Town of Babylon

Dept. of Environmental Control
281 Phelps Lane, Room 400
North Babylon, NY 11703-4045
(631) 957-3000
(631) 422-7640
Fax: (631) 422-7686
e-mail: dec@townofbabylon.com

RICH SCHAFFER
SUPERVISOR

November 3, 2021

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

Re: Town of Babylon Leachate Monitoring Program, June 2021

Dear Ms. Ackerman,

The Town of Babylon has completed and forwarded the June 2021 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.

Very truly yours,

Joseph Guarino
Principal Environmental Analyst

JG:vg

Encl.

cc: Rich 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
David Bligh, Deputy Commissioner, Recycling Ctr./Environmental Control, Town of Babylon
Richard Groh, Chief Environmental Analyst, Environmental Control, Town of Babylon
Linda Waring, Suffolk County Department of Public Works
Lyja Jacob, New York State Department of Environmental Conservation
Richard Clarkson, New York State Department of Environmental Conservation
Tara Rutland, New York State Department of Environmental Conservation
Charlotte Bethoney, New York State Department of Health

TOBSWMF's Leachate Monitoring Program June 2021

Town of Babylon Department of Environmental Control

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

October 2021

Laboratory data and summary report from June 2021 sampling for Babylon's Leachate Monitoring Program.

TOBSWMF's Leachate Monitoring Program

June 2021

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. June 2021 sampling for the LMP also included these emerging contaminants. 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 of the SA, ONU, NNU and Cell 7 were performed on June 14, 2021. 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. Sampling at Cell 7 was for the PLCRS. The complete laboratory report, case narrative and QA/QC package from Pace Analytical Services Inc has been attached as an appendix to this report. Included within the Pace Labs report is analysis for PFAS/PFOA's performed by Eurofins Environmental Testing America. 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. The method blank provided as part of the PFAS/PFOA's analysis for Cell 7 was clean. The method blank provided with PFAS/PFOA analysis for the remaining leachate facilities was clean. The results of the equipment blank and field duplicate (GM-27I) were not notable.

Project narratives prepared by the laboratory for each category were reviewed. Notations and flagging qualifiers discussed in the narratives were noted. For the Cell 7 facility, acetone is estimated. Each data package was certified by the laboratory as being in compliance with the laboratories quality assurance manual both technically and for completeness.

This section of the LMP report provides a brief summary of the June 2021 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 June 2021 LMP sampling results:

- Manganese (.26 mg/l) did not exceed it MCL at the ONU. Manganese has exceeded its MCL at the ONU in 22 of the past 36 sampling events over the life of the facility and just 2 of the previous 11 sampling events at the ONU facility since June 2016.
- pH of leachate at the ONU was 8.57, 8.12 at the SA, 7.92 at the NNU PLCRS, 7.45 at the NNU SLCRS and 7.25 at Cell 7. All continue to be observed within an acceptable range.
- Baseline organics observed at each facility for the June 2021 LMP:
    - No baseline organics were observed at the ONU or SA facilities.
    - Total baseline organics observed at the NNU facility; 0.1907 mg/l at the NNU P and 0.633 mg/l at the NNU S.
    - 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 June 2021 LMP.
- Total organics from the expanded parameters list (above mdl) observed at the Cell 7 facility was .0653 mg/l. Total Toxic Organics (TTO) (>.01 mg/l) at the Cell 7 facility was .0.064 mg/l. This is below the overall TTO limit (10 mg/l) and 1.5 mg/l limit for acid extractable compounds within the Town of Babylon discharge Certificate issued by SCDPW.
- Sulfide exceeded its MCL of 12 mg/l at the NNUP (41.6 mg/l), NNUS (83.2 mg/l) and Cell 7 (16 mg/l).
- Barium did not exceed its MCL at the ONU, SA, NNU or Cell 7 for June 2021.
- Mercury was not detected at the ONU, SA, NNU PLCRS, NNU SLCRS or Cell 7 for June 2021.
- Chloride at the Cell 7 was reported at .36 mg/l at the Cell 7 facility. This is approximately 4-5 orders of magnitude below its historical range at this facility. Pace labs was contacted and indicated no error was observed. This value remains suspicious and will be noted and discussed during the December 2021 sampling and GMP report. Chloride values at the ONU, SA and NNUP and NNUS were within their historical range.
- Piper diagrams for the SA, ONU, NNU and Cell 7 were updated with leachate data from the June 2021 LMP. The Piper diagrams for the SA, ONU, NNUP and NNUS conform to

[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.

historical data. Chloride observed at the Cell 7 facility significantly below its historical range caused a substantial change to the Piper diagram for this facility. As noted above the chloride result is viewed as suspicious and likely in error.

- Project narratives were prepared by Pace Analytical Services Inc. for the June 2021 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. 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

June 2021

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.

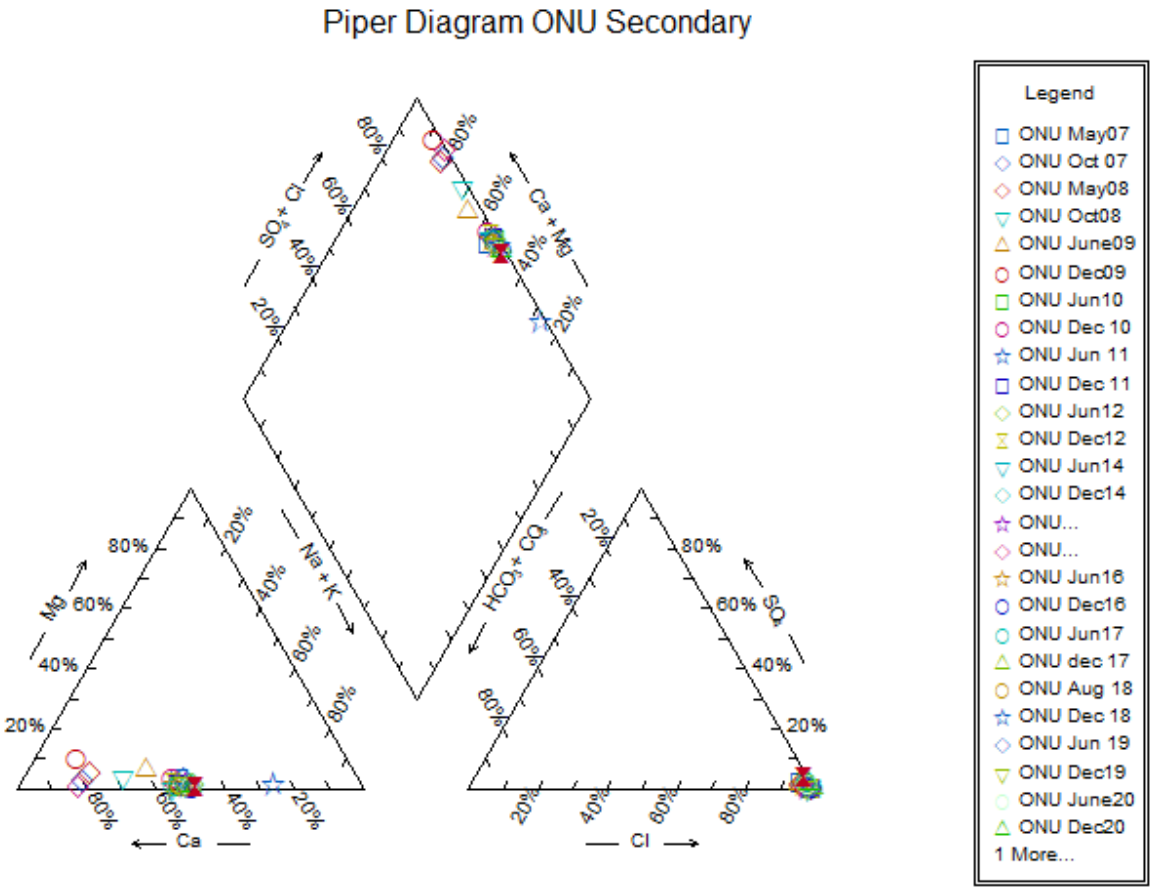
Ash has not been deposited in the ONU since it was capped in 2002 when the New Northern U (NNU) was constructed atop the facility. Leachate continues to be generated at the ONU despite the facility being capped and numerous attempts to locate the source. The LMP will continue at the ONU until there is a cessation of leachate generation. Included in this report is the June 2021 laboratory report from Pace Analytical Services, a spreadsheet summarizing parameters of concern dating back to 1995, a Piper diagram and a 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 June 2021 generally conforms to historical data from the facility.
- pH measured in the field at the ONU SLCRS for June 2021 was 8.57.
- Manganese (.26 mg/l) was observed below its MCL for June 2021. Manganese had exceeded its MCL at the ONU in 22 of the past 36 sampling events over the life of the facility and just 2 of the previous 11 sampling events at the ONU facility since June 2016.
- Barium (.566 mg/l) was not observed above its MCL at the ONU for June 2021.
- Arsenic and lead were not detected above their mdl at the ONU for June 2021. 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 June 2021 include boron (.348 mg/l), calcium (2770 mg/l), iron (3.79 mg/l), magnesium (8.1 mg/l), potassium (1170 mg/l), and sodium (2670 mg/l).

- 1,4 dioxane was observed at .57 ug/l for June 2021 at the ONU.
- No other organic compound from the baseline list were observed at the ONU for June 2021.
- Sulfide was not detected above its mdl at the ONU facility for June 2021.
- The Piper diagram from the ONU facility was updated with June 2021 data. The geochemical fingerprint for this facility remains unchanged.
- PFAS/PFOA's results are attached in appendix 1.

The next round of sampling at the ONU is scheduled for December 2021.



Note: Solid hourglass = data point for June 2021.

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
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																
1,4 dioxane	ug/l															

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
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																

PARAMETERS	Jun_16	Dec_16	17-Jun	Dec_17	Aug_18	Dec_18	Jun_19	Dec_19	Jun_20	Dec_20	Jun_21
CHLORIDE	D 9630	D 44600	9970	348000	16400	19600	20400	D 14600	11600	12300	8970
SULFATE	D 165	D 58	282	93.8	264	257	D 197	D 141	191	208	464
Alkalinity	D 271	182	143	148	293	139	245	302	196	137	157
Na	2390	8460	2500	6760	3720	3760	D 4560	D 3140	2230	3160	2670
K	945	3870	1030	3310	1320	1570	D 1560	D 1140	937	1360	1170
Ca	2960	9220	3100	8040	4290	4220	5140	D 3550	2390	3360	2770
Mg	38.5	<10	19.4	0.293	19.2	11	192	71	12	7.27	8.1
pH	5.74	9.59/7	6.49	9.8	7.49	7.52	7.22	7.59	7.15	8.02	8.57
TDS	23900	52800	25200	69200	28600	24000	29900	19500	13700	20900	12300
PHENOL											
PHENOLS	<.005	0.297	0.0264	0.0587	0.134	0.0059	<.00001	0.0158	<.005	0.0054	<.005
IRON	4.79	<5	4.32	<.4	2.21	1.44	31.8	13.3	6.16	1.55	3.79
MANGANESE	5.07	<.5	1.63	<.01	1.23	0.62	41.8	14.5	1.3	0.556	0.26
TKN	13.7	64.3	12.6	52.2	37.3	13.3	27.1	29.1	11.2	14	10.4
ALUMINUM	0.0704 J	<10	<.0134	1.13	<10	<.2	<.2	<.2	<.2	<.2	<.2
ACETONE	J < 0.0804	<.001	0.0514	0.0024 J	0.0029	<.005	<.005	<.005	<.005	<.005	
3+4 methylphenol											
Methyl Ethyl Ketone	< <.005	<.0005	.0025 J	<.005	<.005	<.005	<.005	<.005	<.005	<.005	
Arsenic	< <.5	<.0068	<.01	<.5	<.01	<.2	D <.01	<.01	<.01	<.01	
Lead	0.0051	<.25	<.0013	<.4	<.25	0.0085	0.031	<.005	<.005	<.005	<.005
Barium	0.829	<10	1.32	4.9	1.34 J	1.13	2.77	2.07	0.619	1.11	0.566
Xylene	< <.005	<.0005	<.002	<.003	<.003	<.003	<.003	<.003	<.003	<.003	
Zinc	0.0358	<1	<.0012	<.02	<1	<.02	<.02	<.02	<.02	<.02	<.02
Beryllium	0.0022 J	<.25	<.00057	.0036 J	<.25	<.005	<.005	0.00034 J	0.00013	0.00017 J	<.005
Nickel	< <2	<.00088	<.04	<2	<.04	<.04	<.04	<.04	0.0478	0.0193 J	0.0229
Selenium	< <.5	<.0062	<.01	<.5	<.01	<.2	D 0.0135	<.01	<.01	<.01	
Thallium	< <.5	<.0036	<.01	<.5	0.0085 J	0.0798	<.01	<.01	<.01	<.01	
Silver	B < <.5	<.0036	<.01	<.5	<.01	0.0048 J	0.0035 J	0.0047	<.01	<.01	
Toluene	< <.005	<.0005	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001
Carbon Disulfide	< <.005	<.0005	<.001	<.001	<.001	<.001	<.001	<.001	<.001	0.0033	<.001
methylene chloride	< <.005	<.0005	<.001	<.001	<.01	<.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	
Antimony	< <3	<.003	<.06	<3	<.06	0.06	<.06	<.06	<.06	<.06	
4-Methyl-2-pentanone	J < <.005	<.0005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	
Sulfide	<20	<2	<.61	9.6	<2	<.002	8	<2	1.6	<2	<2
1,4 dioxane					0.21 JH	0.66	21	18.6	0.38	0.57	0.57

PARAMETERS	Jun_16	Dec_16	17-Jun	Dec_17	Aug_18	Dec_18	Jun_19	Dec_19		Jun_20		Dec_20		Jun_21	
perfluorobutanoic acid (PFBA)								180	B	73		76		200	
perfluoropentanoic acid (PFPeA)								120		43		67		59	
perfluorohexanoic acid(PFHxA)								160		60		82		72	
perfluoroheptanoic acid								53		25		29		28	
perfluorooctanoic acid(PFOA)								150		44		48		49	
perfluorononanoic acid(PFNA)								17		7.3		8.1		8.3	
perfluorodecanoic acid (PFDA)								5.4	J	2.1		1.8	J	2.3	
perfluoroundecanoic acid(PFUnA)								ND		ND		nd		ND	
perfluorododecanoic acid(PFDoA)								ND		ND		nd		ND	
perfluorotridecanoic acid(PFTriA)								ND		ND		nd		ND	
perfluorotetradecanoic acid(PFTeA)								ND		ND		nd		ND	
perfluorobutanesulfonic acid(PFBS)								76		51		82		56	
perfluorohexanesulfonic acid(PFHxS)								69	B	13	B	17		14	
perfluoroheptanesulfonic acid(PFHpS)								2.8	J	0.42	J	0.47	J	0.84	
perfluorooctanesulfonic acid(PFOS)								98		32		29		28	
perfluorodecanesulfonic acid(PFDS)								ND		ND		nd		ND	
perfluorooctanesulfonamide(FOSA)								ND		0.76	JE	nd		ND	
N-methylperfluorooctanesulfonamidoaceti								ND		ND		nd		ND	
N-ethylperfluorooctanesulfonamidoacetic								ND		ND		nd		ND	
6:2FTS								ND		ND		nd		ND	
8:2FTS								ND		ND		nd		ND	

TOBSWMF's Leachate Monitoring Program

Southern Ashfill

June 2021

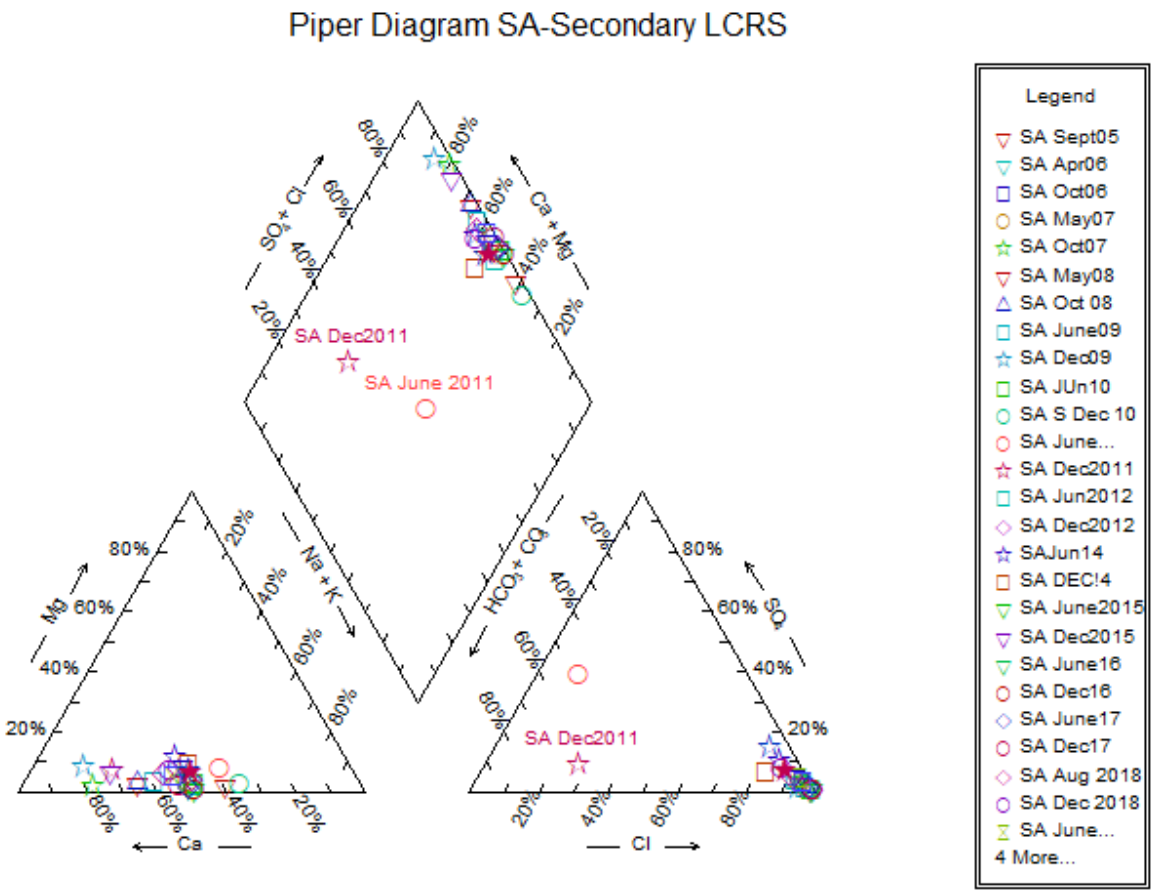
Pursuant to NYSDEC 6NYCRR Part 363 (formerly part 360) requirements for the operation of the Town of Babylon's Southern Ashfill (SA), leachate from that facility's Secondary Leachate Collection and Recovery System (SLCRS) was sampled in accordance with the procedures detailed in the TOBSWMF's SAP (TOBDEC, 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. This report includes the laboratory report from Pace Analytical Services, 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 exeedance 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 June 2021 LMP at the SA fall within the range of historical data.
- A Piper diagram that includes SA data from June 2021 conforms to its established pattern.
- Lead and arsenic were reported below their mdl's for June 2021. Low values of lead and arsenic have been observed intermittently at the SA.
- Manganese was observed below its MCL at 2.4 mg/l for June 2021. 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 0.148 mg/l at the SA for June 2021.
- Other metals observed at the SA at values above their reporting limit and below their MCL (where one has been established) for June 2021 include boron (.495mg/l), calcium (654 mg/l), iron (.962 mg/l), magnesium (52.8 mg/l), potassium (258 mg/l) and sodium (599 mg/l).
- 1,4 dioxane was detected at 0.93 ug/l at the SA for June 2021.
- No organics from the baseline parameters list was detected at the SA facility for June 2021.
- Mercury was not detected (<.0002 mg/l) at the SA for June 2021.

- pH measured in the field was 8.12 at the SA facility.
- Sulfide (9.6 mg/l) was detected below its MCL (12 mg/l) at the SA facility for June 2021.
- PFAS/PFOA's results are attached in appendix A.

The next round of sampling is scheduled for December 2021.



Note: Solid star indicates June 2021 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													

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													

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

SA PARAMETERS	03 MCL	Jun_21
TKN	na	1.5
TDS	na	3670
Phenols	na	<.005
Chloride	na	3120
Sulfide	12	9.6
Iron	na	0.962
Manganese	8 mg/l	2.4
Phenol	1.5 mg/l	
Xylene	2.5 mg/l *	<.003
1,2,4 Trimethylbenzene	na	
SULFATE	na	328
Arsenic	.4 mg/l	<.01
Acetone	na ppm	<.005
pH	5 - 12.5	8.12
Aluminum	na	<.2
Barium	8 mg/l	0.148
Lead		<.005
Zinc		<.02
Toluene	2.5 mg/l *	<.001
Cadmium	.8 mg/l	<.0025
Vanadium		<.05
Tin		
Antimony		<.06
Copper	1.6 mg/l	<.025
Selenium	.4 mg/l	<.01
Silver	.4 mg/l	<.01
Berylium		<.005
Chromium	8 mg/l	<.01
Nickel	8 mg/l	0.0144
Thallium		<.01
Carbon disulfide		<.001
Methylene Chloride	2.5 mg/l	<.001
Alkalinity		240
Ammonia		0.12
Hardness		4000
1,4 dioxane	ug/l	0.93

SA PARAMETERS	03 MCL	Jun_21
Chloride		
Sulfate		
Alkalinity		
Na		599
K		258
Ca		654
Mg		52.82
pH		8.12
perfluorobutanoic acid (PFBA)		46
perfluoropentanoic acid (PFPeA)		48
perfluorohexanoic acid(PFHxA)		63
perfluoroheptanoic acid		32
perfluorooctanoic acid(PFOA)		85
perfluorononanoic acid(PFNA)		8.3
perfluorodecanoic acid (PFDA)		15
perfluoroundecanoic acid(PFUnA)		ND
perfluorododecanoic acid(PFDoA)		ND
perfluorotridecanoic acid(PFTriA)		ND
perfluorotetradecanoic acid(PFTeA)		ND
perfluorobutanesulfonic acid(PFBS)		15
perfluorohexanesulfonic acid(PFHxS)		13
perfluoroheptanesulfonic acid(PFHpS)		ND
perfluorooctanesulfonic acid(PFOS)		43
perfluorodecanesulfonic acid(PFDS)		ND
perfluorooctanesulfonamide(FOSA)		ND
N-methylperfluorooctanesulfonamidoacetic acit(NMeFOSAA)		ND
N-ethylperfluorooctanesulfonamidoacetic acit(NEtFOSAA)		1.4 J
6:2FTS		ND
8:2FTS		ND

TOBSWMF's Leachate Monitoring Program

New Northern U Ashfill

June 2021

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. This document includes the laboratory report from Pace Analytical Services, Inc., 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 June 2021 sampling and provides follow-up analysis or discussion wherever necessary or recommended in previous reports.

- For the June 2021 LMP pH was 7.45 at the NNU SLCRS and 7.92 at the NNU PLCRS.
- The overall leachate characteristics of the NNU PLCRS and SLCRS largely conform to the historical dataset for this facility.
- Arsenic was not detected above its mdl at the NNUP and at .012 mg/l at the NNUS. Lead was not observed above its reporting limit at the NNUP and NNUS. Low values of arsenic and lead have been intermittently observed at this facility.
- Mercury was not observed above its mdl at the NNU PLCRS or NNU SLCRS for June 2021.
- Organics from the baseline parameters list observed at the NNU for June 2021 were limited to low concentrations of acetone and MEK.

Acetone was observed at .172 mg/l at the NNU PLCRS and .597 mg/l at the NNU SLCRS. Low concentrations of acetone have been observed at this facility since June 2010.

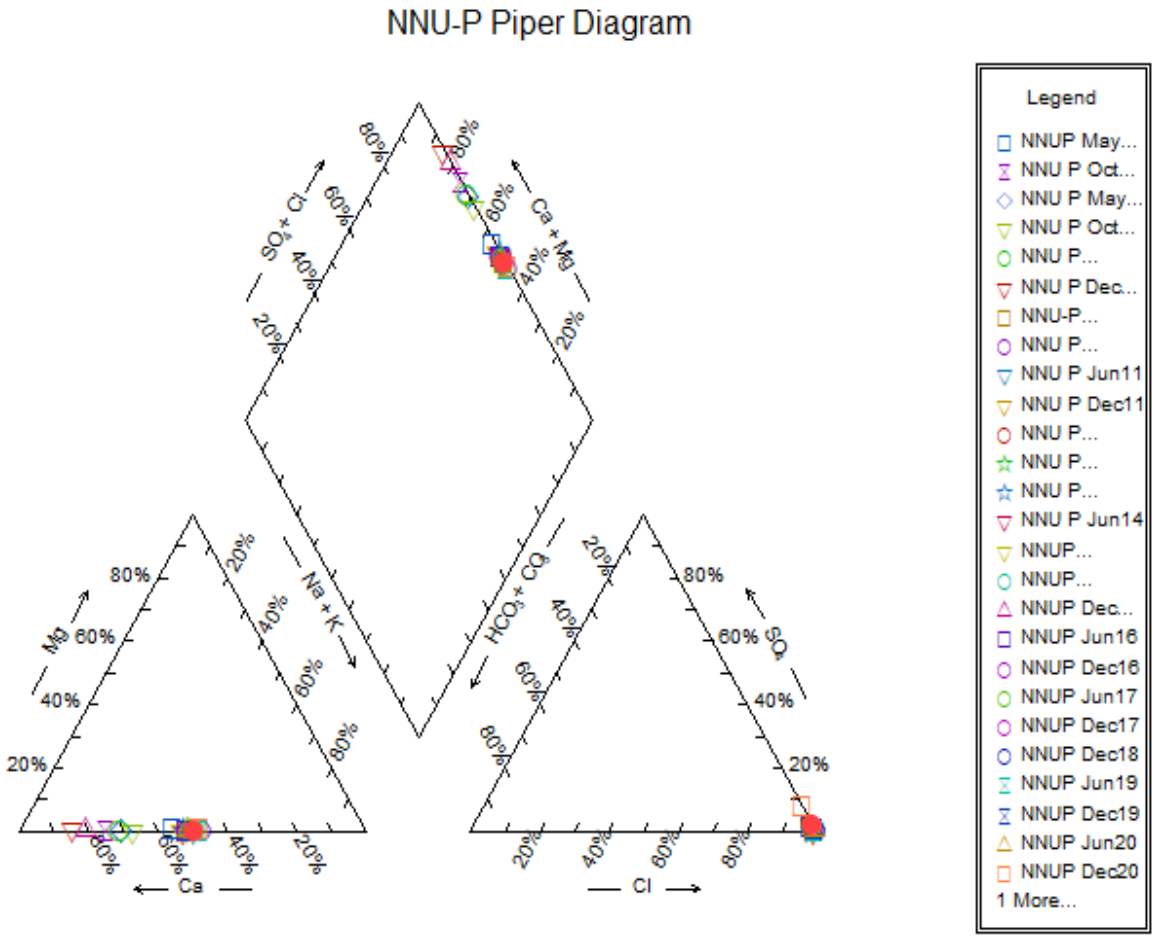
MEK was detected at the NNU PLCRS at .0187 mg/l and .036 mg/l at NNU-SLCRS during June 2021 sampling. Trace values of MEK have been intermittently observed at this facility.

TTO as defined on the Town of Babylon discharge certificate issued by Suffolk County Department of Public Works is <.01 mg/l at the NNU facility.

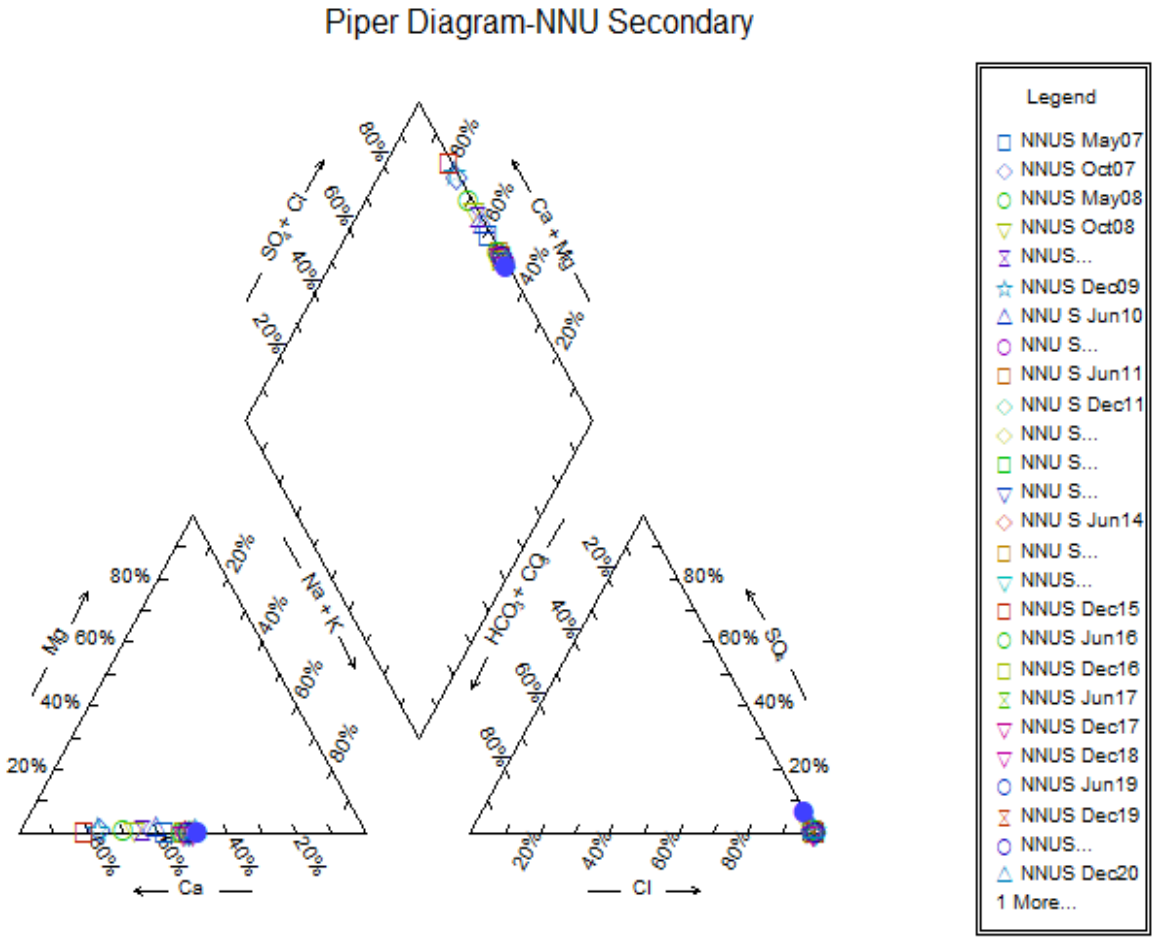
Total baseline organics for the NNU PLCRS was .19 mg/l and .63 mg/l at the NNU SLCRS.

- 1,4 dioxane was observed at 1.9 ug/l at the NNU PLCRS and 3.8 ug/l at the NNU SLCRS.
- Barium was observed below its MCL at the NNU PLCRS (1.44 mg/l) and NNU SLCRS (2.6 mg/l) for June 2021. Barium has been observed exceeding its MCL at the NNU PLCRS 5 times over 36 sampling events through the life of the facility. Barium has exceeded its MCL at the NNU SLCRS 3 times over 36 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 June 2021 include aluminum (.21 mg/l), boron (43.2 mg/l), calcium (7340 mg/l), iron (.324 mg/l), magnesium (3.75 mg/l), manganese (.197 mg/l), potassium (3070 mg/l) and sodium (6870 mg/l).
- Other metals observed above their mdl and below their MCL at the NNU SLCRS for June 2021 include boron (6.02 mg/l), calcium (13000 mg/l), copper (.089 mg/l), iron (.045 mg/l), magnesium (3.06 mg/l), manganese (.146 mg/l), potassium (5480 mg/l) and sodium (12700 mg/l).
- Sulfide exceeded its MCL at the NNUP (41.6 mg/l) and NNUS (83.2 mg/l) for the June 2021 LMP. Sulfide has exceeded its MCL at the NNUP for 7 of 11 sampling rounds since June 2016. At the NNUS sulfide has exceeded its MCL since December 2017.
- BOD was observed below its MCL (300 mg/l) at the NNUP and NNUS. BOD has intermittently exceeded its MCL at these facilities.
- A Piper diagram was prepared with the June 2021 data added to the historical dataset. The geochemical fingerprint for the NNU facilities is largely unchanged. Slight movement to the lower right quadrant of the NNUS is noted with the June 2021 data. This is likely the result of sulfate at the NNUS observed above its normal range. The same observance was made at the NNUP for December 2020 with a similar result on the Piper diagram. Sulfate at the NNUP for June 2021 is reduced from December 2020 and the data point in the lower right quadrant of the Piper diagram is no longer offset.
- PFAS/PFOA's results are attached in appendix A.

The next round of sampling is scheduled for December 2021.



Note: solid circle represents June 2021 data.



Note: solid circle represents June 2021 data.

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																				

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

NNUP PARAMETERS	Jun_20	Dec_20	Jun_21
CHLORIDE	60800	24500	29100
SULFATE	24.7	**2670**	784
Alkalinity	172	80.3	139
Na	10100	6420	6870
K	4040	2780	3070
Ca	11300	6400	7340
Mg	2	16	3.75
pH	6.96	8.56	7.92
hardness		16200	21200
TDS	70300	39900	40400
PHENOL			
PHENOLS	0.118	0.0302	0.0348
IRON	0.368	0.247	0.324
MANGANESE	0.335	0.53	0.197
TKN	107	61.1	75.8
ALUMINUM	<1	0.236	0.21
ACETONE	0.375	0.173	0.172
Methyl Ethyl Ketone	0.0412	0.0064	0.0187
Arsenic	<.05	<.01	<.01
Lead	0.368	0.0047 J	0.005 J
Barium	2.24	1.59	1.44
Cadmium	<.0125	0.0194	<.0025
Copper	0.103	0.211	<.025
Selenium	<.052	<.01	<.01
Zinc	0.12	0.096	<.02
Carbon disulfide	<.001	<.001	<.001
BOD	184	89.7	124
Antimony	<.3	0.026 J	<.06
Beryillium	0.00085	<.005	<.005
Chromium	0.237	0.0301	<.01
Nickel	0.111	0.0401	<.0155 J
Thallium	0.0528	<.01	<.01
Vanadium	<.25	<.05	0.0085 J
methylene chloride	<.001	<.001	<.001
Toluene	<.001	<.001	<.001
Mercury	<.0002	<.0002	<.0002
4-Methyl-2-pentanone	0.0052	<.005	<.005
Iodomethane	0.0043	<.004	<.004
sulfide mg/l	**17.6**	<2	**41.6**
1,4 Dioxane	2.9	2.3	1.9
perfluorobutanoic acid (PFBA)	270	150	200
perfluoropentanoic acid (PFPeA)	130	120	130
perfluorohexanoic acid(PFHxA)	190	170	160
perfluoroheptanoic acid	31	39	33
perfluorooctanoic acid(PFOA)	43	54	31
perfluorononanoic acid(PFNA)	2.5	4.5	1.9

NNUP PARAMETERS	Jun_20	Dec_20	Jun_21
perfluorodecanoic acid (PFDA)	0.66 J	1.8 J	0.57 J
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)	230	190	170
perfluorohexanesulfonic acid(PFHxS)	14 B	9.9	10
perfluoroheptanesulfonic acid(PFHpS)	0.29 J	.19 J	ND
perfluorooctanesulfonic acid(PFOS)	12	12	3.9
perfluorodecanesulfonic acid(PFDS)	ND	nd	ND
perfluorooctanesulfonamide(FOSA)	0.7 JB	nd	0.98 J
N-methylperfluorooctanesulfonamidoacetic acit	ND	nd	ND
N-ethylperfluorooctanesulfonamidoacetic acit(N	ND	nd	ND
6:2FTS	4.3 J	6	3 J
8:2FTS	ND	.59 J	ND

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																				

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	<.01
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	

NNUSPARAMETERS	95 MCL	Jun_20	Dec_20	Jun_21
CHLORIDE	500mg/l	61600	45900	46600
SULFATE	500mg/l	8.9	65.9	J **4250**
Alkalinity		140	176	268
Na		10600	10400	12700
K		4300	4680	5480
Ca		11900	11100	13000
Mg		2.02	2.3	3.06
pH	6.5-8.5	6.66	7.37	7.45
TDS	1000 mg/l	70800	71200	63600
PHENOL	0.002mg/l			
PHENOLS		0.104	0.256	0.0862
IRON	0.6mg/l	0.108	0.185	0.0447
MANGANESE	0.6mg/l	0.322	0.312	0.146
TKN	10 mg/l	106	113	107
ALUMINUM	2mg/l	<1	0.0446	J 0.144
ACETONE	5 ppb	0.333	0.617	0.597
Methyl Ethyl Ketone	5 ppb	0.0406	0.0718	0.036
Arsenic	50 ppb	<.05	<.01	0.0116
Lead	50 ppb	<.025	<.005	0.0048
Barium		2.3	2.42	2.6
Cadmium		<.0125	<.0025	<.0025
Copper		0.0895	<.025	<.025
Zinc		0.0405	<.02	<.02
Antimony		<.3	<.06	<.06
Beryillium		0.00089	<.005	<.005
Chromium		0.232	0.0201	<.01
Nickel		0.112	0.0281	J 0.0236
Selenium		0.0468	<.01	<.01
Thallium		0.054	<.01	<.01
Vanadium		<.25	0.0062	J 0.01
Silver		0.0287	<.01	<.01
methylene chloride		<.001	<.001	<.001
ammonia		98.3	107	142
hardness		30800	32000	1000
carbon disulfide		0.0018	0.0034	<.001
4methyl2pentano	ppb	0.0056	0.0064	<.005
2 hexanone		<.005	<.005	<.005
Iodomethane		0.0043	<.004	<.004
sulfide	12 mg/l	**12.8**	<2	83.2
BOD	300 mg/l	180	167	265
1,4 dioxane	ug/l	2.7	2.6	3.8
perfluorobutanoic acid (PFBA)		270	210	270
perfluoropentanoic acid (PFPeA)		130	150	130
perfluorohexanoic acid(PFHxA)		190	170	150
perfluoroheptanoic acid		30	29	24
perfluorooctanoic acid(PFOA)		36	28	34

NNUSPARAMETERS	95 MCL	Jun_20		Dec_20	Jun_21	
perfluorononanoic acid(PFNA)		1.8	J	1.6 J	1.4 J	
perfluorodecanoic acid (PFDA)		0.72	J	.58 J	.68 J	
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)		240		280		220
perfluorohexanesulfonic acid(PFHxS)		12	B	12		12
perfluoroheptanesulfonic acid(PFHpS)		ND		nd	.19 J	
perfluorooctanesulfonic acid(PFOS)		9.1		6.9		6
perfluorodecanesulfonic acid(PFDS)		ND		nd	ND	
perfluorooctanesulfonamide(FOSA)		3.1	B	nd	ND	
N-methylperfluorooctanesulfonamidoacetic acit(NMeFOSAA)		ND		nd	ND	
N-ethylperfluorooctanesulfonamidoacetic acit(NEtFOSAA)		ND		nd	ND	
6:2FTS		3.5	J	2.7 J		4.5
8:2FTS		ND		nd	ND	

TOBSWMF's Leachate Monitoring Program

Cell 7

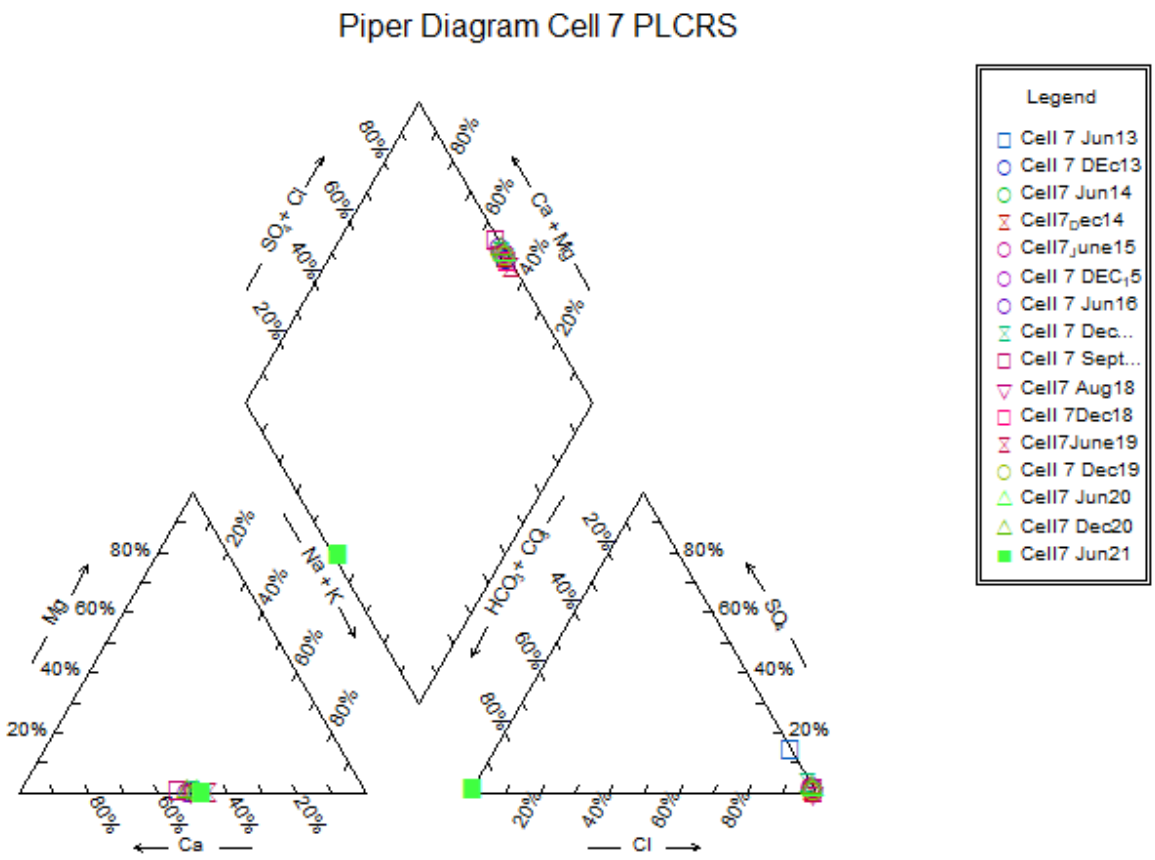
June 2021

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. This report includes the laboratory report from Pace Analytical Services Inc., a spreadsheet summarizing the results, a Piper diagram and brief discussion.

- Chloride was observed at 0.36 mg/l at the Cell 7 facility for June 2021. This is a reduction of approximately 3-4 orders of magnitude from historical data. TOBDEC contacted Pace labs to examine the result. Pace responded that they did not observe any errors (appendix 1). This value is viewed as suspicious based upon its discrepancy compared to historical data of this facility and other ash facilities within Babylon SMWF's. The chloride result will be noted and discussed in the next LMP report. Other than as described with chloride, leachate characteristics of the Cell 7 facility largely conform to the historical dataset for this facility.
- A Piper diagram that includes the June 2021 data for the Cell 7 facility was prepared and is attached to this section. The geochemical fingerprint illustrated in the Piper diagram demonstrates a substantial change with the June 2021 data points. This is the result of the substantial reduction in chloride associated with the June 2021 lab report for this facility. As noted above, the chloride result is viewed as suspicious and will be further discussed in the December 2021 leachate report.
- For June 2021 pH at Cell 7 was measured at 7.25.
- Analysis for 2378 TCDD / TCDF for June 2021 was ND (Reporting limit 10 pg/l).
- Analysis for 1,4 dioxane for June 2021 was reported at 4.2 ug/l.
- Mercury was not detected above its mdl at Cell 7 for June 2021.
- Organics from the expanded parameters list observed during June 2021 included acetone (.267 mg/l), MEK (.023 mg/l), phenol (.063 mg/l), 2,4 D (.012 mg/l), 3-4 methylphenol (.083 mg/l), 2,4,5 T (.0019 mg/l), delta BHC (.0075 mg/l), heptachlor (.00023), silvex (.002 mg/l), dinoseb (.0012 mg/l), acetonitrile (.191 mg/l) and naphthalene (.00062 mg/l). Total expanded organics observed for June 2021 was .645 mg/l.

- TTO (>.01 mg/l) observed at the Cell 7 facility for June 2021 is .0627 mg/l (phenol). This is below the overall TTO limit of 10 mg/l, and below the limit for acid extractable organic compounds of 1.5 mg/l set forth in the Town of Babylon Discharge Certification issued by SCDPW.
- No metals were observed above their MCL. Metals observed above their RL include barium (6.45 mg/l), boron (.74 mg/l), calcium (13000 mg/l), magnesium (10.6 mg/l), manganese (.496 mg/l), potassium (8100 mg/l) and sodium (11800 mg/l).
- Sulfide was detected at 16 mg/l, exceeding its MCL of 12 mg/l.
- PFAS/PFOA and 1,4 dioxane results are included in appendix 1.

The next round of sampling for leachate at the Cell 7 facility is scheduled for December 2021.



Note: solid green square represents June 2020 data.

	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

	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
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

	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
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
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

	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	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
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

	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	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											
	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
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

CELL 7 PLCRS								
	Aug_18	Dec_18	Jun_19	Dec_19	June_20	Dec_20	June_21	
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	
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	

CELL 7 PLCRS												
	Aug_18	Dec_18	Jun_19	Dec_19		June_20		Dec_20		June_21		
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		± 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		11B		8.6	B	5.9		8.2		
Perfluorononanoic acid PFNA	1.7	1.2		1.4J		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%		5 ± 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%		± 3.67 (5.94) C:70% T:92%		
6:2 FTS	5.4	6.6		11J		10	J	6.2		nd		
8:2 FTS	19U	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		.38J		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		1J		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		
n-Nitrosomorpholine	U											
Dimethylbenz(A) Antracene	U											
Bis(2-chloroisopropyl)ether	U											
total PFOA/PFAS	760.6	698.44		859		1051.26		860.65		1242.2		

Appendix 1

June 2021 Pace Analytical Laboratory Report and QA/QC

BABYLON LANDFILL - FIELD DATA - JUNE 14, 2021

Leachate Sampling Data

WELL #	Date	Start Purge	Stop Purge	Gallons Purged	Well Notes For Sampling
NNU-PLCRS	6/14/2021	1129	1132	~ 40	Yellow tint, black particles, odors, sample warm
NNU-SLCRS	6/14/2021	1142	1145	~ 40	Clear, odors, sample warm
ONU-SLCRS	6/14/2021	1201	1205	~ 60	Clear, odors
SA-SLCRS	6/14/2021	Direct Sample	Direct Sample	0	Clear, no odors
CELL - 7	6/14/2021	Direct Sample	Direct Sample	0	Slightly cloudy, strong odors

Leachate Parameters

WELL #	Sampling Time	pH (SU)	ORP (mv)	Conductivity (umhos/cm2)	Temp. (oC)	Turbidity (NTU)	Dissolved Oxygen (DO) mg/L
NNU-PLCRS	1210	7.92	-105.9	>20,000	28.7	1.80	2.32
NNU-SLCRS	1205	7.45	-77.4	>20,000	28.4	2.90	2.08
ONU-SLCRS	1215	8.57	-136.4	>20,000	24.3	20.00	2.64
SA-SLCRS	1450	8.12	-114.8	7,300	20.8	13.00	3.52
CELL - 7	1445	7.25	-65.3	>20,000	20.2	3.80	2.42

Field Notes: **MS/MSD performed on ONU-SLCRS @ 1215pm**

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)

PFCs Sampling Checklist

Date: June 14, 2021

Weather (*temp./precipitation*): Cloudy 70' Site Name: Babylon Landfill

Field Clothing and PPE:

- [x] No clothing or boots containing Gore-Tex™
- [x] All safety boots made from polyurethane and PVC
- [x] No materials containing Tyvek®
- [x] Field crew has not used fabric softener on clothing
- [x] Field crew has not used cosmetics, moisturizers, hand cream, or other related products this morning
- [x] Field crew has not applied unauthorized sunscreen or insect repellant

Field Equipment:

- [x] No Teflon® or LDPE containing materials on-site
- [x] All sample materials made from stainless steel, HDPE, acetate, silicon, or polypropylene
- [x] No waterproof field books on-site
- [x] No plastic clipboards, binders, or spiral hard cover notebooks on-site
- [x] No adhesives (Post-It Notes) on-site
- [x] Coolers filled with regular ice only. No chemical (blue) ice packs in possession

Sample Containers:

- [x] All sample containers made of HDPE or polypropylene
- [x] Caps are unlined and made of HDPE or polypropylene

Wet Weather (as applicable):

- [x] Wet weather gear made of polyurethane and PVC only

Equipment Decontamination:

- [x] "PFC-free" water on-site for decontamination of sample equipment. No other water sources to be used.
- [x] Alconox and Liquinox to be used as decontamination materials

Food Considerations:

- [x] No food or drink on-site with exception of bottled water and/or hydration drinks (i.e., Gatorade and Powerade) that is available for consumption only in the staging area

If any applicable boxes cannot be checked, the Field Lead shall describe the noncompliance issues below and work with field personnel to address noncompliance issues prior to commencement of that day's work. Corrective action shall include removal of noncompliance items from the site or removal of worker offsite until in compliance.

Describe the noncompliance issues (include personnel not in compliance) and action/outcome of noncompliance:

Field Lead Name: Brian Nichols

Field Lead Signature: [signature] Time: 730 AM

Field techs: 1) Natalia B.
2) Moriah N.
3) Sam H.

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

July 09, 2021

Joe Guarino
Town of Babylon
281 Phelps Lane
North Babylon, NY 11703

RE: Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

Dear Joe Guarino:

Enclosed are the analytical results for sample(s) received by the laboratory on June 14, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

Some analyses were subcontracted outside of the Pace Network. The test report from the external subcontractor is attached to this report in its entirety.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Melville

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kimberley Mack

Kimberley M. Mack
kimberley.mack@pacelabs.com
(631)694-3040
Project Manager

Enclosures

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

CERTIFICATIONS

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

Pace Analytical Services Long Island
575 Broad Hollow Rd, Melville, NY 11747
Connecticut Certification #: PH-0435
Delaware Certification # NY 10478
Maryland Certification #: 208
Massachusetts Certification #: M-NY026
New Hampshire Certification #: 2987
New Jersey Certification #: NY158
New York Certification #: 10478 Primary Accrediting Body
Pennsylvania Certification #: 68-00350
Rhode Island Certification #: LAO00340
Virginia Certification # 460302

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

Method: **SM22 2340B**
Description: 2340B Hardness, Total (Calc.)
Client: Town of Babylon
Date: July 09, 2021

General Information:
10 samples were analyzed for SM22 2340B by Pace Analytical Services Melville. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

Method: **EPA 6010C**
Description: 6010 MET ICP
Client: Town of Babylon
Date: July 09, 2021

General Information:
10 samples were analyzed for EPA 6010C by Pace Analytical Services Melville. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3005A with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 215714

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 70176872001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1086155)
  - Arsenic
  - Calcium
  - Iron
  - Lead
  - Manganese
  - Potassium
  - Sodium

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

Method: **EPA 8260C SIM/5030C**
Description: 8260C SIM Volatile Organics
Client: Town of Babylon
Date: July 09, 2021

General Information:
10 samples were analyzed for EPA 8260C SIM/5030C by Pace Analytical Services Melville. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

Method: **EPA 180.1**
Description: 180.1 Turbidity
Client: Town of Babylon
Date: July 09, 2021

General Information:
10 samples were analyzed for EPA 180.1 by Pace Analytical Services Melville. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

Method: **SM22 2320B**
Description: 2320B Alkalinity
Client: Town of Babylon
Date: July 09, 2021

General Information:
10 samples were analyzed for SM22 2320B by Pace Analytical Services Melville. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 214369

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 70176874003

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1078125)
  - Alkalinity, Total as CaCO3

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

Method: **SM22 2540C**
Description: 2540C Total Dissolved Solids
Client: Town of Babylon
Date: July 09, 2021

General Information:
10 samples were analyzed for SM22 2540C by Pace Analytical Services Melville. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

Method: **EPA 410.4**
Description: 410.4 COD
Client: Town of Babylon
Date: July 09, 2021

General Information:
10 samples were analyzed for EPA 410.4 by Pace Analytical Services Melville. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 410.4 with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

Method: **SM22 5210B**
Description: 5210B BOD, 5 day
Client: Town of Babylon
Date: July 09, 2021

General Information:
10 samples were analyzed for SM22 5210B by Pace Analytical Services Melville. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with SM22 5210B with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

QC Batch: 213629

D6: The precision between the sample and sample duplicate exceeded laboratory control limits.
- DUP (Lab ID: 1073531)
  - BOD, 5 day

Additional Comments:

Analyte Comments:

QC Batch: 213564

1j: The sample dilutions set for this analysis exhibited variation in excess of 30%.
- GM-6D (Lab ID: 70176876004)
  - BOD, 5 day

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

Method: **EPA 300.0**
Description: 300.0 IC Anions 28 Days
Client: Town of Babylon
Date: July 09, 2021

General Information:
10 samples were analyzed for EPA 300.0 by Pace Analytical Services Melville. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 216323

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 70178434001,70178690001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1089163)
  - Chloride
- MS (Lab ID: 1089165)
  - Chloride
  - Sulfate

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

Method: **EPA 351.2**
Description: 351.2 Total Kjeldahl Nitrogen
Client: Town of Babylon
Date: July 09, 2021

General Information:
10 samples were analyzed for EPA 351.2 by Pace Analytical Services Melville. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 351.2 with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 215397

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 70176876004

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1084841)
  - Nitrogen, Kjeldahl, Total

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

Method: **EPA 353.2**
Description: 353.2 Nitrogen, NO2/NO3 unpres
Client: Town of Babylon
Date: July 09, 2021

General Information:
10 samples were analyzed for EPA 353.2 by Pace Analytical Services Melville. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

Method: **EPA 353.2**
Description: 353.2 Nitrogen, NO2
Client: Town of Babylon
Date: July 09, 2021

General Information:
10 samples were analyzed for EPA 353.2 by Pace Analytical Services Melville. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 213429

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 70176782001,70176794001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1072534)
  - Nitrite as N

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

Method: **EPA 420.1**
Description: Phenolics, Total Recoverable
Client: Town of Babylon
Date: July 09, 2021

General Information:
10 samples were analyzed for EPA 420.1 by Pace Analytical Services Melville. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 420.1 with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

Method: **SM22 4500 NH3 H**
Description: 4500 Ammonia Water
Client: Town of Babylon
Date: July 09, 2021

General Information:
10 samples were analyzed for SM22 4500 NH3 H by Pace Analytical Services Melville. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

Method: **SM22 5310B**
Description: 5310B TOC as NPOC
Client: Town of Babylon
Date: July 09, 2021

General Information:
10 samples were analyzed for SM22 5310B by Pace Analytical Services Melville. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 216125

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 70176876004

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1087953)
  - Total Organic Carbon

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

QC Batch: 216125

D6: The precision between the sample and sample duplicate exceeded laboratory control limits.

- DUP (Lab ID: 1087952)
  - Total Organic Carbon

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

Sample: GM-2D **Lab ID: 70176876001** Collected: 06/14/21 12:50 Received: 06/14/21 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2340B Hardness, Total (Calc.)	Analytical Method: SM22 2340B Pace Analytical Services - Melville							
Tot Hardness asCaCO3 (SM 2340B	**56000**	ug/L	830	1		07/01/21 19:17		
6010 MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3005A Pace Analytical Services - Melville							
Arsenic	**<10.0**	ug/L	10.0	1	06/30/21 07:33	07/01/21 19:17	7440-38-2	
Cadmium	**<2.5**	ug/L	2.5	1	06/30/21 07:33	07/01/21 19:17	7440-43-9	
Calcium	**14900**	ug/L	200	1	06/30/21 07:33	07/01/21 19:17	7440-70-2	
Iron	**1910**	ug/L	20.0	1	06/30/21 07:33	07/01/21 19:17	7439-89-6	
Lead	**<5.0**	ug/L	5.0	1	06/30/21 07:33	07/01/21 19:17	7439-92-1	
Magnesium	**4560**	ug/L	200	1	06/30/21 07:33	07/01/21 19:17	7439-95-4	
Manganese	**70.0**	ug/L	10.0	1	06/30/21 07:33	07/01/21 19:17	7439-96-5	
Potassium	**2340J**	ug/L	5000	1	06/30/21 07:33	07/01/21 19:17	7440-09-7	
Sodium	**11900**	ug/L	5000	1	06/30/21 07:33	07/01/21 19:17	7440-23-5	
8260C SIM Volatile Organics	Analytical Method: EPA 8260C SIM/5030C Pace Analytical Services - Melville							
1,4-Dioxane (p-Dioxane)	**<0.20**	ug/L	0.20	1		06/20/21 18:43	123-91-1	
Surrogates								
1,2-Dichlorobenzene-d4 (S)	106	%	42-152	1		06/20/21 18:43	2199-69-1	
4-Bromofluorobenzene (S)	101	%	79-138	1		06/20/21 18:43	460-00-4	
180.1 Turbidity	Analytical Method: EPA 180.1 Pace Analytical Services - Melville							
Turbidity	**10.0**	NTU	1.0	1		06/15/21 15:33		
2320B Alkalinity	Analytical Method: SM22 2320B Pace Analytical Services - Melville							
Alkalinity, Total as CaCO3	**11.7**	mg/L	1.0	1		06/21/21 14:00		
2540C Total Dissolved Solids	Analytical Method: SM22 2540C Pace Analytical Services - Melville							
Total Dissolved Solids	**141**	mg/L	10.0	1		06/21/21 14:16		
410.4 COD	Analytical Method: EPA 410.4 Preparation Method: EPA 410.4 Pace Analytical Services - Melville							
Chemical Oxygen Demand	**12.1**	mg/L	10.0	1	06/18/21 08:04	06/18/21 10:27		
5210B BOD, 5 day	Analytical Method: SM22 5210B Preparation Method: SM22 5210B Pace Analytical Services - Melville							
BOD, 5 day	**<2.0**	mg/L	2.0	1	06/15/21 13:05	06/20/21 08:14		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Melville							
Bromide	**<0.50**	mg/L	0.50	1		07/02/21 23:12	24959-67-9	
Chloride	**15.1**	mg/L	2.0	1		07/02/21 23:12	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

Sample: GM-2D **Lab ID: 70176876001** Collected: 06/14/21 12:50 Received: 06/14/21 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Melville							
Sulfate	**44.8**	mg/L	5.0	1		07/02/21 23:12	14808-79-8	
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 Pace Analytical Services - Melville							
Nitrogen, Kjeldahl, Total	**0.40**	mg/L	0.10	1	06/28/21 06:39	06/30/21 14:50	7727-37-9	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Melville							
Nitrate as N	**<0.25**	mg/L	0.25	5		06/15/21 00:19	14797-55-8	
Nitrate-Nitrite (as N)	**<0.25**	mg/L	0.25	5		06/15/21 00:19	7727-37-9	
353.2 Nitrogen, NO2	Analytical Method: EPA 353.2 Pace Analytical Services - Melville							
Nitrite as N	**<0.050**	mg/L	0.050	1		06/14/21 21:56	14797-65-0	
Phenolics, Total Recoverable	Analytical Method: EPA 420.1 Preparation Method: EPA 420.1 Pace Analytical Services - Melville							
Phenolics, Total Recoverable	**<5.0**	ug/L	5.0	1	06/25/21 08:48	06/25/21 11:51		
4500 Ammonia Water	Analytical Method: SM22 4500 NH3 H Pace Analytical Services - Melville							
Nitrogen, Ammonia	**0.096J**	mg/L	0.10	1		07/01/21 14:31	7664-41-7	
5310B TOC as NPOC	Analytical Method: SM22 5310B Pace Analytical Services - Melville							
Total Organic Carbon	**0.64J**	mg/L	1.0	1		06/30/21 18:57	7440-44-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

Sample: GM-4D **Lab ID: 70176876002** Collected: 06/14/21 13:40 Received: 06/14/21 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2340B Hardness, Total (Calc.)	Analytical Method: SM22 2340B Pace Analytical Services - Melville							
Tot Hardness asCaCO3 (SM 2340B	**56900**	ug/L	830	1		07/01/21 19:20		
6010 MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3005A Pace Analytical Services - Melville							
Arsenic	**<10.0**	ug/L	10.0	1	06/30/21 07:33	07/01/21 19:20	7440-38-2	
Cadmium	**<2.5**	ug/L	2.5	1	06/30/21 07:33	07/01/21 19:20	7440-43-9	
Calcium	**17100**	ug/L	200	1	06/30/21 07:33	07/01/21 19:20	7440-70-2	
Iron	**378**	ug/L	20.0	1	06/30/21 07:33	07/01/21 19:20	7439-89-6	
Lead	**<5.0**	ug/L	5.0	1	06/30/21 07:33	07/01/21 19:20	7439-92-1	
Magnesium	**3460**	ug/L	200	1	06/30/21 07:33	07/01/21 19:20	7439-95-4	
Manganese	**83.7**	ug/L	10.0	1	06/30/21 07:33	07/01/21 19:20	7439-96-5	
Potassium	**4740J**	ug/L	5000	1	06/30/21 07:33	07/01/21 19:20	7440-09-7	
Sodium	**23100**	ug/L	5000	1	06/30/21 07:33	07/01/21 19:20	7440-23-5	
8260C SIM Volatile Organics	Analytical Method: EPA 8260C SIM/5030C Pace Analytical Services - Melville							
1,4-Dioxane (p-Dioxane)	**0.21**	ug/L	0.20	1		06/20/21 19:06	123-91-1	
Surrogates								
1,2-Dichlorobenzene-d4 (S)	111	%	42-152	1		06/20/21 19:06	2199-69-1	
4-Bromofluorobenzene (S)	89	%	79-138	1		06/20/21 19:06	460-00-4	
180.1 Turbidity	Analytical Method: EPA 180.1 Pace Analytical Services - Melville							
Turbidity	**7.7**	NTU	1.0	1		06/15/21 15:34		
2320B Alkalinity	Analytical Method: SM22 2320B Pace Analytical Services - Melville							
Alkalinity, Total as CaCO3	**17.0**	mg/L	1.0	1		06/21/21 14:41		
2540C Total Dissolved Solids	Analytical Method: SM22 2540C Pace Analytical Services - Melville							
Total Dissolved Solids	**162**	mg/L	10.0	1		06/21/21 14:17		
410.4 COD	Analytical Method: EPA 410.4 Preparation Method: EPA 410.4 Pace Analytical Services - Melville							
Chemical Oxygen Demand	**7.8J**	mg/L	10.0	1	06/18/21 08:04	06/18/21 10:27		
5210B BOD, 5 day	Analytical Method: SM22 5210B Preparation Method: SM22 5210B Pace Analytical Services - Melville							
BOD, 5 day	**<2.0**	mg/L	2.0	1	06/15/21 13:05	06/20/21 08:16		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Melville							
Bromide	**0.34J**	mg/L	0.50	1		07/02/21 23:53	24959-67-9	
Chloride	**38.4**	mg/L	2.0	1		07/02/21 23:53	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

Sample: GM-4D **Lab ID: 70176876002** Collected: 06/14/21 13:40 Received: 06/14/21 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Melville							
Sulfate	**24.4**	mg/L	5.0	1		07/02/21 23:53	14808-79-8	
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 Pace Analytical Services - Melville							
Nitrogen, Kjeldahl, Total	**<0.10**	mg/L	0.10	1	06/28/21 06:39	06/30/21 14:51	7727-37-9	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Melville							
Nitrate as N	**3.9**	mg/L	0.25	5		06/15/21 00:20	14797-55-8	
Nitrate-Nitrite (as N)	**3.9**	mg/L	0.25	5		06/15/21 00:20	7727-37-9	
353.2 Nitrogen, NO2	Analytical Method: EPA 353.2 Pace Analytical Services - Melville							
Nitrite as N	**<0.050**	mg/L	0.050	1		06/14/21 21:57	14797-65-0	
Phenolics, Total Recoverable	Analytical Method: EPA 420.1 Preparation Method: EPA 420.1 Pace Analytical Services - Melville							
Phenolics, Total Recoverable	**79.8**	ug/L	5.0	1	06/25/21 08:48	06/25/21 11:52		
4500 Ammonia Water	Analytical Method: SM22 4500 NH3 H Pace Analytical Services - Melville							
Nitrogen, Ammonia	**0.095J**	mg/L	0.10	1		07/01/21 14:32	7664-41-7	
5310B TOC as NPOC	Analytical Method: SM22 5310B Pace Analytical Services - Melville							
Total Organic Carbon	**0.78J**	mg/L	1.0	1		06/30/21 19:19	7440-44-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

Sample: GM-5D **Lab ID: 70176876003** Collected: 06/14/21 13:45 Received: 06/14/21 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2340B Hardness, Total (Calc.)	Analytical Method: SM22 2340B Pace Analytical Services - Melville							
Tot Hardness asCaCO3 (SM 2340B	**73900**	ug/L	830	1		07/01/21 19:22		
6010 MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3005A Pace Analytical Services - Melville							
Arsenic	**<10.0**	ug/L	10.0	1	06/30/21 07:33	07/01/21 19:22	7440-38-2	
Cadmium	**<2.5**	ug/L	2.5	1	06/30/21 07:33	07/01/21 19:22	7440-43-9	
Calcium	**22700**	ug/L	200	1	06/30/21 07:33	07/01/21 19:22	7440-70-2	
Iron	**2500**	ug/L	20.0	1	06/30/21 07:33	07/01/21 19:22	7439-89-6	
Lead	**<5.0**	ug/L	5.0	1	06/30/21 07:33	07/01/21 19:22	7439-92-1	
Magnesium	**4180**	ug/L	200	1	06/30/21 07:33	07/01/21 19:22	7439-95-4	
Manganese	**178**	ug/L	10.0	1	06/30/21 07:33	07/01/21 19:22	7439-96-5	
Potassium	**6790**	ug/L	5000	1	06/30/21 07:33	07/01/21 19:22	7440-09-7	
Sodium	**78100**	ug/L	5000	1	06/30/21 07:33	07/01/21 19:22	7440-23-5	
8260C SIM Volatile Organics	Analytical Method: EPA 8260C SIM/5030C Pace Analytical Services - Melville							
1,4-Dioxane (p-Dioxane)	**<0.20**	ug/L	0.20	1		06/20/21 19:30	123-91-1	
Surrogates								
1,2-Dichlorobenzene-d4 (S)	112	%	42-152	1		06/20/21 19:30	2199-69-1	
4-Bromofluorobenzene (S)	88	%	79-138	1		06/20/21 19:30	460-00-4	
180.1 Turbidity	Analytical Method: EPA 180.1 Pace Analytical Services - Melville							
Turbidity	**20.0**	NTU	1.0	1		06/15/21 15:37		
2320B Alkalinity	Analytical Method: SM22 2320B Pace Analytical Services - Melville							
Alkalinity, Total as CaCO3	**31.4**	mg/L	1.0	1		06/21/21 15:03		
2540C Total Dissolved Solids	Analytical Method: SM22 2540C Pace Analytical Services - Melville							
Total Dissolved Solids	**296**	mg/L	20.0	1		06/21/21 14:27		
410.4 COD	Analytical Method: EPA 410.4 Preparation Method: EPA 410.4 Pace Analytical Services - Melville							
Chemical Oxygen Demand	**9.9J**	mg/L	10.0	1	06/18/21 08:04	06/18/21 10:27		
5210B BOD, 5 day	Analytical Method: SM22 5210B Preparation Method: SM22 5210B Pace Analytical Services - Melville							
BOD, 5 day	**<2.0**	mg/L	2.0	1	06/15/21 13:05	06/20/21 08:18		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Melville							
Bromide	**0.053J**	mg/L	0.50	1		07/03/21 00:06	24959-67-9	
Chloride	**148**	mg/L	20.0	10		07/08/21 04:06	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

Sample: GM-5D **Lab ID: 70176876003** Collected: 06/14/21 13:45 Received: 06/14/21 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Melville							
Sulfate	**31.2**	mg/L	5.0	1		07/03/21 00:06	14808-79-8	
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 Pace Analytical Services - Melville							
Nitrogen, Kjeldahl, Total	**0.87**	mg/L	0.10	1	06/28/21 06:39	06/30/21 14:52	7727-37-9	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Melville							
Nitrate as N	**0.38**	mg/L	0.25	5		06/15/21 00:21	14797-55-8	
Nitrate-Nitrite (as N)	**0.38**	mg/L	0.25	5		06/15/21 00:21	7727-37-9	
353.2 Nitrogen, NO2	Analytical Method: EPA 353.2 Pace Analytical Services - Melville							
Nitrite as N	**<0.050**	mg/L	0.050	1		06/14/21 22:03	14797-65-0	
Phenolics, Total Recoverable	Analytical Method: EPA 420.1 Preparation Method: EPA 420.1 Pace Analytical Services - Melville							
Phenolics, Total Recoverable	**8.5**	ug/L	5.0	1	06/25/21 08:48	06/25/21 11:53		
4500 Ammonia Water	Analytical Method: SM22 4500 NH3 H Pace Analytical Services - Melville							
Nitrogen, Ammonia	**0.17**	mg/L	0.10	1		07/01/21 14:33	7664-41-7	
5310B TOC as NPOC	Analytical Method: SM22 5310B Pace Analytical Services - Melville							
Total Organic Carbon	**1.1**	mg/L	1.0	1		07/06/21 16:23	7440-44-0	D6

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

Sample: GM-6D **Lab ID: 70176876004** Collected: 06/14/21 13:50 Received: 06/14/21 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2340B Hardness, Total (Calc.)	Analytical Method: SM22 2340B Pace Analytical Services - Melville							
Tot Hardness asCaCO3 (SM 2340B	**290000**	ug/L	830	1		07/01/21 19:24		
6010 MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3005A Pace Analytical Services - Melville							
Arsenic	**<10.0**	ug/L	10.0	1	06/30/21 07:33	07/01/21 19:24	7440-38-2	
Cadmium	**<2.5**	ug/L	2.5	1	06/30/21 07:33	07/01/21 19:24	7440-43-9	
Calcium	**96600**	ug/L	200	1	06/30/21 07:33	07/01/21 19:24	7440-70-2	
Iron	**4840**	ug/L	20.0	1	06/30/21 07:33	07/01/21 19:24	7439-89-6	
Lead	**<5.0**	ug/L	5.0	1	06/30/21 07:33	07/01/21 19:24	7439-92-1	
Magnesium	**11900**	ug/L	200	1	06/30/21 07:33	07/01/21 19:24	7439-95-4	
Manganese	**89.3**	ug/L	10.0	1	06/30/21 07:33	07/01/21 19:24	7439-96-5	
Potassium	**18300**	ug/L	5000	1	06/30/21 07:33	07/01/21 19:24	7440-09-7	
Sodium	**61500**	ug/L	5000	1	06/30/21 07:33	07/01/21 19:24	7440-23-5	
8260C SIM Volatile Organics	Analytical Method: EPA 8260C SIM/5030C Pace Analytical Services - Melville							
1,4-Dioxane (p-Dioxane)	**6.3**	ug/L	0.20	1		06/20/21 19:53	123-91-1	
Surrogates								
1,2-Dichlorobenzene-d4 (S)	110	%	42-152	1		06/20/21 19:53	2199-69-1	
4-Bromofluorobenzene (S)	98	%	79-138	1		06/20/21 19:53	460-00-4	
180.1 Turbidity	Analytical Method: EPA 180.1 Pace Analytical Services - Melville							
Turbidity	**20.0**	NTU	1.0	1		06/15/21 15:43		
2320B Alkalinity	Analytical Method: SM22 2320B Pace Analytical Services - Melville							
Alkalinity, Total as CaCO3	**233**	mg/L	1.0	1		06/21/21 15:31		
2540C Total Dissolved Solids	Analytical Method: SM22 2540C Pace Analytical Services - Melville							
Total Dissolved Solids	**504**	mg/L	20.0	1		06/21/21 14:27		
410.4 COD	Analytical Method: EPA 410.4 Preparation Method: EPA 410.4 Pace Analytical Services - Melville							
Chemical Oxygen Demand	**29.2**	mg/L	10.0	1	06/18/21 08:04	06/18/21 10:27		
5210B BOD, 5 day	Analytical Method: SM22 5210B Preparation Method: SM22 5210B Pace Analytical Services - Melville							
BOD, 5 day	**5.0**	mg/L	2.0	1	06/15/21 13:06	06/20/21 08:21		1j
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Melville							
Bromide	**2.2**	mg/L	0.50	1		07/03/21 00:20	24959-67-9	
Chloride	**156**	mg/L	20.0	10		07/08/21 04:20	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

Sample: GM-6D **Lab ID: 70176876004** Collected: 06/14/21 13:50 Received: 06/14/21 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Melville							
Sulfate	**3.2J**	mg/L	5.0	1		07/03/21 00:20	14808-79-8	
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 Pace Analytical Services - Melville							
Nitrogen, Kjeldahl, Total	**4.7**	mg/L	0.10	1	06/28/21 06:39	06/30/21 14:52	7727-37-9	M1
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Melville							
Nitrate as N	**2.0**	mg/L	0.25	5		06/15/21 00:23	14797-55-8	
Nitrate-Nitrite (as N)	**2.0**	mg/L	0.25	5		06/15/21 00:23	7727-37-9	
353.2 Nitrogen, NO2	Analytical Method: EPA 353.2 Pace Analytical Services - Melville							
Nitrite as N	**<0.050**	mg/L	0.050	1		06/14/21 22:07	14797-65-0	
Phenolics, Total Recoverable	Analytical Method: EPA 420.1 Preparation Method: EPA 420.1 Pace Analytical Services - Melville							
Phenolics, Total Recoverable	**<5.0**	ug/L	5.0	1	06/25/21 08:48	06/25/21 11:54		
4500 Ammonia Water	Analytical Method: SM22 4500 NH3 H Pace Analytical Services - Melville							
Nitrogen, Ammonia	**3.7**	mg/L	0.10	1		07/01/21 14:34	7664-41-7	
5310B TOC as NPOC	Analytical Method: SM22 5310B Pace Analytical Services - Melville							
Total Organic Carbon	**6.9**	mg/L	1.0	1		07/06/21 16:50	7440-44-0	M1

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

Sample: GM-7D **Lab ID: 70176876005** Collected: 06/14/21 13:55 Received: 06/14/21 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2340B Hardness, Total (Calc.)	Analytical Method: SM22 2340B Pace Analytical Services - Melville							
Tot Hardness asCaCO3 (SM 2340B	**501000**	ug/L	830	1		07/01/21 19:27		
6010 MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3005A Pace Analytical Services - Melville							
Arsenic	**<10.0**	ug/L	10.0	1	06/30/21 07:33	07/01/21 19:27	7440-38-2	
Cadmium	**<2.5**	ug/L	2.5	1	06/30/21 07:33	07/01/21 19:27	7440-43-9	
Calcium	**160000**	ug/L	200	1	06/30/21 07:33	07/01/21 19:27	7440-70-2	
Iron	**1410**	ug/L	20.0	1	06/30/21 07:33	07/01/21 19:27	7439-89-6	
Lead	**3.6J**	ug/L	5.0	1	06/30/21 07:33	07/01/21 19:27	7439-92-1	
Magnesium	**24700**	ug/L	200	1	06/30/21 07:33	07/01/21 19:27	7439-95-4	
Manganese	**811**	ug/L	10.0	1	06/30/21 07:33	07/01/21 19:27	7439-96-5	
Potassium	**9310**	ug/L	5000	1	06/30/21 07:33	07/01/21 19:27	7440-09-7	
Sodium	**16400**	ug/L	5000	1	06/30/21 07:33	07/01/21 19:27	7440-23-5	
8260C SIM Volatile Organics	Analytical Method: EPA 8260C SIM/5030C Pace Analytical Services - Melville							
1,4-Dioxane (p-Dioxane)	**<0.20**	ug/L	0.20	1		06/20/21 20:17	123-91-1	
Surrogates								
1,2-Dichlorobenzene-d4 (S)	107	%	42-152	1		06/20/21 20:17	2199-69-1	
4-Bromofluorobenzene (S)	87	%	79-138	1		06/20/21 20:17	460-00-4	
180.1 Turbidity	Analytical Method: EPA 180.1 Pace Analytical Services - Melville							
Turbidity	**70.0**	NTU	10.0	10		06/15/21 15:39		
2320B Alkalinity	Analytical Method: SM22 2320B Pace Analytical Services - Melville							
Alkalinity, Total as CaCO3	**474**	mg/L	1.0	1		06/21/21 15:50		
2540C Total Dissolved Solids	Analytical Method: SM22 2540C Pace Analytical Services - Melville							
Total Dissolved Solids	**570**	mg/L	20.0	1		06/21/21 14:28		
410.4 COD	Analytical Method: EPA 410.4 Preparation Method: EPA 410.4 Pace Analytical Services - Melville							
Chemical Oxygen Demand	**69.7**	mg/L	10.0	1	06/18/21 08:04	06/18/21 10:27		
5210B BOD, 5 day	Analytical Method: SM22 5210B Preparation Method: SM22 5210B Pace Analytical Services - Melville							
BOD, 5 day	**<2.0**	mg/L	2.0	1	06/15/21 15:21	06/20/21 08:54		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Melville							
Bromide	**0.0067J**	mg/L	0.50	1		07/03/21 00:33	24959-67-9	
Chloride	**17.3**	mg/L	2.0	1		07/03/21 00:33	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

Sample: GM-7D **Lab ID: 70176876005** Collected: 06/14/21 13:55 Received: 06/14/21 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Melville							
Sulfate	**48.2**	mg/L	5.0	1		07/03/21 00:33	14808-79-8	
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 Pace Analytical Services - Melville							
Nitrogen, Kjeldahl, Total	**2.0**	mg/L	0.10	1	06/28/21 06:39	06/30/21 14:55	7727-37-9	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Melville							
Nitrate as N	**<0.25**	mg/L	0.25	5		06/15/21 00:29	14797-55-8	
Nitrate-Nitrite (as N)	**<0.25**	mg/L	0.25	5		06/15/21 00:29	7727-37-9	
353.2 Nitrogen, NO2	Analytical Method: EPA 353.2 Pace Analytical Services - Melville							
Nitrite as N	**<0.050**	mg/L	0.050	1		06/14/21 22:08	14797-65-0	
Phenolics, Total Recoverable	Analytical Method: EPA 420.1 Preparation Method: EPA 420.1 Pace Analytical Services - Melville							
Phenolics, Total Recoverable	**<5.0**	ug/L	5.0	1	06/25/21 08:48	06/25/21 11:55		
4500 Ammonia Water	Analytical Method: SM22 4500 NH3 H Pace Analytical Services - Melville							
Nitrogen, Ammonia	**0.11**	mg/L	0.10	1		07/01/21 14:36	7664-41-7	
5310B TOC as NPOC	Analytical Method: SM22 5310B Pace Analytical Services - Melville							
Total Organic Carbon	**22.0**	mg/L	1.0	1		07/06/21 18:21	7440-44-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

Sample: GM-15D **Lab ID: 70176876006** Collected: 06/14/21 11:30 Received: 06/14/21 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2340B Hardness, Total (Calc.)	Analytical Method: SM22 2340B Pace Analytical Services - Melville							
Tot Hardness asCaCO3 (SM 2340B	**17800**	ug/L	830	1		07/01/21 19:29		
6010 MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3005A Pace Analytical Services - Melville							
Arsenic	**<10.0**	ug/L	10.0	1	06/30/21 07:33	07/01/21 19:29	7440-38-2	
Cadmium	**<2.5**	ug/L	2.5	1	06/30/21 07:33	07/01/21 19:29	7440-43-9	
Calcium	**4400**	ug/L	200	1	06/30/21 07:33	07/01/21 19:29	7440-70-2	
Iron	**3610**	ug/L	20.0	1	06/30/21 07:33	07/01/21 19:29	7439-89-6	
Lead	**12.6**	ug/L	5.0	1	06/30/21 07:33	07/01/21 19:29	7439-92-1	
Magnesium	**1660**	ug/L	200	1	06/30/21 07:33	07/01/21 19:29	7439-95-4	
Manganese	**75.7**	ug/L	10.0	1	06/30/21 07:33	07/01/21 19:29	7439-96-5	
Potassium	**1100J**	ug/L	5000	1	06/30/21 07:33	07/01/21 19:29	7440-09-7	
Sodium	**2830J**	ug/L	5000	1	06/30/21 07:33	07/01/21 19:29	7440-23-5	
8260C SIM Volatile Organics	Analytical Method: EPA 8260C SIM/5030C Pace Analytical Services - Melville							
1,4-Dioxane (p-Dioxane)	**<0.20**	ug/L	0.20	1		06/20/21 20:40	123-91-1	
Surrogates								
1,2-Dichlorobenzene-d4 (S)	107	%	42-152	1		06/20/21 20:40	2199-69-1	
4-Bromofluorobenzene (S)	95	%	79-138	1		06/20/21 20:40	460-00-4	
180.1 Turbidity	Analytical Method: EPA 180.1 Pace Analytical Services - Melville							
Turbidity	**28.0**	NTU	2.0	2		06/15/21 15:30		
2320B Alkalinity	Analytical Method: SM22 2320B Pace Analytical Services - Melville							
Alkalinity, Total as CaCO3	**12.5**	mg/L	1.0	1		06/21/21 15:55		
2540C Total Dissolved Solids	Analytical Method: SM22 2540C Pace Analytical Services - Melville							
Total Dissolved Solids	**36.0**	mg/L	10.0	1		06/21/21 14:39		
410.4 COD	Analytical Method: EPA 410.4 Preparation Method: EPA 410.4 Pace Analytical Services - Melville							
Chemical Oxygen Demand	**78.3**	mg/L	10.0	1	06/18/21 08:04	06/18/21 10:28		
5210B BOD, 5 day	Analytical Method: SM22 5210B Preparation Method: SM22 5210B Pace Analytical Services - Melville							
BOD, 5 day	**<2.0**	mg/L	2.0	1	06/15/21 13:06	06/20/21 08:24		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Melville							
Bromide	**<0.50**	mg/L	0.50	1		07/03/21 00:47	24959-67-9	
Chloride	**2.6**	mg/L	2.0	1		07/03/21 00:47	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

Sample: GM-15D **Lab ID: 70176876006** Collected: 06/14/21 11:30 Received: 06/14/21 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Melville							
Sulfate	**1.6J**	mg/L	5.0	1		07/03/21 00:47	14808-79-8	
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 Pace Analytical Services - Melville							
Nitrogen, Kjeldahl, Total	**1.2**	mg/L	0.10	1	06/28/21 06:39	06/30/21 14:56	7727-37-9	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Melville							
Nitrate as N	**<0.25**	mg/L	0.25	5		06/15/21 00:30	14797-55-8	
Nitrate-Nitrite (as N)	**<0.25**	mg/L	0.25	5		06/15/21 00:30	7727-37-9	
353.2 Nitrogen, NO2	Analytical Method: EPA 353.2 Pace Analytical Services - Melville							
Nitrite as N	**<0.050**	mg/L	0.050	1		06/14/21 22:09	14797-65-0	
Phenolics, Total Recoverable	Analytical Method: EPA 420.1 Preparation Method: EPA 420.1 Pace Analytical Services - Melville							
Phenolics, Total Recoverable	**<5.0**	ug/L	5.0	1	06/29/21 09:05	06/29/21 11:32		
4500 Ammonia Water	Analytical Method: SM22 4500 NH3 H Pace Analytical Services - Melville							
Nitrogen, Ammonia	**0.11**	mg/L	0.10	1		07/01/21 14:39	7664-41-7	
5310B TOC as NPOC	Analytical Method: SM22 5310B Pace Analytical Services - Melville							
Total Organic Carbon	**4.7**	mg/L	1.0	1		07/06/21 18:34	7440-44-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

Sample: GM-16D **Lab ID: 70176876007** Collected: 06/14/21 11:10 Received: 06/14/21 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2340B Hardness, Total (Calc.)	Analytical Method: SM22 2340B Pace Analytical Services - Melville							
Tot Hardness asCaCO3 (SM 2340B	**21200**	ug/L	830	1		07/01/21 19:36		
6010 MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3005A Pace Analytical Services - Melville							
Arsenic	**<10.0**	ug/L	10.0	1	06/30/21 07:33	07/01/21 19:36	7440-38-2	
Cadmium	**<2.5**	ug/L	2.5	1	06/30/21 07:33	07/01/21 19:36	7440-43-9	
Calcium	**6360**	ug/L	200	1	06/30/21 07:33	07/01/21 19:36	7440-70-2	
Iron	**5810**	ug/L	20.0	1	06/30/21 07:33	07/01/21 19:36	7439-89-6	
Lead	**4.3J**	ug/L	5.0	1	06/30/21 07:33	07/01/21 19:36	7439-92-1	
Magnesium	**1300**	ug/L	200	1	06/30/21 07:33	07/01/21 19:36	7439-95-4	
Manganese	**123**	ug/L	10.0	1	06/30/21 07:33	07/01/21 19:36	7439-96-5	
Potassium	**1820J**	ug/L	5000	1	06/30/21 07:33	07/01/21 19:36	7440-09-7	
Sodium	**40700**	ug/L	5000	1	06/30/21 07:33	07/01/21 19:36	7440-23-5	
8260C SIM Volatile Organics	Analytical Method: EPA 8260C SIM/5030C Pace Analytical Services - Melville							
1,4-Dioxane (p-Dioxane)	**<0.20**	ug/L	0.20	1		06/20/21 21:04	123-91-1	
Surrogates								
1,2-Dichlorobenzene-d4 (S)	115	%	42-152	1		06/20/21 21:04	2199-69-1	
4-Bromofluorobenzene (S)	89	%	79-138	1		06/20/21 21:04	460-00-4	
180.1 Turbidity	Analytical Method: EPA 180.1 Pace Analytical Services - Melville							
Turbidity	**80.0**	NTU	10.0	10		06/15/21 15:28		
2320B Alkalinity	Analytical Method: SM22 2320B Pace Analytical Services - Melville							
Alkalinity, Total as CaCO3	**18.6**	mg/L	1.0	1		06/21/21 16:13		
2540C Total Dissolved Solids	Analytical Method: SM22 2540C Pace Analytical Services - Melville							
Total Dissolved Solids	**112**	mg/L	10.0	1		06/21/21 14:41		
410.4 COD	Analytical Method: EPA 410.4 Preparation Method: EPA 410.4 Pace Analytical Services - Melville							
Chemical Oxygen Demand	**16.3**	mg/L	10.0	1	06/18/21 08:04	06/18/21 10:28		
5210B BOD, 5 day	Analytical Method: SM22 5210B Preparation Method: SM22 5210B Pace Analytical Services - Melville							
BOD, 5 day	**<2.0**	mg/L	2.0	1	06/15/21 13:06	06/20/21 08:26		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Melville							
Bromide	**0.020J**	mg/L	0.50	1		07/03/21 01:01	24959-67-9	
Chloride	**59.7**	mg/L	2.0	1		07/03/21 01:01	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

Sample: GM-16D **Lab ID: 70176876007** Collected: 06/14/21 11:10 Received: 06/14/21 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Melville							
Sulfate	**5.9**	mg/L	5.0	1		07/03/21 01:01	14808-79-8	
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 Pace Analytical Services - Melville							
Nitrogen, Kjeldahl, Total	**0.67**	mg/L	0.10	1	06/28/21 06:39	06/30/21 14:57	7727-37-9	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Melville							
Nitrate as N	**0.35**	mg/L	0.25	5		06/15/21 00:31	14797-55-8	
Nitrate-Nitrite (as N)	**0.35**	mg/L	0.25	5		06/15/21 00:31	7727-37-9	
353.2 Nitrogen, NO2	Analytical Method: EPA 353.2 Pace Analytical Services - Melville							
Nitrite as N	**<0.050**	mg/L	0.050	1		06/14/21 22:11	14797-65-0	
Phenolics, Total Recoverable	Analytical Method: EPA 420.1 Preparation Method: EPA 420.1 Pace Analytical Services - Melville							
Phenolics, Total Recoverable	**<5.0**	ug/L	5.0	1	06/29/21 09:05	06/29/21 11:33		
4500 Ammonia Water	Analytical Method: SM22 4500 NH3 H Pace Analytical Services - Melville							
Nitrogen, Ammonia	**0.091J**	mg/L	0.10	1		07/01/21 14:40	7664-41-7	
5310B TOC as NPOC	Analytical Method: SM22 5310B Pace Analytical Services - Melville							
Total Organic Carbon	**1.9**	mg/L	1.0	1		07/06/21 18:47	7440-44-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

Sample: GM-17D **Lab ID: 70176876008** Collected: 06/14/21 11:05 Received: 06/14/21 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2340B Hardness, Total (Calc.)	Analytical Method: SM22 2340B Pace Analytical Services - Melville							
Tot Hardness asCaCO3 (SM 2340B	**68400**	ug/L	830	1		07/01/21 19:38		
6010 MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3005A Pace Analytical Services - Melville							
Arsenic	**<10.0**	ug/L	10.0	1	06/30/21 07:33	07/01/21 19:38	7440-38-2	
Cadmium	**<2.5**	ug/L	2.5	1	06/30/21 07:33	07/01/21 19:38	7440-43-9	
Calcium	**15000**	ug/L	200	1	06/30/21 07:33	07/01/21 19:38	7440-70-2	
Iron	**221**	ug/L	20.0	1	06/30/21 07:33	07/01/21 19:38	7439-89-6	
Lead	**<5.0**	ug/L	5.0	1	06/30/21 07:33	07/01/21 19:38	7439-92-1	
Magnesium	**7510**	ug/L	200	1	06/30/21 07:33	07/01/21 19:38	7439-95-4	
Manganese	**12.6**	ug/L	10.0	1	06/30/21 07:33	07/01/21 19:38	7439-96-5	
Potassium	**1900J**	ug/L	5000	1	06/30/21 07:33	07/01/21 19:38	7440-09-7	
Sodium	**9930**	ug/L	5000	1	06/30/21 07:33	07/01/21 19:38	7440-23-5	
8260C SIM Volatile Organics	Analytical Method: EPA 8260C SIM/5030C Pace Analytical Services - Melville							
1,4-Dioxane (p-Dioxane)	**<0.20**	ug/L	0.20	1		06/21/21 08:29	123-91-1	
Surrogates								
1,2-Dichlorobenzene-d4 (S)	110	%	42-152	1		06/21/21 08:29	2199-69-1	
4-Bromofluorobenzene (S)	96	%	79-138	1		06/21/21 08:29	460-00-4	
180.1 Turbidity	Analytical Method: EPA 180.1 Pace Analytical Services - Melville							
Turbidity	**3.3**	NTU	1.0	1		06/15/21 15:26		
2320B Alkalinity	Analytical Method: SM22 2320B Pace Analytical Services - Melville							
Alkalinity, Total as CaCO3	**10.8**	mg/L	1.0	1		06/21/21 16:18		
2540C Total Dissolved Solids	Analytical Method: SM22 2540C Pace Analytical Services - Melville							
Total Dissolved Solids	**108**	mg/L	10.0	1		06/21/21 14:41		
410.4 COD	Analytical Method: EPA 410.4 Preparation Method: EPA 410.4 Pace Analytical Services - Melville							
Chemical Oxygen Demand	**7.8J**	mg/L	10.0	1	06/18/21 08:04	06/18/21 10:28		
5210B BOD, 5 day	Analytical Method: SM22 5210B Preparation Method: SM22 5210B Pace Analytical Services - Melville							
BOD, 5 day	**<2.0**	mg/L	2.0	1	06/15/21 13:06	06/20/21 08:28		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Melville							
Bromide	**0.079J**	mg/L	0.50	1		07/03/21 01:14	24959-67-9	
Chloride	**26.4**	mg/L	2.0	1		07/03/21 01:14	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

Sample: GM-17D **Lab ID: 70176876008** Collected: 06/14/21 11:05 Received: 06/14/21 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Melville							
Sulfate	**25.2**	mg/L	5.0	1		07/03/21 01:14	14808-79-8	
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 Pace Analytical Services - Melville							
Nitrogen, Kjeldahl, Total	**<0.10**	mg/L	0.10	1	06/28/21 06:39	06/30/21 14:59	7727-37-9	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Melville							
Nitrate as N	**3.7**	mg/L	0.25	5		06/15/21 00:32	14797-55-8	
Nitrate-Nitrite (as N)	**3.7**	mg/L	0.25	5		06/15/21 00:32	7727-37-9	
353.2 Nitrogen, NO2	Analytical Method: EPA 353.2 Pace Analytical Services - Melville							
Nitrite as N	**<0.050**	mg/L	0.050	1		06/14/21 22:12	14797-65-0	
Phenolics, Total Recoverable	Analytical Method: EPA 420.1 Preparation Method: EPA 420.1 Pace Analytical Services - Melville							
Phenolics, Total Recoverable	**<5.0**	ug/L	5.0	1	06/29/21 09:05	06/29/21 11:34		
4500 Ammonia Water	Analytical Method: SM22 4500 NH3 H Pace Analytical Services - Melville							
Nitrogen, Ammonia	**0.097J**	mg/L	0.10	1		07/01/21 14:42	7664-41-7	
5310B TOC as NPOC	Analytical Method: SM22 5310B Pace Analytical Services - Melville							
Total Organic Carbon	**0.77J**	mg/L	1.0	1		07/06/21 18:58	7440-44-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

Sample: GM-18D **Lab ID: 70176876009** Collected: 06/14/21 10:33 Received: 06/14/21 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2340B Hardness, Total (Calc.)	Analytical Method: SM22 2340B Pace Analytical Services - Melville							
Tot Hardness asCaCO3 (SM 2340B	**146000**	ug/L	830	1		07/01/21 19:41		
6010 MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3005A Pace Analytical Services - Melville							
Arsenic	**<10.0**	ug/L	10.0	1	06/30/21 07:33	07/01/21 19:41	7440-38-2	
Cadmium	**<2.5**	ug/L	2.5	1	06/30/21 07:33	07/01/21 19:41	7440-43-9	
Calcium	**51300**	ug/L	200	1	06/30/21 07:33	07/01/21 19:41	7440-70-2	
Iron	**327**	ug/L	20.0	1	06/30/21 07:33	07/01/21 19:41	7439-89-6	
Lead	**4.8J**	ug/L	5.0	1	06/30/21 07:33	07/01/21 19:41	7439-92-1	
Magnesium	**4320**	ug/L	200	1	06/30/21 07:33	07/01/21 19:41	7439-95-4	
Manganese	**2560**	ug/L	10.0	1	06/30/21 07:33	07/01/21 19:41	7439-96-5	
Potassium	**20100**	ug/L	5000	1	06/30/21 07:33	07/01/21 19:41	7440-09-7	
Sodium	**62200**	ug/L	5000	1	06/30/21 07:33	07/01/21 19:41	7440-23-5	
8260C SIM Volatile Organics	Analytical Method: EPA 8260C SIM/5030C Pace Analytical Services - Melville							
1,4-Dioxane (p-Dioxane)	**<0.20**	ug/L	0.20	1		06/21/21 08:52	123-91-1	
Surrogates								
1,2-Dichlorobenzene-d4 (S)	107	%	42-152	1		06/21/21 08:52	2199-69-1	
4-Bromofluorobenzene (S)	88	%	79-138	1		06/21/21 08:52	460-00-4	
180.1 Turbidity	Analytical Method: EPA 180.1 Pace Analytical Services - Melville							
Turbidity	**3.7**	NTU	1.0	1		06/15/21 15:22		
2320B Alkalinity	Analytical Method: SM22 2320B Pace Analytical Services - Melville							
Alkalinity, Total as CaCO3	**131**	mg/L	1.0	1		06/21/21 16:27		
2540C Total Dissolved Solids	Analytical Method: SM22 2540C Pace Analytical Services - Melville							
Total Dissolved Solids	**320**	mg/L	20.0	1		06/21/21 14:48		
410.4 COD	Analytical Method: EPA 410.4 Preparation Method: EPA 410.4 Pace Analytical Services - Melville							
Chemical Oxygen Demand	**29.2**	mg/L	10.0	1	06/18/21 08:04	06/18/21 10:28		
5210B BOD, 5 day	Analytical Method: SM22 5210B Preparation Method: SM22 5210B Pace Analytical Services - Melville							
BOD, 5 day	**<2.0**	mg/L	2.0	1	06/15/21 13:06	06/20/21 08:30		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Melville							
Bromide	**0.89**	mg/L	0.50	1		07/03/21 01:28	24959-67-9	
Chloride	**132**	mg/L	20.0	10		07/08/21 05:00	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

Sample: GM-18D **Lab ID: 70176876009** Collected: 06/14/21 10:33 Received: 06/14/21 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Melville							
Sulfate	**8.1**	mg/L	5.0	1		07/03/21 01:28	14808-79-8	
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 Pace Analytical Services - Melville							
Nitrogen, Kjeldahl, Total	**2.9**	mg/L	0.10	1	06/28/21 06:39	06/30/21 15:00	7727-37-9	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Melville							
Nitrate as N	**0.20J**	mg/L	0.25	5		06/15/21 00:34	14797-55-8	
Nitrate-Nitrite (as N)	**0.21J**	mg/L	0.25	5		06/15/21 00:34	7727-37-9	
353.2 Nitrogen, NO2	Analytical Method: EPA 353.2 Pace Analytical Services - Melville							
Nitrite as N	**<0.050**	mg/L	0.050	1		06/14/21 22:15	14797-65-0	
Phenolics, Total Recoverable	Analytical Method: EPA 420.1 Preparation Method: EPA 420.1 Pace Analytical Services - Melville							
Phenolics, Total Recoverable	**<5.0**	ug/L	5.0	1	06/29/21 09:05	06/29/21 11:34		
4500 Ammonia Water	Analytical Method: SM22 4500 NH3 H Pace Analytical Services - Melville							
Nitrogen, Ammonia	**2.4**	mg/L	0.10	1		07/01/21 14:43	7664-41-7	
5310B TOC as NPOC	Analytical Method: SM22 5310B Pace Analytical Services - Melville							
Total Organic Carbon	**4.2**	mg/L	1.0	1		07/06/21 19:12	7440-44-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

Sample: GM-19D **Lab ID: 70176876010** Collected: 06/14/21 10:25 Received: 06/14/21 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2340B Hardness, Total (Calc.)	Analytical Method: SM22 2340B Pace Analytical Services - Melville							
Tot Hardness asCaCO3 (SM 2340B	**45900**	ug/L	830	1		07/01/21 19:43		
6010 MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3005A Pace Analytical Services - Melville							
Arsenic	**<10.0**	ug/L	10.0	1	06/30/21 07:33	07/01/21 19:43	7440-38-2	
Cadmium	**<2.5**	ug/L	2.5	1	06/30/21 07:33	07/01/21 19:43	7440-43-9	
Calcium	**15200**	ug/L	200	1	06/30/21 07:33	07/01/21 19:43	7440-70-2	
Iron	**122**	ug/L	20.0	1	06/30/21 07:33	07/01/21 19:43	7439-89-6	
Lead	**<5.0**	ug/L	5.0	1	06/30/21 07:33	07/01/21 19:43	7439-92-1	
Magnesium	**1930**	ug/L	200	1	06/30/21 07:33	07/01/21 19:43	7439-95-4	
Manganese	**8.4J**	ug/L	10.0	1	06/30/21 07:33	07/01/21 19:43	7439-96-5	
Potassium	**3980J**	ug/L	5000	1	06/30/21 07:33	07/01/21 19:43	7440-09-7	
Sodium	**22500**	ug/L	5000	1	06/30/21 07:33	07/01/21 19:43	7440-23-5	
8260C SIM Volatile Organics	Analytical Method: EPA 8260C SIM/5030C Pace Analytical Services - Melville							
1,4-Dioxane (p-Dioxane)	**0.22**	ug/L	0.20	1		06/21/21 09:16	123-91-1	
Surrogates								
1,2-Dichlorobenzene-d4 (S)	116	%	42-152	1		06/21/21 09:16	2199-69-1	
4-Bromofluorobenzene (S)	101	%	79-138	1		06/21/21 09:16	460-00-4	
180.1 Turbidity	Analytical Method: EPA 180.1 Pace Analytical Services - Melville							
Turbidity	**2.6**	NTU	1.0	1		06/15/21 15:21		
2320B Alkalinity	Analytical Method: SM22 2320B Pace Analytical Services - Melville							
Alkalinity, Total as CaCO3	**4.9**	mg/L	1.0	1		06/21/21 16:32		
2540C Total Dissolved Solids	Analytical Method: SM22 2540C Pace Analytical Services - Melville							
Total Dissolved Solids	**342**	mg/L	10.0	1		06/21/21 14:49		
410.4 COD	Analytical Method: EPA 410.4 Preparation Method: EPA 410.4 Pace Analytical Services - Melville							
Chemical Oxygen Demand	**9.9J**	mg/L	10.0	1	06/18/21 08:04	06/18/21 10:28		
5210B BOD, 5 day	Analytical Method: SM22 5210B Preparation Method: SM22 5210B Pace Analytical Services - Melville							
BOD, 5 day	**<2.0**	mg/L	2.0	1	06/15/21 13:06	06/20/21 08:33		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Melville							
Bromide	**0.70**	mg/L	0.50	1		07/03/21 01:41	24959-67-9	
Chloride	**39.2**	mg/L	2.0	1		07/03/21 01:41	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

Sample: GM-19D **Lab ID: 70176876010** Collected: 06/14/21 10:25 Received: 06/14/21 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Melville							
Sulfate	**25.1**	mg/L	5.0	1		07/03/21 01:41	14808-79-8	
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 Pace Analytical Services - Melville							
Nitrogen, Kjeldahl, Total	**<0.10**	mg/L	0.10	1	06/28/21 06:39	06/30/21 15:01	7727-37-9	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Melville							
Nitrate as N	**3.1**	mg/L	0.25	5		06/15/21 00:35	14797-55-8	
Nitrate-Nitrite (as N)	**3.1**	mg/L	0.25	5		06/15/21 00:35	7727-37-9	
353.2 Nitrogen, NO2	Analytical Method: EPA 353.2 Pace Analytical Services - Melville							
Nitrite as N	**<0.050**	mg/L	0.050	1		06/14/21 22:17	14797-65-0	
Phenolics, Total Recoverable	Analytical Method: EPA 420.1 Preparation Method: EPA 420.1 Pace Analytical Services - Melville							
Phenolics, Total Recoverable	**<5.0**	ug/L	5.0	1	06/29/21 09:05	06/29/21 11:35		
4500 Ammonia Water	Analytical Method: SM22 4500 NH3 H Pace Analytical Services - Melville							
Nitrogen, Ammonia	**0.096J**	mg/L	0.10	1		07/01/21 14:44	7664-41-7	
5310B TOC as NPOC	Analytical Method: SM22 5310B Pace Analytical Services - Melville							
Total Organic Carbon	**0.50J**	mg/L	1.0	1		07/06/21 20:04	7440-44-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

QC Batch: 215714
QC Batch Method: EPA 3005A
Analysis Method: EPA 6010C
Analysis Description: 6010 MET Water
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70176876001, 70176876002, 70176876003, 70176876004, 70176876005, 70176876006, 70176876007, 70176876008, 70176876009, 70176876010

METHOD BLANK: 1086152 Matrix: Water
Associated Lab Samples: 70176876001, 70176876002, 70176876003, 70176876004, 70176876005, 70176876006, 70176876007, 70176876008, 70176876009, 70176876010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	ug/L	<10.0	10.0	07/01/21 18:33	
Cadmium	ug/L	<2.5	2.5	07/01/21 18:33	
Calcium	ug/L	<200	200	07/01/21 18:33	
Iron	ug/L	<20.0	20.0	07/01/21 18:33	
Lead	ug/L	<5.0	5.0	07/01/21 18:33	
Magnesium	ug/L	<200	200	07/01/21 18:33	
Manganese	ug/L	<10.0	10.0	07/01/21 18:33	
Potassium	ug/L	<5000	5000	07/01/21 18:33	
Sodium	ug/L	<5000	5000	07/01/21 18:33	

LABORATORY CONTROL SAMPLE: 1086153

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	500	487	97	80-120	
Cadmium	ug/L	500	493	99	80-120	
Calcium	ug/L	25000	24700	99	80-120	
Iron	ug/L	12500	12300	98	80-120	
Lead	ug/L	500	501	100	80-120	
Magnesium	ug/L	25000	24400	98	80-120	
Manganese	ug/L	500	491	98	80-120	
Potassium	ug/L	25000	23300	93	80-120	
Sodium	ug/L	25000	24600	98	80-120	

MATRIX SPIKE SAMPLE: 1086155

Parameter	Units	70176872001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	<500	200	<500	50	75-125	M1
Cadmium	ug/L	<125	200	244	120	75-125	
Calcium	ug/L	13000000	10000	14200000	11500	75-125	M1
Iron	ug/L	<1000	5000	3170	63	75-125	M1
Lead	ug/L	<250	200	<250	15	75-125	M1
Magnesium	ug/L	10600	10000	22600	120	75-125	
Manganese	ug/L	496J	200	775	140	75-125	M1
Potassium	ug/L	8100000	10000	8850000	7500	75-125	M1
Sodium	ug/L	11800000	10000	12700000	9500	75-125	M1

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

SAMPLE DUPLICATE: 1086154

Parameter	Units	70176872001 Result	Dup Result	RPD	Qualifiers
Arsenic	ug/L	<500	<500		
Cadmium	ug/L	<125	<125		
Calcium	ug/L	13000000	15200000	16	
Iron	ug/L	<1000	<1000		
Lead	ug/L	<250	<250		
Magnesium	ug/L	10600	12400	16	
Manganese	ug/L	496J	580		
Potassium	ug/L	8100000	9550000	16	
Sodium	ug/L	11800000	13600000	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

QC Batch: 214335 | Analysis Method: EPA 8260C SIM/5030C
QC Batch Method: EPA 8260C SIM/5030C | Analysis Description: 8260C SIM 5030C
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70176876001, 70176876002, 70176876003, 70176876004, 70176876005, 70176876006, 70176876007

METHOD BLANK: 1077998 Matrix: Water
Associated Lab Samples: 70176876001, 70176876002, 70176876003, 70176876004, 70176876005, 70176876006, 70176876007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	<0.20	0.20	06/20/21 12:03	
1,2-Dichlorobenzene-d4 (S)	%	108	42-152	06/20/21 12:03	
4-Bromofluorobenzene (S)	%	92	79-138	06/20/21 12:03	

LABORATORY CONTROL SAMPLE: 1077999

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	2.5	2.1	82	60-134	
1,2-Dichlorobenzene-d4 (S)	%			106	42-152	
4-Bromofluorobenzene (S)	%			85	79-138	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1078000 1078001

Parameter	Units	70176874003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,4-Dioxane (p-Dioxane)	ug/L	0.57	2.5	2.5	2.9	2.7	93	86	56-161	6	
1,2-Dichlorobenzene-d4 (S)	%						115	111	42-152		
4-Bromofluorobenzene (S)	%						95	97	79-138		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

QC Batch: 214341
QC Batch Method: EPA 8260C SIM/5030C
Analysis Method: EPA 8260C SIM/5030C
Analysis Description: 8260C SIM 5030C
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70176876008, 70176876009, 70176876010

METHOD BLANK: 1078020 Matrix: Water
Associated Lab Samples: 70176876008, 70176876009, 70176876010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	<0.20	0.20	06/21/21 06:51	
1,2-Dichlorobenzene-d4 (S)	%	100	42-152	06/21/21 06:51	
4-Bromofluorobenzene (S)	%	81	79-138	06/21/21 06:51	

LABORATORY CONTROL SAMPLE: 1078021

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	2.5	2.3	91	60-134	
1,2-Dichlorobenzene-d4 (S)	%			110	42-152	
4-Bromofluorobenzene (S)	%			97	79-138	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1078424 1078425

Parameter	Units	70176876010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,4-Dioxane (p-Dioxane)	ug/L	0.22	2.5	2.5	2.1	2.2	77	81	56-161	5	
1,2-Dichlorobenzene-d4 (S)	%						99	112	42-152		
4-Bromofluorobenzene (S)	%						88	98	79-138		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

QC Batch: 213576
QC Batch Method: EPA 180.1
Analysis Method: EPA 180.1
Analysis Description: 180.1 Turbidity
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70176876001, 70176876002, 70176876003, 70176876004, 70176876005, 70176876006, 70176876007, 70176876008, 70176876009, 70176876010

METHOD BLANK: 1073108 Matrix: Water
Associated Lab Samples: 70176876001, 70176876002, 70176876003, 70176876004, 70176876005, 70176876006, 70176876007, 70176876008, 70176876009, 70176876010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Turbidity	NTU	<1.0	1.0	06/15/21 15:06	

LABORATORY CONTROL SAMPLE: 1073109

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Turbidity	NTU	10	10.0	100	90-110	

SAMPLE DUPLICATE: 1073110

Parameter	Units	70176814001 Result	Dup Result	RPD	Qualifiers
Turbidity	NTU	<1.0	<1.0		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

QC Batch: 214369
QC Batch Method: SM22 2320B
Analysis Method: SM22 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70176876001, 70176876002

METHOD BLANK: 1078122 Matrix: Water
Associated Lab Samples: 70176876001, 70176876002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	<1.0	1.0	06/21/21 09:36	

LABORATORY CONTROL SAMPLE: 1078123

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	25	25.1	100	85-115	

MATRIX SPIKE SAMPLE: 1078125

Parameter	Units	70176874003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	157	50	183	53	75-125	M1

SAMPLE DUPLICATE: 1078124

Parameter	Units	70176874003 Result	Dup Result	RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	157	167	6	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

QC Batch: 214427 | Analysis Method: SM22 2320B
QC Batch Method: SM22 2320B | Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70176876003, 70176876004, 70176876005, 70176876006, 70176876007, 70176876008, 70176876009, 70176876010

METHOD BLANK: 1078281 Matrix: Water
Associated Lab Samples: 70176876003, 70176876004, 70176876005, 70176876006, 70176876007, 70176876008, 70176876009, 70176876010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	<1.0	1.0	06/21/21 14:45	

LABORATORY CONTROL SAMPLE: 1078282

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	25	25.2	101	85-115	

MATRIX SPIKE SAMPLE: 1078284

Parameter	Units	70176876003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	31.4	100	133	102	75-125	

SAMPLE DUPLICATE: 1078283

Parameter	Units	70176876003 Result	Dup Result	RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	31.4	35.0	11	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

QC Batch: 214397
QC Batch Method: SM22 2540C
Analysis Method: SM22 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70176876001, 70176876002, 70176876003, 70176876004

METHOD BLANK: 1078194 Matrix: Water
Associated Lab Samples: 70176876001, 70176876002, 70176876003, 70176876004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	2.0J	10.0	06/21/21 13:34	

LABORATORY CONTROL SAMPLE: 1078195

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	500	516	103	85-115	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

QC Batch: 214403 | Analysis Method: SM22 2540C
QC Batch Method: SM22 2540C | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70176876005, 70176876006, 70176876007, 70176876008, 70176876009, 70176876010

METHOD BLANK: 1078200 Matrix: Water
Associated Lab Samples: 70176876005, 70176876006, 70176876007, 70176876008, 70176876009, 70176876010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	2.0J	10.0	06/21/21 14:28	

LABORATORY CONTROL SAMPLE: 1078201

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	500	556	111	85-115	

MATRIX SPIKE SAMPLE: 1078203

Parameter	Units	70176876005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	570	600	1160	98	75-125	

MATRIX SPIKE SAMPLE: 1078205

Parameter	Units	70176876006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	36.0	300	313	92	75-125	

SAMPLE DUPLICATE: 1078202

Parameter	Units	70176876005 Result	Dup Result	RPD	Qualifiers
Total Dissolved Solids	mg/L	570	544	5	

SAMPLE DUPLICATE: 1078204

Parameter	Units	70176876006 Result	Dup Result	RPD	Qualifiers
Total Dissolved Solids	mg/L	36.0	35.0	3	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

QC Batch: 214098 — Analysis Method: EPA 410.4
QC Batch Method: EPA 410.4 — Analysis Description: 410.4 COD
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70176876001, 70176876002, 70176876003, 70176876004, 70176876005, 70176876006, 70176876007, 70176876008, 70176876009, 70176876010

METHOD BLANK: 1076583 — Matrix: Water
Associated Lab Samples: 70176876001, 70176876002, 70176876003, 70176876004, 70176876005, 70176876006, 70176876007, 70176876008, 70176876009, 70176876010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	<10.0	10.0	06/18/21 10:26	

LABORATORY CONTROL SAMPLE: 1076584

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	500	508	102	90-110	

MATRIX SPIKE SAMPLE: 1076585

Parameter	Units	70176875001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	29.2	1000	985	96	90-110	

MATRIX SPIKE SAMPLE: 1076587

Parameter	Units	70176876001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	12.1	1000	1040	103	90-110	

SAMPLE DUPLICATE: 1076586

Parameter	Units	70176875001 Result	Dup Result	RPD	Qualifiers
Chemical Oxygen Demand	mg/L	29.2	27.0	8	

SAMPLE DUPLICATE: 1076588

Parameter	Units	70176876001 Result	Dup Result	RPD	Qualifiers
Chemical Oxygen Demand	mg/L	12.1	14.2	16	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

QC Batch: 213564
QC Batch Method: SM22 5210B
Analysis Method: SM22 5210B
Analysis Description: 5210B BOD, 5 day
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70176876001, 70176876002, 70176876003, 70176876004, 70176876006, 70176876007, 70176876008, 70176876009, 70176876010

METHOD BLANK: 1073049 Matrix: Water
Associated Lab Samples: 70176876001, 70176876002, 70176876003, 70176876004, 70176876006, 70176876007, 70176876008, 70176876009, 70176876010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
BOD, 5 day	mg/L	<2.0	2.0	06/20/21 07:30	

LABORATORY CONTROL SAMPLE: 1073050

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
BOD, 5 day	mg/L	198	186	94	84.5-115.4	

SAMPLE DUPLICATE: 1073051

Parameter	Units	70176874003 Result	Dup Result	RPD	Qualifiers
BOD, 5 day	mg/L	<4.0	<4.0		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

QC Batch: 213629
QC Batch Method: SM22 5210B
Analysis Method: SM22 5210B
Analysis Description: 5210B BOD, 5 day
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70176876005

METHOD BLANK: 1073529 Matrix: Water
Associated Lab Samples: 70176876005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
BOD, 5 day	mg/L	<2.0	2.0	06/20/21 08:35	

LABORATORY CONTROL SAMPLE: 1073530

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
BOD, 5 day	mg/L	198	177	90	84.5-115.4	

SAMPLE DUPLICATE: 1073531

Parameter	Units	70176899001 Result	Dup Result	RPD	Qualifiers
BOD, 5 day	mg/L	94.4	119	23	D6

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

QC Batch: 216323
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70176876001, 70176876002, 70176876003, 70176876004, 70176876005, 70176876006, 70176876007, 70176876008, 70176876009, 70176876010

METHOD BLANK: 1089161 Matrix: Water
Associated Lab Samples: 70176876001, 70176876002, 70176876003, 70176876004, 70176876005, 70176876006, 70176876007, 70176876008, 70176876009, 70176876010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Bromide	mg/L	<0.50	0.50	07/02/21 20:56	
Chloride	mg/L	<2.0	2.0	07/02/21 20:56	
Sulfate	mg/L	<5.0	5.0	07/02/21 20:56	

LABORATORY CONTROL SAMPLE: 1089162

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	1	1.0	104	90-110	
Chloride	mg/L	10	10.2	102	90-110	
Sulfate	mg/L	10	10.2	102	90-110	

MATRIX SPIKE SAMPLE: 1089163

Parameter	Units	70178434001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	<0.50	1	0.97	91	90-110	
Chloride	mg/L	12.1	10	26.4	143	90-110	M1
Sulfate	mg/L	<5.0	10	12.7	96	90-110	

MATRIX SPIKE SAMPLE: 1089165

Parameter	Units	70178690001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	0.12	1	1.0	91	90-110	
Chloride	mg/L	95.3	10	102	62	90-110	M1
Sulfate	mg/L	27.4	10	36.1	86	90-110	M1

SAMPLE DUPLICATE: 1089164

Parameter	Units	70178434001 Result	Dup Result	RPD	Qualifiers
Bromide	mg/L	<0.50	<0.50		
Chloride	mg/L	12.1	11.9	1	
Sulfate	mg/L	<5.0	3.2J		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

SAMPLE DUPLICATE: 1089166

Parameter	Units	70178690001 Result	Dup Result	RPD	Qualifiers
Bromide	mg/L	0.12	0.12J		
Chloride	mg/L	95.3	93.6	2	
Sulfate	mg/L	27.4	27.0	1	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

QC Batch: 215397 — Analysis Method: EPA 351.2
QC Batch Method: EPA 351.2 — Analysis Description: 351.2 TKN
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70176876001, 70176876002, 70176876003, 70176876004, 70176876005, 70176876006, 70176876007, 70176876008, 70176876009, 70176876010

METHOD BLANK: 1084837 — Matrix: Water
Associated Lab Samples: 70176876001, 70176876002, 70176876003, 70176876004, 70176876005, 70176876006, 70176876007, 70176876008, 70176876009, 70176876010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	<0.10	0.10	06/30/21 14:37	

LABORATORY CONTROL SAMPLE: 1084838

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	4	4.2	104	90-110	

MATRIX SPIKE SAMPLE: 1084841

Parameter	Units	70176876004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	4.7	4	7.7	76	90-110	M1

SAMPLE DUPLICATE: 1084842

Parameter	Units	70176876004 Result	Dup Result	RPD	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	4.7	5.0	7	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

QC Batch: 213428
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrite, Unpres.
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70176876001, 70176876002

METHOD BLANK: 1072526 Matrix: Water
Associated Lab Samples: 70176876001, 70176876002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrite as N	mg/L	<0.050	0.050	06/14/21 21:23	

LABORATORY CONTROL SAMPLE: 1072527

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrite as N	mg/L	1	1.0	100	90-110	

MATRIX SPIKE SAMPLE: 1072528

Parameter	Units	70176874003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrite as N	mg/L	<0.050	0.5	0.48	91	90-110	

MATRIX SPIKE SAMPLE: 1072530

Parameter	Units	70176870001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrite as N	mg/L	<0.050	0.5	0.48	94	90-110	

SAMPLE DUPLICATE: 1072529

Parameter	Units	70176874003 Result	Dup Result	RPD	Qualifiers
Nitrite as N	mg/L	<0.050	<0.050		

SAMPLE DUPLICATE: 1072531

Parameter	Units	70176870001 Result	Dup Result	RPD	Qualifiers
Nitrite as N	mg/L	<0.050	<0.050		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

QC Batch: 213429
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrite, Unpres.
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70176876003, 70176876004, 70176876005, 70176876006, 70176876007, 70176876008, 70176876009, 70176876010

METHOD BLANK: 1072532 Matrix: Water
Associated Lab Samples: 70176876003, 70176876004, 70176876005, 70176876006, 70176876007, 70176876008, 70176876009, 70176876010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrite as N	mg/L	<0.050	0.050	06/14/21 22:05	

LABORATORY CONTROL SAMPLE: 1072533

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrite as N	mg/L	1	1.0	101	90-110	

MATRIX SPIKE SAMPLE: 1072534

Parameter	Units	70176782001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrite as N	mg/L	<0.050	0.5	0.46	89	90-110	M1

MATRIX SPIKE SAMPLE: 1072536

Parameter	Units	70176794001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrite as N	mg/L	<0.050	0.5	0.47	95	90-110	

SAMPLE DUPLICATE: 1072535

Parameter	Units	70176782001 Result	Dup Result	RPD	Qualifiers
Nitrite as N	mg/L	<0.050	<0.050		

SAMPLE DUPLICATE: 1072537

Parameter	Units	70176794001 Result	Dup Result	RPD	Qualifiers
Nitrite as N	mg/L	<0.050	<0.050		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

QC Batch: 213431
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate, Unpres.
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70176876001, 70176876002, 70176876003, 70176876004

METHOD BLANK: 1072544 Matrix: Water
Associated Lab Samples: 70176876001, 70176876002, 70176876003, 70176876004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrate-Nitrite (as N)	mg/L	<0.050	0.050	06/14/21 23:48	

LABORATORY CONTROL SAMPLE: 1072545

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrate-Nitrite (as N)	mg/L	1	1.0	100	90-110	

MATRIX SPIKE SAMPLE: 1072546

Parameter	Units	70176842001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrate-Nitrite (as N)	mg/L	4.9	2.5	7.4	98	90-110	

MATRIX SPIKE SAMPLE: 1072548

Parameter	Units	70176874003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrate-Nitrite (as N)	mg/L	<0.25	2.5	2.5	98	90-110	

SAMPLE DUPLICATE: 1072547

Parameter	Units	70176842001 Result	Dup Result	RPD	Qualifiers
Nitrate-Nitrite (as N)	mg/L	4.9	4.9	0	

SAMPLE DUPLICATE: 1072549

Parameter	Units	70176874003 Result	Dup Result	RPD	Qualifiers
Nitrate-Nitrite (as N)	mg/L	<0.25	<0.25		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

QC Batch: 213432 | Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 | Analysis Description: 353.2 Nitrate, Unpres.
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70176876005, 70176876006, 70176876007, 70176876008, 70176876009, 70176876010

METHOD BLANK: 1072550 Matrix: Water
Associated Lab Samples: 70176876005, 70176876006, 70176876007, 70176876008, 70176876009, 70176876010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrate-Nitrite (as N)	mg/L	<0.050	0.050	06/15/21 00:26	

LABORATORY CONTROL SAMPLE: 1072551

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrate-Nitrite (as N)	mg/L	1	1.0	100	90-110	

MATRIX SPIKE SAMPLE: 1072552

Parameter	Units	70176814001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrate-Nitrite (as N)	mg/L	0.067	0.5	0.56	99	90-110	

MATRIX SPIKE SAMPLE: 1072554

Parameter	Units	70176845001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrate-Nitrite (as N)	mg/L	2.1	2.5	4.7	103	90-110	

SAMPLE DUPLICATE: 1072553

Parameter	Units	70176814001 Result	Dup Result	RPD	Qualifiers
Nitrate-Nitrite (as N)	mg/L	0.067	0.066	1	

SAMPLE DUPLICATE: 1072555

Parameter	Units	70176845001 Result	Dup Result	RPD	Qualifiers
Nitrate-Nitrite (as N)	mg/L	2.1	2.1	0	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

QC Batch: 215194 | Analysis Method: EPA 420.1
QC Batch Method: EPA 420.1 | Analysis Description: 420.1 Phenolics Macro
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70176876001, 70176876002, 70176876003, 70176876004, 70176876005

METHOD BLANK: 1083266 Matrix: Water
Associated Lab Samples: 70176876001, 70176876002, 70176876003, 70176876004, 70176876005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Phenolics, Total Recoverable	ug/L	<5.0	5.0	06/25/21 11:45	

LABORATORY CONTROL SAMPLE: 1083267

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenolics, Total Recoverable	ug/L	100	93.4	93	90-110	

MATRIX SPIKE SAMPLE: 1083268

Parameter	Units	70176875008 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phenolics, Total Recoverable	ug/L	<5.0	50	52.5	105	75-125	

SAMPLE DUPLICATE: 1083269

Parameter	Units	70176875008 Result	Dup Result	RPD	Qualifiers
Phenolics, Total Recoverable	ug/L	<5.0	<5.0		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

QC Batch: 215605 | Analysis Method: EPA 420.1
QC Batch Method: EPA 420.1 | Analysis Description: 420.1 Phenolics Macro
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70176876006, 70176876007, 70176876008, 70176876009, 70176876010

METHOD BLANK: 1085733 Matrix: Water
Associated Lab Samples: 70176876006, 70176876007, 70176876008, 70176876009, 70176876010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Phenolics, Total Recoverable	ug/L	<5.0	5.0	06/29/21 11:30	

LABORATORY CONTROL SAMPLE: 1085734

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenolics, Total Recoverable	ug/L	100	105	105	90-110	

MATRIX SPIKE SAMPLE: 1085735

Parameter	Units	70175997005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phenolics, Total Recoverable	ug/L	<5.0	50	51.1	102	75-125	

SAMPLE DUPLICATE: 1085736

Parameter	Units	70175997005 Result	Dup Result	RPD	Qualifiers
Phenolics, Total Recoverable	ug/L	<5.0	<5.0		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

QC Batch: 216080 | Analysis Method: SM22 4500 NH3 H
QC Batch Method: SM22 4500 NH3 H | Analysis Description: 4500 Ammonia
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70176876001, 70176876002, 70176876003, 70176876004, 70176876005, 70176876006, 70176876007, 70176876008, 70176876009, 70176876010

METHOD BLANK: 1087703 Matrix: Water
Associated Lab Samples: 70176876001, 70176876002, 70176876003, 70176876004, 70176876005, 70176876006, 70176876007, 70176876008, 70176876009, 70176876010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	<0.10	0.10	07/01/21 14:16	

LABORATORY CONTROL SAMPLE: 1087704

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	1	0.98	98	90-110	

MATRIX SPIKE SAMPLE: 1087705

Parameter	Units	70177241001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	0.19	1	1.2	104	75-125	

SAMPLE DUPLICATE: 1087706

Parameter	Units	70177241001 Result	Dup Result	RPD	Qualifiers
Nitrogen, Ammonia	mg/L	0.19	0.18	4	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

QC Batch: 215900
QC Batch Method: SM22 5310B
Analysis Method: SM22 5310B
Analysis Description: 5310B TOC
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70176876001, 70176876002

METHOD BLANK: 1086956 Matrix: Water
Associated Lab Samples: 70176876001, 70176876002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Organic Carbon	mg/L	<1.0	1.0	06/30/21 18:31	

LABORATORY CONTROL SAMPLE: 1086957

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10.1	101	85-115	

MATRIX SPIKE SAMPLE: 1086959

Parameter	Units	70176876002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	0.78J	10	11.9	111	75-125	

SAMPLE DUPLICATE: 1086958

Parameter	Units	70176876001 Result	Dup Result	RPD	Qualifiers
Total Organic Carbon	mg/L	0.64J	0.55J		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

QC Batch: 216125
QC Batch Method: SM22 5310B
Analysis Method: SM22 5310B
Analysis Description: 5310B TOC
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70176876003, 70176876004, 70176876005, 70176876006, 70176876007, 70176876008, 70176876009, 70176876010

METHOD BLANK: 1087950 Matrix: Water
Associated Lab Samples: 70176876003, 70176876004, 70176876005, 70176876006, 70176876007, 70176876008, 70176876009, 70176876010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Organic Carbon	mg/L	<1.0	1.0	07/06/21 15:57	

LABORATORY CONTROL SAMPLE: 1087951

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	11.1	111	85-115	

MATRIX SPIKE SAMPLE: 1087953

Parameter	Units	70176876004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	6.9	10	20.1	132	75-125	M1

SAMPLE DUPLICATE: 1087952

Parameter	Units	70176876003 Result	Dup Result	RPD	Qualifiers
Total Organic Carbon	mg/L	1.1	1.9	51	D6

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALIFIERS

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

1j	The sample dilutions set for this analysis exhibited variation in excess of 30%.
D6	The precision between the sample and sample duplicate exceeded laboratory control limits.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
70176876001	GM-2D	SM22 2340B	217099		
70176876002	GM-4D	SM22 2340B	217099		
70176876003	GM-5D	SM22 2340B	217099		
70176876004	GM-6D	SM22 2340B	217099		
70176876005	GM-7D	SM22 2340B	217099		
70176876006	GM-15D	SM22 2340B	217099		
70176876007	GM-16D	SM22 2340B	217099		
70176876008	GM-17D	SM22 2340B	217099		
70176876009	GM-18D	SM22 2340B	217099		
70176876010	GM-19D	SM22 2340B	217099		
70176876001	GM-2D	EPA 3005A	215714	EPA 6010C	215904
70176876002	GM-4D	EPA 3005A	215714	EPA 6010C	215904
70176876003	GM-5D	EPA 3005A	215714	EPA 6010C	215904
70176876004	GM-6D	EPA 3005A	215714	EPA 6010C	215904
70176876005	GM-7D	EPA 3005A	215714	EPA 6010C	215904
70176876006	GM-15D	EPA 3005A	215714	EPA 6010C	215904
70176876007	GM-16D	EPA 3005A	215714	EPA 6010C	215904
70176876008	GM-17D	EPA 3005A	215714	EPA 6010C	215904
70176876009	GM-18D	EPA 3005A	215714	EPA 6010C	215904
70176876010	GM-19D	EPA 3005A	215714	EPA 6010C	215904
70176876001	GM-2D	EPA 8260C SIM/5030C	214335		
70176876002	GM-4D	EPA 8260C SIM/5030C	214335		
70176876003	GM-5D	EPA 8260C SIM/5030C	214335		
70176876004	GM-6D	EPA 8260C SIM/5030C	214335		
70176876005	GM-7D	EPA 8260C SIM/5030C	214335		
70176876006	GM-15D	EPA 8260C SIM/5030C	214335		
70176876007	GM-16D	EPA 8260C SIM/5030C	214335		
70176876008	GM-17D	EPA 8260C SIM/5030C	214341		
70176876009	GM-18D	EPA 8260C SIM/5030C	214341		
70176876010	GM-19D	EPA 8260C SIM/5030C	214341		
70176876001	GM-2D	EPA 180.1	213576		
70176876002	GM-4D	EPA 180.1	213576		
70176876003	GM-5D	EPA 180.1	213576		
70176876004	GM-6D	EPA 180.1	213576		
70176876005	GM-7D	EPA 180.1	213576		
70176876006	GM-15D	EPA 180.1	213576		
70176876007	GM-16D	EPA 180.1	213576		
70176876008	GM-17D	EPA 180.1	213576		
70176876009	GM-18D	EPA 180.1	213576		
70176876010	GM-19D	EPA 180.1	213576		
70176876001	GM-2D	SM22 2320B	214369		
70176876002	GM-4D	SM22 2320B	214369		
70176876003	GM-5D	SM22 2320B	214427		
70176876004	GM-6D	SM22 2320B	214427		
70176876005	GM-7D	SM22 2320B	214427		
70176876006	GM-15D	SM22 2320B	214427		

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
70176876007	**GM-16D**	SM22 2320B	214427		
70176876008	**GM-17D**	SM22 2320B	214427		
70176876009	**GM-18D**	SM22 2320B	214427		
70176876010	**GM-19D**	SM22 2320B	214427		
70176876001	**GM-2D**	SM22 2540C	214397		
70176876002	**GM-4D**	SM22 2540C	214397		
70176876003	**GM-5D**	SM22 2540C	214397		
70176876004	**GM-6D**	SM22 2540C	214397		
70176876005	**GM-7D**	SM22 2540C	214403		
70176876006	**GM-15D**	SM22 2540C	214403		
70176876007	**GM-16D**	SM22 2540C	214403		
70176876008	**GM-17D**	SM22 2540C	214403		
70176876009	**GM-18D**	SM22 2540C	214403		
70176876010	**GM-19D**	SM22 2540C	214403		
70176876001	**GM-2D**	EPA 410.4	214098	EPA 410.4	214120
70176876002	**GM-4D**	EPA 410.4	214098	EPA 410.4	214120
70176876003	**GM-5D**	EPA 410.4	214098	EPA 410.4	214120
70176876004	**GM-6D**	EPA 410.4	214098	EPA 410.4	214120
70176876005	**GM-7D**	EPA 410.4	214098	EPA 410.4	214120
70176876006	**GM-15D**	EPA 410.4	214098	EPA 410.4	214120
70176876007	**GM-16D**	EPA 410.4	214098	EPA 410.4	214120
70176876008	**GM-17D**	EPA 410.4	214098	EPA 410.4	214120
70176876009	**GM-18D**	EPA 410.4	214098	EPA 410.4	214120
70176876010	**GM-19D**	EPA 410.4	214098	EPA 410.4	214120
70176876001	**GM-2D**	SM22 5210B	213564	SM22 5210B	214683
70176876002	**GM-4D**	SM22 5210B	213564	SM22 5210B	214683
70176876003	**GM-5D**	SM22 5210B	213564	SM22 5210B	214683
70176876004	**GM-6D**	SM22 5210B	213564	SM22 5210B	214683
70176876005	**GM-7D**	SM22 5210B	213629	SM22 5210B	214685
70176876006	**GM-15D**	SM22 5210B	213564	SM22 5210B	214683
70176876007	**GM-16D**	SM22 5210B	213564	SM22 5210B	214683
70176876008	**GM-17D**	SM22 5210B	213564	SM22 5210B	214683
70176876009	**GM-18D**	SM22 5210B	213564	SM22 5210B	214683
70176876010	**GM-19D**	SM22 5210B	213564	SM22 5210B	214683
70176876001	**GM-2D**	EPA 300.0	216323		
70176876002	**GM-4D**	EPA 300.0	216323		
70176876003	**GM-5D**	EPA 300.0	216323		
70176876004	**GM-6D**	EPA 300.0	216323		
70176876005	**GM-7D**	EPA 300.0	216323		
70176876006	**GM-15D**	EPA 300.0	216323		
70176876007	**GM-16D**	EPA 300.0	216323		
70176876008	**GM-17D**	EPA 300.0	216323		
70176876009	**GM-18D**	EPA 300.0	216323		
70176876010	**GM-19D**	EPA 300.0	216323		
70176876001	**GM-2D**	EPA 351.2	215397	EPA 351.2	215424

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
70176876002	GM-4D	EPA 351.2	215397	EPA 351.2	215424
70176876003	GM-5D	EPA 351.2	215397	EPA 351.2	215424
70176876004	GM-6D	EPA 351.2	215397	EPA 351.2	215424
70176876005	GM-7D	EPA 351.2	215397	EPA 351.2	215424
70176876006	GM-15D	EPA 351.2	215397	EPA 351.2	215424
70176876007	GM-16D	EPA 351.2	215397	EPA 351.2	215424
70176876008	GM-17D	EPA 351.2	215397	EPA 351.2	215424
70176876009	GM-18D	EPA 351.2	215397	EPA 351.2	215424
70176876010	GM-19D	EPA 351.2	215397	EPA 351.2	215424
70176876001	GM-2D	EPA 353.2	213431		
70176876002	GM-4D	EPA 353.2	213431		
70176876003	GM-5D	EPA 353.2	213431		
70176876004	GM-6D	EPA 353.2	213431		
70176876005	GM-7D	EPA 353.2	213432		
70176876006	GM-15D	EPA 353.2	213432		
70176876007	GM-16D	EPA 353.2	213432		
70176876008	GM-17D	EPA 353.2	213432		
70176876009	GM-18D	EPA 353.2	213432		
70176876010	GM-19D	EPA 353.2	213432		
70176876001	GM-2D	EPA 353.2	213428		
70176876002	GM-4D	EPA 353.2	213428		
70176876003	GM-5D	EPA 353.2	213429		
70176876004	GM-6D	EPA 353.2	213429		
70176876005	GM-7D	EPA 353.2	213429		
70176876006	GM-15D	EPA 353.2	213429		
70176876007	GM-16D	EPA 353.2	213429		
70176876008	GM-17D	EPA 353.2	213429		
70176876009	GM-18D	EPA 353.2	213429		
70176876010	GM-19D	EPA 353.2	213429		
70176876001	GM-2D	EPA 420.1	215194	EPA 420.1	215222
70176876002	GM-4D	EPA 420.1	215194	EPA 420.1	215222
70176876003	GM-5D	EPA 420.1	215194	EPA 420.1	215222
70176876004	GM-6D	EPA 420.1	215194	EPA 420.1	215222
70176876005	GM-7D	EPA 420.1	215194	EPA 420.1	215222
70176876006	GM-15D	EPA 420.1	215605	EPA 420.1	215670
70176876007	GM-16D	EPA 420.1	215605	EPA 420.1	215670
70176876008	GM-17D	EPA 420.1	215605	EPA 420.1	215670
70176876009	GM-18D	EPA 420.1	215605	EPA 420.1	215670
70176876010	GM-19D	EPA 420.1	215605	EPA 420.1	215670
70176876001	GM-2D	SM22 4500 NH3 H	216080		
70176876002	GM-4D	SM22 4500 NH3 H	216080		
70176876003	GM-5D	SM22 4500 NH3 H	216080		
70176876004	GM-6D	SM22 4500 NH3 H	216080		
70176876005	GM-7D	SM22 4500 NH3 H	216080		
70176876006	GM-15D	SM22 4500 NH3 H	216080		

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: GMP WELLS ROUTINE 360
Pace Project No.: 70176876

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
70176876007	**GM-16D**	SM22 4500 NH3 H	216080		
70176876008	**GM-17D**	SM22 4500 NH3 H	216080		
70176876009	**GM-18D**	SM22 4500 NH3 H	216080		
70176876010	**GM-19D**	SM22 4500 NH3 H	216080		
70176876001	**GM-2D**	SM22 5310B	215900		
70176876002	**GM-4D**	SM22 5310B	215900		
70176876003	**GM-5D**	SM22 5310B	216125		
70176876004	**GM-6D**	SM22 5310B	216125		
70176876005	**GM-7D**	SM22 5310B	216125		
70176876006	**GM-15D**	SM22 5310B	216125		
70176876007	**GM-16D**	SM22 5310B	216125		
70176876008	**GM-17D**	SM22 5310B	216125		
70176876009	**GM-18D**	SM22 5310B	216125		
70176876010	**GM-19D**	SM22 5310B	216125		

PaceAnalytical

CHAIN-OF-CUSTODY / Analytical Request D

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields mu

WO# : 70176876

70176876

Section A	Section B	Section C	
Required Client Information:	**Required Project Information:**	**Invoice Information:**	
Company: Town of Babylon	Report To: Joe Guarino	Attention:	
Address: 281 Phelps Lane	Copy To:	Company Name:	**Regulatory Agency**
North Babylon, NY 11703		Address:	
Email: jguarino@townofbabylon.com	Purchase Order #:	Pace Quote:	
Phone: 631-422-7640 Fax:	Project Name: GMP Wells Routine 360 +TAL Metals	Pace Project Manager: Kimberly.Mack@PaceLabs.com	**State / Location**
Requested Due Date:	Project #:	Pace Profile #: 5271 LINE	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 START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	TAL Metals & Hardness	BOD,Br,Cl,SO4,Turbidity	No2,ALK,TDS	COD,NH3,NO3,TKN,Phenols	TOC	1,4 Dioxane by 8270 SIM	PFOA/PFAS	Residual Chlorine (Y/N)
1	GM-2D	WT				6/14/21	1250		10										X	X	X	X	X	X	X	
2	GM-4D	WT				"	1340		10										X	X	X	X	X	X	X	
3	GM-5D	WT					1345		10										X	X	X	X	X	X	X	
4	GM-6D	WT					1350		10										X	X	X	X	X	X	X	
5	GM-7D	WT					1355		10										X	X	X	X	X	X	X	
6	GM-15D	WT					1130		10										X	X	X	X	X	X	X	
7	GM-16D	WT					1110		10										X	X	X	X	X	X	X	
8	GM-17D	WT					1105		10										X	X	X	X	X	X	X	
9	GM-18D	WT				"	1033		10										X	X	X	X	X	X	X	
10	GM-19D	WT				6/14/21	1025		10										X	X	X	X	X	X	X	
11																										
12																										

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Part 360 Routine GMP Wells	Brian Nichols / Zion Environmental, LLC	6-14-21	1530		6/14/21	1530	3.8	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Brian Nichols

SIGNATURE of SAMPLER: Brian Nichols

DATE Signed: 6-14-21

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

Pace Analytical®

Sample Condition Upon Rec

WO# : 70176876

PM: KMM **Due Date: 06/23/21**

CLIENT: BAB-ECO

Client Name: TOB

Projec

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Commercial ☐ Pace ☐ Other

Tracking #:

Custody Seal on Cooler/Box Present: ☐ Yes ☑ No Seals intact: ☐ Yes ☑ No

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ Ziploc ☑ None ☐ Other

Thermometer Used: TH09T Correction Factor: +0.0

Cooler Temperature(°C): 3.8 Cooler Temperature Corrected(°C): 3.8

Temp should be above freezing to 6.0°C

USDA Regulated Soil (☑ N/A, water sample)

Temperature Blank Present: ☐ Yes ☑ No

Type of Ice: (Wet) Blue None

☐ Samples on ice, cooling process has begun

Date/Time 5035A kits placed in freezer

Date and Initials of person examining contents: 6/14/21 JP

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check map)? ☐ Yes ☐ No

Did samples orignate from a foreign source including Hawaii and Puerto Rico)? ☐ Yes ☒ No

If Yes to either question, fill out a Regulated Soil Checklist (F-LI-C-010) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present:	☑ Yes	☐ No		1.
Chain of Custody Filled Out:	☑ Yes	☐ No		2.
Chain of Custody Relinquished:	☑ Yes	☐ No		3.
Sampler Name & Signature on COC:	☑ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time:	☑ Yes	☐ No		5.
Short Hold Time Analysis (<72hr):	☑ Yes	☐ No		6.
Rush Turn Around Time Requested:	☐ Yes	☑ No		7.
Sufficient Volume: (Triple volume provided for	☑ Yes	☐ No		8.
Correct Containers Used:	☑ Yes	☐ No		9.
-Pace Containers Used:	☑ Yes	☐ No		
Containers Intact:	☑ Yes	☐ No		10.
Filtered volume received for Dissolved tests	☐ Yes	☐ No	☑ N/A	11. Note if sediment is visible in the dissolved container.
Sample Labels match COC:	☐ Yes	☑ No		12. Client gave 8260 Sim for 1,4 dioxane. Did not receive 8270 Sim.
-Includes date/time/ID, Matrix: SL (WT) OIL				
All containers needing preservation have been checked?	☑ Yes	☐ No	☐ N/A	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl
pH paper Lot # HC025486				Sample #
All containers needing preservation are found to be in compliance with method recommendation? (HNO_3, H_2SO_4, HCl, NaOH>9 Sulfide, NAOH>12 Cyanide)	☑ Yes	☐ No	☐ N/A	
Exceptions: VOA, Coliform, TOC/DOC, Oil and Grease, DRO/8015 (water). Per Method, VOA pH is checked after analysis				Initial when completed: / Lot # of added preservative: / Date/Time preservative added:
Samples checked for dechlorination:	☐ Yes	☐ No	☑ N/A	14.
KI starch test strips Lot #				Positive for Res. Chlorine? Y N
Residual chlorine strips Lot #				
SM 4500 CN samples checked for sulfide?	☐ Yes	☐ No	☑ N/A	15.
Lead Acetate Strips Lot #				
Headspace in VOA Vials (>6mm):	☐ Yes	☑ No	☐ N/A	16.
Trip Blank Present:	☐ Yes	☑ No	☐ N/A	17.
Trip Blank Custody Seals Present	☐ Yes	☐ No	☑ N/A	
Pace Trip Blank Lot # (if applicable):				

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution:

* PM (Project Manager) review is documented electronically in LIMS.

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Tel: (916)373-5600

Laboratory Job ID: 320-75066-1
Laboratory Sample Delivery Group: 70176876
Client Project/Site: GMP WELLS ROUTINE 360

For:
Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, New York 11747

Attn: Kimberley Mack

Cesar C Cortes

Authorized for release by:
6/29/2021 1:21:49 AM

Cesar Cortes, Project Manager I
(916)374-4316
Cesar.Cortes@Eurofinset.com

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Detection Summary 5
Client Sample Results 8
Isotope Dilution Summary 19
QC Sample Results 21
QC Association Summary 25
Lab Chronicle 26
Certification Summary 28
Method Summary 29
Sample Summary 30
Chain of Custody 31
Receipt Checklists 33

Qualifiers

LCMS

Qualifier	Qualifier Description
*5+	Isotope dilution analyte is outside acceptance limits, high biased.
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 320-75066-1

Laboratory: Eurofins TestAmerica, Sacramento

Narrative

Receipt

The samples were received on 6/17/2021 10:15 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.5º C.

Method 537 (modified)

The Isotope Dilution Analyte (IDA) recovery is above the method recommended limit: GM-5D (320-75066-3), GM-6D (320-75066-4), GM-7D (320-75066-5), GM-15D (320-75066-6), GM-16D (320-75066-7) and (MB 320-500399/1-A). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

The IDA recovery is above the method recommended limit: GM-18D (320-75066-9). The sample was also analyzed at a dilution where the IDA recoveries were in control, however the target analytes were then ND. Both sets of data are reported for the affected analytes and IDA. Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

The “I” qualifier means the transition mass ratio for the indicated analyte was outside of the established ratio limits. The qualitative identification of the analyte has some degree of uncertainty, and the reported value may have some high bias. However, analyst judgment was used to positively identify the analyte.

Results for sample GM-18D (320-75066-9) was reported from the analysis of a diluted extract due to high concentration of the target analyte and/or matrix effects in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits.

The following samples were cloud-like in appearance: GM-2D (320-75066-1), GM-5D (320-75066-3), GM-6D (320-75066-4), GM-7D (320-75066-5), GM-15D (320-75066-6), GM-16D (320-75066-7) and GM-18D (320-75066-9), preparation batch 320-500399.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-500399.

The following sample contained particles which clogged the cartridge during extraction: GM-6D (320-75066-4), preparation batch 320-500399.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Pace Analytical Services, LLC
Project/Site: GMP WELLS ROUTINE 360

Job ID: 320-75066-1
SDG: 70176876

Client Sample ID: GM-2D — Lab Sample ID: 320-75066-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid	2.7	J	4.7	2.3	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	0.60	J	1.9	0.46	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	1.8	J	1.9	0.55	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid	2.1		1.9	0.24	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	1.4	J	1.9	0.80	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.32	J	1.9	0.29	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.80	J	1.9	0.19	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.7		1.9	0.54	ng/L	1		537 (modified)	Total/NA

Client Sample ID: GM-4D — Lab Sample ID: 320-75066-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid	6.4		4.6	2.2	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	8.9		1.9	0.45	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	8.2		1.9	0.54	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid	5.6		1.9	0.23	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	10		1.9	0.79	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	1.2	J	1.9	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.49	J	1.9	0.29	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.73	J	1.9	0.19	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.89	J	1.9	0.53	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	3.3		1.9	0.50	ng/L	1		537 (modified)	Total/NA

Client Sample ID: GM-5D — Lab Sample ID: 320-75066-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid	5.7		4.6	2.2	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	8.7		1.9	0.45	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	7.2		1.9	0.54	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid	6.0		1.9	0.23	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	14		1.9	0.79	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	2.1		1.9	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.49	J	1.9	0.29	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.1	J	1.9	0.19	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	1.4	J	1.9	0.53	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	4.9		1.9	0.50	ng/L	1		537 (modified)	Total/NA

Client Sample ID: GM-6D — Lab Sample ID: 320-75066-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid	37		4.7	2.3	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	14		1.9	0.46	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	33		1.9	0.55	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid	13		1.9	0.24	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	42		1.9	0.80	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	9.1		1.9	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.52	J	1.9	0.29	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	9.3		1.9	0.19	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	6.3		1.9	0.54	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	5.8		1.9	0.51	ng/L	1		537 (modified)	Total/NA
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	3.7	J	4.7	1.2	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: GM-7D — Lab Sample ID: 320-75066-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid	18		4.8	2.3	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	44		1.9	0.47	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	35		1.9	0.56	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid	34		1.9	0.24	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	110		1.9	0.82	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	28		1.9	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	2.7		1.9	0.30	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	4.8		1.9	0.19	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	30		1.9	0.55	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	3.0		1.9	0.18	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	140		1.9	0.52	ng/L	1		537 (modified)	Total/NA

Client Sample ID: GM-15D — Lab Sample ID: 320-75066-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid	2.3	J	4.8	2.3	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	0.60	J	1.9	0.47	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	1.5	J	1.9	0.56	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid	0.64	J	1.9	0.24	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.82	J	1.9	0.82	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	1.1	J	1.9	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.35	J	1.9	0.30	ng/L	1		537 (modified)	Total/NA

Client Sample ID: GM-16D — Lab Sample ID: 320-75066-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid	3.0	J	5.0	2.4	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	4.0		2.0	0.49	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	3.7		2.0	0.58	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid	2.8		2.0	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	4.1		2.0	0.85	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	2.1		2.0	0.27	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.56	J	2.0	0.31	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.2	J	2.0	0.20	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.68	J	2.0	0.57	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.1		2.0	0.54	ng/L	1		537 (modified)	Total/NA

Client Sample ID: GM-17D — Lab Sample ID: 320-75066-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid	7.0		4.8	2.3	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	7.5		1.9	0.47	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	6.9		1.9	0.56	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid	5.7		1.9	0.24	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	10		1.9	0.81	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	1.1	J	1.9	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.59	J	1.9	0.30	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.80	J	1.9	0.19	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.87	J	1.9	0.55	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.8	I	1.9	0.52	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Pace Analytical Services, LLC
Project/Site: GMP WELLS ROUTINE 360

Job ID: 320-75066-1
SDG: 70176876

Client Sample ID: GM-18D — Lab Sample ID: 320-75066-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid	17		4.7	2.2	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	29		1.9	0.46	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	22		1.9	0.54	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid	17		1.9	0.23	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	32		1.9	0.79	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	8.6		1.9	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	4.1		1.9	0.29	ng/L	1		537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	2.0		1.9	1.0	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	3.7		1.9	0.19	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	10		1.9	0.53	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	0.47	J	1.9	0.18	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	31		1.9	0.50	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonamide (FOSA)	0.96	J	1.9	0.92	ng/L	1		537 (modified)	Total/NA
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	3.1	J	4.7	1.2	ng/L	1		537 (modified)	Total/NA
6:2 FTS	7.3		4.7	2.3	ng/L	1		537 (modified)	Total/NA
8:2 FTS	0.64	J	1.9	0.43	ng/L	1		537 (modified)	Total/NA

Client Sample ID: GM-19D — Lab Sample ID: 320-75066-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid	6.3		4.8	2.3	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	11		1.9	0.47	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	13		1.9	0.55	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid	17		1.9	0.24	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	110		1.9	0.81	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	7.3		1.9	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	2.6		1.9	0.30	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.7	J	1.9	0.19	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.6		1.9	0.54	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	0.76	J	1.9	0.18	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	37		1.9	0.51	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Pace Analytical Services, LLC
Project/Site: GMP WELLS ROUTINE 360

Job ID: 320-75066-1
SDG: 70176876

Client Sample ID: GM-2D

Date Collected: 06/14/21 12:50
Date Received: 06/17/21 10:15

Lab Sample ID: 320-75066-1

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid	**2.7**	**J**	4.7	2.3	ng/L		06/21/21 19:10	06/23/21 10:11	1
Perfluoropentanoic acid (PFPeA)	**0.60**	**J**	1.9	0.46	ng/L		06/21/21 19:10	06/23/21 10:11	1
Perfluorohexanoic acid (PFHxA)	**1.8**	**J**	1.9	0.55	ng/L		06/21/21 19:10	06/23/21 10:11	1
Perfluoroheptanoic acid	**2.1**		1.9	0.24	ng/L		06/21/21 19:10	06/23/21 10:11	1
Perfluorooctanoic acid (PFOA)	**1.4**	**J**	1.9	0.80	ng/L		06/21/21 19:10	06/23/21 10:11	1
Perfluorononanoic acid (PFNA)	ND		1.9	0.26	ng/L		06/21/21 19:10	06/23/21 10:11	1
Perfluorodecanoic acid (PFDA)	**0.32**	**J**	1.9	0.29	ng/L		06/21/21 19:10	06/23/21 10:11	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.0	ng/L		06/21/21 19:10	06/23/21 10:11	1
Perfluorododecanoic acid (PFDoA)	ND		1.9	0.52	ng/L		06/21/21 19:10	06/23/21 10:11	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9	1.2	ng/L		06/21/21 19:10	06/23/21 10:11	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9	0.69	ng/L		06/21/21 19:10	06/23/21 10:11	1
Perfluorobutanesulfonic acid (PFBS)	**0.80**	**J**	1.9	0.19	ng/L		06/21/21 19:10	06/23/21 10:11	1
Perfluorohexanesulfonic acid (PFHxS)	**2.7**		1.9	0.54	ng/L		06/21/21 19:10	06/23/21 10:11	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	0.18	ng/L		06/21/21 19:10	06/23/21 10:11	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.9	0.51	ng/L		06/21/21 19:10	06/23/21 10:11	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9	0.30	ng/L		06/21/21 19:10	06/23/21 10:11	1
Perfluorooctanesulfonamide (FOSA)	ND		1.9	0.93	ng/L		06/21/21 19:10	06/23/21 10:11	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.7	1.1	ng/L		06/21/21 19:10	06/23/21 10:11	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.7	1.2	ng/L		06/21/21 19:10	06/23/21 10:11	1
6:2 FTS	ND		4.7	2.4	ng/L		06/21/21 19:10	06/23/21 10:11	1
8:2 FTS	ND		1.9	0.44	ng/L		06/21/21 19:10	06/23/21 10:11	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*105*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:11*	*1*
13C5 PFPeA	*101*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:11*	*1*
13C2 PFHxA	*100*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:11*	*1*
13C4 PFHpA	*101*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:11*	*1*
13C4 PFOA	*97*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:11*	*1*
13C5 PFNA	*102*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:11*	*1*
13C2 PFDA	*88*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:11*	*1*
13C2 PFUnA	*86*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:11*	*1*
13C2 PFDoA	*60*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:11*	*1*
13C2 PFTeDA	*82*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:11*	*1*
13C3 PFBS	*102*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:11*	*1*
18O2 PFHxS	*100*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:11*	*1*
13C4 PFOS	*94*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:11*	*1*
13C8 FOSA	*81*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:11*	*1*
d3-NMeFOSAA	*76*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:11*	*1*
d5-NEtFOSAA	*77*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:11*	*1*
M2-6:2 FTS	*110*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:11*	*1*
M2-8:2 FTS	*119*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:11*	*1*

Client: Pace Analytical Services, LLC
Project/Site: GMP WELLS ROUTINE 360

Job ID: 320-75066-1
SDG: 70176876

Client Sample ID: GM-4D

Date Collected: 06/14/21 13:40
Date Received: 06/17/21 10:15

Lab Sample ID: 320-75066-2

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid	**6.4**		4.6	2.2	ng/L		06/21/21 19:10	06/23/21 10:20	1
Perfluoropentanoic acid (PFPeA)	**8.9**		1.9	0.45	ng/L		06/21/21 19:10	06/23/21 10:20	1
Perfluorohexanoic acid (PFHxA)	**8.2**		1.9	0.54	ng/L		06/21/21 19:10	06/23/21 10:20	1
Perfluoroheptanoic acid	**5.6**		1.9	0.23	ng/L		06/21/21 19:10	06/23/21 10:20	1
Perfluorooctanoic acid (PFOA)	**10**		1.9	0.79	ng/L		06/21/21 19:10	06/23/21 10:20	1
Perfluorononanoic acid (PFNA)	**1.2**	**J**	1.9	0.25	ng/L		06/21/21 19:10	06/23/21 10:20	1
Perfluorodecanoic acid (PFDA)	**0.49**	**J**	1.9	0.29	ng/L		06/21/21 19:10	06/23/21 10:20	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.0	ng/L		06/21/21 19:10	06/23/21 10:20	1
Perfluorododecanoic acid (PFDoA)	ND		1.9	0.51	ng/L		06/21/21 19:10	06/23/21 10:20	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9	1.2	ng/L		06/21/21 19:10	06/23/21 10:20	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9	0.68	ng/L		06/21/21 19:10	06/23/21 10:20	1
Perfluorobutanesulfonic acid (PFBS)	**0.73**	**J**	1.9	0.19	ng/L		06/21/21 19:10	06/23/21 10:20	1
Perfluorohexanesulfonic acid (PFHxS)	**0.89**	**J**	1.9	0.53	ng/L		06/21/21 19:10	06/23/21 10:20	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	0.18	ng/L		06/21/21 19:10	06/23/21 10:20	1
Perfluorooctanesulfonic acid (PFOS)	**3.3**		1.9	0.50	ng/L		06/21/21 19:10	06/23/21 10:20	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9	0.30	ng/L		06/21/21 19:10	06/23/21 10:20	1
Perfluorooctanesulfonamide (FOSA)	ND		1.9	0.91	ng/L		06/21/21 19:10	06/23/21 10:20	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.6	1.1	ng/L		06/21/21 19:10	06/23/21 10:20	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.6	1.2	ng/L		06/21/21 19:10	06/23/21 10:20	1
6:2 FTS	ND		4.6	2.3	ng/L		06/21/21 19:10	06/23/21 10:20	1
8:2 FTS	ND		1.9	0.43	ng/L		06/21/21 19:10	06/23/21 10:20	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*106*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:20*	*1*
13C5 PFPeA	*96*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:20*	*1*
13C2 PFHxA	*100*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:20*	*1*
13C4 PFHpA	*96*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:20*	*1*
13C4 PFOA	*100*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:20*	*1*
13C5 PFNA	*105*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:20*	*1*
13C2 PFDA	*99*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:20*	*1*
13C2 PFUnA	*82*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:20*	*1*
13C2 PFDoA	*79*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:20*	*1*
13C2 PFTeDA	*75*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:20*	*1*
13C3 PFBS	*109*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:20*	*1*
18O2 PFHxS	*102*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:20*	*1*
13C4 PFOS	*101*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:20*	*1*
13C8 FOSA	*91*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:20*	*1*
d3-NMeFOSAA	*88*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:20*	*1*
d5-NEtFOSAA	*90*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:20*	*1*
M2-6:2 FTS	*133*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:20*	*1*
M2-8:2 FTS	*125*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:20*	*1*

Client: Pace Analytical Services, LLC
Project/Site: GMP WELLS ROUTINE 360

Job ID: 320-75066-1
SDG: 70176876

Client Sample ID: GM-5D

Date Collected: 06/14/21 13:45
Date Received: 06/17/21 10:15

Lab Sample ID: 320-75066-3

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid	**5.7**		4.6	2.2	ng/L		06/21/21 19:10	06/23/21 10:29	1
Perfluoropentanoic acid (PFPeA)	**8.7**		1.9	0.45	ng/L		06/21/21 19:10	06/23/21 10:29	1
Perfluorohexanoic acid (PFHxA)	**7.2**		1.9	0.54	ng/L		06/21/21 19:10	06/23/21 10:29	1
Perfluoroheptanoic acid	**6.0**		1.9	0.23	ng/L		06/21/21 19:10	06/23/21 10:29	1
Perfluorooctanoic acid (PFOA)	**14**		1.9	0.79	ng/L		06/21/21 19:10	06/23/21 10:29	1
Perfluorononanoic acid (PFNA)	**2.1**		1.9	0.25	ng/L		06/21/21 19:10	06/23/21 10:29	1
Perfluorodecanoic acid (PFDA)	**0.49**	**J**	1.9	0.29	ng/L		06/21/21 19:10	06/23/21 10:29	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.0	ng/L		06/21/21 19:10	06/23/21 10:29	1
Perfluorododecanoic acid (PFDoA)	ND		1.9	0.51	ng/L		06/21/21 19:10	06/23/21 10:29	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9	1.2	ng/L		06/21/21 19:10	06/23/21 10:29	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9	0.68	ng/L		06/21/21 19:10	06/23/21 10:29	1
Perfluorobutanesulfonic acid (PFBS)	**1.1**	**J**	1.9	0.19	ng/L		06/21/21 19:10	06/23/21 10:29	1
Perfluorohexanesulfonic acid (PFHxS)	**1.4**	**J**	1.9	0.53	ng/L		06/21/21 19:10	06/23/21 10:29	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	0.18	ng/L		06/21/21 19:10	06/23/21 10:29	1
Perfluorooctanesulfonic acid (PFOS)	**4.9**		1.9	0.50	ng/L		06/21/21 19:10	06/23/21 10:29	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9	0.30	ng/L		06/21/21 19:10	06/23/21 10:29	1
Perfluorooctanesulfonamide (FOSA)	ND		1.9	0.91	ng/L		06/21/21 19:10	06/23/21 10:29	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.6	1.1	ng/L		06/21/21 19:10	06/23/21 10:29	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.6	1.2	ng/L		06/21/21 19:10	06/23/21 10:29	1
6:2 FTS	ND		4.6	2.3	ng/L		06/21/21 19:10	06/23/21 10:29	1
8:2 FTS	ND		1.9	0.43	ng/L		06/21/21 19:10	06/23/21 10:29	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*94*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:29*	*1*
13C5 PFPeA	*97*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:29*	*1*
13C2 PFHxA	*95*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:29*	*1*
13C4 PFHpA	*103*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:29*	*1*
13C4 PFOA	*97*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:29*	*1*
13C5 PFNA	*100*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:29*	*1*
13C2 PFDA	*92*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:29*	*1*
13C2 PFUnA	*92*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:29*	*1*
13C2 PFDoA	*78*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:29*	*1*
13C2 PFTeDA	*82*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:29*	*1*
13C3 PFBS	*106*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:29*	*1*
18O2 PFHxS	*101*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:29*	*1*
13C4 PFOS	*96*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:29*	*1*
13C8 FOSA	*88*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:29*	*1*
d3-NMeFOSAA	*94*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:29*	*1*
d5-NEtFOSAA	*92*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:29*	*1*
M2-6:2 FTS	*114*		*25 - 150*	*06/21/21 19:10*	*06/23/21 10:29*	*1*
M2-8:2 FTS	*178*	**5+*	*25 - 150*	*06/21/21 19:10*	*06/23/21 10:29*	*1*

Client: Pace Analytical Services, LLC
Project/Site: GMP WELLS ROUTINE 360

Job ID: 320-75066-1
SDG: 70176876

Client Sample ID: GM-6D
Date Collected: 06/14/21 13:50
Date Received: 06/17/21 10:15

Lab Sample ID: 320-75066-4
Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid	**37**		4.7	2.3	ng/L		06/21/21 19:11	06/23/21 10:38	1
Perfluoropentanoic acid (PFPeA)	**14**		1.9	0.46	ng/L		06/21/21 19:11	06/23/21 10:38	1
Perfluorohexanoic acid (PFHxA)	**33**		1.9	0.55	ng/L		06/21/21 19:11	06/23/21 10:38	1
Perfluoroheptanoic acid	**13**		1.9	0.24	ng/L		06/21/21 19:11	06/23/21 10:38	1
Perfluorooctanoic acid (PFOA)	**42**		1.9	0.80	ng/L		06/21/21 19:11	06/23/21 10:38	1
Perfluorononanoic acid (PFNA)	**9.1**		1.9	0.26	ng/L		06/21/21 19:11	06/23/21 10:38	1
Perfluorodecanoic acid (PFDA)	**0.52**	**J**	1.9	0.29	ng/L		06/21/21 19:11	06/23/21 10:38	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.0	ng/L		06/21/21 19:11	06/23/21 10:38	1
Perfluorododecanoic acid (PFDoA)	ND		1.9	0.52	ng/L		06/21/21 19:11	06/23/21 10:38	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9	1.2	ng/L		06/21/21 19:11	06/23/21 10:38	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9	0.69	ng/L		06/21/21 19:11	06/23/21 10:38	1
Perfluorobutanesulfonic acid (PFBS)	**9.3**		1.9	0.19	ng/L		06/21/21 19:11	06/23/21 10:38	1
Perfluorohexanesulfonic acid (PFHxS)	**6.3**		1.9	0.54	ng/L		06/21/21 19:11	06/23/21 10:38	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	0.18	ng/L		06/21/21 19:11	06/23/21 10:38	1
Perfluorooctanesulfonic acid (PFOS)	**5.8**		1.9	0.51	ng/L		06/21/21 19:11	06/23/21 10:38	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9	0.30	ng/L		06/21/21 19:11	06/23/21 10:38	1
Perfluorooctanesulfonamide (FOSA)	ND		1.9	0.93	ng/L		06/21/21 19:11	06/23/21 10:38	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.7	1.1	ng/L		06/21/21 19:11	06/23/21 10:38	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	**3.7**	**J**	4.7	1.2	ng/L		06/21/21 19:11	06/23/21 10:38	1
6:2 FTS	ND		4.7	2.4	ng/L		06/21/21 19:11	06/23/21 10:38	1
8:2 FTS	ND		1.9	0.43	ng/L		06/21/21 19:11	06/23/21 10:38	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*53*		*25 - 150*	*06/21/21 19:11*	*06/23/21 10:38*	*1*
13C5 PFPeA	*62*		*25 - 150*	*06/21/21 19:11*	*06/23/21 10:38*	*1*
13C2 PFHxA	*83*		*25 - 150*	*06/21/21 19:11*	*06/23/21 10:38*	*1*
13C4 PFHpA	*87*		*25 - 150*	*06/21/21 19:11*	*06/23/21 10:38*	*1*
13C4 PFOA	*90*		*25 - 150*	*06/21/21 19:11*	*06/23/21 10:38*	*1*
13C5 PFNA	*88*		*25 - 150*	*06/21/21 19:11*	*06/23/21 10:38*	*1*
13C2 PFDA	*77*		*25 - 150*	*06/21/21 19:11*	*06/23/21 10:38*	*1*
13C2 PFUnA	*66*		*25 - 150*	*06/21/21 19:11*	*06/23/21 10:38*	*1*
13C2 PFDoA	*60*		*25 - 150*	*06/21/21 19:11*	*06/23/21 10:38*	*1*
13C2 PFTeDA	*57*		*25 - 150*	*06/21/21 19:11*	*06/23/21 10:38*	*1*
13C3 PFBS	*90*		*25 - 150*	*06/21/21 19:11*	*06/23/21 10:38*	*1*
18O2 PFHxS	*88*		*25 - 150*	*06/21/21 19:11*	*06/23/21 10:38*	*1*
13C4 PFOS	*80*		*25 - 150*	*06/21/21 19:11*	*06/23/21 10:38*	*1*
13C8 FOSA	*77*		*25 - 150*	*06/21/21 19:11*	*06/23/21 10:38*	*1*
d3-NMeFOSAA	*72*		*25 - 150*	*06/21/21 19:11*	*06/23/21 10:38*	*1*
d5-NEtFOSAA	*71*		*25 - 150*	*06/21/21 19:11*	*06/23/21 10:38*	*1*
M2-6:2 FTS	*171*	**5+*	*25 - 150*	*06/21/21 19:11*	*06/23/21 10:38*	*1*
M2-8:2 FTS	*117*		*25 - 150*	*06/21/21 19:11*	*06/23/21 10:38*	*1*

Client: Pace Analytical Services, LLC
Project/Site: GMP WELLS ROUTINE 360

Job ID: 320-75066-1
SDG: 70176876

Client Sample ID: GM-7D

Date Collected: 06/14/21 13:55
Date Received: 06/17/21 10:15

Lab Sample ID: 320-75066-5

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid	**18**		4.8	2.3	ng/L		06/21/21 19:11	06/23/21 10:47	1
Perfluoropentanoic acid (PFPeA)	**44**		1.9	0.47	ng/L		06/21/21 19:11	06/23/21 10:47	1
Perfluorohexanoic acid (PFHxA)	**35**		1.9	0.56	ng/L		06/21/21 19:11	06/23/21 10:47	1
Perfluoroheptanoic acid	**34**		1.9	0.24	ng/L		06/21/21 19:11	06/23/21 10:47	1
Perfluorooctanoic acid (PFOA)	**110**		1.9	0.82	ng/L		06/21/21 19:11	06/23/21 10:47	1
Perfluorononanoic acid (PFNA)	**28**		1.9	0.26	ng/L		06/21/21 19:11	06/23/21 10:47	1
Perfluorodecanoic acid (PFDA)	**2.7**		1.9	0.30	ng/L		06/21/21 19:11	06/23/21 10:47	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.1	ng/L		06/21/21 19:11	06/23/21 10:47	1
Perfluorododecanoic acid (PFDoA)	ND		1.9	0.53	ng/L		06/21/21 19:11	06/23/21 10:47	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9	1.3	ng/L		06/21/21 19:11	06/23/21 10:47	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9	0.70	ng/L		06/21/21 19:11	06/23/21 10:47	1
Perfluorobutanesulfonic acid (PFBS)	**4.8**		1.9	0.19	ng/L		06/21/21 19:11	06/23/21 10:47	1
Perfluorohexanesulfonic acid (PFHxS)	**30**		1.9	0.55	ng/L		06/21/21 19:11	06/23/21 10:47	1
Perfluoroheptanesulfonic Acid (PFHpS)	**3.0**		1.9	0.18	ng/L		06/21/21 19:11	06/23/21 10:47	1
Perfluorooctanesulfonic acid (PFOS)	**140**		1.9	0.52	ng/L		06/21/21 19:11	06/23/21 10:47	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9	0.31	ng/L		06/21/21 19:11	06/23/21 10:47	1
Perfluorooctanesulfonamide (FOSA)	ND		1.9	0.94	ng/L		06/21/21 19:11	06/23/21 10:47	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.8	1.2	ng/L		06/21/21 19:11	06/23/21 10:47	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.8	1.3	ng/L		06/21/21 19:11	06/23/21 10:47	1
6:2 FTS	ND		4.8	2.4	ng/L		06/21/21 19:11	06/23/21 10:47	1
8:2 FTS	ND		1.9	0.44	ng/L		06/21/21 19:11	06/23/21 10:47	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*37*		*25 - 150*	*06/21/21 19:11*	*06/23/21 10:47*	*1*
13C5 PFPeA	*59*		*25 - 150*	*06/21/21 19:11*	*06/23/21 10:47*	*1*
13C2 PFHxA	*76*		*25 - 150*	*06/21/21 19:11*	*06/23/21 10:47*	*1*
13C4 PFHpA	*84*		*25 - 150*	*06/21/21 19:11*	*06/23/21 10:47*	*1*
13C4 PFOA	*91*		*25 - 150*	*06/21/21 19:11*	*06/23/21 10:47*	*1*
13C5 PFNA	*92*		*25 - 150*	*06/21/21 19:11*	*06/23/21 10:47*	*1*
13C2 PFDA	*93*		*25 - 150*	*06/21/21 19:11*	*06/23/21 10:47*	*1*
13C2 PFUnA	*93*		*25 - 150*	*06/21/21 19:11*	*06/23/21 10:47*	*1*
13C2 PFDoA	*89*		*25 - 150*	*06/21/21 19:11*	*06/23/21 10:47*	*1*
13C2 PFTeDA	*74*		*25 - 150*	*06/21/21 19:11*	*06/23/21 10:47*	*1*
13C3 PFBS	*92*		*25 - 150*	*06/21/21 19:11*	*06/23/21 10:47*	*1*
18O2 PFHxS	*90*		*25 - 150*	*06/21/21 19:11*	*06/23/21 10:47*	*1*
13C4 PFOS	*95*		*25 - 150*	*06/21/21 19:11*	*06/23/21 10:47*	*1*
13C8 FOSA	*89*		*25 - 150*	*06/21/21 19:11*	*06/23/21 10:47*	*1*
d3-NMeFOSAA	*89*		*25 - 150*	*06/21/21 19:11*	*06/23/21 10:47*	*1*
d5-NEtFOSAA	*93*		*25 - 150*	*06/21/21 19:11*	*06/23/21 10:47*	*1*
M2-6:2 FTS	*259*	**5+*	*25 - 150*	*06/21/21 19:11*	*06/23/21 10:47*	*1*
M2-8:2 FTS	*220*	**5+*	*25 - 150*	*06/21/21 19:11*	*06/23/21 10:47*	*1*

Client: Pace Analytical Services, LLC
Project/Site: GMP WELLS ROUTINE 360

Job ID: 320-75066-1
SDG: 70176876

Client Sample ID: GM-15D
Date Collected: 06/14/21 11:30
Date Received: 06/17/21 10:15

Lab Sample ID: 320-75066-6
Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid	**2.3**	**J**	4.8	2.3	ng/L		06/21/21 19:11	06/23/21 11:17	1
Perfluoropentanoic acid (PFPeA)	**0.60**	**J**	1.9	0.47	ng/L		06/21/21 19:11	06/23/21 11:17	1
Perfluorohexanoic acid (PFHxA)	**1.5**	**J**	1.9	0.56	ng/L		06/21/21 19:11	06/23/21 11:17	1
Perfluoroheptanoic acid	**0.64**	**J**	1.9	0.24	ng/L		06/21/21 19:11	06/23/21 11:17	1
Perfluorooctanoic acid (PFOA)	**0.82**	**J**	1.9	0.82	ng/L		06/21/21 19:11	06/23/21 11:17	1
Perfluorononanoic acid (PFNA)	**1.1**	**J**	1.9	0.26	ng/L		06/21/21 19:11	06/23/21 11:17	1
Perfluorodecanoic acid (PFDA)	**0.35**	**J**	1.9	0.30	ng/L		06/21/21 19:11	06/23/21 11:17	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.1	ng/L		06/21/21 19:11	06/23/21 11:17	1
Perfluorododecanoic acid (PFDoA)	ND		1.9	0.53	ng/L		06/21/21 19:11	06/23/21 11:17	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9	1.3	ng/L		06/21/21 19:11	06/23/21 11:17	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9	0.70	ng/L		06/21/21 19:11	06/23/21 11:17	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.9	0.19	ng/L		06/21/21 19:11	06/23/21 11:17	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.9	0.55	ng/L		06/21/21 19:11	06/23/21 11:17	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	0.18	ng/L		06/21/21 19:11	06/23/21 11:17	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.9	0.52	ng/L		06/21/21 19:11	06/23/21 11:17	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9	0.31	ng/L		06/21/21 19:11	06/23/21 11:17	1
Perfluorooctanesulfonamide (FOSA)	ND		1.9	0.94	ng/L		06/21/21 19:11	06/23/21 11:17	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.8	1.2	ng/L		06/21/21 19:11	06/23/21 11:17	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.8	1.3	ng/L		06/21/21 19:11	06/23/21 11:17	1
6:2 FTS	ND		4.8	2.4	ng/L		06/21/21 19:11	06/23/21 11:17	1
8:2 FTS	ND		1.9	0.44	ng/L		06/21/21 19:11	06/23/21 11:17	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*83*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:17*	*1*
13C5 PFPeA	*87*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:17*	*1*
13C2 PFHxA	*94*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:17*	*1*
13C4 PFHpA	*95*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:17*	*1*
13C4 PFOA	*95*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:17*	*1*
13C5 PFNA	*97*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:17*	*1*
13C2 PFDA	*86*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:17*	*1*
13C2 PFUnA	*81*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:17*	*1*
13C2 PFDoA	*71*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:17*	*1*
13C2 PFTeDA	*78*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:17*	*1*
13C3 PFBS	*101*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:17*	*1*
18O2 PFHxS	*89*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:17*	*1*
13C4 PFOS	*90*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:17*	*1*
13C8 FOSA	*80*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:17*	*1*
d3-NMeFOSAA	*85*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:17*	*1*
d5-NEtFOSAA	*78*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:17*	*1*
M2-6:2 FTS	*204*	**5+*	*25 - 150*	*06/21/21 19:11*	*06/23/21 11:17*	*1*
M2-8:2 FTS	*181*	**5+*	*25 - 150*	*06/21/21 19:11*	*06/23/21 11:17*	*1*

Client: Pace Analytical Services, LLC
Project/Site: GMP WELLS ROUTINE 360

Job ID: 320-75066-1
SDG: 70176876

Client Sample ID: GM-16D

Date Collected: 06/14/21 11:10
Date Received: 06/17/21 10:15

Lab Sample ID: 320-75066-7

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid	**3.0**	**J**	5.0	2.4	ng/L		06/21/21 19:11	06/23/21 11:26	1
Perfluoropentanoic acid (PFPeA)	**4.0**		2.0	0.49	ng/L		06/21/21 19:11	06/23/21 11:26	1
Perfluorohexanoic acid (PFHxA)	**3.7**		2.0	0.58	ng/L		06/21/21 19:11	06/23/21 11:26	1
Perfluoroheptanoic acid	**2.8**		2.0	0.25	ng/L		06/21/21 19:11	06/23/21 11:26	1
Perfluorooctanoic acid (PFOA)	**4.1**		2.0	0.85	ng/L		06/21/21 19:11	06/23/21 11:26	1
Perfluorononanoic acid (PFNA)	**2.1**		2.0	0.27	ng/L		06/21/21 19:11	06/23/21 11:26	1
Perfluorodecanoic acid (PFDA)	**0.56**	**J**	2.0	0.31	ng/L		06/21/21 19:11	06/23/21 11:26	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	1.1	ng/L		06/21/21 19:11	06/23/21 11:26	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.55	ng/L		06/21/21 19:11	06/23/21 11:26	1
Perfluorotridecanoic acid (PFTriA)	ND		2.0	1.3	ng/L		06/21/21 19:11	06/23/21 11:26	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.73	ng/L		06/21/21 19:11	06/23/21 11:26	1
Perfluorobutanesulfonic acid (PFBS)	**1.2**	**J**	2.0	0.20	ng/L		06/21/21 19:11	06/23/21 11:26	1
Perfluorohexanesulfonic acid (PFHxS)	**0.68**	**J**	2.0	0.57	ng/L		06/21/21 19:11	06/23/21 11:26	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0	0.19	ng/L		06/21/21 19:11	06/23/21 11:26	1
Perfluorooctanesulfonic acid (PFOS)	**2.1**		2.0	0.54	ng/L		06/21/21 19:11	06/23/21 11:26	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.32	ng/L		06/21/21 19:11	06/23/21 11:26	1
Perfluorooctanesulfonamide (FOSA)	ND		2.0	0.98	ng/L		06/21/21 19:11	06/23/21 11:26	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		5.0	1.2	ng/L		06/21/21 19:11	06/23/21 11:26	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		5.0	1.3	ng/L		06/21/21 19:11	06/23/21 11:26	1
6:2 FTS	ND		5.0	2.5	ng/L		06/21/21 19:11	06/23/21 11:26	1
8:2 FTS	ND		2.0	0.46	ng/L		06/21/21 19:11	06/23/21 11:26	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*108*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:26*	*1*
13C5 PFPeA	*106*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:26*	*1*
13C2 PFHxA	*109*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:26*	*1*
13C4 PFHpA	*104*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:26*	*1*
13C4 PFOA	*108*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:26*	*1*
13C5 PFNA	*110*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:26*	*1*
13C2 PFDA	*98*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:26*	*1*
13C2 PFUnA	*89*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:26*	*1*
13C2 PFDoA	*77*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:26*	*1*
13C2 PFTeDA	*81*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:26*	*1*
13C3 PFBS	*113*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:26*	*1*
18O2 PFHxS	*106*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:26*	*1*
13C4 PFOS	*102*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:26*	*1*
13C8 FOSA	*93*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:26*	*1*
d3-NMeFOSAA	*92*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:26*	*1*
d5-NEtFOSAA	*99*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:26*	*1*
M2-6:2 FTS	*161*	**5+*	*25 - 150*	*06/21/21 19:11*	*06/23/21 11:26*	*1*
M2-8:2 FTS	*168*	**5+*	*25 - 150*	*06/21/21 19:11*	*06/23/21 11:26*	*1*

Client: Pace Analytical Services, LLC
Project/Site: GMP WELLS ROUTINE 360

Job ID: 320-75066-1
SDG: 70176876

Client Sample ID: GM-17D
Date Collected: 06/14/21 11:05
Date Received: 06/17/21 10:15

Lab Sample ID: 320-75066-8
Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid	**7.0**		4.8	2.3	ng/L		06/21/21 19:11	06/23/21 11:35	1
Perfluoropentanoic acid (PFPeA)	**7.5**		1.9	0.47	ng/L		06/21/21 19:11	06/23/21 11:35	1
Perfluorohexanoic acid (PFHxA)	**6.9**		1.9	0.56	ng/L		06/21/21 19:11	06/23/21 11:35	1
Perfluoroheptanoic acid	**5.7**		1.9	0.24	ng/L		06/21/21 19:11	06/23/21 11:35	1
Perfluorooctanoic acid (PFOA)	**10**		1.9	0.81	ng/L		06/21/21 19:11	06/23/21 11:35	1
Perfluorononanoic acid (PFNA)	**1.1**	**J**	1.9	0.26	ng/L		06/21/21 19:11	06/23/21 11:35	1
Perfluorodecanoic acid (PFDA)	**0.59**	**J**	1.9	0.30	ng/L		06/21/21 19:11	06/23/21 11:35	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.1	ng/L		06/21/21 19:11	06/23/21 11:35	1
Perfluorododecanoic acid (PFDoA)	ND		1.9	0.53	ng/L		06/21/21 19:11	06/23/21 11:35	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9	1.2	ng/L		06/21/21 19:11	06/23/21 11:35	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9	0.70	ng/L		06/21/21 19:11	06/23/21 11:35	1
Perfluorobutanesulfonic acid (PFBS)	**0.80**	**J**	1.9	0.19	ng/L		06/21/21 19:11	06/23/21 11:35	1
Perfluorohexanesulfonic acid (PFHxS)	**0.87**	**J**	1.9	0.55	ng/L		06/21/21 19:11	06/23/21 11:35	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	0.18	ng/L		06/21/21 19:11	06/23/21 11:35	1
Perfluorooctanesulfonic acid (PFOS)	**2.8**	**I**	1.9	0.52	ng/L		06/21/21 19:11	06/23/21 11:35	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9	0.31	ng/L		06/21/21 19:11	06/23/21 11:35	1
Perfluorooctanesulfonamide (FOSA)	ND		1.9	0.94	ng/L		06/21/21 19:11	06/23/21 11:35	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.8	1.1	ng/L		06/21/21 19:11	06/23/21 11:35	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.8	1.2	ng/L		06/21/21 19:11	06/23/21 11:35	1
6:2 FTS	ND		4.8	2.4	ng/L		06/21/21 19:11	06/23/21 11:35	1
8:2 FTS	ND		1.9	0.44	ng/L		06/21/21 19:11	06/23/21 11:35	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*96*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:35*	*1*
13C5 PFPeA	*103*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:35*	*1*
13C2 PFHxA	*103*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:35*	*1*
13C4 PFHpA	*99*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:35*	*1*
13C4 PFOA	*99*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:35*	*1*
13C5 PFNA	*110*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:35*	*1*
13C2 PFDA	*97*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:35*	*1*
13C2 PFUnA	*100*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:35*	*1*
13C2 PFDoA	*77*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:35*	*1*
13C2 PFTeDA	*79*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:35*	*1*
13C3 PFBS	*114*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:35*	*1*
18O2 PFHxS	*104*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:35*	*1*
13C4 PFOS	*99*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:35*	*1*
13C8 FOSA	*90*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:35*	*1*
d3-NMeFOSAA	*94*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:35*	*1*
d5-NEtFOSAA	*97*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:35*	*1*
M2-6:2 FTS	*139*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:35*	*1*
M2-8:2 FTS	*135*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:35*	*1*

Client: Pace Analytical Services, LLC
Project/Site: GMP WELLS ROUTINE 360

Job ID: 320-75066-1
SDG: 70176876

Client Sample ID: GM-18D

Date Collected: 06/14/21 10:33
Date Received: 06/17/21 10:15

Lab Sample ID: 320-75066-9

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid	**17**		4.7	2.2	ng/L		06/21/21 19:11	06/23/21 11:44	1
Perfluoropentanoic acid (PFPeA)	**29**		1.9	0.46	ng/L		06/21/21 19:11	06/23/21 11:44	1
Perfluorohexanoic acid (PFHxA)	**22**		1.9	0.54	ng/L		06/21/21 19:11	06/23/21 11:44	1
Perfluoroheptanoic acid	**17**		1.9	0.23	ng/L		06/21/21 19:11	06/23/21 11:44	1
Perfluorooctanoic acid (PFOA)	**32**		1.9	0.79	ng/L		06/21/21 19:11	06/23/21 11:44	1
Perfluorononanoic acid (PFNA)	**8.6**		1.9	0.25	ng/L		06/21/21 19:11	06/23/21 11:44	1
Perfluorodecanoic acid (PFDA)	**4.1**		1.9	0.29	ng/L		06/21/21 19:11	06/23/21 11:44	1
Perfluoroundecanoic acid (PFUnA)	**2.0**		1.9	1.0	ng/L		06/21/21 19:11	06/23/21 11:44	1
Perfluorododecanoic acid (PFDoA)	ND		1.9	0.51	ng/L		06/21/21 19:11	06/23/21 11:44	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9	1.2	ng/L		06/21/21 19:11	06/23/21 11:44	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9	0.68	ng/L		06/21/21 19:11	06/23/21 11:44	1
Perfluorobutanesulfonic acid (PFBS)	**3.7**		1.9	0.19	ng/L		06/21/21 19:11	06/23/21 11:44	1
Perfluorohexanesulfonic acid (PFHxS)	**10**		1.9	0.53	ng/L		06/21/21 19:11	06/23/21 11:44	1
Perfluoroheptanesulfonic Acid (PFHpS)	**0.47**	**J**	1.9	0.18	ng/L		06/21/21 19:11	06/23/21 11:44	1
Perfluorooctanesulfonic acid (PFOS)	**31**		1.9	0.50	ng/L		06/21/21 19:11	06/23/21 11:44	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9	0.30	ng/L		06/21/21 19:11	06/23/21 11:44	1
Perfluorooctanesulfonamide (FOSA)	**0.96**	**J**	1.9	0.92	ng/L		06/21/21 19:11	06/23/21 11:44	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.7	1.1	ng/L		06/21/21 19:11	06/23/21 11:44	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	**3.1**	**J**	4.7	1.2	ng/L		06/21/21 19:11	06/23/21 11:44	1
6:2 FTS	**7.3**		4.7	2.3	ng/L		06/21/21 19:11	06/23/21 11:44	1
8:2 FTS	**0.64**	**J**	1.9	0.43	ng/L		06/21/21 19:11	06/23/21 11:44	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*77*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:44*	*1*
13C5 PFPeA	*89*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:44*	*1*
13C2 PFHxA	*97*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:44*	*1*
13C4 PFHpA	*101*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:44*	*1*
13C4 PFOA	*101*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:44*	*1*
13C5 PFNA	*105*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:44*	*1*
13C2 PFDA	*107*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:44*	*1*
13C2 PFUnA	*63*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:44*	*1*
13C2 PFDoA	*38*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:44*	*1*
13C2 PFTeDA	*83*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:44*	*1*
13C3 PFBS	*106*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:44*	*1*
18O2 PFHxS	*102*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:44*	*1*
13C4 PFOS	*100*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:44*	*1*
13C8 FOSA	*110*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:44*	*1*
d3-NMeFOSAA	*76*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:44*	*1*
d5-NEtFOSAA	*39*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:44*	*1*
M2-6:2 FTS	*249*	**5+*	*25 - 150*	*06/21/21 19:11*	*06/23/21 11:44*	*1*
M2-8:2 FTS	*275*	**5+*	*25 - 150*	*06/21/21 19:11*	*06/23/21 11:44*	*1*

Client Sample ID: GM-18D

Date Collected: 06/14/21 10:33
Date Received: 06/17/21 10:15

Lab Sample ID: 320-75066-9

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
6:2 FTS	ND		93	47	ng/L		06/21/21 19:11	06/25/21 11:52	20
8:2 FTS	ND		37	8.6	ng/L		06/21/21 19:11	06/25/21 11:52	20

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-6:2 FTS	*94*		*25 - 150*	*06/21/21 19:11*	*06/25/21 11:52*	*20*
M2-8:2 FTS	*140*		*25 - 150*	*06/21/21 19:11*	*06/25/21 11:52*	*20*

Client Sample ID: GM-19D

Date Collected: 06/14/21 10:25
Date Received: 06/17/21 10:15

Lab Sample ID: 320-75066-10

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid	**6.3**		4.8	2.3	ng/L		06/21/21 19:11	06/23/21 11:53	1
Perfluoropentanoic acid (PFPeA)	**11**		1.9	0.47	ng/L		06/21/21 19:11	06/23/21 11:53	1
Perfluorohexanoic acid (PFHxA)	**13**		1.9	0.55	ng/L		06/21/21 19:11	06/23/21 11:53	1
Perfluoroheptanoic acid	**17**		1.9	0.24	ng/L		06/21/21 19:11	06/23/21 11:53	1
Perfluorooctanoic acid (PFOA)	**110**		1.9	0.81	ng/L		06/21/21 19:11	06/23/21 11:53	1
Perfluorononanoic acid (PFNA)	**7.3**		1.9	0.26	ng/L		06/21/21 19:11	06/23/21 11:53	1
Perfluorodecanoic acid (PFDA)	**2.6**		1.9	0.30	ng/L		06/21/21 19:11	06/23/21 11:53	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.0	ng/L		06/21/21 19:11	06/23/21 11:53	1
Perfluorododecanoic acid (PFDoA)	ND		1.9	0.52	ng/L		06/21/21 19:11	06/23/21 11:53	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9	1.2	ng/L		06/21/21 19:11	06/23/21 11:53	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9	0.70	ng/L		06/21/21 19:11	06/23/21 11:53	1
Perfluorobutanesulfonic acid (PFBS)	**1.7**	**J**	1.9	0.19	ng/L		06/21/21 19:11	06/23/21 11:53	1
Perfluorohexanesulfonic acid (PFHxS)	**3.6**		1.9	0.54	ng/L		06/21/21 19:11	06/23/21 11:53	1
Perfluoroheptanesulfonic Acid (PFHpS)	**0.76**	**J**	1.9	0.18	ng/L		06/21/21 19:11	06/23/21 11:53	1
Perfluorooctanesulfonic acid (PFOS)	**37**		1.9	0.51	ng/L		06/21/21 19:11	06/23/21 11:53	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9	0.30	ng/L		06/21/21 19:11	06/23/21 11:53	1
Perfluorooctanesulfonamide (FOSA)	ND		1.9	0.93	ng/L		06/21/21 19:11	06/23/21 11:53	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.8	1.1	ng/L		06/21/21 19:11	06/23/21 11:53	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.8	1.2	ng/L		06/21/21 19:11	06/23/21 11:53	1
6:2 FTS	ND		4.8	2.4	ng/L		06/21/21 19:11	06/23/21 11:53	1
8:2 FTS	ND		1.9	0.44	ng/L		06/21/21 19:11	06/23/21 11:53	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*103*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:53*	*1*
13C5 PFPeA	*99*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:53*	*1*
13C2 PFHxA	*103*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:53*	*1*
13C4 PFHpA	*103*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:53*	*1*
13C4 PFOA	*100*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:53*	*1*
13C5 PFNA	*102*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:53*	*1*
13C2 PFDA	*96*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:53*	*1*
13C2 PFUnA	*92*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:53*	*1*
13C2 PFDoA	*78*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:53*	*1*
13C2 PFTeDA	*84*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:53*	*1*
13C3 PFBS	*114*		*25 - 150*	*06/21/21 19:11*	*06/23/21 11:53*	*1*

Client: Pace Analytical Services, LLC
Project/Site: GMP WELLS ROUTINE 360

Job ID: 320-75066-1
SDG: 70176876

Client Sample ID: GM-19D
Date Collected: 06/14/21 10:25
Date Received: 06/17/21 10:15

Lab Sample ID: 320-75066-10
Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	103		25 - 150	06/21/21 19:11	06/23/21 11:53	1
13C4 PFOS	98		25 - 150	06/21/21 19:11	06/23/21 11:53	1
13C8 FOSA	89		25 - 150	06/21/21 19:11	06/23/21 11:53	1
d3-NMeFOSAA	94		25 - 150	06/21/21 19:11	06/23/21 11:53	1
d5-NEtFOSAA	97		25 - 150	06/21/21 19:11	06/23/21 11:53	1
M2-6:2 FTS	129		25 - 150	06/21/21 19:11	06/23/21 11:53	1
M2-8:2 FTS	143		25 - 150	06/21/21 19:11	06/23/21 11:53	1

Isotope Dilution Summary

Client: Pace Analytical Services, LLC
Project/Site: GMP WELLS ROUTINE 360

Job ID: 320-75066-1
SDG: 70176876

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
320-75066-1	GM-2D	105	101	100	101	97	102	88	86
320-75066-2	GM-4D	106	96	100	96	100	105	99	82
320-75066-3	GM-5D	94	97	95	103	97	100	92	92
320-75066-4	GM-6D	53	62	83	87	90	88	77	66
320-75066-5	GM-7D	37	59	76	84	91	92	93	93
320-75066-6	GM-15D	83	87	94	95	95	97	86	81
320-75066-7	GM-16D	108	106	109	104	108	110	98	89
320-75066-8	GM-17D	96	103	103	99	99	110	97	100
320-75066-9	GM-18D	77	89	97	101	101	105	107	63
320-75066-9 - DL	GM-18D								
320-75066-10	GM-19D	103	99	103	103	100	102	96	92
LCS 320-500399/2-A	Lab Control Sample	100	98	101	103	103	103	101	105
LCSD 320-500399/3-A	Lab Control Sample Dup	97	91	95	101	99	96	92	93
MB 320-500399/1-A	Method Blank	115	105	110	113	110	110	108	105

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFDoA (25-150)	PFTDA (25-150)	C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	PFOSA (25-150)	d3NMFOS (25-150)	d5NEFOS (25-150)
320-75066-1	GM-2D	60	82	102	100	94	81	76	77
320-75066-2	GM-4D	79	75	109	102	101	91	88	90
320-75066-3	GM-5D	78	82	106	101	96	88	94	92
320-75066-4	GM-6D	60	57	90	88	80	77	72	71
320-75066-5	GM-7D	89	74	92	90	95	89	89	93
320-75066-6	GM-15D	71	78	101	89	90	80	85	78
320-75066-7	GM-16D	77	81	113	106	102	93	92	99
320-75066-8	GM-17D	77	79	114	104	99	90	94	97
320-75066-9	GM-18D	38	83	106	102	100	110	76	39
320-75066-9 - DL	GM-18D								
320-75066-10	GM-19D	78	84	114	103	98	89	94	97
LCS 320-500399/2-A	Lab Control Sample	97	94	106	101	103	95	94	96
LCSD 320-500399/3-A	Lab Control Sample Dup	99	91	100	97	96	93	101	98
MB 320-500399/1-A	Method Blank	96	97	111	108	105	101	104	103

		Percent Isotope Dilution Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	M262FTS (25-150)	M282FTS (25-150)
320-75066-1	GM-2D	110	119
320-75066-2	GM-4D	133	125
320-75066-3	GM-5D	114	178 *5+
320-75066-4	GM-6D	171 *5+	117
320-75066-5	GM-7D	259 *5+	220 *5+
320-75066-6	GM-15D	204 *5+	181 *5+
320-75066-7	GM-16D	161 *5+	168 *5+
320-75066-8	GM-17D	139	135
320-75066-9	GM-18D	249 *5+	275 *5+
320-75066-9 - DL	GM-18D	94	140
320-75066-10	GM-19D	129	143
LCS 320-500399/2-A	Lab Control Sample	108	145
LCSD 320-500399/3-A	Lab Control Sample Dup	103	105
MB 320-500399/1-A	Method Blank	123	151 *5+

Isotope Dilution Summary

Client: Pace Analytical Services, LLC
Project/Site: GMP WELLS ROUTINE 360

Job ID: 320-75066-1
SDG: 70176876

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
PFHxA = 13C2 PFHxA
C4PFHA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFNA = 13C5 PFNA
PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA
PFDoA = 13C2 PFDoA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
PFHxS = 18O2 PFHxS
PFOS = 13C4 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 320-500399/1-A
Matrix: Water
Analysis Batch: 500940

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 500399

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid	ND		5.0	2.4	ng/L		06/21/21 19:10	06/23/21 09:25	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.49	ng/L		06/21/21 19:10	06/23/21 09:25	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.58	ng/L		06/21/21 19:10	06/23/21 09:25	1
Perfluoroheptanoic acid	ND		2.0	0.25	ng/L		06/21/21 19:10	06/23/21 09:25	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.85	ng/L		06/21/21 19:10	06/23/21 09:25	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.27	ng/L		06/21/21 19:10	06/23/21 09:25	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.31	ng/L		06/21/21 19:10	06/23/21 09:25	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	1.1	ng/L		06/21/21 19:10	06/23/21 09:25	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.55	ng/L		06/21/21 19:10	06/23/21 09:25	1
Perfluorotridecanoic acid (PFTriA)	ND		2.0	1.3	ng/L		06/21/21 19:10	06/23/21 09:25	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.73	ng/L		06/21/21 19:10	06/23/21 09:25	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.20	ng/L		06/21/21 19:10	06/23/21 09:25	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.57	ng/L		06/21/21 19:10	06/23/21 09:25	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0	0.19	ng/L		06/21/21 19:10	06/23/21 09:25	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.54	ng/L		06/21/21 19:10	06/23/21 09:25	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.32	ng/L		06/21/21 19:10	06/23/21 09:25	1
Perfluorooctanesulfonamide (FOSA)	ND		2.0	0.98	ng/L		06/21/21 19:10	06/23/21 09:25	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		5.0	1.2	ng/L		06/21/21 19:10	06/23/21 09:25	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		5.0	1.3	ng/L		06/21/21 19:10	06/23/21 09:25	1
6:2 FTS	ND		5.0	2.5	ng/L		06/21/21 19:10	06/23/21 09:25	1
8:2 FTS	ND		2.0	0.46	ng/L		06/21/21 19:10	06/23/21 09:25	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*115*		*25 - 150*	*06/21/21 19:10*	*06/23/21 09:25*	*1*
13C5 PFPeA	*105*		*25 - 150*	*06/21/21 19:10*	*06/23/21 09:25*	*1*
13C2 PFHxA	*110*		*25 - 150*	*06/21/21 19:10*	*06/23/21 09:25*	*1*
13C4 PFHpA	*113*		*25 - 150*	*06/21/21 19:10*	*06/23/21 09:25*	*1*
13C4 PFOA	*110*		*25 - 150*	*06/21/21 19:10*	*06/23/21 09:25*	*1*
13C5 PFNA	*110*		*25 - 150*	*06/21/21 19:10*	*06/23/21 09:25*	*1*
13C2 PFDA	*108*		*25 - 150*	*06/21/21 19:10*	*06/23/21 09:25*	*1*
13C2 PFUnA	*105*		*25 - 150*	*06/21/21 19:10*	*06/23/21 09:25*	*1*
13C2 PFDoA	*96*		*25 - 150*	*06/21/21 19:10*	*06/23/21 09:25*	*1*
13C2 PFTeDA	*97*		*25 - 150*	*06/21/21 19:10*	*06/23/21 09:25*	*1*
13C3 PFBS	*111*		*25 - 150*	*06/21/21 19:10*	*06/23/21 09:25*	*1*
18O2 PFHxS	*108*		*25 - 150*	*06/21/21 19:10*	*06/23/21 09:25*	*1*
13C4 PFOS	*105*		*25 - 150*	*06/21/21 19:10*	*06/23/21 09:25*	*1*
13C8 FOSA	*101*		*25 - 150*	*06/21/21 19:10*	*06/23/21 09:25*	*1*
d3-NMeFOSAA	*104*		*25 - 150*	*06/21/21 19:10*	*06/23/21 09:25*	*1*
d5-NEtFOSAA	*103*		*25 - 150*	*06/21/21 19:10*	*06/23/21 09:25*	*1*
M2-6:2 FTS	*123*		*25 - 150*	*06/21/21 19:10*	*06/23/21 09:25*	*1*
M2-8:2 FTS	*151*	**5+*	*25 - 150*	*06/21/21 19:10*	*06/23/21 09:25*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-500399/2-A
Matrix: Water
Analysis Batch: 500940

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 500399

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid	40.0	42.7		ng/L		107	76 - 136
Perfluoropentanoic acid (PFPeA)	40.0	45.1		ng/L		113	71 - 131
Perfluorohexanoic acid (PFHxA)	40.0	42.3		ng/L		106	73 - 133
Perfluoroheptanoic acid	40.0	44.9		ng/L		112	72 - 132
Perfluorooctanoic acid (PFOA)	40.0	43.7		ng/L		109	70 - 130
Perfluorononanoic acid (PFNA)	40.0	46.4		ng/L		116	75 - 135
Perfluorodecanoic acid (PFDA)	40.0	40.8		ng/L		102	76 - 136
Perfluoroundecanoic acid (PFUnA)	40.0	44.3		ng/L		111	68 - 128
Perfluorododecanoic acid (PFDoA)	40.0	47.0		ng/L		118	71 - 131
Perfluorotridecanoic acid (PFTriA)	40.0	44.5		ng/L		111	71 - 131
Perfluorotetradecanoic acid (PFTeA)	40.0	47.1		ng/L		118	70 - 130
Perfluorobutanesulfonic acid (PFBS)	35.4	35.7		ng/L		101	67 - 127
Perfluorohexanesulfonic acid (PFHxS)	36.4	39.0		ng/L		107	59 - 119
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	41.5		ng/L		109	76 - 136
Perfluorooctanesulfonic acid (PFOS)	37.1	38.9		ng/L		105	70 - 130
Perfluorodecanesulfonic acid (PFDS)	38.6	40.3		ng/L		104	71 - 131
Perfluorooctanesulfonamide (FOSA)	40.0	44.9		ng/L		112	73 - 133
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	45.4		ng/L		114	76 - 136
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	45.2		ng/L		113	76 - 136
6:2 FTS	37.9	43.9		ng/L		116	59 - 175
8:2 FTS	38.3	40.5		ng/L		106	75 - 135

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*100*		*25 - 150*
13C5 PFPeA	*98*		*25 - 150*
13C2 PFHxA	*101*		*25 - 150*
13C4 PFHpA	*103*		*25 - 150*
13C4 PFOA	*103*		*25 - 150*
13C5 PFNA	*103*		*25 - 150*
13C2 PFDA	*101*		*25 - 150*
13C2 PFUnA	*105*		*25 - 150*
13C2 PFDoA	*97*		*25 - 150*
13C2 PFTeDA	*94*		*25 - 150*
13C3 PFBS	*106*		*25 - 150*
18O2 PFHxS	*101*		*25 - 150*
13C4 PFOS	*103*		*25 - 150*
13C8 FOSA	*95*		*25 - 150*
d3-NMeFOSAA	*94*		*25 - 150*
d5-NEtFOSAA	*96*		*25 - 150*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-500399/2-A
Matrix: Water
Analysis Batch: 500940

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 500399

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
M2-6:2 FTS	*108*		*25 - 150*
M2-8:2 FTS	*145*		*25 - 150*

Lab Sample ID: LCSD 320-500399/3-A
Matrix: Water
Analysis Batch: 500940

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 500399

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorobutanoic acid			40.0	43.4		ng/L		109	76 - 136	2	30
Perfluoropentanoic acid (PFPeA)			40.0	44.6		ng/L		111	71 - 131	1	30
Perfluorohexanoic acid (PFHxA)			40.0	40.3		ng/L		101	73 - 133	5	30
Perfluoroheptanoic acid			40.0	41.9		ng/L		105	72 - 132	7	30
Perfluorooctanoic acid (PFOA)			40.0	43.1		ng/L		108	70 - 130	1	30
Perfluorononanoic acid (PFNA)			40.0	44.8		ng/L		112	75 - 135	4	30
Perfluorodecanoic acid (PFDA)			40.0	43.8		ng/L		110	76 - 136	7	30
Perfluoroundecanoic acid (PFUnA)			40.0	43.9		ng/L		110	68 - 128	1	30
Perfluorododecanoic acid (PFDoA)			40.0	41.5		ng/L		104	71 - 131	12	30
Perfluorotridecanoic acid (PFTriA)			40.0	44.2		ng/L		111	71 - 131	1	30
Perfluorotetradecanoic acid (PFTeA)			40.0	45.0		ng/L		113	70 - 130	5	30
Perfluorobutanesulfonic acid (PFBS)			35.4	33.7		ng/L		95	67 - 127	6	30
Perfluorohexanesulfonic acid (PFHxS)			36.4	37.1		ng/L		102	59 - 119	5	30
Perfluoroheptanesulfonic Acid (PFHpS)			38.1	41.9		ng/L		110	76 - 136	1	30
Perfluorooctanesulfonic acid (PFOS)			37.1	40.1		ng/L		108	70 - 130	3	30
Perfluorodecanesulfonic acid (PFDS)			38.6	41.0		ng/L		106	71 - 131	2	30
Perfluorooctanesulfonamide (FOSA)			40.0	40.6		ng/L		102	73 - 133	10	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)			40.0	38.4		ng/L		96	76 - 136	17	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)			40.0	42.0		ng/L		105	76 - 136	7	30
6:2 FTS			37.9	41.2		ng/L		109	59 - 175	6	30
8:2 FTS			38.3	43.8		ng/L		114	75 - 135	8	30

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C4 PFBA	*97*		*25 - 150*
13C5 PFPeA	*91*		*25 - 150*
13C2 PFHxA	*95*		*25 - 150*
13C4 PFHpA	*101*		*25 - 150*
13C4 PFOA	*99*		*25 - 150*
13C5 PFNA	*96*		*25 - 150*
13C2 PFDA	*92*		*25 - 150*
13C2 PFUnA	*93*		*25 - 150*
13C2 PFDoA	*99*		*25 - 150*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 320-500399/3-A
Matrix: Water
Analysis Batch: 500940

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 500399

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C2 PFTeDA	91		25 - 150
13C3 PFBS	100		25 - 150
18O2 PFHxS	97		25 - 150
13C4 PFOS	96		25 - 150
13C8 FOSA	93		25 - 150
d3-NMeFOSAA	101		25 - 150
d5-NEtFOSAA	98		25 - 150
M2-6:2 FTS	103		25 - 150
M2-8:2 FTS	105		25 - 150

QC Association Summary

Client: Pace Analytical Services, LLC
Project/Site: GMP WELLS ROUTINE 360

Job ID: 320-75066-1
SDG: 70176876

LCMS

Prep Batch: 500399

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-75066-1	GM-2D	Total/NA	Water	3535	
320-75066-2	GM-4D	Total/NA	Water	3535	
320-75066-3	GM-5D	Total/NA	Water	3535	
320-75066-4	GM-6D	Total/NA	Water	3535	
320-75066-5	GM-7D	Total/NA	Water	3535	
320-75066-6	GM-15D	Total/NA	Water	3535	
320-75066-7	GM-16D	Total/NA	Water	3535	
320-75066-8	GM-17D	Total/NA	Water	3535	
320-75066-9	GM-18D	Total/NA	Water	3535	
320-75066-9 - DL	GM-18D	Total/NA	Water	3535	
320-75066-10	GM-19D	Total/NA	Water	3535	
MB 320-500399/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-500399/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-500399/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 500940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-75066-1	GM-2D	Total/NA	Water	537 (modified)	500399
320-75066-2	GM-4D	Total/NA	Water	537 (modified)	500399
320-75066-3	GM-5D	Total/NA	Water	537 (modified)	500399
320-75066-4	GM-6D	Total/NA	Water	537 (modified)	500399
320-75066-5	GM-7D	Total/NA	Water	537 (modified)	500399
320-75066-6	GM-15D	Total/NA	Water	537 (modified)	500399
320-75066-7	GM-16D	Total/NA	Water	537 (modified)	500399
320-75066-8	GM-17D	Total/NA	Water	537 (modified)	500399
320-75066-9	GM-18D	Total/NA	Water	537 (modified)	500399
320-75066-10	GM-19D	Total/NA	Water	537 (modified)	500399
MB 320-500399/1-A	Method Blank	Total/NA	Water	537 (modified)	500399
LCS 320-500399/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	500399
LCSD 320-500399/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	500399

Analysis Batch: 501737

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-75066-9 - DL	GM-18D	Total/NA	Water	537 (modified)	500399

Client Sample ID: GM-2D
Date Collected: 06/14/21 12:50
Date Received: 06/17/21 10:15

Lab Sample ID: 320-75066-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			264.1 mL	10.0 mL	500399	06/21/21 19:10	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1			500940	06/23/21 10:11	D1R	TAL SAC

Client Sample ID: GM-4D
Date Collected: 06/14/21 13:40
Date Received: 06/17/21 10:15

Lab Sample ID: 320-75066-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			269.3 mL	10.0 mL	500399	06/21/21 19:10	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1			500940	06/23/21 10:20	D1R	TAL SAC

Client Sample ID: GM-5D
Date Collected: 06/14/21 13:45
Date Received: 06/17/21 10:15

Lab Sample ID: 320-75066-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			269.9 mL	10.0 mL	500399	06/21/21 19:10	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1			500940	06/23/21 10:29	D1R	TAL SAC

Client Sample ID: GM-6D
Date Collected: 06/14/21 13:50
Date Received: 06/17/21 10:15

Lab Sample ID: 320-75066-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			264.4 mL	10.0 mL	500399	06/21/21 19:11	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1			500940	06/23/21 10:38	D1R	TAL SAC

Client Sample ID: GM-7D
Date Collected: 06/14/21 13:55
Date Received: 06/17/21 10:15

Lab Sample ID: 320-75066-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			260 mL	10.0 mL	500399	06/21/21 19:11	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1			500940	06/23/21 10:47	D1R	TAL SAC

Client Sample ID: GM-15D
Date Collected: 06/14/21 11:30
Date Received: 06/17/21 10:15

Lab Sample ID: 320-75066-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			259.6 mL	10.0 mL	500399	06/21/21 19:11	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1			500940	06/23/21 11:17	D1R	TAL SAC

Lab Chronicle

Client: Pace Analytical Services, LLC
Project/Site: GMP WELLS ROUTINE 360

Job ID: 320-75066-1
SDG: 70176876

Client Sample ID: GM-16D
Date Collected: 06/14/21 11:10
Date Received: 06/17/21 10:15

Lab Sample ID: 320-75066-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			249.5 mL	10.0 mL	500399	06/21/21 19:11	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1			500940	06/23/21 11:26	D1R	TAL SAC

Client Sample ID: GM-17D
Date Collected: 06/14/21 11:05
Date Received: 06/17/21 10:15

Lab Sample ID: 320-75066-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			261.2 mL	10.0 mL	500399	06/21/21 19:11	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1			500940	06/23/21 11:35	D1R	TAL SAC

Client Sample ID: GM-18D
Date Collected: 06/14/21 10:33
Date Received: 06/17/21 10:15

Lab Sample ID: 320-75066-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			267.5 mL	10.0 mL	500399	06/21/21 19:11	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1			500940	06/23/21 11:44	D1R	TAL SAC
Total/NA	Prep	3535	DL		267.5 mL	10.0 mL	500399	06/21/21 19:11	VP	TAL SAC
Total/NA	Analysis	537 (modified)	DL	20			501737	06/25/21 11:52	JRB	TAL SAC

Client Sample ID: GM-19D
Date Collected: 06/14/21 10:25
Date Received: 06/17/21 10:15

Lab Sample ID: 320-75066-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			262.3 mL	10.0 mL	500399	06/21/21 19:11	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1			500940	06/23/21 11:53	D1R	TAL SAC

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: Pace Analytical Services, LLC
Project/Site: GMP WELLS ROUTINE 360

Job ID: 320-75066-1
SDG: 70176876

Laboratory: Eurofins TestAmerica, Sacramento

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	11666	04-01-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 (modified)	3535	Water	6:2 FTS
537 (modified)	3535	Water	8:2 FTS
537 (modified)	3535	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 (modified)	3535	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537 (modified)	3535	Water	Perfluorobutanesulfonic acid (PFBS)
537 (modified)	3535	Water	Perfluorobutanoic acid
537 (modified)	3535	Water	Perfluorodecanesulfonic acid (PFDS)
537 (modified)	3535	Water	Perfluorodecanoic acid (PFDA)
537 (modified)	3535	Water	Perfluorododecanoic acid (PFDoA)
537 (modified)	3535	Water	Perfluoroheptanesulfonic Acid (PFHpS)
537 (modified)	3535	Water	Perfluoroheptanoic acid
537 (modified)	3535	Water	Perfluorohexanesulfonic acid (PFHxS)
537 (modified)	3535	Water	Perfluorohexanoic acid (PFHxA)
537 (modified)	3535	Water	Perfluorononanoic acid (PFNA)
537 (modified)	3535	Water	Perfluorooctanesulfonamide (FOSA)
537 (modified)	3535	Water	Perfluorooctanesulfonic acid (PFOS)
537 (modified)	3535	Water	Perfluorooctanoic acid (PFOA)
537 (modified)	3535	Water	Perfluoropentanoic acid (PFPeA)
537 (modified)	3535	Water	Perfluorotetradecanoic acid (PFTeA)
537 (modified)	3535	Water	Perfluorotridecanoic acid (PFTriA)
537 (modified)	3535	Water	Perfluoroundecanoic acid (PFUnA)

Method Summary

Client: Pace Analytical Services, LLC
Project/Site: GMP WELLS ROUTINE 360

Job ID: 320-75066-1
SDG: 70176876

Method	Method Description	Protocol	Laboratory
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL SAC
3535	Solid-Phase Extraction (SPE)	SW846	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: Pace Analytical Services, LLC
Project/Site: GMP WELLS ROUTINE 360

Job ID: 320-75066-1
SDG: 70176876

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
320-75066-1	GM-2D	Water	06/14/21 12:50	06/17/21 10:15	
320-75066-2	GM-4D	Water	06/14/21 13:40	06/17/21 10:15	
320-75066-3	GM-5D	Water	06/14/21 13:45	06/17/21 10:15	
320-75066-4	GM-6D	Water	06/14/21 13:50	06/17/21 10:15	
320-75066-5	GM-7D	Water	06/14/21 13:55	06/17/21 10:15	
320-75066-6	GM-15D	Water	06/14/21 11:30	06/17/21 10:15	
320-75066-7	GM-16D	Water	06/14/21 11:10	06/17/21 10:15	
320-75066-8	GM-17D	Water	06/14/21 11:05	06/17/21 10:15	
320-75066-9	GM-18D	Water	06/14/21 10:33	06/17/21 10:15	
320-75066-10	GM-19D	Water	06/14/21 10:25	06/17/21 10:15	

Chain of Custody

PASI New York Laboratory

Pace Analytical
www.pacelabs.com

Workorder: 70176876 **Workorder Name:** GMP WELLS ROUTINE 360 **Results Requested By:** 6/23/2021

Report / Invoice To	Subcontract To
Kimberley M. Mack Pace Analytical Melville 575 Broad Hollow Road Melville, NY 11747 Phone (631)694-3040 Email: kimberley.mack@pacelabs.com	TA Eurofins-Sacramento 880 Riverside Pkwy West Sacramento, CA 95605 P.O. 70176876KMM

State of Sample Origin: NY

Item	Sample ID	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Unpreserved	Requested Analysis: PFAS by 537	LAB USE ONLY
1	GM-2D	6/14/2021 12:50	70176876001	Water		X	
2	GM-4D	6/14/2021 13:40	70176876002	Water		X	
3	GM-5D	6/14/2021 13:45	70176876003	Water		X	
4	GM-6D	6/14/2021 13:50	70176876004	Water		X	
5	GM-7D	6/14/2021 13:55	70176876005	Water		X	
6	GM-15D	6/14/2021 11:30	70176876006	Water		X	
7	GM-16D	6/14/2021 11:10	70176876007	Water		X	
8	GM-17D	6/14/2021 11:05	70176876008	Water		X	
9	GM-18D	6/14/2021 10:33	70176876009	Water		X	
10	GM-19D	6/14/2021 10:25	70176876010	Water		X	
11							
12							
13							
14							

320-75066 Chain of Custody

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1	Noranne Saager	6.15.21 1800	[illegible] ESTASRC	6/17/21 10:15	Need a Category B Package and EQUIS EDDs
2					
3					

Cooler Temperature on Receipt 4.5 °C | Custody Seal Y or N | Received on Ice Y or (N) | Samples Intact (Y) or N

Login Sample Receipt Checklist

Client: Pace Analytical Services, LLC

Job Number: 320-75066-1
SDG Number: 70176876

Login Number: 75066
List Number: 1
Creator: Her, David A

List Source: Eurofins TestAmerica, Sacramento

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

July 08, 2021

Joe Guarino
Town of Babylon
281 Phelps Lane
North Babylon, NY 11703

RE: Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

Dear Joe Guarino:

Enclosed are the analytical results for sample(s) received by the laboratory on June 14, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

Some analyses were subcontracted outside of the Pace Network. The test report from the external subcontractor is attached to this report in its entirety.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Melville
- Pace National - Mt. Juliet
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kimberley Mack

Kimberley M. Mack
kimberley.mack@pacelabs.com
(631)694-3040
Project Manager

Enclosures

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

CERTIFICATIONS

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

Pace Analytical Services Long Island
575 Broad Hollow Rd, Melville, NY 11747
Connecticut Certification #: PH-0435
Delaware Certification # NY 10478
Maryland Certification #: 208
Massachusetts Certification #: M-NY026
New Hampshire Certification #: 2987
New Jersey Certification #: NY158
New York Certification #: 10478 Primary Accrediting Body
Pennsylvania Certification #: 68-00350
Rhode Island Certification #: LAO00340
Virginia Certification # 460302

Pace Analytical Services National
12065 Lebanon Road, Mt. Juliet, TN 37122
Alabama Certification #: 40660
Alaska Certification 17-026
Arizona Certification #: AZ0612
Arkansas Certification #: 88-0469
California Certification #: 2932
Canada Certification #: 1461.01
Colorado Certification #: TN00003
Connecticut Certification #: PH-0197
DOD Certification: #1461.01
EPA# TN00003
Florida Certification #: E87487
Georgia DW Certification #: 923
Georgia Certification: NELAP
Idaho Certification #: TN00003
Illinois Certification #: 200008
Indiana Certification #: C-TN-01
Iowa Certification #: 364
Kansas Certification #: E-10277
Kentucky UST Certification #: 16
Kentucky Certification #: 90010
Louisiana Certification #: AI30792
Louisiana DW Certification #: LA180010
Maine Certification #: TN0002

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

CERTIFICATIONS

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

Pace Analytical Services National

Maryland Certification #: 324
Massachusetts Certification #: M-TN003
Michigan Certification #: 9958
Minnesota Certification #: 047-999-395
Mississippi Certification #: TN00003
Missouri Certification #: 340
Montana Certification #: CERT0086
Nebraska Certification #: NE-OS-15-05
Nevada Certification #: TN-03-2002-34
New Hampshire Certification #: 2975
New Jersey Certification #: TN002
New Mexico DW Certification
New York Certification #: 11742
North Carolina Aquatic Toxicity Certification #: 41
North Carolina Drinking Water Certification #: 21704
North Carolina Environmental Certificate #: 375
North Dakota Certification #: R-140
Ohio VAP Certification #: CL0069
Oklahoma Certification #: 9915
Oregon Certification #: TN200002
Pennsylvania Certification #: 68-02979
Rhode Island Certification #: LAO00356
South Carolina Certification #: 84004
South Dakota Certification
Tennessee DW/Chem/Micro Certification #: 2006
Texas Certification #: T 104704245-17-14
Texas Mold Certification #: LAB0152
USDA Soil Permit #: P330-15-00234
Utah Certification #: TN00003
Virginia Certification #: VT2006
Vermont Dept. of Health: ID# VT-2006
Virginia Certification #: 460132
Washington Certification #: C847
West Virginia Certification #: 233
Wisconsin Certification #: 998093910
Wyoming UST Certification #: via A2LA 2926.01
A2LA-ISO 17025 Certification #: 1461.01
A2LA-ISO 17025 Certification #: 1461.02
AIHA-LAP/LLC EMLAP Certification #:100789

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

SAMPLE ANALYTE COUNT

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
70176872001	**CELL 7 PLCRS**	EPA 8081B	NJS	20	PACE-MV
		EPA 8082A	JMD	9	PACE-MV
		EPA 8151A	MJM	5	PACE-MV
		EPA 6010C	AKS	24	PACE-MV
		EPA 7470A	KM1	1	PACE-MV
		EPA 8270D	AMG	3	PAN
		EPA 8270D	TJD	114	PACE-MV
		EPA 8260C SIM/5030C	BBL	3	PACE-MV
		EPA 8260C/5030C	KGG	66	PACE-MV
		EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	JC2	1	PASI-PA
		ASTM D5174-97	RMK	1	PASI-PA
		SM22 2120B	HA1	2	PACE-MV
		SM22 2320B	MEM1	1	PACE-MV
		SM22 2340C	CEA	1	PACE-MV
		SM22 2540C	IT1	1	PACE-MV
		SM22 3500-Cr B	HMH	1	PACE-MV
		EPA 410.4	JCA	1	PACE-MV
		SM22 5210B	VNS	1	PACE-MV
		EPA 9034	HMH	1	PACE-MV
		EPA 300.0	BNK	3	PACE-MV
		EPA 351.2	AKS	1	PACE-MV
		EPA 353.2	PGL	2	PACE-MV
		EPA 353.2	PGL	1	PACE-MV
		EPA 420.1	KS1	1	PACE-MV
		SM22 4500 NH3 H	BNK	1	PACE-MV
		EPA 9014 Total Cyanide	MEM1	1	PACE-MV
		EPA 9060A	IT1	5	PACE-MV

PACE-MV = Pace Analytical Services - Melville
PAN = Pace National - Mt. Juliet
PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

Date: July 08, 2021

Phenylenediamine is reporting with critically low recovery in the laboratory control sample(s). This compound is a method defined poor performer. Results are estimated.

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

Method: **EPA 8081B**
Description: 8081 GCS Pesticides
Client: Town of Babylon
Date: July 08, 2021

General Information:
1 sample was analyzed for EPA 8081B by Pace Analytical Services Melville. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3510C with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: 214126

S0: Surrogate recovery outside laboratory control limits.

- MS (Lab ID: 1076648)
  - Decachlorobiphenyl (S)
- MSD (Lab ID: 1076649)
  - Decachlorobiphenyl (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

Method: **EPA 8082A**
Description: 8082 GCS PCB
Client: Town of Babylon
Date: July 08, 2021

General Information:
1 sample was analyzed for EPA 8082A by Pace Analytical Services Melville. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3510C with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

QC Batch: 214127

v1: The continuing calibration verification was above the method acceptance limit. Any detection for the analyte in the associated samples may have a high bias.

- LCS (Lab ID: 1076651)
  - PCB-1260 (Aroclor 1260)
- MS (Lab ID: 1076652)
  - PCB-1260 (Aroclor 1260)
- MSD (Lab ID: 1076653)
  - PCB-1260 (Aroclor 1260)

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

Method: **EPA 8082A**
Description: 8082 GCS PCB
Client: Town of Babylon
Date: July 08, 2021

Analyte Comments:

QC Batch: 214127

C2: Relative percent difference between results from each column was greater than 40%. The lower of the two results was reported.

- CELL 7 PLCRS (Lab ID: 70176872001)
  - Tetrachloro-m-xylene (S)

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

Method: **EPA 8151A**
Description: 8151A Chlorinated Herbicides
Client: Town of Babylon
Date: July 08, 2021

General Information:
1 sample was analyzed for EPA 8151A by Pace Analytical Services Melville. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 8151A with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: 213439

C2: Relative percent difference between results from each column was greater than 40%. The lower of the two results was reported.

- CELL 7 PLCRS (Lab ID: 70176872001)
  - 2,4,5-T
  - 2,4-D
  - 2,4,5-TP (Silvex)

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

Method: **EPA 6010C**
Description: 6010 MET ICP
Client: Town of Babylon
Date: July 08, 2021

General Information:
1 sample was analyzed for EPA 6010C by Pace Analytical Services Melville. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3005A with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 215714

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 70176872001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1086155)
  - Antimony
  - Arsenic
  - Barium
  - Boron
  - Calcium
  - Iron
  - Lead
  - Manganese
  - Potassium
  - Selenium
  - Sodium
  - Thallium
  - Tin
  - Zinc

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

Method: **EPA 6010C**
Description: 6010 MET ICP
Client: Town of Babylon
Date: July 08, 2021

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

Method: **EPA 7470A**
Description: 7470 Mercury
Client: Town of Babylon
Date: July 08, 2021

General Information:
1 sample was analyzed for EPA 7470A by Pace Analytical Services Melville. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 7470A with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

Method: **EPA 8270D**
Description: SVOA (GC/MS) 8270 D
Client: Town of Babylon
Date: July 08, 2021

General Information:
1 sample was analyzed for EPA 8270D by Pace National Mt. Juliet. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: 1690026

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

- LCS (Lab ID: R3669463-1)
  - p-Phenylenediamine

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

Method: **EPA 8270D**
Description: 8270 MSSV
Client: Town of Babylon
Date: July 08, 2021

General Information:
1 sample was analyzed for EPA 8270D by Pace Analytical Services Melville. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3510C with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

QC Batch: 213617

IH: This analyte exceeded secondary source verification criteria high for the initial calibration. The reported results should be considered an estimated value.

- LCS (Lab ID: 1073393)
  - 1,4-Naphthoquinone

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

QC Batch: 213617

v1: The continuing calibration verification was above the method acceptance limit. Any detection for the analyte in the associated samples may have a high bias.

- LCS (Lab ID: 1073393)
  - 1,3-Dichlorobenzene
  - 2,4-Dinitrophenol
  - Di-n-octylphthalate

v3: The continuing calibration verification was below the method acceptance limit. Any detection for the analyte in the associated samples may have a low bias.

- BLANK (Lab ID: 1073392)
  - 4-Nitrophenol
  - Hexachlorocyclopentadiene
- CELL 7 PLCRS (Lab ID: 70176872001)
  - 4-Nitrophenol
  - Hexachlorocyclopentadiene
- DUP (Lab ID: 1073453)
  - 4-Nitrophenol
  - Hexachlorocyclopentadiene
- LCS (Lab ID: 1073393)
  - 4-Nitrophenol
  - Hexachlorocyclopentadiene

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

Method: **EPA 8270D**
Description: 8270 MSSV
Client: Town of Babylon
Date: July 08, 2021

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: 213617

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

- DUP (Lab ID: 1073453)
  - 3&4-Methylphenol(m&p Cresol)

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

Method: **EPA 8260C SIM/5030C**
Description: 8260C SIM Volatile Organics
Client: Town of Babylon
Date: July 08, 2021

General Information:
1 sample was analyzed for EPA 8260C SIM/5030C by Pace Analytical Services Melville. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

Method: **EPA 8260C/5030C**
Description: 8260C Volatile Organics
Client: Town of Babylon
Date: July 08, 2021

General Information:
1 sample was analyzed for EPA 8260C/5030C by Pace Analytical Services Melville. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

QC Batch: 214051

IH: This analyte exceeded secondary source verification criteria high for the initial calibration. The reported results should be considered an estimated value.

- CELL 7 PLCRS (Lab ID: 70176872001)
  - Acetone
- LCS (Lab ID: 1075997)
  - Acetone
- MS (Lab ID: 1076058)
  - Acetone
- MSD (Lab ID: 1076059)
  - Acetone

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

Method: **EPA 903.1**
Description: 903.1 Radium 226
Client: Town of Babylon
Date: July 08, 2021

General Information:
1 sample was analyzed for EPA 903.1 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

Method: **EPA 904.0**
Description: 904.0 Radium 228
Client: Town of Babylon
Date: July 08, 2021

General Information:
1 sample was analyzed for EPA 904.0 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

Method: **ASTM D5174-97**
Description: D517497 Total Uranium KPA
Client: Town of Babylon
Date: July 08, 2021

General Information:
1 sample was analyzed for ASTM D5174-97 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

Method: **SM22 2120B**
Description: 2120B W Apparent Color
Client: Town of Babylon
Date: July 08, 2021

General Information:
1 sample was analyzed for SM22 2120B by Pace Analytical Services Melville. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

Method: **SM22 2320B**
Description: 2320B Alkalinity
Client: Town of Babylon
Date: July 08, 2021

General Information:
1 sample was analyzed for SM22 2320B by Pace Analytical Services Melville. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 214369

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 70176874003

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1078125)
  - Alkalinity, Total as CaCO3

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

Method: **SM22 2340C**
Description: 2340C Hardness, Total
Client: Town of Babylon
Date: July 08, 2021

General Information:
1 sample was analyzed for SM22 2340C by Pace Analytical Services Melville. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

Method: **SM22 2540C**
Description: 2540C Total Dissolved Solids
Client: Town of Babylon
Date: July 08, 2021

General Information:
1 sample was analyzed for SM22 2540C by Pace Analytical Services Melville. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

H1: Analysis conducted outside the EPA method holding time.
- CELL 7 PLCRS (Lab ID: 70176872001)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

Method: **SM22 3500-Cr B**
Description: Chromium, Hexavalent
Client: Town of Babylon
Date: July 08, 2021

General Information:
1 sample was analyzed for SM22 3500-Cr B by Pace Analytical Services Melville. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

Method: **EPA 410.4**
Description: 410.4 COD
Client: Town of Babylon
Date: July 08, 2021

General Information:
1 sample was analyzed for EPA 410.4 by Pace Analytical Services Melville. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 410.4 with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

Method: **SM22 5210B**
Description: 5210B BOD, 5 day
Client: Town of Babylon
Date: July 08, 2021

General Information:
1 sample was analyzed for SM22 5210B by Pace Analytical Services Melville. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with SM22 5210B with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

QC Batch: 213629

D6: The precision between the sample and sample duplicate exceeded laboratory control limits.

- DUP (Lab ID: 1073531)
  - BOD, 5 day

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

Method: **EPA 9034**
Description: 9034 Sulfide, Titration
Client: Town of Babylon
Date: July 08, 2021

General Information:
1 sample was analyzed for EPA 9034 by Pace Analytical Services Melville. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 9030B with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

Method: **EPA 300.0**
Description: 300.0 IC Anions 28 Days
Client: Town of Babylon
Date: July 08, 2021

General Information:
1 sample was analyzed for EPA 300.0 by Pace Analytical Services Melville. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

Method: **EPA 351.2**
Description: 351.2 Total Kjeldahl Nitrogen
Client: Town of Babylon
Date: July 08, 2021

General Information:
1 sample was analyzed for EPA 351.2 by Pace Analytical Services Melville. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 351.2 with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 215397

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 70176876004

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1084841)
  - Nitrogen, Kjeldahl, Total

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

Method: **EPA 353.2**
Description: 353.2 Nitrogen, NO2/NO3 pres.
Client: Town of Babylon
Date: July 08, 2021

General Information:
1 sample was analyzed for EPA 353.2 by Pace Analytical Services Melville. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

Method: **EPA 353.2**
Description: 353.2 Nitrogen, NO2
Client: Town of Babylon
Date: July 08, 2021

General Information:
1 sample was analyzed for EPA 353.2 by Pace Analytical Services Melville. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

Method: **EPA 420.1**
Description: Phenolics, Total Recoverable
Client: Town of Babylon
Date: July 08, 2021

General Information:
1 sample was analyzed for EPA 420.1 by Pace Analytical Services Melville. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 420.1 with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

Method: **SM22 4500 NH3 H**
Description: 4500 Ammonia Water
Client: Town of Babylon
Date: July 08, 2021

General Information:
1 sample was analyzed for SM22 4500 NH3 H by Pace Analytical Services Melville. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

Method: **EPA 9014 Total Cyanide**
Description: 9014 Cyanide, Total
Client: Town of Babylon
Date: July 08, 2021

General Information:
1 sample was analyzed for EPA 9014 Total Cyanide by Pace Analytical Services Melville. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 9010C with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

QC Batch: 215070

B: Analyte was detected in the associated method blank.
- BLANK for HBN 215070 [WETA/347 (Lab ID: 1082283)
  - Cyanide

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

Method: **EPA 9060A**
Description: 9060A TOC as NPOC
Client: Town of Babylon
Date: July 08, 2021

General Information:
1 sample was analyzed for EPA 9060A by Pace Analytical Services Melville. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 216129

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 70176875001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1087969)
  - Total Organic Carbon

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

Sample: CELL 7 PLCRS **Lab ID: 70176872001** Collected: 06/14/21 14:45 Received: 06/14/21 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8081 GCS Pesticides	Analytical Method: EPA 8081B Preparation Method: EPA 3510C Pace Analytical Services - Melville							
Aldrin	**<0.047**	ug/L	0.047	1	06/18/21 11:44	06/23/21 10:28	309-00-2	
alpha-BHC	**<0.047**	ug/L	0.047	1	06/18/21 11:44	06/23/21 10:28	319-84-6	
beta-BHC	**<0.047**	ug/L	0.047	1	06/18/21 11:44	06/23/21 10:28	319-85-7	
delta-BHC	**0.75**	ug/L	0.047	1	06/18/21 11:44	06/23/21 10:28	319-86-8	
gamma-BHC (Lindane)	**<0.047**	ug/L	0.047	1	06/18/21 11:44	06/23/21 10:28	58-89-9	
4,4'-DDD	**<0.094**	ug/L	0.094	1	06/18/21 11:44	06/23/21 10:28	72-54-8	
4,4'-DDE	**<0.094**	ug/L	0.094	1	06/18/21 11:44	06/23/21 10:28	72-55-9	
4,4'-DDT	**<0.094**	ug/L	0.094	1	06/18/21 11:44	06/23/21 10:28	50-29-3	
Dieldrin	**<0.094**	ug/L	0.094	1	06/18/21 11:44	06/23/21 10:28	60-57-1	
Endosulfan I	**<0.047**	ug/L	0.047	1	06/18/21 11:44	06/23/21 10:28	959-98-8	
Endosulfan II	**<0.094**	ug/L	0.094	1	06/18/21 11:44	06/23/21 10:28	33213-65-9	
Endosulfan sulfate	**<0.094**	ug/L	0.094	1	06/18/21 11:44	06/23/21 10:28	1031-07-8	
Endrin	**<0.094**	ug/L	0.094	1	06/18/21 11:44	06/23/21 10:28	72-20-8	
Endrin aldehyde	**<0.094**	ug/L	0.094	1	06/18/21 11:44	06/23/21 10:28	7421-93-4	
Heptachlor	**0.23**	ug/L	0.047	1	06/18/21 11:44	06/23/21 10:28	76-44-8	
Heptachlor epoxide	**<0.047**	ug/L	0.047	1	06/18/21 11:44	06/23/21 10:28	1024-57-3	
Methoxychlor	**<0.47**	ug/L	0.47	1	06/18/21 11:44	06/23/21 10:28	72-43-5	
Toxaphene	**<4.7**	ug/L	4.7	1	06/18/21 11:44	06/23/21 10:28	8001-35-2	
Surrogates								
Decachlorobiphenyl (S)	25	%	20-129	1	06/18/21 11:44	06/23/21 10:28	2051-24-3	
Tetrachloro-m-xylene (S)	68	%	23-110	1	06/18/21 11:44	06/23/21 10:28	877-09-8	
8082 GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3510C Pace Analytical Services - Melville							
PCB-1016 (Aroclor 1016)	**<0.94**	ug/L	0.94	1	06/18/21 11:44	06/21/21 20:34	12674-11-2	
PCB-1221 (Aroclor 1221)	**<0.94**	ug/L	0.94	1	06/18/21 11:44	06/21/21 20:34	11104-28-2	
PCB-1232 (Aroclor 1232)	**<0.94**	ug/L	0.94	1	06/18/21 11:44	06/21/21 20:34	11141-16-5	
PCB-1242 (Aroclor 1242)	**<0.94**	ug/L	0.94	1	06/18/21 11:44	06/21/21 20:34	53469-21-9	
PCB-1248 (Aroclor 1248)	**<0.94**	ug/L	0.94	1	06/18/21 11:44	06/21/21 20:34	12672-29-6	
PCB-1254 (Aroclor 1254)	**<0.94**	ug/L	0.94	1	06/18/21 11:44	06/21/21 20:34	11097-69-1	
PCB-1260 (Aroclor 1260)	**<0.94**	ug/L	0.94	1	06/18/21 11:44	06/21/21 20:34	11096-82-5	
Surrogates								
Tetrachloro-m-xylene (S)	64	%	37-105	1	06/18/21 11:44	06/21/21 20:34	877-09-8	C2
Decachlorobiphenyl (S)	35	%	10-138	1	06/18/21 11:44	06/21/21 20:34	2051-24-3	
8151A Chlorinated Herbicides	Analytical Method: EPA 8151A Preparation Method: EPA 8151A Pace Analytical Services - Melville							
2,4-D	**11.6**	ug/L	0.50	1	06/15/21 10:20	06/17/21 07:43	94-75-7	C2
Dinoseb	**1.2**	ug/L	0.20	1	06/15/21 10:20	06/17/21 07:43	88-85-7	
2,4,5-T	**1.9**	ug/L	0.25	1	06/15/21 10:20	06/17/21 07:43	93-76-5	C2
2,4,5-TP (Silvex)	**2.0**	ug/L	0.25	1	06/15/21 10:20	06/17/21 07:43	93-72-1	C2
Surrogates								
2,4-DCAA (S)	126	%	13-144	1	06/15/21 10:20	06/17/21 07:43	19719-28-9	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

Sample: CELL 7 PLCRS **Lab ID: 70176872001** Collected: 06/14/21 14:45 Received: 06/14/21 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3005A Pace Analytical Services - Melville							
Aluminum	**<10000**	ug/L	10000	50	06/30/21 07:33	07/06/21 14:46	7429-90-5	M1
Antimony	**<3000**	ug/L	3000	50	06/30/21 07:33	07/06/21 14:46	7440-36-0	M1
Arsenic	**<500**	ug/L	500	50	06/30/21 07:33	07/06/21 14:46	7440-38-2	M1
Barium	**6450J**	ug/L	10000	50	06/30/21 07:33	07/06/21 14:46	7440-39-3	D6,M1
Beryllium	**<250**	ug/L	250	50	06/30/21 07:33	07/06/21 14:46	7440-41-7	
Boron	**740J**	ug/L	2500	50	06/30/21 07:33	07/06/21 14:46	7440-42-8	D6,M1
Cadmium	**<125**	ug/L	125	50	06/30/21 07:33	07/06/21 14:46	7440-43-9	
Calcium	**13000000**	ug/L	10000	50	06/30/21 07:33	07/06/21 14:46	7440-70-2	M1
Chromium	**<500**	ug/L	500	50	06/30/21 07:33	07/06/21 14:46	7440-47-3	
Cobalt	**<2500**	ug/L	2500	50	06/30/21 07:33	07/06/21 14:46	7440-48-4	
Copper	**<1250**	ug/L	1250	50	06/30/21 07:33	07/06/21 14:46	7440-50-8	
Iron	**<1000**	ug/L	1000	50	06/30/21 07:33	07/06/21 14:46	7439-89-6	D6,M1
Lead	**<250**	ug/L	250	50	06/30/21 07:33	07/06/21 14:46	7439-92-1	M1
Magnesium	**10600**	ug/L	10000	50	06/30/21 07:33	07/06/21 14:46	7439-95-4	D6
Manganese	**496J**	ug/L	500	50	06/30/21 07:33	07/06/21 14:46	7439-96-5	D6,M1
Nickel	**<2000**	ug/L	2000	50	06/30/21 07:33	07/06/21 14:46	7440-02-0	
Potassium	**8100000**	ug/L	250000	50	06/30/21 07:33	07/06/21 14:46	7440-09-7	M1
Selenium	**<500**	ug/L	500	50	06/30/21 07:33	07/06/21 14:46	7782-49-2	D6,M1
Silver	**<500**	ug/L	500	50	06/30/21 07:33	07/06/21 14:46	7440-22-4	
Sodium	**11800000**	ug/L	250000	50	06/30/21 07:33	07/06/21 14:46	7440-23-5	M1
Thallium	**<500**	ug/L	500	50	06/30/21 07:33	07/06/21 14:46	7440-28-0	M1
Tin	**<2500**	ug/L	2500	50	06/30/21 07:33	07/06/21 14:46	7440-31-5	M1
Vanadium	**<2500**	ug/L	2500	50	06/30/21 07:33	07/06/21 14:46	7440-62-2	
Zinc	**<1000**	ug/L	1000	50	06/30/21 07:33	07/06/21 14:46	7440-66-6	M1
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Melville							
Mercury	**<0.20**	ug/L	0.20	1	06/16/21 09:56	06/16/21 16:04	7439-97-6	
SVOA (GC/MS) 8270 D	Analytical Method: EPA 8270D Preparation Method: 3510C Pace National - Mt. Juliet							
Famphur	**<20.0**	ug/L	20.0	1	06/17/21 05:15	06/18/21 15:53	52-85-7	
Kepone	**<20.0**	ug/L	20.0	1	06/17/21 05:15	06/18/21 15:53	143-50-0	
p-Phenylenediamine	**<6900**	ug/L	6900	1	06/17/21 05:15	06/18/21 15:53	106-50-3	L0
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C Pace Analytical Services - Melville							
1,2,4,5-Tetrachlorobenzene	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	95-94-3	
1,2,4-Trichlorobenzene	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	120-82-1	
1,2-Dichlorobenzene	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	95-50-1	
1,3,5-Trinitrobenzene	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	99-35-4	
1,3-Dichlorobenzene	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	541-73-1	
1,3-Dinitrobenzene	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	99-65-0	
1,4-Dichlorobenzene	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	106-46-7	
1,4-Naphthoquinone	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	130-15-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

Sample: CELL 7 PLCRS **Lab ID: 70176872001** Collected: 06/14/21 14:45 Received: 06/14/21 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C Pace Analytical Services - Melville							
1-Naphthylamine	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	134-32-7	
2,2'-Oxybis(1-chloropropane)	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	108-60-1	
2,3,4,6-Tetrachlorophenol	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	58-90-2	
2,4,5-Trichlorophenol	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	95-95-4	
2,4,6-Trichlorophenol	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	88-06-2	
2,4-Dichlorophenol	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	120-83-2	
2,4-Dimethylphenol	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	105-67-9	
2,4-Dinitrophenol	**<10.0**	ug/L	10.0	1	06/15/21 18:47	06/16/21 15:48	51-28-5	
2,4-Dinitrotoluene	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	121-14-2	
2,6-Dichlorophenol	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	87-65-0	
2,6-Dinitrotoluene	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	606-20-2	
2-Acetylaminofluorene	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	53-96-3	
2-Chloronaphthalene	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	91-58-7	
2-Chlorophenol	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	95-57-8	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	91-57-6	
2-Methylphenol(o-Cresol)	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	95-48-7	
2-Naphthylamine	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	91-59-8	
2-Nitroaniline	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	88-74-4	
2-Nitrophenol	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	88-75-5	
3&4-Methylphenol(m&p Cresol)	**83.3**	ug/L	25.0	5	06/15/21 18:47	06/16/21 19:08		
3,3'-Dichlorobenzidine	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	91-94-1	
3,3'-Dimethylbenzidine	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	119-93-7	
3-Methylcholanthrene	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	56-49-5	
3-Nitroaniline	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	99-09-2	
4,6-Dinitro-2-methylphenol	**<10.0**	ug/L	10.0	1	06/15/21 18:47	06/16/21 15:48	534-52-1	
4-Aminobiphenyl	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	92-67-1	
4-Bromophenylphenyl ether	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	101-55-3	
4-Chloro-3-methylphenol	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	59-50-7	
4-Chloroaniline	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	106-47-8	
4-Chlorophenylphenyl ether	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	7005-72-3	
4-Nitroaniline	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	100-01-6	
4-Nitrophenol	**<10.0**	ug/L	10.0	1	06/15/21 18:47	06/16/21 15:48	100-02-7	v3
5-Nitro-o-toluidine	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	99-55-8	
7,12-Dimethylbenz(a)anthracene	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	57-97-6	
Acenaphthene	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	208-96-8	
Acetophenone	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	98-86-2	
Anthracene	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	207-08-9	
Benzyl alcohol	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	100-51-6	
Butylbenzylphthalate	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	85-68-7	
Chlorobenzilate	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	510-15-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

Sample: CELL 7 PLCRS **Lab ID: 70176872001** Collected: 06/14/21 14:45 Received: 06/14/21 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C Pace Analytical Services - Melville							
Chrysene	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	218-01-9	
Di-n-butylphthalate	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	84-74-2	
Di-n-octylphthalate	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	117-84-0	
Diallate	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	2303-16-4	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	53-70-3	
Dibenzofuran	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	132-64-9	
Diethylphthalate	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	84-66-2	
Dimethoate	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	60-51-5	
Dimethylphthalate	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	131-11-3	
Disulfoton	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	298-04-4	
Ethyl methanesulfonate	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	62-50-0	
Fluoranthene	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	86-73-7	
Hexachloro-1,3-butadiene	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	87-68-3	
Hexachlorobenzene	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	118-74-1	
Hexachlorocyclopentadiene	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	77-47-4	v3
Hexachloroethane	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	67-72-1	
Hexachloropropene	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	1888-71-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	193-39-5	
Isodrin	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	465-73-6	
Isophorone	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	78-59-1	
Isosafrole	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	120-58-1	
Methapyrilene	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	91-80-5	
Methyl methanesulfonate	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	66-27-3	
Methyl parathion	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	298-00-0	
N-Nitroso-di-n-butylamine	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	924-16-3	
N-Nitroso-di-n-propylamine	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	621-64-7	
N-Nitrosodiethylamine	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	55-18-5	
N-Nitrosodimethylamine	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	62-75-9	
N-Nitrosodiphenylamine	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	86-30-6	
N-Nitrosomethylethylamine	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	10595-95-6	
N-Nitrosopiperidine	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	100-75-4	
N-Nitrosopyrrolidine	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	930-55-2	
Naphthalene	**0.62J**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	91-20-3	
Nitrobenzene	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	98-95-3	
O,O,O-Triethylphosphorothioate	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	126-68-1	
O-Toluidine	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	95-53-4	
P-Dimethylaminoazobenzene	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	60-11-7	
Parathion (Ethyl parathion)	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	56-38-2	
Pentachlorobenzene	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	608-93-5	
Pentachloronitrobenzene	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	82-68-8	
Pentachlorophenol	**<10.0**	ug/L	10.0	1	06/15/21 18:47	06/16/21 15:48	87-86-5	
Phenacetin	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	62-44-2	
Phenanthrene	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	85-01-8	
Phenol	**62.7**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	108-95-2	
Pronamide	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	23950-58-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

Sample: CELL 7 PLCRS **Lab ID: 70176872001** Collected: 06/14/21 14:45 Received: 06/14/21 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C Pace Analytical Services - Melville							
Pyrene	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	129-00-0	
Safrole	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	94-59-7	
Thionazin	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	297-97-2	
bis(2-Chloroethoxy)methane	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	111-91-1	
bis(2-Chloroethyl) ether	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	111-44-4	
bis(2-Ethylhexyl)phthalate	**<5.0**	ug/L	5.0	1	06/15/21 18:47	06/16/21 15:48	117-81-7	
Surrogates								
Nitrobenzene-d5 (S)	72	%	38-113	1	06/15/21 18:47	06/16/21 15:48	4165-60-0	
2-Fluorobiphenyl (S)	80	%	42-110	1	06/15/21 18:47	06/16/21 15:48	321-60-8	
p-Terphenyl-d14 (S)	70	%	33-119	1	06/15/21 18:47	06/16/21 15:48	1718-51-0	
Phenol-d5 (S)	45	%	10-110	1	06/15/21 18:47	06/16/21 15:48	4165-62-2	
2-Fluorophenol (S)	55	%	12-110	1	06/15/21 18:47	06/16/21 15:48	367-12-4	
2,4,6-Tribromophenol (S)	85	%	57-131	1	06/15/21 18:47	06/16/21 15:48	118-79-6	
2-Chlorophenol-d4 (S)	72	%	43-110	1	06/15/21 18:47	06/16/21 15:48	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	67	%	30-110	1	06/15/21 18:47	06/16/21 15:48	2199-69-1	
8260C SIM Volatile Organics	Analytical Method: EPA 8260C SIM/5030C Pace Analytical Services - Melville							
1,4-Dioxane (p-Dioxane)	**4.2**	ug/L	0.20	1		06/20/21 13:37	123-91-1	
Surrogates								
1,2-Dichlorobenzene-d4 (S)	104	%	42-152	1		06/20/21 13:37	2199-69-1	
4-Bromofluorobenzene (S)	101	%	79-138	1		06/20/21 13:37	460-00-4	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C Pace Analytical Services - Melville							
Acetone	**267**	ug/L	25.0	5		06/18/21 11:29	67-64-1	IH
Acetonitrile	**191**	ug/L	5.0	1		06/17/21 22:23	75-05-8	
Acrolein	**<1.0**	ug/L	1.0	1		06/17/21 22:23	107-02-8	
Acrylonitrile	**<1.0**	ug/L	1.0	1		06/17/21 22:23	107-13-1	
Allyl chloride	**<4.0**	ug/L	4.0	1		06/17/21 22:23	107-05-1	
Benzene	**<1.0**	ug/L	1.0	1		06/17/21 22:23	71-43-2	
Bromochloromethane	**<1.0**	ug/L	1.0	1		06/17/21 22:23	74-97-5	
Bromodichloromethane	**<1.0**	ug/L	1.0	1		06/17/21 22:23	75-27-4	
Bromoform	**<1.0**	ug/L	1.0	1		06/17/21 22:23	75-25-2	
Bromomethane	**<1.0**	ug/L	1.0	1		06/17/21 22:23	74-83-9	
2-Butanone (MEK)	**22.9**	ug/L	5.0	1		06/17/21 22:23	78-93-3	
Carbon disulfide	**<1.0**	ug/L	1.0	1		06/17/21 22:23	75-15-0	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		06/17/21 22:23	56-23-5	
Chlorobenzene	**<1.0**	ug/L	1.0	1		06/17/21 22:23	108-90-7	
Chloroethane	**<1.0**	ug/L	1.0	1		06/17/21 22:23	75-00-3	
Chloroform	**<1.0**	ug/L	1.0	1		06/17/21 22:23	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		06/17/21 22:23	74-87-3	
Chloroprene	**<1.0**	ug/L	1.0	1		06/17/21 22:23	126-99-8	
1,2-Dibromo-3-chloropropane	**<1.0**	ug/L	1.0	1		06/17/21 22:23	96-12-8	
Dibromochloromethane	**<1.0**	ug/L	1.0	1		06/17/21 22:23	124-48-1	
1,2-Dibromoethane (EDB)	**<1.0**	ug/L	1.0	1		06/17/21 22:23	106-93-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

Sample: CELL 7 PLCRS **Lab ID: 70176872001** Collected: 06/14/21 14:45 Received: 06/14/21 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C Pace Analytical Services - Melville							
Dibromomethane	**<1.0**	ug/L	1.0	1		06/17/21 22:23	74-95-3	
1,2-Dichlorobenzene	**<1.0**	ug/L	1.0	1		06/17/21 22:23	95-50-1	
1,3-Dichlorobenzene	**<1.0**	ug/L	1.0	1		06/17/21 22:23	541-73-1	
1,4-Dichlorobenzene	**<1.0**	ug/L	1.0	1		06/17/21 22:23	106-46-7	
trans-1,4-Dichloro-2-butene	**<1.0**	ug/L	1.0	1		06/17/21 22:23	110-57-6	
Dichlorodifluoromethane	**<1.0**	ug/L	1.0	1		06/17/21 22:23	75-71-8	
1,1-Dichloroethane	**<1.0**	ug/L	1.0	1		06/17/21 22:23	75-34-3	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		06/17/21 22:23	107-06-2	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		06/17/21 22:23	75-35-4	
cis-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		06/17/21 22:23	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		06/17/21 22:23	156-60-5	
1,2-Dichloropropane	**<1.0**	ug/L	1.0	1		06/17/21 22:23	78-87-5	
1,3-Dichloropropane	**<1.0**	ug/L	1.0	1		06/17/21 22:23	142-28-9	
2,2-Dichloropropane	**<1.0**	ug/L	1.0	1		06/17/21 22:23	594-20-7	
1,1-Dichloropropene	**<1.0**	ug/L	1.0	1		06/17/21 22:23	563-58-6	
cis-1,3-Dichloropropene	**<1.0**	ug/L	1.0	1		06/17/21 22:23	10061-01-5	
trans-1,3-Dichloropropene	**<1.0**	ug/L	1.0	1		06/17/21 22:23	10061-02-6	
1,4-Dioxane (p-Dioxane)	**<100**	ug/L	100	1		06/17/21 22:23	123-91-1	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/17/21 22:23	100-41-4	
Ethyl methacrylate	**<1.0**	ug/L	1.0	1		06/17/21 22:23	97-63-2	
2-Hexanone	**<5.0**	ug/L	5.0	1		06/17/21 22:23	591-78-6	
Iodomethane	**<4.0**	ug/L	4.0	1		06/17/21 22:23	74-88-4	
Isobutanol	**<20.0**	ug/L	20.0	1		06/17/21 22:23	78-83-1	
Methacrylonitrile	**<1.0**	ug/L	1.0	1		06/17/21 22:23	126-98-7	
Methylene Chloride	**<1.0**	ug/L	1.0	1		06/17/21 22:23	75-09-2	
Methyl methacrylate	**<1.0**	ug/L	1.0	1		06/17/21 22:23	80-62-6	
4-Methyl-2-pentanone (MIBK)	**<5.0**	ug/L	5.0	1		06/17/21 22:23	108-10-1	
Propionitrile	**<4.0**	ug/L	4.0	1		06/17/21 22:23	107-12-0	
Styrene	**<1.0**	ug/L	1.0	1		06/17/21 22:23	100-42-5	
1,1,1,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		06/17/21 22:23	630-20-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		06/17/21 22:23	79-34-5	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		06/17/21 22:23	127-18-4	
Toluene	**<1.0**	ug/L	1.0	1		06/17/21 22:23	108-88-3	
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		06/17/21 22:23	71-55-6	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		06/17/21 22:23	79-00-5	
Trichloroethene	**<1.0**	ug/L	1.0	1		06/17/21 22:23	79-01-6	
Trichlorofluoromethane	**<1.0**	ug/L	1.0	1		06/17/21 22:23	75-69-4	
1,2,3-Trichloropropane	**<1.0**	ug/L	1.0	1		06/17/21 22:23	96-18-4	
Vinyl acetate	**<1.0**	ug/L	1.0	1		06/17/21 22:23	108-05-4	
Vinyl chloride	**<1.0**	ug/L	1.0	1		06/17/21 22:23	75-01-4	
Xylene (Total)	**<3.0**	ug/L	3.0	1		06/17/21 22:23	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	98	%	70-123	1		06/17/21 22:23	17060-07-0	
4-Bromofluorobenzene (S)	101	%	66-119	1		06/17/21 22:23	460-00-4	
Toluene-d8 (S)	98	%	82-121	1		06/17/21 22:23	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

Sample: CELL 7 PLCRS **Lab ID: 70176872001** Collected: 06/14/21 14:45 Received: 06/14/21 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C Pace Analytical Services - Melville							
Tentatively Identified Compounds								
Silanol, trimethyl-	**20.2J**	ug/L		1		06/17/21 22:23	1066-40-6	N
2120B W Apparent Color	Analytical Method: SM22 2120B Pace Analytical Services - Melville							
Apparent Color	**60.0**	units	25.0	5		06/16/21 09:57		
pH	**6.9**	Std. Units	0.10	5		06/16/21 09:57		
2320B Alkalinity	Analytical Method: SM22 2320B Pace Analytical Services - Melville							
Alkalinity, Total as CaCO3	**282**	mg/L	1.0	1		06/21/21 10:37		
2340C Hardness, Total	Analytical Method: SM22 2340C Pace Analytical Services - Melville							
Tot Hardness asCaCO3 (SM 2340B	**30000**	mg/L	5.0	1		06/30/21 19:26		
2540C Total Dissolved Solids	Analytical Method: SM22 2540C Pace Analytical Services - Melville							
Total Dissolved Solids	**65200**	mg/L	1000	1		06/23/21 18:06		H1
Chromium, Hexavalent	Analytical Method: SM22 3500-Cr B Pace Analytical Services - Melville							
Chromium, Hexavalent	**<0.020**	mg/L	0.020	1		06/15/21 10:26	18540-29-9	
410.4 COD	Analytical Method: EPA 410.4 Preparation Method: EPA 410.4 Pace Analytical Services - Melville							
Chemical Oxygen Demand	**3240**	mg/L	100	1	06/23/21 07:51	06/23/21 10:13		
5210B BOD, 5 day	Analytical Method: SM22 5210B Preparation Method: SM22 5210B Pace Analytical Services - Melville							
BOD, 5 day	**179**	mg/L	20.0	10	06/15/21 15:21	06/20/21 08:50		
9034 Sulfide, Titration	Analytical Method: EPA 9034 Preparation Method: EPA 9030B Pace Analytical Services - Melville							
Sulfide	**16.0**	mg/L	2.0	1	06/21/21 10:19	06/21/21 18:53		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Melville							
Bromide	**764**	mg/L	50.0	100		07/02/21 17:28	24959-67-9	
Chloride	**0.36J**	mg/L	2.0	1		06/26/21 10:09	16887-00-6	
Sulfate	**3.8J**	mg/L	5.0	1		06/26/21 10:09	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

Sample: CELL 7 PLCRS **Lab ID: 70176872001** Collected: 06/14/21 14:45 Received: 06/14/21 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 Pace Analytical Services - Melville							
Nitrogen, Kjeldahl, Total	**15.8**	mg/L	0.50	1	06/28/21 06:39	06/30/21 14:39	7727-37-9	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Melville							
Nitrate as N	**<0.25**	mg/L	0.25	5		06/16/21 01:32	14797-55-8	
Nitrate-Nitrite (as N)	**<0.25**	mg/L	0.25	5		06/16/21 01:32	7727-37-9	
353.2 Nitrogen, NO2	Analytical Method: EPA 353.2 Pace Analytical Services - Melville							
Nitrite as N	**<0.050**	mg/L	0.050	1		06/14/21 21:36	14797-65-0	
Phenolics, Total Recoverable	Analytical Method: EPA 420.1 Preparation Method: EPA 420.1 Pace Analytical Services - Melville							
Phenolics, Total Recoverable	**188**	ug/L	5.0	1	06/25/21 08:48	06/25/21 11:33		
4500 Ammonia Water	Analytical Method: SM22 4500 NH3 H Pace Analytical Services - Melville							
Nitrogen, Ammonia	**108**	mg/L	10.0	100		06/24/21 15:01	7664-41-7	
9014 Cyanide, Total	Analytical Method: EPA 9014 Total Cyanide Preparation Method: EPA 9010C Pace Analytical Services - Melville							
Cyanide	**4.3J**	ug/L	10.0	1	06/24/21 13:00	06/24/21 19:45	57-12-5	B
9060A TOC as NPOC	Analytical Method: EPA 9060A Pace Analytical Services - Melville							
Total Organic Carbon	**375**	mg/L	3.0	3		07/02/21 03:12	7440-44-0	
Total Organic Carbon	**131**	mg/L	3.0	3		07/02/21 03:12	7440-44-0	
Total Organic Carbon	**132**	mg/L	3.0	3		07/02/21 03:12	7440-44-0	
Total Organic Carbon	**133**	mg/L	3.0	3		07/02/21 03:12	7440-44-0	
Mean Total Organic Carbon	**133**	mg/L	3.0	3		07/02/21 03:12	7440-44-0	

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

QC Batch: 213669
QC Batch Method: EPA 7470A
Analysis Method: EPA 7470A
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70176872001

METHOD BLANK: 1073886 Matrix: Water
Associated Lab Samples: 70176872001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	<0.20	0.20	06/16/21 16:01	

LABORATORY CONTROL SAMPLE: 1073887

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	1	0.98	98	80-120	

MATRIX SPIKE SAMPLE: 1073888

Parameter	Units	70176874003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	<0.20	1	1.0	98	75-125	

SAMPLE DUPLICATE: 1073889

Parameter	Units	70176874003 Result	Dup Result	RPD	Qualifiers
Mercury	ug/L	<0.20	<0.20		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

QC Batch: 215714
QC Batch Method: EPA 3005A
Analysis Method: EPA 6010C
Analysis Description: 6010 MET Water
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70176872001

METHOD BLANK: 1086152 Matrix: Water
Associated Lab Samples: 70176872001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aluminum	ug/L	<200	200	07/01/21 18:33	
Antimony	ug/L	<60.0	60.0	07/01/21 18:33	
Arsenic	ug/L	<10.0	10.0	07/01/21 18:33	
Barium	ug/L	<200	200	07/01/21 18:33	
Beryllium	ug/L	<5.0	5.0	07/01/21 18:33	
Boron	ug/L	1.0J	50.0	07/01/21 18:33	
Cadmium	ug/L	<2.5	2.5	07/01/21 18:33	
Calcium	ug/L	<200	200	07/01/21 18:33	
Chromium	ug/L	<10.0	10.0	07/01/21 18:33	
Cobalt	ug/L	<50.0	50.0	07/01/21 18:33	
Copper	ug/L	<25.0	25.0	07/01/21 18:33	
Iron	ug/L	<20.0	20.0	07/01/21 18:33	
Lead	ug/L	<5.0	5.0	07/01/21 18:33	
Magnesium	ug/L	<200	200	07/01/21 18:33	
Manganese	ug/L	<10.0	10.0	07/01/21 18:33	
Nickel	ug/L	<40.0	40.0	07/01/21 18:33	
Potassium	ug/L	<5000	5000	07/01/21 18:33	
Selenium	ug/L	<10.0	10.0	07/01/21 18:33	
Silver	ug/L	<10.0	10.0	07/01/21 18:33	
Sodium	ug/L	<5000	5000	07/01/21 18:33	
Thallium	ug/L	<10.0	10.0	07/01/21 18:33	
Tin	ug/L	<50.0	50.0	07/01/21 18:33	
Vanadium	ug/L	<50.0	50.0	07/01/21 18:33	
Zinc	ug/L	<20.0	20.0	07/01/21 18:33	

LABORATORY CONTROL SAMPLE: 1086153

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	25000	24800	99	80-120	
Antimony	ug/L	1000	977	98	80-120	
Arsenic	ug/L	500	487	97	80-120	
Barium	ug/L	500	493	99	80-120	
Beryllium	ug/L	500	494	99	80-120	
Boron	ug/L	1000	996	100	80-120	
Cadmium	ug/L	500	493	99	80-120	
Calcium	ug/L	25000	24700	99	80-120	
Chromium	ug/L	500	492	98	80-120	
Cobalt	ug/L	500	488	98	80-120	
Copper	ug/L	500	488	98	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

LABORATORY CONTROL SAMPLE: 1086153

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron	ug/L	12500	12300	98	80-120	
Lead	ug/L	500	501	100	80-120	
Magnesium	ug/L	25000	24400	98	80-120	
Manganese	ug/L	500	491	98	80-120	
Nickel	ug/L	500	493	99	80-120	
Potassium	ug/L	25000	23300	93	80-120	
Selenium	ug/L	500	491	98	80-120	
Silver	ug/L	250	248	99	80-120	
Sodium	ug/L	25000	24600	98	80-120	
Thallium	ug/L	250	251	100	80-120	
Tin	ug/L	1000	990	99	80-120	
Vanadium	ug/L	500	489	98	80-120	
Zinc	ug/L	500	483	97	80-120	

MATRIX SPIKE SAMPLE: 1086155

Parameter	Units	70176872001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	<10000	10000	11200	112	75-125	
Antimony	ug/L	<3000	400	<3000	28	75-125	M1
Arsenic	ug/L	<500	200	<500	50	75-125	M1
Barium	ug/L	6450J	200	7150J	350	75-125	M1
Beryllium	ug/L	<250	200	234J	116	75-125	
Boron	ug/L	740J	400	1280J	136	75-125	M1
Cadmium	ug/L	<125	200	244	120	75-125	
Calcium	ug/L	13000000	10000	14200000	11500	75-125	M1
Chromium	ug/L	<500	200	198J	99	75-125	
Cobalt	ug/L	<2500	200	200J	100	75-125	
Copper	ug/L	<1250	200	244J	86	75-125	
Iron	ug/L	<1000	5000	3170	63	75-125	M1
Lead	ug/L	<250	200	<250	15	75-125	M1
Magnesium	ug/L	10600	10000	22600	120	75-125	
Manganese	ug/L	496J	200	775	140	75-125	M1
Nickel	ug/L	<2000	200	258J	119	75-125	
Potassium	ug/L	8100000	10000	8850000	7500	75-125	M1
Selenium	ug/L	<500	200	<500	59	75-125	M1
Silver	ug/L	<500	100	94.5J	80	75-125	
Sodium	ug/L	11800000	10000	12700000	9500	75-125	M1
Thallium	ug/L	<500	100	<500	35	75-125	M1
Tin	ug/L	<2500	400	<2500	46	75-125	M1
Vanadium	ug/L	<2500	200	256J	102	75-125	
Zinc	ug/L	<1000	200	<1000	71	75-125	M1

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

SAMPLE DUPLICATE: 1086154

Parameter	Units	70176872001 Result	Dup Result	RPD	Qualifiers
Aluminum	ug/L	<10000	<10000		
Antimony	ug/L	<3000	<3000		
Arsenic	ug/L	<500	<500		
Barium	ug/L	6450J	7600J		
Beryllium	ug/L	<250	<250		
Boron	ug/L	740J	970J		
Cadmium	ug/L	<125	<125		
Calcium	ug/L	13000000	15200000	16	
Chromium	ug/L	<500	<500		
Cobalt	ug/L	<2500	<2500		
Copper	ug/L	<1250	<1250		
Iron	ug/L	<1000	<1000		
Lead	ug/L	<250	<250		
Magnesium	ug/L	10600	12400	16	
Manganese	ug/L	496J	580		
Nickel	ug/L	<2000	<2000		
Potassium	ug/L	8100000	9550000	16	
Selenium	ug/L	<500	<500		
Silver	ug/L	<500	<500		
Sodium	ug/L	11800000	13600000	15	
Thallium	ug/L	<500	<500		
Tin	ug/L	<2500	<2500		
Vanadium	ug/L	<2500	<2500		
Zinc	ug/L	<1000	<1000		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

QC Batch: 1690026
QC Batch Method: 3510C
Analysis Method: EPA 8270D
Analysis Description: SVOA (GC/MS) 8270 D
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 70176872001

METHOD BLANK: R3669463-2 Matrix: Water
Associated Lab Samples: 70176872001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Famphur	ug/L	<20.0	20.0	06/18/21 14:53	
Kepone	ug/L	<20.0	20.0	06/18/21 14:53	
p-Phenylenediamine	ug/L	<6900	6900	06/18/21 14:53	

LABORATORY CONTROL SAMPLE: R3669463-1

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Famphur	ug/L	50.0	44.7	89.4	32.0-120	
Kepone	ug/L	50.0	40.3	80.6	10.0-120	
p-Phenylenediamine	ug/L	50.0	0.0177	0.0354	50.0-150	L0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

QC Batch: 214335
QC Batch Method: EPA 8260C SIM/5030C
Analysis Method: EPA 8260C SIM/5030C
Analysis Description: 8260C SIM 5030C
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70176872001

METHOD BLANK: 1077998 Matrix: Water
Associated Lab Samples: 70176872001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	<0.20	0.20	06/20/21 12:03	
1,2-Dichlorobenzene-d4 (S)	%	108	42-152	06/20/21 12:03	
4-Bromofluorobenzene (S)	%	92	79-138	06/20/21 12:03	

LABORATORY CONTROL SAMPLE: 1077999

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	2.5	2.1	82	60-134	
1,2-Dichlorobenzene-d4 (S)	%			106	42-152	
4-Bromofluorobenzene (S)	%			85	79-138	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1078000 1078001

Parameter	Units	70176874003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,4-Dioxane (p-Dioxane)	ug/L	0.57	2.5	2.5	2.9	2.7	93	86	56-161	6	
1,2-Dichlorobenzene-d4 (S)	%						115	111	42-152		
4-Bromofluorobenzene (S)	%						95	97	79-138		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

QC Batch: 214051
QC Batch Method: EPA 8260C/5030C
Analysis Method: EPA 8260C/5030C
Analysis Description: 8260 MSV
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70176872001

METHOD BLANK: 1075996 Matrix: Water
Associated Lab Samples: 70176872001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<1.0	1.0	06/17/21 17:01	
1,1,1-Trichloroethane	ug/L	<1.0	1.0	06/17/21 17:01	
1,1,2,2-Tetrachloroethane	ug/L	<1.0	1.0	06/17/21 17:01	
1,1,2-Trichloroethane	ug/L	<1.0	1.0	06/17/21 17:01	
1,1-Dichloroethane	ug/L	<1.0	1.0	06/17/21 17:01	
1,1-Dichloroethene	ug/L	<1.0	1.0	06/17/21 17:01	
1,1-Dichloropropene	ug/L	<1.0	1.0	06/17/21 17:01	
1,2,3-Trichloropropane	ug/L	<1.0	1.0	06/17/21 17:01	
1,2-Dibromo-3-chloropropane	ug/L	<1.0	1.0	06/17/21 17:01	
1,2-Dibromoethane (EDB)	ug/L	<1.0	1.0	06/17/21 17:01	
1,2-Dichlorobenzene	ug/L	<1.0	1.0	06/17/21 17:01	
1,2-Dichloroethane	ug/L	<1.0	1.0	06/17/21 17:01	
1,2-Dichloropropane	ug/L	<1.0	1.0	06/17/21 17:01	
1,3-Dichlorobenzene	ug/L	<1.0	1.0	06/17/21 17:01	
1,3-Dichloropropane	ug/L	<1.0	1.0	06/17/21 17:01	
1,4-Dichlorobenzene	ug/L	<1.0	1.0	06/17/21 17:01	
1,4-Dioxane (p-Dioxane)	ug/L	<100	100	06/17/21 17:01	
2,2-Dichloropropane	ug/L	<1.0	1.0	06/17/21 17:01	
2-Butanone (MEK)	ug/L	<5.0	5.0	06/17/21 17:01	
2-Hexanone	ug/L	<5.0	5.0	06/17/21 17:01	
4-Methyl-2-pentanone (MIBK)	ug/L	<5.0	5.0	06/17/21 17:01	
Acetone	ug/L	<5.0	5.0	06/17/21 17:01	
Acetonitrile	ug/L	<5.0	5.0	06/17/21 17:01	
Acrolein	ug/L	<1.0	1.0	06/17/21 17:01	
Acrylonitrile	ug/L	<1.0	1.0	06/17/21 17:01	
Allyl chloride	ug/L	<4.0	4.0	06/17/21 17:01	
Benzene	ug/L	<1.0	1.0	06/17/21 17:01	
Bromochloromethane	ug/L	<1.0	1.0	06/17/21 17:01	
Bromodichloromethane	ug/L	<1.0	1.0	06/17/21 17:01	
Bromoform	ug/L	<1.0	1.0	06/17/21 17:01	
Bromomethane	ug/L	<1.0	1.0	06/17/21 17:01	
Carbon disulfide	ug/L	<1.0	1.0	06/17/21 17:01	
Carbon tetrachloride	ug/L	<1.0	1.0	06/17/21 17:01	
Chlorobenzene	ug/L	<1.0	1.0	06/17/21 17:01	
Chloroethane	ug/L	<1.0	1.0	06/17/21 17:01	
Chloroform	ug/L	<1.0	1.0	06/17/21 17:01	
Chloromethane	ug/L	<1.0	1.0	06/17/21 17:01	
Chloroprene	ug/L	<1.0	1.0	06/17/21 17:01	
cis-1,2-Dichloroethene	ug/L	<1.0	1.0	06/17/21 17:01	
cis-1,3-Dichloropropene	ug/L	<1.0	1.0	06/17/21 17:01	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

METHOD BLANK: 1075996 Matrix: Water
Associated Lab Samples: 70176872001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dibromochloromethane	ug/L	<1.0	1.0	06/17/21 17:01	
Dibromomethane	ug/L	<1.0	1.0	06/17/21 17:01	
Dichlorodifluoromethane	ug/L	<1.0	1.0	06/17/21 17:01	
Ethyl methacrylate	ug/L	<1.0	1.0	06/17/21 17:01	
Ethylbenzene	ug/L	<1.0	1.0	06/17/21 17:01	
Iodomethane	ug/L	<4.0	4.0	06/17/21 17:01	
Isobutanol	ug/L	<20.0	20.0	06/17/21 17:01	
Methacrylonitrile	ug/L	<1.0	1.0	06/17/21 17:01	
Methyl methacrylate	ug/L	<1.0	1.0	06/17/21 17:01	
Methylene Chloride	ug/L	<1.0	1.0	06/17/21 17:01	
Propionitrile	ug/L	<4.0	4.0	06/17/21 17:01	
Styrene	ug/L	<1.0	1.0	06/17/21 17:01	
Tetrachloroethene	ug/L	<1.0	1.0	06/17/21 17:01	
Toluene	ug/L	<1.0	1.0	06/17/21 17:01	
trans-1,2-Dichloroethene	ug/L	<1.0	1.0	06/17/21 17:01	
trans-1,3-Dichloropropene	ug/L	<1.0	1.0	06/17/21 17:01	
trans-1,4-Dichloro-2-butene	ug/L	<1.0	1.0	06/17/21 17:01	
Trichloroethene	ug/L	<1.0	1.0	06/17/21 17:01	
Trichlorofluoromethane	ug/L	<1.0	1.0	06/17/21 17:01	
Vinyl acetate	ug/L	<1.0	1.0	06/17/21 17:01	
Vinyl chloride	ug/L	<1.0	1.0	06/17/21 17:01	
Xylene (Total)	ug/L	<3.0	3.0	06/17/21 17:01	
1,2-Dichloroethane-d4 (S)	%	94	70-123	06/17/21 17:01	
4-Bromofluorobenzene (S)	%	101	66-119	06/17/21 17:01	
Toluene-d8 (S)	%	98	82-121	06/17/21 17:01	

LABORATORY CONTROL SAMPLE: 1075997

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	47.7	95	66-133	
1,1,1-Trichloroethane	ug/L	50	50.2	100	62-121	
1,1,2,2-Tetrachloroethane	ug/L	50	45.6	91	75-122	
1,1,2-Trichloroethane	ug/L	50	47.4	95	80-122	
1,1-Dichloroethane	ug/L	50	44.9	90	68-127	
1,1-Dichloroethene	ug/L	50	46.6	93	65-123	
1,1-Dichloropropene	ug/L	50	46.3	93	74-115	
1,2,3-Trichloropropane	ug/L	50	44.5	89	63-123	
1,2-Dibromo-3-chloropropane	ug/L	50	43.8	88	52-126	
1,2-Dibromoethane (EDB)	ug/L	50	49.5	99	74-125	
1,2-Dichlorobenzene	ug/L	50	46.4	93	76-117	
1,2-Dichloroethane	ug/L	50	44.7	89	73-128	
1,2-Dichloropropane	ug/L	50	47.3	95	79-117	
1,3-Dichlorobenzene	ug/L	50	47.1	94	73-120	
1,3-Dichloropropane	ug/L	50	45.9	92	76-125	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

LABORATORY CONTROL SAMPLE: 1075997

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/L	50	45.8	92	73-119	
1,4-Dioxane (p-Dioxane)	ug/L	1250	1490	119	41-167	
2,2-Dichloropropane	ug/L	50	49.4	99	46-134	
2-Butanone (MEK)	ug/L	50	36.3	73	28-169	
2-Hexanone	ug/L	50	39.6	79	59-138	
4-Methyl-2-pentanone (MIBK)	ug/L	50	45.1	90	70-129	
Acetone	ug/L	50	38.2	76	10-225	IH
Acetonitrile	ug/L	250	232	93	49-159	
Acrolein	ug/L	50	53.7	107	42-168	
Acrylonitrile	ug/L	50	44.3	89	62-141	
Allyl chloride	ug/L	50	45.8	92	67-123	
Benzene	ug/L	50	48.1	96	73-121	
Bromochloromethane	ug/L	50	44.0	88	75-130	
Bromodichloromethane	ug/L	50	47.0	94	74-127	
Bromoform	ug/L	50	50.4	101	55-128	
Bromomethane	ug/L	50	41.0	82	12-176	
Carbon disulfide	ug/L	50	44.3	89	57-129	
Carbon tetrachloride	ug/L	50	57.8	116	64-122	
Chlorobenzene	ug/L	50	47.5	95	76-117	
Chloroethane	ug/L	50	42.3	85	60-129	
Chloroform	ug/L	50	44.7	89	74-129	
Chloromethane	ug/L	50	40.9	82	43-126	
Chloroprene	ug/L	50	45.8	92	65-125	
cis-1,2-Dichloroethene	ug/L	50	46.9	94	72-127	
cis-1,3-Dichloropropene	ug/L	50	50.0	100	65-134	
Dibromochloromethane	ug/L	50	48.9	98	71-130	
Dibromomethane	ug/L	50	48.6	97	76-119	
Dichlorodifluoromethane	ug/L	50	46.4	93	14-130	
Ethyl methacrylate	ug/L	50	49.6	99	62-140	
Ethylbenzene	ug/L	50	49.1	98	70-120	
Iodomethane	ug/L	50	32.0	64	10-187	
Isobutanol	ug/L	250	234	94	29-159	
Methacrylonitrile	ug/L	50	47.6	95	58-149	
Methyl methacrylate	ug/L	50	49.8	100	64-136	
Methylene Chloride	ug/L	50	44.8	90	69-126	
Propionitrile	ug/L	50	44.1	88	50-151	
Styrene	ug/L	50	48.7	97	80-121	
Tetrachloroethene	ug/L	50	49.5	99	65-120	
Toluene	ug/L	50	49.5	99	77-120	
trans-1,2-Dichloroethene	ug/L	50	46.2	92	71-125	
trans-1,3-Dichloropropene	ug/L	50	49.7	99	54-139	
trans-1,4-Dichloro-2-butene	ug/L	50	44.5	89	46-133	
Trichloroethene	ug/L	50	48.1	96	73-116	
Trichlorofluoromethane	ug/L	50	46.5	93	59-134	
Vinyl acetate	ug/L	50	41.1	82	56-134	
Vinyl chloride	ug/L	50	43.6	87	50-130	
Xylene (Total)	ug/L	150	147	98	73-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

LABORATORY CONTROL SAMPLE: 1075997

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane-d4 (S)	%			94	70-123	
4-Bromofluorobenzene (S)	%			100	66-119	
Toluene-d8 (S)	%			97	82-121	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1076058 1076059

Parameter	Units	70176312017 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,1,1,2-Tetrachloroethane	ug/L	<1.0	50	50	48.0	50.2	96	100	60-127	4	
1,1,1-Trichloroethane	ug/L	<1.0	50	50	49.3	50.3	99	101	60-127	2	
1,1,2,2-Tetrachloroethane	ug/L	<1.0	50	50	47.5	48.5	95	97	74-118	2	
1,1,2-Trichloroethane	ug/L	<1.0	50	50	48.4	48.9	97	98	80-120	1	
1,1-Dichloroethane	ug/L	<1.0	50	50	45.8	45.9	92	92	69-131	0	
1,1-Dichloroethene	ug/L	<1.0	50	50	45.2	47.0	90	94	70-129	4	
1,1-Dichloropropene	ug/L	<1.0	50	50	46.8	46.4	94	93	78-118	1	
1,2,3-Trichloropropane	ug/L	<1.0	50	50	45.9	47.0	92	94	60-120	2	
1,2-Dibromo-3-chloropropane	ug/L	<1.0	50	50	46.2	49.0	92	98	42-123	6	
1,2-Dibromoethane (EDB)	ug/L	<1.0	50	50	49.8	50.4	100	101	67-128	1	
1,2-Dichlorobenzene	ug/L	<1.0	50	50	47.7	49.7	95	99	73-117	4	
1,2-Dichloroethane	ug/L	<1.0	50	50	44.8	45.9	90	92	70-129	2	
1,2-Dichloropropane	ug/L	<1.0	50	50	47.8	47.5	96	95	77-118	1	
1,3-Dichlorobenzene	ug/L	<1.0	50	50	48.9	50.1	98	100	72-121	2	
1,3-Dichloropropane	ug/L	<1.0	50	50	46.9	47.8	94	96	75-117	2	
1,4-Dichlorobenzene	ug/L	<1.0	50	50	47.2	49.9	94	100	70-120	6	
1,4-Dioxane (p-Dioxane)	ug/L	<100	1250	1250	1360	1450	109	116	31-254	6	
2,2-Dichloropropane	ug/L	<1.0	50	50	42.8	43.6	86	87	38-132	2	
2-Butanone (MEK)	ug/L	<5.0	50	50	36.9	37.1	74	74	15-159	0	
2-Hexanone	ug/L	<5.0	50	50	41.9	42.8	84	86	60-127	2	
4-Methyl-2-pentanone (MIBK)	ug/L	<5.0	50	50	46.7	48.3	93	97	66-129	3	
Acetone	ug/L	<5.0	50	50	34.8	34.8	70	70	10-189	0	IH
Acetonitrile	ug/L	<5.0	250	250	242	242	97	97	32-164	0	
Acrolein	ug/L	<1.0	50	50	54.7	56.1	109	112	10-250	2	
Acrylonitrile	ug/L	<1.0	50	50	44.8	48.0	90	96	51-137	7	
Allyl chloride	ug/L	<4.0	50	50	44.2	46.0	88	92	53-143	4	
Benzene	ug/L	<1.0	50	50	48.7	48.8	97	98	74-126	0	
Bromochloromethane	ug/L	<1.0	50	50	46.0	44.7	92	89	69-132	3	
Bromodichloromethane	ug/L	<1.0	50	50	47.0	47.7	94	95	71-125	2	
Bromoform	ug/L	<1.0	50	50	49.1	49.7	98	99	40-128	1	
Bromomethane	ug/L	<1.0	50	50	15.8	19.1	32	38	10-179	19	
Carbon disulfide	ug/L	<1.0	50	50	43.6	43.6	87	87	60-131	0	
Carbon tetrachloride	ug/L	<1.0	50	50	55.3	55.2	111	110	64-125	0	
Chlorobenzene	ug/L	<1.0	50	50	49.6	50.4	99	101	72-121	2	
Chloroethane	ug/L	<1.0	50	50	39.8	38.3	80	77	54-137	4	
Chloroform	ug/L	5.0	50	50	50.9	51.0	92	92	73-128	0	
Chloromethane	ug/L	<1.0	50	50	28.1	29.3	56	59	45-123	4	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1076058 1076059

Parameter	Units	70176312017 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Chloroprene	ug/L	<1.0	50	50	44.9	45.2	90	90	58-141	1	
cis-1,2-Dichloroethene	ug/L	<1.0	50	50	47.9	48.2	96	96	72-129	1	
cis-1,3-Dichloropropene	ug/L	<1.0	50	50	48.9	49.2	98	98	57-130	1	
Dibromochloromethane	ug/L	<1.0	50	50	47.8	49.9	96	100	59-132	4	
Dibromomethane	ug/L	<1.0	50	50	49.1	48.2	98	96	69-122	2	
Dichlorodifluoromethane	ug/L	<1.0	50	50	31.6	32.3	63	65	10-131	2	
Ethyl methacrylate	ug/L	<1.0	50	50	51.3	51.6	103	103	47-143	0	
Ethylbenzene	ug/L	<1.0	50	50	49.5	50.4	99	101	67-126	2	
Iodomethane	ug/L	<4.0	50	50	31.8	38.7	64	77	10-182	19	
Isobutanol	ug/L	<20.0	250	250	211	216	84	86	13-142	2	
Methacrylonitrile	ug/L	<1.0	50	50	48.1	48.4	96	97	39-148	1	
Methyl methacrylate	ug/L	<1.0	50	50	50.2	50.1	100	100	49-140	0	
Methylene Chloride	ug/L	1.0	50	50	45.6	46.2	89	90	65-129	1	
Propionitrile	ug/L	<4.0	50	50	47.0	48.2	94	96	30-151	3	
Styrene	ug/L	<1.0	50	50	48.9	49.4	98	99	74-121	1	
Tetrachloroethene	ug/L	<1.0	50	50	49.3	50.1	99	100	59-131	2	
Toluene	ug/L	<1.0	50	50	50.2	50.2	100	100	76-124	0	
trans-1,2-Dichloroethene	ug/L	<1.0	50	50	45.5	46.4	91	93	74-129	2	
trans-1,3-Dichloropropene	ug/L	<1.0	50	50	47.0	47.7	94	95	42-140	2	
trans-1,4-Dichloro-2-butene	ug/L	<1.0	50	50	39.5	42.3	79	85	10-144	7	
Trichloroethene	ug/L	<1.0	50	50	50.1	50.3	100	101	78-119	0	
Trichlorofluoromethane	ug/L	<1.0	50	50	43.2	43.3	86	87	59-136	0	
Vinyl acetate	ug/L	<1.0	50	50	35.7	37.6	71	75	47-113	5	
Vinyl chloride	ug/L	<1.0	50	50	36.6	36.9	73	74	45-141	1	
Xylene (Total)	ug/L	<3.0	150	150	148	151	99	101	69-125	2	
1,2-Dichloroethane-d4 (S)	%						93	94	70-123		
4-Bromofluorobenzene (S)	%						100	101	66-119		
Toluene-d8 (S)	%						98	98	82-121		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

QC Batch: 214126
QC Batch Method: EPA 3510C
Analysis Method: EPA 8081B
Analysis Description: 8081 GCS Pesticides
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70176872001

METHOD BLANK: 1076645 Matrix: Water
Associated Lab Samples: 70176872001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
4,4'-DDD	ug/L	<0.10	0.10	06/23/21 09:43	
4,4'-DDE	ug/L	<0.10	0.10	06/23/21 09:43	
4,4'-DDT	ug/L	<0.10	0.10	06/23/21 09:43	
Aldrin	ug/L	<0.050	0.050	06/23/21 09:43	
alpha-BHC	ug/L	<0.050	0.050	06/23/21 09:43	
beta-BHC	ug/L	<0.050	0.050	06/23/21 09:43	
delta-BHC	ug/L	<0.050	0.050	06/23/21 09:43	
Dieldrin	ug/L	<0.10	0.10	06/23/21 09:43	
Endosulfan I	ug/L	<0.050	0.050	06/23/21 09:43	
Endosulfan II	ug/L	<0.10	0.10	06/23/21 09:43	
Endosulfan sulfate	ug/L	<0.10	0.10	06/23/21 09:43	
Endrin	ug/L	<0.10	0.10	06/23/21 09:43	
Endrin aldehyde	ug/L	<0.10	0.10	06/23/21 09:43	
gamma-BHC (Lindane)	ug/L	<0.050	0.050	06/23/21 09:43	
Heptachlor	ug/L	<0.050	0.050	06/23/21 09:43	
Heptachlor epoxide	ug/L	<0.050	0.050	06/23/21 09:43	
Methoxychlor	ug/L	<0.50	0.50	06/23/21 09:43	
Toxaphene	ug/L	<5.0	5.0	06/23/21 09:43	
Decachlorobiphenyl (S)	%	50	10-167	06/23/21 09:43	
Tetrachloro-m-xylene (S)	%	66	27-139	06/23/21 09:43	

LABORATORY CONTROL SAMPLE: 1076646

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
4,4'-DDD	ug/L	0.4	0.27	67	35-143	
4,4'-DDE	ug/L	0.4	0.24	61	36-135	
4,4'-DDT	ug/L	0.4	0.24	61	36-143	
Aldrin	ug/L	0.4	0.23	57	25-119	
alpha-BHC	ug/L	0.4	0.30	75	38-131	
beta-BHC	ug/L	0.4	0.30	75	41-134	
delta-BHC	ug/L	0.4	0.30	75	46-145	
Dieldrin	ug/L	0.4	0.28	70	39-134	
Endosulfan I	ug/L	0.4	0.19	48	35-114	
Endosulfan II	ug/L	0.4	0.22	56	44-127	
Endosulfan sulfate	ug/L	0.4	0.30	75	37-144	
Endrin	ug/L	0.4	0.30	75	43-143	
Endrin aldehyde	ug/L	0.4	0.31	78	39-136	
gamma-BHC (Lindane)	ug/L	0.4	0.30	75	41-136	
Heptachlor	ug/L	0.4	0.25	63	31-121	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

LABORATORY CONTROL SAMPLE: 1076646

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Heptachlor epoxide	ug/L	0.4	0.29	73	41-132	
Methoxychlor	ug/L	0.4	0.29J	73	39-155	
Decachlorobiphenyl (S)	%			33	10-167	
Tetrachloro-m-xylene (S)	%			76	27-139	

LABORATORY CONTROL SAMPLE: 1076647

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Toxaphene	ug/L	20	13.7	68	16-149	
Decachlorobiphenyl (S)	%			41	10-167	
Tetrachloro-m-xylene (S)	%			56	27-139	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1076648 1076649

Parameter	Units	70176312017 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
4,4'-DDD	ug/L	<0.094	0.38	0.38	0.27	0.28	70	72	10-142	2	
4,4'-DDE	ug/L	<0.094	0.38	0.38	0.27	0.27	70	71	10-136	1	
4,4'-DDT	ug/L	<0.094	0.38	0.38	0.26	0.27	70	71	10-148	1	
Aldrin	ug/L	<0.047	0.38	0.38	0.23	0.23	61	61	10-126	0	
alpha-BHC	ug/L	<0.047	0.38	0.38	0.30	0.28	79	74	10-156	7	
beta-BHC	ug/L	<0.047	0.38	0.38	0.29	0.30	77	79	10-200	2	
delta-BHC	ug/L	<0.047	0.38	0.38	0.32	0.30	83	78	10-200	6	
Dieldrin	ug/L	<0.094	0.38	0.38	0.30	0.29	78	75	10-135	4	
Endosulfan I	ug/L	<0.047	0.38	0.38	0.20	0.19	53	50	12-112	4	
Endosulfan II	ug/L	<0.094	0.38	0.38	0.23	0.23	60	60	11-136	0	
Endosulfan sulfate	ug/L	<0.094	0.38	0.38	0.33	0.31	86	81	10-152	6	
Endrin	ug/L	<0.094	0.38	0.38	0.32	0.31	86	83	11-145	4	
Endrin aldehyde	ug/L	<0.094	0.38	0.38	0.33	0.31	87	82	10-147	6	
gamma-BHC (Lindane)	ug/L	<0.047	0.38	0.38	0.31	0.30	82	78	10-172	5	
Heptachlor	ug/L	<0.047	0.38	0.38	0.26	0.25	68	64	10-129	6	
Heptachlor epoxide	ug/L	<0.047	0.38	0.38	0.30	0.29	80	76	10-139	5	
Methoxychlor	ug/L	<0.47	0.38	0.38	0.31J	0.29J	75	69	10-173		
Decachlorobiphenyl (S)	%						17	16	10-167		S0
Tetrachloro-m-xylene (S)	%						70	65	27-139		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

QC Batch: 214127
QC Batch Method: EPA 3510C
Analysis Method: EPA 8082A
Analysis Description: 8082 GCS PCB
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70176872001

METHOD BLANK: 1076650 Matrix: Water
Associated Lab Samples: 70176872001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/L	<1.0	1.0	06/21/21 19:44	
PCB-1221 (Aroclor 1221)	ug/L	<1.0	1.0	06/21/21 19:44	
PCB-1232 (Aroclor 1232)	ug/L	<1.0	1.0	06/21/21 19:44	
PCB-1242 (Aroclor 1242)	ug/L	<1.0	1.0	06/21/21 19:44	
PCB-1248 (Aroclor 1248)	ug/L	<1.0	1.0	06/21/21 19:44	
PCB-1254 (Aroclor 1254)	ug/L	<1.0	1.0	06/21/21 19:44	
PCB-1260 (Aroclor 1260)	ug/L	<1.0	1.0	06/21/21 19:44	
Decachlorobiphenyl (S)	%	66	10-138	06/21/21 19:44	
Tetrachloro-m-xylene (S)	%	96	37-105	06/21/21 19:44	

LABORATORY CONTROL SAMPLE: 1076651

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/L	5	5.7	113	16-139	
PCB-1260 (Aroclor 1260)	ug/L	5	6.5	131	27-150	v1
Decachlorobiphenyl (S)	%			59	10-138	
Tetrachloro-m-xylene (S)	%			102	37-105	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1076652 1076653

Parameter	Units	70176312017 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
PCB-1016 (Aroclor 1016)	ug/L	<0.94	4.7	4.7	4.4	4.6	94	98	37-115	4	
PCB-1260 (Aroclor 1260)	ug/L	<0.94	4.7	4.7	5.0	5.2	107	110	46-131	3	v1
Decachlorobiphenyl (S)	%						18	19	10-138		
Tetrachloro-m-xylene (S)	%						82	86	37-105		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

QC Batch: 213439
QC Batch Method: EPA 8151A
Analysis Method: EPA 8151A
Analysis Description: 8151A GCS Herbicides
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70176872001

METHOD BLANK: 1072567 Matrix: Water
Associated Lab Samples: 70176872001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
2,4,5-T	ug/L	<0.25	0.25	06/17/21 06:18	
2,4,5-TP (Silvex)	ug/L	<0.25	0.25	06/17/21 06:18	
2,4-D	ug/L	<0.50	0.50	06/17/21 06:18	
Dinoseb	ug/L	<0.20	0.20	06/17/21 06:18	
2,4-DCAA (S)	%	90	13-144	06/17/21 06:18	

LABORATORY CONTROL SAMPLE: 1072568

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4,5-T	ug/L	1	0.90	90	18-133	
2,4,5-TP (Silvex)	ug/L	1	0.80	80	25-135	
2,4-D	ug/L	3	2.4	80	45-113	
Dinoseb	ug/L	2	1.3	64	10-110	
2,4-DCAA (S)	%			88	13-144	

MATRIX SPIKE SAMPLE: 1072593

Parameter	Units	70176795001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
2,4,5-T	ug/L	<0.061	1	0.83	83	12-129	
2,4,5-TP (Silvex)	ug/L	<0.12	1	0.76	76	17-121	
2,4-D	ug/L	<0.47	3	2.3	76	17-116	
Dinoseb	ug/L	<0.084	2	1.2	56	18-121	
2,4-DCAA (S)	%				84	13-144	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

QC Batch: 213617
QC Batch Method: EPA 3510C
Analysis Method: EPA 8270D
Analysis Description: 8270 Water MSSV
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70176872001

METHOD BLANK: 1073392 Matrix: Water
Associated Lab Samples: 70176872001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4,5-Tetrachlorobenzene	ug/L	<5.0	5.0	06/16/21 11:56	
1,2,4-Trichlorobenzene	ug/L	<5.0	5.0	06/16/21 11:56	
1,2-Dichlorobenzene	ug/L	<5.0	5.0	06/16/21 11:56	
1,3,5-Trinitrobenzene	ug/L	<5.0	5.0	06/16/21 11:56	
1,3-Dichlorobenzene	ug/L	<5.0	5.0	06/16/21 11:56	
1,3-Dinitrobenzene	ug/L	<5.0	5.0	06/16/21 11:56	
1,4-Dichlorobenzene	ug/L	<5.0	5.0	06/16/21 11:56	
1,4-Naphthoquinone	ug/L	<5.0	5.0	06/16/21 11:56	
1-Naphthylamine	ug/L	<5.0	5.0	06/16/21 11:56	
2,2'-Oxybis(1-chloropropane)	ug/L	<5.0	5.0	06/16/21 11:56	
2,3,4,6-Tetrachlorophenol	ug/L	<5.0	5.0	06/16/21 11:56	
2,4,5-Trichlorophenol	ug/L	<5.0	5.0	06/16/21 11:56	
2,4,6-Trichlorophenol	ug/L	<5.0	5.0	06/16/21 11:56	
2,4-Dichlorophenol	ug/L	<5.0	5.0	06/16/21 11:56	
2,4-Dimethylphenol	ug/L	<5.0	5.0	06/16/21 11:56	
2,4-Dinitrophenol	ug/L	<10.0	10.0	06/16/21 11:56	
2,4-Dinitrotoluene	ug/L	<5.0	5.0	06/16/21 11:56	
2,6-Dichlorophenol	ug/L	<5.0	5.0	06/16/21 11:56	
2,6-Dinitrotoluene	ug/L	<5.0	5.0	06/16/21 11:56	
2-Acetylaminofluorene	ug/L	<5.0	5.0	06/16/21 11:56	
2-Chloronaphthalene	ug/L	<5.0	5.0	06/16/21 11:56	
2-Chlorophenol	ug/L	<5.0	5.0	06/16/21 11:56	
2-Methylnaphthalene	ug/L	<5.0	5.0	06/16/21 11:56	
2-Methylphenol(o-Cresol)	ug/L	<5.0	5.0	06/16/21 11:56	
2-Naphthylamine	ug/L	<5.0	5.0	06/16/21 11:56	
2-Nitroaniline	ug/L	<5.0	5.0	06/16/21 11:56	
2-Nitrophenol	ug/L	<5.0	5.0	06/16/21 11:56	
3&4-Methylphenol(m&p Cresol)	ug/L	<5.0	5.0	06/16/21 11:56	
3,3'-Dichlorobenzidine	ug/L	<5.0	5.0	06/16/21 11:56	
3,3'-Dimethylbenzidine	ug/L	<5.0	5.0	06/16/21 11:56	
3-Methylcholanthrene	ug/L	<5.0	5.0	06/16/21 11:56	
3-Nitroaniline	ug/L	<5.0	5.0	06/16/21 11:56	
4,6-Dinitro-2-methylphenol	ug/L	<10.0	10.0	06/16/21 11:56	
4-Aminobiphenyl	ug/L	<5.0	5.0	06/16/21 11:56	
4-Bromophenylphenyl ether	ug/L	<5.0	5.0	06/16/21 11:56	
4-Chloro-3-methylphenol	ug/L	<5.0	5.0	06/16/21 11:56	
4-Chloroaniline	ug/L	<5.0	5.0	06/16/21 11:56	
4-Chlorophenylphenyl ether	ug/L	<5.0	5.0	06/16/21 11:56	
4-Nitroaniline	ug/L	<5.0	5.0	06/16/21 11:56	
4-Nitrophenol	ug/L	<10.0	10.0	06/16/21 11:56	v3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

METHOD BLANK: 1073392 Matrix: Water
Associated Lab Samples: 70176872001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
5-Nitro-o-toluidine	ug/L	<5.0	5.0	06/16/21 11:56	
7,12-Dimethylbenz(a)anthracene	ug/L	<5.0	5.0	06/16/21 11:56	
Acenaphthene	ug/L	<5.0	5.0	06/16/21 11:56	
Acenaphthylene	ug/L	<5.0	5.0	06/16/21 11:56	
Acetophenone	ug/L	<5.0	5.0	06/16/21 11:56	
Anthracene	ug/L	<5.0	5.0	06/16/21 11:56	
Benzo(a)anthracene	ug/L	<5.0	5.0	06/16/21 11:56	
Benzo(a)pyrene	ug/L	<5.0	5.0	06/16/21 11:56	
Benzo(b)fluoranthene	ug/L	<5.0	5.0	06/16/21 11:56	
Benzo(g,h,i)perylene	ug/L	<5.0	5.0	06/16/21 11:56	
Benzo(k)fluoranthene	ug/L	<5.0	5.0	06/16/21 11:56	
Benzyl alcohol	ug/L	<5.0	5.0	06/16/21 11:56	
bis(2-Chloroethoxy)methane	ug/L	<5.0	5.0	06/16/21 11:56	
bis(2-Chloroethyl) ether	ug/L	<5.0	5.0	06/16/21 11:56	
bis(2-Ethylhexyl)phthalate	ug/L	<5.0	5.0	06/16/21 11:56	
Butylbenzylphthalate	ug/L	<5.0	5.0	06/16/21 11:56	
Chlorobenzilate	ug/L	<5.0	5.0	06/16/21 11:56	
Chrysene	ug/L	<5.0	5.0	06/16/21 11:56	
Di-n-butylphthalate	ug/L	<5.0	5.0	06/16/21 11:56	
Di-n-octylphthalate	ug/L	<5.0	5.0	06/16/21 11:56	
Diallate	ug/L	<5.0	5.0	06/16/21 11:56	
Dibenz(a,h)anthracene	ug/L	<5.0	5.0	06/16/21 11:56	
Dibenzofuran	ug/L	<5.0	5.0	06/16/21 11:56	
Diethylphthalate	ug/L	<5.0	5.0	06/16/21 11:56	
Dimethoate	ug/L	<5.0	5.0	06/16/21 11:56	
Dimethylphthalate	ug/L	<5.0	5.0	06/16/21 11:56	
Disulfoton	ug/L	<5.0	5.0	06/16/21 11:56	
Ethyl methanesulfonate	ug/L	<5.0	5.0	06/16/21 11:56	
Fluoranthene	ug/L	<5.0	5.0	06/16/21 11:56	
Fluorene	ug/L	<5.0	5.0	06/16/21 11:56	
Hexachloro-1,3-butadiene	ug/L	<5.0	5.0	06/16/21 11:56	
Hexachlorobenzene	ug/L	<5.0	5.0	06/16/21 11:56	
Hexachlorocyclopentadiene	ug/L	<5.0	5.0	06/16/21 11:56	v3
Hexachloroethane	ug/L	<5.0	5.0	06/16/21 11:56	
Hexachloropropene	ug/L	<5.0	5.0	06/16/21 11:56	
Indeno(1,2,3-cd)pyrene	ug/L	<5.0	5.0	06/16/21 11:56	
Isodrin	ug/L	<5.0	5.0	06/16/21 11:56	
Isophorone	ug/L	<5.0	5.0	06/16/21 11:56	
Isosafrole	ug/L	<5.0	5.0	06/16/21 11:56	
Methapyrilene	ug/L	<5.0	5.0	06/16/21 11:56	
Methyl methanesulfonate	ug/L	<5.0	5.0	06/16/21 11:56	
Methyl parathion	ug/L	<5.0	5.0	06/16/21 11:56	
N-Nitroso-di-n-butylamine	ug/L	<5.0	5.0	06/16/21 11:56	
N-Nitroso-di-n-propylamine	ug/L	<5.0	5.0	06/16/21 11:56	
N-Nitrosodiethylamine	ug/L	<5.0	5.0	06/16/21 11:56	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

METHOD BLANK: 1073392 Matrix: Water
Associated Lab Samples: 70176872001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
N-Nitrosodimethylamine	ug/L	<5.0	5.0	06/16/21 11:56	
N-Nitrosodiphenylamine	ug/L	<5.0	5.0	06/16/21 11:56	
N-Nitrosomethylethylamine	ug/L	<5.0	5.0	06/16/21 11:56	
N-Nitrosopiperidine	ug/L	<5.0	5.0	06/16/21 11:56	
N-Nitrosopyrrolidine	ug/L	<5.0	5.0	06/16/21 11:56	
Naphthalene	ug/L	<5.0	5.0	06/16/21 11:56	
Nitrobenzene	ug/L	<5.0	5.0	06/16/21 11:56	
O,O,O-Triethylphosphorothioate	ug/L	<5.0	5.0	06/16/21 11:56	
O-Toluidine	ug/L	<5.0	5.0	06/16/21 11:56	
P-Dimethylaminoazobenzene	ug/L	<5.0	5.0	06/16/21 11:56	
Parathion (Ethyl parathion)	ug/L	<5.0	5.0	06/16/21 11:56	
Pentachlorobenzene	ug/L	<5.0	5.0	06/16/21 11:56	
Pentachloronitrobenzene	ug/L	<5.0	5.0	06/16/21 11:56	
Pentachlorophenol	ug/L	<10.0	10.0	06/16/21 11:56	
Phenacetin	ug/L	<5.0	5.0	06/16/21 11:56	
Phenanthrene	ug/L	<5.0	5.0	06/16/21 11:56	
Phenol	ug/L	<5.0	5.0	06/16/21 11:56	
Pronamide	ug/L	<5.0	5.0	06/16/21 11:56	
Pyrene	ug/L	<5.0	5.0	06/16/21 11:56	
Safrole	ug/L	<5.0	5.0	06/16/21 11:56	
Thionazin	ug/L	<5.0	5.0	06/16/21 11:56	
1,2-Dichlorobenzene-d4 (S)	%	64	30-110	06/16/21 11:56	
2,4,6-Tribromophenol (S)	%	80	57-131	06/16/21 11:56	
2-Chlorophenol-d4 (S)	%	73	43-110	06/16/21 11:56	
2-Fluorobiphenyl (S)	%	76	42-110	06/16/21 11:56	
2-Fluorophenol (S)	%	48	12-110	06/16/21 11:56	
Nitrobenzene-d5 (S)	%	73	38-113	06/16/21 11:56	
p-Terphenyl-d14 (S)	%	84	33-119	06/16/21 11:56	
Phenol-d5 (S)	%	33	10-110	06/16/21 11:56	

LABORATORY CONTROL SAMPLE: 1073393

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4,5-Tetrachlorobenzene	ug/L	25	22.9	92	28-114	
1,2,4-Trichlorobenzene	ug/L	25	22.0	88	15-108	
1,2-Dichlorobenzene	ug/L	25	21.1	84	10-105	
1,3,5-Trinitrobenzene	ug/L	25	26.8	107	10-218	
1,3-Dichlorobenzene	ug/L	25	20.9	84	10-101	v1
1,3-Dinitrobenzene	ug/L	25	27.8	111	55-142	
1,4-Dichlorobenzene	ug/L	25	21.0	84	10-104	
1,4-Naphthoquinone	ug/L	25	40.4	161	10-223	IH
1-Naphthylamine	ug/L	25	15.1	60	13-108	
2,2'-Oxybis(1-chloropropane)	ug/L	25	17.6	71	29-108	
2,3,4,6-Tetrachlorophenol	ug/L	25	23.7	95	42-127	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

LABORATORY CONTROL SAMPLE: 1073393

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4,5-Trichlorophenol	ug/L	25	24.5	98	56-126	
2,4,6-Trichlorophenol	ug/L	25	24.0	96	53-120	
2,4-Dichlorophenol	ug/L	25	23.0	92	51-112	
2,4-Dimethylphenol	ug/L	25	12.1	49	21-114	
2,4-Dinitrophenol	ug/L	25	30.0	120	10-139	v1
2,4-Dinitrotoluene	ug/L	25	25.8	103	53-132	
2,6-Dichlorophenol	ug/L	25	23.3	93	51-117	
2,6-Dinitrotoluene	ug/L	25	24.4	98	55-128	
2-Acetylaminofluorene	ug/L	25	26.5	106	57-133	
2-Chloronaphthalene	ug/L	25	23.2	93	32-111	
2-Chlorophenol	ug/L	25	21.2	85	47-110	
2-Methylnaphthalene	ug/L	25	22.9	92	24-115	
2-Methylphenol(o-Cresol)	ug/L	25	18.5	74	38-110	
2-Naphthylamine	ug/L	25	21.3	85	28-146	
2-Nitroaniline	ug/L	25	19.1	77	35-121	
2-Nitrophenol	ug/L	25	23.5	94	47-120	
3&4-Methylphenol(m&p Cresol)	ug/L	25	19.9	80	29-110	
3,3'-Dichlorobenzidine	ug/L	25	23.3	93	51-136	
3,3'-Dimethylbenzidine	ug/L	25	15.8	63	10-232	
3-Methylcholanthrene	ug/L	25	26.2	105	42-123	
3-Nitroaniline	ug/L	25	23.4	94	56-127	
4,6-Dinitro-2-methylphenol	ug/L	25	26.8	107	10-151	
4-Aminobiphenyl	ug/L	25	21.7	87	10-178	
4-Bromophenylphenyl ether	ug/L	25	23.3	93	52-123	
4-Chloro-3-methylphenol	ug/L	25	23.9	96	52-115	
4-Chloroaniline	ug/L	25	19.1	76	42-110	
4-Chlorophenylphenyl ether	ug/L	25	24.7	99	48-118	
4-Nitroaniline	ug/L	25	24.2	97	49-123	
4-Nitrophenol	ug/L	25	8.9J	35	10-110	v3
5-Nitro-o-toluidine	ug/L	25	22.8	91	52-133	
7,12-Dimethylbenz(a)anthracene	ug/L	25	24.5	98	49-122	
Acenaphthene	ug/L	25	22.6	90	43-117	
Acenaphthylene	ug/L	25	22.5	90	47-119	
Acetophenone	ug/L	25	22.0	88	48-107	
Anthracene	ug/L	25	23.5	94	60-119	
Benzo(a)anthracene	ug/L	25	23.3	93	54-131	
Benzo(a)pyrene	ug/L	25	27.9	112	38-143	
Benzo(b)fluoranthene	ug/L	25	25.2	101	38-145	
Benzo(g,h,i)perylene	ug/L	25	25.8	103	36-149	
Benzo(k)fluoranthene	ug/L	25	23.7	95	42-139	
Benzyl alcohol	ug/L	25	19.2	77	10-118	
bis(2-Chloroethoxy)methane	ug/L	25	19.4	78	45-106	
bis(2-Chloroethyl) ether	ug/L	25	20.4	82	43-110	
bis(2-Ethylhexyl)phthalate	ug/L	25	25.9	104	60-131	
Butylbenzylphthalate	ug/L	25	23.9	96	56-129	
Chlorobenzilate	ug/L	25	23.3	93	49-150	
Chrysene	ug/L	25	23.0	92	54-129	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

LABORATORY CONTROL SAMPLE: 1073393

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Di-n-butylphthalate	ug/L	25	25.5	102	61-130	
Di-n-octylphthalate	ug/L	25	30.7	123	49-145	v1
Diallate	ug/L	25	21.3	85	53-124	
Dibenz(a,h)anthracene	ug/L	25	26.4	106	35-150	
Dibenzofuran	ug/L	25	24.1	97	50-114	
Diethylphthalate	ug/L	25	24.9	99	58-125	
Dimethoate	ug/L	25	23.7	95	10-184	
Dimethylphthalate	ug/L	25	24.5	98	56-122	
Disulfoton	ug/L	25	22.2	89	10-159	
Ethyl methanesulfonate	ug/L	25	20.2	81	47-106	
Fluoranthene	ug/L	25	24.4	98	58-126	
Fluorene	ug/L	25	24.3	97	54-116	
Hexachloro-1,3-butadiene	ug/L	25	22.7	91	10-112	
Hexachlorobenzene	ug/L	25	23.2	93	51-121	
Hexachlorocyclopentadiene	ug/L	25	22.6	90	10-125	v3
Hexachloroethane	ug/L	25	20.5	82	10-110	
Hexachloropropene	ug/L	25	22.9	92	10-112	
Indeno(1,2,3-cd)pyrene	ug/L	25	25.7	103	27-155	
Isodrin	ug/L	25	22.6	90	55-136	
Isophorone	ug/L	25	20.7	83	51-113	
Isosafrole	ug/L	25	22.8	91	39-127	
Methapyrilene	ug/L	25	14.0	56	10-230	
Methyl methanesulfonate	ug/L	25	17.1	68	24-110	
Methyl parathion	ug/L	25	25.4	102	60-140	
N-Nitroso-di-n-butylamine	ug/L	25	20.3	81	40-113	
N-Nitroso-di-n-propylamine	ug/L	25	21.5	86	42-111	
N-Nitrosodiethylamine	ug/L	25	20.6	82	49-110	
N-Nitrosodimethylamine	ug/L	25	12.7	51	14-110	
N-Nitrosodiphenylamine	ug/L	25	23.2	93	58-120	
N-Nitrosomethylethylamine	ug/L	25	16.3	65	21-121	
N-Nitrosopiperidine	ug/L	25	22.1	88	33-126	
N-Nitrosopyrrolidine	ug/L	25	21.6	87	44-105	
Naphthalene	ug/L	25	22.6	90	18-114	
Nitrobenzene	ug/L	25	20.9	84	48-109	
O,O,O-Triethylphosphorothioate	ug/L	25	22.5	90	49-119	
O-Toluidine	ug/L	25	17.3	69	40-104	
P-Dimethylaminoazobenzene	ug/L	25	22.3	89	43-147	
Parathion (Ethyl parathion)	ug/L	25	23.4	94	10-190	
Pentachlorobenzene	ug/L	25	23.3	93	54-132	
Pentachloronitrobenzene	ug/L	25	24.9	100	61-145	
Pentachlorophenol	ug/L	25	17.0	68	11-141	
Phenacetin	ug/L	25	23.3	93	57-135	
Phenanthrene	ug/L	25	23.3	93	61-118	
Phenol	ug/L	25	12.2	49	12-110	
Pronamide	ug/L	25	21.5	86	56-134	
Pyrene	ug/L	25	23.2	93	54-134	
Safrole	ug/L	25	23.3	93	50-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

LABORATORY CONTROL SAMPLE: 1073393

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Thionazin	ug/L	25	22.4	90	54-138	
1,2-Dichlorobenzene-d4 (S)	%			68	30-110	
2,4,6-Tribromophenol (S)	%			86	57-131	
2-Chlorophenol-d4 (S)	%			76	43-110	
2-Fluorobiphenyl (S)	%			81	42-110	
2-Fluorophenol (S)	%			54	12-110	
Nitrobenzene-d5 (S)	%			76	38-113	
p-Terphenyl-d14 (S)	%			85	33-119	
Phenol-d5 (S)	%			40	10-110	

SAMPLE DUPLICATE: 1073453

Parameter	Units	70176872001 Result	Dup Result	RPD	Qualifiers
1,2,4,5-Tetrachlorobenzene	ug/L	<5.0	<5.0		
1,2,4-Trichlorobenzene	ug/L	<5.0	<5.0		
1,2-Dichlorobenzene	ug/L	<5.0	<5.0		
1,3,5-Trinitrobenzene	ug/L	<5.0	<5.0		
1,3-Dichlorobenzene	ug/L	<5.0	<5.0		
1,3-Dinitrobenzene	ug/L	<5.0	<5.0		
1,4-Dichlorobenzene	ug/L	<5.0	<5.0		
1,4-Naphthoquinone	ug/L	<5.0	<5.0		
1-Naphthylamine	ug/L	<5.0	<5.0		
2,2'-Oxybis(1-chloropropane)	ug/L	<5.0	<5.0		
2,3,4,6-Tetrachlorophenol	ug/L	<5.0	<5.0		
2,4,5-Trichlorophenol	ug/L	<5.0	<5.0		
2,4,6-Trichlorophenol	ug/L	<5.0	<5.0		
2,4-Dichlorophenol	ug/L	<5.0	<5.0		
2,4-Dimethylphenol	ug/L	<5.0	<5.0		
2,4-Dinitrophenol	ug/L	<10.0	<10.0		
2,4-Dinitrotoluene	ug/L	<5.0	<5.0		
2,6-Dichlorophenol	ug/L	<5.0	<5.0		
2,6-Dinitrotoluene	ug/L	<5.0	<5.0		
2-Acetylaminofluorene	ug/L	<5.0	<5.0		
2-Chloronaphthalene	ug/L	<5.0	<5.0		
2-Chlorophenol	ug/L	<5.0	<5.0		
2-Methylnaphthalene	ug/L	<5.0	<5.0		
2-Methylphenol(o-Cresol)	ug/L	<5.0	<5.0		
2-Naphthylamine	ug/L	<5.0	<5.0		
2-Nitroaniline	ug/L	<5.0	<5.0		
2-Nitrophenol	ug/L	<5.0	<5.0		
3&4-Methylphenol(m&p Cresol)	ug/L	83.3	82.9	0	E
3,3'-Dichlorobenzidine	ug/L	<5.0	<5.0		
3,3'-Dimethylbenzidine	ug/L	<5.0	<5.0		
3-Methylcholanthrene	ug/L	<5.0	<5.0		
3-Nitroaniline	ug/L	<5.0	<5.0		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

SAMPLE DUPLICATE: 1073453

Parameter	Units	70176872001 Result	Dup Result	RPD	Qualifiers
4,6-Dinitro-2-methylphenol	ug/L	<10.0	<10.0		
4-Aminobiphenyl	ug/L	<5.0	<5.0		
4-Bromophenylphenyl ether	ug/L	<5.0	<5.0		
4-Chloro-3-methylphenol	ug/L	<5.0	<5.0		
4-Chloroaniline	ug/L	<5.0	<5.0		
4-Chlorophenylphenyl ether	ug/L	<5.0	<5.0		
4-Nitroaniline	ug/L	<5.0	<5.0		
4-Nitrophenol	ug/L	<10.0	<10.0		v3
5-Nitro-o-toluidine	ug/L	<5.0	<5.0		
7,12-Dimethylbenz(a)anthracene	ug/L	<5.0	<5.0		
Acenaphthene	ug/L	<5.0	<5.0		
Acenaphthylene	ug/L	<5.0	<5.0		
Acetophenone	ug/L	<5.0	<5.0		
Anthracene	ug/L	<5.0	<5.0		
Benzo(a)anthracene	ug/L	<5.0	<5.0		
Benzo(a)pyrene	ug/L	<5.0	<5.0		
Benzo(b)fluoranthene	ug/L	<5.0	<5.0		
Benzo(g,h,i)perylene	ug/L	<5.0	<5.0		
Benzo(k)fluoranthene	ug/L	<5.0	<5.0		
Benzyl alcohol	ug/L	<5.0	<5.0		
bis(2-Chloroethoxy)methane	ug/L	<5.0	<5.0		
bis(2-Chloroethyl) ether	ug/L	<5.0	<5.0		
bis(2-Ethylhexyl)phthalate	ug/L	<5.0	<5.0		
Butylbenzylphthalate	ug/L	<5.0	<5.0		
Chlorobenzilate	ug/L	<5.0	<5.0		
Chrysene	ug/L	<5.0	<5.0		
Di-n-butylphthalate	ug/L	<5.0	<5.0		
Di-n-octylphthalate	ug/L	<5.0	<5.0		
Diallate	ug/L	<5.0	<5.0		
Dibenz(a,h)anthracene	ug/L	<5.0	<5.0		
Dibenzofuran	ug/L	<5.0	<5.0		
Diethylphthalate	ug/L	<5.0	<5.0		
Dimethoate	ug/L	<5.0	<5.0		
Dimethylphthalate	ug/L	<5.0	<5.0		
Disulfoton	ug/L	<5.0	<5.0		
Ethyl methanesulfonate	ug/L	<5.0	<5.0		
Fluoranthene	ug/L	<5.0	<5.0		
Fluorene	ug/L	<5.0	<5.0		
Hexachloro-1,3-butadiene	ug/L	<5.0	<5.0		
Hexachlorobenzene	ug/L	<5.0	<5.0		
Hexachlorocyclopentadiene	ug/L	<5.0	<5.0		v3
Hexachloroethane	ug/L	<5.0	<5.0		
Hexachloropropene	ug/L	<5.0	<5.0		
Indeno(1,2,3-cd)pyrene	ug/L	<5.0	<5.0		
Isodrin	ug/L	<5.0	<5.0		
Isophorone	ug/L	<5.0	<5.0		
Isosafrole	ug/L	<5.0	<5.0		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

SAMPLE DUPLICATE: 1073453

Parameter	Units	70176872001 Result	Dup Result	RPD	Qualifiers
Methapyrilene	ug/L	<5.0	<5.0		
Methyl methanesulfonate	ug/L	<5.0	<5.0		
Methyl parathion	ug/L	<5.0	<5.0		
N-Nitroso-di-n-butylamine	ug/L	<5.0	<5.0		
N-Nitroso-di-n-propylamine	ug/L	<5.0	<5.0		
N-Nitrosodiethylamine	ug/L	<5.0	<5.0		
N-Nitrosodimethylamine	ug/L	<5.0	<5.0		
N-Nitrosodiphenylamine	ug/L	<5.0	<5.0		
N-Nitrosomethylethylamine	ug/L	<5.0	<5.0		
N-Nitrosopiperidine	ug/L	<5.0	<5.0		
N-Nitrosopyrrolidine	ug/L	<5.0	<5.0		
Naphthalene	ug/L	0.62J	0.61J		
Nitrobenzene	ug/L	<5.0	<5.0		
O,O,O-Triethylphosphorothioate	ug/L	<5.0	<5.0		
O-Toluidine	ug/L	<5.0	<5.0		
P-Dimethylaminoazobenzene	ug/L	<5.0	<5.0		
Parathion (Ethyl parathion)	ug/L	<5.0	<5.0		
Pentachlorobenzene	ug/L	<5.0	<5.0		
Pentachloronitrobenzene	ug/L	<5.0	<5.0		
Pentachlorophenol	ug/L	<10.0	<10.0		
Phenacetin	ug/L	<5.0	<5.0		
Phenanthrene	ug/L	<5.0	<5.0		
Phenol	ug/L	62.7	62.3	1	
Pronamide	ug/L	<5.0	<5.0		
Pyrene	ug/L	<5.0	<5.0		
Safrole	ug/L	<5.0	<5.0		
Thionazin	ug/L	<5.0	<5.0		
1,2-Dichlorobenzene-d4 (S)	%	67	70		
2,4,6-Tribromophenol (S)	%	85	86		
2-Chlorophenol-d4 (S)	%	72	74		
2-Fluorobiphenyl (S)	%	80	81		
2-Fluorophenol (S)	%	55	55		
Nitrobenzene-d5 (S)	%	72	75		
p-Terphenyl-d14 (S)	%	70	65		
Phenol-d5 (S)	%	45	44		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

QC Batch: 213689
QC Batch Method: SM22 2120B
Analysis Method: SM22 2120B
Analysis Description: 2120B Color
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70176872001

METHOD BLANK: 1073904 Matrix: Water
Associated Lab Samples: 70176872001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Apparent Color	units	<5.0	5.0	06/16/21 09:29	

LABORATORY CONTROL SAMPLE: 1073905

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Apparent Color	units	40	40.0	100	90-110	

SAMPLE DUPLICATE: 1073928

Parameter	Units	70176874003 Result	Dup Result	RPD	Qualifiers
Apparent Color	units	75.0	75.0	0	
pH	Std. Units	7.0	7.0	0	

SAMPLE DUPLICATE: 1073929

Parameter	Units	70176982004 Result	Dup Result	RPD	Qualifiers
Apparent Color	units	85.0	85.0	0	
pH	Std. Units	6.6	6.6	0	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

QC Batch: 214369
QC Batch Method: SM22 2320B
Analysis Method: SM22 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70176872001

METHOD BLANK: 1078122 Matrix: Water
Associated Lab Samples: 70176872001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	<1.0	1.0	06/21/21 09:36	

LABORATORY CONTROL SAMPLE: 1078123

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	25	25.1	100	85-115	

MATRIX SPIKE SAMPLE: 1078125

Parameter	Units	70176874003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	157	50	183	53	75-125	M1

SAMPLE DUPLICATE: 1078124

Parameter	Units	70176874003 Result	Dup Result	RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	157	167	6	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

QC Batch: 215818
QC Batch Method: SM22 2340C
Analysis Method: SM22 2340C
Analysis Description: 2340C Hardness, Total
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70176872001

METHOD BLANK: 1086646 Matrix: Water
Associated Lab Samples: 70176872001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Tot Hardness asCaCO3 (SM 2340B	mg/L	<5.0	5.0	06/30/21 19:26	

LABORATORY CONTROL SAMPLE: 1086647

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Tot Hardness asCaCO3 (SM 2340B	mg/L	100	100	100	90-110	

MATRIX SPIKE SAMPLE: 1086648

Parameter	Units	70176872001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Tot Hardness asCaCO3 (SM 2340B	mg/L	30000	20000	50000	100	75-125	

MATRIX SPIKE SAMPLE: 1086650

Parameter	Units	70176312017 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Tot Hardness asCaCO3 (SM 2340B	mg/L	120	2000	2120	100	75-125	

SAMPLE DUPLICATE: 1086649

Parameter	Units	70176872001 Result	Dup Result	RPD	Qualifiers
Tot Hardness asCaCO3 (SM 2340B	mg/L	30000	30000	0	

SAMPLE DUPLICATE: 1086651

Parameter	Units	70176312017 Result	Dup Result	RPD	Qualifiers
Tot Hardness asCaCO3 (SM 2340B	mg/L	120	120	0	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

QC Batch: 214826
QC Batch Method: SM22 2540C
Analysis Method: SM22 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70176872001

METHOD BLANK: 1080768 Matrix: Water
Associated Lab Samples: 70176872001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	2.0J	10.0	06/23/21 18:03	

LABORATORY CONTROL SAMPLE: 1080769

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	500	522	104	85-115	

LABORATORY CONTROL SAMPLE: 1080770

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	500	530	106	85-115	

LABORATORY CONTROL SAMPLE: 1080771

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	500	520	104	85-115	

LABORATORY CONTROL SAMPLE: 1080772

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	500	528	106	85-115	

MATRIX SPIKE SAMPLE: 1080774

Parameter	Units	70176872001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	65200	30000	101000	119	75-125	H1

MATRIX SPIKE SAMPLE: 1080776

Parameter	Units	70176874003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	12300	30000	45300	110	75-125	H1

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

SAMPLE DUPLICATE: 1080773

Parameter	Units	70176872001 Result	Dup Result	RPD	Qualifiers
Total Dissolved Solids	mg/L	65200	65500	0	H1

SAMPLE DUPLICATE: 1080775

Parameter	Units	70176874003 Result	Dup Result	RPD	Qualifiers
Total Dissolved Solids	mg/L	12300	12100	2	H1

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

QC Batch: 213457
QC Batch Method: SM22 3500-Cr B
Analysis Method: SM22 3500-Cr B
Analysis Description: Chromium, Hexavalent by 3500
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70176872001

METHOD BLANK: 1072627 Matrix: Water
Associated Lab Samples: 70176872001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium, Hexavalent	mg/L	<0.020	0.020	06/15/21 08:51	

LABORATORY CONTROL SAMPLE: 1072628

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/L	0.2	0.20	101	85-115	

MATRIX SPIKE SAMPLE: 1072629

Parameter	Units	70176874003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/L	<0.020	0.2	0.20	100	75-125	

SAMPLE DUPLICATE: 1072630

Parameter	Units	70176874003 Result	Dup Result	RPD	Qualifiers
Chromium, Hexavalent	mg/L	<0.020	<0.020		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

QC Batch: 214770
QC Batch Method: EPA 410.4
Analysis Method: EPA 410.4
Analysis Description: 410.4 COD
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70176872001

METHOD BLANK: 1080696 Matrix: Water
Associated Lab Samples: 70176872001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	<10.0	10.0	06/23/21 10:13	

LABORATORY CONTROL SAMPLE: 1080697

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	500	520	104	90-110	

MATRIX SPIKE SAMPLE: 1080698

Parameter	Units	70176101001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	50.5	1000	1080	103	90-110	

MATRIX SPIKE SAMPLE: 1080700

Parameter	Units	70176101015 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	<10.0	1000	1040	104	90-110	

SAMPLE DUPLICATE: 1080699

Parameter	Units	70176101001 Result	Dup Result	RPD	Qualifiers
Chemical Oxygen Demand	mg/L	50.5	48.4	4	

SAMPLE DUPLICATE: 1080701

Parameter	Units	70176101015 Result	Dup Result	RPD	Qualifiers
Chemical Oxygen Demand	mg/L	<10.0	<10.0		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

QC Batch: 213629
QC Batch Method: SM22 5210B
Analysis Method: SM22 5210B
Analysis Description: 5210B BOD, 5 day
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70176872001

METHOD BLANK: 1073529 Matrix: Water
Associated Lab Samples: 70176872001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
BOD, 5 day	mg/L	<2.0	2.0	06/20/21 08:35	

LABORATORY CONTROL SAMPLE: 1073530

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
BOD, 5 day	mg/L	198	177	90	84.5-115.4	

SAMPLE DUPLICATE: 1073531

Parameter	Units	70176899001 Result	Dup Result	RPD	Qualifiers
BOD, 5 day	mg/L	94.4	119	23	D6

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

QC Batch: 214355
QC Batch Method: EPA 9030B
Analysis Method: EPA 9034
Analysis Description: 9034 Sulfide Waste Water
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70176872001

METHOD BLANK: 1078076 Matrix: Water
Associated Lab Samples: 70176872001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfide	mg/L	<2.0	2.0	06/21/21 18:51	

LABORATORY CONTROL SAMPLE: 1078077

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	56.1	64.0	114	80-120	

SAMPLE DUPLICATE: 1078078

Parameter	Units	70176874003 Result	Dup Result	RPD	Qualifiers
Sulfide	mg/L	<2.0	<2.0		

SAMPLE DUPLICATE: 1078079

Parameter	Units	70176312017 Result	Dup Result	RPD	Qualifiers
Sulfide	mg/L	3.2	3.2	0	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

QC Batch: 215327
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70176872001

METHOD BLANK: 1084085 Matrix: Water
Associated Lab Samples: 70176872001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Bromide	mg/L	<0.50	0.50	06/26/21 00:53	
Chloride	mg/L	<2.0	2.0	06/26/21 00:53	
Sulfate	mg/L	<5.0	5.0	06/26/21 00:53	

LABORATORY CONTROL SAMPLE: 1084086

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	1	0.93	93	90-110	
Chloride	mg/L	10	10.2	102	90-110	
Sulfate	mg/L	10	10.2	102	90-110	

MATRIX SPIKE SAMPLE: 1084087

Parameter	Units	70177029001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	ND	1	1.1	102	90-110	
Chloride	mg/L	29.4	10	38.6	92	90-110	
Sulfate	mg/L	<5.0	10	11.1	99	90-110	

SAMPLE DUPLICATE: 1084088

Parameter	Units	70177029001 Result	Dup Result	RPD	Qualifiers
Bromide	mg/L	ND	0.11J		
Chloride	mg/L	29.4	29.3	0	
Sulfate	mg/L	<5.0	1.2J		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

QC Batch: 215397
QC Batch Method: EPA 351.2
Analysis Method: EPA 351.2
Analysis Description: 351.2 TKN
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70176872001

METHOD BLANK: 1084837 Matrix: Water
Associated Lab Samples: 70176872001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	<0.10	0.10	06/30/21 14:37	

LABORATORY CONTROL SAMPLE: 1084838

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	4	4.2	104	90-110	

MATRIX SPIKE SAMPLE: 1084841

Parameter	Units	70176876004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	4.7	4	7.7	76	90-110	M1

SAMPLE DUPLICATE: 1084842

Parameter	Units	70176876004 Result	Dup Result	RPD	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	4.7	5.0	7	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

QC Batch: 213428
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrite, Unpres.
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70176872001

METHOD BLANK: 1072526 Matrix: Water
Associated Lab Samples: 70176872001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrite as N	mg/L	<0.050	0.050	06/14/21 21:23	

LABORATORY CONTROL SAMPLE: 1072527

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrite as N	mg/L	1	1.0	100	90-110	

MATRIX SPIKE SAMPLE: 1072528

Parameter	Units	70176874003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrite as N	mg/L	<0.050	0.5	0.48	91	90-110	

MATRIX SPIKE SAMPLE: 1072530

Parameter	Units	70176870001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrite as N	mg/L	<0.050	0.5	0.48	94	90-110	

SAMPLE DUPLICATE: 1072529

Parameter	Units	70176874003 Result	Dup Result	RPD	Qualifiers
Nitrite as N	mg/L	<0.050	<0.050		

SAMPLE DUPLICATE: 1072531

Parameter	Units	70176870001 Result	Dup Result	RPD	Qualifiers
Nitrite as N	mg/L	<0.050	<0.050		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

QC Batch: 213656
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, preserved
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70176872001

METHOD BLANK: 1073851 Matrix: Water
Associated Lab Samples: 70176872001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrate-Nitrite (as N)	mg/L	<0.050	0.050	06/16/21 01:15	

LABORATORY CONTROL SAMPLE: 1073852

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrate-Nitrite (as N)	mg/L	1	0.99	99	90-110	

MATRIX SPIKE SAMPLE: 1073853

Parameter	Units	70176997001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrate-Nitrite (as N)	mg/L	14.4	12.5	27.9	108	90-110	

MATRIX SPIKE SAMPLE: 1073855

Parameter	Units	70176782001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrate-Nitrite (as N)	mg/L	<0.050	0.5	0.52	104	90-110	

SAMPLE DUPLICATE: 1073854

Parameter	Units	70176997001 Result	Dup Result	RPD	Qualifiers
Nitrate-Nitrite (as N)	mg/L	14.4	14.3	1	

SAMPLE DUPLICATE: 1073856

Parameter	Units	70176782001 Result	Dup Result	RPD	Qualifiers
Nitrate-Nitrite (as N)	mg/L	<0.050	<0.050		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

QC Batch: 215193
QC Batch Method: EPA 420.1
Analysis Method: EPA 420.1
Analysis Description: 420.1 Phenolics Macro
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70176872001

METHOD BLANK: 1083262 Matrix: Water
Associated Lab Samples: 70176872001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Phenolics, Total Recoverable	ug/L	<5.0	5.0	06/25/21 11:22	

LABORATORY CONTROL SAMPLE: 1083263

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenolics, Total Recoverable	ug/L	100	97.3	97	90-110	

MATRIX SPIKE SAMPLE: 1083264

Parameter	Units	70176874003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phenolics, Total Recoverable	ug/L	<5.0	50	53.5	105	75-125	

SAMPLE DUPLICATE: 1083265

Parameter	Units	70176874003 Result	Dup Result	RPD	Qualifiers
Phenolics, Total Recoverable	ug/L	<5.0	<5.0		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

QC Batch: 215042
QC Batch Method: SM22 4500 NH3 H
Analysis Method: SM22 4500 NH3 H
Analysis Description: 4500 Ammonia
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70176872001

METHOD BLANK: 1081931 Matrix: Water
Associated Lab Samples: 70176872001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	<0.10	0.10	06/24/21 13:04	

LABORATORY CONTROL SAMPLE: 1081932

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	1	1.0	100	90-110	

MATRIX SPIKE SAMPLE: 1081933

Parameter	Units	70176000004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	0.078J	1	0.85	77	75-125	

SAMPLE DUPLICATE: 1081934

Parameter	Units	70176000004 Result	Dup Result	RPD	Qualifiers
Nitrogen, Ammonia	mg/L	0.078J	0.10		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

QC Batch: 215070
QC Batch Method: EPA 9010C
Analysis Method: EPA 9014 Total Cyanide
Analysis Description: 9014 Cyanide, Total
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70176872001

METHOD BLANK: 1082283 Matrix: Water
Associated Lab Samples: 70176872001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	ug/L	3.6J	10.0	06/24/21 19:43	

LABORATORY CONTROL SAMPLE: 1082284

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	ug/L	75	77.8	104	85-115	

MATRIX SPIKE SAMPLE: 1082514

Parameter	Units	70176874003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cyanide	ug/L	3.0J	100	87.8	85	75-125	

SAMPLE DUPLICATE: 1082515

Parameter	Units	70176874003 Result	Dup Result	RPD	Qualifiers
Cyanide	ug/L	3.0J	3.6J		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

QC Batch: 216129
QC Batch Method: EPA 9060A
Analysis Method: EPA 9060A
Analysis Description: 9060 TOC
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70176872001

METHOD BLANK: 1087966 Matrix: Water
Associated Lab Samples: 70176872001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mean Total Organic Carbon	mg/L	<1.0	1.0	07/02/21 02:28	
Total Organic Carbon	mg/L	<1.0	1.0	07/02/21 02:28	
Total Organic Carbon	mg/L	<1.0	1.0	07/02/21 02:28	
Total Organic Carbon	mg/L	<1.0	1.0	07/02/21 02:28	
Total Organic Carbon	mg/L	<1.0	1.0	07/02/21 02:28	

LABORATORY CONTROL SAMPLE: 1087967

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mean Total Organic Carbon	mg/L	10	9.9	99	85-115	
Total Organic Carbon	mg/L	10	9.9	99	85-115	
Total Organic Carbon	mg/L	10	9.8	98	85-115	
Total Organic Carbon	mg/L	10	9.8	98	85-115	
Total Organic Carbon	mg/L	10	9.9	99	85-115	

MATRIX SPIKE SAMPLE: 1087969

Parameter	Units	70176875001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mean Total Organic Carbon	mg/L	5.0	10	13.6	86	75-125	
Total Organic Carbon	mg/L	4.5	10	13.5	90	75-125	
Total Organic Carbon	mg/L	6.6	10	13.5	69	75-125	M1
Total Organic Carbon	mg/L	4.6	10	13.2	86	75-125	
Total Organic Carbon	mg/L	4.3	10	14.1	98	75-125	

SAMPLE DUPLICATE: 1087968

Parameter	Units	70176872001 Result	Dup Result	RPD	Qualifiers
Mean Total Organic Carbon	mg/L	133	134	1	
Total Organic Carbon	mg/L	375	393	5	
Total Organic Carbon	mg/L	131	133	2	
Total Organic Carbon	mg/L	132	131	1	
Total Organic Carbon	mg/L	133	134	1	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

Sample: CELL 7 PLCRS **Lab ID: 70176872001** Collected: 06/14/21 14:45 Received: 06/14/21 15:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**3.05 ± 2.60 (3.15) C:NA T:94%**	pCi/L	07/07/21 13:28	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**8.59 ± 3.67 (5.94) C:70% T:92%**	pCi/L	07/06/21 14:50	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Uranium	ASTM D5174-97	**1.09 ± 0.061 (2.620) C:NA T:NA**	ug/L	07/07/21 13:59	7440-61-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL - RADIOCHEMISTRY

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

QC Batch: 454452
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 70176872001

METHOD BLANK: 2194412 Matrix: Water
Associated Lab Samples: 70176872001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0258 ± 0.332 (0.520) C:NA T:98%	pCi/L	07/07/21 12:57	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL - RADIOCHEMISTRY

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

QC Batch: 453646
QC Batch Method: ASTM D5174-97
Analysis Method: ASTM D5174-97
Analysis Description: D5174.97 Total Uranium KPA
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 70176872001

METHOD BLANK: 2190361
Matrix: Water
Associated Lab Samples: 70176872001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Total Uranium	0.145 ± 0.006 (0.262) C:NA T:NA	ug/L	07/02/21 15:54	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL - RADIOCHEMISTRY

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

QC Batch: 454453
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 70176872001

METHOD BLANK: 2194414 Matrix: Water
Associated Lab Samples: 70176872001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.894 ± 0.411 (0.674) C:68% T:88%	pCi/L	07/06/21 14:51	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALIFIERS

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

WORKORDER QUALIFIERS

WO: 70176872

[1]	Phenylenediamine is reporting with critically low recovery in the laboratory control sample(s). This compound is a method defined poor performer. Results are estimated.

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
C2	Relative percent difference between results from each column was greater than 40%. The lower of the two results was reported.
D6	The precision between the sample and sample duplicate exceeded laboratory control limits.
E	Analyte concentration exceeded the calibration range. The reported result is estimated.
H1	Analysis conducted outside the EPA method holding time.
IH	This analyte exceeded secondary source verification criteria high for the initial calibration. The reported results should be considered an estimated value.
L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALIFIERS

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

ANALYTE QUALIFIERS

N	The reported TIC has an 85% or higher match on a mass spectral library search.
S0	Surrogate recovery outside laboratory control limits.
v1	The continuing calibration verification was above the method acceptance limit. Any detection for the analyte in the associated samples may have a high bias.
v3	The continuing calibration verification was below the method acceptance limit. Any detection for the analyte in the associated samples may have a low bias.

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 70176872

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
70176872001	**CELL 7 PLCRS**	EPA 3510C	214126	EPA 8081B	214258
70176872001	**CELL 7 PLCRS**	EPA 3510C	214127	EPA 8082A	214259
70176872001	**CELL 7 PLCRS**	EPA 8151A	213439	EPA 8151A	213687
70176872001	**CELL 7 PLCRS**	EPA 3005A	215714	EPA 6010C	215904
70176872001	**CELL 7 PLCRS**	EPA 7470A	213669	EPA 7470A	213727
70176872001	**CELL 7 PLCRS**	3510C	1690026	EPA 8270D	1690026
70176872001	**CELL 7 PLCRS**	EPA 3510C	213617	EPA 8270D	213659
70176872001	**CELL 7 PLCRS**	EPA 8260C SIM/5030C	214335		
70176872001	**CELL 7 PLCRS**	EPA 8260C/5030C	214051		
70176872001	**CELL 7 PLCRS**	EPA 903.1	454452		
70176872001	**CELL 7 PLCRS**	EPA 904.0	454453		
70176872001	**CELL 7 PLCRS**	ASTM D5174-97	453646		
70176872001	**CELL 7 PLCRS**	SM22 2120B	213689		
70176872001	**CELL 7 PLCRS**	SM22 2320B	214369		
70176872001	**CELL 7 PLCRS**	SM22 2340C	215818		
70176872001	**CELL 7 PLCRS**	SM22 2540C	214826		
70176872001	**CELL 7 PLCRS**	SM22 3500-Cr B	213457		
70176872001	**CELL 7 PLCRS**	EPA 410.4	214770	EPA 410.4	214778
70176872001	**CELL 7 PLCRS**	SM22 5210B	213629	SM22 5210B	214685
70176872001	**CELL 7 PLCRS**	EPA 9030B	214355	EPA 9034	214619
70176872001	**CELL 7 PLCRS**	EPA 300.0	215327		
70176872001	**CELL 7 PLCRS**	EPA 351.2	215397	EPA 351.2	215424
70176872001	**CELL 7 PLCRS**	EPA 353.2	213656		
70176872001	**CELL 7 PLCRS**	EPA 353.2	213428		
70176872001	**CELL 7 PLCRS**	EPA 420.1	215193	EPA 420.1	215221
70176872001	**CELL 7 PLCRS**	SM22 4500 NH3 H	215042		
70176872001	**CELL 7 PLCRS**	EPA 9010C	215070	EPA 9014 Total Cyanide	215159
70176872001	**CELL 7 PLCRS**	EPA 9060A	216129		

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request D

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields mu

WO# : 70176872

70176872

Section A	Section B	Section C	
Required Client Information:	**Required Project Information:**	**Invoice Information:**	
Company: Town of Babylon	Report To: Joe Guarino	Attention:	
Address: 281 Phelps Lane	Copy To:	Company Name:	**Regulatory Agency**
North Babylon, NY 11703		Address:	
Email: jguarino@townofbabylon.com	Purchase Order #:	Pace Quote:	
Phone: 631-422-7640 Fax:	Project Name: Cell 7 Leachate Expanded 360	Pace Project Manager: Kimberly.Mack@PaceLabs.com	**State / Location**
Requested Due Date:	Project #:	Pace Profile #: 5271 LINE	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 START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analyses Test: 8260	8270	8081	8082	8151	TAL Metals +B & Hardness	BOD,Br,Cl,SO4,Color,Cr+6	NO2, Alk, TDS	Cyanide	COD,NH3,NO3,TKN,Phenols	TOC	Sulfide	Residual Chlorine (Y/N)
1	Cell 7 PLCRS	WT				6/14/21	1445		18										X	X	X	X	X	X	X	X	X	X	X	
2																														
3																														
4																														
5																														
6																														
7																														
8																														
9																														
10																														
11																														
12																														

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Cell 7 Leachate Expanded 360	Brian Nichols / Zion Environmental, LLC	6-14-21	1530	Pace	6/14/21	1530	3.5	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Brian Nichols

SIGNATURE of SAMPLER: Brian Nichols DATE Signed: 6-14-21

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

PaceAnalytical

CHAIN-OF-CUSTODY / Analytical Request Do

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

WO#: 70176872
PM: KMM **Due Date: 06/23/21**
CLIENT: BAB-ECO

Section A	Section B	Section C	
Required Client Information:	**Required Project Information:**	**Invoice Information:**	
Company: Town of Babylon	Report To: Joe Guarino	Attention:	
Address: 281 Phelps Lane	Copy To:	Company Name:	
North Babylon, NY 11703		Address:	**Regulatory Agency**
Email: jguarino@townofbabylon.com	Purchase Order #:	Pace Quote:	
Phone: 631-422-7640 Fax:	Project Name: Cell 7 Leachate Expanded 360	Pace Project Manager: Kimberly.Mack@PaceLabs.com	**State / Location**
Requested Due Date:	Project #:	Pace Profile #: 5271 LINE	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 START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Dioxin/Furan Scan	Radium 226	Radium 228	Uranium	1,4 Dioxane	PFAS/PFOS	Residual Chlorine (Y/N)
	MATRIX: Drinking Water CODE DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS																	Requested Analysis Filtered (Y/N)							
13	Cell 7 PLCRS	WT				6/14/21	1445		9										X	X	X	X	X	X	
14																									
15																									
16																									
17																									
18																									
19																									
20																									
21																									
22																									
23																									
24																									

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
Cell 7 Leachate Expanded 360	Brian Nichols / Zion Environmental, LLC	6-14-21	1530		6/14/21	1530	3.8	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Brian Nichols

SIGNATURE of SAMPLER: [signature] DATE Signed: 6-14-21

Pace Analytical®

Sample Condition Upon Re

WO#: 70176872

PM: KMM Due Date: 06/23/21

CLIENT: BAB-ECO

Client Name: TOB

Pro

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Commercial ☐ Pace ☐ Other

Tracking #:

Custody Seal on Cooler/Box Present: ☐ Yes ☑ No Seals intact: ☐ Yes ☑ No

Temperature Blank Present: ☐ Yes ☑ No

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ Ziploc ☑ None ☐ Other

Type of Ice: (Wet) Blue None

Thermometer Used: T1091 Correction Factor: +0.0

☐ Samples on ice, cooling process has begun

Cooler Temperature(°C): 3.8 Cooler Temperature Corrected(°C): 3.8

Date/Time 5035A kits placed in freezer

Temp should be above freezing to 6.0°C

USDA Regulated Soil (☐ N/A, water sample)

Date and Initials of person examining contents: 6/14/21 JP

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check map)? ☐ Yes ☐ No

Did samples orignate from a foreign source including Hawaii and Puerto Rico)? ☐ Yes ☒ No

If Yes to either question, fill out a Regulated Soil Checklist (F-LI-C-010) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present:	☑Yes	☐No		1.
Chain of Custody Filled Out:	☑Yes	☐No		2.
Chain of Custody Relinquished:	☑Yes	☐No		3.
Sampler Name & Signature on COC:	☑Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time:	☑Yes	☐No		5.
Short Hold Time Analysis (<72hr):	☑Yes	☐No		6.
Rush Turn Around Time Requested:	☐Yes	☑No		7.
Sufficient Volume: (Triple volume provided for	☑Yes	☐No		8.
Correct Containers Used:	☑Yes	☐No		9.
-Pace Containers Used:	☑Yes	☐No		
Containers Intact:	☑Yes	☐No		10.
Filtered volume received for Dissolved tests	☐Yes	☐No	☑N/A	11. Note if sediment is visible in the dissolved container.
Sample Labels match COC:	☑Yes	☐No		12.
-Includes date/time/ID, Matrix: SL (WT) OIL				
All containers needing preservation have been checked?	☑Yes	☐No	☐N/A	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl
pH paper Lot # HC025486				
All containers needing preservation are found to be in compliance with method recommendation? (HNO_3, H_2SO_4, HCl, NaOH>9 Sulfide, NAOH>12 Cyanide)	☑Yes	☐No	☐N/A	Sample #
Exceptions: (VOA), Coliform, (TOC)/DOC, Oil and Grease, DRO/8015 (water). Per Method, VOA pH is checked after analysis				Initial when completed: / Lot # of added preservative: / Date/Time preservative added:
Samples checked for dechlorination:	☑Yes	☐No	☐N/A	14.
KI starch test strips Lot # 14-860				
Residual chlorine strips Lot #				Positive for Res. Chlorine? Y N
SM 4500 CN samples checked for sulfide?	☑Yes	☐No	☐N/A	15.
Lead Acetate Strips Lot # 560125				
Headspace in VOA Vials (>6mm):	☐Yes	☑No	☐N/A	16.
Trip Blank Present:	☐Yes	☑No	☐N/A	17.
Trip Blank Custody Seals Present	☐Yes	☐No	☑N/A	
Pace Trip Blank Lot # (if applicable):				

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution:

* PM (Project Manager) review is documented electronically in LIMS.

ANALYTICAL REPORT

June 22, 2021

Pace Analytical - Melville, NY

Sample Delivery Group:	L1367047
Samples Received:	06/16/2021
Project Number:	70176872
Description:	Cell 7 Leachate Expanded 360
Site:	001
Report To:	Kimberley Mack 575 Broad Hollow Rd Melville, NY 11747

Entire Report Reviewed By:

Nancy McLain
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

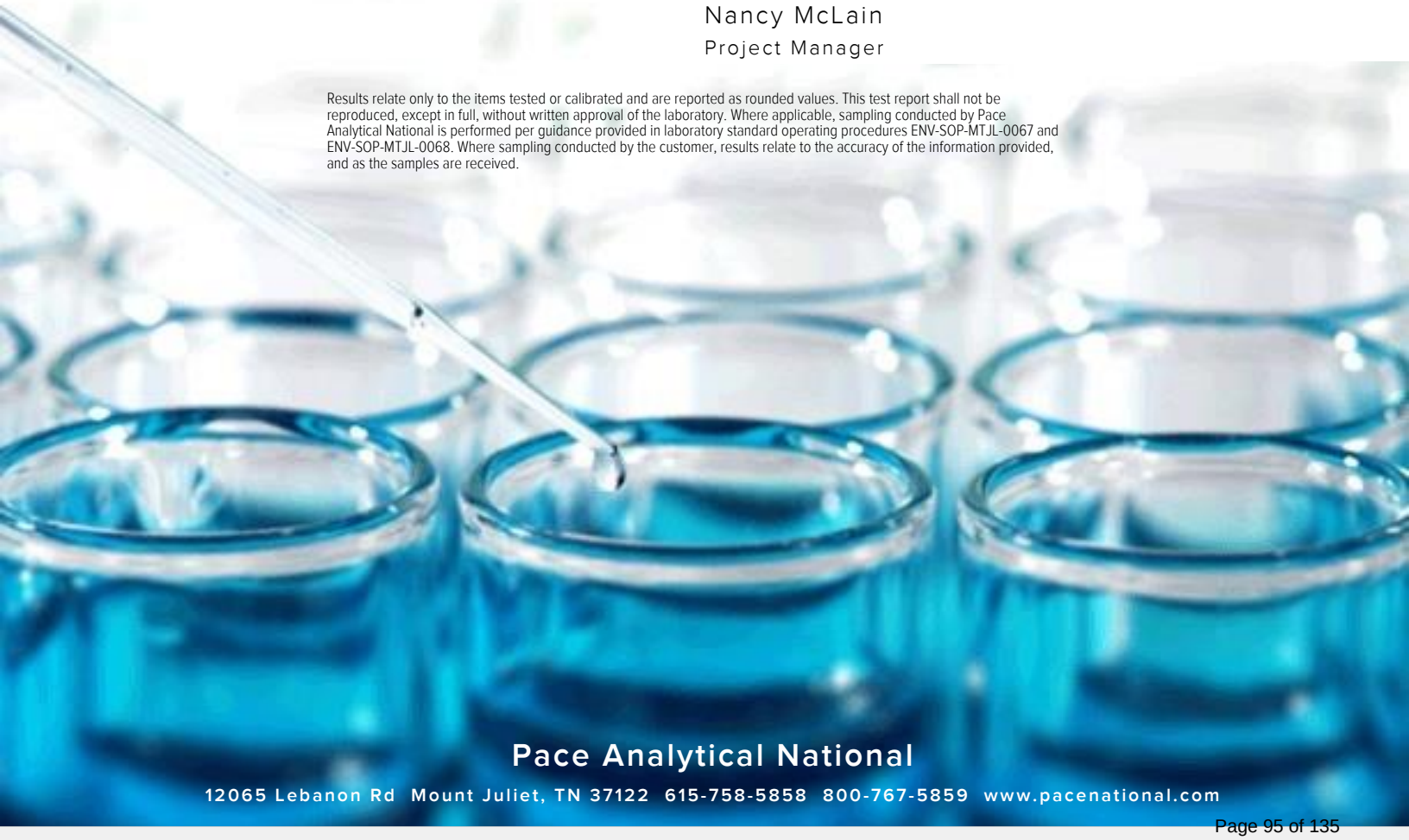


TABLE OF CONTENTS

Cp: Cover Page 1

Tc: Table of Contents 2

Ss: Sample Summary 3

Cn: Case Narrative 4

Sr: Sample Results 5

CELL 7 PLCRS L1367047-01 5

Qc: Quality Control Summary 6

Semi Volatile Organic Compounds (GC/MS) by Method 8270 D 6

Gl: Glossary of Terms 7

Al: Accreditations & Locations 8

Sc: Sample Chain of Custody 9

CELL 7 PLCRS L1367047-01 GW

Collected by	Collected date/time	Received date/time
	06/14/21 14:45	06/16/21 13:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Semi Volatile Organic Compounds (GC/MS) by Method 8270 D	WG1690026	1	06/17/21 05:15	06/17/21 12:42	TMM	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270 D	WG1690026	1	06/17/21 05:15	06/18/21 15:53	AMG	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Nancy McLain
Project Manager

Project Narrative

Phenylenediamine is reporting with critically low recovery in the laboratory control sample(s). This compound is a method defined poor performer. Results are estimated.

Semi Volatile Organic Compounds (GC/MS) by Method 8270 D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Famphur	U		3.92	20.0	1	06/18/2021 15:53	WG1690026
Kepone	U		2.66	20.0	1	06/18/2021 15:53	WG1690026
p-Phenylenediamine	U	J4	387	6900	1	06/18/2021 15:53	WG1690026
(S) 2-Fluorophenol	*40.8*			*10.0-120*		*06/17/2021 12:42*	WG1690026
(S) Phenol-d5	*26.8*			*10.0-120*		*06/17/2021 12:42*	WG1690026
(S) Nitrobenzene-d5	*69.2*			*10.0-127*		*06/17/2021 12:42*	WG1690026
(S) 2-Fluorobiphenyl	*74.5*			*10.0-130*		*06/17/2021 12:42*	WG1690026
(S) 2,4,6-Tribromophenol	*87.0*			*10.0-155*		*06/17/2021 12:42*	WG1690026
(S) p-Terphenyl-d14	*72.2*			*10.0-128*		*06/17/2021 12:42*	WG1690026

Method Blank (MB)

(MB) R3669463-2 06/18/21 14:53

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Famphur	U		3.92	20.0
Kepone	U		2.66	20.0
p-Phenylenediamine	U		387	6900

Laboratory Control Sample (LCS)

(LCS) R3669463-1 06/18/21 14:33

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Famphur	50.0	44.7	89.4	32.0-120	
Kepone	50.0	40.3	80.6	10.0-120	
p-Phenylenediamine	50.0	0.0177	0.0354	50.0-150	J4

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J4	The associated batch QC was outside the established quality control range for accuracy.

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Internal Transfer Chain of Custody

Pace Analytical® www.pacelabs.com

[X] Samples Pre-Logged into eCOC.

State Of Origin: NY
Cert. Needed: [X] Yes [ ] No

Workorder: 70176872 **Workorder Name:** CELL 7 LEACHATE EXPANDED 360 **Owner Received Date:** 6/14/2021 **Results Requested By:** 6/23/2021

Report To	Subcontract To
Kimberley M. Mack Pace Analytical Melville 575 Broad Hollow Road Melville, NY 11747 Phone (631)694-3040	Pace National 12065 Lebanon Rd Mt. Juliet, TN 37122 Phone (615) 758-5858

Requested Analysis: Sub 8270

L1367047

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Unpreserved	Sub 8270	LAB USE ONLY
1	CELL 7 PLCRS	PS	6/14/2021 14:45	70176872001	Water	1 2 R.P	X	-01
2								
3								
4								
5								

Transfers	Released By	Date/Time	Received By	Date/Time
1	Noranne Savage NY	6.15.21 1800	[signature]	6-16-21 1330
2				
3				

Comments
S850: Famphur, Kepone, and P-phenylenediamine ONLY by 8270

Need a Category B Package and EQUIS EDDs

Cooler Temperature on Receipt °C **Custody Seal** (Y) or N **Received on Ice** (Y) or N **Samples Intact** (Y) or N

****In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.*
This chain of custody is considered complete as is since this information is available in the owner laboratory.

AK 23 5.6-.1=5.5 A2G0

Sample Receipt Checklist
COC Seal Present/Intact: Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
RAD Screen <0.5 mR/hr: Y N
If Applicable
VOA Zero Headspace: __Y__N
Pres.Correct/Check: __Y__N

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Tel: (916)373-5600

Laboratory Job ID: 320-75112-1
Laboratory Sample Delivery Group: 70176872
Client Project/Site: CELL 7 LEACHATE EXPANDED 360

For:
Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, New York 11747

Attn: Kimberley Mack

Cesar C Cortes

Authorized for release by:
6/29/2021 1:51:38 AM

Cesar Cortes, Project Manager I
(916)374-4316
Cesar.Cortes@Eurofinset.com

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Detection Summary 5
Client Sample Results 6
Isotope Dilution Summary 7
QC Sample Results 8
QC Association Summary 12
Lab Chronicle 13
Certification Summary 14
Method Summary 15
Sample Summary 16
Chain of Custody 17
Receipt Checklists 18

Definitions/Glossary

Client: Pace Analytical Services, LLC
Project/Site: CELL 7 LEACHATE EXPANDED 360

Job ID: 320-75112-1
SDG: 70176872

Qualifiers

LCMS

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Pace Analytical Services, LLC
Project/Site: CELL 7 LEACHATE EXPANDED 360

Job ID: 320-75112-1
SDG: 70176872

Job ID: 320-75112-1

Laboratory: Eurofins TestAmerica, Sacramento

Narrative

Receipt

The sample was received on 6/17/2021 10:15 AM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.7º C.

Method 537 (modified)

The "I" qualifier means the transition mass ratio for the indicated analyte was outside of the established ratio limits for Perfluoroheptanesulfonic Acid (PFHpS): (CCVL 320-501000/2). The qualitative identification of the analyte has some degree of uncertainty, and the reported value may have some high bias. However, analyst judgment was used to positively identify the analyte.

Results for sample CELL 7 PLCRS (320-75112-1) was reported from the analysis of a diluted extract due to matrix interference of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-499833.

Sample CELL 7 PLCRS (320-75112-1) was cloud-like in appearance, preparation batch 320-499833.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Pace Analytical Services, LLC
Project/Site: CELL 7 LEACHATE EXPANDED 360

Job ID: 320-75112-1
SDG: 70176872

Client Sample ID: CELL 7 PLCRS

Lab Sample ID: 320-75112-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid	310		43	21	ng/L	10		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	190		17	4.2	ng/L	10		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	430		17	5.0	ng/L	10		537 (modified)	Total/NA
Perfluoroheptanoic acid	26		17	2.2	ng/L	10		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	38		17	7.4	ng/L	10		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	240		17	1.7	ng/L	10		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	8.2	J	17	4.9	ng/L	10		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Pace Analytical Services, LLC
Project/Site: CELL 7 LEACHATE EXPANDED 360

Job ID: 320-75112-1
SDG: 70176872

Client Sample ID: CELL 7 PLCRS

Date Collected: 06/14/21 14:45
Date Received: 06/17/21 10:15

Lab Sample ID: 320-75112-1

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid	**310**		43	21	ng/L		06/18/21 19:17	06/24/21 08:00	10
Perfluoropentanoic acid (PFPeA)	**190**		17	4.2	ng/L		06/18/21 19:17	06/24/21 08:00	10
Perfluorohexanoic acid (PFHxA)	**430**		17	5.0	ng/L		06/18/21 19:17	06/24/21 08:00	10
Perfluoroheptanoic acid	**26**		17	2.2	ng/L		06/18/21 19:17	06/24/21 08:00	10
Perfluorooctanoic acid (PFOA)	**38**		17	7.4	ng/L		06/18/21 19:17	06/24/21 08:00	10
Perfluorononanoic acid (PFNA)	ND		17	2.3	ng/L		06/18/21 19:17	06/24/21 08:00	10
Perfluorodecanoic acid (PFDA)	ND		17	2.7	ng/L		06/18/21 19:17	06/24/21 08:00	10
Perfluoroundecanoic acid (PFUnA)	ND		17	9.5	ng/L		06/18/21 19:17	06/24/21 08:00	10
Perfluorododecanoic acid (PFDoA)	ND		17	4.8	ng/L		06/18/21 19:17	06/24/21 08:00	10
Perfluorotridecanoic acid (PFTriA)	ND		17	11	ng/L		06/18/21 19:17	06/24/21 08:00	10
Perfluorotetradecanoic acid (PFTeA)	ND		17	6.3	ng/L		06/18/21 19:17	06/24/21 08:00	10
Perfluorobutanesulfonic acid (PFBS)	**240**		17	1.7	ng/L		06/18/21 19:17	06/24/21 08:00	10
Perfluorohexanesulfonic acid (PFHxS)	**8.2**	**J**	17	4.9	ng/L		06/18/21 19:17	06/24/21 08:00	10
Perfluoroheptanesulfonic Acid (PFHpS)	ND		17	1.6	ng/L		06/18/21 19:17	06/24/21 08:00	10
Perfluorooctanesulfonic acid (PFOS)	ND		17	4.7	ng/L		06/18/21 19:17	06/24/21 08:00	10
Perfluorodecanesulfonic acid (PFDS)	ND		17	2.8	ng/L		06/18/21 19:17	06/24/21 08:00	10
Perfluorooctanesulfonamide (FOSA)	ND		17	8.5	ng/L		06/18/21 19:17	06/24/21 08:00	10
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		43	10	ng/L		06/18/21 19:17	06/24/21 08:00	10
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		43	11	ng/L		06/18/21 19:17	06/24/21 08:00	10
6:2 FTS	ND		43	22	ng/L		06/18/21 19:17	06/24/21 08:00	10
8:2 FTS	ND		17	4.0	ng/L		06/18/21 19:17	06/24/21 08:00	10

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*79*		*25 - 150*	*06/18/21 19:17*	*06/24/21 08:00*	*10*
13C5 PFPeA	*90*		*25 - 150*	*06/18/21 19:17*	*06/24/21 08:00*	*10*
13C2 PFHxA	*102*		*25 - 150*	*06/18/21 19:17*	*06/24/21 08:00*	*10*
13C4 PFHpA	*102*		*25 - 150*	*06/18/21 19:17*	*06/24/21 08:00*	*10*
13C4 PFOA	*86*		*25 - 150*	*06/18/21 19:17*	*06/24/21 08:00*	*10*
13C5 PFNA	*99*		*25 - 150*	*06/18/21 19:17*	*06/24/21 08:00*	*10*
13C2 PFDA	*74*		*25 - 150*	*06/18/21 19:17*	*06/24/21 08:00*	*10*
13C2 PFUnA	*62*		*25 - 150*	*06/18/21 19:17*	*06/24/21 08:00*	*10*
13C2 PFDoA	*50*		*25 - 150*	*06/18/21 19:17*	*06/24/21 08:00*	*10*
13C2 PFTeDA	*32*		*25 - 150*	*06/18/21 19:17*	*06/24/21 08:00*	*10*
13C3 PFBS	*111*		*25 - 150*	*06/18/21 19:17*	*06/24/21 08:00*	*10*
18O2 PFHxS	*102*		*25 - 150*	*06/18/21 19:17*	*06/24/21 08:00*	*10*
13C4 PFOS	*98*		*25 - 150*	*06/18/21 19:17*	*06/24/21 08:00*	*10*
13C8 FOSA	*94*		*25 - 150*	*06/18/21 19:17*	*06/24/21 08:00*	*10*
d3-NMeFOSAA	*64*		*25 - 150*	*06/18/21 19:17*	*06/24/21 08:00*	*10*
d5-NEtFOSAA	*66*		*25 - 150*	*06/18/21 19:17*	*06/24/21 08:00*	*10*
M2-6:2 FTS	*80*		*25 - 150*	*06/18/21 19:17*	*06/24/21 08:00*	*10*
M2-8:2 FTS	*70*		*25 - 150*	*06/18/21 19:17*	*06/24/21 08:00*	*10*

Isotope Dilution Summary

Client: Pace Analytical Services, LLC
Project/Site: CELL 7 LEACHATE EXPANDED 360

Job ID: 320-75112-1
SDG: 70176872

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	PFHxA	C4PFHA	PFOA	PFNA	PFDA	PFUnA
Lab Sample ID	Client Sample ID	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)
320-75112-1	CELL 7 PLCRS	79	90	102	102	86	99	74	62
LCS 320-499833/2-A	Lab Control Sample	91	87	97	94	91	94	101	102
LCSD 320-499833/3-A	Lab Control Sample Dup	85	80	93	89	87	89	96	99
MB 320-499833/1-A	Method Blank	87	82	92	91	91	92	98	95

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFDoA	PFTDA	C3PFBS	PFHxS	PFOS	PFOSA	d3NMFOS	d5NEFOS
Lab Sample ID	Client Sample ID	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)
320-75112-1	CELL 7 PLCRS	50	32	111	102	98	94	64	66
LCS 320-499833/2-A	Lab Control Sample	101	94	101	92	94	88	84	90
LCSD 320-499833/3-A	Lab Control Sample Dup	95	91	97	84	86	87	90	88
MB 320-499833/1-A	Method Blank	92	93	95	88	89	87	86	94

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M262FTS	M282FTS						
Lab Sample ID	Client Sample ID	(25-150)	(25-150)						
320-75112-1	CELL 7 PLCRS	80	70						
LCS 320-499833/2-A	Lab Control Sample	75	95						
LCSD 320-499833/3-A	Lab Control Sample Dup	74	93						
MB 320-499833/1-A	Method Blank	74	96						

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
PFHxA = 13C2 PFHxA
C4PFHA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFNA = 13C5 PFNA
PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA
PFDoA = 13C2 PFDoA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
PFHxS = 18O2 PFHxS
PFOS = 13C4 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 320-499833/1-A
Matrix: Water
Analysis Batch: 499888

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 499833

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid	ND		5.0	2.4	ng/L		06/18/21 19:17	06/20/21 13:19	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.49	ng/L		06/18/21 19:17	06/20/21 13:19	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.58	ng/L		06/18/21 19:17	06/20/21 13:19	1
Perfluoroheptanoic acid	ND		2.0	0.25	ng/L		06/18/21 19:17	06/20/21 13:19	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.85	ng/L		06/18/21 19:17	06/20/21 13:19	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.27	ng/L		06/18/21 19:17	06/20/21 13:19	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.31	ng/L		06/18/21 19:17	06/20/21 13:19	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	1.1	ng/L		06/18/21 19:17	06/20/21 13:19	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.55	ng/L		06/18/21 19:17	06/20/21 13:19	1
Perfluorotridecanoic acid (PFTriA)	ND		2.0	1.3	ng/L		06/18/21 19:17	06/20/21 13:19	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.73	ng/L		06/18/21 19:17	06/20/21 13:19	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.20	ng/L		06/18/21 19:17	06/20/21 13:19	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.57	ng/L		06/18/21 19:17	06/20/21 13:19	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0	0.19	ng/L		06/18/21 19:17	06/20/21 13:19	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.54	ng/L		06/18/21 19:17	06/20/21 13:19	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.32	ng/L		06/18/21 19:17	06/20/21 13:19	1
Perfluorooctanesulfonamide (FOSA)	ND		2.0	0.98	ng/L		06/18/21 19:17	06/20/21 13:19	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		5.0	1.2	ng/L		06/18/21 19:17	06/20/21 13:19	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		5.0	1.3	ng/L		06/18/21 19:17	06/20/21 13:19	1
6:2 FTS	ND		5.0	2.5	ng/L		06/18/21 19:17	06/20/21 13:19	1
8:2 FTS	ND		2.0	0.46	ng/L		06/18/21 19:17	06/20/21 13:19	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*87*		*25 - 150*	*06/18/21 19:17*	*06/20/21 13:19*	*1*
13C5 PFPeA	*82*		*25 - 150*	*06/18/21 19:17*	*06/20/21 13:19*	*1*
13C2 PFHxA	*92*		*25 - 150*	*06/18/21 19:17*	*06/20/21 13:19*	*1*
13C4 PFHpA	*91*		*25 - 150*	*06/18/21 19:17*	*06/20/21 13:19*	*1*
13C4 PFOA	*91*		*25 - 150*	*06/18/21 19:17*	*06/20/21 13:19*	*1*
13C5 PFNA	*92*		*25 - 150*	*06/18/21 19:17*	*06/20/21 13:19*	*1*
13C2 PFDA	*98*		*25 - 150*	*06/18/21 19:17*	*06/20/21 13:19*	*1*
13C2 PFUnA	*95*		*25 - 150*	*06/18/21 19:17*	*06/20/21 13:19*	*1*
13C2 PFDoA	*92*		*25 - 150*	*06/18/21 19:17*	*06/20/21 13:19*	*1*
13C2 PFTeDA	*93*		*25 - 150*	*06/18/21 19:17*	*06/20/21 13:19*	*1*
13C3 PFBS	*95*		*25 - 150*	*06/18/21 19:17*	*06/20/21 13:19*	*1*
18O2 PFHxS	*88*		*25 - 150*	*06/18/21 19:17*	*06/20/21 13:19*	*1*
13C4 PFOS	*89*		*25 - 150*	*06/18/21 19:17*	*06/20/21 13:19*	*1*
13C8 FOSA	*87*		*25 - 150*	*06/18/21 19:17*	*06/20/21 13:19*	*1*
d3-NMeFOSAA	*86*		*25 - 150*	*06/18/21 19:17*	*06/20/21 13:19*	*1*
d5-NEtFOSAA	*94*		*25 - 150*	*06/18/21 19:17*	*06/20/21 13:19*	*1*
M2-6:2 FTS	*74*		*25 - 150*	*06/18/21 19:17*	*06/20/21 13:19*	*1*
M2-8:2 FTS	*96*		*25 - 150*	*06/18/21 19:17*	*06/20/21 13:19*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-499833/2-A
Matrix: Water
Analysis Batch: 499888

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 499833

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid	40.0	41.4		ng/L		104	76 - 136
Perfluoropentanoic acid (PFPeA)	40.0	43.4		ng/L		109	71 - 131
Perfluorohexanoic acid (PFHxA)	40.0	39.9		ng/L		100	73 - 133
Perfluoroheptanoic acid	40.0	42.6		ng/L		107	72 - 132
Perfluorooctanoic acid (PFOA)	40.0	47.8		ng/L		120	70 - 130
Perfluorononanoic acid (PFNA)	40.0	44.6		ng/L		112	75 - 135
Perfluorodecanoic acid (PFDA)	40.0	41.7		ng/L		104	76 - 136
Perfluoroundecanoic acid (PFUnA)	40.0	41.5		ng/L		104	68 - 128
Perfluorododecanoic acid (PFDoA)	40.0	39.7		ng/L		99	71 - 131
Perfluorotridecanoic acid (PFTriA)	40.0	40.2		ng/L		100	71 - 131
Perfluorotetradecanoic acid (PFTeA)	40.0	42.9		ng/L		107	70 - 130
Perfluorobutanesulfonic acid (PFBS)	35.4	31.8		ng/L		90	67 - 127
Perfluorohexanesulfonic acid (PFHxS)	36.4	37.0		ng/L		102	59 - 119
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	38.2		ng/L		100	76 - 136
Perfluorooctanesulfonic acid (PFOS)	37.1	40.7		ng/L		110	70 - 130
Perfluorodecanesulfonic acid (PFDS)	38.6	38.2		ng/L		99	71 - 131
Perfluorooctanesulfonamide (FOSA)	40.0	42.2		ng/L		106	73 - 133
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	46.6		ng/L		117	76 - 136
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	44.2		ng/L		111	76 - 136
6:2 FTS	37.9	38.3		ng/L		101	59 - 175
8:2 FTS	38.3	40.0		ng/L		104	75 - 135

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*91*		*25 - 150*
13C5 PFPeA	*87*		*25 - 150*
13C2 PFHxA	*97*		*25 - 150*
13C4 PFHpA	*94*		*25 - 150*
13C4 PFOA	*91*		*25 - 150*
13C5 PFNA	*94*		*25 - 150*
13C2 PFDA	*101*		*25 - 150*
13C2 PFUnA	*102*		*25 - 150*
13C2 PFDoA	*101*		*25 - 150*
13C2 PFTeDA	*94*		*25 - 150*
13C3 PFBS	*101*		*25 - 150*
18O2 PFHxS	*92*		*25 - 150*
13C4 PFOS	*94*		*25 - 150*
13C8 FOSA	*88*		*25 - 150*
d3-NMeFOSAA	*84*		*25 - 150*
d5-NEtFOSAA	*90*		*25 - 150*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-499833/2-A
Matrix: Water
Analysis Batch: 499888

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 499833

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
M2-6:2 FTS	*75*		*25 - 150*
M2-8:2 FTS	*95*		*25 - 150*

Lab Sample ID: LCSD 320-499833/3-A
Matrix: Water
Analysis Batch: 499888

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 499833

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorobutanoic acid			40.0	43.3		ng/L		108	76 - 136	4	30
Perfluoropentanoic acid (PFPeA)			40.0	42.3		ng/L		106	71 - 131	3	30
Perfluorohexanoic acid (PFHxA)			40.0	41.4		ng/L		104	73 - 133	4	30
Perfluoroheptanoic acid			40.0	43.0		ng/L		108	72 - 132	1	30
Perfluorooctanoic acid (PFOA)			40.0	47.4		ng/L		118	70 - 130	1	30
Perfluorononanoic acid (PFNA)			40.0	43.5		ng/L		109	75 - 135	3	30
Perfluorodecanoic acid (PFDA)			40.0	42.4		ng/L		106	76 - 136	2	30
Perfluoroundecanoic acid (PFUnA)			40.0	41.4		ng/L		103	68 - 128	0	30
Perfluorododecanoic acid (PFDoA)			40.0	42.1		ng/L		105	71 - 131	6	30
Perfluorotridecanoic acid (PFTriA)			40.0	40.1		ng/L		100	71 - 131	0	30
Perfluorotetradecanoic acid (PFTeA)			40.0	42.3		ng/L		106	70 - 130	1	30
Perfluorobutanesulfonic acid (PFBS)			35.4	30.4		ng/L		86	67 - 127	4	30
Perfluorohexanesulfonic acid (PFHxS)			36.4	40.1		ng/L		110	59 - 119	8	30
Perfluoroheptanesulfonic Acid (PFHpS)			38.1	41.6		ng/L		109	76 - 136	8	30
Perfluorooctanesulfonic acid (PFOS)			37.1	41.3		ng/L		111	70 - 130	2	30
Perfluorodecanesulfonic acid (PFDS)			38.6	41.8		ng/L		108	71 - 131	9	30
Perfluorooctanesulfonamide (FOSA)			40.0	41.6		ng/L		104	73 - 133	2	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)			40.0	43.6		ng/L		109	76 - 136	7	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)			40.0	44.3		ng/L		111	76 - 136	0	30
6:2 FTS			37.9	37.3		ng/L		98	59 - 175	3	30
8:2 FTS			38.3	41.6		ng/L		109	75 - 135	4	30

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C4 PFBA	*85*		*25 - 150*
13C5 PFPeA	*80*		*25 - 150*
13C2 PFHxA	*93*		*25 - 150*
13C4 PFHpA	*89*		*25 - 150*
13C4 PFOA	*87*		*25 - 150*
13C5 PFNA	*89*		*25 - 150*
13C2 PFDA	*96*		*25 - 150*
13C2 PFUnA	*99*		*25 - 150*
13C2 PFDoA	*95*		*25 - 150*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 320-499833/3-A
Matrix: Water
Analysis Batch: 499888

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 499833

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C2 PFTeDA	91		25 - 150
13C3 PFBS	97		25 - 150
18O2 PFHxS	84		25 - 150
13C4 PFOS	86		25 - 150
13C8 FOSA	87		25 - 150
d3-NMeFOSAA	90		25 - 150
d5-NEtFOSAA	88		25 - 150
M2-6:2 FTS	74		25 - 150
M2-8:2 FTS	93		25 - 150

QC Association Summary

Client: Pace Analytical Services, LLC
Project/Site: CELL 7 LEACHATE EXPANDED 360

Job ID: 320-75112-1
SDG: 70176872

LCMS

Prep Batch: 499833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-75112-1	CELL 7 PLCRS	Total/NA	Water	3535	
MB 320-499833/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-499833/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-499833/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 499888

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 320-499833/1-A	Method Blank	Total/NA	Water	537 (modified)	499833
LCS 320-499833/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	499833
LCSD 320-499833/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	499833

Analysis Batch: 501006

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-75112-1	CELL 7 PLCRS	Total/NA	Water	537 (modified)	499833

Lab Chronicle

Client: Pace Analytical Services, LLC
Project/Site: CELL 7 LEACHATE EXPANDED 360

Job ID: 320-75112-1
SDG: 70176872

Client Sample ID: CELL 7 PLCRS

Date Collected: 06/14/21 14:45
Date Received: 06/17/21 10:15

Lab Sample ID: 320-75112-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			288.4 mL	10.0 mL	499833	06/18/21 19:17	VP	TAL SAC
Total/NA	Analysis	537 (modified)		10			501006	06/24/21 08:00	S1M	TAL SAC

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: Pace Analytical Services, LLC
Project/Site: CELL 7 LEACHATE EXPANDED 360

Job ID: 320-75112-1
SDG: 70176872

Laboratory: Eurofins TestAmerica, Sacramento

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	11666	04-01-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 (modified)	3535	Water	6:2 FTS
537 (modified)	3535	Water	8:2 FTS
537 (modified)	3535	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 (modified)	3535	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537 (modified)	3535	Water	Perfluorobutanesulfonic acid (PFBS)
537 (modified)	3535	Water	Perfluorobutanoic acid
537 (modified)	3535	Water	Perfluorodecanesulfonic acid (PFDS)
537 (modified)	3535	Water	Perfluorodecanoic acid (PFDA)
537 (modified)	3535	Water	Perfluorododecanoic acid (PFDoA)
537 (modified)	3535	Water	Perfluoroheptanesulfonic Acid (PFHpS)
537 (modified)	3535	Water	Perfluoroheptanoic acid
537 (modified)	3535	Water	Perfluorohexanesulfonic acid (PFHxS)
537 (modified)	3535	Water	Perfluorohexanoic acid (PFHxA)
537 (modified)	3535	Water	Perfluorononanoic acid (PFNA)
537 (modified)	3535	Water	Perfluorooctanesulfonamide (FOSA)
537 (modified)	3535	Water	Perfluorooctanesulfonic acid (PFOS)
537 (modified)	3535	Water	Perfluorooctanoic acid (PFOA)
537 (modified)	3535	Water	Perfluoropentanoic acid (PFPeA)
537 (modified)	3535	Water	Perfluorotetradecanoic acid (PFTeA)
537 (modified)	3535	Water	Perfluorotridecanoic acid (PFTriA)
537 (modified)	3535	Water	Perfluoroundecanoic acid (PFUnA)

Method Summary

Client: Pace Analytical Services, LLC
Project/Site: CELL 7 LEACHATE EXPANDED 360

Job ID: 320-75112-1
SDG: 70176872

Method	Method Description	Protocol	Laboratory
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL SAC
3535	Solid-Phase Extraction (SPE)	SW846	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: Pace Analytical Services, LLC
Project/Site: CELL 7 LEACHATE EXPANDED 360

Job ID: 320-75112-1
SDG: 70176872

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
320-75112-1	CELL 7 PLCRS	Water	06/14/21 14:45	06/17/21 10:15	

Chain of Custody

PASI New York Laboratory

Workorder: 70176872 Workorder Name: CELL 7 LEACHATE EXPANDED 360 Results Requested By: 6/23/2021

Pace Analytical
www.pacelabs.com

Report / Invoice To	Subcontract To
Kimberley M. Mack Pace Analytical Melville 575 Broad Hollow Road Melville, NY 11747 Phone (631)694-3040 Email: kimberley.mack@pacelabs.com	TA Eurofins-Sacramento 880 Riverside Pkwy. West Sacramento, CA 95605 P.O. 70176872KMM

State of Sample Origin: NY

Item	Sample ID	Collect Date/Time	Lab ID	Matrix	Unpreserved (Preserved Containers)	Sub PFAS by 537 (Requested Analysis)	LAB USE ONLY
1	CELL 7 PLCRS	6/14/2021 14:45	70176872001	Water		X	
2							
3							
4							
5							

Transfers	Released By	Date/Time	Received By	Date/Time
1	Noranne Saager	6.15.21 1800	[signature] GTRSR	6/17/21 10:15
2				
3				

Comments: Need a Category B Package and EQUIS EDDs

Cooler Temperature on Receipt 5.7 °C | Custody Seal Y or N | Received on Ice Y or (N) | Samples Intact (Y) or N

320-75112 Chain of Custody

Login Sample Receipt Checklist

Client: Pace Analytical Services, LLC

Job Number: 320-75112-1
SDG Number: 70176872

Login Number: 75112
List Number: 1
Creator: Her, David A

List Source: Eurofins TestAmerica, Sacramento

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Pace Analytical™
www.pacelabs.com

Pace Analytical Services, LLC.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

Report Prepared for:

Kimberley Mack
PASI Long Island
575 Broad Hollow Road
Melville NY 11747

REPORT OF LABORATORY ANALYSIS FOR PCDD/PCDF

Report Information:

Pace Project #: 10565612
Sample Receipt Date: 06/16/2021
Client Project #: 70176872
Client Sub PO #: N/A
State Cert #: 11647

Invoicing & Reporting Options:

The report provided has been invoiced as a Level 2 PCDD/PCDF 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:

Joanne Richardson

July 08, 2021

Joanne Richardson,
(612) 607-6453
(612) 607-6444 (fax)

Report Prepared Date:
July 8, 2021

Report of Laboratory Analysis

Pace Analytical Services, LLC.
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 Pace Analytical Services, LLC. The sample was analyzed for the presence or absence of polychlorodibenzo-p-dioxins (PCDDs) and polychlorodibenzofurans (PCDFs) using USEPA Method 1613B. The reporting limits were set to correspond to the lowest calibration points 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. Estimated maximum possible concentration (EMPC) values were treated as positives in the toxic equivalence calculations. This report was revised as a level two summary report.

The recoveries of the isotopically-labeled PCDD/PCDF internal standards in the sample extract ranged from 52-94%. 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 2,3,7,8-substituted congeners was based on isotope dilution, the data were automatically corrected for variation in 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 PCDDs and PCDFs at the reporting limits.

Laboratory spike samples were also prepared with the sample batch using clean reference matrix that had been fortified with native standard materials. The results show that the spiked native compounds were recovered at 93-122% with relative percent differences of 0.0-4.2%. 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- rimary	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

Appendix A

Sample Management

Internal Transfer Chain of Custody

Pace Analytical®
www.pacelabs.com

[x] Samples Pre-Logged into eCOC.

State Of Origin: NY
Cert. Needed: [x] Yes [ ] No

Workorder: 70176872 **Workorder Name:** CELL 7 LEACHATE EXPANDED 360 **Owner Received Date:** 6/14/2021 **Results Requested By:** 6/23/2021

Report To	Subcontract To
Kimberley M. Mack Pace Analytical Melville 575 Broad Hollow Road Melville, NY 11747 Phone (631)694-3040	Pace Analytical Minnesota 1700 Elm Street Suite 200 Minneapolis, MN 55414 Phone (612)607-1700

Requested Analysis

WO# : 10565612

10565612

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Unpreserved						Sub Dioxin/Furan Scan	LAB USE ONLY
1	CELL 7 PLCRS	PS	6/14/2021 14:45	70176872001	Water	1						X	11
2													
3													
4													
5													

Transfers	Released By	Date/Time	Received By	Date/Time
1		6/15/21 1500	17-PACE	6/16/21 1310
2				
3				

Comments

Dioxin/Furan TCDD/TCDF SCAN ONLY
Need a Category B Package and EQUIS EDDs

Cooler Temperature on Receipt 3.4 °C **Custody Seal** Y or (N) **Received on Ice** (Y) or N **Samples Intact** (Y) or N

****In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.*

Pace Analytical®	Document Name: **Sample Condition Upon Receipt (SCUR) - MN**	Document Revised: 14Apr2021 **Page 1 of 1**
	Document No.: **ENV-FRM-MIN4-0150 Rev.02**	Pace Analytical Services - **Minneapolis**

Sample Condition Upon Receipt

Client Name: Pace Melville

Project #:

WO#: 10565612

PM: JMR **Due Date: 06/30/21**

CLIENT: PASI-LINY

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Pace ☐ SpeeDee ☐ Commercial

Tracking Number: 5177 3497 0898 **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(1336) ☐ T3(0459) ☐ OS418-LS ☐ T4(0254) ☐ T5(0489) ☐ 160285052 **Type of Ice:** ☒ Wet ☐ Blue ☐ None ☐ Dry ☐ 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 **Average Corrected Temp (no temp blank only):** 3.4 °C ☒ See Exceptions **ENV-FRM-MIN4-0142** ☐ 1 Container

Correction Factor: True **Cooler Temp Corrected w/temp blank:**_____ °C

USDA Regulated Soil: (☒ N/A, water sample/Other:_____) **Date/Initials of Person Examining Contents:** CA 6-16-21

Did samples originate in a quarantine zone within the United States: AL, AR, 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 (F-MN-Q-338) and include with SCUR/COC paperwork.

				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.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☒ No		5. ☐ Fecal Coliform ☐ HPC ☐ Total Coliform/E coli ☐ BOD/cBOD ☐ Hex Chrome ☐ Turbidity ☐ Nitrate ☐ Nitrite ☐ Orthophos ☐ Other_____
Rush Turn Around Time Requested?	☐ Yes	☐ No		6. 6/23
Sufficient Volume?	☒ Yes	☐ No		7.
Correct Containers Used? -Pace Containers Used?	☒ Yes ☒ Yes	☐ No ☐ No		8.
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 on Container Below:** **See Exception** ☐ **ENV-FRM-MIN4-0142**
All containers needing acid/base preservation have been checked?	☐ Yes	☐ No	☒ N/A	12. Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, <2pH, NaOH >9 Sulfide, NaOH>10 Cyanide)	☐ Yes	☐ No	☒ N/A	☐ NaOH ☐ HNO_3 ☐ H_2SO_4 ☐ Zinc Acetate
Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxin/PFAS	☐ Yes	☐ No	☒ N/A	Positive for Res. Chlorine? ☐ Yes ☐ No **pH Paper Lot#** **See Exception** ☐ **ENV-FRM-MIN4-0142**
				Res. Chlorine | 0-6 Roll | 0-6 Strip | 0-14 Strip
Extra labels present on soil VOA or WIDRO containers?	☐ Yes	☐ No	☒ N/A	13. **See Exception** ☐ **ENV-FRM-MIN4-0140**
Headspace in VOA Vials (greater than 6mm)?	☐ Yes	☐ No	☒ N/A	
Trip Blank Present?	☐ Yes	☐ No	☒ N/A	14.
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:** 6-16-21

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: CA 2

SCUR Exceptions:

Workorder #: 10565612

Out of Temp Sample IDs	Container Type	# of Containers

PM Notified? ☐Yes ☐No

If yes, indicate who was contacted/date/time.
If no, indicate reason why.

Multiple Cooler Project? ☐Yes ☐No
If you answered yes, fill out information to the left.

No Temp Blank		
Read Temp	Corrected Temp	Average Temp
4.2	T	3.4
4.1	R	
2.7	U	
2.6	E	

Tracking Number/Temperature	

Issue Type: Sample ID	Container Type	# of Containers

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preserv.	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	

Comments:

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

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

I = Interferencepresent

J = Estimated value

L = Suppressive interference, analyte may be biased low

Nn = Value obtained from additional analysis

P = PCDEInterference

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

* = SeeDiscussion

REPORT OF LABORATORY ANALYSIS

Appendix B

Sample Analysis Summary

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 - PASI Long Island

Client's Sample ID	CELL 7 PLCRS		
Lab Sample ID	70176872001		
Filename	U210624A_16		
Injected By	SMT		
Total Amount Extracted	1080 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	06/14/2021 14:45
ICAL ID	U210423	Received	06/16/2021 13:00
CCal Filename(s)	U210624A_02	Extracted	06/18/2021 12:05
Method Blank ID	BLANK-90975	Analyzed	06/25/2021 00:53

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	10	2,3,7,8-TCDF-13C	2.00	64
Total TCDF	ND	-----	10	2,3,7,8-TCDD-13C	2.00	67
				1,2,3,7,8-PeCDF-13C	2.00	78
2,3,7,8-TCDD	ND	-----	10	2,3,4,7,8-PeCDF-13C	2.00	78
Total TCDD	ND	-----	10	1,2,3,7,8-PeCDD-13C	2.00	79
				1,2,3,4,7,8-HxCDF-13C	2.00	74
1,2,3,7,8-PeCDF	ND	-----	50	1,2,3,6,7,8-HxCDF-13C	2.00	94
2,3,4,7,8-PeCDF	ND	-----	50	2,3,4,6,7,8-HxCDF-13C	2.00	91
Total PeCDF	ND	-----	50	1,2,3,7,8,9-HxCDF-13C	2.00	85
				1,2,3,4,7,8-HxCDD-13C	2.00	76
1,2,3,7,8-PeCDD	ND	-----	50	1,2,3,6,7,8-HxCDD-13C	2.00	83
Total PeCDD	ND	-----	50	1,2,3,4,6,7,8-HpCDF-13C	2.00	58
				1,2,3,4,7,8,9-HpCDF-13C	2.00	55
1,2,3,4,7,8-HxCDF	ND	-----	50	1,2,3,4,6,7,8-HpCDD-13C	2.00	59
1,2,3,6,7,8-HxCDF	ND	-----	50	OCDD-13C	4.00	52
2,3,4,6,7,8-HxCDF	ND	-----	50			
1,2,3,7,8,9-HxCDF	ND	-----	50	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	50	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	50	2,3,7,8-TCDD-37Cl4	0.20	86
1,2,3,6,7,8-HxCDD	ND	-----	50			
1,2,3,7,8,9-HxCDD	ND	-----	50			
Total HxCDD	ND	-----	50			
1,2,3,4,6,7,8-HpCDF	ND	-----	50	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	50	Equivalence: 0.00 pg/L		
Total HpCDF	ND	-----	50	(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	ND	-----	50			
Total HpCDD	ND	-----	50			
OCDF	ND	-----	100			
OCDD	ND	-----	100			

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

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	DFBLKQK		
Lab Sample ID	BLANK-90975	Matrix	Water
Filename	Y210622A_13	Dilution	NA
Total Amount Extracted	997 mL	Extracted	06/18/2021 12:05
ICAL ID	Y210504	Analyzed	06/22/2021 16:38
CCal Filename(s)	Y210622A_01	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-TCDF	ND	-----	10	2,3,7,8-TCDF-13C	2.00	89
Total TCDF	ND	-----	10	2,3,7,8-TCDD-13C	2.00	90
				1,2,3,7,8-PeCDF-13C	2.00	83
2,3,7,8-TCDD	ND	-----	10	2,3,4,7,8-PeCDF-13C	2.00	83
Total TCDD	ND	-----	10	1,2,3,7,8-PeCDD-13C	2.00	83
				1,2,3,4,7,8-HxCDF-13C	2.00	92
1,2,3,7,8-PeCDF	ND	-----	50	1,2,3,6,7,8-HxCDF-13C	2.00	93
2,3,4,7,8-PeCDF	ND	-----	50	2,3,4,6,7,8-HxCDF-13C	2.00	95
Total PeCDF	ND	-----	50	1,2,3,7,8,9-HxCDF-13C	2.00	92
				1,2,3,4,7,8-HxCDD-13C	2.00	88
1,2,3,7,8-PeCDD	ND	-----	50	1,2,3,6,7,8-HxCDD-13C	2.00	77
Total PeCDD	ND	-----	50	1,2,3,4,6,7,8-HpCDF-13C	2.00	60
				1,2,3,4,7,8,9-HpCDF-13C	2.00	64
1,2,3,4,7,8-HxCDF	ND	-----	50	1,2,3,4,6,7,8-HpCDD-13C	2.00	70
1,2,3,6,7,8-HxCDF	ND	-----	50	OCDD-13C	4.00	54
2,3,4,6,7,8-HxCDF	ND	-----	50			
1,2,3,7,8,9-HxCDF	ND	-----	50	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	50	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	50	2,3,7,8-TCDD-37Cl4	0.20	103
1,2,3,6,7,8-HxCDD	ND	-----	50			
1,2,3,7,8,9-HxCDD	ND	-----	50			
Total HxCDD	ND	-----	50			
1,2,3,4,6,7,8-HpCDF	ND	-----	50	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	50	Equivalence: 0.00 pg/L		
Total HpCDF	ND	-----	50	(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	ND	-----	50			
Total HpCDD	ND	-----	50			
OCDF	ND	-----	100			
OCDD	ND	-----	100			

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-90976		
Filename	Y210623B_01	Matrix	Water
Total Amount Extracted	1020 mL	Dilution	NA
ICAL ID	Y210504	Extracted	06/18/2021 12:05
CCal Filename	Y210623A_08	Analyzed	06/23/2021 16:34
Method Blank ID	BLANK-90975	Injected By	CVS

Compound	Cs	Cr	Lower Limit	Upper Limit	% Rec.
2,3,7,8-TCDF	10	11	7.5	15.8	113
2,3,7,8-TCDD	10	11	6.7	15.8	108
1,2,3,7,8-PeCDF	50	52	40.0	67.0	104
2,3,4,7,8-PeCDF	50	50	34.0	80.0	101
1,2,3,7,8-PeCDD	50	47	35.0	71.0	93
1,2,3,4,7,8-HxCDF	50	58	36.0	67.0	116
1,2,3,6,7,8-HxCDF	50	53	42.0	65.0	106
2,3,4,6,7,8-HxCDF	50	53	35.0	78.0	105
1,2,3,7,8,9-HxCDF	50	51	39.0	65.0	102
1,2,3,4,7,8-HxCDD	50	55	35.0	82.0	109
1,2,3,6,7,8-HxCDD	50	57	38.0	67.0	115
1,2,3,7,8,9-HxCDD	50	60	32.0	81.0	120
1,2,3,4,6,7,8-HpCDF	50	51	41.0	61.0	103
1,2,3,4,7,8,9-HpCDF	50	52	39.0	69.0	104
1,2,3,4,6,7,8-HpCDD	50	48	35.0	70.0	96
OCDF	100	120	63.0	170.0	122
OCDD	100	110	78.0	144.0	110
2,3,7,8-TCDD-37Cl4	10	10.0	3.1	19.1	100
2,3,7,8-TCDF-13C	100	71	22.0	152.0	71
2,3,7,8-TCDD-13C	100	74	20.0	175.0	74
1,2,3,7,8-PeCDF-13C	100	63	21.0	192.0	63
2,3,4,7,8-PeCDF-13C	100	63	13.0	328.0	63
1,2,3,7,8-PeCDD-13C	100	64	21.0	227.0	64
1,2,3,4,7,8-HxCDF-13C	100	65	19.0	202.0	65
1,2,3,6,7,8-HxCDF-13C	100	69	21.0	159.0	69
2,3,4,6,7,8-HxCDF-13C	100	70	22.0	176.0	70
1,2,3,7,8,9-HxCDF-13C	100	72	17.0	205.0	72
1,2,3,4,7,8-HxCDD-13C	100	66	21.0	193.0	66
1,2,3,6,7,8-HxCDD-13C	100	60	25.0	163.0	60
1,2,3,4,6,7,8-HpCDF-13C	100	63	21.0	158.0	63
1,2,3,4,7,8,9-HpCDF-13C	100	60	20.0	186.0	60
1,2,3,4,6,7,8-HpCDD-13C	100	64	26.0	166.0	64
OCDD-13C	200	90	26.0	397.0	45

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-90977		
Filename	Y210623B_02	Matrix	Water
Total Amount Extracted	1010 mL	Dilution	NA
ICAL ID	Y210504	Extracted	06/18/2021 12:05
CCal Filename	Y210623A_08	Analyzed	06/23/2021 17:16
Method Blank ID	BLANK-90975	Injected By	CVS

Compound	Cs	Cr	Lower Limit	Upper Limit	% Rec.
2,3,7,8-TCDF	10	11	7.5	15.8	112
2,3,7,8-TCDD	10	11	6.7	15.8	110
1,2,3,7,8-PeCDF	50	53	40.0	67.0	106
2,3,4,7,8-PeCDF	50	52	34.0	80.0	105
1,2,3,7,8-PeCDD	50	49	35.0	71.0	97
1,2,3,4,7,8-HxCDF	50	58	36.0	67.0	116
1,2,3,6,7,8-HxCDF	50	54	42.0	65.0	107
2,3,4,6,7,8-HxCDF	50	54	35.0	78.0	109
1,2,3,7,8,9-HxCDF	50	52	39.0	65.0	104
1,2,3,4,7,8-HxCDD	50	56	35.0	82.0	113
1,2,3,6,7,8-HxCDD	50	58	38.0	67.0	117
1,2,3,7,8,9-HxCDD	50	60	32.0	81.0	121
1,2,3,4,6,7,8-HpCDF	50	53	41.0	61.0	107
1,2,3,4,7,8,9-HpCDF	50	53	39.0	69.0	106
1,2,3,4,6,7,8-HpCDD	50	50	35.0	70.0	99
OCDF	100	120	63.0	170.0	121
OCDD	100	110	78.0	144.0	114
2,3,7,8-TCDD-37Cl4	10	10	3.1	19.1	102
2,3,7,8-TCDF-13C	100	83	22.0	152.0	83
2,3,7,8-TCDD-13C	100	87	20.0	175.0	87
1,2,3,7,8-PeCDF-13C	100	78	21.0	192.0	78
2,3,4,7,8-PeCDF-13C	100	77	13.0	328.0	77
1,2,3,7,8-PeCDD-13C	100	79	21.0	227.0	79
1,2,3,4,7,8-HxCDF-13C	100	82	19.0	202.0	82
1,2,3,6,7,8-HxCDF-13C	100	87	21.0	159.0	87
2,3,4,6,7,8-HxCDF-13C	100	87	22.0	176.0	87
1,2,3,7,8,9-HxCDF-13C	100	87	17.0	205.0	87
1,2,3,4,7,8-HxCDD-13C	100	83	21.0	193.0	83
1,2,3,6,7,8-HxCDD-13C	100	73	25.0	163.0	73
1,2,3,4,6,7,8-HpCDF-13C	100	65	21.0	158.0	65
1,2,3,4,7,8,9-HpCDF-13C	100	62	20.0	186.0	62
1,2,3,4,6,7,8-HpCDD-13C	100	69	26.0	166.0	69
OCDD-13C	200	97	26.0	397.0	48

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

Spike Recovery Relative Percent Difference (RPD) Results

Client	PASI Long Island		
Spike 1 ID	LCS-90976	Spike 2 ID	LCSD-90977
Spike 1 Filename	Y210623B_01	Spike 2 Filename	Y210623B_02

Compound	Spike 1 %REC	Spike 2 %REC	%RPD
2,3,7,8-TCDF	113	112	0.9
2,3,7,8-TCDD	108	110	1.8
1,2,3,7,8-PeCDF	104	106	1.9
2,3,4,7,8-PeCDF	101	105	3.9
1,2,3,7,8-PeCDD	93	97	4.2
1,2,3,4,7,8-HxCDF	116	116	0.0
1,2,3,6,7,8-HxCDF	106	107	0.9
2,3,4,6,7,8-HxCDF	105	109	3.7
1,2,3,7,8,9-HxCDF	102	104	1.9
1,2,3,4,7,8-HxCDD	109	113	3.6
1,2,3,6,7,8-HxCDD	115	117	1.7
1,2,3,7,8,9-HxCDD	120	121	0.8
1,2,3,4,6,7,8-HpCDF	103	107	3.8
1,2,3,4,7,8,9-HpCDF	104	106	1.9
1,2,3,4,6,7,8-HpCDD	96	99	3.1
OCDF	122	121	0.8
OCDD	110	114	3.6

%REC = Percent Recovered
RPD = The difference between the two values divided by the mean value

REPORT OF LABORATORY ANALYSIS

Joseph Guarino

From: Kimberley Mack <Kimberley.Mack@pacelabs.com>
Sent: Friday, October 15, 2021 1:15 PM
To: Joseph Guarino
Subject: RE: 70188104-PFAS samples

Hi Joe-
The lab completed the review and found the chloride results to be correct.

Thank you,
Kim

Kimberley Mack
Project Manager
Pace Analytical Services | Environmental
575 Broad Hollow Road, Melville, NY 11747
Direct:516.370.6052 | Main: 516.370.6000

From: Joseph Guarino <jguarino@townofbabylon.com>
Sent: Monday, October 11, 2021 10:49 AM
To: Kimberley Mack <Kimberley.Mack@pacelabs.com>
Subject: RE: 70188104-PFAS samples

thanks

From: Kimberley Mack <Kimberley.Mack@pacelabs.com>
Sent: Monday, October 11, 2021 10:48 AM
To: Joseph Guarino <jguarino@townofbabylon.com>
Subject: RE: 70188104-PFAS samples

Hi Joe-
I have this in for review-

Thank you,
Kim

Kimberley Mack

Project Manager
Pace Analytical Services | Environmental
575 Broad Hollow Road, Melville, NY 11747
Direct:516.370.6052 | Main: 516.370.6000

From: Joseph Guarino <jguarino@townofbabylon.com>
Sent: Monday, October 11, 2021 9:58 AM
To: Kimberley Mack <Kimberley.Mack@pacelabs.com>
Subject: RE: 70188104-PFAS samples

Will do,

I sent a message re chloride values reported for leachate at our cell 7 facility being in error. Have you been able to review this?

The lab ID is 70176872 (Cell 7 PLCRS) and the date received was 6/14/2021. Can you please confirm and provide where the error likely occurred? I need something from the lab for my report to NYSDEC.

Im getting near to completing my June report and need to finalize this matter.
Thanks,
Joe

From: Kimberley Mack <Kimberley.Mack@pacelabs.com>
Sent: Friday, October 8, 2021 4:41 PM
To: Joseph Guarino <jguarino@townofbabylon.com>
Subject: RE: 70188104-PFAS samples

Hi Joe-
Will you coordinate Brian and the collection of the PFAS samples?
Please let me know so I can keep an eye out for them.

Thank you,
Kim

Kimberley Mack
Project Manager
Pace Analytical Services | Environmental
575 Broad Hollow Road, Melville, NY 11747
Direct:516.370.6052 | Main: 516.370.6000

Appendix 2

Baseline and Expanded Parameters List (6NYCRR Part 363-4.6(h))

(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)
Acetophenone (98-86-2)
2-Acetylaminofluorene; 2-AAF (53-96-3)
Acrolein (107-02-8)
Acrylonitrile (107-13-1)
Aldrin (309-00-2)
Allyl chloride (107-05-1)
4- aminobiphenyl (92-67-1)
Anthracene (120-12-7)
N-Nitrosodiethylamine (55-18-5)
Benzene (71-43-2)
Benzo[a]anthracene; Benzanthracene (56-55-3)
Benzo[b]fluoranthene (205-99-2)
Benzo[k]fluoranthene (207-08-9)
Benzo[ghi]perylene (191-24-2)
Benzo[a]pyrene (50-32-8)
Benzyl alcohol (100-51-6)
alpha-BHC (319-84-6)
beta-BHC (319-85-7)
delta-BHC (319-86-8)
gamma-BHC; Lindane (58-89-9)
Bis(2-chloroethoxy)methane (111-91-1)
Bis(2-chloroethyl) ether; Dichloroethyl ether (111-44-4)
Bis-(2-chloro-1-methyl-ethyl)ether; 2,2[21]-Dichlorodiisopropyl ether; DCIP[23]
Bis(2-ethylhexyl)phthalate (117-81-7)
Bromochloromethane (74-97-5)
Bromodichloromethane (75-27-4)
Bromoform (75-25-2)
4-Bromophenyl phenyl ether (101-55-3)
Butyl benzyl phthalate; Benzyl butyl phthalate (117-81-7)
Carbon disulfide (75-15-0)
Carbon tetrachloride (56-23-5)
Chlordane[27]
p-Chloroaniline (106-47-8)
Chlorobenzene (108-90-7)
Chlorobenzilate (510-15-6)
p-Chloro-m-cresol; 4-Chloro-3-methylphenol (59-50-7)
Chloroethane; Ethyl chloride (75-00-3)
Chloroform; Trichloromethane (67-66-3)
2-Chloronaphthalene (91-58-7)
2-Chlorophenol (95-57-8)
4-Chlorophenyl phenyl ether (7005-72-3)
Chloroprene (126-99-8)
Chrysene (218-01-9)
m-Cresol; 3-methylphenol (108-39-4)
o-Cresol; 2-methylphenol (95-48-7)
p-Cresol; 4-methylphenol (106-44-5)
2,4-D; 2,4-Dichlorophen- oxyacetic acid (94-75-7)
4,4[21]-DDD (72-54-8)
4,4[21]-DDE (72-55-9)
1,3-Dichloropropane; Trimethylene dichloride (142-28-9)
2,2-Dichloropropane; Isopropylidene chloride (594-20-7)
1,1-Dichloropropene (563-58-6)
cis-1,3-Dichloropropene (10061-01-5)
trans-1,3-Dichloropropene (10061-02-6)
Dieldrin (60-57-1)
Diethyl phthalate (84-66-2)
0,0-Diethyl 0-2-pyrazinyl
cis-1,2-Dichloroethylene; cis-1,2-Dichloroethene (156-59-2)
trans-1,2-Dichloroethylene (156-60-2)
Phosphorothioate; Thionazin (297-97-2)
Dimethoate (60-51-5)
p-(Dimethylamino)azobenzene (60-11-7)
7,12-Dimethylbenz[a]anthracene (57-97-6)
3,3[21]-Dimethylbenzidine (119-93-7)
2,4-Dimethylphenol; m-Xylenol (105-67-9)
Dimethyl phthalate (131-11-3)
m-Dinitrobenzene (99-65-0)
4,6-Dinitro-o-cresol 4,6- Dinitro-2-methylphenol (534-52-1)
2,4-Dinitrophenol (51-28-5)
2,4-Dinitrotoluene (121-14-2)
2,6-Dinitrotoluene (606-20-2)
Dinoseb; DNBP; 2-sec- Butyl-4,6-dinitrophenol (88-85-7)
Di-n-octyl phthalate (117-84-0)
Diphenylamine (122-39-4)
Disulfoton (298-04-4)
Endosulfan I (959-98-8)
Endosulfan II (33213-65-9)
Endosulfan sulfate (1031-07-8)
Endrin (72-20-8)
Endrin aldehyde (7421-93-4)
Ethylbenzene (100-41-4)
Ethyl methacrylate (97-63-2)
Ethyl methanesulfonate (62-50-0)
Famphur (52-85-7)
Fluoranthene (206-44-0)
Fluorene (86-73-7)
Heptachlor (76-44-8)
Heptachlor epoxide (1024-57-3)
Hexachlorobenzene (118-74-1)
Hexachlorobutadiene (87-68-3)
Hexachlorocyclopentadiene (77-47-4)
Hexachloroethane (67-72-1)
Hexachloropropene (1888-71-7)
2-Hexanone; Methyl butyl ketone (591-78-6)
Indeno(1,2,3-cd)pyrene (193-39-5)
Isobutyl alcohol (78-83-1)
Isodrin (465-73-6)
Isophorone (78-59-1)
2-Naphthylamine (91-59-8)
o-Nitroaniline; 2-Nitroaniline (88-74-4)
m-Nitroaniline; 3-Nitroaniline (99-09-2)
p-Nitroaniline; 4-Nitroaniline (100-01-6)
Nitrobenzene (98-95-3)
o-Nitrophenol 2-Nitrophenol (88-75-5)
p-Nitrophenol; 4-Nitrophenol (100-02-7)
N-Nitrosodi-n-butylamine (924-16-3)
N-Nitrosodimethylamine (62-75-9)
N-Nitrosodiphenylamine (86-30-6)
N-Nitrosodipropylamine; N-Nitroso-N-dipropyl-amine; Di-n-propylni-trosamine (621-64-7)
N-Nitrosomethylethalamine (10595-95-6)
N-Nitrosopiperidine (100-75-4)
N-Nitrosopyrrolidine (930-55-2)
5-Nitro-o-toluidine (99-55-8)
Parathion (56-38-2)
Pentachlorobenzene (608-93-5)
Pentachloronitrobenzene (82-68-8)
Pentachlorophenol (87-86-5)
Phenacetin (62-44-2)
Phenanthrene (85-01-8)
Phenol (108-95-2)
p-Phenylenediamine (106-50-9)
Phorate (298-02-2)
Polychlorinated biphenyls; PCBs; Aroclors[24]
Polychlorinated dibenzo-p- dioxins; PCDDs[25]
Polychlorinated dibenzo- furans; PCDFs[26]
Pronamide (23950-58-5)
Propionitrile; Ethyl cyanide (107-12-0)
Pyrene (129-00-0)
Safrole (94-59-7)
Silvex; 2,4,5-TP (93-72-1)
Styrene (100-42-5)
2,4,5-T; 2,4,5-trichloro- phenoxyacetic acid (93-76-5)
1,2,4,5-Tetrachlorobenzene (95-94-3)
2,3,7,8-Tetrachlorodi- benzo-p-dioxin; 2,3,7,8-TCDD (1746-01-6)
1,1,1,2-Tetrachloroethane (630-20-6)
1,1,2,2-Tetrachloroethane (79-34-5)
Tetrachloroethylene; Tetrachloroethene; Perchloroethylene (127-18-4)
2,3,4,6-Tetrachlorophenol (58-90-2)
Toluene (108-88-3)
o-Toluidine (95-53-4)
Toxaphene[28]
1,2,4-Trichlorobenzene (120-82-1)
1,1,1-Trichloroethane; Methylchloroform (71-55-6)
1,1,2-Trichloroethane (79-00-5)
Trichloroethylene; Trichloroethene (79-01-6)
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)	