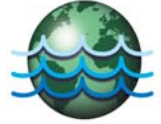


# P.W. GROSSER CONSULTING



January 31, 2018

Steven M. Scharf, P.E. Project Engineer,  
Division of Environmental Remediation  
New York State Department of Environmental Conservation  
Remedial Bureau A  
625 Broadway 12th Floor  
Albany, NY 12233-7015

**Re: 2017 Fourth Quarter Status Update  
Minmilt Realty Groundwater Remedial System  
540 Smith Street  
Farmingdale, NY 11735  
Site No. 1-52-147**

Dear Mr. Scharf,

P.W. Grosser Consulting, Inc. (PWGC) has prepared this status letter to present the results of the 2017 Fourth Quarter groundwater remedial system sampling event and operations and maintenance (O&M) of the Interim Remedial Measure at Minmilt Realty, East Farmingdale, New York.

As previously reported, in 2014 the New York State Department of Environmental Conservation (NYSDEC) granted PWGC permission to reduce groundwater monitoring well sampling frequency from quarterly sampling to every fifth quarter sampling. PWGC is submitting this Fourth Quarter Status Update in accordance with the revised sampling schedule as a condensed report on the recovery well sampling events. In addition, any reference to the Upper Glacial and Magothy wells can be assumed to be regarding the new onsite recovery wells, unless otherwise noted.

## **SCHEDULE**

This is the first quarterly status report submission since the July 2016 – September 2017 Groundwater Sampling Report, submitted January 2018. The next groundwater monitoring well sampling event will take place during the fourth quarter 2018.

In the interim, PWGC will continue to perform O&M of the groundwater remedial system and Soil Vapor Extraction (SVE) system, as well as measure groundwater elevations in the groundwater monitoring wells monthly.

## **SOIL VAPOR EXTRACTION SYSTEM**

Starting on September 26, 2016, the SVE system has been operating in pulse pump mode, or two weeks on and two weeks off on a rotating basis. This operation change was recommended by PWGC in the October 2015 – June 2016 Groundwater Sampling Report because tetrachloroethylene (PCE) concentration level dropped to pre-2015 concentration levels.

## ROUTINE MONITORING AND SAMPLING

To assess system performance and local groundwater conditions during the 2017 Fourth Quarter, PWGC performed the following:

- Monthly tasks:
  - Collected synoptic groundwater measurements from groundwater monitoring wells;
  - Collected influent and effluent samples from the groundwater remedial system;
  - Maintenance and corrective actions of the groundwater remedial system.
  
- Quarterly tasks:
  - Collected influent samples from individual onsite groundwater extraction wells;
  - Collected influent samples from the SVE system.

## MONITORING WELL GAUGING

On October 16, November 17, and December 13, 2017 PWGC obtained groundwater elevations using an electric water level indicator. During the Fourth Quarter 2017, groundwater elevations ranged from 53.65 feet in groundwater monitoring well SP-6 to 55.24 feet in groundwater monitoring well MW-1. Refer to **Table 1 – January – December 2017 Groundwater Elevation Results** for this data. November 17, 2017 groundwater elevations was used to generate a groundwater flow direction map (**Figure 1**). The data indicates that the groundwater flow direction is towards south-southeast. This groundwater flow direction is consistent with previous observations.

## REMEDIAL SYSTEM REPAIRS AND MAINTENANCE

- Following well rehabilitation effort of the onsite groundwater extraction wells, as described in the First Quarter 2017 status letter, combined influent flow increased from approximately 90-gpm to 110-gpm. 110-gpm is still slightly lower than the designed combined influent flow rate of approximately 145-gpm.
  
- PWGC is evaluating downsizing the blower and motor or installing a variable frequency drive (VFD), and replacing or rehabilitating the mist eliminator. PWGC will notify the NYSDEC prior to making major system modifications. The need for these system modifications was identified during the June 2017 inspection. These system modifications will reduce operating costs and increase system efficiency.
  
- The onsite Upper Glacial well alarmed due to an overload condition in August 2017 and was unable to be reset. Delta and PWGC mobilized onsite to perform repairs of the Upper Glacial well. Work was performed from September 26 to September 29. When the well pump was removed from the well, it was found to be inoperable. A new well pump was installed. Prior to installing the pump, the well was cleaned and brushed with an acid solution. The groundwater remedial system was placed back into operation after the new pump was installed and was observed to be operating correctly. Because this work was performed during September, the groundwater remedial system and groundwater sampling that was scheduled to occur in September was delayed until October.

## GROUNDWATER REMEDIAL SYSTEM

- Groundwater remedial system sample results are summarized in **Table 2** – Groundwater Remedial System Influent/Effluent Sample Results Summary, **Table 3** - Groundwater Remedial System Contaminant Mass Removal, and **Table 4** – Groundwater Remedial System Contaminant Mass Removal by Individual Extraction Wells.
- Data in **Tables 2 through 4** indicate that contamination levels identified in the total groundwater remedial system influent and in individual groundwater extraction wells (onsite Upper Glacial and onsite Magothy Recovery Wells) have decreased subsequent to commencing operation of both onsite extraction wells during the 2015 Second Quarter and 2015 Third Quarters.
- The average combined influent concentration of total volatile organic compounds (TVOCs) for October 2017 through December 2017 was slightly higher (2,444 µg/L) than the previous three-month average of 2,103 µg/L. Results are summarized in **Table 2**.
- **October 2017**
  - The combined system influent concentration of tetrachloroethene (PCE) was reported at 2,810 µg/L on October 16, 2017. Results are summarized in **Table 2**.
  - The effluent concentration of tetrachloroethene (PCE) was reported at 2.0 µg/L on October 16, 2017.
- **November 2017**
  - Combined and individual extraction well system influent samples were collected on November 17, 2017. Analytical results for the combined system influent PCE concentration was reported at 2,490 µg/L. Analytical results for the onsite Upper Glacial influent PCE concentration was reported at 2,640 µg/L. Analytical results for the onsite Magothy influent PCE concentration was reported at 1,330 µg/L. Analytical results for the combined (onsite Upper Glacial and onsite Magothy) system effluent PCE concentration was reported at 3.6 µg/L.
- **December 2017**
  - Analytical results for the combined system influent concentration of PCE was reported at 1,970 µg/L on December 13, 2017.
  - Analytical results for the effluent concentration of PCE was reported at <1.0 µg/L on December 13, 2017.
- **Table 3** shows mass removal quantities of PCE and TVOC's for the groundwater remedial system through the end of the 2017 Fourth Quarter (October 2017 through December 2017). The current

mass of PCE removed by the groundwater remedial system is approximately 37,220 pounds. Therefore, approximately 249 pounds of PCE were removed during the fourth quarter 2017.

- **Table 4** shows contaminant mass removed from each individual aquifer based on routine individual aquifer sampling. TVOC's in the onsite Upper Glacial and onsite Magothy Extraction Well were 2,640 µg/L and 1,338 µg/L, respectively, for 2017 Fourth Quarter. The removal rate of the Upper Glacial and Magothy Extraction Wells appear consistent with recent removal rates for the site.

## SVE REMEDIAL SYSTEM

SVE system sample results are tabulated in **Table 5** - SVE Historic Results and **Table 6** - SVE Contaminant Mass Removed. SVE data indicates that the influent concentrations (1,510 µg/m<sup>3</sup>) are consistent with historic data. Refer to **Table 5**. Analytical data packages are attached as **Attachment A**.

Soil remediation is monitored by routine air influent sampling and expressed as contaminant mass removal. **Table 6** depicts contaminant mass removal per quarter, as well as total contaminant mass removed for the duration of the project through the end of the fourth quarter 2017 (December 13, 2017). As shown on **Table 6**, contaminant mass removed for the fourth quarter 2017 was approximately 2.78 pounds. Based upon these calculations, 5,354 pounds (>100% of the original estimated mass released) have been removed by the SVE system.


VOCs extracted by the SVE system for the past few years has been relatively low. The average VOC removal obtained during the 2017 Fourth Quarter was 0.0008 pounds per our (lb/hr) with both SVE wells operating (refer to **Table 6**). This removal rate is well below the emission guidance of 1.0 lb/hr.

## CONCLUSION


Analytical results indicate that the groundwater remedial system and SVE system are operating effectively. To date, the groundwater remedial system has removed approximately 37,220 pounds of PCE and the SVE system has removed 5,354 pounds of contaminants. System assessment sampling and monitoring will continue on a monthly basis.

The next status report will be prepared following the March 2018 O&M sampling event. Should you have any questions or require additional information, please do not hesitate to call this office.

Sincerely Yours,  
P.W. Grosser Consulting



Regina Bykov, P.G.  
Project Engineer



Kaitlyn Crosby  
Project Hydro/ES

cc w/encl.:           R. Cole, Minmilt  
                          C. Lubicich, SCDHS  
                          R. Dorado, J.D'Addario

# Figure





# PWGC

Strategic Environmental and Engineering Solutions

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REVISION	DATE	INITIAL	COMMENTS

DRAWING INFORMATION:			
Project:	MIN1001	Designed by:	KC
Date:	1/24/2018	Drawn by:	JCG
Scale:	AS SHOWN	Approved by:	BB

Groundwater Elevation  
4th Quarter 2017  
Sampling Round: 11/7/2017

**540 SMITH ST  
EAST FARMINGDALE, NY**

FIGURE NO:  
**1**

SHEET:

SMITH ST

GROUNDWATER  
FLOW DIRECTION

PINELAWN AVE

540 SMITH STREET  
MINMILT

50 ENGINEERS LANE  
CANTOR BROTHERS

550 SMITH STREET  
GREATNECK SAW

Upper Glacial Extraction Well  
Well No. 3  
2,640 µg/L (Sampled Nov 17, 2017)

Magothy Extraction Well  
Well No. 4  
1,338 µg/L (Sampled Nov 17, 2017)

Upper Glacial Extraction Well  
Well No. 1  
(Abandoned)

Magothy Extraction Well  
Well No. 2  
(Abandoned)

MW-6  
55.27

MW-1  
55.24

MW-5  
54.94

MW-2  
54.78

MW-3  
54.62

GW-1  
54.87

MW-4  
54.57

MW-8  
54.53

MW-7  
54.62

MW-9  
54.35

GW-4

GW-2  
54.28

GW-3  
54.3

SP-4  
54.32

SP-3  
54.26

SP-2  
NM

SP-1  
NM

SP-6  
54.17

SP-5  
NM

55.20'

54.90'

54.60'

54.30'



- Destroyed Well
- Shorewood Packaging Well
- Cantor Brother Well
- Minmilt Realty Well
- Recovery Wells
- Shut Down Recovery Wells
- Actual
- Inferred
- Buildings

Document Path: W:\Projects\1001\Mapfiles\QuarterlyReports\2017\FG1 - GWcontours\_4hdtf\_2017.mxd

# Tables



**TABLE 1**  
**January - December 2017**  
**Groundwater Elevation Results**

SOURCE	CASING ELEVATION	January 25, 2017		February 16, 2017		March 16, 2017		April 18, 2017		May 19, 2017		June 16, 2017		July 18, 2017		August 21, 2017		September 2017		October 16, 2017		November 17, 2017		December 13, 2017	
		DTW	GWE	DTW	GWE	DTW	GWE	DTW	GWE	DTW	GWE	DTW	GWE	DTW	GWE	DTW	GWE	DTW	GWE	DTW	GWE	DTW	GWE	DTW	GWE
MW-1	99.22	44.66	54.56	---	---	---	---	43.65	55.57	42.66	56.56	43.08	56.14	43.14	56.08	43.53	55.69	44.28	54.94	44.59	54.63	43.98	55.24	44.22	55.00
MW-2	98.80	44.61	54.19	44.15	54.65	44.46	54.34	43.57	55.23	42.62	56.18	43.04	55.76	43.09	55.71	43.49	55.31	44.24	54.56	44.57	54.23	44.02	54.78	44.23	54.57
MW-3	98.08	44.09	53.99	45.70	52.38	43.91	54.17	43.01	55.07	42.05	56.03	42.51	55.57	42.55	55.53	42.94	55.14	43.70	54.38	44.06	54.02	43.46	54.62	43.72	54.36
MW-4	97.44	---	---	---	---	43.29	54.15	42.43	55.01	41.47	55.97	41.91	55.53	41.96	55.48	42.36	55.08	42.09	55.35	43.46	53.98	42.87	54.57	---	---
MW-5	99.12	44.79	54.33	44.89	54.23	---	---	43.78	55.34	42.79	56.33	43.25	55.87	43.28	55.84	43.68	55.44	44.43	54.69	44.75	54.37	44.18	54.94	44.40	54.72
MW-6	99.28	44.62	54.66	44.65	54.63	44.59	54.69	43.67	55.61	42.64	56.64	43.09	56.19	43.13	56.15	43.52	55.76	44.27	55.01	44.54	54.74	44.01	55.27	44.23	55.05
MW-7	98.09	---	---	---	---	---	---	---	---	42.11	55.98	42.54	55.55	42.59	55.50	---	---	43.70	54.39	---	---	43.47	54.62	---	---
MW-8	97.87	---	---	---	---	---	---	---	---	41.92	55.95	42.34	55.53	42.40	55.47	---	---	42.48	55.39	---	---	43.34	54.53	---	---
MW-9	95.93	42.22	53.71	42.08	53.85	---	---	41.16	54.77	40.34	55.59	41.09	54.84	41.46	54.47	41.28	54.65	41.78	54.15	42.11	53.82	41.58	54.35	41.37	54.56
SP-3	96.30	Dry	---	33.60	62.70	42.51	53.79	41.59	54.71	40.56	55.74	41.00	55.30	41.12	55.18	41.50	54.80	42.26	54.04	42.56	53.74	42.04	54.26	42.23	54.07
SP-4	97.71	Dry	---	---	---	43.34	54.37	43.14	54.57	42.12	55.59	42.56	55.15	42.64	55.07	43.02	54.69	---	---	---	---	43.39	54.32	---	---
SP-5	96.72	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SP-6	99.68	44.12	55.56	---	---	46.03	53.65	45.17	54.51	44.07	55.61	44.52	55.16	44.58	55.10	44.98	54.70	45.76	53.92	46.03	53.65	45.51	54.17	45.72	53.96
GW-1	99.70	45.45	54.25	45.57	54.13	45.45	54.25	44.57	55.13	43.47	56.23	43.92	55.78	43.98	55.72	44.36	55.34	45.14	54.56	45.39	54.31	44.83	54.87	44.64	55.06
GW-2	100.30	46.65	53.65	46.75	53.55	46.53	53.77	45.62	54.68	44.61	55.69	45.03	55.27	45.11	55.19	45.52	54.78	46.26	54.04	46.53	53.77	46.02	54.28	46.22	54.08
GW-3	100.55	46.90	53.65	47.00	53.55	46.73	53.82	45.83	54.72	44.81	55.74	45.26	55.29	45.33	55.22	45.71	54.84	46.52	54.03	46.79	53.76	46.25	54.30	46.44	54.11
SCDHS	NS	41.22	---	---	---	---	---	40.18	---	38.88	---	39.37	---	39.47	---	39.88	---	40.34	---	40.94	---	40.61	---	40.69	---
Upper Glacial	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Magothy	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Notes:  
 Highlighted text denotes lowest groundwater elevation for the month  
 Highlighted text denotes highest groundwater elevation for the month  
 GWE = Groundwater Elevation  
 DTW = Depth to Water  
 NS = Not Surveyed  
 NM = Not Monitored / Inaccessible

**TABLE 2**  
**Groundwater Remedial System**  
**Influent Effluent Sample Results Summary**  
**January - December 2017**

Parameters	Units	January 2017		February 2017		March 2017		April 2017		May 2017		June 2017		July 2017		August 2017		September 2017		October 2017		November 2017		December 2017		NYSDEC Effluent Limitations								
		Combined System Influent	Combined System Effluent	Combined System Influent	Onsite Upper Glacial Influent	Onsite Magothly #4 Influent	Combined System Effluent	Combined System Influent	Combined System Effluent	Combined System Influent	Combined System Effluent	Combined System Influent	Onsite Upper Glacial Influent	Onsite Magothly #4 Influent	Combined System Effluent	Combined System Influent	Combined System Effluent	Combined System Influent	Combined System Effluent	Combined System Influent	Combined System Effluent	Combined System Influent	Onsite Upper Glacial Influent	Onsite Magothly #4 Influent	Combined System Effluent		Combined System Influent	Combined System Effluent						
Iron as Fe	mg/L	0.5	0.4	0.43	0.71	1.78	0.17	1.05	30.90	0.96	1.02	0.55	0.45	0.77	0.36	0.55	0.28	0.89	1.65	1.78	24.40	5.21	0.91	0.70	2.92	0.44	0.29	0.38	0.46	0.57	3.40	0.41	5.98	NS
pH (Lab)	n/a	5.8	9.0	5.8	5.7	5.4	7.2	5.7	7.2	5.1	6.7	5.4	5.1	5.4	7.0	4.9	6.8	5.2	6.8	6.1	6.1	6.0	7.6	6.2	7.4	6.1	7.5	5.9	5.8	5.6	7.0	7.4	7.4	5.5-8.5
Toluene	µg/L	<20	<1.0	<30	<50	<20	<1.0	<40	<1.0	<30	<1.0	<30	<1.0	<30	<1.0	<30	<1.0	<1.0	<1.0	<40	<40	<20	<1.0	<30	<1.0	<1.0	<1.0	<30	<30	<1.0	<1.0	<1.0	<1.0	5
m + p Xylene	µg/L	<20	<1.0	<30	<50	<20	<1.0	<40	<1.0	<60	<2.0	<60	<2.0	<60	<2.0	<60	<2.0	<60	<2.0	<40	<40	<2.0	<60	<2.0	<60	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	5	
1,1-Dichloroethene	µg/L	<20	<1.0	<30	<50	<20	<1.0	<40	<1.0	<30	<1.0	<30	<1.0	<30	<1.0	<30	<1.0	<1.0	<1.0	<40	<40	<20	<1.0	<30	<1.0	<1.0	<1.0	<30	<30	<1.0	<1.0	<1.0	<1.0	5
Chloromethane	µg/L	<20	<1.0	<30	<50	<20	<1.0	<40	<1.0	<30	<1.0	<30	<1.0	<30	<1.0	<30	<1.0	<1.0	<1.0	<40	<40	<20	<1.0	<30	<1.0	<1.0	<1.0	<30	<30	<1.0	<1.0	<1.0	<1.0	5
Chloroform	µg/L	<20	<1.0	<30	<50	<20	<1.0	<40	<1.0	<30	<1.0	<30	<1.0	<30	<1.0	<30	<1.0	<1.0	<1.0	<40	<40	<20	<1.0	<30	<1.0	1.2	<1.0	<30	<30	<1.0	<1.0	<1.0	7	
1,1,1-Trichloroethane	µg/L	<20	<1.0	<30	<50	<20	<1.0	<40	<1.0	<30	<1.0	<30	<1.0	<30	<1.0	<30	<1.0	<1.0	<1.0	<40	<40	<20	<1.0	<30	<1.0	<1.0	<1.0	<30	<30	<1.0	<1.0	<1.0	<1.0	5
1,2-Dichloroethene (total)	µg/L	<40	<2.0	<60	<100	<40	<2.0	<80	<2.0	<60	<2.0	<60	<2.0	<60	<2.0	<60	<2.0	<2.0	<2.0	<80	<80	<2.0	<60	<2.0	<2.0	<2.0	<2.0	<60	<60	<2.0	<2.0	<2.0	<2.0	5
Tetrachloroethene	µg/L	2,330	<1.0	2,640	2,700	1,410	<1.0	2600.0	<1.0	2510.0	<1.0	1690.0	1130.0	2520.0	<1.0	1910.0	<1.0	1870.0	<1.0	1840.0	2410.0	1220.0	<1.0	2540.0	2.0	2810.0	2.0	2490.0	2640.0	1330.0	3.6	1970.0	<1.0	5
Trichloroethylene	µg/L	26.2	<1.0	<30	<50	<20	<1.0	161.0	<1.0	112.0	<1.0	<30	<30	35.3	<1.0	90.7	<1.0	19.8	<1.0	<40	<40	<20	<1.0	39.9	<1.0	40.9	<1.0	<30	<30	7.5	<1.0	21.1	<1.0	5
TVOC's	µg/L	2,356	0.0	2,640	2,700	1,410	0.0	2,761	0.0	2,622	0.0	1,690	1,130	2,555	0.0	2,001	0.0	1,890	0.0	1,840	2,410	1,220	0.0	2,580	2.0	2,852	2.0	2,490	2,640	1,338	3.6	1,991	0.0	

NA - Not Collected

NS - No Standard

ND = Not Detected

Highlighted text denotes exceedance of NYSDEC Effluent Limitations

**TABLE 3**  
**Groundwater Treatment System**  
**Contaminant Mass Removal**

Sampling Date	Days of Operation	Average flow rate	Tetrachloroethene ( $\mu\text{g/l}$ )	Mass Removed (kg)	Total VOC's ( $\mu\text{g/l}$ )	Mass Removed (kg)
2/11/1997	7	190	19000	137.75	20000	145.00
2/18/1997	12	190	7400	91.97	7924	98.48
3/7/1997	6	190	9400	58.41	9840	61.15
3/13/1997	6	190	9700	60.28	10229	63.56
3/21/1997	8	190	7000	58.00	7503	62.17
3/27/1997	6	190	7900	49.09	8240	51.20
4/4/1997	8	206	8700	78.15	9090	81.66
4/10/1997	6	206	9300	62.66	9722	65.50
4/18/1997	8	206	6200	55.70	6605	59.33
4/24/1997	6	206	5900	39.75	6321	42.59
4/30/1997	6	206	5000	33.69	5478	36.91
5/9/1997	9	206	5400	54.57	5670	57.30
5/15/1997	6	206	4700	31.67	5180	34.90
5/20/1997	5	206	9200	51.65	9653	54.20
5/30/1997	10	206	3900	43.79	4380	49.18
6/4/1997	5	206	7200	40.42	7660	43.01
6/13/1997	9	206	6900	69.73	7311	73.89
6/19/1997	6	206	6200	41.77	6654	44.83
6/25/1997	6	206	6800	45.81	7193	48.46
7/2/1997	7	220	6200	52.05	6599	55.40
7/11/1997	9	220	6000	64.76	6395	69.02
7/16/1997	5	220	6900	41.37	7383	44.27
7/23/1997	7	220	4600	38.61	5005	42.01
8/1/1997	9	220	6300	68.00	6637	71.63
8/8/1997	7	220	7,000	58.76	7341	61.62
8/15/1997	7	220	5900	49.53	6243	52.41
8/26/1997	11	220	7000	92.34	7322	96.59
9/3/1997	7	220	6100	51.21	6365	53.43
9/9/1997	6	220	3900	28.06	4165	29.97
10/31/1997	52	220	5400	336.74	5604	349.46
11/21/1997	21	220	6100	153.62	6325	159.29
12/15/1997	45	220	5500	296.81	5711	308.19
1/30/1998	46	190	4200	200.10	4,420	210.58
2/23/1998	24	190	5,800	144.17	6,072	150.93
3/16/1998	20	190	4,200	87.00	4,571	94.68
4/21/1998	29	220	4,500	156.50	5,010	174.23
5/14/1998	22	220	3,100	81.79	3,659	96.53
6/29/1998	46	220	10,000	551.64	10,547	581.82
7/30/1998	31	220	5,400	200.75	5,900	219.34
8/21/1998	22	220	3,800	100.25	4,260	112.39
9/17/1998	28	220	5,100	171.25	5,631	189.08
10/27/1998	40	220	5,636	270.37	6,137	294.36
11/23/1998	27	220	5,000	161.89	5,420	175.49
12/22/1998	36	220	4,700	202.91	4,990	215.43
1/20/1999	29	220	4,900	170.41	5,211	181.22
2/24/1999	35	220	6,991	293.43	7,420	311.46
3/23/1999	27	220	4,500	145.71	4,990	161.57
4/26/1999	34	220	5,300	216.10	5,710	232.82
5/28/1999	32	220	4,800	184.20	5,065	194.37
6/29/1999	32	220	4,500	172.69	4,766	182.90
7/28/1999	29	168	5,000	132.79	5,225	138.76
8/19/1999	22	168	5,400	108.79	5,651	113.85
10/13/1999	55	120	6,100	219.46	6,277	225.82
11/10/1999	12	120	6,400	50.24	6,571	51.58
12/16/1999	33	120	4,900	105.77	5,044	108.88
1/18/2000	21	120	3,900	53.57	4,047	55.59
2/15/2000	26	120	4,600	78.23	4,828	82.11
3/20/2000	28	120	5,600	102.57	5,817	106.54
4/25/2000	34	150	3,800	105.64	3,953	109.89
5/26/2000	31	150	5,200	131.81	5,433	137.71
8/3/2000	55	170	4,500	229.35	4,886	249.02
9/27/2000	55	170	3,200	163.09	3,480	177.36
11/27/2000	60	170	2,700	150.12	2,940	163.46
12/21/2000	24	170	2,600	57.82	2,817	62.65
1/25/2001	35	180	2,600	89.29	2,768	95.06
2/27/2001	33	180	2,500	80.95	2,665	86.29
3/29/2001	26	180	2,600	66.33	2,901	74.01
4/27/2001	29	180	3,100	88.21	3,475	98.88
5/30/2001	33	180	2,400	77.71	2,703	87.52
6/28/2001	28	180	2,800	76.92	3,091	84.92
7/26/2001	29	180	2,700	76.83	2,990	85.08
8/23/2001	28	180	2,800	76.92	3,013	82.78
9/27/2001	35	180	2,300	78.98	2,465	84.65
11/2/2001	36	180	3,700	130.69	3,888	137.33
11/27/2001	25	180	2,400	58.87	2,530	62.06
12/19/2001	22	180	2,100	45.33	2,215	47.81
1/30/2002	42	180	2,200	90.66	2,283	94.08
2/27/2002	23	180	2,000	45.13	2,064	46.58
3/26/2002	27	180	2,700	71.53	2,748	72.80
4/24/2002	29	180	2,700	76.83	2,747	78.16
5/29/2002	30	180	6,000	176.61	6,013	176.99
6/26/2002	26	180	3,000	76.53	3,069	78.29
8/6/2002	40	180	2,700	105.97	2,751	107.97
8/30/2002	24	180	3,300	77.71	3,388	79.78
9/26/2002	27	180	2,600	68.88	2,653	70.28
10/30/2002	34	180	2,700	90.07	2,751	91.77
11/26/2002	16	180	3,300	51.81	3,388	53.19
1/3/2003	28	100	2,600	39.68	2,653	40.49
2/4/2003	21	100	4,000	45.79	4,057	46.44
7/7/2003	56	160	1,200	58.61	1,310	63.98
8/26/2003	48	160	2,100	87.91	2,173	90.97
9/30/2003	35	160	900	27.47	955	29.15
10/28/2003	28	160	260	6.35	266	6.50
12/1/2003	28	160	2,500	61.05	2,557	62.44
12/15/2003	14	160	2,000	24.42	2,033	24.82
1/20/2004	36	160	1,900	59.66	1,932	60.66
2/26/2004	37	160	220	7.10	259	8.36
3/30/2004	33	160	2,000	57.56	2,045	58.86
4/27/2004	28	160	2,400	58.61	2,446	59.73
5/17/2004	20	160	1,900	33.14	1,928	33.63
6/30/2004	44	160	2,100	80.59	2,142	82.20
8/13/2004	44	150	2,400	86.34	2,446	88.00
9/24/2004	42	150	2,900	99.59	2,945	101.14
10/21/2004	27	150	3,100	68.44	3,143	69.39
11/23/2004	33	150	3,200	86.34	3,243	87.50
12/10/2004	17	150	2,500	34.75	2,556	35.53
1/26/2005	47	60	2,500	38.43	2,550	39.20
2/10/2005	15	60	3,000	14.72	3,047	14.95
3/16/2005	34	60	3,600	40.03	3,654	40.63
4/22/2005	37	60	2,900	35.09	2,949	35.69
5/17/2005	25	60	2,200	17.99	2,245	18.36
6/27/2005	41	60	2,900	38.89	2,900	38.89
7/28/2005	31	65	3,200	35.15	3,256	35.76
8/23/2005	26	65	3,100	28.56	3,139	28.92
9/28/2005	36	65	2,500	31.89	2,544	32.45
10/19/2005	21	63	2,500	18.03	2,548	18.38
11/10/2005	22	63	2,800	21.15	2,840	21.46
12/15/2005	35	63	2,600	31.25	2,651	31.86
1/10/2006	26	130	3,100	57.12	3,144	57.93
3/27/2006	23	130	2,700	44.01	2,728	44.46
4/20/2006	24	180	2,000	47.10	2,027	47.73
5/19/2006	29	180	1,500	42.68	1,525	43.39
6/30/2006	42	180	1,400	57.69	1,427	58.81
7/20/2006	18	176	1,600	27.63	1,627	28.10
8/11/2006	20	176	1,700	32.62	1,727	33.14
9/26/2006	25	176	3,400	81.55	3,455	82.87
10/23/2006	27	160	2,000	47.10	2,028	47.76
11/7/2006	15	160	2,800	36.63	2,861	37.43
12/21/2006	44	160	1,800	69.07	1,828	70.15
1/5/2007	15	152	2,100	26.10	2,127	26.43

**TABLE 3  
Groundwater Treatment System  
Contaminant Mass Removal**

Sampling Date	Days of Operation	Average flow rate	Tetrachloroethene (µg/l)	Mass Removed (kg)	Total VOC's (µg/l)	Mass Removed (kg)
2/6/2007	32	152	1,600	42.42	1,627	43.14
3/22/2007	44	152	1,800	65.62	1,829	66.68
4/5/2007	14	150	1,700	19.46	1,734	19.85
5/3/2007	28	150	1,600	36.63	1,631	37.34
6/20/2007	48	150	4,400	172.69	4,429	173.83
7/11/2007	21	147	1,900	31.97	1,932	32.51
8/8/2007	28	147	3,300	74.04	3,325	74.60
9/27/2007	50	147	3,900	156.25	3,979	159.42
10/12/2007	15	152	2,500	31.07	2,530	31.44
11/6/2007	25	143	2,000	38.97	2,025	39.46
12/11/2007	35	142	2,700	73.15	2,739	74.20
1/5/2008	25	140	2,100	40.06	2,128	40.60
2/6/2008	32	120	2,000	41.86	2,023	42.35
3/31/2008	54	120	2,100	74.18	2,127	75.13
4/23/2008	23	122	1,600	24.47	1,625	24.86
5/20/2008	27	122	1,700	30.52	1,726	30.99
6/17/2008	28	108	1,900	31.32	1,927	31.76
7/8/2008	21	102	1,900	22.18	1,931	22.55
8/6/2008	29	115	1,800	32.72	1,828	33.23
9/29/2008	54	112	2,500	82.42	2,547	83.97
10/14/2008	15	96	1,900	14.91	1,922	15.09
11/24/2008	41	118	1,900	50.11	1,923	50.71
12/18/2008	24	110	2,900	41.73	2,940	42.31
1/9/2009	22	110	1,800	23.74	1,821	24.02
2/20/2009	42	106	1,900	46.11	1,919	46.57
3/17/2009	25	105	1,800	25.76	1,823	26.09
4/16/2009	30	104	1,800	30.61	1,821	30.97
5/13/2009	27	108	1,900	30.20	1,922	30.55
6/11/2009	29	108	1,900	32.44	1,922	32.81
7/29/2009	48	112	4,800	140.66	4,849	142.10
8/27/2009	29	108	2,200	37.56	2,219	37.88
9/30/2009	34	104	1,900	36.62	1,924	37.08
10/22/2009	22	90	2,000	21.59	2,025	21.86
11/9/2009	17	90	2,100	17.51	2,121	17.69
12/16/2009	12	90	2,300	13.54	2,322	13.67
1/19/2010	20	95	4,600	47.64	4,616	47.81
2/11/2010	23	95	1,600	19.06	1,637	19.50
3/17/2010	34	95	3,600	63.38	3,658	64.41
4/19/2010	10	100	3,100	16.90	3,454	18.83
5/18/2010	29	100	2,100	33.20	2,127	33.62
6/16/2010	29	100	2,000	31.62	2,026	32.03
7/8/2010	22	96	1,900	21.87	1,927	22.18
8/6/2010	29	95	2,000	30.03	2,021	30.35
9/23/2010	48	94	2,200	54.11	2,225	54.72
10/25/2010	32	98	2,000	34.19	2,020	34.53
11/10/2010	16	90	2,200	17.27	2,220	17.43
12/8/2010	28	92	2,200	30.89	2,205	30.96
1/24/2011	47	75	2,300	44.19	2,339	44.94
3/17/2011	19	75	3,500	27.19	3,543	27.52
4/26/2011	40	126	2,600	71.43	2,623	72.06
5/31/2011	35	96	2,800	51.28	2,828	51.80
6/15/2011	8	88	6,200	23.79	6,449	24.75
6/28/2011	8	88	3,400	13.05	3,439	13.20
7/26/2011	28	68	4,300	44.63	4,335	44.99
8/11/2011	16	70	2,700	16.48	2,720	16.61
9/27/2011	47	72	2,500	46.12	2,523	46.54
10/20/2011	23	75	2,400	22.57	2,424	22.79
11/14/2011	25	72	2,500	24.53	2,522	24.75
12/15/2011	31	70	2,100	24.84	2,124	25.12
1/5/2012	21	70	2,400	19.23	2,421	19.40
2/17/2012	43	59	2,300	31.81	2,326	32.17
3/12/2012	24	62	2,400	19.47	2,428	19.69
4/23/2012	42	100	3,100	70.97	3,139	71.86
5/25/2012	32	100	2,900	50.59	2,931	51.13
6/14/2012	20	100	3,000	32.71	3,029	33.02
7/23/2012	39	68	1,490	21.54	1,490	21.54
8/9/2012	17	70	3,500	22.70	3,532	22.91
9/11/2012	33	97	2,700	47.11	2,723	47.51
10/2/2012	21	97	3,300	36.64	3,341	37.10
11/26/2012	55	97	2,400	69.79	2,421	70.41
1/9/2013	10	97	3,200	16.92	3,226	17.06
2/15/2013	37	100	1,900	38.32	1,918	38.68
3/21/2013	34	104	2,400	46.26	2,418	46.61
4/17/2013	27	99	2,200	32.06	2,220	32.35
5/23/2013	36	98	3,800	73.08	3,837	73.79
6/24/2013	32	99	2,500	43.17	2,522	43.55
8/6/2013	43	99	4,700	109.06	4,766	110.59
8/28/2013	22	100	3,300	39.57	3,300	39.57
9/19/2013	22	100	2,600	31.18	2,600	31.18
10/28/2013	39	100	2,100	44.64	2,100	44.64
11/15/2013	18	100	2,700	26.49	2,700	26.49
12/17/2013	32	100	2,600	45.35	2,600	45.35
1/29/2014	43	68	2,600	41.44	2,600	41.44
2/28/2014	30	69	2,700	30.47	2,719	30.68
3/28/2014	28	60	2,800	25.64	2,800	25.64
4/23/2014	26	70	2,700	26.79	2,700	26.79
5/15/2014	22	66	2,600	20.58	2,600	20.58
6/9/2014	25	63	2,500	21.46	2,500	21.46
7/9/2014	30	61	2,300	22.94	2,300	22.94
8/28/2014	50	60	1,400	22.89	1,400	22.89
9/29/2014	32	55	2,800	26.86	2,800	26.86
10/28/2014	29	53	5,500	46.08	5,500	46.08
11/24/2014	27	59	2,200	19.10	2,200	19.10
12/15/2014	21	45	3,300	17.00	3,300	17.00
1/12/2015	28	43	2,400	15.75	2,400	15.75
2/12/2015	15	30	2,700	6.62	2,700	6.62
8/12/2015	47	102	4,600	120.21	4,635	121.12
9/18/2015	37	145	4,900	143.30	4,900	143.30
10/23/2015	35	146	4,300	119.77	4,300	119.77
11/25/2015	33	143	1,800	46.30	1,809	46.53
12/30/2015	35	144	5,900	162.09	5,959	163.71
1/29/2016	30	143	2,800	65.48	2,800	65.48
2/25/2016	27	132	2,400	46.63	2,422	47.05
3/18/2016	22	135	3,000	48.57	3,000	48.57
4/18/2016	31	135	2,600	59.31	2,600	59.31
5/16/2016	28	135	2,600	53.57	2,600	53.57
6/14/2016	29	131	2,100	43.49	2,100	43.49
7/19/2016	35	119	2,100	47.68	2,100	47.68
8/17/2016	29	120	2,400	45.53	2,400	45.53
9/19/2016	33	110	2,100	41.55	2,100	41.55
10/11/2016	22	100	1,650	19.79	1,683	20.18
11/22/2016	42	95	1,740	37.84	1,740	37.84
12/21/2016	29	96	1,920	29.14	1,920	29.14
1/25/2017	35	110	2,330	48.90	2,356	49.44
2/16/2017	22	110	2,640	34.83	2,640	34.83
3/16/2017	28	105	2,600	41.67	2,761	44.25
4/18/2017	33	109	2,510	49.21	2,622	51.41
5/19/2017	31	110	1,690	31.41	1,690	31.41
6/16/2017	28	104	1,910	30.32	2,001	31.76
7/18/2017	32	101	1,870	32.94	1,890	33.30
8/21/2017	34	105	1,840	35.81	1,840	35.81
10/2/2017	42	115	2,540	66.87	2,580	67.93
10/16/2017	14	120	2,810	25.73	2,852	26.12
11/17/2017	32	121	2,490	52.55	2,490	52.55
12/13/2017	26	124	1,970	34.62	1,991	34.99
<b>Total (kg)</b>				<b>16,882.54</b>		<b>17,566.66</b>
<b>Total (lb)</b>				<b>37,219.63</b>		<b>38,727.86</b>

**TABLE 4**  
**Groundwater Remedial System**  
**Contaminant Mass Removal For Individual Extraction Wells**

Sampling Date	Source	Days of Operation	Average Flow Rate	Tetrachloroethylene (µg/l)	Mass Removed (kg)	Total VOC's (µg/l)	Mass Removed (kg)
7/7/1998	Magothy	8	50	9400	20.50	9650	21.04
7/7/1998	Upper Glacial	8	200	4000	34.89	4580	39.94
10/27/1998	Magothy	112	50	7600	259.47	7921	268.18
10/27/1998	Upper Glacial	112	200	4300	506.72	4770	570.83
2/24/1999	Magothy	120	50	9000	271.46	9290	281.45
2/24/1999	Upper Glacial	120	200	5400	634.50	5840	694.02
5/28/1999	Magothy	93	50	7100	204.04	7362	211.04
5/28/1999	Upper Glacial	93	200	4800	517.08	5188	559.06
10/12/1999	Magothy	137	47	8100	266.75	8350	275.74
10/12/1999	Upper Glacial	137	165	5100	609.94	5240	642.47
11/10/1999	Magothy	12	40	8900	22.24	9160	22.91
11/10/1999	Upper Glacial	12	80	5500	27.73	5634	28.45
2/15/2000	Magothy	81	40	6000	131.58	6270	136.26
2/15/2000	Upper Glacial	81	80	4300	173.08	4480	178.63
5/26/2000	Magothy	97	50	6500	165.23	6720	171.71
5/26/2000	Upper Glacial	97	90	5000	221.28	5248	231.46
9/27/2000	Magothy	124	50	4200	180.81	4386	187.67
9/27/2000	Upper Glacial	124	100	2800	263.61	3137	283.38
2/27/2001	Magothy	152	50	3200	153.28	3391	161.09
2/27/2001	Upper Glacial	152	100	2500	219.57	2680	240.98
5/30/2001	Magothy	88	50	2100	63.56	2433	69.84
5/30/2001	Upper Glacial	88	100	2400	117.52	2723	129.59
8/23/2001	Magothy	85	50	2500	53.28	2715	59.63
8/23/2001	Upper Glacial	85	100	2500	113.52	2736	126.47
11/27/2001	Magothy	96	50	2500	65.41	2530	68.62
11/27/2001	Upper Glacial	96	100	2400	128.21	2542	138.10
2/27/2002	Magothy	93	50	2300	60.83	2362	62.00
2/27/2002	Upper Glacial	93	100	2600	126.74	2665	131.98
5/29/2002	Magothy	86	50	6200	99.62	6213	100.50
5/29/2002	Upper Glacial	86	100	6400	210.95	6412	212.76
8/30/2002	Magothy	93	50	5400	147.01	5521	148.71
8/30/2002	Upper Glacial	93	100	5300	296.56	5410	299.65
11/26/2002	Magothy	77	50	4300	101.78	4351	103.59
11/26/2002	Upper Glacial	77	100	3800	190.98	3851	194.35
2/4/2003	Magothy	61	0	3800	0.00	3853	0.00
2/4/2003	Upper Glacial	61	90	4000	116.71	4055	118.30
7/7/2003	Magothy	56	0	9600	0.00	11591	0.00
7/7/2003	Upper Glacial	56	90	2400	87.91	2515	90.25
8/26/2003	Magothy	22	50	4600	42.57	4702	48.85
8/26/2003	Upper Glacial	46	120	1200	54.16	1255	56.72
12/1/2003	Magothy	91	50	4900	117.81	4986	120.14
12/1/2003	Upper Glacial	91	120	1800	89.29	1841	92.14
2/26/2004	Magothy	87	40	4300	87.26	4386	88.89
2/26/2004	Upper Glacial	87	120	1800	102.44	1819	104.14
5/17/2004	Magothy	81	40	3400	68.00	3466	69.34
5/17/2004	Upper Glacial	81	120	1600	90.07	1600	90.58
8/13/2004	Magothy	88	40	2600	57.56	2684	59.00
8/13/2004	Upper Glacial	88	110	1800	89.70	1825	90.36
11/23/2004	Magothy	102	40	3800	71.17	3857	72.74
11/23/2004	Upper Glacial	102	110	3200	152.90	3225	154.43
2/10/2005	Magothy	79	30	2200	38.76	2254	39.47
2/10/2005	Upper Glacial	79	50	3000	66.75	3028	67.32
5/16/2005	Magothy	95	30	2000	32.62	2048	33.42
5/16/2005	Upper Glacial	95	55	3100	86.87	3138	87.81
8/23/2005	Magothy	99	33	2600	40.96	2641	41.75
8/23/2005	Upper Glacial	99	50	5600	117.37	5640	118.43
11/10/2005	Magothy	79	30	2600	33.59	2646	34.15
11/10/2005	Upper Glacial	79	44	3400	85.26	3400	85.64
3/27/2006	Magothy	84	65	3100	84.82	3148	86.22
3/27/2006	Upper Glacial	84	160	2800	227.11	2823	227.95
5/19/2006	Magothy	53	64	2200	49.00	2252	49.92
5/19/2006	Upper Glacial	53	150	1400	91.00	1414	91.81
8/11/2006	Magothy	84	57	2200	57.42	2248	58.72
8/11/2006	Upper Glacial	84	140	1600	96.16	1620	97.25
11/7/2006	Magothy	88	62	2500	69.89	2561	71.51
11/7/2006	Upper Glacial	88	123	3200	141.60	3277	144.47
2/6/2007	Magothy	91	62	2000	69.20	2042	70.78
2/6/2007	Upper Glacial	91	110	1700	133.68	1718	136.27
5/3/2007	Magothy	86	65	1600	54.85	1676	56.65
5/3/2007	Upper Glacial	86	98	1600	75.80	1619	76.65
8/8/2007	Magothy	65	65	2200	43.76	2252	45.23
8/8/2007	Upper Glacial	65	98	4200	100.70	4206	101.13
11/6/2007	Magothy	90	60	2100	54.46	2144	64.70
11/6/2007	Upper Glacial	90	95	2100	86.22	2117	147.34
2/6/2008	Magothy	92	53	2000	55.82	2035	55.54
2/6/2008	Upper Glacial	92	81	2000	83.27	2017	83.96
5/20/2008	Magothy	104	52	1500	51.59	1553	52.89
5/20/2008	Upper Glacial	104	66	1900	72.96	1918	73.62
11/24/2008	Magothy	188	48	1600	76.24	1645	78.65
11/24/2008	Upper Glacial	188	67	1900	130.46	1923	131.86
2/20/2009	Magothy	88	44	1700	34.83	1754	35.87

**TABLE 4**  
**Groundwater Remedial System**  
**Contaminant Mass Removal For Individual Extraction Wells**

Sampling Date	Source	Days of Operation	Average Flow Rate	Tetrachloroethylene (µg/l)	Mass Removed (kg)	Total VOC's (µg/l)	Mass Removed (kg)
2/20/2009	Upper Glacial	88	72	1900	65.62	1950	63.96
5/13/2009	Magothy	82	41	1700	31.15	1740	32.02
5/13/2009	Upper Glacial	82	75	1900	63.69	1916	64.80
8/27/2009	Magothy	106	50	1900	52.00	1935	53.09
8/27/2009	Upper Glacial	106	70	2200	82.92	2216	83.56
11/9/2009	Magothy	74	40	1900	30.66	1929	31.17
11/9/2009	Upper Glacial	74	60	2300	54.46	2320	54.89
2/11/2010	Magothy	72	43	1900	32.06	1928	32.55
2/11/2010	Upper Glacial	72	60	2300	54.16	2323	54.67
5/18/2010	Magothy	73	40	2000	31.04	2042	31.60
5/18/2010	Upper Glacial	73	64	2200	57.30	2224	57.90
8/6/2010	Magothy	73	40	1900	31.04	1931	31.62
8/6/2010	Upper Glacial	73	64	2000	53.48	2021	54.05
11/10/2010	Magothy	96	32	2100	33.49	2123	33.94
11/10/2010	Upper Glacial	96	64	2300	72.01	2321	72.71
3/17/2011	Magothy	94	29	3700	43.09	3744	43.59
3/17/2011	Upper Glacial	94	52	4200	86.59	4256	87.62
5/31/2011	Magothy	75	25	3000	34.24	3030	34.62
5/31/2011	Upper Glacial	75	45	2400	60.71	2400	61.23
6/28/2011	Magothy	14	25	2600	5.34	2643	5.41
6/28/2011	Upper Glacial	14	45	4000	10.99	4061	11.09
8/10/2011	Magothy	43	25	2300	14.36	2322	14.55
8/10/2011	Upper Glacial	43	50	2800	39.85	2823	40.34
11/14/2011	Magothy	96	22	2400	27.05	2419	27.29
11/14/2011	Upper Glacial	96	40	2500	55.47	2520	55.92
2/17/2012	Magothy	62	20	2300	15.88	2320	16.02
2/17/2012	Upper Glacial	62	43	2600	37.06	2634	37.45
5/25/2012	Magothy #2	98	20	2900	27.78	2942	28.11
5/25/2012	Upper Glacial	98	43	2900	59.72	2944	60.46
5/25/2012	Magothy #4	64	36	3800	47.72	3828	48.08
8/9/2012	Magothy #2	76	20	2600	22.79	2634	23.10
8/9/2012	Upper Glacial	76	43	5300	73.04	5349	73.87
8/9/2012	Magothy #4	76	51	3400	76.06	3428	76.65
11/26/2012	Magothy #2	109	7	1700	8.94	1722	9.06
11/26/2012	Upper Glacial	109	29	3900	79.26	3931	79.95
11/26/2012	Magothy #4	109	62	2800	114.20	2819	115.06
2/15/2013	Magothy #2	51	18	1300	10.51	1328	10.68
2/15/2013	Upper Glacial	51	34	3400	29.77	3423	30.09
2/15/2013	Magothy #4	51	60	1900	47.54	1916	47.91
3/21/2013	Magothy #2	34	22	1100	4.89	1149	5.05
3/21/2013	Upper Glacial	34	32	2500	17.50	2523	17.63
3/21/2013	Magothy #4	34	60	2800	26.13	2821	26.34
5/23/2013	Magothy #2	63	17	1600	7.88	1600	8.02
5/23/2013	Upper Glacial	63	30	7000	48.94	7000	49.05
5/23/2013	Magothy #4	63	59	2300	51.67	2300	51.88
6/24/2013	Magothy #2	32	22	1000	4.99	1033	5.05
6/24/2013	Upper Glacial	32	40	3900	38.03	3917	38.09
6/24/2013	Magothy #4	32	55	1900	20.15	1920	20.24
8/28/2013	Magothy #2	65	18	1600	8.29	1600	8.40
8/28/2013	Upper Glacial	65	35	7000	67.59	7000	67.69
8/28/2013	Magothy #4	65	62	2300	46.13	2300	46.35
11/15/2013	Magothy #2	79	20	4700	27.13	4724	27.23
11/15/2013	Upper Glacial	79	34	3400	76.14	3400	76.14
11/15/2013	Magothy #4	79	50	4600	74.28	4600	74.28
2/28/2014	Upper Glacial	105	24	4400	53.57	4425	53.74
2/28/2014	Magothy #4	105	47	1800	86.08	1816	86.30
5/15/2014	Upper Glacial	76	26	4400	47.39	4400	47.53
5/15/2014	Magothy #4	76	44	1800	32.81	1800	32.96
8/28/2014	Upper Glacial	105	22	4000	52.89	4000	52.89
8/28/2014	Magothy #4	105	42	2100	46.88	2100	46.88
11/24/2014	Upper Glacial	102	16	4300	36.92	4300	36.92
11/24/2014	Magothy #4	102	44	9.9	25.81	9.9	25.81
3/6/2015	Upper Glacial #1	91	41	4300	65.08	8844	111.29
8/12/2015	Upper Glacial #3	16	75	8800	42.84	8844	42.99
8/12/2015	Magothy #4	107	46	1700	50.98	1719	51.23
12/30/2015	Upper Glacial	140	102	8100	482.61	8177	485.61
12/30/2015	Magothy #4	140	47	1900	34.25	1900	34.25
2/25/2016	Upper Glacial	57	88	3100	101.17	3100	121.08
2/25/2016	Magothy #4	57	49	3100	76.88	1313	77.32
5/16/2016	Upper Glacial	81	92	2800	91.40	2800	91.78
5/16/2016	Magothy #4	81	50	900	99.34	900	100.19
8/17/2016	Upper Glacial	93	82	2800	97.69	2800	97.69
8/17/2016	Magothy #4	93	46	1200	50.14	1213	50.29
11/22/2016	Upper Glacial	97	65	2150	90.22	2150	59.51
11/22/2016	Magothy #4	97	39	1140	40.62	1140	40.62
2/16/2017	Upper Glacial	86	72	2700	97.88	2700	67.72
2/16/2017	Magothy #4	86	38	1410	37.50	1410	37.50
5/19/2017	Upper Glacial	92	74	1130	37.67	1130	37.67
5/19/2017	Magothy #4	92	41	2520	54.69	2555	55.05
8/21/2017	Upper Glacial	94	68	2410	62.89	2410	63.12
8/21/2017	Magothy #4	94	41	1220	35.40	1220	35.40
11/17/2017	Upper Glacial	88	94	2640	85.22	2640	85.22
11/17/2017	Magothy #4	88	36	1330	34.80	1338	34.87
<b>Total (kg)</b>					<b>14556.37</b>		<b>15111.87</b>
<b>Total (lb)</b>					<b>32024.01</b>		<b>33246.11</b>







# Attachment A

## Lab Data Packages

October 31, 2017

Brian Barth  
P.W. Grosser Engineer & Hydrogeologist  
630 Johnson Avenue  
Suite 7  
Bohemia, NY 11716

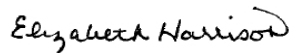
RE: Project: MIN MILT MIN 1001  
Pace Project No.: 7032970

Dear Brian Barth:

Enclosed are the analytical results for sample(s) received by the laboratory on October 16, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,



Elizabeth Harrison  
betty.harrison@pacelabs.com  
(631)694-3040  
Project Manager

Enclosures

cc: Kaitlyn Crosby, P.W. Grosser Engineer & Hydrogeologist



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: MIN MILT MIN 1001

Pace Project No.: 7032970

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### Long Island Certification IDs

575 Broad Hollow Rd, Melville, NY 11747

New York Certification #: 10478 Primary Accrediting Body

New Jersey Certification #: NY158

Pennsylvania Certification #: 68-00350

Connecticut Certification #: PH-0435

Maryland Certification #: 208

Rhode Island Certification #: LAO00340

Massachusetts Certification #: M-NY026

New Hampshire Certification #: 2987

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## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: MIN MILT MIN 1001

Pace Project No.: 7032970

Sample: <b>SYS-EFF.</b>		Lab ID: <b>7032970001</b>		Collected: 10/16/17 10:30	Received: 10/16/17 11:07	Matrix: Water		
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Metals, Total</b>		Analytical Method: EPA 200.7 Preparation Method: EPA 200.7						
Iron	<b>286</b>	ug/L	20.0	1	10/30/17 10:01	10/30/17 21:06	7439-89-6	
<b>8260C Volatile Organics</b>		Analytical Method: EPA 8260C/5030C						
Acetone	<b>&lt;5.0</b>	ug/L	5.0	1		10/20/17 14:35	67-64-1	
Benzene	ND	ug/L	1.0	1		10/20/17 14:35	71-43-2	
Bromodichloromethane	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:35	75-27-4	
Bromoform	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:35	75-25-2	
Bromomethane	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:35	74-83-9	
2-Butanone (MEK)	<b>&lt;5.0</b>	ug/L	5.0	1		10/20/17 14:35	78-93-3	
Carbon disulfide	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:35	75-15-0	
Carbon tetrachloride	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:35	56-23-5	
Chlorobenzene	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:35	108-90-7	
Chloroethane	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:35	75-00-3	CL
Chloroform	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:35	67-66-3	
Chloromethane	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:35	74-87-3	CL
Dibromochloromethane	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:35	124-48-1	
1,1-Dichloroethane	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:35	75-34-3	
1,2-Dichloroethane	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:35	107-06-2	
1,2-Dichloroethene (Total)	<b>&lt;2.0</b>	ug/L	2.0	1		10/20/17 14:35	540-59-0	
1,1-Dichloroethene	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:35	75-35-4	
1,2-Dichloropropane	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:35	78-87-5	
cis-1,3-Dichloropropene	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:35	10061-01-5	
trans-1,3-Dichloropropene	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:35	10061-02-6	
Ethylbenzene	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:35	100-41-4	
2-Hexanone	<b>&lt;5.0</b>	ug/L	5.0	1		10/20/17 14:35	591-78-6	
Methylene Chloride	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:35	75-09-2	
4-Methyl-2-pentanone (MIBK)	<b>&lt;5.0</b>	ug/L	5.0	1		10/20/17 14:35	108-10-1	
Styrene	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:35	100-42-5	
1,1,2,2-Tetrachloroethane	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:35	79-34-5	
Tetrachloroethene	<b>2.0</b>	ug/L	1.0	1		10/20/17 14:35	127-18-4	
Toluene	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:35	108-88-3	
1,1,1-Trichloroethane	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:35	71-55-6	
1,1,2-Trichloroethane	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:35	79-00-5	
Trichloroethene	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:35	79-01-6	
Vinyl chloride	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:35	75-01-4	CL
Xylene (Total)	<b>&lt;2.0</b>	ug/L	2.0	1		10/20/17 14:35	1330-20-7	
<b>Surrogates</b>								
1,2-Dichloroethane-d4 (S)	105	%	68-153	1		10/20/17 14:35	17060-07-0	
4-Bromofluorobenzene (S)	101	%	79-124	1		10/20/17 14:35	460-00-4	
Toluene-d8 (S)	97	%	69-124	1		10/20/17 14:35	2037-26-5	
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM22 4500-H+B						
pH at 25 Degrees C	<b>7.5</b>	Std. Units	0.10	1		10/16/17 21:52		H3,H6, N3

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: MIN MILT MIN 1001

Pace Project No.: 7032970

Sample: <b>SYS-INF</b>		Lab ID: <b>7032970002</b>		Collected: 10/16/17 10:40	Received: 10/16/17 11:07	Matrix: Water		
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Metals, Total</b>		Analytical Method: EPA 200.7 Preparation Method: EPA 200.7						
Iron	<b>439</b>	ug/L	20.0	1	10/30/17 10:01	10/30/17 21:11	7439-89-6	
<b>8260C Volatile Organics</b>		Analytical Method: EPA 8260C/5030C						
Acetone	<b>&lt;5.0</b>	ug/L	5.0	1		10/20/17 14:57	67-64-1	
Benzene	ND	ug/L	1.0	1		10/20/17 14:57	71-43-2	
Bromodichloromethane	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:57	75-27-4	
Bromoform	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:57	75-25-2	
Bromomethane	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:57	74-83-9	
2-Butanone (MEK)	<b>&lt;5.0</b>	ug/L	5.0	1		10/20/17 14:57	78-93-3	
Carbon disulfide	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:57	75-15-0	
Carbon tetrachloride	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:57	56-23-5	
Chlorobenzene	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:57	108-90-7	
Chloroethane	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:57	75-00-3	CL
Chloroform	<b>1.2</b>	ug/L	1.0	1		10/20/17 14:57	67-66-3	
Chloromethane	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:57	74-87-3	CL
Dibromochloromethane	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:57	124-48-1	
1,1-Dichloroethane	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:57	75-34-3	
1,2-Dichloroethane	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:57	107-06-2	
1,2-Dichloroethene (Total)	<b>&lt;2.0</b>	ug/L	2.0	1		10/20/17 14:57	540-59-0	
1,1-Dichloroethene	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:57	75-35-4	
1,2-Dichloropropane	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:57	78-87-5	
cis-1,3-Dichloropropene	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:57	10061-01-5	
trans-1,3-Dichloropropene	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:57	10061-02-6	
Ethylbenzene	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:57	100-41-4	
2-Hexanone	<b>&lt;5.0</b>	ug/L	5.0	1		10/20/17 14:57	591-78-6	
Methylene Chloride	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:57	75-09-2	
4-Methyl-2-pentanone (MIBK)	<b>&lt;5.0</b>	ug/L	5.0	1		10/20/17 14:57	108-10-1	
Styrene	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:57	100-42-5	
1,1,2,2-Tetrachloroethane	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:57	79-34-5	
Tetrachloroethene	<b>2810</b>	ug/L	25.0	25		10/20/17 15:47	127-18-4	
Toluene	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:57	108-88-3	
1,1,1-Trichloroethane	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:57	71-55-6	
1,1,2-Trichloroethane	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:57	79-00-5	
Trichloroethene	<b>40.9</b>	ug/L	1.0	1		10/20/17 14:57	79-01-6	
Vinyl chloride	<b>&lt;1.0</b>	ug/L	1.0	1		10/20/17 14:57	75-01-4	CL
Xylene (Total)	<b>&lt;2.0</b>	ug/L	2.0	1		10/20/17 14:57	1330-20-7	
<b>Surrogates</b>								
1,2-Dichloroethane-d4 (S)	96	%	68-153	1		10/20/17 14:57	17060-07-0	
4-Bromofluorobenzene (S)	104	%	79-124	1		10/20/17 14:57	460-00-4	
Toluene-d8 (S)	97	%	69-124	1		10/20/17 14:57	2037-26-5	
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM22 4500-H+B						
pH at 25 Degrees C	<b>6.1</b>	Std. Units	0.10	1		10/16/17 21:56		H3,H6, N3

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: MIN MILT MIN 1001  
Pace Project No.: 7032970

QC Batch: 44686 Analysis Method: EPA 200.7  
QC Batch Method: EPA 200.7 Analysis Description: 200.7 Metals, Total  
Associated Lab Samples: 7032970001, 7032970002

METHOD BLANK: 209470 Matrix: Water  
Associated Lab Samples: 7032970001, 7032970002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Iron	ug/L	<20.0	20.0	10/30/17 20:55	

LABORATORY CONTROL SAMPLE: 209471

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron	ug/L	2000	2060	103	85-115	

MATRIX SPIKE SAMPLE: 209473

Parameter	Units	7033420001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron	ug/L	78.7	2000	2090	101	70-130	

MATRIX SPIKE SAMPLE: 209475

Parameter	Units	7033423001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron	ug/L	120	2000	2150	102	70-130	

SAMPLE DUPLICATE: 209472

Parameter	Units	7033420001 Result	Dup Result	RPD	Qualifiers
Iron	ug/L	78.7	74.9	5	

SAMPLE DUPLICATE: 209474

Parameter	Units	7033423001 Result	Dup Result	RPD	Qualifiers
Iron	ug/L	120	122	2	

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.

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### QUALITY CONTROL DATA

Project: MIN MILT MIN 1001

Pace Project No.: 7032970

QC Batch: 43758 Analysis Method: EPA 8260C/5030C

QC Batch Method: EPA 8260C/5030C Analysis Description: 8260 MSV

Associated Lab Samples: 7032970001, 7032970002

METHOD BLANK: 204837 Matrix: Water

Associated Lab Samples: 7032970001, 7032970002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	<1.0	1.0	10/20/17 12:53	
1,1,2,2-Tetrachloroethane	ug/L	<1.0	1.0	10/20/17 12:53	
1,1,2-Trichloroethane	ug/L	<1.0	1.0	10/20/17 12:53	
1,1-Dichloroethane	ug/L	<1.0	1.0	10/20/17 12:53	
1,1-Dichloroethene	ug/L	<1.0	1.0	10/20/17 12:53	
1,2-Dichloroethane	ug/L	<1.0	1.0	10/20/17 12:53	
1,2-Dichloroethene (Total)	ug/L	<2.0	2.0	10/20/17 12:53	
1,2-Dichloropropane	ug/L	<1.0	1.0	10/20/17 12:53	
2-Butanone (MEK)	ug/L	<5.0	5.0	10/20/17 12:53	
2-Hexanone	ug/L	<5.0	5.0	10/20/17 12:53	
4-Methyl-2-pentanone (MIBK)	ug/L	<5.0	5.0	10/20/17 12:53	
Acetone	ug/L	<5.0	5.0	10/20/17 12:53	
Benzene	ug/L	ND	1.0	10/20/17 12:53	
Bromodichloromethane	ug/L	<1.0	1.0	10/20/17 12:53	
Bromoform	ug/L	<1.0	1.0	10/20/17 12:53	
Bromomethane	ug/L	<1.0	1.0	10/20/17 12:53	
Carbon disulfide	ug/L	<1.0	1.0	10/20/17 12:53	
Carbon tetrachloride	ug/L	<1.0	1.0	10/20/17 12:53	
Chlorobenzene	ug/L	<1.0	1.0	10/20/17 12:53	
Chloroethane	ug/L	<1.0	1.0	10/20/17 12:53	CL
Chloroform	ug/L	<1.0	1.0	10/20/17 12:53	
Chloromethane	ug/L	<1.0	1.0	10/20/17 12:53	CL
cis-1,3-Dichloropropene	ug/L	<1.0	1.0	10/20/17 12:53	
Dibromochloromethane	ug/L	<1.0	1.0	10/20/17 12:53	
Ethylbenzene	ug/L	<1.0	1.0	10/20/17 12:53	
Methylene Chloride	ug/L	<1.0	1.0	10/20/17 12:53	
Styrene	ug/L	<1.0	1.0	10/20/17 12:53	
Tetrachloroethene	ug/L	<1.0	1.0	10/20/17 12:53	
Toluene	ug/L	<1.0	1.0	10/20/17 12:53	
trans-1,3-Dichloropropene	ug/L	<1.0	1.0	10/20/17 12:53	
Trichloroethene	ug/L	<1.0	1.0	10/20/17 12:53	
Vinyl chloride	ug/L	<1.0	1.0	10/20/17 12:53	CL
Xylene (Total)	ug/L	<2.0	2.0	10/20/17 12:53	
1,2-Dichloroethane-d4 (S)	%	103	68-153	10/20/17 12:53	
4-Bromofluorobenzene (S)	%	103	79-124	10/20/17 12:53	
Toluene-d8 (S)	%	97	69-124	10/20/17 12:53	

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

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### QUALITY CONTROL DATA

Project: MIN MILT MIN 1001

Pace Project No.: 7032970

LABORATORY CONTROL SAMPLE: 204838

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	48.7	97	65-118	
1,1,2,2-Tetrachloroethane	ug/L	50	42.2	84	74-121	
1,1,2-Trichloroethane	ug/L	50	47.1	94	80-117	
1,1-Dichloroethane	ug/L	50	49.4	99	83-151	
1,1-Dichloroethene	ug/L	50	41.3	83	45-146	
1,2-Dichloroethane	ug/L	50	49.9	100	74-129	
1,2-Dichloroethene (Total)	ug/L	100	94.0	94	60-140	
1,2-Dichloropropane	ug/L	50	49.3	99	75-117	
2-Butanone (MEK)	ug/L	50	41.7	83	44-162	
2-Hexanone	ug/L	50	40.9	82	32-183	
4-Methyl-2-pentanone (MIBK)	ug/L	50	43.9	88	69-132	
Acetone	ug/L	50	38.3	77	23-188	
Benzene	ug/L	50	47.1	94	73-119	
Bromodichloromethane	ug/L	50	50.1	100	78-117	
Bromoform	ug/L	50	40.9	82	65-122	
Bromomethane	ug/L	50	48.1	96	52-147	IH
Carbon disulfide	ug/L	50	37.0	74	41-144	
Carbon tetrachloride	ug/L	50	41.2	82	59-120	
Chlorobenzene	ug/L	50	43.8	88	75-113	
Chloroethane	ug/L	50	36.0	72	49-151	CL
Chloroform	ug/L	50	50.9	102	72-122	
Chloromethane	ug/L	50	33.7	67	46-144	CL
cis-1,3-Dichloropropene	ug/L	50	44.4	89	78-116	
Dibromochloromethane	ug/L	50	49.0	98	70-120	
Ethylbenzene	ug/L	50	42.2	84	70-113	
Methylene Chloride	ug/L	50	43.3	87	61-142	
Styrene	ug/L	50	46.7	93	72-118	
Tetrachloroethene	ug/L	50	45.8	92	60-128	
Toluene	ug/L	50	44.0	88	72-119	
trans-1,3-Dichloropropene	ug/L	50	44.7	89	79-116	
Trichloroethene	ug/L	50	45.0	90	69-117	
Vinyl chloride	ug/L	50	31.3	63	43-143	CL
Xylene (Total)	ug/L	150	131	87	71-109	
1,2-Dichloroethane-d4 (S)	%			104	68-153	
4-Bromofluorobenzene (S)	%			104	79-124	
Toluene-d8 (S)	%			99	69-124	

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### QUALITY CONTROL DATA

Project: MIN MILT MIN 1001

Pace Project No.: 7032970

QC Batch: 43192 Analysis Method: SM22 4500-H+B

QC Batch Method: SM22 4500-H+B Analysis Description: 4500H+B pH

Associated Lab Samples: 7032970001, 7032970002

SAMPLE DUPLICATE: 202235

Parameter	Units	7033017002 Result	Dup Result	RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.1	7.1	0	H3,H6,N3

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## QUALIFIERS

Project: MIN MILT MIN 1001

Pace Project No.: 7032970

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### 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.

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

CL The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.

H3 Sample was received or analysis requested beyond the recognized method holding time.

H6 Analysis initiated outside of the 15 minute EPA recommended holding time.

IH This analyte exceeded secondary source verification criteria high for the initial calibration. The reported results should be considered an estimated value.

N3 Accreditation is not offered by the relevant laboratory accrediting body for this parameter.

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MIN MILT MIN 1001

Pace Project No.: 7032970

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
7032970001	SYS-EFF.	EPA 200.7	44686	EPA 200.7	44695
7032970002	SYS-INF	EPA 200.7	44686	EPA 200.7	44695
7032970001	SYS-EFF.	EPA 8260C/5030C	43758		
7032970002	SYS-INF	EPA 8260C/5030C	43758		
7032970001	SYS-EFF.	SM22 4500-H+B	43192		
7032970002	SYS-INF	SM22 4500-H+B	43192		

### REPORT OF LABORATORY ANALYSIS

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WO#: 7032970



**CHAIN-OF-CUSTODY / Analytical Request Document**

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

**Section C Invoice Information:**

Attention: *Same as Client*  
 Company Name: *Same as Client*  
 Address: *Same as Client*

Copy To: *Brian Barth*  
 Project Name: *MINMILT*  
 Project #: *MINM001*

Bohemia, NY 11716  
 Email: *kcrosby@pwgros.com*  
 Phone: (631) 589-6353 Fax: *[blank]*

Requested Due Date: *Standard*

Purchase Order #: *[blank]*  
 Pace Project Manager: *betty.harrison@pacelabs.com*  
 Pace Profile #: *5382*

Regulatory Agency: *[blank]*  
 State / Location: *NY*

ITEM #	MATRIX CODE (see valid codes to left)	COLLECTED		SAMPLE TYPE (G-GRAB C-COMP)	# OF CONTAINERS	Preservatives										Analyses Test Y/N	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)
		START DATE	END DATE			H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Metals by 200.7	pH by 4500H+	8260 Full List			
1	WTG	10-16-17	1030	G	4	X	X	X	X						X	X	X	001
2	WTG	10-16-17	1040	G	4	X	X	X	X						X	X	X	002
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		

**ADDITIONAL COMMENTS**

*Relinquished PWGC 10-16-17 1107*

**RELINQUISHED BY / AFFILIATION** DATE TIME

*[Signature]* 10/16/17 11:07

**ACCEPTED BY / AFFILIATION** DATE TIME

*[Signature]* 10/16/17 11:07

**SAMPLE CONDITIONS**

Received on: *10/16/17* 11.3

Ice (Y/N)

Sealed (Y/N)

Cooler (Y/N)

Samples Intact (Y/N)

**SAMPLER NAME AND SIGNATURE**

PRINT Name of SAMPLER: *Kaitlyn Crosby*

SIGNATURE of SAMPLER: *[Signature]* DATE Signed: *10/16/17*





# Sample Condition Upon Receipt

Client Name: Grosser

Pr **WO# : 7032970**  
 PM: EMH Due Date: 10/30/17  
 CLIENT: PWG

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

Type of Ice: Wet  Blue  None

Thermometer Used: TH092 Correction Factor: +0.1

Samples on ice, cooling process has begun

Cooler Temperature (°C): 11.3 Cooler Temperature Corrected (°C): 11.4

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: EB 10/16/17

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 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-LI-C-010) and include with SCUR/COC paperwork.

	COMMENTS:
Chain of Custody Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1.
Chain of Custody Filled Out: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2.
Chain of Custody Relinquished: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3.
Sampler Name & Signature on COC: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
Short Hold Time Analysis (<72hr): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume: (Triple volume provided for MS/MSD): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8.
Correct Containers Used: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
-Pace Containers Used: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Containers Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11. Note if sediment is visible in the dissolved container.
Sample Labels match COC: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	12.
-Includes date/time/ID/Analysis Matrix <u>SL</u> <u>WT</u> <u>OIL</u>	
All containers needing preservation have been checked: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13. <input type="checkbox"/> HNO <sub>3</sub> <input type="checkbox"/> H <sub>2</sub> SO <sub>4</sub> <input type="checkbox"/> NaOH <input type="checkbox"/> HCl
pH paper Lot # <u>HC601354</u>	Sample # _____
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub> , HCl, NaOH > 9 Sulfide, NAOH > 12 Cyanide) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Initial when completed: _____ Lot # of added preservative: _____ Date/Time preservative added: _____
Exceptions: VOA, Coliform, TOC/DOC, Oil and Grease, DRO/8015 (water). Per Method, VOA pH is checked after analysis	
Samples checked for dechlorination: <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14. Positive for Res. Chlorine? Y N
Residual chlorine strips Lot # _____	
Headspace in VOA Vials (>6mm): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	15.
Trip Blank Present: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if applicable): _____	

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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\_\_\_\_\_

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\_\_\_\_\_

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

December 01, 2017

Brian Barth  
P.W. Grosser Engineer & Hydrogeologist  
630 Johnson Avenue  
Suite 7  
Bohemia, NY 11716

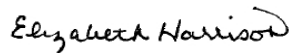
RE: Project: MONTHLY MIN MILT  
Pace Project No.: 7036034

Dear Brian Barth:

Enclosed are the analytical results for sample(s) received by the laboratory on November 17, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,



Elizabeth Harrison  
betty.harrison@pacelabs.com  
(631)694-3040  
Project Manager

Enclosures

cc: Kaitlyn Crosby, P.W. Grosser Engineer & Hydrogeologist



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: MONTHLY MIN MILT

Pace Project No.: 7036034

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### Long Island Certification IDs

575 Broad Hollow Rd, Melville, NY 11747

New York Certification #: 10478 Primary Accrediting Body

New Jersey Certification #: NY158

Pennsylvania Certification #: 68-00350

Connecticut Certification #: PH-0435

Maryland Certification #: 208

Rhode Island Certification #: LAO00340

Massachusetts Certification #: M-NY026

New Hampshire Certification #: 2987

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## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: MONTHLY MIN MILT

Pace Project No.: 7036034

Sample: <b>SYS-EFF</b>	Lab ID: <b>7036034001</b>	Collected: 11/17/17 10:10	Received: 11/17/17 10:38	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Metals, Total</b>		Analytical Method: EPA 200.7 Preparation Method: EPA 200.7						
Iron	<b>3400</b>	ug/L	20.0	1	11/29/17 13:38	11/30/17 15:05	7439-89-6	
<b>8260C Volatile Organics</b>		Analytical Method: EPA 8260C/5030C						
Acetone	<5.0	ug/L	5.0	1		11/21/17 18:42	67-64-1	
Benzene	ND	ug/L	1.0	1		11/21/17 18:42	71-43-2	
Bromodichloromethane	<1.0	ug/L	1.0	1		11/21/17 18:42	75-27-4	
Bromoform	<1.0	ug/L	1.0	1		11/21/17 18:42	75-25-2	
Bromomethane	<1.0	ug/L	1.0	1		11/21/17 18:42	74-83-9	
2-Butanone (MEK)	<5.0	ug/L	5.0	1		11/21/17 18:42	78-93-3	CL
Carbon disulfide	<1.0	ug/L	1.0	1		11/21/17 18:42	75-15-0	
Carbon tetrachloride	<1.0	ug/L	1.0	1		11/21/17 18:42	56-23-5	
Chlorobenzene	<1.0	ug/L	1.0	1		11/21/17 18:42	108-90-7	
Chloroethane	<1.0	ug/L	1.0	1		11/21/17 18:42	75-00-3	
Chloroform	<1.0	ug/L	1.0	1		11/21/17 18:42	67-66-3	
Chloromethane	<1.0	ug/L	1.0	1		11/21/17 18:42	74-87-3	CL
Dibromochloromethane	<1.0	ug/L	1.0	1		11/21/17 18:42	124-48-1	
1,1-Dichloroethane	<1.0	ug/L	1.0	1		11/21/17 18:42	75-34-3	
1,2-Dichloroethane	<1.0	ug/L	1.0	1		11/21/17 18:42	107-06-2	
1,2-Dichloroethene (Total)	<2.0	ug/L	2.0	1		11/21/17 18:42	540-59-0	
1,1-Dichloroethene	<1.0	ug/L	1.0	1		11/21/17 18:42	75-35-4	
1,2-Dichloropropane	<1.0	ug/L	1.0	1		11/21/17 18:42	78-87-5	
cis-1,3-Dichloropropene	<1.0	ug/L	1.0	1		11/21/17 18:42	10061-01-5	
trans-1,3-Dichloropropene	<1.0	ug/L	1.0	1		11/21/17 18:42	10061-02-6	
Ethylbenzene	<1.0	ug/L	1.0	1		11/21/17 18:42	100-41-4	
2-Hexanone	<5.0	ug/L	5.0	1		11/21/17 18:42	591-78-6	
Methylene Chloride	<1.0	ug/L	1.0	1		11/21/17 18:42	75-09-2	
4-Methyl-2-pentanone (MIBK)	<5.0	ug/L	5.0	1		11/21/17 18:42	108-10-1	CL
Styrene	<1.0	ug/L	1.0	1		11/21/17 18:42	100-42-5	
1,1,2,2-Tetrachloroethane	<1.0	ug/L	1.0	1		11/21/17 18:42	79-34-5	CL
Tetrachloroethene	3.6	ug/L	1.0	1		11/21/17 18:42	127-18-4	
Toluene	<1.0	ug/L	1.0	1		11/21/17 18:42	108-88-3	
1,1,1-Trichloroethane	<1.0	ug/L	1.0	1		11/21/17 18:42	71-55-6	
1,1,2-Trichloroethane	<1.0	ug/L	1.0	1		11/21/17 18:42	79-00-5	
Trichloroethene	<1.0	ug/L	1.0	1		11/21/17 18:42	79-01-6	
Vinyl chloride	<1.0	ug/L	1.0	1		11/21/17 18:42	75-01-4	
Xylene (Total)	<2.0	ug/L	2.0	1		11/21/17 18:42	1330-20-7	
<b>Surrogates</b>								
1,2-Dichloroethane-d4 (S)	112	%	68-153	1		11/21/17 18:42	17060-07-0	
4-Bromofluorobenzene (S)	104	%	79-124	1		11/21/17 18:42	460-00-4	
Toluene-d8 (S)	103	%	69-124	1		11/21/17 18:42	2037-26-5	
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM22 4500-H+B						
pH at 25 Degrees C	<b>7.0</b>	Std. Units	0.10	1		11/17/17 21:04		H3,H6, N3

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### ANALYTICAL RESULTS

Project: MONTHLY MIN MILT

Pace Project No.: 7036034

Sample: <b>SYS-INF</b>	Lab ID: <b>7036034002</b>	Collected: 11/17/17 10:15	Received: 11/17/17 10:38	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Metals, Total</b>		Analytical Method: EPA 200.7 Preparation Method: EPA 200.7						
Iron	<b>382</b>	ug/L	20.0	1	11/29/17 13:38	11/30/17 15:21	7439-89-6	
<b>8260C Volatile Organics</b>		Analytical Method: EPA 8260C/5030C						
Acetone	<b>&lt;150</b>	ug/L	150	30		11/21/17 19:18	67-64-1	
Benzene	ND	ug/L	30.0	30		11/21/17 19:18	71-43-2	
Bromodichloromethane	<b>&lt;30.0</b>	ug/L	30.0	30		11/21/17 19:18	75-27-4	
Bromoform	<b>&lt;30.0</b>	ug/L	30.0	30		11/21/17 19:18	75-25-2	
Bromomethane	<b>&lt;30.0</b>	ug/L	30.0	30		11/21/17 19:18	74-83-9	
2-Butanone (MEK)	<b>&lt;150</b>	ug/L	150	30		11/21/17 19:18	78-93-3	CL
Carbon disulfide	<b>&lt;30.0</b>	ug/L	30.0	30		11/21/17 19:18	75-15-0	
Carbon tetrachloride	<b>&lt;30.0</b>	ug/L	30.0	30		11/21/17 19:18	56-23-5	
Chlorobenzene	<b>&lt;30.0</b>	ug/L	30.0	30		11/21/17 19:18	108-90-7	
Chloroethane	<b>&lt;30.0</b>	ug/L	30.0	30		11/21/17 19:18	75-00-3	
Chloroform	<b>&lt;30.0</b>	ug/L	30.0	30		11/21/17 19:18	67-66-3	
Chloromethane	<b>&lt;30.0</b>	ug/L	30.0	30		11/21/17 19:18	74-87-3	CL
Dibromochloromethane	<b>&lt;30.0</b>	ug/L	30.0	30		11/21/17 19:18	124-48-1	
1,1-Dichloroethane	<b>&lt;30.0</b>	ug/L	30.0	30		11/21/17 19:18	75-34-3	
1,2-Dichloroethane	<b>&lt;30.0</b>	ug/L	30.0	30		11/21/17 19:18	107-06-2	
1,2-Dichloroethene (Total)	<b>&lt;60.0</b>	ug/L	60.0	30		11/21/17 19:18	540-59-0	
1,1-Dichloroethene	<b>&lt;30.0</b>	ug/L	30.0	30		11/21/17 19:18	75-35-4	
1,2-Dichloropropane	<b>&lt;30.0</b>	ug/L	30.0	30		11/21/17 19:18	78-87-5	
cis-1,3-Dichloropropene	<b>&lt;30.0</b>	ug/L	30.0	30		11/21/17 19:18	10061-01-5	
trans-1,3-Dichloropropene	<b>&lt;30.0</b>	ug/L	30.0	30		11/21/17 19:18	10061-02-6	
Ethylbenzene	<b>&lt;30.0</b>	ug/L	30.0	30		11/21/17 19:18	100-41-4	
2-Hexanone	<b>&lt;150</b>	ug/L	150	30		11/21/17 19:18	591-78-6	
Methylene Chloride	<b>&lt;30.0</b>	ug/L	30.0	30		11/21/17 19:18	75-09-2	
4-Methyl-2-pentanone (MIBK)	<b>&lt;150</b>	ug/L	150	30		11/21/17 19:18	108-10-1	CL
Styrene	<b>&lt;30.0</b>	ug/L	30.0	30		11/21/17 19:18	100-42-5	
1,1,2,2-Tetrachloroethane	<b>&lt;30.0</b>	ug/L	30.0	30		11/21/17 19:18	79-34-5	CL
Tetrachloroethene	<b>2490</b>	ug/L	30.0	30		11/21/17 19:18	127-18-4	
Toluene	<b>&lt;30.0</b>	ug/L	30.0	30		11/21/17 19:18	108-88-3	
1,1,1-Trichloroethane	<b>&lt;30.0</b>	ug/L	30.0	30		11/21/17 19:18	71-55-6	
1,1,2-Trichloroethane	<b>&lt;30.0</b>	ug/L	30.0	30		11/21/17 19:18	79-00-5	
Trichloroethene	<b>&lt;30.0</b>	ug/L	30.0	30		11/21/17 19:18	79-01-6	
Vinyl chloride	<b>&lt;30.0</b>	ug/L	30.0	30		11/21/17 19:18	75-01-4	
Xylene (Total)	<b>&lt;60.0</b>	ug/L	60.0	30		11/21/17 19:18	1330-20-7	
<b>Surrogates</b>								
1,2-Dichloroethane-d4 (S)	110	%	68-153	30		11/21/17 19:18	17060-07-0	
4-Bromofluorobenzene (S)	102	%	79-124	30		11/21/17 19:18	460-00-4	
Toluene-d8 (S)	101	%	69-124	30		11/21/17 19:18	2037-26-5	
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM22 4500-H+B						
pH at 25 Degrees C	<b>5.9</b>	Std. Units	0.10	1		11/17/17 21:06		H3,H6, N3

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: MONTHLY MIN MILT

Pace Project No.: 7036034

Sample: UG	Lab ID: 7036034003	Collected: 11/17/17 10:20	Received: 11/17/17 10:38	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Metals, Total</b>		Analytical Method: EPA 200.7 Preparation Method: EPA 200.7						
Iron	463	ug/L	20.0	1	11/29/17 13:38	11/30/17 15:26	7439-89-6	
<b>8260C Volatile Organics</b>		Analytical Method: EPA 8260C/5030C						
Acetone	<150	ug/L	150	30		11/21/17 19:36	67-64-1	
Benzene	ND	ug/L	30.0	30		11/21/17 19:36	71-43-2	
Bromodichloromethane	<30.0	ug/L	30.0	30		11/21/17 19:36	75-27-4	
Bromoform	<30.0	ug/L	30.0	30		11/21/17 19:36	75-25-2	
Bromomethane	<30.0	ug/L	30.0	30		11/21/17 19:36	74-83-9	
2-Butanone (MEK)	<150	ug/L	150	30		11/21/17 19:36	78-93-3	CL
Carbon disulfide	<30.0	ug/L	30.0	30		11/21/17 19:36	75-15-0	
Carbon tetrachloride	<30.0	ug/L	30.0	30		11/21/17 19:36	56-23-5	
Chlorobenzene	<30.0	ug/L	30.0	30		11/21/17 19:36	108-90-7	
Chloroethane	<30.0	ug/L	30.0	30		11/21/17 19:36	75-00-3	
Chloroform	<30.0	ug/L	30.0	30		11/21/17 19:36	67-66-3	
Chloromethane	<30.0	ug/L	30.0	30		11/21/17 19:36	74-87-3	CL
Dibromochloromethane	<30.0	ug/L	30.0	30		11/21/17 19:36	124-48-1	
1,1-Dichloroethane	<30.0	ug/L	30.0	30		11/21/17 19:36	75-34-3	
1,2-Dichloroethane	<30.0	ug/L	30.0	30		11/21/17 19:36	107-06-2	
1,2-Dichloroethene (Total)	<60.0	ug/L	60.0	30		11/21/17 19:36	540-59-0	
1,1-Dichloroethene	<30.0	ug/L	30.0	30		11/21/17 19:36	75-35-4	
1,2-Dichloropropane	<30.0	ug/L	30.0	30		11/21/17 19:36	78-87-5	
cis-1,3-Dichloropropene	<30.0	ug/L	30.0	30		11/21/17 19:36	10061-01-5	
trans-1,3-Dichloropropene	<30.0	ug/L	30.0	30		11/21/17 19:36	10061-02-6	
Ethylbenzene	<30.0	ug/L	30.0	30		11/21/17 19:36	100-41-4	
2-Hexanone	<150	ug/L	150	30		11/21/17 19:36	591-78-6	
Methylene Chloride	<30.0	ug/L	30.0	30		11/21/17 19:36	75-09-2	
4-Methyl-2-pentanone (MIBK)	<150	ug/L	150	30		11/21/17 19:36	108-10-1	CL
Styrene	<30.0	ug/L	30.0	30		11/21/17 19:36	100-42-5	
1,1,2,2-Tetrachloroethane	<30.0	ug/L	30.0	30		11/21/17 19:36	79-34-5	CL
Tetrachloroethene	2640	ug/L	30.0	30		11/21/17 19:36	127-18-4	D6
Toluene	<30.0	ug/L	30.0	30		11/21/17 19:36	108-88-3	
1,1,1-Trichloroethane	<30.0	ug/L	30.0	30		11/21/17 19:36	71-55-6	
1,1,2-Trichloroethane	<30.0	ug/L	30.0	30		11/21/17 19:36	79-00-5	
Trichloroethene	<30.0	ug/L	30.0	30		11/21/17 19:36	79-01-6	
Vinyl chloride	<30.0	ug/L	30.0	30		11/21/17 19:36	75-01-4	
Xylene (Total)	<60.0	ug/L	60.0	30		11/21/17 19:36	1330-20-7	
<b>Surrogates</b>								
1,2-Dichloroethane-d4 (S)	106	%	68-153	30		11/21/17 19:36	17060-07-0	
4-Bromofluorobenzene (S)	105	%	79-124	30		11/21/17 19:36	460-00-4	
Toluene-d8 (S)	102	%	69-124	30		11/21/17 19:36	2037-26-5	
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM22 4500-H+B						
pH at 25 Degrees C	5.8	Std. Units	0.10	1		11/17/17 21:09		H3,H6, N3

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: MONTHLY MIN MILT

Pace Project No.: 7036034

Sample: <b>MAG</b>	Lab ID: <b>7036034004</b>	Collected: 11/17/17 10:25	Received: 11/17/17 10:38	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Metals, Total</b>		Analytical Method: EPA 200.7 Preparation Method: EPA 200.7						
Iron	<b>568</b>	ug/L	20.0	1	11/29/17 13:38	11/30/17 15:32	7439-89-6	
<b>8260C Volatile Organics</b>		Analytical Method: EPA 8260C/5030C						
Acetone	<b>&lt;5.0</b>	ug/L	5.0	1		11/21/17 19:00	67-64-1	
Benzene	ND	ug/L	1.0	1		11/21/17 19:00	71-43-2	
Bromodichloromethane	<b>&lt;1.0</b>	ug/L	1.0	1		11/21/17 19:00	75-27-4	
Bromoform	<b>&lt;1.0</b>	ug/L	1.0	1		11/21/17 19:00	75-25-2	
Bromomethane	<b>&lt;1.0</b>	ug/L	1.0	1		11/21/17 19:00	74-83-9	
2-Butanone (MEK)	<b>&lt;5.0</b>	ug/L	5.0	1		11/21/17 19:00	78-93-3	CL
Carbon disulfide	<b>&lt;1.0</b>	ug/L	1.0	1		11/21/17 19:00	75-15-0	
Carbon tetrachloride	<b>&lt;1.0</b>	ug/L	1.0	1		11/21/17 19:00	56-23-5	
Chlorobenzene	<b>&lt;1.0</b>	ug/L	1.0	1		11/21/17 19:00	108-90-7	
Chloroethane	<b>&lt;1.0</b>	ug/L	1.0	1		11/21/17 19:00	75-00-3	
Chloroform	<b>&lt;1.0</b>	ug/L	1.0	1		11/21/17 19:00	67-66-3	
Chloromethane	<b>&lt;1.0</b>	ug/L	1.0	1		11/21/17 19:00	74-87-3	CL
Dibromochloromethane	<b>&lt;1.0</b>	ug/L	1.0	1		11/21/17 19:00	124-48-1	
1,1-Dichloroethane	<b>&lt;1.0</b>	ug/L	1.0	1		11/21/17 19:00	75-34-3	
1,2-Dichloroethane	<b>&lt;1.0</b>	ug/L	1.0	1		11/21/17 19:00	107-06-2	
1,2-Dichloroethene (Total)	<b>&lt;2.0</b>	ug/L	2.0	1		11/21/17 19:00	540-59-0	
1,1-Dichloroethene	<b>&lt;1.0</b>	ug/L	1.0	1		11/21/17 19:00	75-35-4	
1,2-Dichloropropane	<b>&lt;1.0</b>	ug/L	1.0	1		11/21/17 19:00	78-87-5	
cis-1,3-Dichloropropene	<b>&lt;1.0</b>	ug/L	1.0	1		11/21/17 19:00	10061-01-5	
trans-1,3-Dichloropropene	<b>&lt;1.0</b>	ug/L	1.0	1		11/21/17 19:00	10061-02-6	
Ethylbenzene	<b>&lt;1.0</b>	ug/L	1.0	1		11/21/17 19:00	100-41-4	
2-Hexanone	<b>&lt;5.0</b>	ug/L	5.0	1		11/21/17 19:00	591-78-6	
Methylene Chloride	<b>&lt;1.0</b>	ug/L	1.0	1		11/21/17 19:00	75-09-2	
4-Methyl-2-pentanone (MIBK)	<b>&lt;5.0</b>	ug/L	5.0	1		11/21/17 19:00	108-10-1	CL
Styrene	<b>&lt;1.0</b>	ug/L	1.0	1		11/21/17 19:00	100-42-5	
1,1,2,2-Tetrachloroethane	<b>&lt;1.0</b>	ug/L	1.0	1		11/21/17 19:00	79-34-5	CL
Tetrachloroethene	<b>1330</b>	ug/L	10.0	10		11/22/17 14:00	127-18-4	
Toluene	<b>&lt;1.0</b>	ug/L	1.0	1		11/21/17 19:00	108-88-3	
1,1,1-Trichloroethane	<b>&lt;1.0</b>	ug/L	1.0	1		11/21/17 19:00	71-55-6	
1,1,2-Trichloroethane	<b>&lt;1.0</b>	ug/L	1.0	1		11/21/17 19:00	79-00-5	
Trichloroethene	<b>7.5</b>	ug/L	1.0	1		11/21/17 19:00	79-01-6	
Vinyl chloride	<b>&lt;1.0</b>	ug/L	1.0	1		11/21/17 19:00	75-01-4	
Xylene (Total)	<b>&lt;2.0</b>	ug/L	2.0	1		11/21/17 19:00	1330-20-7	
<b>Surrogates</b>								
1,2-Dichloroethane-d4 (S)	110	%	68-153	1		11/21/17 19:00	17060-07-0	
4-Bromofluorobenzene (S)	104	%	79-124	1		11/21/17 19:00	460-00-4	
Toluene-d8 (S)	105	%	69-124	1		11/21/17 19:00	2037-26-5	
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM22 4500-H+B						
pH at 25 Degrees C	<b>5.6</b>	Std. Units	0.10	1		11/17/17 21:11		H1,H6, N3

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: MONTHLY MIN MILT  
Pace Project No.: 7036034

QC Batch: 47971 Analysis Method: EPA 200.7  
QC Batch Method: EPA 200.7 Analysis Description: 200.7 Metals, Total  
Associated Lab Samples: 7036034001, 7036034002, 7036034003, 7036034004

METHOD BLANK: 223359 Matrix: Water  
Associated Lab Samples: 7036034001, 7036034002, 7036034003, 7036034004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Iron	ug/L	<20.0	20.0	11/30/17 14:38	

LABORATORY CONTROL SAMPLE: 223360

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron	ug/L	2000	2000	100	85-115	

MATRIX SPIKE SAMPLE: 223362

Parameter	Units	7036071001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron	ug/L	30.5	2000	2030	100	70-130	

MATRIX SPIKE SAMPLE: 223364

Parameter	Units	7036330002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron	ug/L	426	2000	2390	98	70-130	

SAMPLE DUPLICATE: 223361

Parameter	Units	7036071001 Result	Dup Result	RPD	Qualifiers
Iron	ug/L	30.5	36.3	17	

SAMPLE DUPLICATE: 223363

Parameter	Units	7036330002 Result	Dup Result	RPD	Qualifiers
Iron	ug/L	426	435	2	

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### QUALITY CONTROL DATA

Project: MONTHLY MIN MILT

Pace Project No.: 7036034

QC Batch: 47417 Analysis Method: EPA 8260C/5030C  
 QC Batch Method: EPA 8260C/5030C Analysis Description: 8260 MSV  
 Associated Lab Samples: 7036034001, 7036034002, 7036034003, 7036034004

METHOD BLANK: 221136 Matrix: Water  
 Associated Lab Samples: 7036034001, 7036034002, 7036034003, 7036034004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	<1.0	1.0	11/21/17 17:08	
1,1,2,2-Tetrachloroethane	ug/L	<1.0	1.0	11/21/17 17:08	CL
1,1,2-Trichloroethane	ug/L	<1.0	1.0	11/21/17 17:08	
1,1-Dichloroethane	ug/L	<1.0	1.0	11/21/17 17:08	
1,1-Dichloroethene	ug/L	<1.0	1.0	11/21/17 17:08	
1,2-Dichloroethane	ug/L	<1.0	1.0	11/21/17 17:08	
1,2-Dichloroethene (Total)	ug/L	<2.0	2.0	11/21/17 17:08	
1,2-Dichloropropane	ug/L	<1.0	1.0	11/21/17 17:08	
2-Butanone (MEK)	ug/L	<5.0	5.0	11/21/17 17:08	CL
2-Hexanone	ug/L	<5.0	5.0	11/21/17 17:08	
4-Methyl-2-pentanone (MIBK)	ug/L	<5.0	5.0	11/21/17 17:08	CL
Acetone	ug/L	<5.0	5.0	11/21/17 17:08	
Benzene	ug/L	ND	1.0	11/21/17 17:08	
Bromodichloromethane	ug/L	<1.0	1.0	11/21/17 17:08	
Bromoform	ug/L	<1.0	1.0	11/21/17 17:08	
Bromomethane	ug/L	<1.0	1.0	11/21/17 17:08	
Carbon disulfide	ug/L	<1.0	1.0	11/21/17 17:08	
Carbon tetrachloride	ug/L	<1.0	1.0	11/21/17 17:08	
Chlorobenzene	ug/L	<1.0	1.0	11/21/17 17:08	
Chloroethane	ug/L	<1.0	1.0	11/21/17 17:08	
Chloroform	ug/L	<1.0	1.0	11/21/17 17:08	
Chloromethane	ug/L	<1.0	1.0	11/21/17 17:08	CL
cis-1,3-Dichloropropene	ug/L	<1.0	1.0	11/21/17 17:08	
Dibromochloromethane	ug/L	<1.0	1.0	11/21/17 17:08	
Ethylbenzene	ug/L	<1.0	1.0	11/21/17 17:08	
Methylene Chloride	ug/L	<1.0	1.0	11/21/17 17:08	
Styrene	ug/L	<1.0	1.0	11/21/17 17:08	
Tetrachloroethene	ug/L	<1.0	1.0	11/21/17 17:08	
Toluene	ug/L	<1.0	1.0	11/21/17 17:08	
trans-1,3-Dichloropropene	ug/L	<1.0	1.0	11/21/17 17:08	
Trichloroethene	ug/L	<1.0	1.0	11/21/17 17:08	
Vinyl chloride	ug/L	<1.0	1.0	11/21/17 17:08	
Xylene (Total)	ug/L	<2.0	2.0	11/21/17 17:08	
1,2-Dichloroethane-d4 (S)	%	105	68-153	11/21/17 17:08	
4-Bromofluorobenzene (S)	%	105	79-124	11/21/17 17:08	
Toluene-d8 (S)	%	100	69-124	11/21/17 17:08	

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### QUALITY CONTROL DATA

Project: MONTHLY MIN MILT

Pace Project No.: 7036034

LABORATORY CONTROL SAMPLE: 221137

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	51.1	102	65-118	
1,1,2,2-Tetrachloroethane	ug/L	50	38.8	78	74-121	CL
1,1,2-Trichloroethane	ug/L	50	47.2	94	80-117	
1,1-Dichloroethane	ug/L	50	45.9	92	83-151	
1,1-Dichloroethene	ug/L	50	49.2	98	45-146	
1,2-Dichloroethane	ug/L	50	49.4	99	74-129	
1,2-Dichloroethene (Total)	ug/L	100	96.8	97	60-140	
1,2-Dichloropropane	ug/L	50	43.7	87	75-117	
2-Butanone (MEK)	ug/L	50	26.5	53	44-162	CL
2-Hexanone	ug/L	50	41.1	82	32-183	
4-Methyl-2-pentanone (MIBK)	ug/L	50	40.4	81	69-132	CL
Acetone	ug/L	50	39.5	79	23-188	
Benzene	ug/L	50	46.7	93	73-119	
Bromodichloromethane	ug/L	50	50.2	100	78-117	
Bromoform	ug/L	50	47.2	94	65-122	
Bromomethane	ug/L	50	38.6	77	52-147	
Carbon disulfide	ug/L	50	44.2	88	41-144	
Carbon tetrachloride	ug/L	50	48.7	97	59-120	
Chlorobenzene	ug/L	50	48.1	96	75-113	
Chloroethane	ug/L	50	41.8	84	49-151	
Chloroform	ug/L	50	47.8	96	72-122	
Chloromethane	ug/L	50	30.3	61	46-144	CL
cis-1,3-Dichloropropene	ug/L	50	46.4	93	78-116	
Dibromochloromethane	ug/L	50	48.6	97	70-120	
Ethylbenzene	ug/L	50	49.7	99	70-113	
Methylene Chloride	ug/L	50	44.3	89	61-142	
Styrene	ug/L	50	50.9	102	72-118	
Tetrachloroethene	ug/L	50	56.1	112	60-128	
Toluene	ug/L	50	49.0	98	72-119	
trans-1,3-Dichloropropene	ug/L	50	48.4	97	79-116	
Trichloroethene	ug/L	50	51.6	103	69-117	
Vinyl chloride	ug/L	50	39.3	79	43-143	
Xylene (Total)	ug/L	150	149	99	71-109	
1,2-Dichloroethane-d4 (S)	%			104	68-153	
4-Bromofluorobenzene (S)	%			107	79-124	
Toluene-d8 (S)	%			102	69-124	

MATRIX SPIKE SAMPLE: 222107

Parameter	Units	7036034001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	<1.0	50	53.4	107	65-118	
1,1,2,2-Tetrachloroethane	ug/L	<1.0	50	41.1	82	74-121	CL
1,1,2-Trichloroethane	ug/L	<1.0	50	49.4	99	80-117	
1,1-Dichloroethane	ug/L	<1.0	50	47.2	94	83-151	
1,1-Dichloroethene	ug/L	<1.0	50	52.7	105	45-146	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: MONTHLY MIN MILT

Pace Project No.: 7036034

MATRIX SPIKE SAMPLE: 222107

Parameter	Units	7036034001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	<1.0	50	51.7	103	74-129	
1,2-Dichloroethene (Total)	ug/L	<2.0	100	102	102	60-140	
1,2-Dichloropropane	ug/L	<1.0	50	46.7	93	75-117	
2-Butanone (MEK)	ug/L	<5.0	50	30.2	60	44-162	CL
2-Hexanone	ug/L	<5.0	50	41.1	82	32-183	
4-Methyl-2-pentanone (MIBK)	ug/L	<5.0	50	42.9	86	69-132	CL
Acetone	ug/L	<5.0	50	42.6	85	23-188	
Benzene	ug/L	ND	50	49.6	99	73-119	
Bromodichloromethane	ug/L	<1.0	50	51.5	103	78-117	
Bromoform	ug/L	<1.0	50	42.7	85	65-122	
Bromomethane	ug/L	<1.0	50	39.7	79	52-147	
Carbon disulfide	ug/L	<1.0	50	46.8	94	41-144	
Carbon tetrachloride	ug/L	<1.0	50	49.5	99	59-120	
Chlorobenzene	ug/L	<1.0	50	47.8	96	75-113	
Chloroethane	ug/L	<1.0	50	45.7	91	49-151	
Chloroform	ug/L	<1.0	50	51.0	102	72-122	
Chloromethane	ug/L	<1.0	50	31.5	63	46-144	CL
cis-1,3-Dichloropropene	ug/L	<1.0	50	47.7	95	78-116	
Dibromochloromethane	ug/L	<1.0	50	46.6	93	70-120	
Ethylbenzene	ug/L	<1.0	50	49.3	99	70-113	
Methylene Chloride	ug/L	<1.0	50	46.2	92	61-142	
Styrene	ug/L	<1.0	50	49.7	99	72-118	
Tetrachloroethene	ug/L	3.6	50	59.1	111	60-128	
Toluene	ug/L	<1.0	50	51.3	103	72-119	
trans-1,3-Dichloropropene	ug/L	<1.0	50	49.1	98	79-116	
Trichloroethene	ug/L	<1.0	50	54.5	109	69-117	
Vinyl chloride	ug/L	<1.0	50	42.1	84	43-143	
Xylene (Total)	ug/L	<2.0	150	147	98	71-109	
1,2-Dichloroethane-d4 (S)	%				110	68-153	
4-Bromofluorobenzene (S)	%				104	79-124	
Toluene-d8 (S)	%				98	69-124	

SAMPLE DUPLICATE: 222108

Parameter	Units	7036034003 Result	Dup Result	RPD	Qualifiers
1,1,1-Trichloroethane	ug/L	<30.0	<30.0		
1,1,1,2-Tetrachloroethane	ug/L	<30.0	<30.0		CL
1,1,2-Trichloroethane	ug/L	<30.0	<30.0		
1,1-Dichloroethane	ug/L	<30.0	<30.0		
1,1-Dichloroethene	ug/L	<30.0	<30.0		
1,2-Dichloroethane	ug/L	<30.0	<30.0		
1,2-Dichloroethene (Total)	ug/L	<60.0	<60.0		
1,2-Dichloropropane	ug/L	<30.0	<30.0		
2-Butanone (MEK)	ug/L	<150	<150		CL
2-Hexanone	ug/L	<150	<150		

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### QUALITY CONTROL DATA

Project: MONTHLY MIN MILT

Pace Project No.: 7036034

SAMPLE DUPLICATE: 222108

Parameter	Units	7036034003 Result	Dup Result	RPD	Qualifiers
4-Methyl-2-pentanone (MIBK)	ug/L	<150	<150		CL
Acetone	ug/L	<150	<150		
Benzene	ug/L	ND	ND		
Bromodichloromethane	ug/L	<30.0	<30.0		
Bromoform	ug/L	<30.0	<30.0		
Bromomethane	ug/L	<30.0	<30.0		
Carbon disulfide	ug/L	<30.0	<30.0		
Carbon tetrachloride	ug/L	<30.0	<30.0		
Chlorobenzene	ug/L	<30.0	<30.0		
Chloroethane	ug/L	<30.0	<30.0		
Chloroform	ug/L	<30.0	<30.0		
Chloromethane	ug/L	<30.0	<30.0		CL
cis-1,3-Dichloropropene	ug/L	<30.0	<30.0		
Dibromochloromethane	ug/L	<30.0	<30.0		
Ethylbenzene	ug/L	<30.0	<30.0		
Methylene Chloride	ug/L	<30.0	<30.0		
Styrene	ug/L	<30.0	<30.0		
Tetrachloroethene	ug/L	2640	2080	23	D6
Toluene	ug/L	<30.0	<30.0		
trans-1,3-Dichloropropene	ug/L	<30.0	<30.0		
Trichloroethene	ug/L	<30.0	<30.0		
Vinyl chloride	ug/L	<30.0	<30.0		
Xylene (Total)	ug/L	<60.0	<60.0		
1,2-Dichloroethane-d4 (S)	%	106	109	3	
4-Bromofluorobenzene (S)	%	105	106	0	
Toluene-d8 (S)	%	102	102	0	

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### QUALITY CONTROL DATA

Project: MONTHLY MIN MILT

Pace Project No.: 7036034

QC Batch: 47045 Analysis Method: SM22 4500-H+B

QC Batch Method: SM22 4500-H+B Analysis Description: 4500H+B pH

Associated Lab Samples: 7036034001, 7036034002, 7036034003, 7036034004

SAMPLE DUPLICATE: 219605

Parameter	Units	7036071001 Result	Dup Result	RPD	Qualifiers
pH at 25 Degrees C	Std. Units	6.8	6.8	0	H3,H6,N3

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## QUALIFIERS

Project: MONTHLY MIN MILT

Pace Project No.: 7036034

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### 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.

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

- |    |                                                                                                                              |
|----|------------------------------------------------------------------------------------------------------------------------------|
| CL | The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low. |
| D6 | The precision between the sample and sample duplicate exceeded laboratory control limits.                                    |
| H1 | Analysis conducted outside the EPA method holding time.                                                                      |
| H3 | Sample was received or analysis requested beyond the recognized method holding time.                                         |
| H6 | Analysis initiated outside of the 15 minute EPA recommended holding time.                                                    |
| N3 | Accreditation is not offered by the relevant laboratory accrediting body for this parameter.                                 |

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MONTHLY MIN MILT

Pace Project No.: 7036034

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
7036034001	SYS-EFF	EPA 200.7	47971	EPA 200.7	47998
7036034002	SYS-INF	EPA 200.7	47971	EPA 200.7	47998
7036034003	UG	EPA 200.7	47971	EPA 200.7	47998
7036034004	MAG	EPA 200.7	47971	EPA 200.7	47998
7036034001	SYS-EFF	EPA 8260C/5030C	47417		
7036034002	SYS-INF	EPA 8260C/5030C	47417		
7036034003	UG	EPA 8260C/5030C	47417		
7036034004	MAG	EPA 8260C/5030C	47417		
7036034001	SYS-EFF	SM22 4500-H+B	47045		
7036034002	SYS-INF	SM22 4500-H+B	47045		
7036034003	UG	SM22 4500-H+B	47045		
7036034004	MAG	SM22 4500-H+B	47045		

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WO#: 7036034

**CHAIN-OF-CUSTODY / Analytical Request**

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



<b>Section A</b>		<b>Section B</b>		<b>Section C</b>	
<b>Required Client Information:</b>		<b>Required Project Information:</b>		<b>Invoice Information:</b>	
Company: P. W. Grosser Engineer & Hydrogeologist	Report To: Kaitlyn Crosby	Attention: <i>same as client</i>	Company Name:	Regulatory Agency:	
Address: 630 Johnson Avenue	Copy To: <i>Brian Barth</i>	Address:	Address:	State / Location:	NY
Bohemia, NY 11716	Purchase Order #:	Pace Quote:	Pace Project Manager: betty.harrison@pacelabs.com		
Email: krosby@pwgrosser.com	Project Name: MINMILT	Pace Profile #: 5382			
Phone: (631) 589-6353	Project #:				
Requested Due Date: <i>standard</i>					

ITEM #	MATRIX	CODE	COLLECTED		SAMPLE TYPE (G=GRAB C=COMP)	MATRIX CODE (see valid codes to left)	# OF CONTAINERS	PRESERVATIVES		ANALYSES TEST Y/N	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)
			START DATE	END DATE				UNPRESERVED	H2SO4			
1	SYS-EFF	DW	11-17-17	1010	WTG	WTG	1	X		X	X	001
2	SYS-INF	WT	11-17-17	1015	WTG	WTG	1	X		X	X	002
3	UG	WW	11-17-17	1020	WTG	WTG	1	X		X	X	003
4	MAG	P	11-17-17	1025	WTG	WTG	1	X		X	X	004
5		SL										
6		OL										
7		WP										
8		AR										
9		OT										
10		TS										
11												
12												

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	<i>[Signature]</i>	11-17-17	1038	<i>[Signature]</i>	11/17/17	1038	4.6 Y N Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: *Kaitlyn Crosby*

SIGNATURE of SAMPLER: *[Signature]*

DATE Signed: *11/17/17*





# Sample Condition Upon Receipt

Client Name: PW Grossee

Pro **WO#: 7036034**  
 PM: EMH Due Date: 12/05/17  
 CLIENT: PWG

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace  Other

Tracking #: \_\_\_\_\_ Seals intact:  Yes  No

Custody Seal on Cooler/Box Present:  Yes  No

Packing Material:  Bubble Wrap  Bubble Bags  Ziploc  None  Other

Thermometer Used: TH092 Correction Factor: +0.1  Samples on ice, cooling process has begun

Cooler Temperature (°C): 4.6 Cooler Temperature Corrected (°C): 4.7 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: JKW/17

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 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-LI-C-010) and include with SCUR/COC paperwork.

		COMMENTS:
Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1.
Chain of Custody Filled Out:	<input type="checkbox"/> Yes <input type="checkbox"/> No	2.
Chain of Custody Relinquished:	<input type="checkbox"/> Yes <input type="checkbox"/> No	3.
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input type="checkbox"/> Yes <input type="checkbox"/> No	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume: (Triple volume provided for MS/MSD)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8.
Correct Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No	9.
-Pace Containers Used:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Containers Intact:	<input type="checkbox"/> Yes <input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11. Note if sediment is visible in the dissolved container.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	12.
-Includes date/time/ID/Analysis Matrix SL WT OIL		
All containers needing preservation have been checked:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13. <input type="checkbox"/> HNO <sub>3</sub> <input type="checkbox"/> H <sub>2</sub> SO <sub>4</sub> <input type="checkbox"/> NaOH <input type="checkbox"/> HCl
pH paper Lot # <u>HCC601354</u>		Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub> , HCl, NaOH>9 Sulfide, NAOH>12 Cyanide)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> 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:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14. Positive for Res. Chlorine? Y N
Residual chlorine strips Lot #		
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if applicable): _____		

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

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

December 22, 2017

Brian Barth  
P.W. Grosser Engineer & Hydrogeologist  
630 Johnson Avenue  
Suite 7  
Bohemia, NY 11716

RE: Project: MINMILT MIN1001  
Pace Project No.: 7038068

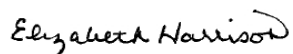
Dear Brian Barth:

Enclosed are the analytical results for sample(s) received by the laboratory on December 13, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Air samples were subcontracted to Pace Analytical Services, Inc., 1700 Elm Street, Minneapolis, MN 55414

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

Sincerely,



Elizabeth Harrison  
betty.harrison@pacelabs.com  
(631)694-3040  
Project Manager

Enclosures

cc: Kaitlyn Crosby, P.W. Grosser Engineer & Hydrogeologist



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: MINMILT MIN1001

Pace Project No.: 7038068

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### Minnesota Certification IDs

1700 Elm Street SE, Suite 200, Minneapolis, MN 55414-2485

A2LA Certification #: 2926.01

Alabama Certification #: 40770

Alaska Contaminated Sites Certification #: 17-009

Alaska DW Certification #: MN00064

Arizona Certification #: AZ0014

Arkansas Certification #: 88-0680

California Certification #: 2929

CNMI Saipan Certification #: MP0003

Colorado Certification #: MN00064

Connecticut Certification #: PH-0256

EPA Region 8+Wyoming DW Certification #: via MN 027-053-137

Florida Certification #: E87605

Georgia Certification #: 959

Guam EPA Certification #: MN00064

Hawaii Certification #: MN00064

Idaho Certification #: MN00064

Illinois Certification #: 200011

Indiana Certification #: C-MN-01

Iowa Certification #: 368

Kansas Certification #: E-10167

Kentucky DW Certification #: 90062

Kentucky WW Certification #: 90062

Louisiana DEQ Certification #: 03086

Louisiana DW Certification #: MN00064

Maine Certification #: MN00064

Maryland Certification #: 322

Massachusetts Certification #: M-MN064

Michigan Certification #: 9909

Minnesota Certification #: 027-053-137

Mississippi Certification #: MN00064

Montana Certification #: CERT0092

Nebraska Certification #: NE-OS-18-06

Nevada Certification #: MN00064

New Hampshire Certification #: 2081

New Jersey Certification #: MN002

New York Certification #: 11647

North Carolina DW Certification #: 27700

North Carolina WW Certification #: 530

North Dakota Certification #: R-036

Ohio DW Certification #: 41244

Ohio VAP Certification #: CL101

Oklahoma Certification #: 9507

Oregon NwTPH Certification #: MN300001

Oregon Secondary Certification #: MN200001

Pennsylvania Certification #: 68-00563

Puerto Rico Certification #: MN00064

South Carolina Certification #: 74003001

Tennessee Certification #: TN02818

Texas Certification #: T104704192

Utah Certification #: MN00064

Virginia Certification #: 460163

Washington Certification #: C486

West Virginia DW Certification #: 9952 C

West Virginia DEP Certification #: 382

Wisconsin Certification #: 999407970

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## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: MINMILT MIN1001

Pace Project No.: 7038068

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Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
7038068001	SVE-INF	TO-15	NCK	61	PASI-M

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: MINMILT MIN1001

Pace Project No.: 7038068

Sample: SVE-INF	Lab ID: 7038068001	Collected: 12/13/17 12:35	Received: 12/13/17 13:20	Matrix: Air				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>		Analytical Method: TO-15						
Acetone	<15.2	ug/m3	15.2	6.3		12/20/17 03:34	67-64-1	
Benzene	<2.0	ug/m3	2.0	6.3		12/20/17 03:34	71-43-2	
Benzyl chloride	<6.6	ug/m3	6.6	6.3		12/20/17 03:34	100-44-7	
Bromodichloromethane	<8.6	ug/m3	8.6	6.3		12/20/17 03:34	75-27-4	
Bromoform	<13.2	ug/m3	13.2	6.3		12/20/17 03:34	75-25-2	
Bromomethane	<5.0	ug/m3	5.0	6.3		12/20/17 03:34	74-83-9	
1,3-Butadiene	<2.8	ug/m3	2.8	6.3		12/20/17 03:34	106-99-0	
2-Butanone (MEK)	<18.9	ug/m3	18.9	6.3		12/20/17 03:34	78-93-3	
Carbon disulfide	<4.0	ug/m3	4.0	6.3		12/20/17 03:34	75-15-0	
Carbon tetrachloride	<8.1	ug/m3	8.1	6.3		12/20/17 03:34	56-23-5	
Chlorobenzene	<5.9	ug/m3	5.9	6.3		12/20/17 03:34	108-90-7	
Chloroethane	<3.4	ug/m3	3.4	6.3		12/20/17 03:34	75-00-3	
Chloroform	<3.1	ug/m3	3.1	6.3		12/20/17 03:34	67-66-3	
Chloromethane	<2.6	ug/m3	2.6	6.3		12/20/17 03:34	74-87-3	
Cyclohexane	<4.4	ug/m3	4.4	6.3		12/20/17 03:34	110-82-7	
Dibromochloromethane	<10.9	ug/m3	10.9	6.3		12/20/17 03:34	124-48-1	
1,2-Dibromoethane (EDB)	<9.8	ug/m3	9.8	6.3		12/20/17 03:34	106-93-4	
1,2-Dichlorobenzene	<7.7	ug/m3	7.7	6.3		12/20/17 03:34	95-50-1	
1,3-Dichlorobenzene	<7.7	ug/m3	7.7	6.3		12/20/17 03:34	541-73-1	
1,4-Dichlorobenzene	<7.7	ug/m3	7.7	6.3		12/20/17 03:34	106-46-7	
Dichlorodifluoromethane	<6.4	ug/m3	6.4	6.3		12/20/17 03:34	75-71-8	
1,1-Dichloroethane	<5.2	ug/m3	5.2	6.3		12/20/17 03:34	75-34-3	
1,2-Dichloroethane	<2.6	ug/m3	2.6	6.3		12/20/17 03:34	107-06-2	
1,1-Dichloroethene	<5.1	ug/m3	5.1	6.3		12/20/17 03:34	75-35-4	
cis-1,2-Dichloroethene	212	ug/m3	5.1	6.3		12/20/17 03:34	156-59-2	
trans-1,2-Dichloroethene	<5.1	ug/m3	5.1	6.3		12/20/17 03:34	156-60-5	
1,2-Dichloropropane	<5.9	ug/m3	5.9	6.3		12/20/17 03:34	78-87-5	
cis-1,3-Dichloropropene	<5.8	ug/m3	5.8	6.3		12/20/17 03:34	10061-01-5	
trans-1,3-Dichloropropene	<5.8	ug/m3	5.8	6.3		12/20/17 03:34	10061-02-6	
Dichlorotetrafluoroethane	<8.9	ug/m3	8.9	6.3		12/20/17 03:34	76-14-2	
Ethanol	<12.1	ug/m3	12.1	6.3		12/20/17 03:34	64-17-5	
Ethyl acetate	<4.6	ug/m3	4.6	6.3		12/20/17 03:34	141-78-6	
Ethylbenzene	<5.5	ug/m3	5.5	6.3		12/20/17 03:34	100-41-4	
4-Ethyltoluene	<6.3	ug/m3	6.3	6.3		12/20/17 03:34	622-96-8	
n-Heptane	<13.1	ug/m3	13.1	6.3		12/20/17 03:34	142-82-5	
Hexachloro-1,3-butadiene	<13.7	ug/m3	13.7	6.3		12/20/17 03:34	87-68-3	
n-Hexane	<11.3	ug/m3	11.3	6.3		12/20/17 03:34	110-54-3	
2-Hexanone	<26.2	ug/m3	26.2	6.3		12/20/17 03:34	591-78-6	
Methylene Chloride	<55.6	ug/m3	55.6	6.3		12/20/17 03:34	75-09-2	
4-Methyl-2-pentanone (MIBK)	<26.2	ug/m3	26.2	6.3		12/20/17 03:34	108-10-1	
Methyl-tert-butyl ether	<23.1	ug/m3	23.1	6.3		12/20/17 03:34	1634-04-4	
Naphthalene	<16.8	ug/m3	16.8	6.3		12/20/17 03:34	91-20-3	
2-Propanol	<15.8	ug/m3	15.8	6.3		12/20/17 03:34	67-63-0	
Propylene	<5.5	ug/m3	5.5	6.3		12/20/17 03:34	115-07-1	
Styrene	<5.5	ug/m3	5.5	6.3		12/20/17 03:34	100-42-5	
1,1,2,2-Tetrachloroethane	<4.4	ug/m3	4.4	6.3		12/20/17 03:34	79-34-5	
Tetrachloroethene	1240	ug/m3	4.3	6.3		12/20/17 03:34	127-18-4	

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## ANALYTICAL RESULTS

Project: MINMILT MIN1001

Pace Project No.: 7038068

Sample: SVE-INF	Lab ID: 7038068001	Collected: 12/13/17 12:35		Received: 12/13/17 13:20		Matrix: Air		
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>		Analytical Method: TO-15						
Tetrahydrofuran	<b>&lt;3.8</b>	ug/m3	3.8	6.3		12/20/17 03:34	109-99-9	
Toluene	<b>&lt;12.1</b>	ug/m3	12.1	6.3		12/20/17 03:34	108-88-3	
1,2,4-Trichlorobenzene	<b>&lt;23.8</b>	ug/m3	23.8	6.3		12/20/17 03:34	120-82-1	
1,1,1-Trichloroethane	<b>&lt;7.0</b>	ug/m3	7.0	6.3		12/20/17 03:34	71-55-6	
1,1,2-Trichloroethane	<b>&lt;3.5</b>	ug/m3	3.5	6.3		12/20/17 03:34	79-00-5	
Trichloroethene	<b>57.9</b>	ug/m3	3.5	6.3		12/20/17 03:34	79-01-6	
Trichlorofluoromethane	<b>&lt;7.2</b>	ug/m3	7.2	6.3		12/20/17 03:34	75-69-4	
1,1,2-Trichlorotrifluoroethane	<b>&lt;10.1</b>	ug/m3	10.1	6.3		12/20/17 03:34	76-13-1	
1,2,4-Trimethylbenzene	<b>&lt;6.3</b>	ug/m3	6.3	6.3		12/20/17 03:34	95-63-6	
1,3,5-Trimethylbenzene	<b>&lt;6.3</b>	ug/m3	6.3	6.3		12/20/17 03:34	108-67-8	
Vinyl acetate	<b>&lt;11.3</b>	ug/m3	11.3	6.3		12/20/17 03:34	108-05-4	
Vinyl chloride	<b>&lt;3.3</b>	ug/m3	3.3	6.3		12/20/17 03:34	75-01-4	
m&p-Xylene	<b>&lt;11.2</b>	ug/m3	11.2	6.3		12/20/17 03:34	179601-23-1	
o-Xylene	<b>&lt;5.5</b>	ug/m3	5.5	6.3		12/20/17 03:34	95-47-6	

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### QUALITY CONTROL DATA

Project: MINMILT MIN1001

Pace Project No.: 7038068

QC Batch: 514520

Analysis Method: TO-15

QC Batch Method: TO-15

Analysis Description: TO15 MSV AIR Low Level

Associated Lab Samples: 7038068001

METHOD BLANK: 2797971

Matrix: Air

Associated Lab Samples: 7038068001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/m3	<1.1	1.1	12/19/17 11:57	
1,1,2,2-Tetrachloroethane	ug/m3	<0.70	0.70	12/19/17 11:57	
1,1,2-Trichloroethane	ug/m3	<0.55	0.55	12/19/17 11:57	
1,1,2-Trichlorotrifluoroethane	ug/m3	<1.6	1.6	12/19/17 11:57	
1,1-Dichloroethane	ug/m3	<0.82	0.82	12/19/17 11:57	
1,1-Dichloroethene	ug/m3	<0.81	0.81	12/19/17 11:57	
1,2,4-Trichlorobenzene	ug/m3	<3.8	3.8	12/19/17 11:57	
1,2,4-Trimethylbenzene	ug/m3	<1.0	1.0	12/19/17 11:57	
1,2-Dibromoethane (EDB)	ug/m3	<1.6	1.6	12/19/17 11:57	
1,2-Dichlorobenzene	ug/m3	<1.2	1.2	12/19/17 11:57	
1,2-Dichloroethane	ug/m3	<0.41	0.41	12/19/17 11:57	
1,2-Dichloropropane	ug/m3	<0.94	0.94	12/19/17 11:57	
1,3,5-Trimethylbenzene	ug/m3	<1.0	1.0	12/19/17 11:57	
1,3-Butadiene	ug/m3	<0.45	0.45	12/19/17 11:57	
1,3-Dichlorobenzene	ug/m3	<1.2	1.2	12/19/17 11:57	
1,4-Dichlorobenzene	ug/m3	<1.2	1.2	12/19/17 11:57	
2-Butanone (MEK)	ug/m3	<3.0	3.0	12/19/17 11:57	
2-Hexanone	ug/m3	<4.2	4.2	12/19/17 11:57	
2-Propanol	ug/m3	<2.5	2.5	12/19/17 11:57	
4-Ethyltoluene	ug/m3	<1.0	1.0	12/19/17 11:57	
4-Methyl-2-pentanone (MIBK)	ug/m3	<4.2	4.2	12/19/17 11:57	
Acetone	ug/m3	<2.4	2.4	12/19/17 11:57	
Benzene	ug/m3	<0.32	0.32	12/19/17 11:57	
Benzyl chloride	ug/m3	<1.0	1.0	12/19/17 11:57	
Bromodichloromethane	ug/m3	<1.4	1.4	12/19/17 11:57	
Bromoform	ug/m3	<2.1	2.1	12/19/17 11:57	
Bromomethane	ug/m3	<0.79	0.79	12/19/17 11:57	
Carbon disulfide	ug/m3	<0.63	0.63	12/19/17 11:57	
Carbon tetrachloride	ug/m3	<1.3	1.3	12/19/17 11:57	MN
Chlorobenzene	ug/m3	<0.94	0.94	12/19/17 11:57	
Chloroethane	ug/m3	<0.54	0.54	12/19/17 11:57	
Chloroform	ug/m3	<0.50	0.50	12/19/17 11:57	
Chloromethane	ug/m3	<0.42	0.42	12/19/17 11:57	
cis-1,2-Dichloroethene	ug/m3	<0.81	0.81	12/19/17 11:57	
cis-1,3-Dichloropropene	ug/m3	<0.92	0.92	12/19/17 11:57	
Cyclohexane	ug/m3	<0.70	0.70	12/19/17 11:57	
Dibromochloromethane	ug/m3	<1.7	1.7	12/19/17 11:57	
Dichlorodifluoromethane	ug/m3	<1.0	1.0	12/19/17 11:57	
Dichlorotetrafluoroethane	ug/m3	<1.4	1.4	12/19/17 11:57	
Ethanol	ug/m3	<1.9	1.9	12/19/17 11:57	MN
Ethyl acetate	ug/m3	<0.73	0.73	12/19/17 11:57	

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### QUALITY CONTROL DATA

Project: MINMILT MIN1001

Pace Project No.: 7038068

METHOD BLANK: 2797971

Matrix: Air

Associated Lab Samples: 7038068001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethylbenzene	ug/m3	<0.88	0.88	12/19/17 11:57	
Hexachloro-1,3-butadiene	ug/m3	<2.2	2.2	12/19/17 11:57	
m&p-Xylene	ug/m3	<1.8	1.8	12/19/17 11:57	
Methyl-tert-butyl ether	ug/m3	<3.7	3.7	12/19/17 11:57	
Methylene Chloride	ug/m3	<8.8	8.8	12/19/17 11:57	MN
n-Heptane	ug/m3	<2.1	2.1	12/19/17 11:57	MN
n-Hexane	ug/m3	<1.8	1.8	12/19/17 11:57	MN
Naphthalene	ug/m3	<2.7	2.7	12/19/17 11:57	
o-Xylene	ug/m3	<0.88	0.88	12/19/17 11:57	
Propylene	ug/m3	<0.88	0.88	12/19/17 11:57	MN
Styrene	ug/m3	<0.87	0.87	12/19/17 11:57	
Tetrachloroethene	ug/m3	<0.69	0.69	12/19/17 11:57	
Tetrahydrofuran	ug/m3	<0.60	0.60	12/19/17 11:57	
Toluene	ug/m3	<1.9	1.9	12/19/17 11:57	MN
trans-1,2-Dichloroethene	ug/m3	<0.81	0.81	12/19/17 11:57	
trans-1,3-Dichloropropene	ug/m3	<0.92	0.92	12/19/17 11:57	
Trichloroethene	ug/m3	<0.55	0.55	12/19/17 11:57	
Trichlorofluoromethane	ug/m3	<1.1	1.1	12/19/17 11:57	
Vinyl acetate	ug/m3	<1.8	1.8	12/19/17 11:57	MN
Vinyl chloride	ug/m3	<0.52	0.52	12/19/17 11:57	MN

LABORATORY CONTROL SAMPLE: 2797972

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/m3	55.5	63.7	115	70-134	
1,1,2,2-Tetrachloroethane	ug/m3	69.8	86.1	123	70-130	
1,1,2-Trichloroethane	ug/m3	55.5	65.7	118	70-130	
1,1,2-Trichlorotrifluoroethane	ug/m3	77.9	93.2	120	70-130	
1,1-Dichloroethane	ug/m3	41.1	46.4	113	70-130	
1,1-Dichloroethene	ug/m3	40.3	46.1	114	70-130	
1,2,4-Trichlorobenzene	ug/m3	75.4	96.4	128	60-150	
1,2,4-Trimethylbenzene	ug/m3	50	60.2	120	70-136	
1,2-Dibromoethane (EDB)	ug/m3	78.1	95.1	122	70-130	
1,2-Dichlorobenzene	ug/m3	61.1	76.4	125	70-139	
1,2-Dichloroethane	ug/m3	41.1	47.9	116	70-130	
1,2-Dichloropropane	ug/m3	47	53.4	114	70-131	
1,3,5-Trimethylbenzene	ug/m3	50	58.7	118	70-133	
1,3-Butadiene	ug/m3	22.5	23.8	106	70-130	
1,3-Dichlorobenzene	ug/m3	61.1	75.3	123	70-144	
1,4-Dichlorobenzene	ug/m3	61.1	76.2	125	70-139	
2-Butanone (MEK)	ug/m3	30	31.1	104	70-130	
2-Hexanone	ug/m3	104	135	130	70-138 MN	
2-Propanol	ug/m3	125	161	129	70-130	
4-Ethyltoluene	ug/m3	50	60.4	121	70-135	

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### QUALITY CONTROL DATA

Project: MINMILT MIN1001

Pace Project No.: 7038068

LABORATORY CONTROL SAMPLE: 2797972

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
4-Methyl-2-pentanone (MIBK)	ug/m3	104	126	121	70-130	
Acetone	ug/m3	121	159	132	64-130	CH,L1
Benzene	ug/m3	32.5	38.6	119	70-130	
Benzyl chloride	ug/m3	52.6	74.7	142	70-144	CH
Bromodichloromethane	ug/m3	68.1	74.0	109	70-134	
Bromoform	ug/m3	105	138	131	70-150	CH
Bromomethane	ug/m3	39.5	43.4	110	70-130	
Carbon disulfide	ug/m3	31.6	35.7	113	70-134	
Carbon tetrachloride	ug/m3	64	72.9	114	68-150	
Chlorobenzene	ug/m3	46.8	53.2	114	70-132	
Chloroethane	ug/m3	26.8	28.5	106	70-132	
Chloroform	ug/m3	49.6	57.1	115	70-130	
Chloromethane	ug/m3	21	24.3	116	70-130	
cis-1,2-Dichloroethene	ug/m3	40.3	48.0	119	70-133	
cis-1,3-Dichloropropene	ug/m3	46.1	50.8	110	70-137	
Cyclohexane	ug/m3	35	42.0	120	70-130	
Dibromochloromethane	ug/m3	86.6	103	119	70-144	
Dichlorodifluoromethane	ug/m3	50.3	55.0	110	70-130	
Dichlorotetrafluoroethane	ug/m3	71	82.9	117	70-130	
Ethanol	ug/m3	91.6	114	125	70-136	
Ethyl acetate	ug/m3	36.6	44.4	121	70-130	
Ethylbenzene	ug/m3	44.1	50.0	113	70-134	
Hexachloro-1,3-butadiene	ug/m3	108	133	122	45-150	
m&p-Xylene	ug/m3	88.3	101	114	70-130	
Methyl-tert-butyl ether	ug/m3	91.6	105	114	66-148	
Methylene Chloride	ug/m3	177	182	103	67-133	
n-Heptane	ug/m3	41.6	43.3	104	70-130	
n-Hexane	ug/m3	35.8	39.8	111	67-132	
Naphthalene	ug/m3	53.3	63.8	120	53-150	
o-Xylene	ug/m3	44.1	49.8	113	70-130	
Propylene	ug/m3	17.5	18.5	106	70-135	
Styrene	ug/m3	43.3	52.3	121	70-139	
Tetrachloroethene	ug/m3	68.9	82.6	120	70-130	
Tetrahydrofuran	ug/m3	30	37.3	124	70-130	
Toluene	ug/m3	38.3	46.8	122	70-130	
trans-1,2-Dichloroethene	ug/m3	40.3	48.3	120	70-131	
trans-1,3-Dichloropropene	ug/m3	46.1	53.5	116	70-142	
Trichloroethene	ug/m3	54.6	65.6	120	70-130	
Trichlorofluoromethane	ug/m3	57.1	67.7	118	70-130	
Vinyl acetate	ug/m3	35.8	38.1	106	70-137	
Vinyl chloride	ug/m3	26	32.2	124	70-130	

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### QUALITY CONTROL DATA

Project: MINMILT MIN1001

Pace Project No.: 7038068

SAMPLE DUPLICATE: 2799287

Parameter	Units	92367347001 Result	Dup Result	RPD	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	<1.9		
1,1,2,2-Tetrachloroethane	ug/m3	ND	<1.2		
1,1,2-Trichloroethane	ug/m3	ND	<0.92		
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	<2.7		
1,1-Dichloroethane	ug/m3	ND	<1.4		
1,1-Dichloroethene	ug/m3	ND	<1.4		
1,2,4-Trichlorobenzene	ug/m3	ND	<6.3		
1,2,4-Trimethylbenzene	ug/m3	ND	<1.7		
1,2-Dibromoethane (EDB)	ug/m3	ND	<2.6		
1,2-Dichlorobenzene	ug/m3	ND	<2.0		
1,2-Dichloroethane	ug/m3	ND	<0.69		
1,2-Dichloropropane	ug/m3	ND	<1.6		
1,3,5-Trimethylbenzene	ug/m3	ND	<1.7		
1,3-Butadiene	ug/m3	ND	<0.76		
1,3-Dichlorobenzene	ug/m3	ND	<2.0		
1,4-Dichlorobenzene	ug/m3	ND	<2.0		
2-Butanone (MEK)	ug/m3	ND	<5.0		
2-Hexanone	ug/m3	ND	<7.0		
2-Propanol	ug/m3	ND	<4.2		
4-Ethyltoluene	ug/m3	ND	<1.7		
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	<7.0		
Acetone	ug/m3	4.8	5.2		9 CH
Benzene	ug/m3	0.74	0.78		5
Benzyl chloride	ug/m3	ND	<1.8		
Bromodichloromethane	ug/m3	ND	<2.3		
Bromoform	ug/m3	ND	<3.5		
Bromomethane	ug/m3	ND	<1.3		
Carbon disulfide	ug/m3	ND	<1.1		
Carbon tetrachloride	ug/m3	ND	<2.1		
Chlorobenzene	ug/m3	ND	<1.6		
Chloroethane	ug/m3	ND	<0.91		
Chloroform	ug/m3	ND	<0.83		
Chloromethane	ug/m3	ND	<0.71		
cis-1,2-Dichloroethene	ug/m3	ND	<1.4		
cis-1,3-Dichloropropene	ug/m3	ND	<1.5		
Cyclohexane	ug/m3	ND	<1.2		
Dibromochloromethane	ug/m3	ND	<2.9		
Dichlorodifluoromethane	ug/m3	ND	<1.7		
Dichlorotetrafluoroethane	ug/m3	ND	<2.4		
Ethanol	ug/m3	86.7	92.6		7
Ethyl acetate	ug/m3	ND	<1.2		
Ethylbenzene	ug/m3	1.8	1.9		5
Hexachloro-1,3-butadiene	ug/m3	ND	<3.6		
m&p-Xylene	ug/m3	3.0	3.2		5
Methyl-tert-butyl ether	ug/m3	ND	<6.2		
Methylene Chloride	ug/m3	ND	<14.8		
n-Heptane	ug/m3	ND	<3.5		

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### QUALITY CONTROL DATA

Project: MINMILT MIN1001

Pace Project No.: 7038068

SAMPLE DUPLICATE: 2799287

Parameter	Units	92367347001 Result	Dup Result	RPD	Qualifiers
n-Hexane	ug/m3	4.0	4.2	5	
Naphthalene	ug/m3	ND	<4.5		
o-Xylene	ug/m3	ND	<1.5		
Propylene	ug/m3	ND	<1.5		
Styrene	ug/m3	ND	<1.5		
Tetrachloroethene	ug/m3	ND	<1.2		
Tetrahydrofuran	ug/m3	ND	<1.0		
Toluene	ug/m3	ND	<3.2		
trans-1,2-Dichloroethene	ug/m3	ND	<1.4		
trans-1,3-Dichloropropene	ug/m3	ND	<1.5		
Trichloroethene	ug/m3	ND	<0.92		
Trichlorofluoromethane	ug/m3	ND	<1.9		
Vinyl acetate	ug/m3	ND	<3.0		
Vinyl chloride	ug/m3	ND	<0.87		

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## QUALIFIERS

Project: MINMILT MIN1001

Pace Project No.: 7038068

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### 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.

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.

### LABORATORIES

PASI-M Pace Analytical Services - Minneapolis

### ANALYTE QUALIFIERS

CH The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.

L1 Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.

MN The reporting limit has been raised in accordance with Minnesota Statutes 4740.2100 Subpart 8. C, D. Reporting Limit Evaluation Rule.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MINMILT MIN1001

Pace Project No.: 7038068

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<b>Lab ID</b>	<b>Sample ID</b>	<b>QC Batch Method</b>	<b>QC Batch</b>	<b>Analytical Method</b>	<b>Analytical Batch</b>
7038068001	SVE-INF	TO-15	514520		

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### REPORT OF LABORATORY ANALYSIS

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# AIR: CHAIN-OF-CUSTODY /

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

WO#: 7038068



**Section A**  
Required Client Information:

Company: PWGC  
Address: 630 Johnson Ave  
Bohemia, NY 11716  
Email To: Kcrosby@pwgcsr.com  
Phone: 631-869-6353  
Requested Due Date/TAT: Standard

**Section B**  
Required Project Information:

Report To: Kaitlyn Crosby  
Copy To: Brian Barth  
Purchase Order No.:  
Project Name: Min Mill  
Project Number: MTN1001

**Section C**  
Invoice Information:

Attention: Same as Client  
Company Name:  
Address:  
Pace Quote Reference:  
Pace Project Manager/Sales Rep: Betty Harrison  
Pace Profile #: 38150

**Section D** Required Client Information

**AIR SAMPLE ID**  
Sample IDs MUST BE UNIQUE

SVE-1UF

ITEM #	Valid Media Codes	COLLECTED		Canister Pressure (Initial Field - In Hg)	Canister Pressure (Final Field - In Hg)	Summa Can Number	Flow Control Number	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
		COMPOSITE START	COMPOSITE - END/GRAB											Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
1	Valid Media Codes: MEDIA CODE: Tedlar Bag 1 Liter Summa Can TLC 6 Liter Summa Can 6LC Low Volume Puff LVP High Volume Puff HVP Other PM10	DATE: 12-13-17	TIME: 1235	---	---	1638	---	Paul Ch/PWGC	12-13-17	1320	Paul Ch/PWGC	12-13-17	1320	Y/N	Y/N	Y/N	Y/N
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	

**Method:**  
 PM10  
 3C - Fixed Gas (%)  
 TO-3 BTEX  
 TO-3M (Methane)  
 TO-14  
 TO-15 Full List VOCs  
 TO-15 Short List BTEX  
 TO-15 Short List Chlorinated  
 TO-15 Short List (Other)  
 Page Lab ID: 001

**Reporting Units:**  
 u2/m<sup>3</sup> \_\_\_\_\_ mg/m<sup>3</sup> \_\_\_\_\_  
 PPBV \_\_\_\_\_ PPMV \_\_\_\_\_  
 Other \_\_\_\_\_

**Program:**  
 UST Superfund  
 Emissions  
 Clean Air Act  
 Voluntary Clean Up  
 Dry Clean  
 RCRA  
 Other \_\_\_\_\_

**Location of Sampling by State:** \_\_\_\_\_  
**Report Level:** II. \_\_\_\_\_ III. \_\_\_\_\_ IV. \_\_\_\_\_ Other \_\_\_\_\_

ORIGINAL





### Sample Condition Upon Receipt

**WO# : 7038068**

Client Name: PWGC

Project: PM: EMH Due Date: 12/22/17  
 CLIENT: PWG

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      Type of Ice: Wet Blue  Nonc

Thermometer Used: T1092      Correction Factor: +0.0       Samples on ice, cooling process has begun

Cooler Temperature (°C): \_\_\_\_\_      Cooler Temperature Corrected (°C): \_\_\_\_\_      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: 12/13/17 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 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-LI-C-010) and include with SCUR/COC paperwork.

			COMMENTS:
Chain of Custody Present:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	7.
Sufficient Volume: (Triple volume provided for MS/MSD)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Containers Intact:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11. Note if sediment is visible in the dissolved container.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	12.
-Includes date/time/ID/Analysis Matrix SL WT OIL <u>Air</u>			
All containers needing preservation have been checked	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13. <input type="checkbox"/> HNO <sub>3</sub> <input type="checkbox"/> H <sub>2</sub> SO <sub>4</sub> <input type="checkbox"/> NaOH <input type="checkbox"/> HCl
pH paper Lot #			Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub> , HCl, NaOH>9 Sulfide, NAOH>12 Cyanide) Exceptions: VOA, Coliform, TOC/DOC, Oil and Grease, DRO/8015 (water). Per Method, VOA pH is checked after analysis	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Initial when completed:      Lot # of added preservative:      Date/Time preservative added:
Samples checked for dechlorination:	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14. Positive for Res. Chlorine? Y N
Residual chlorine strips Lot #			
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input checked="" type="checkbox"/> 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.

December 22, 2017

Betty Harrison  
Pace Analytical Services  
575 Broad Hollow Rd  
Melville, NY 11747

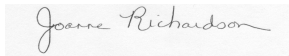
RE: Project: 7038068 P.W. Grosser Engineer  
Pace Project No.: 10414676

Dear Betty Harrison:

Enclosed are the analytical results for sample(s) received by the laboratory on December 15, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,



Joanne M Richardson  
joanne.richardson@pacelabs.com  
1(612)607-6453  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 7038068 P.W. Grosser Engineer

Pace Project No.: 10414676

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### Minnesota Certification IDs

1700 Elm Street SE, Suite 200, Minneapolis, MN 55414-2485

A2LA Certification #: 2926.01

Alabama Certification #: 40770

Alaska Contaminated Sites Certification #: 17-009

Alaska DW Certification #: MN00064

Arizona Certification #: AZ0014

Arkansas Certification #: 88-0680

California Certification #: 2929

CNMI Saipan Certification #: MP0003

Colorado Certification #: MN00064

Connecticut Certification #: PH-0256

EPA Region 8+Wyoming DW Certification #: via MN 027-053-137

Florida Certification #: E87605

Georgia Certification #: 959

Guam EPA Certification #: MN00064

Hawaii Certification #: MN00064

Idaho Certification #: MN00064

Illinois Certification #: 200011

Indiana Certification #: C-MN-01

Iowa Certification #: 368

Kansas Certification #: E-10167

Kentucky DW Certification #: 90062

Kentucky WW Certification #: 90062

Louisiana DEQ Certification #: 03086

Louisiana DW Certification #: MN00064

Maine Certification #: MN00064

Maryland Certification #: 322

Massachusetts Certification #: M-MN064

Michigan Certification #: 9909

Minnesota Certification #: 027-053-137

Mississippi Certification #: MN00064

Montana Certification #: CERT0092

Nebraska Certification #: NE-OS-18-06

Nevada Certification #: MN00064

New Hampshire Certification #: 2081

New Jersey Certification #: MN002

New York Certification #: 11647

North Carolina DW Certification #: 27700

North Carolina WW Certification #: 530

North Dakota Certification #: R-036

Ohio DW Certification #: 41244

Ohio VAP Certification #: CL101

Oklahoma Certification #: 9507

Oregon NwTPH Certification #: MN300001

Oregon Secondary Certification #: MN200001

Pennsylvania Certification #: 68-00563

Puerto Rico Certification #: MN00064

South Carolina Certification #: 74003001

Tennessee Certification #: TN02818

Texas Certification #: T104704192

Utah Certification #: MN00064

Virginia Certification #: 460163

Washington Certification #: C486

West Virginia DW Certification #: 9952 C

West Virginia DEP Certification #: 382

Wisconsin Certification #: 999407970

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## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: 7038068 P.W. Grosser Engineer

Pace Project No.: 10414676

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Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
7038068001	SVE-INF	TO-15	NCK	61	PASI-M

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 7038068 P.W. Grosser Engineer

Pace Project No.: 10414676

Sample: SVE-INF		Lab ID: 7038068001	Collected: 12/13/17 12:35	Received: 12/15/17 09:45	Matrix: Air			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>		Analytical Method: TO-15						
Acetone	<15.2	ug/m3	15.2	6.3		12/20/17 03:34	67-64-1	
Benzene	<2.0	ug/m3	2.0	6.3		12/20/17 03:34	71-43-2	
Benzyl chloride	<6.6	ug/m3	6.6	6.3		12/20/17 03:34	100-44-7	
Bromodichloromethane	<8.6	ug/m3	8.6	6.3		12/20/17 03:34	75-27-4	
Bromoform	<13.2	ug/m3	13.2	6.3		12/20/17 03:34	75-25-2	
Bromomethane	<5.0	ug/m3	5.0	6.3		12/20/17 03:34	74-83-9	
1,3-Butadiene	<2.8	ug/m3	2.8	6.3		12/20/17 03:34	106-99-0	
2-Butanone (MEK)	<18.9	ug/m3	18.9	6.3		12/20/17 03:34	78-93-3	
Carbon disulfide	<4.0	ug/m3	4.0	6.3		12/20/17 03:34	75-15-0	
Carbon tetrachloride	<8.1	ug/m3	8.1	6.3		12/20/17 03:34	56-23-5	
Chlorobenzene	<5.9	ug/m3	5.9	6.3		12/20/17 03:34	108-90-7	
Chloroethane	<3.4	ug/m3	3.4	6.3		12/20/17 03:34	75-00-3	
Chloroform	<3.1	ug/m3	3.1	6.3		12/20/17 03:34	67-66-3	
Chloromethane	<2.6	ug/m3	2.6	6.3		12/20/17 03:34	74-87-3	
Cyclohexane	<4.4	ug/m3	4.4	6.3		12/20/17 03:34	110-82-7	
Dibromochloromethane	<10.9	ug/m3	10.9	6.3		12/20/17 03:34	124-48-1	
1,2-Dibromoethane (EDB)	<9.8	ug/m3	9.8	6.3		12/20/17 03:34	106-93-4	
1,2-Dichlorobenzene	<7.7	ug/m3	7.7	6.3		12/20/17 03:34	95-50-1	
1,3-Dichlorobenzene	<7.7	ug/m3	7.7	6.3		12/20/17 03:34	541-73-1	
1,4-Dichlorobenzene	<7.7	ug/m3	7.7	6.3		12/20/17 03:34	106-46-7	
Dichlorodifluoromethane	<6.4	ug/m3	6.4	6.3		12/20/17 03:34	75-71-8	
1,1-Dichloroethane	<5.2	ug/m3	5.2	6.3		12/20/17 03:34	75-34-3	
1,2-Dichloroethane	<2.6	ug/m3	2.6	6.3		12/20/17 03:34	107-06-2	
1,1-Dichloroethene	<5.1	ug/m3	5.1	6.3		12/20/17 03:34	75-35-4	
cis-1,2-Dichloroethene	212	ug/m3	5.1	6.3		12/20/17 03:34	156-59-2	
trans-1,2-Dichloroethene	<5.1	ug/m3	5.1	6.3		12/20/17 03:34	156-60-5	
1,2-Dichloropropane	<5.9	ug/m3	5.9	6.3		12/20/17 03:34	78-87-5	
cis-1,3-Dichloropropene	<5.8	ug/m3	5.8	6.3		12/20/17 03:34	10061-01-5	
trans-1,3-Dichloropropene	<5.8	ug/m3	5.8	6.3		12/20/17 03:34	10061-02-6	
Dichlorotetrafluoroethane	<8.9	ug/m3	8.9	6.3		12/20/17 03:34	76-14-2	
Ethanol	<12.1	ug/m3	12.1	6.3		12/20/17 03:34	64-17-5	
Ethyl acetate	<4.6	ug/m3	4.6	6.3		12/20/17 03:34	141-78-6	
Ethylbenzene	<5.5	ug/m3	5.5	6.3		12/20/17 03:34	100-41-4	
4-Ethyltoluene	<6.3	ug/m3	6.3	6.3		12/20/17 03:34	622-96-8	
n-Heptane	<13.1	ug/m3	13.1	6.3		12/20/17 03:34	142-82-5	
Hexachloro-1,3-butadiene	<13.7	ug/m3	13.7	6.3		12/20/17 03:34	87-68-3	
n-Hexane	<11.3	ug/m3	11.3	6.3		12/20/17 03:34	110-54-3	
2-Hexanone	<26.2	ug/m3	26.2	6.3		12/20/17 03:34	591-78-6	
Methylene Chloride	<55.6	ug/m3	55.6	6.3		12/20/17 03:34	75-09-2	
4-Methyl-2-pentanone (MIBK)	<26.2	ug/m3	26.2	6.3		12/20/17 03:34	108-10-1	
Methyl-tert-butyl ether	<23.1	ug/m3	23.1	6.3		12/20/17 03:34	1634-04-4	
Naphthalene	<16.8	ug/m3	16.8	6.3		12/20/17 03:34	91-20-3	
2-Propanol	<15.8	ug/m3	15.8	6.3		12/20/17 03:34	67-63-0	
Propylene	<5.5	ug/m3	5.5	6.3		12/20/17 03:34	115-07-1	
Styrene	<5.5	ug/m3	5.5	6.3		12/20/17 03:34	100-42-5	
1,1,2,2-Tetrachloroethane	<4.4	ug/m3	4.4	6.3		12/20/17 03:34	79-34-5	
Tetrachloroethene	1240	ug/m3	4.3	6.3		12/20/17 03:34	127-18-4	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 7038068 P.W. Grosser Engineer

Pace Project No.: 10414676

Sample: SVE-INF		Lab ID: 7038068001	Collected: 12/13/17 12:35	Received: 12/15/17 09:45	Matrix: Air			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>		Analytical Method: TO-15						
Tetrahydrofuran	<3.8	ug/m3	3.8	6.3		12/20/17 03:34	109-99-9	
Toluene	<12.1	ug/m3	12.1	6.3		12/20/17 03:34	108-88-3	
1,2,4-Trichlorobenzene	<23.8	ug/m3	23.8	6.3		12/20/17 03:34	120-82-1	
1,1,1-Trichloroethane	<7.0	ug/m3	7.0	6.3		12/20/17 03:34	71-55-6	
1,1,2-Trichloroethane	<3.5	ug/m3	3.5	6.3		12/20/17 03:34	79-00-5	
Trichloroethene	57.9	ug/m3	3.5	6.3		12/20/17 03:34	79-01-6	
Trichlorofluoromethane	<7.2	ug/m3	7.2	6.3		12/20/17 03:34	75-69-4	
1,1,2-Trichlorotrifluoroethane	<10.1	ug/m3	10.1	6.3		12/20/17 03:34	76-13-1	
1,2,4-Trimethylbenzene	<6.3	ug/m3	6.3	6.3		12/20/17 03:34	95-63-6	
1,3,5-Trimethylbenzene	<6.3	ug/m3	6.3	6.3		12/20/17 03:34	108-67-8	
Vinyl acetate	<11.3	ug/m3	11.3	6.3		12/20/17 03:34	108-05-4	
Vinyl chloride	<3.3	ug/m3	3.3	6.3		12/20/17 03:34	75-01-4	
m&p-Xylene	<11.2	ug/m3	11.2	6.3		12/20/17 03:34	179601-23-1	
o-Xylene	<5.5	ug/m3	5.5	6.3		12/20/17 03:34	95-47-6	

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 7038068 P.W. Grosser Engineer  
Pace Project No.: 10414676

QC Batch: 514520 Analysis Method: TO-15  
QC Batch Method: TO-15 Analysis Description: TO15 MSV AIR Low Level  
Associated Lab Samples: 7038068001

METHOD BLANK: 2797971 Matrix: Air  
Associated Lab Samples: 7038068001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/m3	<1.1	1.1	12/19/17 11:57	
1,1,2,2-Tetrachloroethane	ug/m3	<0.70	0.70	12/19/17 11:57	
1,1,2-Trichloroethane	ug/m3	<0.55	0.55	12/19/17 11:57	
1,1,2-Trichlorotrifluoroethane	ug/m3	<1.6	1.6	12/19/17 11:57	
1,1-Dichloroethane	ug/m3	<0.82	0.82	12/19/17 11:57	
1,1-Dichloroethene	ug/m3	<0.81	0.81	12/19/17 11:57	
1,2,4-Trichlorobenzene	ug/m3	<3.8	3.8	12/19/17 11:57	
1,2,4-Trimethylbenzene	ug/m3	<1.0	1.0	12/19/17 11:57	
1,2-Dibromoethane (EDB)	ug/m3	<1.6	1.6	12/19/17 11:57	
1,2-Dichlorobenzene	ug/m3	<1.2	1.2	12/19/17 11:57	
1,2-Dichloroethane	ug/m3	<0.41	0.41	12/19/17 11:57	
1,2-Dichloropropane	ug/m3	<0.94	0.94	12/19/17 11:57	
1,3,5-Trimethylbenzene	ug/m3	<1.0	1.0	12/19/17 11:57	
1,3-Butadiene	ug/m3	<0.45	0.45	12/19/17 11:57	
1,3-Dichlorobenzene	ug/m3	<1.2	1.2	12/19/17 11:57	
1,4-Dichlorobenzene	ug/m3	<1.2	1.2	12/19/17 11:57	
2-Butanone (MEK)	ug/m3	<3.0	3.0	12/19/17 11:57	
2-Hexanone	ug/m3	<4.2	4.2	12/19/17 11:57	
2-Propanol	ug/m3	<2.5	2.5	12/19/17 11:57	
4-Ethyltoluene	ug/m3	<1.0	1.0	12/19/17 11:57	
4-Methyl-2-pentanone (MIBK)	ug/m3	<4.2	4.2	12/19/17 11:57	
Acetone	ug/m3	<2.4	2.4	12/19/17 11:57	
Benzene	ug/m3	<0.32	0.32	12/19/17 11:57	
Benzyl chloride	ug/m3	<1.0	1.0	12/19/17 11:57	
Bromodichloromethane	ug/m3	<1.4	1.4	12/19/17 11:57	
Bromoform	ug/m3	<2.1	2.1	12/19/17 11:57	
Bromomethane	ug/m3	<0.79	0.79	12/19/17 11:57	
Carbon disulfide	ug/m3	<0.63	0.63	12/19/17 11:57	
Carbon tetrachloride	ug/m3	<1.3	1.3	12/19/17 11:57	MN
Chlorobenzene	ug/m3	<0.94	0.94	12/19/17 11:57	
Chloroethane	ug/m3	<0.54	0.54	12/19/17 11:57	
Chloroform	ug/m3	<0.50	0.50	12/19/17 11:57	
Chloromethane	ug/m3	<0.42	0.42	12/19/17 11:57	
cis-1,2-Dichloroethene	ug/m3	<0.81	0.81	12/19/17 11:57	
cis-1,3-Dichloropropene	ug/m3	<0.92	0.92	12/19/17 11:57	
Cyclohexane	ug/m3	<0.70	0.70	12/19/17 11:57	
Dibromochloromethane	ug/m3	<1.7	1.7	12/19/17 11:57	
Dichlorodifluoromethane	ug/m3	<1.0	1.0	12/19/17 11:57	
Dichlorotetrafluoroethane	ug/m3	<1.4	1.4	12/19/17 11:57	
Ethanol	ug/m3	<1.9	1.9	12/19/17 11:57	MN
Ethyl acetate	ug/m3	<0.73	0.73	12/19/17 11:57	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 7038068 P.W. Grosser Engineer

Pace Project No.: 10414676

METHOD BLANK: 2797971

Matrix: Air

Associated Lab Samples: 7038068001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethylbenzene	ug/m3	<0.88	0.88	12/19/17 11:57	
Hexachloro-1,3-butadiene	ug/m3	<2.2	2.2	12/19/17 11:57	
m&p-Xylene	ug/m3	<1.8	1.8	12/19/17 11:57	
Methyl-tert-butyl ether	ug/m3	<3.7	3.7	12/19/17 11:57	
Methylene Chloride	ug/m3	<8.8	8.8	12/19/17 11:57	MN
n-Heptane	ug/m3	<2.1	2.1	12/19/17 11:57	MN
n-Hexane	ug/m3	<1.8	1.8	12/19/17 11:57	MN
Naphthalene	ug/m3	<2.7	2.7	12/19/17 11:57	
o-Xylene	ug/m3	<0.88	0.88	12/19/17 11:57	
Propylene	ug/m3	<0.88	0.88	12/19/17 11:57	MN
Styrene	ug/m3	<0.87	0.87	12/19/17 11:57	
Tetrachloroethene	ug/m3	<0.69	0.69	12/19/17 11:57	
Tetrahydrofuran	ug/m3	<0.60	0.60	12/19/17 11:57	
Toluene	ug/m3	<1.9	1.9	12/19/17 11:57	MN
trans-1,2-Dichloroethene	ug/m3	<0.81	0.81	12/19/17 11:57	
trans-1,3-Dichloropropene	ug/m3	<0.92	0.92	12/19/17 11:57	
Trichloroethene	ug/m3	<0.55	0.55	12/19/17 11:57	
Trichlorofluoromethane	ug/m3	<1.1	1.1	12/19/17 11:57	
Vinyl acetate	ug/m3	<1.8	1.8	12/19/17 11:57	MN
Vinyl chloride	ug/m3	<0.52	0.52	12/19/17 11:57	MN

LABORATORY CONTROL SAMPLE: 2797972

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/m3	55.5	63.7	115	70-134	
1,1,2,2-Tetrachloroethane	ug/m3	69.8	86.1	123	70-130	
1,1,2-Trichloroethane	ug/m3	55.5	65.7	118	70-130	
1,1,2-Trichlorotrifluoroethane	ug/m3	77.9	93.2	120	70-130	
1,1-Dichloroethane	ug/m3	41.1	46.4	113	70-130	
1,1-Dichloroethene	ug/m3	40.3	46.1	114	70-130	
1,2,4-Trichlorobenzene	ug/m3	75.4	96.4	128	60-150	
1,2,4-Trimethylbenzene	ug/m3	50	60.2	120	70-136	
1,2-Dibromoethane (EDB)	ug/m3	78.1	95.1	122	70-130	
1,2-Dichlorobenzene	ug/m3	61.1	76.4	125	70-139	
1,2-Dichloroethane	ug/m3	41.1	47.9	116	70-130	
1,2-Dichloropropane	ug/m3	47	53.4	114	70-131	
1,3,5-Trimethylbenzene	ug/m3	50	58.7	118	70-133	
1,3-Butadiene	ug/m3	22.5	23.8	106	70-130	
1,3-Dichlorobenzene	ug/m3	61.1	75.3	123	70-144	
1,4-Dichlorobenzene	ug/m3	61.1	76.2	125	70-139	
2-Butanone (MEK)	ug/m3	30	31.1	104	70-130	
2-Hexanone	ug/m3	104	135	130	70-138 MN	
2-Propanol	ug/m3	125	161	129	70-130	
4-Ethyltoluene	ug/m3	50	60.4	121	70-135	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 7038068 P.W. Grosser Engineer

Pace Project No.: 10414676

LABORATORY CONTROL SAMPLE: 2797972

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
4-Methyl-2-pentanone (MIBK)	ug/m3	104	126	121	70-130	
Acetone	ug/m3	121	159	132	64-130	CH,L1
Benzene	ug/m3	32.5	38.6	119	70-130	
Benzyl chloride	ug/m3	52.6	74.7	142	70-144	CH
Bromodichloromethane	ug/m3	68.1	74.0	109	70-134	
Bromoform	ug/m3	105	138	131	70-150	CH
Bromomethane	ug/m3	39.5	43.4	110	70-130	
Carbon disulfide	ug/m3	31.6	35.7	113	70-134	
Carbon tetrachloride	ug/m3	64	72.9	114	68-150	
Chlorobenzene	ug/m3	46.8	53.2	114	70-132	
Chloroethane	ug/m3	26.8	28.5	106	70-132	
Chloroform	ug/m3	49.6	57.1	115	70-130	
Chloromethane	ug/m3	21	24.3	116	70-130	
cis-1,2-Dichloroethene	ug/m3	40.3	48.0	119	70-133	
cis-1,3-Dichloropropene	ug/m3	46.1	50.8	110	70-137	
Cyclohexane	ug/m3	35	42.0	120	70-130	
Dibromochloromethane	ug/m3	86.6	103	119	70-144	
Dichlorodifluoromethane	ug/m3	50.3	55.0	110	70-130	
Dichlorotetrafluoroethane	ug/m3	71	82.9	117	70-130	
Ethanol	ug/m3	91.6	114	125	70-136	
Ethyl acetate	ug/m3	36.6	44.4	121	70-130	
Ethylbenzene	ug/m3	44.1	50.0	113	70-134	
Hexachloro-1,3-butadiene	ug/m3	108	133	122	45-150	
m&p-Xylene	ug/m3	88.3	101	114	70-130	
Methyl-tert-butyl ether	ug/m3	91.6	105	114	66-148	
Methylene Chloride	ug/m3	177	182	103	67-133	
n-Heptane	ug/m3	41.6	43.3	104	70-130	
n-Hexane	ug/m3	35.8	39.8	111	67-132	
Naphthalene	ug/m3	53.3	63.8	120	53-150	
o-Xylene	ug/m3	44.1	49.8	113	70-130	
Propylene	ug/m3	17.5	18.5	106	70-135	
Styrene	ug/m3	43.3	52.3	121	70-139	
Tetrachloroethene	ug/m3	68.9	82.6	120	70-130	
Tetrahydrofuran	ug/m3	30	37.3	124	70-130	
Toluene	ug/m3	38.3	46.8	122	70-130	
trans-1,2-Dichloroethene	ug/m3	40.3	48.3	120	70-131	
trans-1,3-Dichloropropene	ug/m3	46.1	53.5	116	70-142	
Trichloroethene	ug/m3	54.6	65.6	120	70-130	
Trichlorofluoromethane	ug/m3	57.1	67.7	118	70-130	
Vinyl acetate	ug/m3	35.8	38.1	106	70-137	
Vinyl chloride	ug/m3	26	32.2	124	70-130	

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### QUALITY CONTROL DATA

Project: 7038068 P.W. Grosser Engineer

Pace Project No.: 10414676

SAMPLE DUPLICATE: 2799287

Parameter	Units	92367347001 Result	Dup Result	RPD	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	<1.9		
1,1,2,2-Tetrachloroethane	ug/m3	ND	<1.2		
1,1,2-Trichloroethane	ug/m3	ND	<0.92		
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	<2.7		
1,1-Dichloroethane	ug/m3	ND	<1.4		
1,1-Dichloroethene	ug/m3	ND	<1.4		
1,2,4-Trichlorobenzene	ug/m3	ND	<6.3		
1,2,4-Trimethylbenzene	ug/m3	ND	<1.7		
1,2-Dibromoethane (EDB)	ug/m3	ND	<2.6		
1,2-Dichlorobenzene	ug/m3	ND	<2.0		
1,2-Dichloroethane	ug/m3	ND	<0.69		
1,2-Dichloropropane	ug/m3	ND	<1.6		
1,3,5-Trimethylbenzene	ug/m3	ND	<1.7		
1,3-Butadiene	ug/m3	ND	<0.76		
1,3-Dichlorobenzene	ug/m3	ND	<2.0		
1,4-Dichlorobenzene	ug/m3	ND	<2.0		
2-Butanone (MEK)	ug/m3	ND	<5.0		
2-Hexanone	ug/m3	ND	<7.0		
2-Propanol	ug/m3	ND	<4.2		
4-Ethyltoluene	ug/m3	ND	<1.7		
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	<7.0		
Acetone	ug/m3	4.8	5.2		9 CH
Benzene	ug/m3	0.74	0.78		5
Benzyl chloride	ug/m3	ND	<1.8		
Bromodichloromethane	ug/m3	ND	<2.3		
Bromoform	ug/m3	ND	<3.5		
Bromomethane	ug/m3	ND	<1.3		
Carbon disulfide	ug/m3	ND	<1.1		
Carbon tetrachloride	ug/m3	ND	<2.1		
Chlorobenzene	ug/m3	ND	<1.6		
Chloroethane	ug/m3	ND	<0.91		
Chloroform	ug/m3	ND	<0.83		
Chloromethane	ug/m3	ND	<0.71		
cis-1,2-Dichloroethene	ug/m3	ND	<1.4		
cis-1,3-Dichloropropene	ug/m3	ND	<1.5		
Cyclohexane	ug/m3	ND	<1.2		
Dibromochloromethane	ug/m3	ND	<2.9		
Dichlorodifluoromethane	ug/m3	ND	<1.7		
Dichlorotetrafluoroethane	ug/m3	ND	<2.4		
Ethanol	ug/m3	86.7	92.6		7
Ethyl acetate	ug/m3	ND	<1.2		
Ethylbenzene	ug/m3	1.8	1.9		5
Hexachloro-1,3-butadiene	ug/m3	ND	<3.6		
m&p-Xylene	ug/m3	3.0	3.2		5
Methyl-tert-butyl ether	ug/m3	ND	<6.2		
Methylene Chloride	ug/m3	ND	<14.8		
n-Heptane	ug/m3	ND	<3.5		

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### QUALITY CONTROL DATA

Project: 7038068 P.W. Grosser Engineer

Pace Project No.: 10414676

SAMPLE DUPLICATE: 2799287

Parameter	Units	92367347001 Result	Dup Result	RPD	Qualifiers
n-Hexane	ug/m3	4.0	4.2	5	
Naphthalene	ug/m3	ND	<4.5		
o-Xylene	ug/m3	ND	<1.5		
Propylene	ug/m3	ND	<1.5		
Styrene	ug/m3	ND	<1.5		
Tetrachloroethene	ug/m3	ND	<1.2		
Tetrahydrofuran	ug/m3	ND	<1.0		
Toluene	ug/m3	ND	<3.2		
trans-1,2-Dichloroethene	ug/m3	ND	<1.4		
trans-1,3-Dichloropropene	ug/m3	ND	<1.5		
Trichloroethene	ug/m3	ND	<0.92		
Trichlorofluoromethane	ug/m3	ND	<1.9		
Vinyl acetate	ug/m3	ND	<3.0		
Vinyl chloride	ug/m3	ND	<0.87		

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### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: 7038068 P.W. Grosser Engineer

Pace Project No.: 10414676

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### 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.

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.

### LABORATORIES

PASI-M Pace Analytical Services - Minneapolis

### ANALYTE QUALIFIERS

CH The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.

L1 Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.

MN The reporting limit has been raised in accordance with Minnesota Statutes 4740.2100 Subpart 8. C, D. Reporting Limit Evaluation Rule.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 7038068 P.W. Grosser Engineer  
Pace Project No.: 10414676

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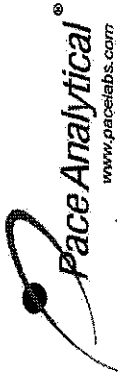
Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
7038068001	SVE-INF	TO-15	514520		

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### REPORT OF LABORATORY ANALYSIS

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# Chain of Custody



Workorder: 7038068

Workorder Name: MINMILT MIN1001

Owner Received Date: 12/13/2017 Results Requested By: 12/22/2017

Report To: Elizabeth Harrison  
 Pace Analytical Melville  
 575 Broad Hollow Road  
 Melville, NY 11747  
 Phone (631)694-3040

Subcontract To: Pace Analytical Minnesota  
 1700 Elm Street  
 Suite 200  
 Minneapolis, MN 55414  
 Phone (612)607-1700

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Preserved Containers		Requested Analysis	LAB USE ONLY
					Main	Other		
1	SVE-INF	PS	12/13/2017 12:35	7038068001	Air	1		
2								
3								
4								
5								

Transfers	Released By	Date/Time	Received By	Date/Time	Received on Ice	Y or N	Samples Intact	Y or N	Comments
1	<i>[Signature]</i>	12/14/17 15:00	<i>[Signature]</i>	12-15-17 9:45					
2									
3									

COOLER TEMPERATURE ON RECEIPT: \_\_\_\_\_ °C

\*\*\*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.



# AIR: CHAIN-OF-CUSTODY /

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

WO#: 7038068



**Section A**  
 Required Client Information:  
 Company: PWGC  
 Address: 630 Johnson Ave  
 Bohemia, NY 11716  
 Email To: Krosby@pwgros.com  
 Phone: 831-549-6353  
 Requested Due Date/TAT: Standard

**Section B**  
 Required Project Information:  
 Report To: Kaitlyn Crosby  
 Copy To: Brian Barth  
 Purchase Order No.:  
 Project Name: Min Mill  
 Project Number: MEA1001

**Section C**  
 Invoice Information:  
 Attention: Same as Client  
 Company Name:  
 Address:  
 Pace Quote Reference:  
 Pace Project Manager/Sales Rep: Bethy Harrison  
 Pace Profile #: 38150

ITEM #	Valid Media Codes MEDIA CODE Treater Bag 1 Liter Summa Can 1LC 6 Liter Summa Can 6LC Low Volume Puff LVP High Volume Puff HVP Other PM10	COLLECTED		Flow Control Number	Summa Can Number	Pace Lab ID
		DATE	TIME			
1	SVE - IUF	12-13-17	1235	---	1638	001
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						

**Section D** Required Client Information  
**AIR SAMPLE ID**  
 Sample IDs MUST BE UNIQUE

Method:  
 PM10  
 3C - Fixed Gas (%)  
 TO-3M (Methane)  
 TO-3 BTEX  
 TO-15 Full List VOCs  
 TO-15 Short List BTEX  
 TO-15 Short List Chlorinated  
 TO-15 Short List (Other)

Report Level I. II. III. IV. Other

Location of Sampling by State  
 Reporting Units  
 ug/m<sup>3</sup> mg/m<sup>3</sup>  
 PPMV PPMV  
 Other

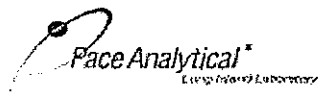
Program  
 UST Superfund  
 Emissions  
 Clean Air Act  
 Voluntary Clean Up  
 Dry Clean  
 RCRA  
 Other

Temp in °C  
 Received in Ice  
 Custody Sealed Cooler  
 Samples Intact

RELINQUISHED BY / AFFILIATION: *Paula Ann Pngc* DATE: 12-13-17 TIME: 1320  
 ACCEPTED BY / AFFILIATION: *[Signature]* DATE: 12/13/17 TIME: 1320

SAMPLER NAME AND SIGNATURE  
 PRINT Name of SAMPLER: Kaitlyn Grosby  
 SIGNATURE of SAMPLER: *[Signature]* DATE Signed (MM / DD / YY): 12/13/17

ORIGINAL



### Sample Condition Upon Receipt

Client Name: PWGC

Project

**WO#: 7038068**

PM: EMH Due Date: 12/22/17

CLIENT: PWG

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      Type of Ice: Wet Blue  None

Thermometer Used: A092      Correction Factor: +0.0       Samples on ice, cooling process has begun

Cooler Temperature (°C): \_\_\_\_\_      Cooler Temperature Corrected (°C): \_\_\_\_\_      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: 12/13/17 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 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-LI-C-010) and include with SCUR/COC paperwork.

		COMMENTS:
Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume: (Triple volume provided for MS/MSD)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11. Note if sediment is visible in the dissolved container.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	12.
-Includes date/time/ID/Analysis Matrix SL WT OIL	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
All containers needing preservation have been checked	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13. <input type="checkbox"/> HNO <sub>3</sub> <input type="checkbox"/> H <sub>2</sub> SO <sub>4</sub> <input type="checkbox"/> NaOH <input type="checkbox"/> HCl
pH paper Lot #		Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub> , HCl, NaOH>9 Sulfide, NaOH>12 Cyanide) Exceptions: VOA, Coliform, TOC/DOC, Oil and Grease, DRO/8015 (water). Per Method, VOA pH is checked after analysis	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14. Positive for Res. Chlorine? Y N
Residual chlorine strips Lot #		
Headspace in VOA Vials (>8mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if applicable):		

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


Person Contacted: \_\_\_\_\_      Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

**Air Sample Condition Upon Receipt**

Client Name: Pace NY Project #: \_\_\_\_\_

**WO# : 10414676**



10414676

Courier:  Fed Ex  UPS  Speedee  Client  
 Commercial  Pace  Other: \_\_\_\_\_

Tracking Number: 4158 3814 6574

Optional: Proj. Due Date: \_\_\_\_\_ Proj. Name: \_\_\_\_\_

Custody Seal on Cooler/Box Present?  Yes  No Seals Intact?  Yes  No  
Packing Material:  Bubble Wrap  Bubble Bags  Foam  None  Tin Can  Other: \_\_\_\_\_ Temp Blank rec:  Yes  No

Temp. (TO17 and TO13 samples only) (°C): X Corrected Temp (°C): X Thermom. Used:  151401163  
 G87A9155100842  
Temp should be above freezing to 6°C Correction Factor: X Date & Initials of Person Examining Contents: 12-15-17 AA

Type of ice Received  Blue  Wet  None

**Comments:**

Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name and/or Signature on COC?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Media: <u>MFCan</u> Airbag Filter TDT Passive		11. Individually Certified Cans Y <u>N</u> (list which samples)
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.

Canisters					Canisters				
Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure	Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure
<u>001</u>	<u>1638</u>	<u>-</u>	<u>+1</u>	<u>+5</u>					

**CLIENT NOTIFICATION/RESOLUTION** Field Data Required?  Yes  No  
Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
Comments/Resolution: \_\_\_\_\_

Project Manager Review: Joanne Richardson Date: 12-15-17

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)



### ANALYTICAL RESULTS

Client: PASI Long Island- Melville  
 Phone: 631 694-3040

Lab Project Number: 10414676  
 Project Name: 7038068 P.W. Grosser Engineer

Lab Sample No: 7038068001  
 Client Sample ID: SVE-INF

ProjSampleNum: 7038068001  
 Matrix: Air

Date Collected: 12/13/17 12:35  
 Date Received: 12/15/17 9:45

Parameters	Report Limit ug/m3	Results ug/m3	Report Limit ppbv	Results ppbv	DF	Analyzed	CAS No.
<b>Air</b>							
TO-15							
1,1,1-Trichloroethane	7	<7.0	1.3	<1.3	6.3	12/20/17 3:34 NCK	71-55-6
1,1,2,2-Tetrachloroethane	4.4	<4.4	0.63	<0.63	6.3	12/20/17 3:34 NCK	79-34-5
1,1,2-Trichloroethane	3.5	<3.5	0.63	<0.63	6.3	12/20/17 3:34 NCK	79-00-5
1,1,2-Trichlorotrifluoroethane	10.1	<10.1	1.3	<1.3	6.3	12/20/17 3:34 NCK	76-13-1
1,1-Dichloroethane	5.2	<5.2	1.3	<1.3	6.3	12/20/17 3:34 NCK	75-34-3
1,1-Dichloroethene	5.1	<5.1	1.3	<1.3	6.3	12/20/17 3:34 NCK	75-35-4
1,2,4-Trichlorobenzene	23.8	<23.8	3.2	<3.2	6.3	12/20/17 3:34 NCK	120-82-1
1,2,4-Trimethylbenzene	6.3	<6.3	1.3	<1.3	6.3	12/20/17 3:34 NCK	95-63-6
1,2-Dibromoethane (EDB)	9.8	<9.8	1.3	<1.3	6.3	12/20/17 3:34 NCK	106-93-4
1,2-Dichlorobenzene	7.7	<7.7	1.3	<1.3	6.3	12/20/17 3:34 NCK	95-50-1
1,2-Dichloroethane	2.6	<2.6	0.63	<0.63	6.3	12/20/17 3:34 NCK	107-06-2
1,2-Dichloropropane	5.9	<5.9	1.3	<1.3	6.3	12/20/17 3:34 NCK	78-87-5
1,3,5-Trimethylbenzene	6.3	<6.3	1.3	<1.3	6.3	12/20/17 3:34 NCK	108-67-8
1,3-Butadiene	2.8	<2.8	1.2	<1.2	6.3	12/20/17 3:34 NCK	106-99-0
1,3-Dichlorobenzene	7.7	<7.7	1.3	<1.3	6.3	12/20/17 3:34 NCK	541-73-1
1,4-Dichlorobenzene	7.7	<7.7	1.3	<1.3	6.3	12/20/17 3:34 NCK	106-46-7
2-Butanone (MEK)	18.9	<18.9	6.3	<6.3	6.3	12/20/17 3:34 NCK	78-93-3
2-Hexanone	26.2	<26.2	6.3	<6.3	6.3	12/20/17 3:34 NCK	591-78-6
2-Propanol	15.8	<15.8	6.3	<6.3	6.3	12/20/17 3:34 NCK	67-63-0
4-Ethyltoluene	6.3	<6.3	1.3	<1.3	6.3	12/20/17 3:34 NCK	622-96-8
4-Methyl-2-pentanone (MIBK)	26.2	<26.2	6.3	<6.3	6.3	12/20/17 3:34 NCK	108-10-1
Acetone	15.2	<15.2	6.3	<6.3	6.3	12/20/17 3:34 NCK	67-64-1
Benzene	2	<2.0	0.62	<0.62	6.3	12/20/17 3:34 NCK	71-43-2
Benzyl chloride	6.6	<6.6	1.3	<1.3	6.3	12/20/17 3:34 NCK	100-44-7
Bromodichloromethane	8.6	<8.6	1.3	<1.3	6.3	12/20/17 3:34 NCK	75-27-4
Bromoform	13.2	<13.2	1.3	<1.3	6.3	12/20/17 3:34 NCK	75-25-2
Bromomethane	5	<5.0	1.3	<1.3	6.3	12/20/17 3:34 NCK	74-83-9
Carbon disulfide	4	<4.0	1.3	<1.3	6.3	12/20/17 3:34 NCK	75-15-0
Carbon tetrachloride	8.1	<8.1	1.3	<1.3	6.3	12/20/17 3:34 NCK	56-23-5
Chlorobenzene	5.9	<5.9	1.3	<1.3	6.3	12/20/17 3:34 NCK	108-90-7
Chloroethane	3.4	<3.4	1.3	<1.3	6.3	12/20/17 3:34 NCK	75-00-3
Chloroform	3.1	<3.1	0.62	<0.62	6.3	12/20/17 3:34 NCK	67-66-3
Chloromethane	2.6	<2.6	1.2	<1.2	6.3	12/20/17 3:34 NCK	74-87-3
cis-1,2-Dichloroethene	5.1	212	1.3	52.6	6.3	12/20/17 3:34 NCK	156-59-2
cis-1,3-Dichloropropene	5.8	<5.8	1.3	<1.3	6.3	12/20/17 3:34 NCK	10061-01-5
Cyclohexane	4.4	<4.4	1.3	<1.3	6.3	12/20/17 3:34 NCK	110-82-7
Dibromochloromethane	10.9	<10.9	1.3	<1.3	6.3	12/20/17 3:34 NCK	124-48-1
Dichlorodifluoromethane	6.4	<6.4	1.3	<1.3	6.3	12/20/17 3:34 NCK	75-71-8
Dichlorotetrafluoroethane	8.9	<8.9	1.3	<1.3	6.3	12/20/17 3:34 NCK	76-14-2
Ethanol	12.1	<12.1	6.3	<6.3	6.3	12/20/17 3:34 NCK	64-17-5
Ethyl acetate	4.6	<4.6	1.3	<1.3	6.3	12/20/17 3:34 NCK	141-78-6

### SUPPLEMENTAL REPORT





Pace Analytical Services, Inc.  
 1700 Elm Street – Suite 200  
 Minneapolis, MN 55414  
 Phone: 612.607.1700  
 Fax: 612.607.6444

**ANALYTICAL RESULTS**

Client: PASI Long Island- Melville  
 Phone: 631 694-3040

Lab Project Number: 10414676  
 Project Name: 7038068 P.W. Grosser Engineer

Ethylbenzene	5.5	<5.5	1.2	<1.2	6.3	12/20/17 3:34	NCK	100-41-4
Hexachloro-1,3-butadiene	13.7	<13.7	1.3	<1.3	6.3	12/20/17 3:34	NCK	87-68-3
m&p-Xylene	11.2	<11.2	2.5	<2.5	6.3	12/20/17 3:34	NCK	179601-23-1
Methylene Chloride	55.6	<55.6	15.7	<15.7	6.3	12/20/17 3:34	NCK	75-09-2
Methyl-tert-butyl ether	23.1	<23.1	6.3	<6.3	6.3	12/20/17 3:34	NCK	1634-04-4
Naphthalene	16.8	<16.8	3.2	<3.2	6.3	12/20/17 3:34	NCK	91-20-3
n-Heptane	13.1	<13.1	3.1	<3.1	6.3	12/20/17 3:34	NCK	142-82-5
n-Hexane	11.3	<11.3	3.2	<3.2	6.3	12/20/17 3:34	NCK	110-54-3
o-Xylene	5.5	<5.5	1.2	<1.2	6.3	12/20/17 3:34	NCK	95-47-6
Propylene	5.5	<5.5	3.1	<3.1	6.3	12/20/17 3:34	NCK	115-07-1
Styrene	5.5	<5.5	1.3	<1.3	6.3	12/20/17 3:34	NCK	100-42-5
Tetrachloroethene	4.3	1240	0.62	180	6.3	12/20/17 3:34	NCK	127-18-4
Tetrahydrofuran	3.8	<3.8	1.3	<1.3	6.3	12/20/17 3:34	NCK	109-99-9
Toluene	12.1	<12.1	3.2	<3.2	6.3	12/20/17 3:34	NCK	108-88-3
trans-1,2-Dichloroethene	5.1	<5.1	1.3	<1.3	6.3	12/20/17 3:34	NCK	156-60-5
trans-1,3-Dichloropropene	5.8	<5.8	1.3	<1.3	6.3	12/20/17 3:34	NCK	10061-02-6
Trichloroethene	3.5	57.9	0.64	10.6	6.3	12/20/17 3:34	NCK	79-01-6
Trichlorofluoromethane	7.2	<7.2	1.3	<1.3	6.3	12/20/17 3:34	NCK	75-69-4
Vinyl acetate	11.3	<11.3	3.2	<3.2	6.3	12/20/17 3:34	NCK	108-05-4
Vinyl chloride	3.3	<3.3	1.3	<1.3	6.3	12/20/17 3:34	NCK	75-01-4

**SUPPLEMENTAL REPORT**

Units Conversion Request

December 27, 2017

Brian Barth  
P.W. Grosser Engineer & Hydrogeologist  
630 Johnson Avenue  
Suite 7  
Bohemia, NY 11716

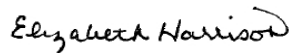
RE: Project: MINMILT MIN1001 12/13  
Pace Project No.: 7038041

Dear Brian Barth:

Enclosed are the analytical results for sample(s) received by the laboratory on December 13, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,



Elizabeth Harrison  
betty.harrison@pacelabs.com  
(631)694-3040  
Project Manager

Enclosures

cc: Kaitlyn Crosby, P.W. Grosser Engineer & Hydrogeologist



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: MINMILT MIN1001 12/13

Pace Project No.: 7038041

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### Long Island Certification IDs

575 Broad Hollow Rd, Melville, NY 11747

New York Certification #: 10478 Primary Accrediting Body

New Jersey Certification #: NY158

Pennsylvania Certification #: 68-00350

Connecticut Certification #: PH-0435

Maryland Certification #: 208

Rhode Island Certification #: LAO00340

Massachusetts Certification #: M-NY026

New Hampshire Certification #: 2987

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## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: MINMILT MIN1001 12/13

Pace Project No.: 7038041

Sample: <b>SYS-EFF</b>	Lab ID: <b>7038041001</b>	Collected: 12/13/17 12:45	Received: 12/13/17 13:20	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Metals, Total</b>		Analytical Method: EPA 200.7 Preparation Method: EPA 200.7						
Iron	<b>5980</b>	ug/L	20.0	1	12/19/17 08:48	12/26/17 16:33	7439-89-6	
<b>8260C Volatile Organics</b>		Analytical Method: EPA 8260C/5030C						
Acetone	< <b>5.0</b>	ug/L	5.0	1		12/16/17 21:52	67-64-1	
Benzene	ND	ug/L	1.0	1		12/16/17 21:52	71-43-2	
Bromodichloromethane	< <b>1.0</b>	ug/L	1.0	1		12/16/17 21:52	75-27-4	
Bromoform	< <b>1.0</b>	ug/L	1.0	1		12/16/17 21:52	75-25-2	
Bromomethane	< <b>1.0</b>	ug/L	1.0	1		12/16/17 21:52	74-83-9	CL
2-Butanone (MEK)	< <b>5.0</b>	ug/L	5.0	1		12/16/17 21:52	78-93-3	CL
Carbon disulfide	< <b>1.0</b>	ug/L	1.0	1		12/16/17 21:52	75-15-0	
Carbon tetrachloride	< <b>1.0</b>	ug/L	1.0	1		12/16/17 21:52	56-23-5	
Chlorobenzene	< <b>1.0</b>	ug/L	1.0	1		12/16/17 21:52	108-90-7	
Chloroethane	< <b>1.0</b>	ug/L	1.0	1		12/16/17 21:52	75-00-3	
Chloroform	< <b>1.0</b>	ug/L	1.0	1		12/16/17 21:52	67-66-3	
Chloromethane	< <b>1.0</b>	ug/L	1.0	1		12/16/17 21:52	74-87-3	CL
Dibromochloromethane	< <b>1.0</b>	ug/L	1.0	1		12/16/17 21:52	124-48-1	
1,1-Dichloroethane	< <b>1.0</b>	ug/L	1.0	1		12/16/17 21:52	75-34-3	
1,2-Dichloroethane	< <b>1.0</b>	ug/L	1.0	1		12/16/17 21:52	107-06-2	
1,2-Dichloroethene (Total)	< <b>2.0</b>	ug/L	2.0	1		12/16/17 21:52	540-59-0	
1,1-Dichloroethene	< <b>1.0</b>	ug/L	1.0	1		12/16/17 21:52	75-35-4	
1,2-Dichloropropane	< <b>1.0</b>	ug/L	1.0	1		12/16/17 21:52	78-87-5	
cis-1,3-Dichloropropene	< <b>1.0</b>	ug/L	1.0	1		12/16/17 21:52	10061-01-5	
trans-1,3-Dichloropropene	< <b>1.0</b>	ug/L	1.0	1		12/16/17 21:52	10061-02-6	
Ethylbenzene	< <b>1.0</b>	ug/L	1.0	1		12/16/17 21:52	100-41-4	
2-Hexanone	< <b>5.0</b>	ug/L	5.0	1		12/16/17 21:52	591-78-6	
Methylene Chloride	< <b>1.0</b>	ug/L	1.0	1		12/16/17 21:52	75-09-2	
4-Methyl-2-pentanone (MIBK)	< <b>5.0</b>	ug/L	5.0	1		12/16/17 21:52	108-10-1	
Styrene	< <b>1.0</b>	ug/L	1.0	1		12/16/17 21:52	100-42-5	
1,1,2,2-Tetrachloroethane	< <b>1.0</b>	ug/L	1.0	1		12/16/17 21:52	79-34-5	
Tetrachloroethene	< <b>1.0</b>	ug/L	1.0	1		12/16/17 21:52	127-18-4	
Toluene	< <b>1.0</b>	ug/L	1.0	1		12/16/17 21:52	108-88-3	
1,1,1-Trichloroethane	< <b>1.0</b>	ug/L	1.0	1		12/16/17 21:52	71-55-6	
1,1,2-Trichloroethane	< <b>1.0</b>	ug/L	1.0	1		12/16/17 21:52	79-00-5	
Trichloroethene	< <b>1.0</b>	ug/L	1.0	1		12/16/17 21:52	79-01-6	
Vinyl chloride	< <b>1.0</b>	ug/L	1.0	1		12/16/17 21:52	75-01-4	
Xylene (Total)	< <b>2.0</b>	ug/L	2.0	1		12/16/17 21:52	1330-20-7	
<b>Surrogates</b>								
1,2-Dichloroethane-d4 (S)	118	%	68-153	1		12/16/17 21:52	17060-07-0	
4-Bromofluorobenzene (S)	104	%	79-124	1		12/16/17 21:52	460-00-4	
Toluene-d8 (S)	102	%	69-124	1		12/16/17 21:52	2037-26-5	
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM22 4500-H+B						
pH at 25 Degrees C	<b>7.4</b>	Std. Units	0.10	1		12/13/17 16:51		H3,H6, N3

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: MINMILT MIN1001 12/13

Pace Project No.: 7038041

Sample: <b>SYS-INF</b>	Lab ID: <b>7038041002</b>	Collected: 12/13/17 12:55	Received: 12/13/17 13:20	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Metals, Total</b>		Analytical Method: EPA 200.7 Preparation Method: EPA 200.7						
Iron	<b>405</b>	ug/L	20.0	1	12/19/17 08:48	12/26/17 16:38	7439-89-6	
<b>8260C Volatile Organics</b>		Analytical Method: EPA 8260C/5030C						
Acetone	<b>&lt;5.0</b>	ug/L	5.0	1		12/16/17 22:10	67-64-1	
Benzene	ND	ug/L	1.0	1		12/16/17 22:10	71-43-2	
Bromodichloromethane	<b>&lt;1.0</b>	ug/L	1.0	1		12/16/17 22:10	75-27-4	
Bromoform	<b>&lt;1.0</b>	ug/L	1.0	1		12/16/17 22:10	75-25-2	
Bromomethane	<b>&lt;1.0</b>	ug/L	1.0	1		12/16/17 22:10	74-83-9	CL
2-Butanone (MEK)	<b>&lt;5.0</b>	ug/L	5.0	1		12/16/17 22:10	78-93-3	CL
Carbon disulfide	<b>&lt;1.0</b>	ug/L	1.0	1		12/16/17 22:10	75-15-0	
Carbon tetrachloride	<b>&lt;1.0</b>	ug/L	1.0	1		12/16/17 22:10	56-23-5	
Chlorobenzene	<b>&lt;1.0</b>	ug/L	1.0	1		12/16/17 22:10	108-90-7	
Chloroethane	<b>&lt;1.0</b>	ug/L	1.0	1		12/16/17 22:10	75-00-3	
Chloroform	<b>&lt;1.0</b>	ug/L	1.0	1		12/16/17 22:10	67-66-3	
Chloromethane	<b>&lt;1.0</b>	ug/L	1.0	1		12/16/17 22:10	74-87-3	CL
Dibromochloromethane	<b>&lt;1.0</b>	ug/L	1.0	1		12/16/17 22:10	124-48-1	
1,1-Dichloroethane	<b>&lt;1.0</b>	ug/L	1.0	1		12/16/17 22:10	75-34-3	
1,2-Dichloroethane	<b>&lt;1.0</b>	ug/L	1.0	1		12/16/17 22:10	107-06-2	
1,2-Dichloroethene (Total)	<b>&lt;2.0</b>	ug/L	2.0	1		12/16/17 22:10	540-59-0	
1,1-Dichloroethene	<b>&lt;1.0</b>	ug/L	1.0	1		12/16/17 22:10	75-35-4	
1,2-Dichloropropane	<b>&lt;1.0</b>	ug/L	1.0	1		12/16/17 22:10	78-87-5	
cis-1,3-Dichloropropene	<b>&lt;1.0</b>	ug/L	1.0	1		12/16/17 22:10	10061-01-5	
trans-1,3-Dichloropropene	<b>&lt;1.0</b>	ug/L	1.0	1		12/16/17 22:10	10061-02-6	
Ethylbenzene	<b>&lt;1.0</b>	ug/L	1.0	1		12/16/17 22:10	100-41-4	
2-Hexanone	<b>&lt;5.0</b>	ug/L	5.0	1		12/16/17 22:10	591-78-6	
Methylene Chloride	<b>&lt;1.0</b>	ug/L	1.0	1		12/16/17 22:10	75-09-2	
4-Methyl-2-pentanone (MIBK)	<b>&lt;5.0</b>	ug/L	5.0	1		12/16/17 22:10	108-10-1	
Styrene	<b>&lt;1.0</b>	ug/L	1.0	1		12/16/17 22:10	100-42-5	
1,1,2,2-Tetrachloroethane	<b>&lt;1.0</b>	ug/L	1.0	1		12/16/17 22:10	79-34-5	
Tetrachloroethene	<b>1970</b>	ug/L	20.0	20		12/17/17 13:19	127-18-4	
Toluene	<b>&lt;1.0</b>	ug/L	1.0	1		12/16/17 22:10	108-88-3	
1,1,1-Trichloroethane	<b>&lt;1.0</b>	ug/L	1.0	1		12/16/17 22:10	71-55-6	
1,1,2-Trichloroethane	<b>&lt;1.0</b>	ug/L	1.0	1		12/16/17 22:10	79-00-5	
Trichloroethene	<b>21.1</b>	ug/L	1.0	1		12/16/17 22:10	79-01-6	
Vinyl chloride	<b>&lt;1.0</b>	ug/L	1.0	1		12/16/17 22:10	75-01-4	
Xylene (Total)	<b>&lt;2.0</b>	ug/L	2.0	1		12/16/17 22:10	1330-20-7	
<b>Surrogates</b>								
1,2-Dichloroethane-d4 (S)	117	%	68-153	1		12/16/17 22:10	17060-07-0	
4-Bromofluorobenzene (S)	103	%	79-124	1		12/16/17 22:10	460-00-4	
Toluene-d8 (S)	109	%	69-124	1		12/16/17 22:10	2037-26-5	
<b>4500H+ pH, Electrometric</b>		Analytical Method: SM22 4500-H+B						
pH at 25 Degrees C	<b>7.4</b>	Std. Units	0.10	1		12/13/17 16:56		H3,H6, N3

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: MINMILT MIN1001 12/13  
Pace Project No.: 7038041

QC Batch: 50347 Analysis Method: EPA 200.7  
QC Batch Method: EPA 200.7 Analysis Description: 200.7 Metals, Total  
Associated Lab Samples: 7038041001, 7038041002

METHOD BLANK: 233662 Matrix: Water  
Associated Lab Samples: 7038041001, 7038041002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Iron	ug/L	<20.0	20.0	12/26/17 16:22	

LABORATORY CONTROL SAMPLE: 233663

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron	ug/L	2000	2040	102	85-115	

MATRIX SPIKE SAMPLE: 233665

Parameter	Units	7038045013 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron	ug/L	228	2000	2290	103	70-130	

MATRIX SPIKE SAMPLE: 233667

Parameter	Units	7038045014 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron	ug/L	129	2000	2220	104	70-130	

SAMPLE DUPLICATE: 233664

Parameter	Units	7038045013 Result	Dup Result	RPD	Qualifiers
Iron	ug/L	228	210	8	

SAMPLE DUPLICATE: 233666

Parameter	Units	7038045014 Result	Dup Result	RPD	Qualifiers
Iron	ug/L	129	162	23 D6	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: MINMILT MIN1001 12/13

Pace Project No.: 7038041

QC Batch: 50076 Analysis Method: EPA 8260C/5030C  
QC Batch Method: EPA 8260C/5030C Analysis Description: 8260 MSV  
Associated Lab Samples: 7038041001, 7038041002

METHOD BLANK: 232684 Matrix: Water

Associated Lab Samples: 7038041001, 7038041002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	<1.0	1.0	12/16/17 15:23	
1,1,2,2-Tetrachloroethane	ug/L	<1.0	1.0	12/16/17 15:23	
1,1,2-Trichloroethane	ug/L	<1.0	1.0	12/16/17 15:23	
1,1-Dichloroethane	ug/L	<1.0	1.0	12/16/17 15:23	
1,1-Dichloroethene	ug/L	<1.0	1.0	12/16/17 15:23	
1,2-Dichloroethane	ug/L	<1.0	1.0	12/16/17 15:23	
1,2-Dichloroethene (Total)	ug/L	<2.0	2.0	12/16/17 15:23	
1,2-Dichloropropane	ug/L	<1.0	1.0	12/16/17 15:23	
2-Butanone (MEK)	ug/L	<5.0	5.0	12/16/17 15:23	CL
2-Hexanone	ug/L	<5.0	5.0	12/16/17 15:23	
4-Methyl-2-pentanone (MIBK)	ug/L	<5.0	5.0	12/16/17 15:23	
Acetone	ug/L	<5.0	5.0	12/16/17 15:23	
Benzene	ug/L	ND	1.0	12/16/17 15:23	
Bromodichloromethane	ug/L	<1.0	1.0	12/16/17 15:23	
Bromoform	ug/L	<1.0	1.0	12/16/17 15:23	
Bromomethane	ug/L	<1.0	1.0	12/16/17 15:23	CL
Carbon disulfide	ug/L	<1.0	1.0	12/16/17 15:23	
Carbon tetrachloride	ug/L	<1.0	1.0	12/16/17 15:23	
Chlorobenzene	ug/L	<1.0	1.0	12/16/17 15:23	
Chloroethane	ug/L	<1.0	1.0	12/16/17 15:23	
Chloroform	ug/L	<1.0	1.0	12/16/17 15:23	
Chloromethane	ug/L	<1.0	1.0	12/16/17 15:23	CL
cis-1,3-Dichloropropene	ug/L	<1.0	1.0	12/16/17 15:23	
Dibromochloromethane	ug/L	<1.0	1.0	12/16/17 15:23	
Ethylbenzene	ug/L	<1.0	1.0	12/16/17 15:23	
Methylene Chloride	ug/L	<1.0	1.0	12/16/17 15:23	
Styrene	ug/L	<1.0	1.0	12/16/17 15:23	
Tetrachloroethene	ug/L	<1.0	1.0	12/16/17 15:23	
Toluene	ug/L	<1.0	1.0	12/16/17 15:23	
trans-1,3-Dichloropropene	ug/L	<1.0	1.0	12/16/17 15:23	
Trichloroethene	ug/L	<1.0	1.0	12/16/17 15:23	
Vinyl chloride	ug/L	<1.0	1.0	12/16/17 15:23	
Xylene (Total)	ug/L	<2.0	2.0	12/16/17 15:23	
1,2-Dichloroethane-d4 (S)	%	115	68-153	12/16/17 15:23	
4-Bromofluorobenzene (S)	%	104	79-124	12/16/17 15:23	
Toluene-d8 (S)	%	103	69-124	12/16/17 15:23	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: MINMILT MIN1001 12/13

Pace Project No.: 7038041

LABORATORY CONTROL SAMPLE: 232685

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	52.3	105	65-118	
1,1,2,2-Tetrachloroethane	ug/L	50	42.9	86	74-121	
1,1,2-Trichloroethane	ug/L	50	47.7	95	80-117	
1,1-Dichloroethane	ug/L	50	46.6	93	83-151	
1,1-Dichloroethene	ug/L	50	49.0	98	45-146	
1,2-Dichloroethane	ug/L	50	50.8	102	74-129	
1,2-Dichloroethene (Total)	ug/L	100	95.3	95	60-140	
1,2-Dichloropropane	ug/L	50	48.2	96	75-117	
2-Butanone (MEK)	ug/L	50	33.6	67	44-162	CL
2-Hexanone	ug/L	50	46.7	93	32-183	
4-Methyl-2-pentanone (MIBK)	ug/L	50	47.3	95	69-132	
Acetone	ug/L	50	47.2	94	23-188	
Benzene	ug/L	50	48.7	97	73-119	
Bromodichloromethane	ug/L	50	51.9	104	78-117	
Bromoform	ug/L	50	45.1	90	65-122	
Bromomethane	ug/L	50	35.1	70	52-147	CL
Carbon disulfide	ug/L	50	45.5	91	41-144	
Carbon tetrachloride	ug/L	50	49.1	98	59-120	
Chlorobenzene	ug/L	50	47.8	96	75-113	
Chloroethane	ug/L	50	52.4	105	49-151	
Chloroform	ug/L	50	48.6	97	72-122	
Chloromethane	ug/L	50	33.4	67	46-144	CL
cis-1,3-Dichloropropene	ug/L	50	49.6	99	78-116	
Dibromochloromethane	ug/L	50	48.4	97	70-120	
Ethylbenzene	ug/L	50	48.7	97	70-113	
Methylene Chloride	ug/L	50	42.8	86	61-142	
Styrene	ug/L	50	50.9	102	72-118	
Tetrachloroethene	ug/L	50	50.3	101	60-128	
Toluene	ug/L	50	50.4	101	72-119	
trans-1,3-Dichloropropene	ug/L	50	51.7	103	79-116	
Trichloroethene	ug/L	50	51.2	102	69-117	
Vinyl chloride	ug/L	50	44.0	88	43-143	
Xylene (Total)	ug/L	150	148	99	71-109	
1,2-Dichloroethane-d4 (S)	%			113	68-153	
4-Bromofluorobenzene (S)	%			102	79-124	
Toluene-d8 (S)	%			101	69-124	

MATRIX SPIKE SAMPLE: 232703

Parameter	Units	7038272001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	<1.0	50	52.2	104	65-118	
1,1,2,2-Tetrachloroethane	ug/L	<1.0	50	46.8	94	74-121	
1,1,2-Trichloroethane	ug/L	<1.0	50	48.4	97	80-117	
1,1-Dichloroethane	ug/L	<1.0	50	48.5	97	83-151	
1,1-Dichloroethene	ug/L	<1.0	50	50.5	101	45-146	

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### QUALITY CONTROL DATA

Project: MINMILT MIN1001 12/13

Pace Project No.: 7038041

MATRIX SPIKE SAMPLE: 232703

Parameter	Units	7038272001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	<1.0	50	52.4	105	74-129	
1,2-Dichloroethene (Total)	ug/L	<2.0	100	97.3	97	60-140	
1,2-Dichloropropane	ug/L	<1.0	50	48.2	96	75-117	
2-Butanone (MEK)	ug/L	<5.0	50	34.6	69	44-162	CL
2-Hexanone	ug/L	<5.0	50	49.3	99	32-183	
4-Methyl-2-pentanone (MIBK)	ug/L	<5.0	50	51.5	103	69-132	
Acetone	ug/L	<5.0	50	45.5	91	23-188	
Benzene	ug/L	<1.0	50	49.0	98	73-119	
Bromodichloromethane	ug/L	<1.0	50	52.1	104	78-117	
Bromoform	ug/L	<1.0	50	44.7	89	65-122	
Bromomethane	ug/L	<1.0	50	31.0	62	52-147	CL
Carbon disulfide	ug/L	<1.0	50	47.3	95	41-144	
Carbon tetrachloride	ug/L	<1.0	50	48.8	98	59-120	
Chlorobenzene	ug/L	<1.0	50	48.1	96	75-113	
Chloroethane	ug/L	<1.0	50	54.0	108	49-151	
Chloroform	ug/L	<1.0	50	50.5	101	72-122	
Chloromethane	ug/L	<1.0	50	35.1	70	46-144	CL
cis-1,3-Dichloropropene	ug/L	<1.0	50	48.4	97	78-116	
Dibromochloromethane	ug/L	<1.0	50	48.4	97	70-120	
Ethylbenzene	ug/L	<1.0	50	48.7	97	70-113	
Methylene Chloride	ug/L	<1.0	50	43.6	87	61-142	
Styrene	ug/L	<1.0	50	50.1	100	72-118	
Tetrachloroethene	ug/L	<1.0	50	50.8	102	60-128	
Toluene	ug/L	<1.0	50	50.0	100	72-119	
trans-1,3-Dichloropropene	ug/L	<1.0	50	49.7	99	79-116	
Trichloroethene	ug/L	<1.0	50	51.4	103	69-117	
Vinyl chloride	ug/L	<1.0	50	46.4	93	43-143	
Xylene (Total)	ug/L	<2.0	150	148	98	71-109	
1,2-Dichloroethane-d4 (S)	%				115	68-153	
4-Bromofluorobenzene (S)	%				102	79-124	
Toluene-d8 (S)	%				103	69-124	

SAMPLE DUPLICATE: 232702

Parameter	Units	7038096006 Result	Dup Result	RPD	Qualifiers
1,1,1-Trichloroethane	ug/L	<1.0	<1.0		
1,1,2,2-Tetrachloroethane	ug/L	<1.0	<1.0		
1,1,2-Trichloroethane	ug/L	<1.0	<1.0		
1,1-Dichloroethane	ug/L	<1.0	<1.0		
1,1-Dichloroethene	ug/L	<1.0	<1.0		
1,2-Dichloroethane	ug/L	<1.0	<1.0		
1,2-Dichloroethene (Total)	ug/L	<2.0	<2.0		
1,2-Dichloropropane	ug/L	<1.0	<1.0		
2-Butanone (MEK)	ug/L	1.1J	<5.0		CL
2-Hexanone	ug/L	<5.0	<5.0		

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### QUALITY CONTROL DATA

Project: MINMILT MIN1001 12/13

Pace Project No.: 7038041

SAMPLE DUPLICATE: 232702

Parameter	Units	7038096006 Result	Dup Result	RPD	Qualifiers
4-Methyl-2-pentanone (MIBK)	ug/L	<5.0	<5.0		
Acetone	ug/L	26.4	24.9	6	
Benzene	ug/L	<1.0	ND		
Bromodichloromethane	ug/L	<1.0	<1.0		
Bromoform	ug/L	<1.0	<1.0		
Bromomethane	ug/L	<1.0	<1.0		CL
Carbon disulfide	ug/L	<1.0	<1.0		
Carbon tetrachloride	ug/L	<1.0	<1.0		
Chlorobenzene	ug/L	<1.0	<1.0		
Chloroethane	ug/L	<1.0	<1.0		
Chloroform	ug/L	<1.0	<1.0		
Chloromethane	ug/L	<1.0	<1.0		CL
cis-1,3-Dichloropropene	ug/L	<1.0	<1.0		
Dibromochloromethane	ug/L	<1.0	<1.0		
Ethylbenzene	ug/L	<1.0	<1.0		
Methylene Chloride	ug/L	<1.0	<1.0		
Styrene	ug/L	<1.0	<1.0		
Tetrachloroethene	ug/L	<1.0	<1.0		
Toluene	ug/L	<1.0	<1.0		
trans-1,3-Dichloropropene	ug/L	<1.0	<1.0		
Trichloroethene	ug/L	<1.0	<1.0		
Vinyl chloride	ug/L	<1.0	<1.0		
Xylene (Total)	ug/L	<2.0	<2.0		
1,2-Dichloroethane-d4 (S)	%	120	120	1	
4-Bromofluorobenzene (S)	%	103	102	1	
Toluene-d8 (S)	%	102	102	0	

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### QUALITY CONTROL DATA

Project: MINMILT MIN1001 12/13

Pace Project No.: 7038041

QC Batch: 49698 Analysis Method: SM22 4500-H+B

QC Batch Method: SM22 4500-H+B Analysis Description: 4500H+B pH

Associated Lab Samples: 7038041001, 7038041002

SAMPLE DUPLICATE: 230968

Parameter	Units	7038041001 Result	Dup Result	RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.4	7.4	0	H3,H6,N3

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## QUALIFIERS

Project: MINMILT MIN1001 12/13

Pace Project No.: 7038041

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### 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.

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

- |    |                                                                                                                              |
|----|------------------------------------------------------------------------------------------------------------------------------|
| CL | The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low. |
| D6 | The precision between the sample and sample duplicate exceeded laboratory control limits.                                    |
| H3 | Sample was received or analysis requested beyond the recognized method holding time.                                         |
| H6 | Analysis initiated outside of the 15 minute EPA recommended holding time.                                                    |
| N3 | Accreditation is not offered by the relevant laboratory accrediting body for this parameter.                                 |

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MINMILT MIN1001 12/13

Pace Project No.: 7038041

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
7038041001	SYS-EFF	EPA 200.7	50347	EPA 200.7	50360
7038041002	SYS-INF	EPA 200.7	50347	EPA 200.7	50360
7038041001	SYS-EFF	EPA 8260C/5030C	50076		
7038041002	SYS-INF	EPA 8260C/5030C	50076		
7038041001	SYS-EFF	SM22 4500-H+B	49698		
7038041002	SYS-INF	SM22 4500-H+B	49698		

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# CHAIN-OF-CUSTODY / Analytical Request Document

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

WO#: 7038041



7038041  
Regulatory Agency

Section A		Section B		Section C	
<b>Required Client Information:</b>		<b>Required Project Information:</b>		<b>Invoice Information:</b>	
Company: P.W. Gresser Engineer & Hydrogeologist	Report To: Kaitlyn Crosby	Report To: Kaitlyn Crosby	Company Name: <i>Same as Client</i>	Attention:	
Address: 630 Johnson Avenue	Copy To: <i>Brian Barth</i>	Copy To: <i>Brian Barth</i>	Address:	Company Name:	
Bohemia, NY 11716	Purchase Order #: <i>MINMILL</i>	Purchase Order #: <i>MINMILL</i>	Pace Quote:	Project Name: <i>MINMILL</i>	
Email: <i>krcrosby@pwgros.com</i>	Project Name: <i>MINMILL</i>	Project Name: <i>MINMILL</i>	Pace Project Manager: <i>bety.harrison@pacelabs.com</i>	State / Location: <i>NY</i>	
Phone: (631) 569-6353	Fax:	Fax:	Pace Profile #: <i>5382</i>	Requested Analysis: Filtered (Y/N)	
Requested Due Date: <i>Standard</i>					

ITEM #	MATRIX		COLLECTED		SAMPLE TYPE (G=GRAB C=COMP)	MATRIX CODE (see valid codes to left)	# OF CONTAINERS	ANALYSES TEST											Residual Chlorine (Y/N)
	MATRIX	CODE	START	END				Y/N	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	8260 Full List	200.7 ICP Metals	
1	<i>SYS-EFF</i>		12-13-17	1245	<i>WTG</i>	<i>WTG</i>	4	X	X	X	X			X	X	X	<i>001</i>		
2	<i>SYS-INF</i>		↓	1255	<i>WTG</i>	<i>WTG</i>	4	X	X	X	X			X	X	X	<i>002</i>		
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

ADDITIONAL COMMENTS			RELINQUISHED BY / AFFILIATION			DATE			TIME			ACCEPTED BY / AFFILIATION			DATE			TIME			SAMPLE CONDITIONS																																									
<i>PWG-C</i>									<i>PWG-C</i>									<i>12-13-17</i>									<i>1300</i>									<i>[Signature]</i>									<i>12/13/17</i>									<i>110</i>								
SAMPLER NAME AND SIGNATURE																					Received on			Custody			Sealed			Cooler			Samples Intact																													
PRINT Name of SAMPLER: <i>Kaitlyn Crosby</i>																					TEMP in C			Ice (Y/N)			Cooler (Y/N)			Sealed (Y/N)			Samples Intact (Y/N)																													
SIGNATURE of SAMPLER: <i>[Signature]</i>																					DATE Signed: <i>12/13/17</i>																																									





### Sample Condition Upon Receipt

**WO# : 7038041**  
 PM: EMH Due Date: 12/28/17  
 CLIENT: PWG

Client Name: PWG

Project: \_\_\_\_\_

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

Type of Ice: Wet  Blue  None

Thermometer Used: T1092

Correction Factor: +0.0

Samples on ice, cooling process has begun

Cooler Temperature (°C): 11.0

Cooler Temperature Corrected (°C): 11.0

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: JK 12/13/17

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 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-LI-C-010) and include with SCUR/COC paperwork.

			COMMENTS:
Chain of Custody Present:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	1.
Chain of Custody Filled Out:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	2.
Chain of Custody Relinquished:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	3.
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	7.
Sufficient Volume: (Triple volume provided for MS/MSD)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	8.
Correct Containers Used:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	9.
-Pace Containers Used:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Containers Intact:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11. Note if sediment is visible in the dissolved container.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	12.
-Includes date/time/ID/Analysis Matrix SL WT OIL			
All containers needing preservation have been checked	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> N/A	13. <input type="checkbox"/> HNO <sub>3</sub> <input type="checkbox"/> H <sub>2</sub> SO <sub>4</sub> <input type="checkbox"/> NaOH <input type="checkbox"/> HCl
pH paper Lot # <u>HCC60354</u>			Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub> , HCl, NaOH>9 Sulfide, NaOH>12 Cyanide) Exceptions: VOA, Coliform, TOC/DOC, Oil and Grease, DRO/8015 (water). Per Method, VOA pH is checked after analysis	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> N/A	Initial when completed: _____ Lot # of added preservative: _____ Date/Time preservative added: _____
Samples checked for dechlorination:	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14. Positive for Res. Chlorine? Y N
Residual chlorine strips Lot #			
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> N/A	
Pace Trip Blank Lot # (if applicable): _____			

Client Notification/ Resolution: \_\_\_\_\_

Field Data Required? Y / N

Person Contacted: \_\_\_\_\_

Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_