L	
S000130609	SW-G	CELL 7 PLCRS	09/11/2023 09:00 AM	11.9°C	N		BN	09/14/2023 11:47 AM	Herbicides by EPA 8151A Method	PH CO99455/	See Attached : See Attached	
S000165623	SW-G	CELL 7 PLCRS	09/11/2023 09:00 AM	11.9°C	N		BN	09/14/2023 11:47 AM	1,4 Dioxane by Method 8270D SIM	PH CO99456/	1,4 Dioxane : 3.5 ug/L	1.0 ug/L
S000165676	SW-G	CELL 7 PLCRS	09/11/2023 09:00 AM	11.9°C	Y		BN	09/12/2023 03:13 PM	Total Phenolics by EPA 420.1 Method	LE/	Total Phenolics : Sample Canceled	
S000130603	SW-G	CELL 7 PLCRS	09/11/2023 09:00 AM	11.9°C	N		BN	09/14/2023 11:47 AM	Semivolatile organic compounds (SVOCs) by EPA 625.1 Method	Y CO99458/	See attached : See Attached	See Attached
S000130604	SW-G	CELL 7 PLCRS	09/11/2023 09:00 AM	11.9°C	N		BN	09/14/2023 11:51 AM	DIOXIN by EPA 1613 Method	PH CO99370/	Dioxin : <10.0 pg/L	

Comment Table: Y - Sample ran at York Laboratories ELAP #10854 & ELAP #12058 | PH - Sample run by Phoenix Labs - NY ID 11301, PA ID 68-03530 | N - No Comment | LE - Lab Error |
Remarks:

Authorized By:

Krista Chilson
Quality Assurance

AG Environmental
RSC LLC

To Whom it May Concern,

There were no field notes given on the samples brought in for Town of Babylon Cell 7. Cr+6 was ran out of holding time. PFOS exceeded the 10 ng/L MCL. There was an issue with the phenolics sample brought in, and the sample could not be run due to damage during transit.

Signed,

Krista Chilson

Quality Assurance Officer

845-704-8151 (x413)

AG Environmental
RSC LLC

To Whom it May Concern,

The QC Data for Town of Babylon Cell 7 is attached. The following comment was made for Silver “The recovery for this element in the Continuing Calibration Verification (CCV) exceeded 110% of the expected value. Positive detections may be biased high.” PFAS had the following comment “The CCV recovery was slightly below acceptable limits for the qualified compound. However, sample results are not biased low because results are corrected for isotope recovery.”

Signed,

Krista Chilson - Quality Assurance Officer

845-747-9759
www.agerny.com
86 Queen Mountain Rd
Ferndale NY 12734
info@agerny.com

PHOENIX
Environmental Laboratories, Inc.

Tuesday, September 26, 2023

Attn: Kristia Chilson
Sullivan County Labs
86 Queen Mtn Road
Ferndale, NY 12734

Project ID: **281 PHELPS LANE**
SDG ID: **GCO99370**
Sample ID#s: **CO99370**

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

Sample Id Cross Reference

September 26, 2023

SDG I.D.: GCO99370

Project ID: 281 PHELPS LANE

Client Id	Lab Id	Matrix
S000130604	CO99370	SURFACE WATER

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

September 26, 2023

FOR: Attn: Kristia Chilson
Sullivan County Labs
86 Queen Mtn Road
Ferndale, NY 12734

Sample Information		Custody Information		Date	Time
Matrix:	SURFACE WATER	Collected by:		09/11/23	9:00
Location Code:	SULLIVANLABS	Received by:	SR1	09/14/23	11:51
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCO99370
Phoenix ID: CO99370

Project ID: 281 PHELPS LANE
Client ID: S000130604

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
2,3,7,8-TCDD	ND	10.0	pg/L		09/22/23	*	E1613B	C

C = This parameter is subcontracted.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low

Comments:

* See Attached.

2,3,7,8-TCDD (E1613B) was analyzed by NY certified lab #11647.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
September 26, 2023
Reviewed and Released by: Anil Makol, Project Manager

Tuesday, September 26, 2023

Criteria: None

State: NY

Sample Criteria Exceedances Report

GCO99370 - SULLIVANLABS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units

*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Comments

September 26, 2023 SDG I.D.: GCO99370

The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report: None.

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

NY Temperature Narration

September 26, 2023

SDG I.D.: GCO99370

The samples in this delivery group were received at 5.3°C.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

PHOENIX Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

5-3

ALL SHADED AREAS are for LAB USE ONLY

Company: AG ENVIRONMENTAL, RSC, LLC. Sullivan County Labs	Billing Information:
Address: 86 Queen Mountain Road, Ferndale	
Report To:	Email To: results@sullivancountylabs.com
Copy To:	Site Collection Info/Address: 281 Phelps Lane
Customer Project Name/Number: X53579-02 / 37782	State: New York; County/City: Sullivan; Time Zone Collected: [ ]PT [ ]MT [ ]CT [ ]ET

Phone: 845.704.8151 Email: info@sullivancountylabs.com	Site/Facility ID #:	Compliance Monitoring? [ ] Yes [ ] No
Collected By (print):	Purchase Order #: Quote #:	DW PWS ID #: DW Location Code:
Collected By (signature):	Turnaround Date Required:	Immediately Packed on Ice: [ ] Yes [ ] No
Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: ____ [ ] Hold: ____	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply)	Field Filtered (if applicable): [ ] Yes [ ] No Analysis: ____

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Container Preservative Type **: U

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other ____

Analyses: DIOXIN by EPA 1613 Method

Customer Sample ID	Matrix *	Comp/ Grab	Collected (or Composite Start) Date	Time	Sample Location	DIOXIN by EPA 1613 Method	Lab Sample # / Comments
S000130604	SW	G	09/11	09:00am	Cell 7 PLCRS	X	Glass-tinted/2000/Unpreserved –2, 1L Amb

99370 ~~99307~~ SR

Lab Project Manager:

Lab Profile / Line:

Lab Sample Receipt Checklist			
Custody Seals Present/Intact	Y	N	NA
Custody Signatures Present	Y	N	NA
Collector Signature Present	Y	N	NA
Bottles Intact	Y	N	NA
Correct Bottles	Y	N	NA
Sufficient Volume	Y	N	NA
Samples Received on Ice	Y	N	NA
VOA - Headspace Acceptable	Y	N	NA
USDA Regulated Soils	Y	N	NA
Samples in Holding Time	Y	N	NA
Residual Chlorine Present	Y	N	NA
Cl Strips:			
Sample pH Acceptable	Y	N	NA
pH Strips:			
Sulfide Present	Y	N	NA
Lead Acetate Strips:			

LAB USE ONLY:

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: Wet Blue Dry None

Packing Material Used:

Radchem samples(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #:

Samples received via: FEDEX UPS Client Courier Other

LAB Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#:
Cooler 1 Temp Upon Receipt: __oC
Cooler 1 Therm Corr. Factor: __oC
Cooler 1 Corrected Temp: __oC
Comments:
Code-360.95

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
[signature]	9/12/23 3:54pm	[signature]	9/14 1151
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO

Page: 1 of: 1

Pace Analytical Services, Inc.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

www.pacelabs.com

Report Prepared for:

Helen Geoghegan
Phoenix Environmental Laboratories
587 East Middle Turnpike
Manchester CT 06040

REPORT OF LABORATORY ANALYSIS FOR TCDD

Report Information:

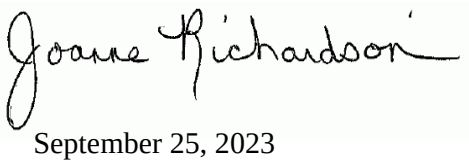
Pace Project #: 10668891
Sample Receipt Date: 09/15/2023
Client Project #: GCO99370
Client Sub PO #: GCO99370
State Cert #: 11647

Invoicing & Reporting Options:

The report provided has been invoiced as a Level 2 2,3,7,8-TCDD Report. If an upgrade of this report package is requested, an additional charge may be applied.

Please review the attached invoice for accuracy and forward any questions to Joanne Richardson, your Pace Project Manager.

This report has been reviewed by:



September 25, 2023

Joanne Richardson,
(612) 607-6453
(612) 607-6444 (fax)

Report Prepared Date:

September 25, 2023

Report of Laboratory Analysis

Pace Analytical Services, Inc.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

DISCUSSION

This report presents the results from the analysis performed on one sample submitted by a representative of Phoenix Environmental Laboratories, Inc. The sample was analyzed for the presence or absence of 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD) using USEPA Method 1613B. The reporting limits were set to correspond to the lowest calibration point and a nominal 1-liter sample amount, and the sensitivity was verified by signal-to-noise measurements. The quantitation limits, adjusted for sample extraction amount, may be somewhat higher or lower than the reporting limits provided in this report.

The isotopically-labeled TCDD internal standard in the sample extract was recovered at 71%. All of the labeled standard recoveries obtained for this project were within the target ranges specified in Method 1613B. Also, since the quantification of the native TCDD was based on isotope dilution, the data were automatically corrected for recovery and accurate values were obtained.

A laboratory method blank was prepared and analyzed with the sample batch as part of our routine quality control procedures. The results show the blank to be free of 2,3,7,8-TCDD at the reporting limit.

Laboratory spike samples were also prepared using clean reference matrix that had been fortified with native standard material. The results show that the spiked native TCDD was recovered at 108-112% with a relative percent difference of 3.6%. These results were within the target ranges for the method. Matrix spikes were not prepared with the sample batch.

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Minnesota Laboratory Certifications

Authority	Certificate #	Authority	Certificate #
		Missouri	10100
A2LA	2926.01	Montana	CERT0092
Alabama	40770	Nebraska	NE-OS-18-06
Alaska-DW	MN00064	Nevada	MN00064
Alaska-UST	17-009	New Hampshire	2081
Arizona	AZ0014	New Jersey	MN002
Arkansas - WW	88-0680	New York	11647
Arkansas-DW	MN00064	North Carolina-	27700
California	2929	North Carolina-	530
Colorado	MN00064	North Dakota	R-036
Connecticut	PH-0256	Ohio-DW	41244
Florida	E87605	Ohio-VAP (170	CL101
Georgia	959	Ohio-VAP (180	CL110
Hawaii	MN00064	Oklahoma	9507
Idaho	MN00064	Oregon-Primary	MN300001
Illinois	200011	Oregon-Second	MN200001
Indiana	C-MN-01	Pennsylvania	68-00563
Iowa	368	Puerto Rico	MN00064
Kansas	E-10167	South Carolina	74003
Kentucky-DW	90062	Tennessee	TN02818
Kentucky-WW	90062	Texas	T104704192
Louisiana-DEQ	AI-84596	Utah	MN00064
Louisiana-DW	MN00064	Vermont	VT-027053137
Maine	MN00064	Virginia	460163
Maryland	322	Washington	C486
Michigan	9909	West Virginia-D	382
Minnesota	027-053-137	West Virginia-D	9952C
Minnesota-Ag	via MN 027-053	Wisconsin	999407970
Minnesota-Petr	1240	Wyoming-UST	via A2LA 2926.
Mississippi	MN00064		

REPORT OF LABORATORY ANALYSIS

Report No.....10668891

Pace Analytical Services, LLC
1700 Elm Street, Suite 200
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444
www.pacelabs.com

Appendix A

Sample Management

REPORT OF LABORATORY ANALYSIS

Cooler: Yes ☐ No ☐
Coolant: IPK ☐ ICE ☐ No ☐

Temp °C Pg of

CHAIN OF CUSTODY RECORD

Page 1 of 1

PHOENIX Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: info@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-8726

Contact Options:
☐ Fax: 860-645-0823
☐ Phone: 800-827-5426
☐ Email: HelenG@PhoenixLabs.com

Report No.: 10668891_1613BTCD_2

Customer: Pace Analytical
Address: 1800 Elm St. SE
Minneapolis, MN
(612) 607-1700

Project #: GCO99370
Report to: HelenG@PhoenixLabs.com / Helen Geoghegan
Invoice to: AccountsPayable@PhoenixLabs.com
Quote# :

Project P.O: GCO99370

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature _____ Date: _____

Matrix Code:
DW=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Waste Water
RW=Raw Water **SE**=Sediment **SL**=Sludge **S**=Soil **SD**=Solid **W**=Wipe
OIL=Oil **B**=Bulk **L**=Liquid

Phoenix Sample ID	Sample Comment	Sample Matrix	Date Sampled	Time Sampled	Analysis Request: Dioxin E1613B	1000mL Amber
CO99370		SW	9/11/2023	9:00 AM	x	2

WO#: 10668891
10668891

Relinquished by:	Accepted by:	Date:	Time:
[signature]	[signature]	9-14-23	
	[signature]	9-15-23	9:20

Turnaround:
☐ 1 Day
☐ 2 Days
☐ 3 Days
☐ 5 Days
☐ 10 Days
☒ Standard
☐ Other_____

Report Type:
☒ Standard PDF
☐ Full Data Package
☐ NJ Reduced Deliverable
☐ NJ Full Deliverable
☐ NY ASP B

EDD Format:
☐ Excel
☐ GIS/Key
☐ EQuIS
☐ NJ Hazsite EDD
☐ NY EZ EDD (ASP)
☐ Other:_____

State Criteria:

Comments, Special Requirements or Regulations:

Please send notice as soon as possible not exceeding 24 hours of obtaining valid data, of the results of all drinking water samples that exceed any EPA or Department-established maximum contaminant level, maximum residual disinfectant level or reportable concentration.

Please notify Phoenix Environmental Laboratories, Inc. immediately and prior to conducting analysis if certification is not held for the analyses requested.

What State were samples collected?
NY

Page 5 of 5

Sample Condition Upon Receipt

Client Name: Phoenix Environmental Laboratories

Project #: **WO#: 10668891**

PM: JMR **Due Date: 09/29/23**

CLIENT: Phoenix Env.

Courier: ☐ FedEx ☑ UPS ☐ USPS ☐ Client ☐ Pace ☐ SpeeDee ☐ Commercial

Tracking Number: 1Z63R4A31397942880 ☐ See Exceptions ENV-FRM-MIN4-0142

Custody Seal on Cooler/Box Present? ☐ Yes ☑ No **Seals intact?** ☐ Yes ☑ No **Biological Tissue Frozen?** ☐ Yes ☐ No ☑ N/A

Packing Material: ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other **Temp Blank?** ☐ Yes ☑ No

Thermometer: ☐ T1 (0461) ☐ T2 (0436) ☐ T3 (0459) ☑ T4 (0402) ☐ T5 (0178) ☐ T6 (0235) ☐ T7 (0042) ☐ T8 (0775) ☐ T9(0727) ☐ 01339252/1710 **Type of Ice:** ☑ Wet ☐ Blue ☐ Dry ☐ None ☐ Melted

Did Samples Originate in West Virginia? ☐ Yes ☑ No **Were All Container Temps Taken?** ☐ Yes ☐ No ☑ N/A

Temp should be above freezing to 6 °C **Cooler temp Read w/Temp Blank:** _____ °C

Correction Factor: True **Cooler Temp Corrected w/temp blank:** _____ °C

Average Corrected Temp (no temp blank only): 3.5 °C

☑ See Exceptions ENV-FRM-MIN4-0142 ☐ 1 Container

USDA Regulated Soil: (☑ N/A, water sample/other: _____)

Date/Initials of Person Examining Contents: 9-15-23 MAW

Did samples originate in a quarantine zone within the United States: AL, AR, AZ CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

If Yes to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.

Location (Check one): ☐ Duluth ☑ Minneapolis ☐ Virginia				**COMMENTS**
Chain of Custody Present and Filled Out?	☑ Yes	☐ No		1.
Chain of Custody Relinquished?	☑ Yes	☐ No		2.
Sampler Name and/or Signature on COC?	☐ Yes	☑ No	☐ N/A	3.
Samples Arrived within Hold Time?	☑ Yes	☐ No		4. If fecal: ☐ <8 hrs ☐ >8 hr, <24 ☐ No
Short Hold Time Analysis (<72 hr)?	☐ Yes	☑ No		5. ☐ Fecal Coliform ☐ HPC ☐ Total Coliform/E.coli ☐ BOD/cBOD ☐ Hex Chrom ☐ Turbidity ☐ Nitrate ☐ Nitrite ☐ Orthophos ☐ Other
Rush Turn Around Time Requested?	☐ Yes	☑ No		6.
Sufficient Sample Volume?	☑ Yes	☐ No		7.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	8.
-Pace Containers Used?	☑ Yes	☐ No		
Containers Intact?	☑ Yes	☐ No		9.
Field Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☑ N/A	10. Is sediment visible in the dissolved container? ☐ Yes ☐ No
Is sufficient information available to reconcile the samples to the COC? Matrix: ☑ Water ☐ Soil ☐ Oil ☐ Other	☑ Yes	☐ No		11. **If no, write ID/Date/Time of container below:** ☐ See Exceptions ENV-FRM-MIN4-0142
All containers needing acid/base preservation have been checked?	☐ Yes	☐ No	☑ N/A	12. Sample # ☐ NaOH ☐ HNO3 ☐ H2SO4 ☐ Zinc Acetate
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO3, H2SO4, <2pH, NaOH >9 Sulfide, NaOH>10 Cyanide)	☐ Yes	☐ No	☑ N/A	
Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxins/PFAS (*If adding preservative to a container, it must be added to associated field and equipment blanks--verify with PM first.)	☐ Yes	☐ No	☑ N/A	Positive for Residual Chlorine? ☐ Yes ☐ No ☐ See Exceptions ENV-FRM-MIN4-0142 **pH Paper Lot #** Residual Chlorine | 0-6 Roll | 0-6 Strip | 0-14 Strip
Headspace in Methyl Mercury Container?	☐ Yes	☐ No	☑ N/A	13.
Extra labels present on soil VOA or WIDRO containers?	☐ Yes	☐ No	☑ N/A	14. ☐ See Exceptions ENV-FRM-MIN4-0142
Headspace in VOA Vials (greater than 6mm)?	☐ Yes	☐ No	☑ N/A	
3 Trip Blanks Present?	☐ Yes	☐ No	☑ N/A	15.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	Pace Trip Blank Lot # (if purchased): _____

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

Project Manager Review: Joanne Richardson **Date:** 9-15-23

NOTE: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).

Labeled By: MAW **Line:** 9

Pace ANALYTICAL SERVICES	**DC#_Title: ENV-FRM-MIN4-0142 v02_Sample Condition Upon Receipt (SCUR) Exception Form**
	Effective Date: 09/22/2022

Workorder #: 10668891

No Temp Blank		
Read Temp	**Corrected Temp**	**Average temp**
3.4	3.4	3.5
3.5	3.5	3.5
3.4	3.4	3.5
3.7	3.7	3.5

PM Notified of Out of Temp Cooler? ☐ Yes ☐ No

If yes, indicate who was contacted, date and time.
If no, indicate reason why.

Multiple Cooler Project? ☐ Yes ☐ No

If anything is OVER 6.0° C, you MUST document containers in this section HERE

Tracking Number	Temperature

Out of Temp Sample ID	Container Type	# of Containers

pH Adjustment Log for Preserved Samples

Sample ID	Type Of Preserve	pH Upon Receipt	Date Adjusted	Time Adjusted	Amount Added (mL)	Lot # Added	pH After	In Compliance After Addition?		Initials
								☐ Yes	☐ No	
								☐ Yes	☐ No	
								☐ Yes	☐ No	
								☐ Yes	☐ No	
								☐ Yes	☐ No	
								☐ Yes	☐ No	
								☐ Yes	☐ No	
								☐ Yes	☐ No	

Comments:

Qualtrax ID: 52763

Pace Analytical Services, LLC
1700 Elm Street, Suite 200
Minneapolis, MN 55414
Phone: 612.607.1700
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www.pacelabs.com

Reporting Flags

A = Reporting Limit based on signal to noise (EDL)

B = Less than 10x higher than method blank level

C = Result obtained from confirmation analysis

D = Result obtained from analysis of diluted sample

E = Exceeds calibration range

H2 = Extracted outside of holding time

I = Isotope ratio out of specification

J = Estimated value

L = Suppressive interference, analyte may be biased low

Nn = Value obtained from additional analysis

P = PCDE Interference

R = Recovery outside target range

S = Peak saturated

U = Analyte not detected

V = Result verified by confirmation analysis

X = %D Exceeds limits

Y = Calculated using average of daily RFs

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Appendix B

Sample Analysis Summary

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612-607-6444

Method 1613B Sample Analysis Results

Client - Phoenix Environmental Laboratories

Client's Sample ID	CO99370			
Lab Sample ID	10668891001			
Filename	U230922A_06			
Injected By	AH5			
Total Amount Extracted	1140 mL	Matrix	WATER	
% Moisture	NA	Dilution	NA	
Dry Weight Extracted	NA	Collected	09/11/2023	09:00
ICAL ID	U230726	Received	09/15/2023	09:20
CCal Filename(s)	U230921B_16	Extracted	09/18/2023	11:51
Method Blank ID	BLANK-108390	Analyzed	09/22/2023	10:24

Native Isomers	**Conc** pg/L	**EMPC** pg/L	**RL** pg/L	**Internal Standards**	**ng's Added**	**Percent Recovery**
2,3,7,8-TCDD	ND	-----	10	2,3,7,8-TCDD-13C	2.00	71
				Recovery Standard 1,2,3,4-TCDD-13C	2.00	NA
				Cleanup Standard 2,3,7,8-TCDD-37Cl4	0.20	92

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

A = Reporting Limit based on signal to noise (EDL)
R = Recovery outside target range
E = Exceeds calibration range

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612-607-6444

Method 1613B Blank Analysis Results

Lab Sample Name	DFBLKOK		
Lab Sample ID	BLANK-108390	Matrix	Water
Filename	L230920A_10	Dilution	NA
Total Amount Extracted	929 mL	Extracted	09/18/2023 11:51
ICAL ID	L230816	Analyzed	09/20/2023 15:10
CCal Filename(s)	L230919A_19	Injected By	SMT

Native Isomers	**Conc** pg/L	**EMPC** pg/L	**RL** pg/L	**Internal Standards**	**ng's Added**	**Percent Recovery**
2,3,7,8-TCDD	ND	-----	10	2,3,7,8-TCDD-13C	2.00	63
				Recovery Standard 1,2,3,4-TCDD-13C	2.00	NA
				Cleanup Standard 2,3,7,8-TCDD-37Cl4	0.20	82

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Laboratory Control Spike Results

Lab Sample ID	LCS-108391		
Filename	L230920A_03	Matrix	Water
Total Amount Extracted	954 mL	Dilution	NA
ICAL ID	L230816	Extracted	09/18/2023 11:51
CCal Filename	L230919A_19	Analyzed	09/20/2023 10:05
Method Blank ID	BLANK-108390	Injected By	SMT

Compound	Cs	Cr	Lower Limit	Upper Limit	% Rec.
2,3,7,8-TCDD	10	11	7.3	14.6	112
2,3,7,8-TCDD-37Cl4	10	7.4	3.7	15.8	74
2,3,7,8-TCDD-13C	100	61	25.0	141.0	61

Cs = Concentration Spiked (ng/mL)
Cr = Concentration Recovered (ng/mL)
Rec. = Recovery (Expressed as Percent)
Control Limit Reference: Method 1613, Table 6, 10/94 Revision
R = Recovery outside of control limits
Nn = Value obtained from additional analysis
* = See Discussion

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Laboratory Control Spike Results

Lab Sample ID	LCSD-108392		
Filename	L230920A_04	Matrix	Water
Total Amount Extracted	975 mL	Dilution	NA
ICAL ID	L230816	Extracted	09/18/2023 11:51
CCal Filename	L230919A_19	Analyzed	09/20/2023 10:49
Method Blank ID	BLANK-108390	Injected By	SMT

Compound	Cs	Cr	Lower Limit	Upper Limit	% Rec.
2,3,7,8-TCDD	10	11	7.3	14.6	108
2,3,7,8-TCDD-37Cl4	10	8.3	3.7	15.8	83
2,3,7,8-TCDD-13C	100	71	25.0	141.0	71

Cs = Concentration Spiked (ng/mL)
Cr = Concentration Recovered (ng/mL)
Rec. = Recovery (Expressed as Percent)
Control Limit Reference: Method 1613, Table 6, 10/94 Revision
R = Recovery outside of control limits
Nn = Value obtained from additional analysis
* = See Discussion

REPORT OF LABORATORY ANALYSIS

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Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B

Spike Recovery Relative Percent Difference (RPD) Results

Client	Phoenix Environmental Laboratories		
Spike 1 ID	LCS-108391	Spike 2 ID	LCSD-108392
Spike 1 Filename	L230920A_03	Spike 2 Filename	L230920A_04

Compound	Spike 1 %REC	Spike 2 %REC	%RPD
2,3,7,8-TCDD	112	108	3.6

%REC = Percent Recovered
RPD = The difference between the two values divided by the mean value

REPORT OF LABORATORY ANALYSIS

BABYLON LANDFILL - FIELD DATA - SECOND QTR 2023

Leachate Sampling Data

WELL #	Date	Start Purge	Stop Purge	Gallons Purged	Well Notes For Sampling
NNU-PLCRS	9/11/2023	830	835	~ 40	Clear, green tint, sulfur odors
NNU-SLCRS	9/11/2023	N/A	N/A	~ 40	Well pump down. No samples could be taken.
ONU-SLCRS	9/11/2023	810	815	~ 60	Clear, yellow tint, odors
SA-SLCRS	9/11/2023	Direct Sample	Direct Sample	0	Clear, small black sediment
CELL - 7	9/11/2023	Direct Sample	Direct Sample	0	Clear, strong odors, small black particles, black tir

Leachate Parameters

WELL #	Sampling Time	pH (SU)	ORP (mv)	Conductivity (umhos/cm2)	Temp. (oC)	Turbidity (NTU)	Dissolved Oxygen (DO) mg/L
NNU-PLCRS	840	7.01	-0.4	>20,000	36.0	12.00	0.22
NNU-SLCRS	N/A						
ONU-SLCRS	820	6.55	27.5	17,240	26.4	25.00	0.42
SA-SLCRS	930	7.82	-48.1	10,620	25.9	150.00	0.63
CELL - 7	900	7.58	-35.2	>20,000	29.9	450.00	0.58

Field Notes: **MS/MSD performed on ONU-SLCRS @ 820**

NNU-PLCRS: New Northern U Primary * One Tap Location for Primary/Secondary (Top Road)

NNU-SLCRS: New Northern U Secondary * One Tap Location for Primary/Secondary (Top Road)

ONU-SLCRS: Old Northern U Secondary *One Tap Location for Primary/Secondary (Lower Road)

SA-SLCRS: Southern Ash Secondary *Use Bailer / Square Metal Door

CELL 7: Primary System * Use Bailer / First Round Black Cover (Left Cover)

Joseph Guarino

From: Krista Chilson <krista.chilson@sullivancountylabs.com>
Sent: Tuesday, November 21, 2023 4:16 PM
To: Joseph Guarino
Cc: Anthony Valentino
Subject: Re: BAbylon-Cell 7 leachate

Good afternoon,

I can confirm the result of that chloride sample was <13.8. This is possibly due to having too much sediment in that sample, as the others had much less. In the future, when taking the samples, if possible, to have less sediment in that sample could improve that result.

It does not look like TCDF was run as it was not requested on the COC. In the future, by requesting method 8290A, that can ensure both TCDD and TCDF are run, along with any other benzo-dioxins or benzofurans that you are looking for.

If you have any questions, please let me know. Thank you!

Krista Chilson
Quality Assurance Officer

P (845) 704-8151 ext 413
F (845) 414-0051
E Krista.Chilson@sullivancountylabs.com

Sullivan County Labs
86 Queen Mountain Rd.
Ferndale, NY 12734

www.sullivancountylabs.com

November 10-- CLOSED for Veterans Day
November 23 & 24-- CLOSED for Thanksgiving
December 25--CLOSED for Christmas

From: Joseph Guarino <jguarino@townofbabylon.com>
Sent: Monday, November 20, 2023 11:03 AM

To: Krista Chilson <krista.chilson@sullivancountylabs.com>
Cc: Anthony Valentino <avalentino@townofbabylon.com>
Subject: BAbylon-Cell 7 leachate

Krista, as discussed:

For chloride, result was <13.8 mg/l. We know from historical sampling that this is likely incorrect. Can you provide a response confirming this, describe what may have caused the low reporting value and what can be done in the future to correct this.

For TCDD/TCDF, I only found a result for TCDD. Can you advise if TCDF was analyzed, the result, or if not performed please advise and note the cause of the oversite/what can be done in the future to correct.
Thanks,
Joe

Joseph Guarino, CFM
Principal Environmental Analyst
Red Hill Professional Services
631-422-7640

Joseph Guarino

From: Krista Chilson <krista.chilson@sullivancountylabs.com>
Sent: Wednesday, November 15, 2023 9:39 AM
To: Joseph Guarino
Cc: Brian Nichols
Subject: Re: cell 7 results

Good morning,

So, it looks like on the COC the method requested was 6010/7470, which is metals TCLP RCRA list which the lab did not include sodium and potassium. The other COCs requested the TAL metals by method 200.7/200.8, including all the other metals shown on the list. Going forward to get these analytes, the best way to request this would be to do the TAL metals, which is your expanded list. Just requesting the 6010/7470 does not look like it's covering the expanded list.

Thank you,

Krista Chilson
Quality Assurance Officer

P (845) 704-8151 ext 413
F (845) 414-0051
E Krista.Chilson@sullivancountylabs.com

Sullivan County Labs
86 Queen Mountain Rd.
Ferndale, NY 12734

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November 10-- CLOSED for Veterans Day
November 23 & 24-- CLOSED for Thanksgiving
December 25--CLOSED for Christmas

From: Joseph Guarino <jguarino@townofbabylon.com>
Sent: Wednesday, November 15, 2023 8:47 AM
To: Krista Chilson <krista.chilson@sullivancountylabs.com>

Cc: Brian Nichols <zionenvironmental@gmail.com>
Subject: RE: cell 7 results

I added Brian based upon your response below.

All of these metals that are listed as "NULL" are part of the expanded list. Without sodium and potassium we cannot enter data within the piper diagrams we include within our reports to NYSDEC.

Was this an oversite when completing the COC? If so I can explain this within my report, however this must be corrected for future sampling. I am trying to finalize this report before the holiday, so I need to determine exactly what happened with the Cell 7 sample/results.
Thanks,
Joe

From: Krista Chilson <krista.chilson@sullivancountylabs.com>
Sent: Wednesday, October 25, 2023 4:01 PM
To: Joseph Guarino <jguarino@townofbabylon.com>
Subject: Re: cell 7 results

Good afternoon,

I will be sending over Cell 7 to you soon. The metals that have null mean there was no analysis based on what was requested on the COC. Those that have a < mean that they were listed as non detected, but we list as less than the LOQ.

Thank you,

Krista Chilson
Quality Assurance Officer

P (845) 704-8151 ext 413
F (845) 414-0051
E Krista.Chilson@sullivancountylabs.com

Sullivan County Labs
86 Queen Mountain Rd.
Ferndale, NY 12734

www.sullivancountylabs.com

From: Joseph Guarino <jguarino@townofbabylon.com>
Sent: Wednesday, October 25, 2023 10:49 AM
To: Krista Chilson <krista.chilson@sullivancountylabs.com>
Subject: cell 7 results

Krista, I see the data for Cell 7/expanded parameters on the master spreadsheet but I cant find the email containing the reports and QC files. Can you send/resend?

Also with regard to the cell 7 data, in the master list I noted the results for a few of the metals are listed as NULL, and some are <. Do the parameters that are NULL indicate no analysis? If so, why? This may be in the cell 7 data I cant find.
Thanks,
Joe

Joseph Guarino, CFM
Principal Environmental Analyst
Red Hill Professional Services
631-422-7640

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Appendix 2

Baseline and Expanded Parameters List (6NYCRR Part 363-4.6(h))

(5) Data quality assessment. At the conclusion of each sampling event and analysis of the samples collected, data quality assessment must occur. A data quality assessment report must be submitted with the results from each sampling event. Data quality assessment must occur in two phases – data validation and data usability analysis.

(i) Data validation.

(a) For those sampling events for which only routine parameters are analyzed, the required data validation may be performed by the laboratory that performed the sample analyses.

(b) For those sampling events in which groundwater samples are analyzed for baseline or expanded parameters, the data validation must be performed by a person with experience with similar validation projects and who is not affiliated with the laboratory that performed the analyses and who is acceptable to the department.

(c) The data validation must be performed on all analytical data for the facility at a rate acceptable to the department, but not less than five percent of the data generated, and must consist, at a minimum, of the following:

(1) field records and analytical data are reviewed to determine whether the data are accurate and defensible. All AQA/AQC information must be reviewed along with any corrective actions taken during that sampling event; and

(2) all data summaries must be clearly marked to identify any data that are not representative of environmental conditions at the site, or that were not generated in accordance with the site analytical plan.

(ii) Data usability analysis.

(a) The data usability analysis must be performed on all analytical data generated by the requirements for this Part for the facility and must consist of the following:

(1) an assessment to determine if the data quality objectives were met;

(2) for consistency, comparison of the analytical data with the results from previous sampling events;

(3) evaluation of field duplicate results to indicate the samples are representative;

(4) comparison of the results of all field blanks, trip blanks, equipment rinstate blanks, and method blanks with full data sets to provide information concerning contaminants that may have been introduced during sampling, shipping, or analysis;

(5) evaluation of matrix effects to assess the performance of the analytical method with respect to the sample matrix, and determine whether the data have been biased high or low due to matrix effects;

(6) integration of the field and laboratory data with geological, hydrogeological, and meteorological data to provide information about the extent of contamination, if it occurs; and

(7) comparison of precision, accuracy, representativeness, comparability, completeness, and defensibility of the data generated with that required to meet the data quality objectives established in the site analytical plan.

(h) Water quality analysis tables.

The water quality analysis tables in this section list the routine, baseline, and expanded parameters for analysis of all monitoring samples. The department may modify the parameters for analysis based on the location of the landfill or site-specific characteristics of waste disposed at the landfill.

TABLE 1: ROUTINE PARAMETERS [1]

Common Name (and CAS number, as appropriate) [2]		
Field Parameters:	Leachate Indicators:	Inorganic Parameters (total):
Static water level (in wells and sumps)	Total Kjeldahl Nitrogen	Arsenic
Specific Conductance	Ammonia (7664-41-7)	Cadmium
Temperature	Nitrate	Calcium
Floaters or Sinkers [3]	Chemical Oxygen Demand	Iron
Temperature	Biochemical Oxygen Demand (BOD_5)	Lead
pH	Total Organic Carbon	Magnesium
Eh	Total Dissolved Solids	Manganese
Dissolved Oxygen [4]	Sulfate	Potassium
Field Observations [5]	Alkalinity	Sodium
Turbidity	Phenols (108-95-2)	
	Chloride	
	Bromide (24959-67-9)	
	Total hardness as $CaCO_3$	

TABLE 2A: BASELINE PARAMETERS: Field Parameters, Leachate Indicators, and Inorganic Parameters [6]

Common Name (and CAS number, as appropriate)[7]		
Field Parameters:	Leachate Indicators:	Inorganic Parameters (total unless otherwise noted):
Static water level (in wells and sumps)	Total Kjeldahl Nitrogen	Aluminum
Specific Conductance	Ammonia (7664-41-7)	Antimony
Temperature	Nitrate	Arsenic
Floaters or Sinkers[8]	Chemical Oxygen Demand	Barium
Temperature	Biochemical Oxygen Demand (BOD_5)	Beryllium
pH	Total Organic Carbon	Cadmium
Eh	Total Dissolved Solids	Calcium
Dissolved Oxygen[9]	Sulfate	Chromium
Field Observations[10]	Alkalinity	Chromium (Hexavalent)[11]
Turbidity	Phenols (108-95-2)	Cobalt
	Chloride	Copper
	Bromide (24959-67-9)	Cyanide
	Total hardness as $CaCO_3$	Iron
	Color	Lead
	Boron (7440-42-8)	Magnesium
		Manganese
		Mercury
		Nickel
		Potassium
		Selenium
		Silver
		Sodium
		Thallium
		Vanadium
		Zinc

TABLE 2B: BASELINE PARAMETERS: Organic Parameters[12]

Common Name (and CAS number, as appropriate)[13]		
Organic Parameters:		
Acetone (67-64-1)	1,1-Dichloroethane; Ethylidene chloride (75-34-3)	Styrene (100-42-5)
Acrylonitrile (107-13-1)	1,2-Dichloroethane; Ethylene dichloride (107-06-02)	1,1,1,2-Tetrachloroethane (630-20-6)
Benzene (71-43-2)	1,1-Dichloroethylene, 1,1-Dichloroethene; Vinylidene chloride (75-35-4)	1,1,2,2-Tetrachloroethane (79-34-5)
Bromochloromethane (74-97-5)	cis-1,2-Dichloroethylene; cis-1,2-Dichloroethene (156-59-2)	Tetrachloroethylene; Tetrachloroethene; Perchloroethylene (127-18-4)
Bromodichloromethane (75-27-4)	trans-1,2-Dichloroethylene; trans-1,2-Dichloroethene (156-60-2)	Toluene (108-88-3)
Bromoform; Tribromomethane (75-25-2)	1,2-Dichloropropane; Propylene dichloride (78-87-5)	1,1,1-Trichloroethane, Methylchloroform (71-55-6)
Carbon disulfide (75-15-0)	cis-1,3-Dichloropropene (10061-01-5)	1,1,2-Trichloroethane (79-00-5)
Carbon tetrachloride (56-23-5)	trans-1,3-Dichloropropene (10061-02-6)	Trichloroethylene; Trichloroethene (79-01-6)
Chlorobenzene (108-90-7)	Ethylbenzene (100-41-4)	Trichlorofluoromethane; CFC-11 (75-69-4)
Chloroethane; Ethyl chloride (75-00-3)	2-Hexanone; Methyl butyl ketone (591-78-6)	1,2,3-Trichloropropane (96-18-4)
Chloroform; Trichloromethane (67-66-3)	Methyl bromide; Bromomethane (74-83-9)	Vinyl acetate (108-05-4)
Dibromochloromethane; Chlorodibromomethane (124-48-1)	Methyl chloride; Chloromethane (74-87-3)	Vinyl chloride; Chloroethene (75-01-4)
1,2-Dibromo-3-chloropropane; DBCP (96-12-8)	Methylene bromide; Dibro- momethane (74-95-3)	Xylenes (1330-20-7)
1,2-Dibromoethane; Ethylene dibromide; EDB (106-93-4)	Methylene chloride; Dichloromethane (75-09-2)	
o-Dichlorobenzene; 1,2-Dichlorobenzene (95-50-1)	Methyl ethyl ketone; MEK; 2-Butanone (78-93-3)	
p-Dichlorobenzene; 1,4-Dichlorobenzene (106-46-7)	Methyl Iodide; Iodomethane (74-88-4)	
trans-1,4-Dichloro-2-butene (110-57-6)	4-Methyl-2-pentanone; Methyl isobutyl ketone (108-10-1)	

TABLE 3A: EXPANDED PARAMETERS: Field Parameters, Leachate Indicators, Radionuclides, and Inorganic Parameters[14]

Common Name (and CAS number, as appropriate)[15]			

Field Parameters:	Leachate Indicators:	Inorganic Parameters: (total unless otherwise noted)	Radionuclides [16]
Static water level (in wells and sumps)	Total Kjeldahl Nitrogen	Aluminum	Radium-226 per EPA 903.1
Specific Conductance	Ammonia (7664-41-7)	Antimony	Radium-228 per EPA 904.0
Temperature	Nitrate	Arsenic	Total Uranium per EPA 908.0
Floaters or Sinkers [17]	Chemical Oxygen Demand	Barium	
Temperature	Biochemical Oxygen Demand (BOD_5)	Beryllium	
pH	Total Organic Carbon	Cadmium	
Eh	Total Dissolved Solids	Calcium	
Dissolved Oxygen [18]	Sulfate	Chromium	
Field Observations [19]	Alkalinity	Chromium (Hexavalent) [20]	
Turbidity	Phenols (108-95-2)	Cobalt	
	Chloride	Copper	
	Bromide (24959-67-9)	Cyanide	
	Total hardness as $CaCO_3$	Iron	
	Color	Lead	
	Boron (7440-42-8)	Magnesium	
		Manganese	
		Mercury	
		Nickel	
		Potassium	
		Selenium	
		Silver	
		Sodium	
		Thallium	
		Tin	
		Vanadium	
		Zinc	

TABLE 3B: EXPANDED PARAMETERS: Organic Parameters [21]

Common Name (and CAS number, as appropriate) [22]		
Organic Parameters:		
Acenaphthene (83-32-9)	2,4-Dichlorophenol (120-83-2)	Naphthalene (91-20-3)
Acenaphthylene (208-96-8)	2,6-Dichlorophenol (87-65-0)	1,4-Naphthoquinone (130-15-4)
Acetone (67-64-1)	1,2-Dichloropropane; Propylene dichloride (78-87-5)	1-Naphthylamine (134-32-7)
Acetonitrile; Methyl cyanide (75-05-8)	1,3-Dichloropropane, Trimethylene dichloride (142-28-9)	2-Naphthylamine (91-59-8)
Acetophenone (98-86-2)	2,2-Dichloropropane, Isopropylidene chloride (594-20-7)	o-Nitroaniline; 2-Nitroaniline (88-74-4)
2-Acetylaminofluorene; 2-AAF (53-96-3)	1,1-Dichloropropene (563-58-6)	m-Nitroaniline; 3-Nitroaniline (99-09-2)
Acrolein (107-02-8)	cis-1,3-Dichloropropene (10061-01-5)	p-Nitroaniline; 4-Nitroaniline (100-01-6)
Acrylonitrile (107-13-1)	trans-1,3-Dichloropropene (10061-02-6)	Nitrobenzene (98-95-3)
Aldrin (309-00-2)	Dieldrin (60-57-1)	o-Nitrophenol 2-Nitrophenol (88-75-5)
Allyl chloride (107-05-1)	Diethyl phthalate (84-66-2)	p-Nitrophenol; 4-Nitrophenol (100-02-7)
4- aminobiphenyl (92-67-1)	0,0-Diethyl 0-2-pyrazinyl	N-Nitrosodi-n-butylamine (924-16-3)
Anthracene (120-12-7)	cis-1,2-Dichloroethylene; cis-1,2-Dichloroethene (156-59-2)	
N-Nitrosodiethylamine (55-18-5)		
Benzene (71-43-2)	trans-1,2-Dichloroethylene (156-60-2)	N-Nitrosodimethylamine (62-75-9)
Benzo[a]anthracene; Benzanthracene (56-55-3)	Phosphorothioate; Thionazin (297-97-2)	N-Nitrosodiphenylamine (86-30-6)
Benzo[b]fluoranthene (205-99-2)	Dimethoate (60-51-5)	N-Nitrosodipropylamine; N-Nitroso-N-dipropyl-amine; Di-n-propylni-trosamine (621-64-7)
Benzo[k]fluoranthene (207-08-9)	p-(Dimethylamino)azobenzene (60-11-7)	N-Nitrosomethylethalamine (10595-95-6)
Benzo[ghi]perylene (191-24-2)	7,12-Dimethylbenz[a]anthracene (57-97-6)	N-Nitrosopiperidine (100-75-4)
Benzo[a]pyrene (50-32-8)	3,3 [21]-Dimethylbenzidine (119-93-7)	N-Nitrosopyrrolidine (930-55-2)
Benzyl alcohol (100-51-6)	2,4-Dimethylphenol, m-Xylenol (105-67-9)	5-Nitro-o-toluidine (99-55-8)
alpha-BHC (319-84-6)	Dimethyl phthalate (131-11-3)	Parathion (56-38-2)
beta-BHC (319-85-7)	m-Dinitrobenzene (99-65-0)	Pentachlorobenzene (608-93-5)
delta-BHC (319-86-8)	4,6-Dinitro-o-cresol 4,6- Dinitro-2-methylphenol (534-52-1)	Pentachloronitrobenzene (82-68-8)

gamma-BHC, Lindane (58-89-9)	2,4-Dinitrophenol (51-28-5)	Pentachlorophenol (87-86-5)
Bis(2-chloroethoxy)methane (111-91-1)	2,4-Dinitrotoluene (121-14-2)	Phenacetin (62-44-2)
Bis(2-chloroethyl) ether; Dichloroethyl ether (111-44-4)	2,6-Dinitrotoluene (606-20-2)	Phenanthrene (85-01-8)
Bis-(2-chloro-1-methyl-ethyl)ether; 2,2[21]-Dichlorodiisopropyl ether; DCIP[23]	Dinoseb; DNBP; 2-sec-Butyl-4,6-dinitrophenol (88-85-7)	Phenol (108-95-2)
Bis(2-ethylhexyl)phthalate (117-81-7)	Di-n-octyl phthalate (117-84-0)	p-Phenylenediamine (106-50-9)
Bromochloromethane (74-97-5)	Diphenylamine (122-39-4)	Phorate (298-02-2)
Bromodichloromethane (75-27-4)	Disulfoton (298-04-4)	Polychlorinated biphenyls; PCBs; Aroclors[24]
Bromoform (75-25-2)	Endosulfan I (959-98-8)	Polychlorinated dibenzo-p- dioxins; PCDDs[25]
4-Bromophenyl phenyl ether (101-55-3)	Endosulfan II (33213-65-9)	Polychlorinated dibenzo- furans; PCDFs[26]
Butyl benzyl phthalate; Benzyl butyl phthalate (117-81-7)	Endosulfan sulfate (1031-07-8)	Pronamide (23950-58-5)
Carbon disulfide (75-15-0)	Endrin (72-20-8)	Propionitrile; Ethyl cyanide (107-12-0)
Carbon tetrachloride (56-23-5)	Endrin aldehyde (7421-93-4)	Pyrene (129-00-0)
Chlordane[27]	Ethylbenzene (100-41-4)	Safrole (94-59-7)
p-Chloroaniline (106-47-8)	Ethyl methacrylate (97-63-2)	Silvex, 2,4,5-TP (93-72-1)
Chlorobenzene (108-90-7)	Ethyl methanesulfonate (62-50-0)	Styrene (100-42-5)
Chlorobenzilate (510-15-6)	Famphur (52-85-7)	2,4,5-T, 2,4,5-trichloro- phenoxyacetic acid (93-76-5)
p-Chloro-m-cresol; 4-Chloro-3-methylphenol (59-50-7)	Fluoranthene (206-44-0)	1,2,4,5-Tetrachlorobenzene (95-94-3)
Chloroethane; Ethyl chloride (75-00-3)	Fluorene (86-73-7)	2,3,7,8-Tetrachlorodi- benzo-p-dioxin, 2,3,7,8-TCDD (1746-01-6)
Chloroform; Trichloromethane (67-66-3)	Heptachlor (76-44-8)	1,1,1,2-Tetrachloroethane (630-20-6)
2-Chloronaphthalene (91-58-7)	Heptachlor epoxide (1024-57-3)	1,1,2,2-Tetrachloroethane (79-34-5)
2-Chlorophenol (95-57-8)	Hexachlorobenzene (118-74-1)	Tetrachloroethylene; Tetrachloroethene; Perchloroethylene (127-18-4)
4-Chlorophenyl phenyl ether (7005-72-3)	Hexachlorobutadiene (87-68-3)	2,3,4,6-Tetrachlorophenol (58-90-2)
Chloroprene (126-99-8)	Hexachlorocyclopentadiene (77-47-4)	Toluene (108-88-3)
Chrysene (218-01-9)	Hexachloroethane (67-72-1)	o-Toluidine (95-53-4)
m-Cresol, 3-methylphenol (108-39-4)	Hexachloropropene (1888-71-7)	Toxaphene[28]
o-Cresol, 2-methylphenol (95-48-7)	2-Hexanone, Methyl butyl ketone (591-78-6)	1,2,4-Trichlorobenzene (120-82-1)
p-Cresol; 4-methylphenol (106-44-5)	Indeno(1,2,3-cd)pyrene (193-39-5)	1,1,1-Trichloroethane, Methylchloroform (71-55-6)
2,4-D; 2,4-Dichlorophen- oxyacetic acid (94-75-7)	Isobutyl alcohol (78-83-1)	1,1,2-Trichloroethane (79-00-5)
4,4[21]-DDD (72-54-8)	Isodrin (465-73-6)	Trichloroethylene, Trichloroethene (79-01-6)
4,4[21]-DDE (72-55-9)	Isophorone (78-59-1)	Trichlorofluoromethane, R-11 (75-69-4)
4,4[21]-DDT (50-29-3)	Isosafrole (120-58-1)	2,4,5-Trichlorophenol (95-95-4)
Diallate (2303-16-4)	Kepone (143-50-0)	2,4,6-Trichlorophenol (88-06-2)
Dibenz[a,h]anthracene (53-70-3)	Methacrylonitrile (126-98-7)	1,2,3-Trichloropropane (96-18-4)
Dibenzofuran (132-64-9)	Methapyrilene (91-80-5)	0,0,0-Triethyl phosphorothioate (126-68-1)
Dibromochloromethane; Chlorodibromomethane (124-48-1)	Methoxychlor (72-43-5)	sym-Trinitrobenzene (99-35-4)
1,2-Dibromo-3-chloro- propane; DBCP (96-12-8)	Methyl bromide; Bromomethane (74-83-9)	Vinyl acetate (108-05-4)
1,2-Dibromoethane; Ethylene dibromide; EDB (106-93-4)	Methyl chloride; Chloromethane (74-87-3)	Vinyl chloride; Chloroethene (75-01-4)
Di-n-butyl phthalate (84-74-2)	3-Methylcholanthrene (56-49-5)	Xylene (total)
o-Dichlorobenzene; 1,2-Dichlorobenzene (95-50-1)	Methyl ethyl ketone; MEK; 2-Butanone (78-93-3)	Per- and polyfluoroalkyl substances[29]
m-Dichlorobenzene; 1,3-Dichlorobenzene (541-73-1)	Methyl iodide; Iodomethane (74-88-4)	1,4-Dioxane (123-91-1)
p-Dichlorobenzene; 1,4-dichlorobenzene (106-46-7)	Methyl methacrylate (80-62-6)	
3,3[21]-Dichlorobenzidine (91-94-1)	Methyl methanesulfonate (66-27-3)	
trans-1,4-Dichloro- 2-butene (110-57-6)	2-Methylnaphthalene (91-57-6)	

Dichlorodifluoromethane, CFC 12 (75-71-8)	Methyl parathion; Parathion methyl (298-00-0)	
1,1-Dichloroethane; Ethyldidene chloride (75-34-3)	4-Methyl-2-pentanone; Methyl isobutyl ketone (108-10-1)	
1,2-Dichloroethane; Ethylene dichloride (107-06-2)	Methylene bromide; Dibromomethane (74-95-3)	
1,1-Dichloroethylene, 1,1-Dichloroethene; Vinylidene chloride (75-35-4)	Methylene chloride; Dichloromethane (75-09-2)	

(i) Leachate management plan.

The leachate management plan must include:

(1) a description of how the landfill will be constructed, operated, and closed in a manner that minimizes the generation of leachate, except in those cases where the department has approved the recirculation of leachate for waste mass stabilization enhancement, and how the migration of leachate into surface water or groundwater will be prevented;

(2) a description of operational methods to minimize the occurrence of perched leachate trapped above the leachate collection and removal system and surface seeps of leachate from above-grade landfill operations;

(3) a schedule for biennial video inspection and annual maintenance of the primary and secondary leachate collection and removal system;

(4) a schedule for the monitoring and recording of the secondary leachate collection and removal system flow data to determine the presence, quantity, nature and significance of any liquid detected;

(5) a discussion of the specific design and operational features related to the system, including leachate monitoring and sampling, locations of all leachate sampling points, alarm systems and maintenance, and any required back up equipment; and

(6) if leachate recirculation is proposed, the leachate management plan must include

(i) a supporting geotechnical analysis evaluating the effect of leachate recirculation on the structural integrity and stability of the landfill's liner system, leachate collection and removal system, and waste mass;

(ii) a description of how increased landfill gas emissions and associated odors will be controlled;

(iii) a description of the methods and rate of leachate recirculation and addition;

(iv) procedures for recording the date and volume of recirculated leachate;

(v) a description of the operation, which addresses

(a) the use of permeable operating cover or alternative operating cover to facilitate leachate distribution throughout the waste mass; and

(b) operational controls such as monitoring of surface seeps, liner system performance and excessive leachate head buildup, prevention of subsurface fires, odor control, and instruction for cessation of leachate recirculation and remediation of these conditions.

(j) Odor control plan.

The odor control plan must include:

(1) identification of all potential sources for odors and a description of the operational procedures and strategies to be followed to effectively control odors at the facility;

(2) procedures to be taken in the event of proposed waste volume increases or changes in waste characterization that may increase landfill gas emissions or odors;

(3) identification of the landfill personnel who would be responsible for implementation of the odor control plan; and

(4) operational and design-related recommendations that can be implemented upon detection of odor control problems, including impervious membranes and interim covers in conjunction with other landfill gas control methods. The odor control plan may include but not be limited to, gas control systems that are appropriately connected to the landfill liner system's primary leachate collection and removal system (including the drainage area on the landfill's side slopes), use of a horizontal gas collection lines, which may include rejection or mitigation of odiferous wastes that are determined to be contributing to off-site odors.

(k) Gas monitoring and emission control plan.

The gas monitoring and emission control plan must include:

(1) a description of the day-to-day operation of the landfill gas management system with respect to operation of odor and emission controls;

(2) a description of any air quality monitoring, including monitoring for fugitive landfill odor and air emissions; and

(3) for a landfill with an appurtenant landfill gas-to-energy facility or other landfill gas recovery facility, a discussion of how the landfill's odor and air emission controls are integrated with a recovery facility.

(l) Winter and inclement weather operation plan.

A description of how winter and inclement weather operations will be conducted, including identification of the specific actions to be taken to prevent frost action on the liner system in places where waste will not be placed within one year of construction certification approval.

(m) Residential drop-off operation plan.

A description of the operation of a residential drop-off area, if applicable, for non-commercial vehicles to unload waste and recyclables at an area other than the landfill working face.

(n) A radioactive waste detection plan.

The radioactive waste detection plan must include procedures for detecting radioactive material; operation and maintenance documents for radiation detectors which address proper equipment placement for effective operation and include setting of investigation alarm setpoint settings and calibration methods; and response procedures to be implemented if radioactive waste is detected.

(o) Emergency response plan.

An emergency response plan must include a description of, at a minimum, the actions to be taken in response to:

(1) uncontrolled explosive landfill gases detected on-site or beyond the property boundary;

(2) unexpected events during the construction and operation of the landfill gas management system, including the equipment to be utilized to maintain proper landfill gas venting and control when normal operations cease; and

(3) unexpected events during the subsequent construction and/or daily operation of the landfill's leachate collection and removal system.

(p) Conceptual closure, post-closure care, custodial care, and end use plan.

The conceptual closure, post-closure care, custodial care, and end use plan must include:

(1) a site plan that shows proposed final contours, property lines, storm water drainage system, streams and water courses, roads, structures and, if applicable, the groundwater and leachate treatment system, air pollution control system and any active landfill gas collection system;

(2) typical details of final cover system components and facility structures;

(3) a description of how the sequential closure of areas of the landfill is expected to progress in concert with the fill progression schedule, including effects of landfill reclamation activities if proposed;

(4) an estimate of the greatest number of landfill cells which, at any given point during the lifetime of the facility, will have received waste but not undergone final closure;

(5) an estimate of the maximum volume of waste and alternative operating cover that will be contained within the landfill;

(6) sufficient information upon which to estimate closure costs and post-closure and custodial care monitoring and maintenance costs. This information must be based upon the requirements of Subpart 363-9 of this Part, including a rolling 30-year post-closure care period, and must include estimates of:

(i) quantities and costs for each component of the final cover system, including related construction costs;

(ii) the anticipated length of the post-closure care period based on the types of wastes disposed and the criteria provided in section 363-9.6(a) of this Part;

(iii) post-closure operational, monitoring and maintenance costs including costs to replace system components based on predicted service life; and

(iv) custodial care monitoring and maintenance costs including costs to replace system components based on predicted service life; and

(7) a conceptual end use for the site, if proposed.

Footnotes

1 This list contains parameters for which possible analytical procedures are provided in: *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, EPA Publication SW-846 (Third Edition, (November 1986), as amended by Updates I

(July 1992), II (September 1994), IIA (August 1993), IIB (January 1995), III (December 1996), IIIA (April 1998), document number 955-001-00000-1), incorporated by reference in section 360.3 of this Title. *Methods for Chemical Analysis of Water and Wastes*, USEPA-600/4-79-020, March, 1983, incorporated by reference in section 360.3 of this Title.

2 Common names are those widely used in government regulations, scientific publications, and commerce; synonyms exist for many chemicals. "Total" indicates all species in the groundwater that contain this element.

3 Any floaters or sinkers found must be analyzed separately for baseline parameters.

4 Surface water only.

5 Any unusual conditions (colors, odors, surface sheens, etc.) noticed during well development, purging, or sampling must be reported.

6 This list contains parameters for which possible analytical procedures are provided in: *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, EPA Publication SW-846 (Third Edition, (November 1986), as amended by Updates I (July 1992), II (September 1994), IIA (August 1993), IIB (January 1995), III (December 1996), IIIA (April 1998), document number 955-001-00000-1), incorporated by reference in section 360.3 of this Title. *Methods for Chemical Analysis of Water and Wastes*, USEPA-600/4-79-020, March, 1983, incorporated by reference in section 360.3 of this Title.

7 Common names are those widely used in government regulations, scientific publications, and commerce; synonyms exist for many chemicals. "Total" indicates all species in the groundwater that contain this element.

8 Any floaters or sinkers found must be analyzed separately for baseline parameters.

9 Surface water only.

10 Any unusual conditions (colors, odors, surface sheens, etc.) noticed during well development, purging, or sampling must be reported.

11 The department may waive the requirement to analyze hexavalent chromium provided that total and hexavalent and trivalent chromium values do not exceed 0.05 mg/l.

12 This list contains parameters for which possible analytical procedures are provided in: *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, EPA Publication SW-846 (Third Edition, (November 1986), as amended by Updates I (July 1992), II (September 1994), IIA (August 1993), IIB (January 1995), III (December 1996), and IIIA (April 1998) document number 955-001-00000-1), incorporated by reference in section 360.3 of this Title. *Methods for Chemical Analysis of Water and Wastes*, USEPA-600/4-79-020, March, 1983, incorporated by reference in 360.3 of this Title.

13 Common names are those widely used in government regulations, scientific publications, and commerce; synonyms exist for many chemicals.

14 This list contains parameters for which possible analytical procedures are provided in: *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, EPA Publication SW-846 (Third Edition, (November 1986), as amended by Updates I (July 1992), II (September 1994), IIA (August 1993), IIB (January 1995), III (December 1996), and IIIA (April 1998) document number 955-001-00000-1), incorporated by reference in section 360.3 of this Title. *Methods for Chemical Analysis of Water and Wastes*, USEPA-600/4-79-020, March 1983, incorporated by reference in 360.3 of this Title. *Prescribed Procedures for Measurement of Radioactivity in Drinking Water*, USEPA-600/4-80-032, August 1980, incorporated by reference in section 360.3 of this Title.

15 Common names are those widely used in government regulations, scientific publications, and commerce; synonyms exist for many chemicals. "Total" indicates all species in the groundwater that contain this element.

16 Two sets of samples must be collected: one filtered and one unfiltered. Filtered samples must be filtered using a 0.45 micron filter via standard techniques.

17 Any floaters or sinkers found must be analyzed separately for baseline parameters.

18 Surface water only.

19 Any unusual conditions (colors, odors, surface sheens, etc.) noticed during well development, purging, or sampling must be reported.

20 The department may waive the requirement to analyze hexavalent chromium provided that total and hexavalent and trivalent chromium values do not exceed 0.05 mg/l.

21 This list contains parameters for which possible analytical procedures are provided in: *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, EPA Publication SW-846 (Third Edition, (November 1986), as amended by Updates I (July 1992), II (September 1994), IIA (August 1993), IIB (January 1995), III (December 1996), and IIIA (April 1998) document number 955-001-00000-1), incorporated by reference in section 360.3 of this Title. *Methods for Chemical Analysis of Water and Wastes*, USEPA-600/4-79-020, March 1983, incorporated by reference in section 360.3 of this Title.

22

Common names are those widely used in government regulations, scientific publications, and commerce; synonyms exist for many chemicals.

23 This substance is often called Bis(2-chloroisopropyl) ether, the name Chemical Abstracts Service applies to its noncommercial isomer, Propane, 2,2"-oxybis[2]-chloro- (CAS RN 39638-32-9).

24 Polychlorinated biphenyls (1336-36-3): This category contains congener chemicals, including constituents of Aroclor 1016 (12674-11-2), Aroclor 1221 (11104-28-2), Aroclor 1232 (11097-69-1), and Aroclor 1260 (11096-82-5).

25 Polychlorinated dibenzo-p-dioxins: This category contains congener chemicals, including tetrachlorodibenzo-p-dioxins, pentachlorodibenzo-p-dioxins, and hexachlorodibenzo-p-dioxins.

26 Polychlorinated dibenzofurans: This category includes congener chemicals, including tetrachlorodibenzofurans, pentachlorodibenzofurans, and hexachlorodibenzofurans.

27 Chlordane: This entry includes alpha-chlordane (5103-71-9), beta-chlordane (5103-74-2), gamma-chlordane (5566-34-7), and constituents of chlordane (57-74-9; 12789-03-6).

28 Toxaphene: This entry includes congener chemicals contained in technical toxaphene (CAS RN 8001-35-2), *i.e.*, chlorinated camphene.

29 Per- and polyfluoroalkyl substances (PFAS): This category contains congener chemicals, including but not limited to perfluorooctanoic acid, perfluorooctanesulfonic acid, perfluorononanoic acid, perfluorohexanesulfonic acid, perfluoroheptanoic acid, perfluorobutanesulfonic acid.

6 CRR-NY 363-4.6
Current through September 30, 2018

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