Confidential Communication Attorney/Client/Privileged Work Product Prepared for Counsel



October 1, 2015

Stora Enso C/O John T. Kolaga, Esq. Rupp Baase Pfalzgraf Cunningham LLC 1600 Liberty Building Buffalo, New York 14202

RE: IN-SITU BIOREMEDIATION MONITORING REPORT, VAILS GATE MANUFACTURING, LLC, VAILS GATE, <u>NEW YORK, NYSDEC SITE NO. 336065</u>

Dear Mr. Kolaga:

Leader Consulting Services, Inc. ("Leader") is pleased to provide Rupp Baase Pfalzgraf Cunningham, LLC ("RBFC"), on behalf of Stora Enso, with this report summarizing the results of the In-Situ Bioremediation Quarterly Monitoring completed at the former Vails Gate Manufacturing facility ("VGM") at 1073 Route 94 in Vails Gate, New York (hereafter referred to as "the Site"). The Site is currently identified as the Vails Gate Business Center ("VGBC"). This is the fourth Quarterly Monitoring Report required under the Remedial Action Work Plan ("RAWP"). It includes the field and laboratory results from the third quarterly sampling event.

1.0 BACKGROUND AND PURPOSE

Leader was retained to implement the New York State Department of Environmental Conservation ("NYSDEC")-approved RAWP that was developed for Area of Concern 6 ("AOC 6") at the Site. As identified in the approved RAWP, In-situ bioremediation was the selected remedial alternative identified in the NYSDEC-approved Corrective Measure Study ("CMS"). The Site-specific Standards, Criteria and Guidance ("SCGs") applicable to the RAWP were developed to meet the Remedial Action Objectives ("RAOS") of the CMS. An "unrestricted use remedy" has been established for the Site, which is based on the regulatory standard values for Class GA groundwater identified in 6 NYCRR Part 703.5. The RAWP was developed to address the SCGs and RAOs for the Site. The RAWP has been implemented in accordance with NYSDEC Department of Environmental Remediation ("DER") Guidance Document DER-10, *Technical Guidance for Site Investigation and Remediation*.

2.0 SCOPE-OF-WORK

The scope of work for the In-Situ Bioremediation program identified in the RAWP was based on the March 2012 Phase II RCRA Facility Investigation ("RFI") and the 2013 CMS. Quarterly sampling and laboratory analyses of groundwater samples from four (4) groundwater monitoring wells (MW-14, MW-5A/AR, MW-16 and MW-CHA-RFI-7) are required per the RAWP. Included in this report are the fourth quarterly sampling event Analytical Laboratory Results and Summary Tables (Attachment A) and a Data Validation Summary (Attachment B). Figure 1 includes the approximate Injection Point ("IP") locations used to apply bioremediation solutions into the subsurface at AOC 6, and the location of the monitoring wells.



3.0 QUARTERLY SAMPLING PROGRAM

The fourth quarterly sampling event of the bioremediation program was conducted on August 6, 2015. The laboratory parameters for the quarterly samples included analysis for volatile organic compounds ("VOCs"), sulfate, total organic carbon ("TOC"), and dissolved iron. The field parameters included dissolved oxygen ("DO"), pH, oxidation reduction potential ("redox"), temperature and turbidity. Laboratory and field data were reviewed to evaluate VOC concentrations and field data parameters from groundwater samples from each of the wells to assess the impact of biotreatment activity within AOC 6.

4.0 FIELD AND LABORATORY GROUNDWATER SAMPLE RESULTS

4.1 GROUNDWATER SAMPLE FIELD DATA RESULTS

The DO concentrations within the samples collected from the four (4) wells ranged from 400 parts per billion ("ppb") to 1,100 ppb. The pH levels within the samples collected from the four (4) wells ranged from 6.28 standard units ("SUs") to 7.41 SUs. Redox values of the samples collected from the four (4) wells ranged from -88 milliVolts ("mVs") to 49 mVs. Data interpretation is discussed in Section 4.0.

4.2 GROUNDWATER SAMPLE LABORATORY ANALYTICAL DATA RESULTS

GWM Well MW-5A/AR

Acetone was detected within the 4th Quarter sample from MW-5A/AR at a concentration of 110 ppb, in excess of the NYSDEC Class GA standard of 50 ppb. Chloroethane concentrations increased slightly from 470 ppb in May 2015 to a value of 540 ppb in August 2015. 1,1dichloroethane decreased from 41 ppb in May to 3.5 ppb in August, the first time it has been below the Class GA standard. 1,1- dichloroethene decreased from 1.9 ppb in May to non-detect ("ND") in August, remaining below the Class GA standard of 5 ppb. Toluene concentrations increased from ND in May, to 2.8 ppb in August, remaining below the Class GA standard. Vinyl chloride decreased slightly from 2.4 ppb in May to ND in August, which is below the Class GA n-propylbenzene, 1,3,5 trimethylbenzene amd sec-butylbenzene standard. Naphthalene, concentrations increased slightly from May to August, but remain below the Class GA groundwater standards. 2-butanone (aka methyl ethyl ketone) concentrations decreased from 4.5 ppb in May to ND in August. 1,2,4 trimethylbenzene has increased from a concentration of 2.1 ppb in May to 5.1 ppb in August, just slightly above the Class GA groundwater standard of 5 ppb. The analyte concentrations of acetone, chloroethane and 1,2,4- trimethylbenzene from the August 2015 samples collected from GWM Well MW-5A/AR were above the NYSDEC Class GA groundwater standards.

GWM Well MW-14

Acetone was detected within the 4th Quarter sample from MW-14, decreasing from 16 ppb in May to 12 ppb in August, remaining below the Class GA groundwater standard of 50 ppb. Chloroethane concentrations increased from to 2.1 ppb in May to 8 ppb in August, now above the Class GA groundwater standard of 5 ppb. 1,1- dichloroethane concentrations decreased from

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48 ppb in May to 31 ppb in August, but remains above the Class GA standard of 5 ppb. 1,1dichloroethene concentrations increased slightly from 3.1 ppb in May to 3.6 ppb in August, remaining below the Class GA standard. The concentration of vinyl chloride from the sample collected in August remained virtually unchanged from May (3.1 ppb from 2.8 ppb), remainign slightly above the Class GA groundwater standard of 2 ppb. 2-butanone concentrations decreased slightly, from 2.2 ppb in May to ND in August, and remained below the Class GA standard of 50 ppb. The remaining VOC analytes were not detected within the August 2015 sample.

GWM Well MW-16

The concentration of acetone within the sample collected in August 2015 decreased from 4.6 ppb in May to ND in August, and remained below the Class GA standard of 50 ppb. Chloroethane concentrations increased from ND in May to 3.7 ppb in August, but remained below the Class GA grundwater standard of 5 ppb. 1,1- dichloroethane concentrations increased from 14 ppb in May to 73 ppb in August, remaining above the Class GA standard, as did 1,1- dichloroethene concentrations (increased from 5.6 ppb in May to 33 ppb in August). Cis 1,2 dichloroethene was detected in the sample collected from MW-16 for the first time, at a concentration of 3.4 ppb, below the Class GA standard of 5 ppb. 1,1,2 trichloroethane was detected in the sample collected from MW-16 for the first time, at a concentration of 1.9 ppb, above the Class GA standard of 1 ppb. Tetrachloroethene concentrations increased from 2.2 ppb in May to 11 ppb in August, now above the Class GA standard of 5ppb. 1,1,1,trichloroethane concentrations increased from ND in May to 5.6 ppb in August, slightly above the Class GA standard of 5 ppb. Vinyl Chloride concentrations increased from 1 ppb in May to 7.6 ppb in August, now above the Class GA standard of 2 ppb. Trichloroethene oncentrations increased from ND in May to 1.2 ppb in August, and remained below the Class GA standard of 5 ppb. Chloroform concentrations decreased from 4.9 ppb in May to ND in August, and remained below the Class GA standard of 7 ppb. The concentrations of 1,1-dichlororethane, 1,1,2 trichloroethane, 1,1,1,trichloroethane, tetrachloroethene, 1,1-dichloroethene, and vinyl chloride were above the NYSDEC Class GA groundwater standards from the sample collected from GWM Well MW-16 in August 2015.

GWM Well MW-CHA-RFI-7

VOC concentrations from the sample collected from MW-CHA-RFI-7 during the August 2015 sampling event were non-detectable.

5.0 DATA INTERPRETATION

5.1 FIELD DATA

TOC concentrations remain high in monitoring wells MW-5A/AR and MW-14, indicating continuing microbial activity. Groundwater pH levels indicate an environment conducive to continued microbial activity. Though not fluctuating significantly since media injection, the redox values indicate that reducing conditions exist for dechlorination.



5.2 LABORATORY DATA

Dissolved iron and sulfate concentrations are within ranges to support dechlorination. Monitoring well MW-5A/AR remains the well providing the greatest indication of VOC bioremediation activity. The VOC concentrations of acetone, chloroethane and 1,2,4-trimethylbenzene remain in exceedance of the Class GA groundwater standards.

With the exception of dichloroethane, 1,1-dichloroethane and vinyl chloride, the concentrations of each of the detected VOCs within the sample from MW-14 during the August 2015 sampling event are currently below the NYSDEC Class GA groundwater standards.

The concentrations of 1,1-dichlororethane, 1,1,2 trichloroethane, 1,1,1,trichloroethane, tetrachloroethene, 1,1-dichloroethene and vinyl chloride were above the NYSDEC Class GA groundwater standards from the August 2015 sample collected from MW-16. The remaining detected analytes are below the Class GA groundwater standards. The biodegradation products detected in the fourth quarter sample from MW-16 (e.g., 1,1-dichloroethane, 1,1,1-trichloroethane, and 1, 1, 2-trichloroethane) indicate that biodegradation is occurring upgradient (i.e., in the injection area near MW-5A/AR). Thus, it is expected that as the VOC concentrations within MW-5A/AR decrease, the concentrations of VOC daughter products within MW-16 will also decrease over time.

There were no detected VOC analytes within the groundwater sample collected in August 2015 from MW-CHA-RFI-7. This groundwater monitoring well was included in this sampling program as it represents a "background" well, hydraulically upgradient and outside of the influence of AOC 6.

If you need any additional information, please contact the undersigned at (716) 565-0963.

Very truly yours, Leader Consulting Services, Inc.

eith D. Heller

Keith D. Keller Project Manager

Jeffrey A. Wittlinger, P.E., BCEE Principal



Attachment A

Analytical Laboratory Results and Summary Tables

TABLE 1

GROUNDWATER MONITORING WELL SAMPLE LABORATORY ANALYTICAL DATA SUMMARY - DETECTED PARAMETERS

			N	1W-5A/AR								MW-14								MW-	16						MW	CHA-RFI-7					Class GA Groundwater Standard (ppb) ⁽³⁾
Analyte (1)	June 2011	November 2011			August 2014 ⁽⁶⁾	November 2014 ⁽⁷⁾	February 2015	May 2015	August 2015	June 2011	November 2011	July 2012 January	013 August 2014	6) November 2014 (7)	February 2015	May 2015	August 2015	June 2011	November 2011			4 ⁽⁶⁾ November 2014 ⁽²	⁷⁾ February 2015	May 2015	August 2015	June 2011			November 2014 (?)	February 2015	May 2015	August 2015	1997/
Quarterly Sampling Parameters																																	
Volatiles																																	
acetone	ND	ND	ND	ND	ND	440(9)	407	77(11)	110	19	45	35 11	19(9)	ND	27.3	16.0	12.0	ND	ND	ND	ND 2 ⁽²⁾⁽⁸⁾	ND	ND	4.6 (2)	ND	ND	ND	1 ⁽²⁾⁽⁸⁾	ND	ND	2.7 (2)	ND	50 (4)
chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND ND	ND	ND	ND	ND	ND	ND	ND	ND	ND ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5
chloroethane	280	290	520	150	250 ⁽⁹⁾	590 ⁽⁹⁾⁽²⁰⁾	1010	470(11)	540(11)	ND	ND	ND ND	1(2)	ND	ND	2.1	8.0	ND	ND	ND	ND ND	ND	ND	ND	3.7	ND	ND	ND	ND	ND	ND	ND	5
1,1-dichloroethane	650	1000	830	280	660 ⁽⁹⁾	110	325	41	3.5	86	79	67 53	47	1 (2)	43	48	31	17	7.9	33	14 14	19	7.18	14	73	ND	ND	ND	ND	ND	ND	ND	5
1,1-dichloroethene	ND	110 (2)	29 (2)	11 (2)	22	ND	8.62	1.9	ND	5.2	3.1 (2)	4.6 (2) 2.7 (2)	3 (2)	2 (2)	3.51	3.1	3.6	3 (2)	2.4 (2)	8.7	5.6 7	9 (2)	1.73	5.6	33	ND	ND	ND	ND	ND	ND	ND	5
cis-1,2 dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND ND	ND	ND	ND	ND	ND	ND	ND	ND	ND ND	ND	ND	ND	3.4	ND	ND	ND	ND	ND	ND	ND	5
1,4-dioxane	ND	ND	ND	ND	ND	ND	ND	ND	ND	420	620	490 270	ND	ND	ND	ND	ND	ND	ND	ND	ND ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	(5)
tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND ND	ND	ND	ND	ND	ND	ND	ND	3.2 (2) 3	9 ⁽²⁾ 2 ⁽²⁾	3(2)(10)	1.42	2.2	11	ND	ND	ND	ND	ND	ND	ND	5
toluene	ND	ND	ND	ND	ND	ND	ND	ND	2.8	ND	ND	ND ND	ND	ND	ND	ND	ND	ND	ND	ND	ND ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5
1,1,1-trichloroethane	890	3000	440	210	750 ⁽⁹⁾	33	200	ND	ND	ND	ND	ND ND	ND	ND	ND	ND	ND	ND	13	2.2 (2)	ND 1 ⁽²⁾	2 (2)	ND	ND	5.6	ND	ND	ND	ND	ND	ND	ND	5
1,1,2-trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND ND	ND	ND	ND	ND	ND	ND	ND	ND	ND ND	ND	ND	ND	1.9	ND	ND	ND	ND	ND	ND	ND	1
vinyl chloride	ND	ND	15 (2)	ND	14	6 ⁽²⁾⁽¹⁰⁾	3.59	2.4	ND	5.2	4.6 (2)	2.3 (2) 2.1 (2)	3 (2)	2(2)(10)	2.79	2.8	3.1	ND	ND	ND	ND ND	ND	ND	1	7.6	ND	ND	ND	ND	ND	ND	ND	2
2-butanone (MEK)	ND	ND	ND	ND	ND	190 ⁽¹⁰⁾	82.1	4.5 (2)	ND	ND	ND	ND ND	2 (2)	3(2)(10)	ND	2.2 (2)	ND	ND	ND	ND	ND ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	50 ⁽⁴⁾
4-methyl-2-pentanone	ND	ND	ND	ND	ND	3 (2)	ND	ND	ND	ND	ND	ND ND	1 (2)	ND	ND	ND	ND	ND	ND	ND	ND ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	(5)
naphthalene	ND	ND	ND	ND	ND	ND	ND	ND	2.7	ND	ND	ND ND		ND	ND	ND	ND	ND	ND	ND	ND ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10(4)
n-propylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	1.5	ND	ND	ND ND	ND	ND	ND	ND	ND	ND	ND	ND	ND ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	5
1,2,3 trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND ND	2 ⁽²⁾⁽⁸⁾	ND	ND	ND	ND	ND	ND	ND	ND ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5
hexachlorobutadiene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND ND	4 ⁽²⁾⁽⁸⁾	ND	ND	ND	ND	ND	ND	ND	ND ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.5 ⁽⁴⁾
1,2,4 trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND ND	1(2)(8)	ND	ND	ND	ND	ND	ND	ND	ND ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5
1,2,4 trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	2.1	5.1		ND	ND ND	-	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5
1,3,5 trimethylbenzene/P																																ND	
ethyltoluene	ND	ND	ND	ND	ND	ND	ND	ND	1.4	ND	ND	ND ND	ND	ND	ND	ND	ND	ND	ND	ND	ND ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3
sec-butylbenzene	ND	ND	ND	ND	ND	ND	ND	1.1	1.2	ND	ND	ND ND		ND	ND	ND	ND	ND	ND		ND ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5
1,2-dichloroethane	ND	ND	ND	ND	1 (2)	2 (2)	ND	ND	ND	ND	ND	ND ND		ND	ND	ND	ND	ND	ND		ND ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.6
trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND ND		ND	ND	ND	ND	ND	ND		ND ND	3 (2)	ND	ND	1.2	ND	ND	ND	ND	ND	ND	ND	5
chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND ND	ND	ND	ND	ND	ND	ND	ND	ND	ND ND	ND	1.85	4.9	ND	ND	ND	ND	ND	ND	ND	ND	7
Wet Chemistry and						+	1	1	1	+ +				+	+	1		∦ 						+	1	+ +			1				+
Dissolved Metals						1								1	1																		1
sulfate	NA	NA	NA	NA	31,500	<5,000	<5,000	700 (2)	<5,000	NA	NA	NA NA	14,900	25,700	31,200	31,000	<5,000	NA	NA	NA	NA 14,400	17,900	18,800	20,500	25,300	NA	NA	38,100	42,800	39,900	39,900	32,700	250,000
total organic carbon (TOC)	NA	NA	NA	NA	3,410	288,000	95,400	48,900	30,200	NA	NA	NA NA	4,150	45,900	35,800	39,800	50,300	NA	NA		NA 8,650	10,800	4,220	11,700	28,000	NA	NA	938	42,800	746	1,200	584	NS
dissolved iron	NA	NA	NA	NA	ND	50,600	42,900	5,780	6,050	NA	NA	NA NA	6,130	16,200	8,410	9,130	9,920	NA	NA	NA	NA ND	231	1,470	30.9 ⁽²⁾	12.2 (2)	NA	NA	ND	1,450	124	184	100 (12)	as low as possible, NTE 500,000
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NOTES:
(1) All analyte values expressed as parts per billion ("ppb").
(2) The analyte was "1" flagged, indicating that it was detected below the laboratory quantification limits, and should be considered estimated.
(3) Standard is identified in f SWCRR, Part 703.5, Table 1. Water Coularly Standards Surface Waters and Groundwater.
(4) Standard to so to identified in fSWCRR, Part 703.5, Table 1. Mayer Low and Standard Surface Waters and Groundwater.
(5) Analyte Standard does not exist in Part 703.5, Table 1. Analyte is identified in TGS 1.1.1, Ambient Water Coulably Standards and Guidance Values and Groundwater Effluent Limitations has been used.
(5) Analyte Standard does not exist in Part 703.5, Table 1. Analyte is identified in TGS 1.1.1, Ambient Water Coulably Standards and Guidance Values and Groundwater Effluent Limitations has been used.
(6) Sampling due of August 11.2001, reflects pre-bioremediation injection and 14. 2014.
(7) November 2014 sampling event reflects first pot-bioremediation data.
(8) The analyte was "Th flagged, indicating that it was detected in the blaoratory method blank, and should be considered estimated.
(9) The analyte was "Th flagged, indicating that it was exceeded the calibration range of the laboratory instrument, and should be considered an estimate.
(10) The analyte was "Th flagged, indicating that it was analyte vans to dictated used that the concentration was dicted outside to the calibration variance exceeded the calibration range of the laboratory acceptance citeria.
(11) The analyte was "Th flagged, indicating that it analyte was not include end was "Th flagged, indicating that the surgate concentration was dicted outside the taboratory acceptance citeria.
(12) The analyte was "Th flagged, indicating that the analyte was not include except and except and except the taboratory interest of the activate outside the laboratory is acceptance citeria.
(13) The analyte was "Th flagged, indicating that the analyte was not include except and except and except and except and except a

TABLE 2

GROUNDWATER MONITORING WELL SAMPLE FIELD DATA

		MW-5A/AR										
Analyte	August 2014 ⁽⁴⁾	November 2014 ⁽⁵⁾	February 2015	May 2015	August 2015							
dissolved oxygen ⁽¹⁾	1,150	1,860	1,910	910	300							
pH ⁽²⁾	7.66	7.07	6.74	6.43	6.61							
redox ⁽³⁾	-137	-90	-42	-73	-88							

	MW-14										
Analyte	August 2014 ⁽⁴⁾	November 2014 ⁽⁵⁾	February 2015	May 2015	August 2015						
dissolved oxygen ⁽¹⁾	1,940	2,110	1,720	1,280	1,100						
pH ⁽²⁾	7.19	7.41	6.98	6.58	6.68						
redox ⁽³⁾	7	-1	47	0	0						

		MW-16										
Analyte	August 2014 ⁽⁴⁾	November 2014 ⁽⁵⁾	February 2015	May 2015	August 2015							
dissolved oxygen ⁽¹⁾	990	2,210	2,750	2,150	400							
pH ⁽²⁾	7.12	6.86	6.94	6.66	6.28							
redox ⁽³⁾	24	-14	12	151	49							

	MW-CHA-RFI-7											
Analyte	August 2014 ⁽⁴⁾	November 2014 ⁽⁵⁾	February 2015	May 2015	August 2015							
dissolved oxygen ⁽¹⁾	1,440	1,220	1,760	1,660	600							
рН ⁽²⁾	7.55	7.38	7.55	7.01	7.41							
redox ⁽³⁾	-36	-1	73	35	20							

NOTES:

(1) Value expressed as parts per billion ("ppb").

(2) Value expressed as Standard Unit.

(3) Value expressed as milliVolts (mV).

(4) Sampling date of August 11, 2014, reflects pre-bioremediation injection date of August 13 and 14, 2014.

(5) November 2014 sampling event reflects first post-bioremediation data.

TABLE 3

REDUCTIVE DECHLORINATION ACTIVITY INDICATOR PARAMETERS

MW-5	A/AR	MV	N-14	MW	/-16	MW-CHA-RFI-7		
August 2014 ⁽³⁾	August 2016	August 2014 ⁽³⁾	August 2016	August 2014 ⁽³⁾	August 2016	August 2014 ⁽³⁾	August 2016	
ND		ND		ND		ND		
3,850		223,000		1,860		5,430		
ND		6,130		ND		ND		
2,410		18,200		7,380		1,680		
2,310		7,120		5,490		1,450		
2,300		890		370		2.8		
14		0.24		0.10 ⁽²⁾		0.016 ⁽²⁾		
2.1		0.21		0.64		0.024 ⁽²⁾		
	August 2014 ⁽³⁾ ND 3,850 ND 2,410 2,310 2,300 14	ND 3,850 ND 2,410 2,310 2,300 14	August 2014 ⁽³⁾ August 2016 August 2014 ⁽³⁾ ND ND ND 3,850 223,000 6,130 2,410 18,200 7,120 2,300 890 0.24	August 2014 ⁽³⁾ August 2016 August 2014 ⁽³⁾ August 2016 ND ND ND	August 2014 ⁽³⁾ August 2016 August 2014 ⁽³⁾ August 2016 August 2014 ⁽³⁾ ND ND ND ND ND 3,850 223,000 1,860 1,860 ND 6,130 ND ND 2,410 18,200 7,380 2,490 2,300 890 370 14	August 2014 ⁽³⁾ August 2016 ND ND ND ND ND 1	August 2014 ⁽³⁾ August 2016 August 2014 ⁽³⁾ August 2016 August 2014 ⁽³⁾	

NOTES:

(1) All analyte values expressed as parts per billion ("ppb").

(2) The analyte was "J" flagged, indicating that it was detected below the laboratory quantification limits, and should be considered estimated.

(3) Sampling date of August 11, 2014 reflects pre-bioremediation injection dates of August 13 and 14, 2014.

ND - Analyte was not detected above analytical laboratory detection limits.



Pace Analytical e-Report

*Issuance of this report is prior to full data package.

Report prepared for: Leader Consulting Services, Inc. 2813 Wehrle Drive Suite 1 Williamsville, NY 14221 CONTACT: Keith Keller

Project ID: VAILS GATE MANUFACTURING Sampling Date(s): August 06, 2015 Lab Report ID: 15080208 Client Service Contact: Nick Nicholas (518) 346-4592

Analysis Included:

Misc Field Analysis Dissolved Metals 200.7 - Sub - NY-LI EPA Method 8260C Sulfate - Sub Total Organic Carbon

Test results meet all National Environmental Laboratory Accreditation Conference (NELAC) requirements unless noted in the case narrative. The results contained within the document relate only to the samples included in this report. Pace Analytical is responsible only for the certified testing and is not directly responsible for the integrity of the sample before laboratory receipt. This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.

Roy Smo,

Roy Smith Technical Director



Certifications: New York (EPA: NY00906, ELAP: 11078), New Jersey (NY026), Connecticut (PH-0337), Massachusetts (M-NY906), Virginia (1884)

> Pace Analytical Services, Inc. | 2190 Technology Drive | Schenectady, NY 12308 Phone: 518.346.4592 | internet: www.pacelabs.com

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QUALIFIERS

Definitions

B - Denotes analyte observed in associated method blank or extraction blank. Analyte concentration should be considered as estimated.

D - Surrogate was diluted. The analysis of the sample required a dilution such that the surrogate concentration was diluted outside the laboratory acceptance criteria.

E - Denotes analyte concentration exceeded calibration range of instrument. Sample could not be reanalyzed at secondary dilution due to insufficient sample amount, quick turn-around request, sample matrix interference or hold time excursion. Concentration result should be considered as estimated.

J - Denotes an estimated concentration. The concentration result is greater than or equal to the Method Detection Limit (MDL) but less than the Practical Quantitation Limit (PQL).

MDL – Adjusted Method Detection Limit.

P - Indicates relative percent difference (RPD) between primary and secondary gas chromatograph (GC) column analysis exceeds 40 % or indicates percent difference (PD) between primary and secondary gas chromatograph (GC) column analysis exceeds 25 %.

PQL – Practical Quantitation Limit. PQLs are adjusted for sample weight/volume and dilution factors.

RL - Reporting Limit Denotes lowest analyte concentration reportable for the sample based on regulatory or project specific limits.

U - Denotes analyte not detected at concentration greater than the Practical Quantitation Limit (PQL) or the Reporting Limit (RL) or the Method Detection Limit (MDL) as applicable.

Z - Chromatographic interference due to polychlorinated biphenyl (PCB) co-elution.

* - Value not within control limits.

SAMPLE CHAIN OF CUSTODY



New York Office 2190 Technology Dr. Schenectady, NY 12308 (518) 346-4592

CHAIN-OF-CUSTODY / Analytical Request Document

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



Section A	Section B	Section C				· [Page: 1	of 1
Required Client Information:	Required Project Informa	ation: Invoice Informa	tion:				1 age.	of 1
Company: Leader Professional Services	Report To: Keith Kelle	er Attention:	Keith Keller		R	EGULATORY PROGR	AM	
Address: 2813 Wehrle Drive, Suite 1	Сору То: па	Company Name	Leader Professional	Services TNPDES	GROUND WATER	DRINKING WATER		
Williamsville, NY 14221		Address:		□ UST	RCRA	OTHER		
	Purchase Drder No.:	Pace Quote Ref	erence: #00012704		SITE	· · · · · · · · · · · · · · · · · · ·		
		iate Manufactur Pace Project Ma	nager: Nicholas Nichola	ls LO	CATION	New	York State	
					Filtered (Y/N)	*Specify Metals	Inorganics:
Requested Due Date/TAT: Standard 2-Week F	Project Number:	Pace Profile #:		·····			Iron	inter garnee.
Section D Required Valid Matrix Codes MATRIX CO Client Information PANKING WATER D WATER W SAMPLE ID PRODUCT P Valid Matrix Codes (A-Z, 0-9 / ,-) Valid Matrix Codes D Sample IDs MUST BE UNIQUE AR AF Result TS TS	ATRIX CODE AMPLE TYPE	SAMPLE SAMPLE DATE TIME	SAMPLE TEMP AT COLLECTION # OF CONTAINERS //hpreserved 1-5:00, -1-5:00, -1-10, -10,	NacOH Na ₂ S ₂ O ₅ Methanol Other Dissolved Fe Sulfate	Variation of the second of the			
Field Duplicate-01	WT G 😭	ek/5 1046				┠┼┦╀┟┟┟┼	Pace Labo	<
2 MW-5A/AR	WT G 8		7 x ×	── ┼──┼──┼──╂ ─┼─┼─┼─	(XX x x	┝┾┼┼┼┼┼	150040	<u>'</u>
3 MW-14		16/15 1120	7 x x	─── ┼ ──┼──┼──┼──┼			ITSLUG	\mathcal{L}
A MW-16	WT G C	610 11		── │ ── │ ── │ ── │ ── │ ── │ ──			MCLU	6+
	WT G S	16/15 1230	┥─┨┅╍┟╍┟╸┟╴╽		╋╍╋╍╋╍╋╍╋╍╋	╺┽┽┽┽┽┽┽	ASCUL	<u>v</u> 8
	(Z)						HSZZU	, [.]
7 MW-CHA-RFI-7_MSD	WT G O		7 8 8		X X X X		1	<u></u>
		6/15 1230	7 x x		XXŁ		- t	
8 Trip Blank-01		lelis -	X 🐲 5		X		A52267	<u>0</u>
9	WT G				┝┽┽┽┽┥┥┥			
10	WT G							
11	WT G							
	WT G							
	RELINQUISHED B			CEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CON	DITIONS
YSDEC DER-10 EQUIS EDD AB FILTER METALS	116 8	PACE BK/1	5 1485	chat	8/1/15	1435	3.8 B	\$ Z
							Z X	N N X
							N,	X N/X
							N N N	Y N/Y
		SAMPLER NAME AND S	IGNATURE					
		PRINT Name of SAMPLE	R: Matt Broker (PACE)				Temp in °C teceived o tce	Custody Sealed Cooler Samples Intact
		SIGNATURE of SAMPLE	R: MAX	DATE SI (MM / DI	Igned D/M: 8/6/15		Temp in ° Received	ealec ample
				I come a				δ o

<15080208PZ>



Sample Condition Upon Receipt

						CLIENT NAME:	leader	
						PROJECT : Vo	ils bate	
COURIER: FedEx N/A UPS D CI	ient 🗆	Pace)x CUSTODY	Other SEAL PRESEN		No 🕅	INTACT: Yes		N/AA
PACKING MATERIAL: Bubble Wrap 🗆	Bubble Bag	sæ	None 🗆	Other 🗆		ICE USED: Wet 📈	Blue 🗆	None 🗆
THERMOMETER USED: #164 🗆 🛛 IR Gu	in 03)∕⊆	#122087	7967 🗆		COOLER TE	MPERATURE (°C):		
BIOLOGICAL TISSUE IS FROZEN: Yes 🗆	No 🗆	N/AØ				Temp should be al	pove freezing to	≥ 6°C
COMMENTS:					Temperatu	re is Acceptable?	Yes	□No ·······
Chain of Custody Present:	Yes	□No		1.				
Chain of Custody Filled Out:	Yes	No		2.				
Chain of Custody Relinquished:	Yes	□No		3.				
Sampler Name / Signature on COC:	Yes	No		4.				
Samples Arrived within Hold Time:	Yes	No		5.	$ \rightarrow $			
Short Hold Time Analysis (<72hr):	∭. ∭Yes	□No		6. Unfil	fered	dissolved n	retals.	
Rush Turn Around Time Requested:	Yes	Thio		7. \				
Sufficient Volume:	Yes	□ No		8.				
Correct Containers Used:	Byes	□No		9				
- Pace Containers Used:	Yes	□No						
Containers Intact:	7 AYes	□No		10.				
Filtered volume received for Dissolved tes		DNo -	⊡n/A	11.				
Sample Labels match COC: - Includes date/time/ID/Analysis	Yes	□No		12.				
All containers needing preservation have been checked:	□Yes	□No	B N/A	13.				
All containers needing preservation are in compliance with EPA recommendation:	□Yes	□No	8 N/A	Initial wher	RI 7/4			NIA
- Exceptions that are not checked: TOC, VOA, Subcor	ntract Analyses			completed:		Lot # of added pre	servative:	
Headspace in VOA Vials (>6mm):	□Yes	Al No	□n/A	14.				
Trip Blank Present:	Pres	No		15.				
Trip Blank Custody Seals Present:	□Yes	No	ANA					
Pace Trip Blank Lot #:	0.15		(In aluates C=)	L		nts and vorifying sa	mple pH):	ALB SILLIC
Sample Receipt form filled in: MW &-	7-15	Log In (In	cludes notify	ing PM of an	ny discrepa	ents and verifying sa icies and document ring LAB IDs into pH	ing in LIMS):	AJB 8/6/15

12

SAMPLE RECEIPT



SAMPLE RECEIPT REPORT 15080208

Pace Analytical Services, Inc. 2190 Technology Drive Schenectady, NY 12308 Phone: 518.346.4592 Fax: 518.381.6055

CLIENT: LEADER CONSULTING SERVICES, INC. **PROJECT: VAILS GATE MANUFACTURING** LRF: 15080208 **REPORT: DATA PACKAGE** EDD: YES LRF TAT: 2 WEEK

RECEIVED DATE: 08/06/2015 14:35 SAMPLE SEALS INTACT: NA SHIPPED VIA: PICK UP ^{1,2} SAMPLES PRESERVED PER METHOD GUIDANCE: YES ³ SAMPLES REC'D IN HOLDTIME: YES SHIPPING ID: **DISPOSAL:** BY LAB (45 DAYS) NUMBER OF COOLERS: 1 CUSTODY SEAL INTACT: NO COC DISCREPANCY: NO COOLER STATUS: CHILLED TEMPERATURE(S): ⁵3.8 (IR) °C

COMMENTS:

CLIENT ID (LAB ID)	TAT-DUE Date ⁴	DATE-TIME SAMPLED	MATRIX	METHOD	TEST DESCRIPTION	QC REQUES
FIELD DUPLICATE-01 (AS22665)	2 WEEK 08-20-15	08/06/2015 10:46	Water		Sulfate - Sub	
	2 WEEK 08-20-15	08/06/2015 10:46	Water	200.7	Dissolved Metals 200.7 - Sub - NY-LI	
	2 WEEK 08-20-15	08/06/2015 10:46	Water	E8260C	EPA Method 8260C	
	2 WEEK 08-20-15	08/06/2015 10:46	Water	Misc Field Analysis	Misc Field Analysis	
	2 WEEK 08-20-15	08/06/2015 10:46	Water	SM 5310B-00,-11	Total Organic Carbon	
MW-5A/AR (AS22666)	2 WEEK 08-20-15	08/06/2015 10:45	Water		Sulfate - Sub	
	2 WEEK 08-20-15	08/06/2015 10:45	Water	200.7	Dissolved Metals 200.7 - Sub - NY-LI	
	2 WEEK 08-20-15	08/06/2015 10:45	Water	E8260C	EPA Method 8260C	
	2 WEEK 08-20-15	08/06/2015 10:45	Water	Misc Field Analysis	Misc Field Analysis	
	2 WEEK 08-20-15	08/06/2015 10:45	Water	SM 5310B-00,-11	Total Organic Carbon	
MW-14 (AS22667)	2 WEEK 08-20-15	08/06/2015 11:20	Water		Sulfate - Sub	
	2 WEEK 08-20-15	08/06/2015 11:20	Water	200.7	Dissolved Metals 200.7 - Sub - NY-LI	
	2 WEEK 08-20-15	08/06/2015 11:20	Water	E8260C	EPA Method 8260C	
	2 WEEK 08-20-15	08/06/2015 11:20	Water	Misc Field Analysis	Misc Field Analysis	
	2 WEEK 08-20-15	08/06/2015 11:20	Water	SM 5310B-00,-11	Total Organic Carbon	
MW-16 (AS22668)	2 WEEK 08-20-15	08/06/2015 11:06	Water		Sulfate - Sub	
	2 WEEK 08-20-15	08/06/2015 11:06	Water	200.7	Dissolved Metals 200.7 - Sub - NY-LI	
	2 WEEK 08-20-15	08/06/2015 11:06	Water	E8260C	EPA Method 8260C	
	2 WEEK 08-20-15	08/06/2015 11:06	Water	Misc Field Analysis	Misc Field Analysis	
	2 WEEK 08-20-15	08/06/2015 11:06	Water	SM 5310B-00,-11	Total Organic Carbon	
MW-CHA-RFI-7 (AS22669)	2 WEEK 08-20-15	08/06/2015 12:30	Water		Sulfate - Sub	MS, MSD
	2 WEEK 08-20-15	08/06/2015 12:30	Water	200.7	Dissolved Metals 200.7 - Sub - NY-LI	MS, MSD
	2 WEEK 08-20-15	08/06/2015 12:30	Water	E8260C	EPA Method 8260C	MS, MSD
	2 WEEK 08-20-15	08/06/2015 12:30	Water	Misc Field Analysis	Misc Field Analysis	-
	2 WEEK 08-20-15	08/06/2015 12:30	Water	SM 5310B-00,-11	Total Organic Carbon	MS, MSD
TRIP BLANK-01 (AS22670)	2 WEEK 08-20-15	08/06/2015	Water	E8260C	EPA Method 8260C	

¹The pH preservation check of Oil and Grease (Method 1664) and Total Organic Carbon (Method 5310B) are performed as soon as possible after sample receipt and may not be included in this report.

² The pH preservation check of aqueous volatile samples is not performed until after the analysis of the sample to maintain zero headspace and is not included in this report. ³ Samples received for pH analysis are not marked as a hold time exceedance here. SW-846 methods suggests analysis to be done within 15 minutes of sample collection. Because of transportation time it A is not possible for the laboratory to perform the test in that time. Sample Certificates of Analysis reports are noted as such. Samples arriving at the laboratory after 4:00 pm are assigned a due date as if they arrived the following business day unless other arrangements have been made

The due date represents the date the lab report is expected to be completed on or before 5:00 pm (EST) for the date specified.

⁵All samples which require thermal preservation shall be considered acceptable when received greater than 6 degrees Celsius if they are collected on the same day as received and there is evidence that the chilling process has begun, such as arrival on ice. Control limits are between 0-6 Degrees Celsius. Control limits do not apply for metals analysis.

6Samples requesting analysis for Orthophosphate (SM 4500-P E-99,-11) require the samples to be filtered in the field within 15 minutes of the sampling event. Samples that are received unfiltered will be noted as not method compliant on the Certificates of Analysis.

Reporting Parameters and Lists

Misc Field Analysis - Misc Field Analysis - (mg/L) Dissolved Oxygen (\$) pH (\$)

Reduction Potential (\$) Specific Conductance (\$) Static Water Level (\$)

Misc Field Analysis - Misc Field Analysis - (mg/L) Temperature (\$)

Turbidity (\$)

SM 5310B-00,-11 - Total Organic Carbon - (mg/L)

Total Organic Carbon

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Page 1 of 1

2190 Technology Drive Schenectady, NY 12308 Phone 518.346.4592 Fax 518.381.6055

August 20, 2015

Wet Chemistry - TOC/DTOC



Client: Leader Cons	sulting Services, Inc.		Collection Date: 08/06/2015 10:46								
Project: VAILS GA	TE MANUFACTURING		Sample Matrix: WATER								
Client Sample ID: F	TELD DUPLICATE-01		Received Date: 08/06/2015 14:35								
Lab Sample ID: 1	5080208-01 (AS22665)	Percent Solid: N/A									
Batch I	D Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column					
Analysis 1: 804	SM 5310B	08/10/2015 16:53	JLM	NA	NA	NA					
Analyte	CAS No.	Result (mg/L)	PQL	Dilution Fact	or Flags	File ID					
Total Organic Carbon	OC002	29.4	0.500	1.00		804					

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.



Client: Leader Consulti Project: VAILS GATE Client Sample ID: MW Lab Sample ID: 1508	MANUFACTURING -5A/AR		Collection Date: 08/06/2015 10:45 Sample Matrix: WATER Received Date: 08/06/2015 14:35 Percent Solid: N/A							
Batch ID Analysis 1: 804	Method SM 5310B	Date 08/10/2015 17:17	Analyst JLM	Init Wt./Vol. NA	Final Vol. NA	Column NA				
Analyte Total Organic Carbon	CAS No. OC002	Result (mg/L) 30.2	PQL 0.500	Dilution Fact	or Flags	File ID				

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.



Client: Leader Consulting Services, Inc. Project: VAILS GATE MANUFACTURING Client Sample ID: MW-14 Lab Sample ID: 15080208-03 (AS22667)				Collection Date: 08/06/2015 11:20 Sample Matrix: WATER Received Date: 08/06/2015 14:35 Percent Solid: N/A					
Batch ID Analysis 1: 805	Method SM 5310B	Date 08/12/2015 10:47	Analyst JLM	Init Wt./Vol. NA	Final Vol.	Column			
Analyte Total Organic Carbon	CAS No. 0C002	Result (mg/L) 50.3	PQL 1.00	Dilution Fact 2.00	or Flags	File ID 805			

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.



Client: Leader Consulti Project: VAILS GATE Client Sample ID: MW Lab Sample ID: 1508	MANUFACTURING -16		Collection Date: 08/06/2015 11:06 Sample Matrix: WATER Received Date: 08/06/2015 14:35 Percent Solid: N/A					
Batch ID Analysis 1: 804	Method SM 5310B	Date 08/10/2015 17:43	Analyst JLM	Init Wt./Vol.	Final Vol.	Column		
Analyte	CAS No.	Result (mg/L)	PQL	Dilution Fact		File ID		
Total Organic Carbon	OC002	28.0	0.500	1.00		804		

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.



Client: Leader Consulting Services, Inc. Project: VAILS GATE MANUFACTURING Client Sample ID: MW-CHA-RFI-7				Collection Date: 08/06/2015 12:30 Sample Matrix: WATER Received Date: 08/06/2015 14:35						
-		0208-05 (AS22669)			Solid: N/A					
	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column			
Analysis 1:	804	SM 5310B	08/10/2015 17:56	JLM	NA	NA	NA			
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Fact	or Flags	File ID			
Total Organic	Carbon	OC002	0.584	0.500	1.00		804			

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

Field Analysis



Client: Leader Consulting Services, Inc. Project: VAILS GATE MANUFACTURING Client Sample ID: MW-5A/AR Lab Sample ID: 15080208-02 (AS22666) Collection Date: 08/06/2015 10:45 Sample Matrix: WATER Received Date: 08/06/2015 14:35 Percent Solid: N/A

Batch ID Analysis 1: Field Test	Method Field Analysis	Date 08/06/2015 10:45	Analyst MEB	Init Wt./Vol. Fi	nal Vol. NA	Column
Analyte	CAS No.	Result	PQL	Dilution Factor	Flags	File ID
Dissolved Oxygen (\$)	7782-44-7	0.300 (mg/L)	0.00	1.00		Field Test
pH (\$)	NA	6.61 (pH)	0.00	1.00		Field Test
Reduction Potential (\$)	NA	-88.0 (mV)	0.00	1.00		Field Test
Specific Conductance (\$)	NA	1660 (umhos/cm	0.00	1.00		Field Test
Static Water Level (\$)	NA	1.37 (ft btmp)	0.00	1.00		Field Test
Temperature (\$)	NA	23.1 (°C)	0.00	1.00		Field Test
Turbidity (\$)	NA	23.6 (NTU)	0.00	1.00		Field Test

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

Note: This is field generated data. (\$) NYSDOH-ELAP does not currently offer NELAC certification for this parameter.



Client: Leader Consulting Services, Inc. Project: VAILS GATE MANUFACTURING Client Sample ID: MW-14 Lab Sample ID: 15080208-03 (AS22667) Collection Date: 08/06/2015 11:20 Sample Matrix: WATER Received Date: 08/06/2015 14:35 Percent Solid: N/A

Analysis 1:	Batch ID Field Test	Method Field Analysis		Date 08/06/2015 11:20	Analyst	Init Wt./Vol.	Final Vol.	Column
Allalysis I.	Field Test	Field Analysis		08/00/2013 11:20		INA	INA	INA
Analyte		CAS No.	Resi	ılt	PQL	Dilution Fact	or Flags	File ID
Dissolved Oxy	/gen (\$)	7782-44-7	1.10	(mg/L)	0.00	1.00		Field Test
pH (\$)		NA	6.68	(pH)	0.00	1.00		Field Test
Reduction Pot	ential (\$)	NA	0.00	(mV)	0.00	1.00		Field Test
Specific Cond	uctance (\$)	NA	1730	(umhos/cm	0.00	1.00		Field Test
Static Water L	evel (\$)	NA	4.17	(ft btmp)	0.00	1.00		Field Test
Temperature (\$)	NA	21.2	(°C)	0.00	1.00		Field Test
Turbidity (\$)		NA	188	(NTU)	0.00	1.00		Field Test

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

Note: This is field generated data. (\$) NYSDOH-ELAP does not currently offer NELAC certification for this parameter.



Client: Leader Consulting Services, Inc. Project: VAILS GATE MANUFACTURING Client Sample ID: MW-16 Lab Sample ID: 15080208-04 (AS22668) Collection Date: 08/06/2015 11:06 Sample Matrix: WATER Received Date: 08/06/2015 14:35 Percent Solid: N/A

	atch ID	Method		Date	Analyst	Init Wt./Vol.	Final Vol.	Column	
Analysis 1: Fi	eld Test	Field Analysis	08	8/06/2015 11:06	MEB	NA	NA	NA	
Analyte		CAS No.	Result		PQL	Dilution Fact	or Flags	File ID	
Dissolved Oxyge	en (\$)	7782-44-7	0.400 ((mg/L)	0.00	1.00		Field Test	
pH (\$)		NA	6.28 ((pH)	0.00	1.00		Field Test	
Reduction Potent	tial (\$)	NA	49.0 ((mV)	0.00	1.00		Field Test	
Specific Conduct	ance (\$)	NA	2540 ((umhos/cm	0.00	1.00		Field Test	
Static Water Lev	el (\$)	NA	3.52 ((ft btmp)	0.00	1.00		Field Test	
Temperature (\$)		NA	21.0 ((°C)	0.00	1.00		Field Test	
Turbidity (\$)		NA	27.2 ((NTU)	0.00	1.00		Field Test	

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

Note: This is field generated data. (\$) NYSDOH-ELAP does not currently offer NELAC certification for this parameter.



Client: Leader Consulting Services, Inc. Project: VAILS GATE MANUFACTURING Client Sample ID: MW-CHA-RFI-7 Lab Sample ID: 15080208-05 (AS22669) Collection Date: 08/06/2015 12:30 Sample Matrix: WATER Received Date: 08/06/2015 14:35 Percent Solid: N/A

Analysis 1:	Batch ID	Method	00	Date	Analyst	Init Wt./Vol.	Final Vol.	Column	
Analysis 1:	Field Test	Field Analysis	08/	/06/2015 12:30	MEB	NA	NA	NA	
Analyte		CAS No.	Result		PQL	Dilution Fact	or Flags	File ID	
Dissolved Ox	ygen (\$)	7782-44-7	0.600 (r	ng/L)	0.00	1.00		Field Test	
pH (\$)		NA	7.41 (p	oH)	0.00	1.00		Field Test	
Reduction Pot	ential (\$)	NA	20.0 (r	nV)	0.00	1.00		Field Test	
Specific Cond	uctance (\$)	NA	1520 (u	umhos/cm	0.00	1.00		Field Test	
Static Water L	level (\$)	NA	0.00 (f	t btmp)	0.00	1.00		Field Test	
Temperature (\$)	NA	19.4 (°	°C)	0.00	1.00		Field Test	
Turbidity (\$)		NA	7.10 (1	NTU)	0.00	1.00		Field Test	

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

Note: This is field generated data. (\$) NYSDOH-ELAP does not currently offer NELAC certification for this parameter.

Quality Control Samples (Lab)



Quality Control Results Method Blank Job Number: 15080208

Client: Leader Consulting Services, Inc. Project: VAILS GATE MANUFACTURING Client Sample ID: Method Blank (AS22665B) Lab Sample ID: BLANK-01				Collection Date: N/A Sample Matrix: WATER Received Date: N/A Percent Solid: N/A					
Analysis 1: 804	tch ID	Method SM 5310B	Date 08/10/2015 16:30	Analyst JLM	Init Wt./Vol.	Final Vol.	Column		
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Fact		File ID		
Total Organic Car	bon	OC002	ND	0.500	1.00	U	804		

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.



Quality Control Results Lab Control Sample (LCS) Job Number: 15080208

Client: Leader Consulting Services, Inc. Project: VAILS GATE MANUFACTURING Client Sample ID: Lab Control Sample (AS22665L) Lab Sample ID: LCS-01	Collection Date: N/A Sample Matrix: WATER Received Date: N/A Percent Solid: N/A	
Batch IDMethodAnalysis 1:804SM 5310B	DateAnalystInit Wt./Vol.Final Vol.Column08/10/2015 16:41JLMNANANA	
Analyte Spiked CAS No.	AddedLCSLCSLimits(mg/L)(mg/L)% Rec. Q^1 (%)	
Total Organic Carbon OC002	10.0 10.3 103 80.0-120	

¹Qualifier column where '*' denotes value outside the control limits. Note: RPD criteria does not apply if either the sample and duplicate sample are not detected.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.



Quality Control Results Method Blank Job Number: 15080208

Client: Leader Consulting Services, Inc. Project: VAILS GATE MANUFACTURING Client Sample ID: Method Blank (AS22667B) Lab Sample ID: BLANK-01				Collection Date: N/A Sample Matrix: WATER Received Date: N/A Percent Solid: N/A					
Batch ID Analysis 1: 805	Method SM 5310B	Date 08/12/2015 10:16	Analyst JLM	Init Wt./Vol. NA	Final Vol.	Column			
Analyte Total Organic Carbon	CAS No. 0C002	Result (mg/L)	PQL 0.500	Dilution Fact	or Flags U	File ID 805			

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.



Quality Control Results Lab Control Sample (LCS) Job Number: 15080208

Client: Leader Consulting Services, Inc. Project: VAILS GATE MANUFACTURING Client Sample ID: Lab Control Sample (AS22667L) Lab Sample ID: LCS-01	Collection Date: N/A Sample Matrix: WATER Received Date: N/A Percent Solid: N/A
Batch IDMethodAnalysis 1:805SM 5310B	DateAnalystInit Wt./Vol.Final Vol.Column08/12/2015 10:27JLMNANANA
Analyte Spiked CAS No.	AddedLCSLCSLimits(mg/L)(mg/L)% Rec.Q1(%)
Total Organic Carbon OC002	10.0 9.73 97.3 80.0-120

¹Qualifier column where '*' denotes value outside the control limits. Note: RPD criteria does not apply if either the sample and duplicate sample are not detected.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.



Client: Leader Consulting Services, Inc. **Project: VAILS GATE MANUFACTURING** Client Sample ID: Lab Control Sample - Duplicate (AS22667S) Lab Sample ID: LCSD-01

Collection Date: N/A Sample Matrix: WATER Received Date: N/A Percent Solid: N/A

	Batch ID	Method	Dat	te Ar	alyst Ini	t Wt./V	/ol. Final	Vol.	(Colum	ı
Analysis 1:	805	SM 5310B	08/12/2015	5 10:33 J	LM	NA	N	A		NA	
									Prec	ision	
		CACN	Added	LCSD		\mathbf{o}^1	Limits	LCS % Rec.	DDD	\mathbf{O}^1	Limits (%)
	ed	CAS No.	(mg/L)	(mg/L)	% Rec.	Q	(%)	70 KCC.	KF D	Q	(70)
Analyte Spike											

¹Qualifier column where '*' denotes value outside the control limits. Note: RPD criteria does not apply if either the sample and duplicate sample are not detected.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

Subcontract Analysis



AS22665

Pace Analytical Services Inc. 2190 Technology Drive Schenectady, NY 12308

Attn To: William A. Kotas Collected : 8/6/2015 10:48:00 AM Received : 8/6/2015

Collected By : CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Lab No. : 1508505-001 Client Sample ID: FIELD DUPLICATE-01 Sample Information: Type: Aqueous

.

Origin:

Analytical Method: SW8260C :		Prep M	lethod: 50	30C		Analyst: BL
<u>Parameter(s)</u>	Results	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	Analyzed:	Container:
1,1,1,2-Tetrachloroethane	< 1.0		1	μg/L	08/08/2015 11:33 PM	Container-01 of 03
1,1,1-Trichloroethane	< 1.0		1	µg/L	08/08/2015 11:33 PM	Container-01 of 03
1,1,2,2-Tetrachioroethane	< 1.0		1	µg/L	08/08/2015 11:33 PM	Container-01 of 03
1,1,2-Trichloroethane	< 1.0		1	µg/L	08/08/2015 11:33 PM	Container-01 of 03
1,1-Dichloroethane	< 1.0		1	µg/L	08/08/2015 11:33 PM	Container-01 of 03
1,1-Dichloroethene	< 1.0		1	µg/L	08/08/2015 11:33 PM	Container-01 of 03
1,1-Dichloropropene	< 1.0		1	µg/L	08/08/2015 11:33 PM	Container-01 of 03
1,2,3-Trichlorobenzene	< 1.0		1	µg/L	08/08/2015 11:33 PM	Container-01 of 03
1,2,3-Trichloropropane	< 1.0		1	µg/L	08/08/2015 11:33 PM	Container-01 of 03
1,2,4-Trichlorobenzene	< 1.0		1	µg/L	08/08/2015 11:33 PM	Container-01 of 03
1,2,4-Trimethylbenzene	6.0		1	μg/L	08/08/2015 11:33 PM	Container-01-of 03
1,2-Dibromo-3-chloropropane	< 1.0		1	μg/L	08/08/2015 11:33 PM	Container-01 of 03
1,2-Dibromoethane	< 1.0		1	µg/L	08/08/2015 11:33 PM	Container-01 of 03
1,2-Dichlorobenzene	< 1.0		1	µg/L	08/08/2015 11:33 PM,	Container-01 of 03
1,2-Dichloroethane	< 1.0		1	µg/L	08/08/2015 11:33 PM	Container-01 of 03
1,2-Dichloropropane	< 1.0		1	µg/L	08/08/2015 11:33 PM	Container:01 of 03
1,3,5-Trimethylbenzene/P- ethyltoluene	1.6		1	µg/L	08/08/2015 11:33 PM	Container-01 of 03
1,3-Dichlorobenzene	< 1.0		1	μg/L	08/08/2015 11:33 PM	Container-01 of 03
1,3-Dichloropropane	< 1.0		1	µg/L	08/08/2015 11:33 PM	Container-01 of 03
1,4-Dichlorobenzene	< 1.0		1	µg/L	08/08/2015 11:33 PM	Container-01-of 03
2,2-Dichloropropane	< 1.0		1	µg/L	08/08/2015 11:33 PM	Container-01 of 03
2-Butanone	< 5.0		1	µg/L	08/08/2015 11:33 PM	Container-01 of 03
2-Chloroethylvinyl ether	< 10	S	1	µg/L	08/08/2015 11:33 PM	Container-01 of 03
2-Chlorotoluene/4-Chlorotoluene	< 1.0		1	µg/L	08/08/2015 11:33 PM	Container-01 of 03
2-Hexanone	< 5.0		1	µg/L	08/08/2015 11:33 PM	Container-01 of 03
4-isopropyltoluene	< 1.0		1	µg/L	08/08/2015 11:33 PM	Container-01 of 03
4-Methyl-2-pentanone	< 5.0		1	µg/L	08/08/2015 11:33 PM	Container-01 of 03
Acetone	120		1	µg/L	08/08/2015 11:33 PM	Container-01 of 03
Benzene	< 1.0		1	µg/L	08/08/2015 11:33 PM	Container-01 of 03
Bromobenzene	< 1.0		1	µg/L	08/08/2015 11:33 PM	Container-01 of 03
Bromochloromethane	< 1.0		1	µg/L	08/08/2015 11:33 PM	Container-01 of 03

<u>Qualifiers:</u> E = Value above quantitation range, Value estimated.

B = Found in Blank

- D.F. = Dilution Factor D = Results for Dilution
- H = Received/analyzed outside of analytical holding time
- + = NYSDOH ELAP does not offer certification for this analyte / matrix / method
- c = Calibration acceptability criteria exceeded for this analyte
- ${\sf R}$ = Reporting limit below calibration range. Value estimated.
- J = Estimated value below calibration range
- S = Recovery exceeded control limits for this analyte N = Indicates presumptive evidence of compound

Date Reported :

Project Manager

Test results meet the requirements of NELAC unless otherwise noted.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Page 1 of 20

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15080208 - Page 29 of 54



AS22665

Pace Analytical Services Inc. 2190 Technology Drive Schenectady, NY 12308

 Attn To:
 William A. Kotas

 Collected
 : 8/6/2015 10:46:00 AM

 Received
 : 8/6/2015

Collected By : CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the Integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Lab No. : 1508505-001 Client Sample ID: FIELD DUPLICATE-01 Sample Information:

Type: Aqueous

Origin:

Analytical Method: SW8260C :		Prep N	Aethod: 503	50C		Analyst: BL
Parameter(s)	Results	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	Analyzed:	Container:
Bromodichloromethane	< 1.0		1	μġ/L	08/08/2015 11:33 PM	Container-01 of 03
Bromoform	< 1.0		1	μg/L	08/08/2015 11:33 PM	Container-01 of 03
Bromomethane	< 1.0		1	µg/L	08/08/2015 11:33 PM	Container-01 of 03
Carbon disulfide	< 10		1	µg/L	08/08/2015 11:33 PM	Container-01 of 03
Carbon tetrachloride	< 1.0		1	µg/L	08/08/2015 11:33 PM	Container-01 of 03
Chlorobenzene	< 1.0		1	μg/L	08/08/2015 11:33 PM	Container-01 of 03
Chlorcethane	560	D	5	µg/L	08/10/2015 6:21 PM	Container-02 of 03
Chloroform	< 1.0		1	µg/L	08/08/2015 11:33 PM	Container-01 of 03
Chloromethane	< 1.0		1	µg/L	08/08/2015 11:33 PM	Container-01 of 03
cis-1,2-Dichloroethene	< 1.0		1	µg/L	08/08/2015 11:33 PM	Container-01 of 03
cis-1,3-Dichloropropene	< 1.0		1	µg/L	08/08/2015 11:33 PM	Container-01 of 03
Dibromochloromethane	< 1.0		1	µg/L	08/08/2015 11:33 PM	Container-01 of 03
Dibromomethane	< 1.0		1	µg/L	08/08/2015 11:33 PM	Container-01 of 03
Dichlorodifluoromethane,	< 1.0		1	µg/L	08/08/2015 11:33 PM	Container-01 of 03
Ethylbenzene	< 1.0		1	µg/L	08/08/2015 11:33 PM	Container-01 of 03
Hexachlorobutadiene	< 1.0		1	µg/L	08/08/2015 11:33 PM	Container-01 of 03
sopropylbenzene	1.0		1	μg/L.	08/08/2015 11:33 PM;	Container-01 of 03
m.p-Xylene	< 1.0		1	µg/L	08/08/2015 11:33 PM	Container-01 of 03
Methyl tert-butyl ether	< 1.0		1	μg/L	08/08/2015 11:33 PM	Container-01 of 03
Methylene chloride	< 1.0		1	μg/L	08/08/2015 11:33 PM	Container-01 of 03
Naphthalene	3.0		1	μg/L	08/08/2015 11:33 PM	Container-01 of 03
n-Butylbenzene	1.0		1	µg/L	08/08/2015 11:33 PM	Container-01 of 03
n-Propylbenzene	1.7		1	µg/L	08/08/2015 11:33 PM	Container-01 of 03
o-Xylene	< 1.0		1	µg/L	08/08/2015 11:33 PM	Container-01 of 03
sec-Butylbenzene	1.3		1	µg/L	08/08/2015 11:33 PM	Container-01 of 03
Styrene	< 1.0		1	µg/L	08/08/2015 11:33 PM	Container-01 of 03
tert-Butylbenzene	< 1.0		1	μg/L	08/08/2015 11:33 PM	Container-01 of 03
Tetrachloroethene	< 1.0		1	µg/L	08/08/2015 11:33 PM	Container-01 of 03
Toluene	2,9		1	μg/L	08/08/2015 11:33 PM	Container-01 of 03
trans-1,2-Dichloroethene	< 1.0		1	µg/L	08/08/2015 11:33 PM	Container-01 of 03
trans-1,3-Dichloropropene	< 1.0		1	µg/L	08/08/2015 11:33 PM	Container-01 of 03
Trichloroethene	< 1.0		1	µg/L	08/08/2015 11:33 PM	Container-01 of 03

Qualifiers: E = Value above quantitation range, Value estimated.

- B = Found in Blank
- D.F. = Dilution Factor D = Results for Dilution
- H = Received/analyzed outside of analytical holding time
- + = NYSDOH ELAP does not offer certification for this analyte / matrix / method
- \mathbf{c} = Calibration acceptability criteria exceeded for this analyte
- R = Reporting limit below calibration range. Value estimated.
- J = Estimated value below calibration range

S = Recovery exceeded control limits for this analyte N = Indicates presumptive evidence of compound

Date Reported :

Win Hatchinson

Project Manager

Test results meet the requirements of NELAC unless otherwise noted.

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Page 2 of 20

15080208 - Page 30 of 54



Pace Analytical Services Inc. 2190 Technology Drive Schenectady, NY 12308

 Attn To:
 William A. Kotas

 Collected
 : 8/6/2015 10:46:00 AM

 Received
 : 8/6/2015

Collected By : CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Lab No. : 1508505-001 Client Sample ID: FIELD DUPLICATE-01

Sample Information: Type : Aqueous

Origin:

Analytical Method: SW8260C :		Prep	Method: 503	30C				Analyst: BL
Parameter(s)	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>			Analyzed:	Container:
Trichlorofluoromethane	< 1.0		1	μg/L			08/08/2015 11:33 PM	Container-01 of 03
Vinyl acetate	< 10		1	μg/L			08/08/2015 11:33 PM	Container-01 of 03
Vinyl chloride	< 1.0		1	μg/L	1		08/08/2015 11:33 PM	Container-01 of 03
Surr: 1,2-Dichloroethane-d4	102		1	%REC	Limit	53-183	08/08/2015 11:33 PM	Container-01 of 03
Surr: 4-Bromofluorobenzene	105		1	%REC	Limit	63-140	08/08/2015 11:33 PM	Container-01 of 03
Surr: Toluene-d8	101		1	%REC	Limit	60-135	08/08/2015 11:33 PM	Container-01 of 03
Analytical Method: E300.0 :								Analyst: bka
Parameter(s)	<u>Results</u>	Qualifier	<u>D.F.</u>	Units			Analyzed:	Container:
Sulfate	< 5.00	· · ·	1	mg/L			08/20/2015 11:45 AM	Container-01 of 01
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Qualifiers: E = Value above quantitation range, Value estimated,

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

H = Received/analyzed outside of analytical holding time

+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

 \mathbf{c} = Calibration acceptability criteria exceeded for this analyte

R = Reporting limit below calibration range. Value estimated.

J = Estimated value - below calibration range

S = Recovery exceeded control limits for this analyte N = Indicates presumptive evidence of compound

Date Reported :

Matchinson

Project Manager

Test results meet the requirements of NELAC unless otherwise noted.

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Page 3 of 20



 575 Broad Hollow Road , Melville, NY 11747

 TEL: (631) 694-3040
 FAX: (631) 420-8436

 NYSDOH ID#10478
 www.pacelabs.com

Pace Analytical Services Inc. 2190 Technology Drive Schenectady, NY 12308

 Attn To:
 William A. Kotas

 Collected
 : 8/6/2015 10:45:00 AM

 Received
 : 8/6/2015

Collected By : CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Lab No. : 1508505-002 Client Sample ID: MW-5A/AR Sample Information: Type : Aqueous

Origin:

Analytica Method: SW8260C :		Prep	Method: 50	30C			Analyst: BL
Parameter(s)	Results	<u>Qualifier</u>	<u>D.F.</u>	Units		Analyzed:	Container:
1,1,1,2-Tetrachloroethane	< 1.0		1	µg/L		08/08/2015 11:57 PM	Container-01 of 03
1,1,1-Trichloroethane	< 1.0		1	µg/L		08/08/2015 11:57 PM	Container-01 of 03
1,1,2,2-Tetrachloroethane	< 1.0		1	μg/L		08/08/2015 11:57 PM	Container-01 of 03
1,1,2-Trichloroethane	< 1.0		1	μg/L	•	08/08/2015 11:57 PM	Container-01 of 03
1,1-Dichloroethane	3.5		1	μg/L		08/08/2015 11:57 PM	Container-01 of 03
1,1-Dichloroethene	< 1.0		1	µg/L	· ·	08/08/2015 11:57 PM	Container-01 of 03
1,1-Dichloropropene	< 1.0		1	µg/L		08/08/2015 11:57 PM	Container-01 of 03
1,2,3-Trichlorobenzene	< 1.0		1	µg/L		08/08/2015 11:57 PM	Container-01 of 03
1,2,3-Trichloropropane	< 1.0		1	µg/L		08/08/2015 11:57 PM	Container-01 of 03
1,2,4-Trichlorobenzene	< 1.0		1	μg/L		08/08/2015 11:57 PM	Container-01 of 03
1,2,4-Trimethylbenzene	5.1		1	µg/L		08/08/2015 11:57 PM	Container-01 of 03
1,2-Dibromo-3-chloropropane	< 1.0		1	µg/L		08/08/2015 11:57 PM	Container-01 of 03
1,2-Dibromoethane	< 1.0		1	µg/L		08/08/2015 11:57 PM	. Container-01 of 03
1,2-Dichlorobenzene	< 1.0		1	µg/L		08/08/2015 11:57 PM	Container-01 of 03
1,2-Dichloroethane	< 1.0		1	µg/L		08/08/2015 11:57 PM	Container-01 of 03
1,2-Dichloropropane	< 1.0		1	μg/L		08/08/2015 11:57 PM	Container-01 of 03
1,3,5-Trimethylbenzene/P- ethyltoluene	1.4		1	µg/L	÷ .	08/08/2015 11:57 PM	Container-01 of 03
1,3-Dichlorobenzene	< 1.0		1	µg/L	•	08/08/2015 11:57 PM	Container-01 of 03
1,3-Dichloropropane	< 1.0		1	μg/L	:	08/08/2015 11:57 PM	Container-01 of 03
1,4-Dichlorobenzene	< 1.0		1	µg/L		08/08/2015 11:57 PM	Container-01 of 03
2,2-Dichloropropane	< 1.0		1	µg/L		08/08/2015 11:57 PM	Container-01 of 03
2-Butanone	< 5.0		1	µg/L.		08/08/2015 11:57 PM	Container-01 of 03
2-Chloroethylvinyl ether	< 10	S	1	µg/L		08/08/2015 11:57 PM	Container-01 of 03
2-Chlorotoluene/4-Chlorotoluene	< 1.0		1	µg/L		08/08/2015 11:57 PM	Container-01 of 03
2-Hexanone	< 5.0		1	μg/L		08/08/2015 11:57 PM	Container-01 of 03
4-Isopropyltoluene	< 1.0		1	µg/L		08/08/2015 11:57 PM	Container-01 of 03
4-Methyl-2-pentanone	< 5.0		1	µg/L.		08/08/2015 11:57 PM	Container-01 of 03
Acetone	110		1	µg/L		08/08/2015 11:57 PM	Container-01 of 03
Benzene	< 1.0		1	µg/L		08/08/2015 11:57 PM	Container-01 of 03
Bromobenzene	< 1.0		1	µg/L		08/08/2015 11:57 PM	Container-01 of 03
Bromochloromethane	< 1.0		1	µg/L		08/08/2015 11:57 PM	Container-01 of 03

Qualifiers: E = Value above quantitation range, Value estimated.

- B = Found in Blank
- D.F. = Dilution Factor D = Results for Dilution
- H = Received/analyzed outside of analytical holding time
- + = NYSDOH ELAP does not offer certification for this analyte / matrix / method
- c = Calibration acceptability criteria exceeded for this analyte
- R = Reporting limit below calibration range. Value estimated.
- J = Estimated value below calibration range

S = Recovery exceeded control limits for this analyte

N = Indicates presumptive evidence of compound

Date Reported :

Project Manager

Test results meet the requirements of NELAC unless otherwise noted.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Page 4 of 20

1.1



AS22666

Pace Analytical Services Inc. 2190 Technology Drive Schenectady, NY 12308

Attn To:William A. KotasCollected: 8/6/2015 10:45:00 AMReceived: 8/6/2015

Collected By : CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the cartified tests requested.

Lab No. : 1508505-002 Client Sample ID: MW-5A/AR Sample Information: Type : Aqueous

Origin:

Analytical Method: SW8260C :		Prep	Method: 50	30C		Analyst: BL
Parameter(s)	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	Analyzed;	Container:
Bromodichloromethane	- < 1.0		1	µg/L	08/08/2015 11:57 PM	Container-01 of 03
Bromoform	< 1.0		1	μg/L	08/08/2015 11:57 PM	Container-01 of 03
Bromomethane	< 1.0		1	µg/L	08/08/2015 11:57 PM	Container-01 of 03
Carbon disulfide	< 10		1	µg/L	08/08/2015 11:57 PM	Container-01 of 03
Carbon tetrachloride	< 1.0		1	µg/L	08/08/2015 11:57 PM	Container-01 of 03
Chlorobenzene	< 1.0		1	µg/L	08/08/2015 11:57 PM	Container-01 of 03
Chloroethane	540	D	5	μg/L	08/10/2015 6:45 PM	Container-02 of 03
Chloroform	< 1.0		1	μg/L	08/08/2015 11:57 P.M.	Container-01 of 03
Chloromethane	< 1.0	i.	1	µg/L	08/08/2015 11:57 PM	Container-01 of 03
cis-1,2-Dichloroethene	< 1.0		1	μg/L	08/08/2015 11:57 PM	Container-01 of 03
cis-1,3-Dichloropropene	< 1.0		1	µg/L	08/08/2015 11:57 PM	Container-01 of 03
Dibromochloromethane	< 1.0		1	µg/L	08/08/2015 11:57 PM	Container-01 of 03
Dibromomethane	< 1.0		1	µg/L	08/08/2015 11:57: PM·	Container-01 of 03
Dichlorodifluoromethane	< 1.0		1	µg/L	08/08/2015 11;57 PM	Container-01 of 03
Ethylbenzene	< 1.0	A. 4	1	µg/L	08/08/2015 11:57 PM	Container-01 of 03
Hexachlorobutadiene	< 1.0		1	µg/L	08/08/2015 11:57 PM	Container-01 of 03
Isopropylbenzene	< 1.0	7	1	µg/L	08/08/2015 11:57,PM	Container-01 of 03
m,p-Xylene	< 1.0		1	`μg/L	08/08/2015 11:57; PM,	Container-01 of 03
Methyl tert-butyl ether	< 1.0	:	1	μg/L	08/08/2015 11:57.PM	Gontainer-01 of 03
Methylene chloride	< 1.0		1	µg/L	08/08/2015 11:57, PM	Container-01 of 03
Naphthalene	2.7		1	μg/L	08/08/2015 11:67-PM	Container-01 of 03
n-Butylbenzene	< 1.0		1	µg/L	08/08/2015 11:57 PM	Container-01 of 03
n-Propylbenzene	1.5		1	µg/L	08/08/2015 11:57 PM	Container-01 of 03
o-Xylene	< 1.0		1	μg/L	08/08/2015 11:57,PM	
sec-Butylbenzene	1.2		1	µg/L	08/08/2015 11:57 PM	Container-01 of 03
Styrene	< 1.0		1	μg/L	08/08/2015 11:57 PM	Container-01 of 03
tert-Butylbenzene	< 1.0		1	μg/L	08/08/2015 11:57 PM	Container-01 of 03
Tetrachlorcethene	< 1.0		1	µg/L	0B/08/2015 11:57 PM	Container-01 of 03
Toluene	2.8		1	µg/L	08/08/2015 11:57 PM	Container-01 of 03
trans-1,2-Dichlorcethene	< 1.0		1	µg/L	08/08/2015 11:57 PM	
trans-1,3-Dichloropropene	< 1.0		1	µg/L	08/08/2015 11:57 PM	
Trichloroethene	< 1.0		1	µg/L	08/08/2015 11:57 PM.	

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

H = Received/analyzed outside of analytical holding time

+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

c = Calibration acceptability criteria exceeded for this analyte

R = Reporting limit below calibration range. Value estimated.

J = Estimated value - below calibration range

S = Recovery exceeded control limits for this analyte N = Indicates presumptive evidence of compound

Date Reported :

radin Alachimon

Project Manager

Test results meet the requirements of NELAC unless otherwise noted.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Page 5 of 20



 575 Broad Hollow Road , Melville, NY 11/47

 TEL: (631) 694-3040
 FAX: (631) 420-8436

 NYSDOH ID#10478
 www.pacelabs.com

AS22666

Pace Analytical Services Inc. 2190 Technology Drive Schenectady, NY 12308

Attn To: William A. Kotas Collected: 8/6/2015 10:45:00 AM

Received : 8/6/2015 Collected By : CLIENT LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Lab No. : 1508505-002 Client Sample ID: MW-5A/AR Sample Information: Type : Aqueous

Origin:

Analytical Method: SW8260C :		Prep	<u>Method:</u> 503	30C				<u>Analyst</u> BL
Parameter(s)	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>			Analyzed:	Container:
Trichlorofluoromethane	< 1,0		1	µg/L			08/08/2015 11:57 PM	Container-01 of 03
Vinyl acetate	< 10		1	μց/Լ			08/08/2015 11:57 PM	Container-01 of 03
Vinyl chloride	< 1.0		1	µg/L			08/08/2015 11:57 PM	Container-01 of 03
Surr: 1,2-Dichloroethane-d4	99.2		1	%REC	Limit	53-183	08/08/2015 11:57 PM	Container-01 of 03
Surr: 4-Bromofluorobenzene	98.8		1	%REC	Limit	63-140	08/08/2015 11:57 PM	Container-01 of 03
Surr: Toluene-d8	95.4		1	%REC	Limit	60-135	08/08/2015 11:57 PM	Container-01 of 03
Analytical Method: E300.0 :								Analyst: bka
Parameter(s)	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>			Analyzed:	Container:
Sulfate	< 5.00		1	mg/L			08/20/2015 11:59 AM	Container-01 of 01
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<u>Qualifiers:</u> E = Value above quantitation range, Value estimated.

B = Found in Blank

- D.F. = Dilution Factor D = Results for Dilution
- H = Received/analyzed outside of analytical holding time
- + = NYSDOH ELAP does not offer certification for this analyte / matrix / method
- c = Calibration acceptability criteria exceeded for this analyte
- R = Reporting limit below calibration range. Value estimated.
- J = Estimated value below calibration range
- S = Recovery exceeded control limits for this analyte N = Indicates presumptive evidence of compound

Date Reported :

addin Attachingon

Project Manager

Test results meet the requirements of NELAC unless otherwise noted.

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Page 6 of 20



Pace Analytical Services Inc. 2190 Technology Drive

Schenectady, NY 12308

 Attn To:
 William A. Kotas

 Collected
 : 8/6/2015 11:20:00 AM

 Received
 : 8/6/2015

 Collected BV:
 CUENT

Collected By : CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Lab No. : 1508505-003 Client Sample ID: MW-14 Sample Information: Type : Aqueous

Origin:

Analytical Method: SW8260C :		Prep N	Method: 50	30C			Analyst: BL
Parameter(s)	<u>Results</u>	Qualifier	<u>D.F.</u>	<u>Units</u>		Analyzed:	Container:
1,1,1,2-Tetrachloroethane	< 1.0		1	μg/L		08/09/2015 12:22 AM	Container-01 of 03
1,1,1-Trichloroethane	< 1.0		1	μg/L	4.1 1	08/09/2015 12:22 AM	Container-01 of 03
1,1,2,2-Tetrachloroethane	< 1.0		1	µg/L		08/09/2015 12:22 AM	Container-01 of 03
1,1,2-Trichloroethane	< 1.0		1	µg/L		08/09/2015 12:22 AM	Container-01 of 03
1,1-Dichloroethane	31		1	μg/L		08/09/2015 12:22 AM	Container-01 of 03
1,1-Dichloroethene	3.6		1	µg/L		08/09/2015 12:22 AM	Container-01 of 03
1,1-Dichloropropene	< 1.0		1	µg/L		08/09/2015 12:22 AM	Container-01 of 03
1,2,3-Trichlorobenzene	< 1.0		1	μg/L		08/09/2015 12:22 AM	Container-01 of 03
1,2,3-Trichloropropane	< 1.0		1	μg/L.		08/09/2015 12:22 AM	Container-01 of 03
1,2,4-Trichlorobenzene	< 1.0		1	µg/L		08/09/2015 12:22 AM	Container-01 of 03
1,2,4-Trimethylbenzene	< 1.0		1	µg/L		08/09/2015 12:22 AM	Container-01 of 03
1,2-Dibromo-3-chioropropane	< 1.0		1	µg/L		08/09/2015 12:22 AM	Container-01 of 03
1,2-Dibromoethane	< 1.0		1	μg/L		08/09/2015 12:22 AM	Container-01 of 03
1,2-Dichlorobenzene	< 1.0		1	µg/L		08/09/2015 12:22 AM	Container-01 of 03
1,2-Dichloroethane	< 1.0		1	µg/L	· .	08/09/2015 12:22 AM	Container-01 of 03
1,2-Dichloropropane	< 1.0		1	μg/L		08/09/2015 12:22 AM	Container-01 of 03
1,3,5-Trimethylbenzene/P- ethyltoluene	< 1.0		1	µg/L		08/09/2015 12:22 AM	Container-01 of 03
1,3-Dichlorobenzene	< 1.0		1	µg/L		08/09/2015 12:22 AM	Container-01 of 03
1,3-Dichloropropane	< 1.0		1	µg/L	·	08/09/2015 12;22 AM	Container-01 of 03
1,4-Dichlorobenzene	< 1.0		1	µg/L		08/09/2015 12:22 AM	Container-01; of 03
2,2-Dichloropropane	< 1.0		1	µg/L.		08/09/2015 12:22 AM	Container-01 of 03
2-Butanone	< 5.0		1	µg/L		08/09/2015 12:22 AM	Container-01 of 03
2-Chloroethylvinyl ether	< 10	S	1	μg/L.		08/09/2015 12:22 AM	Container-01 of 03
2-Chlorotoluene/4-Chlorotoluene	< 1.0		1	μg/L		08/09/2015 12:22 AM	Container-01 of 03
2-Hexanone	< 5.0		1	µg/L		08/09/2015 12:22 AM	Container-01 of 03
4-Isopropyltoluene	< 1.0		1	µg/L		08/09/2015 12:22 AM	Container-01 of 03
4-Methyl-2-pentanone	< 5.0		1	µg/L		08/09/2015 12:22 AM	Container-01 of 03
Acetone	12		1	µg/L		08/09/2015 12:22 AM	Container-01 of 03
Benzene	< 1.0		1	µg/L		08/09/2015 12:22 AM	Container-01 of 03
Bromobenzene	< 1.0		1	µg/L		08/09/2015 12:22 AM	Container-01 of 03
Bromochloromethane	< 1.0		1	µg/L		08/09/2015 12:22 AM	Container-01 of 03

Qualifiers: E = Value above quantitation range, Value estimated.

- B = Found in Blank
- D.F. = Dilution Factor D = Results for Dilution
- H = Received/analyzed outside of analytical holding time
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- R = Reporting limit below calibration range. Value estimated.
- J = Estimated value below calibration range

S = Recovery exceeded control limits for this analyte N = Indicates presumptive evidence of compound

Date Reported :

radein Alachimon

Project Manager

Test results meet the requirements of NELAC unless otherwise noted.

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Page 7 of 20



Pace Analytical Services Inc. 2190 Technology Drive Schenectady, NY 12308

 Attn To:
 William A. Kotas

 Collected
 : 8/6/2015 11:20:00 AM

 Received
 : 8/6/2015

Collected By : CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Lab No. : 1508505-003 Client Sample ID: MW-14 Sample Information: Type : Aqueous

Origin:

 $d \in \mathcal{A}$

Analytical Method: SW8260C :		Prep N	<u>/lethod:</u> 503	10C			Analyst: BL
Parameter(s)	Results	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>		Analyzed:	Container:
Bromodichloromethane	< 1.0		1	μg/L.		08/09/2015 12:22 AM	Container-01 of 03
Bromoform	< 1.0		1	μg/L		08/09/2015 12:22 AM	Container-01 of 03
Bromomethane	< 1.0		1	μg/Ł		08/09/2015 12:22 AM.	Container-01 of 03
Carbon disulfide	< 10		1	µg/L.		08/09/2015 12:22 AM	Container-01 of 03
Carbon tetrachloride	< 1.0		1	µg/L		08/09/2015 12:22 AM	Container-01 of 03
Chlorobenzene	< 1.0		1	µg/L		08/09/2015 12:22 AM	Container-01 of 03
Chloroethane	8.0		1	µg/L		08/09/2015 12:22 AM	Container-01 of 03
Chloroform	< 1.0		1	μg/L		08/09/2015 12:22 AM	Container-01 of 03
Chloromethane	< 1.0		1	μg/L		08/09/2015 12:22 AM	Container-01 of 03
cis-1,2-Dichloroethene	< 1.0		1	µg/L		08/09/2015 12:22 AM	Container-01 of 03
cis-1,3-Dichloropropene	< 1.0		1	µg/L		08/09/2015 12:22 AM	Container-01 of 03
Dibromochloromethane	< 1.0		1	µg/L		08/09/2015 12:22 AM	Container-01 of 03
Dibromomethane	< 1.0		1	µg/L		08/09/2015 12:22 AM	Container-01 of 03
Dichlorodifluoromethane	< 1.0	÷.,	1 .	μg/L		08/09/2015 12:22 AM	Container-01 of 03
Ethylbenzene	< 1.0		1	µg/L	4	08/09/2015 12:22 AM	Container-01 of 03
Hexachiorobutadiene	< 1.0		1	µg/L		08/09/2015 12:22 AM	Container-01 of 03
Isopropylbenzene	< 1.0		1	µg/L		08/09/2015 12:22 AM	Container-01 of 03
m,p-Xylene	< 1.0		1.	µg/L		08/09/2015 12:22 AM	Container-01 of 03
Methyl tert-butyl ether	< 1.0		1	µg/L		08/09/2015 12:22:AM	Container-01 of 03
Methylene chloride	< 1.0		1	µg/L		08/09/2015 12:22:AM	
Naphthalene	< 1.0		1	µg/L		08/09/2015 12:22 AM	Container-01 of 03
n-Butylbenzene	< 1.0		1	µg/L		08/09/2015 12:22 AM	Container-01 of 03
n-Propylbenzene	< 1.0		1	µg/L		08/09/2015 12:22 AM	Container-01 of 03
o-Xylene	< 1.0		1	µg/L		08/09/2015 12:22 AM	Container-01 of 03
sec-Butylbenzene	< 1.0		1	µg/L		08/09/2015 12:22 AM	Container-01 of 03
Styrene	< 1.0		1	µg/L		08/09/2015 12:22 AM	Container-01 of 03
tert-Butylbenzene	< 1.0		1	µg/L		08/09/2015 12:22 AM	Container-01 of 03
Tetrachloroethene	< 1.0		1	µg/L.		08/09/2015 12:22 AM	Container-01 of 03
Toluene	< 1.0		1	μg/L		08/09/2015 12:22 AM	Container-01 of 03
trans-1,2-Dichloroethene	< 1.0		1	µg/L		08/09/2015 12:22 AM	Container-01 of 03
trans-1,3-Dichtoropropene	< 1.0		1	μg/L		08/09/2015 12:22 AM	Container-01 of 03
Trichlorcethene	< 1.0		1				

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

- D.F. = Dilution Factor D = Results for Dilution
- H = Received/analyzed outside of analytical holding time
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- c = Calibration acceptability criteria exceeded for this analyte

R = Reporting limit below calibration range. Value estimated.

J = Estimated value - below calibration range

$$\label{eq:second} \begin{split} & \text{S} = \text{Recovery exceeded control limits for this analyte} \\ & \text{N} = \text{Indicates presumptive evidence of compound} \end{split}$$

Date Reported :

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Project Manager

Test results meet the requirements of NELAC unless otherwise noted.

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Page 8 of 20

Pace Analytical"

 575 Broad Hollow Road, Melville, NY 11747

 TEL: (631) 694-3040
 FAX: (631) 420-8436

 NYSDOH ID#10478
 www.pacelabs.com

Pace Analytical Services Inc. 2190 Technology Drive Schenectady, NY 12308

Attn To : William A. Kotas

Collected : 8/6/2015 11:20:00 AM Received : 8/6/2015 AS22667

Collected By : CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Lab No. : 1508505-003 Client Sample ID: MW-14 Sample Information:

Type : Aqueous

Origin:

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Analytical Method: SW8260C :		Prep	Method: 50	30C			··· · · · · · · · · · · · · · · · · ·	Analyst: BL
Parameter(s)	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>			Analyzed;	Container:
Trichlorofluoromethane	< 1.0		1	μg/L.			08/09/2015 12:22 AM.	Container-01 of 03
Vinyl acetate	< 10		1	`µg/L			08/09/2015 12:22 AM	Container-01 of 03
Vinyl chloride	3.1		1	µg/L			08/09/2015 12:22 AM	. Container-01 of 03
Surr: 1,2-Dichloroethane-d4	102		1	%REC	Limit	53-183	08/09/2015 12:22 AM	Container-01 of 03
Surr: 4-Bromofluorobenzene	101		1	%REC	Limit	63-140	08/09/2015 12:22 AM	Container-01 of 03
Surr: Toluene-d8	96.8		1	%REC	Limit	60-135	08/09/2015 12:22 AM	Container-01 of 03
Analytical Method: E300.0 :						•		Analyst: bka
Parameter(s)	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	÷ .		Analyzed:	Container:
Sulfate	< 5.00		1	mg/L			08/20/2015 12:12 PM	Container-01 of 01
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Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

- D.F. = Dilution Factor D = Results for Dilution
- H = Received/analyzed outside of analytical holding time
- + = NYSDOH ELAP does not offer certification for this analyte / matrix / method
- c = Calibration acceptability criteria exceeded for this analyte

R = Reporting limit below calibration range. Value estimated.

J = Estimated value - below calibration range

S = Recovery exceeded control limits for this analyte

N = Indicates presumptive evidence of compound

Date Reported :

thin Althehimon

Project Manager

Test results meet the requirements of NELAC unless otherwise noted.

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Page 9 of 20



Pace Analytical Services Inc. 2190 Technology Drive Schenectady, NY 12308

Attn To : William A. Kotas

Collected : 8/6/2015 11:06:00 AM Received : 8/6/2015 AS22668 Collected By : CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Lab No. : 1508505-004 Client Sample ID: MW-16 Sample Information: Type : Aqueous

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Origin:

Analytical Method: SW8260C :	Pre	p Method: 500	30C		<u>Analyst</u> BL
<u>Parameter(s)</u>	Results Qualifier	<u>D.F.</u>	<u>Units</u>		Analyzed: Container:
1,1,1,2-Tetrachloroethane	< 1.0	1	µg/L		08/09/2015 12:46 AM Container-01 of 03
1,1,1-Trichloroethane	5.6	1	µg/L		08/09/2015 12:46 AM Container-01 of 03
1,1,2,2-Tetrachloroethane	< 1.0	1	µg/L		08/09/2015 12:46 AM Container-01 of 03
1,1,2-Trichloroethane	1.9	1	µg/L		08/09/2015 12:46 AM Container-01/of 03
1.1-Dichloroethane	73	1	µg/L		08/09/2015 12:46 AM Container-01 of 03
,1-Dichloroethene	33	1	µg/L		08/09/2015 12:46 AM Container-01 of 03
,1-Dichloropropene	< 1.0	1	µg/L	· . ·	08/09/2015 12:46 AM Container-01 of 03
,2,3-Trichlorobenzene	< 1.0	1	µg/L		08/09/2015 12:46 AM Container-01 of 03
,2,3-Trichloropropane	< 1.0	1	µg/L		08/09/2015 12:46 AM Container-01 of 03
,2,4-Trichlorobenzene	< 1.0	1	µg/L		08/09/2015 12:46 AM Container-01 of 03
,2,4-Trimethylbenzene	< 1.0	1	µg/L	÷ .	08/09/2015 12:46 AM Container-01 of 03
,2-Dibromo-3-chloropropane	< 1.0	1	µg/L		08/09/2015 12:46 AM Container-01 of 03
,2-Dibromoethane	< 1.0	1	µg/L	: .	08/09/2015 12:46 AM Container-01 of 0:
,2-Dichlorobenzene	< 1.0	1	µg/L		08/09/2015 12:46 AM .: Container-01 of 03
,2-Dichloroethane	< 1.0	1	µg/L		08/09/2015 12:46 AM Container-01 of 03
,2-Dichloropropane	< 1.0	1	µg/L	· · ·	08/09/2015 12:46 AM - Container-01 of 03
,3,5-Trimethylbenzene/P- thyltoluene	< 1.0	1	µg/L	1 m - 11 1	08/09/2015 12:46 AM Container-01 of 03
,3-Dichlorobenzene	< 1.0	1	µg/L		08/09/2015 12:46 AM Container-01 of 03
,3-Dichloropropane	< 1.0	1	µg/L	1:	08/09/2015 12:46 AM Container-01 of 03
,4-Dichlorobenzene	< 1.0	1	µg/L	•	08/09/2015 12:46 AM Container-01 of 03
,2-Dichloropropane	< 1.0	1	µg/L		08/09/2015 12:46 AM Container-01 of 03
-Butanone	< 5.0	1	µg/L		08/09/2015 12:46 AM Container-01 of 03
-Chloroethylvinyt ether	<10 S	1	µg/Ł		08/09/2015 12:46 AM Container-01 of 03
-Chlorotoluene/4-Chlorotoluene	< 1.0	1	μg/L		08/09/2015 12:46 AM Container-01 of 03
-Hexanone	< 5.0	1	µg/L		08/09/2015 12:46 AM Container-01 of 03
-Isopropyltoluene	< 1.0	1	µg/L.		08/09/2015 12:46 AM Container-01 of 03
-Methyl-2-pentanone	< 5.0	1	µg/L		08/09/2015 12:46 AM Container-01 of 03
Acetone	< 10	1	µg/L		08/09/2015 12:46 AM Container-01 of 03
lenzene	< 1.0	1	μg/L		08/09/2015 12:46 AM. Container-01 of 0
romobenzene	< 1.0	1	μg/L		08/09/2015 12:46 AM Container-01 of 00
Iromochloromethane	< 1.0	1	μg/L		08/09/2015 12:46 AM Container-01 of 03

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

H = Received/analyzed outside of analytical holding time

+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

c = Calibration acceptability criteria exceeded for this analyte

R = Reporting limit below calibration range. Value estimated.

J = Estimated value - below calibration range

S = Recovery exceeded control limits for this analyte

N = Indicates presumptive evidence of compound

Date Reported :

addinotated

Project Manager

Test results meet the requirements of NELAC unless otherwise noted.

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Page 10 of 20



 575 Broad Hotlow Road , Melville, NY 11747

 TEL: (631) 694-3040
 FAX: (631) 420-8436

 NYSDOH ID#10478
 www.pacelabs.com

Pace Analytical Services Inc. 2190 Technology Drivé Schenectady, NY 12308

 Attn To:
 William A. Kotas

 Collected
 : 8/6/2015 11:06:00 AM

 Received
 : 8/6/2015

 AS22668

Collected By : CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Lab No. : 1508505-004 Client Sample ID: MW-16 Sample Information: Type : Aqueous

. . .

Origin:

ayata ya sa

Analytical Method: SW8260C :		Prep	Method: 50	30C	· · · · · · · · · · · · · · · · · · ·	Analyst: BL
Parameter(s)	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	Analyzed:	<u>Container:</u>
Bromodichloromethane	< 1.0		1	μg/L	08/09/2015 12:46 AM	Container-01 of 03
Bromoform	< 1.0		1	μg/L	08/09/2015 12:46 AM	Container-01 of 03
Bromomethane	< 1.0		1	µg/L	08/09/2015 12:46 AM	Container-01 of 03
Carbon disulfide	< 10		1	µg/L	08/09/2015 12:46 AM	Container-01 of 03
Carbon tetrachloride	< 1.0		1	µg/L	08/09/2015 12:46 AM	Container-01 of 03
Chlorobenzene	< 1.0		1	μg/L	08/09/2015 12:46 AM	Container-01 of 03
Chloroethane	3.7		1	μg/L	08/09/2015 12:46 AM	Container-01 of 03
Chloroform	< 1.0		1	µg/L	08/09/2015 12:46 AM	Container-01 of 03
Chloromethane	< 1.0		1	µg/L	08/09/2015 12:46 AM	Container-01 of 03
cis-1,2-Dichloroethene	3.4		1	µg/L	08/09/2015 12:46 AM	Container-01 of 03
cis-1,3-Dichloropropene	< 1.0		1	µg/L	08/09/2015 12:46 AM	Container-01 of 03
Dibromochloromethane	< 1.0		1	µg/L	08/09/2015 12:46 AM	Container-01 of 03
Dibromomethane	< 1.0		1	µg/L	08/09/2015 12:46 AM	Container-01 of 03
Dichlorodifluoromethane	< 1.0		1	µg/L	08/09/2015 12:46 AM	Container-01 of 03
Ethylbenzene	< 1.0		1	μg/L	08/09/2015 12:46 AM	Container-01 of 03
Hexachlorobutadiene	< 1.0		1	µg/L	08/09/2015 12:46 AM	Container-01 of 03
Isopropyibenzene	< 1.0		1	µg/L , ∖	08/09/2015 12:46 AM	
m,p-Xylene	< 1.0		1	µg/L	08/09/2015 12:46 AM	. Container-01 of 03
Methyl tert-butyl ether	< 1.0		1	μg/L	08/09/2015 12:46 AM	Container-01 of 03
Methylene chloride	< 1.0		1	µg/L	08/09/2015 12:46 AM	Container-01 of 03
Naphthalene	< 1.0		1	µg/L	08/09/2015-12:46 AM	Container-01 of 03
n-Butylbenzene	< 1.0		1	µg/L	08/09/2015 12:46 AM	Container-01 of 03
n-Propylbenzene	< 1.0		1	µg/L	08/09/2015 12:46 AM	Container-01 of 03
o-Xylene	< 1.0		1	μg/L	08/09/2015 12:46 AM	Container-01 of 03
sec-Butylbenzene	< 1.0		1	μg/L	08/09/2015 12:46 AM	Container-01 of 03
Styrene	< 1.0		1	μg/L	08/09/2015 12:46 AM	Container-01 of 03
ert-Butylbenzene	< 1.0		1	µg/L	08/09/2015 12:46 AM	Container-01 of 03
Fetrachloroethene	11		1	µg/L	08/09/2015 12:46 AM	Container-01 of 03
Toluene	< 1.0		1	μg/L.	08/09/2015 12:46 AM	Container-01 of 03
trans-1,2-Dichloroethene	< 1.0		1	μg/L	08/09/2015 12:46 AM	Container-01 of 03
trans-1,3-Dichloropropene	< 1.0		1	μg/L.	08/09/2015 12:46 AM	Container-01 of 03
Trichloroethene	1.2	4	1	µg/L	08/09/2015 12:46 AM	Container-01 of 03

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

- D.F. = Dilution Factor D = Results for Dilution
- H = Received/analyzed outside of analytical holding time
- + = NYSDOH ELAP does not offer certification for this analyte / matrix / method
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R = Reporting limit below calibration range. Value estimated.

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S = Recovery exceeded control limits for this analyte N = Indicates presumptive evidence of compound

Date Reported :

adinplachi

Project Manager

Test results meet the requirements of NELAC unless otherwise noted.

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Page 11 of 20



Pace Analytical Services Inc. 2190 Technology Drive Schenectady, NY 12308

 Attn To:
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 : 8/6/2015 11:06:00 AM

 Received
 : 8/6/2015

Collected By : CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Lab No. : 1508505-004 Client Sample ID: MW-16 Sample Information: Type : Aqueous

Origin:

Analytical Method: SW8260C :		Prep	Method: 500	30C				Analyst: BL
Parameter(s)	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>			Analyzed:	Container;
Trichlorofluoromethane	< 1.0		1	µg/L			08/09/2015 12:46 AM	Container-01 of 03
Vinyl acetate	< 10		1	μg/L			08/09/2015 12:46 AM	,Container-01 of 00
Vinyl chloride	7.6		1	µg/L			08/09/2015 12:46 AM	. Container-01 of 03
Surr: 1,2-Dichloroethane-d4	104		1	%REC	Limit	53-183	08/09/2015 12:46 AM	Container-01 of 0
Surr: 4-Bromofluorobenzene	99.1		1	%REC	Limit	63-140	08/09/2015 12:46 AM	Container-01 of 03
Surr: Toluene-d8	98.2		1	%REC	Limit	60-135	08/09/2015 12:46 AM	Container-01 of 03
Analytical Method: E300.0 :								<u>Analyst:</u> bka
Parameter(s)	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>			Analyzed:	Container:
Sulfate	25.3		1	mg/L			08/20/2015 12:26 PM	Container-01 of 01
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<u>Qualifiers:</u> E = Value above quantitation range, Value estimated.

B = Found in Blank

- D.F. = Dilution Factor D = Results for Dilution
- H = Received/analyzed outside of analytical holding time
- + = NYSDOH ELAP does not offer certification for this analyte / matrix / method
- \mathbf{c} = Calibration acceptability criteria exceeded for this analyte
- R = Reporting limit below calibration range. Value estimated.
- J = Estimated value below calibration range
- S = Recovery exceeded control limits for this analyte N = Indicates presumptive evidence of compound

Date Reported :

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Project Manager

Test results meet the requirements of NELAC unless otherwise noted.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Page 12 of 20



AS22669

Pace Analytical Services Inc. 2190 Technology Drive Schenectady, NY 12308

Attn To: William A. Kotas Collected : 8/6/2015 12:30:00 PM

Received : 8/6/2015 Collected By : CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Lab No. : 1508505-005 Client Sample ID: MW-CHA-RFI-7 Sample Information:

Type: Aqueous

Origin:

1,1,1-Trichloroethane < 1.0 1 µg/L 08/09/2015 1:10 AM Container-01 of 99 1,1,2-Z-Tetrachloroethane < 1.0 1 µg/L 08/09/2015 1:10 AM Container-01 of 99 1,1,2-Trichloroethane < 1.0 1 µg/L 08/09/2015 1:10 AM Container-01 of 09 1,1-Dichloroethane < 1.0 1 µg/L 08/09/2015 1:10 AM Container-01 of 09 1,1-Dichloroethane < 1.0 1 µg/L 08/09/2015 1:10 AM Container-01 of 09 1,2,3-Trichlorobenzene < 1.0 1 µg/L 08/09/2015 1:10 AM Container-01 of 09 1,2,4-Trichlorobenzene < 1.0 1 µg/L 08/09/2015 1:10 AM Container-01 of 09 1,2,4-Trichlorobenzene < 1.0 1 µg/L 08/09/2015 1:10 AM Container-01 of 09 1,2-Dichlorobenzene < 1.0 1 µg/L 08/09/2015 1:10 AM Container-01 of 09 1,2-Dichlorobenzene < 1.0 1 µg/L 08/09/2015 1:10 AM Container-01 of 09 1,2-Dichlorobenzene < 1.0 1 µg/L <th>Analytical Method: SW8260C :</th> <th></th> <th>Prep</th> <th>Method: 50</th> <th>30C</th> <th></th> <th></th> <th>Analyst: BL</th>	Analytical Method: SW8260C :		Prep	Method: 50	30C			Analyst: BL
1,1,1-Trichloroethane < 1.0 1 µg/L 08/09/2015 1:10 AM Container-01 of 99 1,1,2-Z-Tetrachloroethane < 1.0 1 µg/L 08/09/2015 1:10 AM Container-01 of 99 1,1,2-Trichloroethane < 1.0 1 µg/L 08/09/2015 1:10 AM Container-01 of 09 1,1-Dichloroethane < 1.0 1 µg/L 08/09/2015 1:10 AM Container-01 of 09 1,1-Dichloroethane < 1.0 1 µg/L 08/09/2015 1:10 AM Container-01 of 09 1,2,3-Trichlorobenzene < 1.0 1 µg/L 08/09/2015 1:10 AM Container-01 of 09 1,2,4-Trichlorobenzene < 1.0 1 µg/L 08/09/2015 1:10 AM Container-01 of 09 1,2,4-Trichlorobenzene < 1.0 1 µg/L 08/09/2015 1:10 AM Container-01 of 09 1,2-Dichlorobenzene < 1.0 1 µg/L 08/09/2015 1:10 AM Container-01 of 09 1,2-Dichlorobenzene < 1.0 1 µg/L 08/09/2015 1:10 AM Container-01 of 09 1,2-Dichlorobenzene < 1.0 1 µg/L <th>Parameter(s)</th> <th><u>Results</u></th> <th><u>Qualifier</u></th> <th><u>D.F.</u></th> <th><u>Units</u></th> <th></th> <th>Analyzed:</th> <th>Container:</th>	Parameter(s)	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>		Analyzed:	Container:
1,1,2,2-Tetrachloroethane <1.0	1,1,1,2-Tetrachioroethane	< 1.0		1	μg/L		08/09/2015 1:10 AM	Container-01 of 09
1,1,2-Trichloroethane <1.0	1,1,1-Trichloroethane	< 1.0		1	µg/L		08/09/2015 1:10 AM	Container-01 of 09
1.1-Dichloroethane < 1.0	1,1,2,2-Tetrachloroethane	< 1.0		1	µg/L		08/09/2015 1:10 AM	Container-01 of 09
1,1-Dichloroethene < 1.0	1,1,2-Trichloroethane	< 1.0		1	µg/L		08/09/2015 1:10 AM	Container-01 of 09
1.1-Dichloropropene < 1.0	1,1-Dichloroethane	< 1.0		1	µg/L		08/09/2015 1:10 AM	Container-01 of 09
1,2,3-Trichlorobenzene <1.0	1,1-Dichloroethene	< 1.0		1	µg/L		08/09/2015 1:10 AM	Container-01 of 09
1,2;3-Trichloropropane < 1.0	1,1-Dichloropropene	< 1.0		1	μg/L		08/09/2015 1:10 AM	Container-01 of 09
1,2,4-Trichlorobenzene < 1.0	1,2,3-Trichlorobenzene	< 1.0		1	µg/L		08/09/2015 1:10 AM	Container-01 of 09
1,2,4-Trimethylbenzene< 1.01 $\mu g/L$ $08/09/2015 1:10 \text{ AM}$ Container-01 of 091,2-Dibromo-3-chloropropane< 1.0	1,2,3-Trichloropropane	< 1.0		1	µg/L		08/09/2015 1:10 AM	Container-01 of 09
1.2-Dibrome-3-chloropropane < 1.0	1,2,4-Trichlorobenzene	< 1.0		1	µg/L		08/09/2015 1:10 AM	Container-01 of 09
1,2-Dibromoethane <1.0	1,2,4-Trimethylbenzene	< 1.0		1	μg/L		08/09/2015 1:10 AM	Container-01 of 09
12-Dichlorobenzene < 1.0	1,2-Dibromo-3-chloropropane	< 1,0		1	µg/L		08/09/2015 1:10 AM	Container-01 of 09
1.2-Dichlorogethane < 1.0	1,2-Dibromoethane	< 1.0		1	µg/L	• .	08/09/2015 1:10 AM	Container-01 of 09
1,2-Dichloropropane < 1.0	1,2-Dichlorobenzene	< 1.0		1	μg/L	·• ·	08/09/2015 1:10 AM	Container-01 of 09
1,3,5-Trimethylbenzene/P- <1.0	1,2-Dichloroethane	< 1.0		1	µg/L		08/09/2015 1:10 AN	, Container-01 of 09
ethyltoluene 1.0 1 µg/L 08/09/2015 1:10 AM Container-01 of 09 1,3-Dichloropropane < 1.0	1,2-Dichloropropane	< 1.0		1	µg/L	·	08/09/2015 1:10 AM	Container-01 of 09
1,3-Dichloropropane < 1.0	1,3,5-Trimethylbenzene/P- ethyltoluene	< 1.0		1	µg/L		08/09/2015 1:10 AM	Container-01 of 09
1,4-Dichlorobenzene < 1.0	1,3-Dichlorobenzene	< 1,0		1	μg/L		08/09/2015 1:10 AM	Container-01 of 09
2,2-Dichloropropane < 1.0	1,3-Dichloropropane	< 1.0		1	µg/L		08/09/2015 1:10 AM	Container-01 of 09
2-Butanone < 5.0	1,4-Dichlorobenzene	< 1.0		1	μg/L		08/09/2015 1:10 AM	Container-01 of 09
2-Chloroethylvinyl ether < 10	2,2-Dichloropropane	< 1.0		1	µg/L		08/09/2015 1:10 AM	Container-01 of 09
2-Chlorotoluene/4-Chlorotoluene < 1.0	2-Butanone	< 5.0		1	µg/L		08/09/2015 1:10 AM	Container-01 of 09
2-Hexanone < 5.0 1 μg/L 08/09/2015 1:10 AM Container-01 of 09 4-Isopropyltoluene < 1.0	2-Chloroethylvinyl ether	< 10	S	1	μg/L		08/09/2015 1:10 AM	Container-01 of 09
4-Isopropyltoluene < 1.0 1 μg/L 08/09/2015 1:10 AM Container-01 of 09 4-Methyl-2-pentanone < 5.0	2-Chlorotoluene/4-Chlorotoluene	< 1.0		1	µg/L		08/09/2015 1:10 AM	Container-01 of 09
4-Methyl-2-pentanone < 5.0 1 μg/L 08/09/2015 1:10 AM Container-01 of 09 Acetone < 10	2-Hexanone	< 5.0		1	μg/L		08/09/2015 1:10 AM	Container-01 of 09
Acetone < 10 1 μg/L 08/09/2015 1:10 AM Container-01 of 09 Benzene < 1.0	4-Isopropyltoluene	< 1.0		1	µg/L		08/09/2015 1:10 AM	Container-01 of 09
Benzene < 1.0 1 μg/L 08/09/2015 1:10 AM Container-01 of 09 Bromobenzene < 1.0	4-Methyl-2-pentanone	< 5.0		1	µg/L		08/09/2015 1:10 AM	Container-01 of 09
Bromobenzene < 1.0 1 μg/L 08/09/2015 1:10 AM Container-01 of 09	Acetone	< 10		1	µg/L		08/09/2015 1:10 AM	Container-01 of 09
	Benzene	< 1.0		1	µg/L		08/09/2015 1:10 AM	Container-01 of 09
Bromochloromethane < 1,0 1 μg/L 08/09/2015 1:10 AM Container-01 of 09	Bromobenzene	< 1.0		1	µg/L		08/09/2015 1:10 AM	Container-01 of 09
	Bromochloromethane	< 1.0		1	µg/L		08/09/2015 1:10 AM	Container-01 of 09

Qualifiers: E = Value above quantitation range, Value estimated.

- B = Found in Blank
- D.F. = Dilution Factor D = Results for Dilution
- H = Received/analyzed outside of analytical holding time
- + = NYSDOH ELAP does not offer certification for this analyte / matrix / method
- c = Calibration acceptability criteria exceeded for this analyte
- R = Reporting limit below calibration range. Value estimated.
- J = Estimated value below calibration range
- S = Recovery exceeded control limits for this analyte

N = Indicates presumptive evidence of compound

Date Reported :

Project Manager

Test results meet the requirements of NELAC unless . otherwise noted.

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AS22669

Pace Analytical Services Inc. 2190 Technology Drive Schenectady, NY 12308

Attn To: William A. Kotas

Collected : 8/6/2015 12:30:00 PM Received : 8/6/2015

Collected By : CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Lab No. : 1508505-005 Client Sample ID: MW-CHA-RFI-7 Sample Information:

Type: Aqueous

Origin:

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Analytical Method: SW8260C :	Prep	Method: 50	30C			Analyst: BL
Parameter(s)	Results Qualifier	<u>D.F.</u>	<u>Units</u>		Analyzed:	<u>Container;</u>
Bromodichloromethane	< 1.0	1	μg/L		08/09/2015 1:10 AM	Container-01 of 09
Bromoform	< 1.0	1	µg/L		08/09/2015 1:10 AM.	Container-01 of 09
Bromomethane	< 1.0	1	µg/L		08/09/2015 1:10 AM	Container-01 of 09
Carbon disulfide	< 10	1	µg/L		08/09/2015 1:10 AM	Container-01 of 09
Carbon tetrachloride	< 1.0	1	µg/L		08/09/2015 1:10 AM	Container-01 of 09
Chiorobenzene	< 1.0	1	µg/L		08/09/2015 1:10 AM	Container-01 of 09
Chloroethane	< 1.0	1	μg/L	••••••	08/09/2015 1:10 AM	Container-01 of 09
Chloroform	< 1.0	1	μg/L		08/09/2015 1:10 AM	Gontainer-01 of 09
Chloromethane	< 1.0	1	μg/L		08/09/2015 1:10 AM	Container-01 of 09
cis-1,2-Dichloroethene	< 1.0	1	µg/L		08/09/2015 1:10-AM	Container-01 of 09
cis-1,3-Dichloropropene	< 1.0	1	µg/L		08/09/2015 1:10 AM	Container-01 of 09
Dibromochloromethane	< 1.0	1	µg/L		08/09/2015 1:10 AM	Container-01 of 09
Dibromomethane	< 1.0	1	µg/L		08/09/2015 1:10 AM	Container-01 of 09
Dichlorodifluoromethane	< 1.0	1	µg/L		08/09/2015 1:10 AM	Container-01 of 09
Ethylbenzene	< 1.0	1	µg/L		08/09/2015 1:10 AM	Gontainer-01 of 09
Hexachlorobutadiene	< 1.0	1	µg/L		08/09/2015 1:10 AM :	Container-01 of 09
isopropylbenzene	< 1.0	1	µg/L		08/09/2015 1:10 AM	Gontainer-01 of 09
m,p-Xylène	< 1.0	1	µg/L		08/09/2015 1:10 AM	Container-01 of 09
Methyl tert-butyl ether	< 1.0	1	µg/L		08/09/2015 1;10.AM.	Container-01 of 09
Methylene chloride	< 1.0	1	µg/L		08/09/2015 1:10 AM	Container-01 of 09
Naphthalene	< 1.0	1	μg/L		08/09/2015 1:10 AM	Container-01 of 09
n-Butylbenzene	< 1.0	1	µg/L		08/09/2015 1:10 AM	Container-01 of 09
n-Propylbenzene	< 1.0	1	µg/L		08/09/2015 1:10 AM	Container-01 of 09
o-Xytene	< 1.0	1	μg/L		08/09/2015 1:10 AM	Container-01 of 09
sec-Butylbenzene	< 1.0	1	µg/L		08/09/2015 1:10 AM	Container-01 of 09
Styrene	< 1.0	1	µg/L		08/09/2015 1:10 AM	Container-01 of 09
tert-Butyibenzene	< 1.0	1	µg/L		08/09/2015 1:10 AM	Container-01 of 09
Tetrachloroethene	< 1.0	1	μg/L		08/09/2015 1:10 AM	Container-01 of D9
Toluene	< 1.0	1	µg/L		08/09/2015 1:10 AM	Container-01 of 09
trans-1,2-Dichloroethene	< 1.0	1	μg/L		08/09/2015 1:10 AM	Container-01 of 09
trans-1,3-Dichloropropene	< 1.0	1	µg/L		08/09/2015 1:10 AM	Container-01 of 09
Trichloroethene	< 1.0	1	μg/L		08/09/2015 1:10 AM	Container-01 of 09

Qualifiers: E = Value above quantitation range, Value estimated,

- B = Found in Blank
- D.F. = Dilution Factor D = Results for Dilution
- H = Received/analyzed outside of analytical holding time
- + = NYSDOH ELAP does not offer certification for this analyte / matrix / method
- c = Calibration acceptability criteria exceeded for this analyte
- R = Reporting limit below calibration range. Value estimated.
- J = Estimated value below calibration range
- S = Recovery exceeded control limits for this analyte N = Indicates presumptive evidence of compound

Date Reported

Project Manager

Test results meet the requirements of NELAC unless requirements

otherwise noted. This report shall not be reproduced except in full.

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 575 Broad Hollow Road
 Melville, NY 11747

 TEL: (631) 694-3040
 FAX: (631) 420-8436

 NYSDOH ID#10478
 www.pacelabs.com

Pace Analytical Services Inc. 2190 Technology Drive Schenectady, NY 12308

Attn To: William A. Kotas

Collected : 8/6/2015 12:30:00 PM Received : 8/6/2015 AS22669 Collected By : CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Lab No. : 1508505-005

Client Sample ID: MW-CHA-RFI-7

Sample Information: Type : Aqueous

Origin:

Collected By : CLIENT								•
Analytical Method: SW8260C :		Prep I	Method: 50	30C				<u>Analyst</u> BL
Parameter(s)	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>			Analyzed:	Container:
Trichlorofluoromethane	< 1.0		1	µg/L			08/09/2015 1:10 AM	Container-01 of 09
Vinyl acetate	< 10		1	µg/L			08/09/2015 1:10 AM	Container-01 of 09
Vinyl chloride	< 1.0		1	μg/L			08/09/2015 1:10 AM	Container-01 of 09
Surr: 1,2-Dichloroethane-d4	103		1	%REC Lit	nit 53-183		08/09/2015 1:10 AM	Container-01 of 09
Surr: 4-Bromofluorobenzene	99.8		1	%REC Lir	nit 63-140		08/09/2015 1:10 AM	Container-01 of 09
Surr: Toluene-d8	97.2		1	%REC Lir	nit 60-135		08/09/2015 1:10 AM	Container-01 of 09
Analytical Method: E300.0 :							· · · · · · · · · · · · · · · · · · ·	Analyst: bka
Parameter(s)	<u>Results</u>	Qualifier	<u>D.F.</u>	Units			Analyzed:	Container:
Sulfate	32.7		1	mg/L			08/20/2015 12:39 PM	Container-01 of 03
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<u>Qualifiers:</u> E = Value above quantitation range, Value estimated.

- B = Found in Blank
- D.F. = Dilution Factor D = Results for Dilution
- H = Received/analyzed outside of analytical holding time
- + = NYSDOH ELAP does not offer certification for this analyte / matrix / method
- c = Calibration acceptability criteria exceeded for this analyte
- R = Reporting limit below calibration range. Value estimated.
- J = Estimated value below calibration range
- S = Recovery exceeded control limits for this analyte
- N = Indicates presumptive evidence of compound

Date Reported :

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Project Manager

Test results meet the requirements of NELAC untess otherwise noted.

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15080208 - Page 43 of 54



AS22670

Pace Analytical Services Inc. 2190 Technology Drive Schenectady, NY 12308

Attn To	:	William A. Kotas
Collected		: 8/6/2015
Received		: 8/6/2015

Collected By : CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Lab No. : 1508505-006 Client Sample ID: TRIP BLANK-01

Sample Information: Type Trip Blank

Origin:

Analytical Method: SW8260C :		Prep M	Method: 50	30C		<u>Analyst</u> BL
Parameter(s)	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>		Analyzed: Container:
1,1,1,2-Tetrachloroethane	< 1.0		1	μg/L	·····	08/08/2015 11:08 PM Container-01 of 02
1,1,1-Trichloroethane	< 1.0		1	μg/L		08/08/2015 11:08 PM Container-01 of 02
1,1,2,2-Tetrachloroethane	< 1.0		1	µg/L		08/08/2015 11:08 PM Container-01 of 02
1,1,2-Trichloroethane	< 1.0		1	µg/L		08/08/2015 11:08 PM Container-01 of 02
1,1-Dichloroethane	< 1.0		1	µg/L		08/08/2015 11:08 PM · Container-01 of 02
1,1-Dichloroethene	< 1.0		1	µg/L	•	08/08/2015 11:08 PM . Container-01 of 02
1,1-Dichloropropene	< 1.0		1	µg/L		08/08/2015 11:08 PM Container-01 of 02
1,2,3-Trichlorobenzene	< 1.0		1	µg/L	2	08/08/2015 11:08 PM - Container-01 of 02
1,2,3-Trichloropropane	< 1.0		1	µg/L		08/08/2015 11:08 PM ⇔Containet-01 of 02
1,2,4-Trichlorobenzene	< 1.0		1	µg/L		08/08/2015 11:08 RM :::Container-01:of 02
1,2,4-Trimethylbenzene	< 1.0		1	µg/L		08/08/2015 11:08 PM Container-01 of 02
1,2-Dibromo-3-chloropropane	< 1.0		1	μg/L		08/08/2015 11:08 PM / Container-01 of 02
1,2-Dibromoethane	< 1.0		1	µg/L		08/08/2015 11:08 PM_ Container-01 of 02
1,2-Dichlorobenzene	< 1.0		1	µg/L		08/08/2015 11:08 PM Centainer-01 of 02
1,2-Dichloroethane	< 1.0		1	µg/L		08/08/2015 11:08 PM_Container-01 of 02
1,2-Dichloropropane	< 1.0		1	μg/L	,	08/08/2015 11:08 PM Centainer-01 of 02
1,3,5-Trimethylbenzene/P- ethyltoluene	< 1.0		1 [′]	µg/L		08/08/2015 11:08 PM - Container-01 of 02
1,3-Dichlorobenzene	< 1.0		1	µg/L		08/08/2015 11:08 PM Container-01 of 02
1,3-Dichloropropane	< 1.0		1	µg/L		08/08/2015 11:08 PM > Container-01 of 02
1,4-Dichlorobenzene	< 1.0		1	µg/L		08/08/2015 11:08 PM Container-01 of 02
2,2-Dichloropropane	< 1.0		1	µg/L	1	08/08/2015 11:08 PM _ Container-01 of 02
2-Butanone	< 5.0		1	µg/L		08/08/2015 11:08 PM Container-01 of 02
2-Chloroethylvinyl ether	< 10	S	1	µg/L		08/08/2015 11:08 PM Container-01 of 02
2-Chlorotoluene/4-Chlorotoluene	< 1.0		1	µg/L		08/08/2015 11:08 PM Container-01 of 02
2-Hexanone	< 5.0		1	μg/L		08/08/2015 11:08 PM Container-01 of 02
4-Isopropyltoluene	< 1.0		1	µg/L		08/08/2015 11:08 PM Container-01 of 02
4-Methyl-2-pentanone	< 5.0		1	μg/L		08/08/2015 11:08 PM Container-01 of 02
Acetone	< 10		1	µg/L		08/08/2015 11:08 PM Container-01 of 02
Benzene	< 1.0		1	µg/L		08/08/2015 11:08 PM Container-01 of 02
Bromobenzene	< 1.0		1	µg/L		08/08/2015 11:08 PM Container-01 of 02
Bromochloromethane	< 1.0		1	µg/L		08/08/2015 11:08 PM Container-01 of 02

Qualifiers: E = Value above quantitation range, Value estimated.

- B = Found in Blank
- D.F. = Dilution Factor D = Results for Dilution
- H = Received/analyzed outside of analytical holding time
- + = NYSDOH ELAP does not offer certification for this analyte / matrix / method
- c = Calibration acceptability criteria exceeded for this analyte
- R = Reporting limit below:calibration range. Value estimated.
- J = Estimated value below calibration range
- S = Recovery exceeded control limits for this analyte

N = Indicates presumptive evidence of compound

Date Reported :

2 Alin Alachimon

Project Manager

Test results meet the requirements of NELAC unless otherwise noted.

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 575 Broad Hollow Road , Melville, NY 11747

 TEL: (631) 694-3040
 FAX: (631) 420-8436

 NYSDOH ID#10478
 www.pacelabs.com

AS22670

Pace Analytical Services Inc. 2190 Technology Drive Schenectady, NY 12308

Attn To	: William A. Kotas	
Collected	: 8/6/2015	
Received	: 8/6/2015	

Collected By : CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Lab No. : 1508505-006 Client Sample ID: TRIP BLANK-01 Sample Information: Type : Trip Blank

3pc . The bia

Origin:

Analytical Method: SW8260C :		Prep	Method: 5030	ю́.					Analyst: BL
Parameter(s)	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	Units	2			Analyzed:	<u>Container;</u>
Bromodichloromethane	< 1.0		1	µg/L				08/08/2015 11:08 PM	Container-01 of 02
Bromoform	< 1.0		1	µg/L				08/08/2015 11:08 PM	Container-01 of 02
Bromomethane	< 1.0		1	µg/L				08/08/2015 11:08 PM	Container-01 of 02
Carbon disulfide	< 10		1	µg/L				08/08/2015 11:08 PM	Container-01 of 02
Carbon tetrachloride	< 1.0		1	µg/L				08/08/2015 11:08 PM	Container-01 of 02
Chlorobenzene	< 1.0		1	µg/L			•	08/08/2015 11:08 PM	Container-01 of 02
Chloroethane	< 1.0		1	µg/L				08/08/2015 11:08 PM	Container-01 of 02
Chloroform North Content of the	< 1.0		1	μg/L				08/08/2015 11:08 PM	Container-01 of 02
Chloromethane	< 1.0		1	µg/L				08/08/2015 11:08 PM	Container-01 of 02
cis-1,2-Dichloroethene	< 1.0		1	µg/L				08/08/2015 11:08 PM	Container-01 of 02
cis-1,3-Dichloropropene	< 1.0		1	µg/L				08/08/2015 11:08 PM	Container-01 of 02
Dibromochloromethane	< 1.0		1	µg/L				08/08/2015 11:08.PM.	Container-01 of 02
Dibromomethane	< 1.0		1	µg/L				08/08/2015 11:08 PM	Container-01 of 02
Dichlorodifluoromethane,	< 1.0		1	µg/L				08/08/2015 11:08 PM	Container-01 of 02
Ethylbenzene	< 1.0		1	µg/L				08/08/2015 11:08 PM	Container-01 of 02
Hexachlorobutadiene	< 1.0		1	µg/L				08/08/2015 11:08 PM	Container-01 of 02
Isopropylbenzene and and a second	< 1.0		1	µg/L		÷		08/08/2015 11:08 PM	Container-01 of 02
m,p-Xylene	< 1.0		1	µg/L				08/08/2015 11:08 PM	Container-01 of 02
Methyl tert-butyl ether	< 1.0		1	µg/L	•		1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	08/08/2015 11:08 PM	Container-01 of 02
Methylene chloride	< 1.0		1	µg/L	. •			08/08/2015 11:08 PM	Container-01 of 02
Naphthalene	< 1.0		1	µg/L				08/08/2015 11:08 PM	Container-01 of 02
n-Butylbenzene	≤ 1.0		1	µg/Ľ	- 1			08/08/2015 11:08 PM.	Container-01 of 02
n-Propylbenzene	< 1.0		1	μg/L				08/08/2015 11:08 PM	Container-01 of 02
o-Xylene	< 1.0		1	µg/L				08/08/2015 11:08 PM	Container-01 of 02
sec-Butylbenzene	< 1.0		1	µg/L				08/08/2015 11:08 PM	Container-01 of 02
Styrene	< 1.0		1	µg/L				08/08/2015 11:08 PM	Container-01 of 02
tert-Butylbenzene	< 1.0		1	µg/L				08/08/2015 11:08 PM	Container-01 of 02
Tetrachloroethene	< 1.0		1	µg/L				08/08/2015 11:08 PM	Container-01 of 02
Toluene	< 1.0		1	µg/L_				08/08/2015 11:08 PM	Container-01 of 02
trans-1,2-Dichloroethene	< 1.0		1	µg/L				08/08/2015 11:08 PM	Container-01 of 02
trans-1,3-Dichloropropene	< 1.0		1	µg/L				08/08/2015 11:08 PM	Container-01 of 02
Trichloroethene	< 1.0		1	µg/L				08/08/2015 11:08 PM	Container-01 of 02

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

- D.F. = Dilution Factor D = Results for Dilution
- H = Received/analyzed outside of analytical holding time
- + = NYSDOH ELAP does not offer certification for this analyte / matrix / method
- c = Calibration acceptability criteria exceeded for this analyte
- R = Reporting limit below calibration range. Value estimated.
- J = Estimated value below calibration range
- S = Recovery exceeded control limits for this analyte

N = Indicates presumptive evidence of compound

Date Reported :

Ulewinnon

Project Manager

Test results meet the requirements of NELAC unless otherwise noted.

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Page 17 of 20



AS22670

Pace Analytical Services Inc. 2190 Technology Drive Schenectady, NY 12308

Attn To : William A. Kotas

Collected : 8/6/2015 Received : 8/6/2015

Collected By : CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Lab No. : 1508505-006 Client Sample ID: TRIP BLANK-01 Sample Information:

Type: Trip Blank

Origin:

Analytical Method: SW8260C :		Prep	Method: 50	30C				Analyst BL
Parameter(s)	Results	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>			Analyzed:	Container:
Trichlorofluoromethane	< 1.0		1	μg/L			08/08/2015 11:08 PM	Container-01 of 02
Vinyl acetate	< 10		1	µg/L			08/08/2015 11:08 PM	Container-01 of 02
Vinyl chloride	< 1.0		1	µg/L			08/08/2015 11:08 PM	Container-01 of 02
Surr: 1,2-Dichloroethane-d4	104		1	%REC	Limit	53-183	08/08/2015 11:08 PM	Container-01 of 02
Surr: 4-Bromofluorobenzene	100		1	%REC	Limit	63-140	08/08/2015 11:08 PM	Container-01 of 02
Surr: Toluene-d8 and 24 of 4	98.0		-1	%REC	Limit	60-135	08/08/2015 11:08 PM	Container-01 of 02
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<u>Qualifiers:</u> E = Value above quantitation range, Value estimated. B = Found in Blank

- D.F. = Dilution Factor D = Results for Dilution
- H = Received/analyzed outside of analytical holding time
- + = NYSDOH ELAP does not offer certification for this analyte / matrix / method
- \mathbf{c} = Calibration acceptability criteria exceeded for this analyte
- R = Reporting limit below calibration range. Value estimated.
- J = Estimated value below calibration range
- $$\label{eq:second} \begin{split} & \textbf{S} = \textbf{Recovery exceeded control limits for this analyte} \\ & \textbf{N} = \textbf{Indicates presumptive evidence of compound} \end{split}$$

Date Reported :

Ellenson

Project Manager

Test results meet the requirements of NELAC unless otherwise noted.

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heta Long Island

575 Broad Hollow Road Melville, NY 11747 tel. 631.694,3040 fax. 631,420.8436

QUALIFIERS FOR METALS ANALYSIS

Q (Quality Control) Qualifiers

E - Serial dilution is not within acceptance criteria or the reported value is estimated because of the presence of interference. An explanatory note is included in the SDG narrative.

N - Matrix spike sample recovery not within control limits.

* - Duplicate analysis is not within control limits.

C (Concentration) Qualifiers

B - Entered if the reported value is less than the Contract Required Detection Limit (CRDL) but greater than the Instrument Detection Limit (IDL).

U - Entered if the analyte was analyzed for but not detected, i.e., less than the IDL.

M (Method) Qualifiers

- P Analyzed by ICP.
- MS Analyzed by ICP-MS
- CV Analyzed by Manual Cold Vapor techniques.
- AV Analyzed by Automated Cold Vapor techniques.
- C Analyzed by Manual Spectrophotometric Method.
- CA- Analyzed by Midi-distillation Spectrophotometric Method.
- NR Analyte not Required.

	1A-I		EPA SAMPLE NO
Lab Name: <u>PACE ANAL</u>	INORGANIC ANALYS	Contract:	FIELD DUPLICATE-01
Lab Code: <u>10478</u>	Case No. NF	RAS No.:	SDG No.: PACE-NY252
Matrix (soil/water):	WATER	Lab Sample ID:	1508505-001
Level (low/med):	LOW	Date Received:	08/06/2015
% Solids:	<u>0.0</u>		
Concentration Units	(ug/L or mg/kg dry weight): <u>UG/L</u>	

CAS No.	Analyte	Concentration	С	Q	М
7439-89-6	Iron	5510			Ρ

Comments:

FORM I - IN

		1A-IN	EPA SAMPLE NO
	INORGANIC	ANALYSIS DATA SHEET	MW-5A/AR
Lab Name: <u>PACE ANAL</u>	YTICAL	Contract:	
Lab Code: <u>10478</u>	Case No.	NRAS No.:	SDG No.: <u>PACE-NY252</u>
Matrix (soil/water):	WATER	Lab Sample ID:	<u>1508505-002</u>
Level (low/med):	MOT	Date Received:	08/06/2015
% Solids:	0.0		
Concentration Units	(ug/L or mg/kg dry	weight): <u>UG/L</u>	

CAS No.AnalyteConcentrationCQM7439-89-6Iron6050P

Comments:

FORM I - IN

ILM05.3

	1A-IN			
INORGANIC	ANALYSIS	DATA	SHEET	

EPA SAMPLE NO

	INORGANIC ANA	LYSIS DATA SHEET	MW-14
Lab Name: PACE ANALY	TICAL	Contract:	
Lab Code: <u>10478</u>	Case No.	NRAS No.:	SDG No.: PACE-NY252
Matrix (soil/water):	WATER	Lab Sample ID:	1508505-003
Level (low/med):	LOW	Date Received:	08/06/2015
% Solids:	0.0		

Concentration Units (ug/L or mg/kg dry weight): $\underline{\rm UG/L}$

CAS No.	Analyte	Concentration	С	Q	М
7439-89-6	Iron	9920			₽

Comments:

FORM I - IN

		1A-IN	EPA SAMPLE NO
	INORGANIC A	NALYSIS DATA SHEET	MW-16
Lab Name: PACE ANAL	YTICAL	Contract:	
Lab Code: <u>10478</u>	Case No.	NRAS No.:	SDG No.: <u>PACE-NY252</u>
Matrix (soil/water):	WATER	Lab Sample ID:	1508505-004
Level (low/med):	LOW	Date Received:	08/06/2015
% Solids:	0.0		
Concentration Units	(ug/L or mg/kg dry w	weight): <u>UG/L</u>	

CAS No.	Analyte	Concentration	С	Q	М
7439-89-6	Iron	12.2	J		P

Comments:

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FORM I - IN

ILM05.3

		A-IN	EPA SAMPLE NO		
	INORGANIC ANAL	YSIS DATA SHEET	MW-CHA-RFI-7		
Lab Name: PACE ANALY	TICAL	Contract:			
Lab Code: <u>10478</u>	Case No.	NRAS No.:	SDG No.: PACE-NY252		
Matrix (soil/water):	WATER	Lab Sample ID:	1508505-005		
Level (low/med):	LOW	Date Received:	08/06/2015		
% Solids:	0.0				
Concentration Units	ug/L or mg/kg dry weig	ht): <u>UG/L</u>			

CAS No.	Analyte	Concentration	С	Q	М
7439-89-6	Iron	100	U		P

Comments:

FORM I - IN

ILM05.3

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Programations"
Pace Analytical
/ •
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PACE ANALYTICAL 575 Broad Hollow Road Melville, NY 11747 TEL: (631) 694-3040 FAX: (631) 420-8436 Website: www.pacelabs.com

Sample Receipt Checklist

Website: www.pacelabs.com

Client Name: PACE	-NY				Date and	Time Received:	8/6/2015		
Work Order Number:	1508505	ReptNo:	1		Received	by: Ajay Singh	ı		
Completed by:	Joh	State	<u>_</u> .	Revi	iewed by:	Jempy	an		1 - s.
Completed Date:	▼ <u>8/7/2015</u>	5:45:23 PM		Rev	iewed Date:	<u>8/13/201</u>	15 10:03:43 PM		
Carrier name: PACE	Pickup								·
Chain of custody prese		e o esta	⁻` ∵Yes'	<	No 🗌				
Chain of custody signe		shed and received?							
Chain of custody agree					No 🗌			;	
Are matrices correctly i	dentified on Ch	ain of custody?	Yes	✓	No 🗌				
Is it clear what analyses	s were réqueste	ed?	Yes	\checkmark	No 🗔				
Custody seals intact on	sample bottles	?	Yes		No 🗔	Not Present			
Samples in proper cont	ainer/bottle?		Yes	✓ .	No 🗌				
Were correct preservat	ives used and r	noted?	Yes	✓	No 🗔	NA		15	
Preservative added to b	ottles:						•		
Sample Condition?	· .		Intact	✓	Broken 🗔	Leaking		۰.	
Sufficient sample volun	ne for indicated	test?		✓	No 🛄		et distant	Constant and the set	ي. مارچينه ک
Were container labels of		-		V	No 🗌			· · · · ·	*** .
All samples received wi	ithin holding tim	le?	Yes	\checkmark	No 🛄			Section 2 - Program	. 1
Was an attempt made t	to cool the sam	ples?	Yes	V	No 🗀	NA		·.	· · · · · ·
All samples received at	a temp. of > 0°	°C to 6.0° C?	Yes	✓	No 🗔	NA	ter	2 m2 w 2 m 2	ę
Response when tempe	rature is outside	e of range:						terresta com	(a,b,c)
Sample Temp. taken ar	nd recorded up	on receipt?		\checkmark	. No 🗔	То	3.2 °	a subbala di subbala	7
Water - Were bubbles	absent in VOC	vials?	Yes	\checkmark	· No 🗔	No Vials	and the second	National and all and	1 <mark></mark>
Water - Was there Chlo	orine Present?		Yes		No 🗍	NA	🗹 an ei 🖓 👝	BAD PODE HOUSED	
Water - pH acceptable	upon-receipt?		Yes	\checkmark	No 🗖	No Water	a an	nak an ek annika ka gara	
Are Samples considere	d acceptable?		Yes	V	No 🗀			na de la servición de la companya d La companya de la comp	
Custody Seals present	,		Yes	\checkmark	Νο 🗌		and the second	5. 6 - 1110	
Airbill or Sticker?	- 				Sticker	Not Presen			
Airbill No:	· .	с. С	,				• — · · · · · · · · · · · · · · · · · ·		
		220							
Case Number:		SDG: PACE-NY252		ę	SAS:				
Any No response shou	ld be detailed in	the comments section	below, if applicabl	e.		<u> </u>			
Client Contacted?	☐ Yes		Person Contac	ted:					
Contact Mode:	D Phone:	Fax:	🔲 Email:		📃 In Person:				
Client Instructions:					<u> </u>				
Date Contacted:		Con	itacted By:						
Regarding:		001	naoteu Dy.						
Comments:									
Sample preservation	not verified at S	chanactady lab							
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CorrectiveAction:		÷							
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TEL: (631) 694-3040 FAX: (631) 420-8436 NYSDOH ID#10478 www.pacelabs.com

<u>WorkOrder :</u> 1508505

Sec. 3.

Certifications

S TATE	CERTIFICATION #
NEW YORK	10478
NEWJERSEY	NY1 58
CONNECTICUT	PH-0435
MARYLAND	208
MASSACHUSETTS	M-NY026
NEW HAMPS HIRE	2987
R HODE IS LAND	LAO00340
PENNS YLVANIA	68-00350

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Attachment B

Data Validation Summary

2813 WEHRLE DRIVE • SUITE 1 • WILLIAMSVILLE, NEW YORK • 14221 PHONE: 716-565-0963 • FAX: 716-565-0964 • LEADERCS.COM



Data Usability Summary Report – October 2015 Vails Gate 737.002

Data Usability

The Quality Assurance Project Plan ("QAPP") prepared for this project, by ME Holvey Consulting, LLC ("MEHC") presents the policies, organization, objectives, functional activities, and specific Quality Assurance ("QA") and Quality Control ("QC") measures designed to achieve the data quality goals associated with this investigation. The QAPP identifies procedures for sample preparation and handling, sample chain-of-custody, laboratory analyses, and reporting that were implemented during this investigation to ensure the accuracy and integrity of the data generated during the investigation.

Leader Consulting Services, Inc. conducted the Site Investigation and Remedial Activities of the Vails Gate site.

Data Summary

The Data Usability Review and Data Validation Compliance Chart has been completed for the laboratory deliverable packages generated by Pace Analytical Laboratories, Inc. ("Pace"), pertaining to samples collected at the Vails Gate Site on August 6, 2015. A total of six (6) samples were collected during the August 2015 sampling event and analyzed for VOCs, metals, and wet chemistry. The following USEPA Methodologies were used to analyze these samples for the following analytes:

Volatiles (VOCs)	USEPA Method 8260
Dissolved Iron by ICP	USEPA Method 200.7 Rev. 4.4
Miscellaneous Field Analysis	Dissolved Oxygen, pH, Reduction Potential, Temperature, Turbidity
Total Organic Carbon ("TOC")	USEPA SM 5310B-00.11
Sulfate	USEPA 300.0

Trip/Holding blanks, field duplicate, surrogates, internal standards, reference samples, matrix spikes, and matrix spike duplicates were also processed.

Sample Package ID	Date Collected	Date Received by Pace	Sample Matrix	Requested Analyses	Sample Temperature (°C)
15080208	08/06/2025	08/06/2015 (Schenectady) 08/06/2105 (Long Island)	Water	TCL 8260 Metals Misc. Field Analysis Nitrate TOC Sulfate	3.2

Samples were collected and received on the following schedule:

Data usability and validation was performed with guidance from the most current editions of the USEPA CLP National Functional Guidelines for Inorganic and Organic Data Review. The following items were reviewed:

- Data Completeness;
- Custody Documentation;
- Holding Times;
- Sample Blanks Review;
- Field Duplicate Samples;
- Matrix Spike Samples and Duplicates; and
- Control Spike/Laboratory Control Samples.

Those items showing deficiencies, if any, are discussed in the attached Data Validation Compliance Chart. All others were found to be acceptable as outlined in the above-mentioned usability procedures, and as applicable for the methodology. Unless noted specifically in the following text, reported results are substantiated by the reported data, and generated in compliance with protocol requirements.

In summary, sample processing was conducted with compliance to protocol requirements and with adherence to quality criteria and the reported results are considered "usable".

The Data Validation Compliance Chart is also included with this report.

Accuracy, Precision, and Sensitivity of Analyses

The fundamental QA objective with respect to the accuracy, precision, and sensitivity of analytical data is to achieve the QC acceptance of each analytical protocol. Accuracy and precision are determined using matrix spike ("MS") and matrix spike duplicate ("MSD") samples.

Accuracy is a measure of the difference of a set of analytical results to the accepted or expected values. Accuracy was assessed by using the MS/MSD and surrogate spike recovery data. Recovery values were reported within the QC limits for each analytical parameter group.

Precision is a measure of the mutual agreement between measurements of the same parameter.

The sample results for the Vails Gate Project are considered "usable".

Completeness, Representativeness, and Comparability of Data

Completeness is the measure of the amount of valid data obtained from a measurement system compared with the amount that was expected to be obtained under normal conditions. Review of the analytical data packages provided by Pace indicates that the requested parameters were analyzed for and reported by the laboratory for each sample submitted under proper chain-of-custody procedures. Based upon MEHC's review of the laboratory data, a usable data level was achieved.

Representativeness of the data is obtained through the design of the sampling program and the adherence to established sample collection procedures, sample-handling SOPs, and analytical procedures. The sampling program outlined in the Work Plan was designed to provide for data representative of site conditions taking into consideration past disposal practices, existing data

from past studies, and the physical site setting. Each of the soil borings and monitoring wells were installed in accordance with established industry and regulatory protocols. The laboratory maintained all holding times for the specific analytical protocols.

Comparability of the data is derived from the evaluation of field duplicate samples and the adherence to established sampling and analytical procedures. A field duplicate is an independent sample collected as close as possible to the original aliquot from the same sampling point. All of the groundwater samples were analyzed utilizing standardized USEPA methodologies performed in accordance with the latest version of the NYSDEC ASP protocols.

Quality Control Checks

Holding/Storage Blanks

Holding blanks are samples of reagent water prepared by the laboratory and carried through the field sampling and sample handling and shipping process. Holding blanks are analyzed as separate samples to evaluate the level of contamination associated with the collection, handling, and/or shipping of the VOC sample aliquots.

For this investigation, a holding blank was not submitted with samples collected on August 6, 2015.

Trip Blanks

A trip blank is provided with each shipping container of samples to be analyzed for volatile organic compounds (VOCs). Analysis of trip blanks determines whether a sample bottle was contaminated during shipment from the manufacturer, while in bottle storage, in shipment to the laboratory, or during analysis at a laboratory. Trip blanks consist of an aliquot of distilled water sealed in a sample bottle, prepared by the analytical laboratory prior to shipping the sample bottles. A Trip blank was included with the shipment of aqueous samples for VOC analysis.

For this investigation, a trip blank was submitted with the VOC aliquot of the groundwater samples collected on August 6, 2015. No VOC compounds were detected in the trip blank analyzed during this investigation.

Field Blanks

Given that dedicated sampling equipment was utilized for the collection of each groundwater sample, field blanks were not collected or analyzed during this sampling event.

Method Blanks

A method blank is a sample of reagent water, which is carried through the analytical procedure alongside the project samples to determine the level of laboratory background and reagent contamination.

For this investigation, a method blank was submitted with the VOC aliquot of the groundwater samples collected on August 6, 2015. No VOC compounds were detected in the method blank analyzed during this investigation.

Matrix Spike/Matrix Spike Duplicate Samples

For the Vails Gate project, one (1) MS/MSD was collected and analyzed. The following sample results are mostly acceptable but positive results may be considered estimated due to the MS/MSD data being outside acceptable limits:

Sample MW-CHA-RFI-7 was analyzed as the matrix spike/matrix spike duplicate (MS/MSD). All percent recoveries and relative percent differences ("RPD") were met except for 4 out of 132 percent recoveries. A lab fortified blank was analyzed – recoveries for one (1) analyte did not meet the QC limits.

These results are detailed in the Data Validation Compliance Chart.

Surrogate Analyses

Surrogates are compounds added directly to every standard, blank, MS/MSD, and sample at a known concentration, prior to extraction or analysis; and used to evaluate the analytical efficiency by measuring percent recovery of those compounds upon analysis. The laboratory reported surrogate recoveries were within established QC limits for the surrogates in each analyzed sample.

The sample results for the Vails Gate Project are considered "usable".

Data Validation Compliance Chart Vails Gate

August 6, 2015 Sampling Event

Sample ID	15080208						
Matrix		Water					
Analysis	TCL 8260 Metals (Dissolved Iron Only)		Miscellaneous Field Parameters	Wet Chemistry:			
Holding Times	Samples were analyzed within USEPA holding times.	Samples were analyzed within USEPA holding times	Samples were analyzed in the field.	Samples were analyzed within USEPA holding times			
Calibration	In the initial calibrations, average response factors were employed as applicable, and regression functions were used for the compounds with an RSD above 20%. In the continuing calibration verification(s) (CCV), the variability for some compounds was above 20%. No results were flagged with a "Z" qualifier. All data quality objectives were satisfied.	All quality assurance parameters were met for these analyses.	All quality assurance parameters were met for these analyses.	All quality assurance parameters were met for these analyses.			
Method Blanks	A lab fortified blank was analyzed – recoveries for one (1) analyte did not meet the QC limits. All quality assurance parameters were met for these analyses.	All quality assurance parameters were met for these analyses.	All quality assurance parameters were met for these analyses.	All quality assurance parameters were met for these analyses.			
Matrix Spike/Matrix Spike Duplicate	Sample MW-CHA-RFI-7 was analyzed as the matrix spike/matrix spike duplicate (MS/MSD) – All percent recoveries and relative percent differences ("RPD") were met except for 4 out of 132 percent recoveries. All data quality objectives were satisfied.	All quality assurance parameters were met for these analyses.	All quality assurance parameters were met for these analyses.	All quality assurance parameters were met for these analyses.			
Surrogates	All data quality objectives were satisfied.	All quality assurance parameters were met for these analyses.	All quality assurance parameters were met for these analyses.	All quality assurance parameters were met for these analyses.			

Data Validation Compliance Chart Vails Gate

Sample ID	15080208						
Matrix							
Internal Standards	All data quality objectives were satisfied.	All quality assurance parameters were met for these analyses.	All quality assurance parameters were met for these analyses.	All quality assurance parameters were met for these analyses.			
Reference Sample	e All laboratory internal quality control samples were within acceptable ranges. Note that no record for the low level QC check is submitted, because Iron is not included in the LOQ check. All quality assurance parameters were met for these analyses.		All quality assurance parameters were met for these analyses.	Note that Sample AS23667 was re-analyzed at a secondary dilution to bring all target analyte concentration within the calibration range of the instrument. All quality assurance parameters were met for these analyses.			
Data Usability	Data is acceptable.	Data is acceptable.	Data is acceptable.	Data is acceptable.			



Attachment C

Figure 1

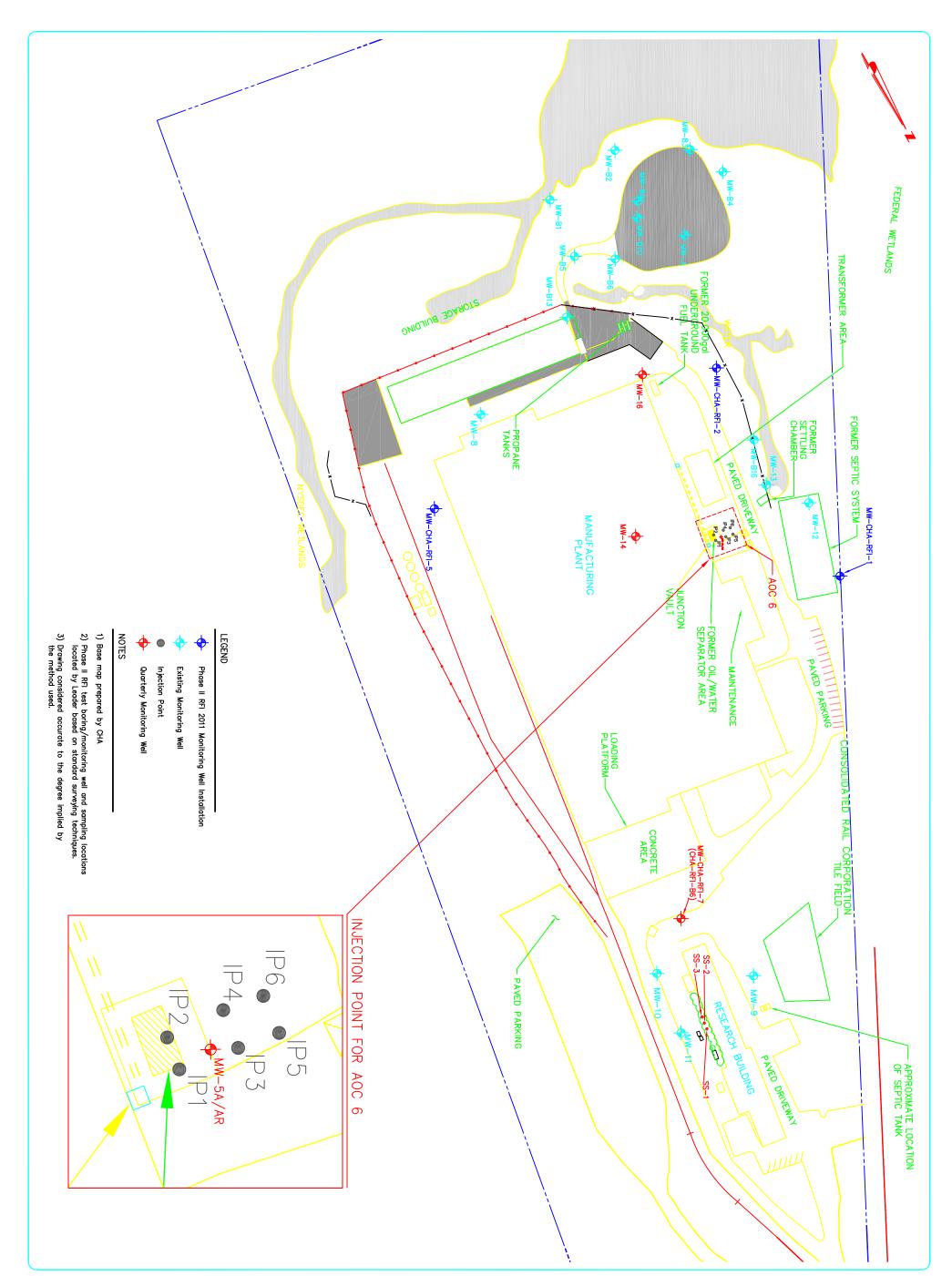


Figure No.	BIOREMEDIATION PROJECT				Leader Consulting Services, Inc. 2813 Wehrle Drive, Suite 1, Williamsville, NY 14221 Phone: (716) 565-0963 Fax: (716) 565-0964			
	IN-SITU INJECTION POINT LOCATIONS FOR AOC 6				UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF	Designed By: CHA	Dete: 01/12/06	
						Drawn Bys CHA	Date: 01/10/06	
\square	Issue Date: 12/9/14	Project No.: 737.003	Scale: NTS)	APPLICABLE STATE AND/OR LOCAL LAWS.	Revised by: The Leader Group	Date: 12/9/12	

VAILS GATE MANUFACTURING FACILITY VAILS GATE, NEW YORK

٦	No.	Submittal / Revision		By	Date
	1	Phase II RFI		нк	9/2011
	2			ΗК	12/2012
	3			нк	3/2014
	4	Bloremediation Report		ΗК	12/2014
J					