

Annual Engineer's Report (AER) Montgomery County Closed Sites

Eastern, Central, and C&D Landfills

December, 2017

Prepared for:

Montgomery County Public Works County Highway Building 6 Park St. Fonda, New York 12068-1500

REPORT CERTIFICATION

Annual Engineer's Report (AER)

Montgomery County Closed Sites - Eastern, Central, and C&D Landfills Montgomery County, New York

The material and data in this report were prepared under the supervision and direction of the undersigned.

Cornerstone Engineering and Land Surveying, PLLC

Robert A. Holmes, P.E.

NYSPE No. 077317

Client Manager



TABLE OF CONTENTS

REP	ORT	CERTIF	FICATION	II					
LIST OF TABLES, FIGURES AND DRAWINGSVI									
1	INT	RODU	CTION	1					
	1.1	Proie	CT OBJECTIVES	1					
	1.2	-	ITE DESCRIPTIONS						
2	SITI		SPECTIONS4						
	2.1	Easte	rn Landfill	4					
		2.1.1	Final Cover and Vegetation	4					
		2.1.2	LANDFILL GAS SYSTEM						
		2.1.3	LANDFILL GAS MONITORING PROBES	5					
		2.1.4	STORMWATER MANAGEMENT STRUCTURES	5					
			2.1.4.1 Rip-Rap Lined Perimeter Channels	5					
			2.1.4.2 Site Collection Channels	6					
			2.1.4.3 Pond	7					
		2.1.5	Groundwater Monitoring Wells	7					
		2.1.6	FACILITY ACCESS ROAD AND FENCING	7					
		2.1.7	LEACHATE COLLECTION SYSTEM						
		2.1.8	Offsite Areas	8					
		2.1.9	RECOMMENDED MEASURES – EASTERN LANDFILL	8					
			MAINTENANCE COMPLETED IN 2016						
	2.2	CENTE	RAL LANDFILL	10					
		2.2.1	Final Cover and Vegetation	10					
		2.2.2	LANDFILL GAS VENTS	11					
		2.2.3	LANDFILL GAS MONITORING PROBES	11					
		2.2.4	STORMWATER MANAGEMENT STRUCTURES	11					
			2.2.4.1 Side-Slope Swales						
			2.2.4.2 Gabion Liner Perimeter Channels	12					
			2.2.4.3 Miscellaneous Structures and Drainage Features	12					
			2.2.4.4 Ponds	13					
		2.2.5	Groundwater Monitoring Wells	13					
		2.2.6	FACILITY ACCESS ROAD AND FENCING	13					
		2.2.7	LEACHATE COLLECTION SYSTEM	13					



		2.2.8	Offsite Areas	14	
		2.2.9	RECOMMENDED MEASURES – CENTRAL LANDFILL	15	
		2.2.10	MAINTENANCE COMPLETED IN 2016	16	
	2.3	C&D LANDFILL			
		2.3.1	Final Cover and Vegetation	17	
		2.3.2	LANDFILL GAS VENTS	17	
		2.3.3	LANDFILL GAS MONITORING PROBES	17	
		2.3.4	STORMWATER MANAGEMENT STRUCTURES	18	
		2.3.5	GROUNDWATER MONITORING WELLS	18	
		2.3.6	FACILITY ACCESS ROAD AND FENCING	18	
		2.3.7	Offsite Areas	18	
		2.3.8	LEACHATE COLLECTION SYSTEM	18	
		2.3.9	RECOMMENDED MEASURES	18	
		2.3.10	MAINTENANCE COMPLETED IN 2016	19	
3	SUN	MMARY	OF 2016 POST CLOSURE ENVIRONMENTAL MONITORING	20	
	3.1	EASTERN LANDFILL		21	
		3.1.1	Groundwater 2016		
		3.1.2	Surface Water 2016		
		3.1.3	LEACHATE 2016		
		3.1.4	LANDFILL GAS 2016		
		3.1.5	Monthly Inspections 2016		
	3.2	CENTRAL LANDFILL		24	
		3.2.1	Groundwater 2016		
		3.2.2	Surface Water		
		3.2.3	LEACHATE 2016	26	
		3.2.4	LANDFILL GAS 2016		
		3.2.5	Monthly Inspections 2016	26	
	3.3	C&D Landfill			
		3.3.1	Monthly Inspections 2016	27	
4	RECOMMENDATION SUMMARY/COST ESTIMATE				
	4.1	Annu	AL MAINTENANCE/RECOMMENDATIONS FOR 2018	28	
LIM	ITAT	IONS		32	
TAE	BLES .	•••••		33	
EI <i>C</i> I	IIDES			3/	



APPENDICES

APPENDIX A-1: PHOTO LOG – EASTERN LANDFILL

APPENDIX A-2: PHOTO LOG – CENTRAL LANDFILL

APPENDIX A-3: PHOTO LOG - C&D LANDFILL

APPENDIX B: 2016 INSPECTION / SAMPLING REPORTS

APPENDIX C: COST ESTIMATE SHEETS



List of Tables, Figures and Drawings

Tables

Table 4-1 2018 Post Closure Cost Estimate Summary

Figures

Figure 1-1	Site Map – Eastern Landfill
Figure 1-2	Site Map - Central Landfill
Figure 1-3	Site Map - C&D Landfill
Figure 2-1	Site Plan - Eastern Landfill
Figure 2-2	Site Plan - Central Landfill
Figure 2-3	Site Plan - C&D Landfill



1 INTRODUCTION

1.1 Project Objectives

In 1987, Montgomery, Otsego, and Schoharie Counties petitioned the legislature for the creation of a public authority to provide a cooperative, coordinated regional solid waste management program for the three Counties. Pursuant to such petition and subject to the resolution of each of the Counties providing for participation in the authority, the New York State Legislature created a public benefit corporation, the Montgomery-Otsego-Schoharie Solid Waste Management Authority ("MOSA").

Residents and businesses located within the three counties historically relied on three landfills for disposal. The Central Landfill, located in the Town of Root, County of Montgomery, was conveyed by Montgomery County to MOSA, and closed in 1994; the C&D Landfill, located in the Town of Otsego, County of Otsego, was conveyed by Otsego County to MOSA and closed in 1997; and the Eastern Landfill, located in the Town of Amsterdam, County of Montgomery, was conveyed by Montgomery County to MOSA and closed in 1999 (collectively the "Landfills"). Title to the Landfills was conveyed to MOSA, along with the attendant operating, closure, and post closure responsibilities.

MOSA and the three participating Counties (Montgomery, Otsego, and Schoharie) signed a Post Closure Agreement in December 2009 pursuant to which the Counties agreed to undertake responsibility for the costs of post closure monitoring and maintenance. The Agreement designated MOSA as the Post Closure Manager through April 30, 2014. Effective May 1,2014, MOSA transferred ownership of the three landfills from MOSA to the counties of Montgomery, Otsego, and Schoharie, and with that ownership transfer, Montgomery County assumed the responsibility of Post Closure Manager. The Post Closure Manager is responsible to retain and manage an Engineer in the conduct of required site evaluations of each landfill and the preparation of an Annual Engineer's Report (AER). As a part of Montgomery County's responsibility as the Post Closure Manager, it is our understanding that Montgomery County would continue to be responsible for the AER as a method of informing the responsible counties as to the status of the landfills. This report satisfies the AER requirement for the 2017 calendar year.

Consistent with previous reports, AER shall contain the following information:

- The AER shall comply with all the Post Closure requirements of the current (6NYCRR Part 360-2.15) regulations.
- The AER shall include an estimate for Post Closure Expenses for the following calendar year and shall contain a specific, itemized estimate of costs for all



- monitoring, maintenance, and repairs identified for implementation in the following year.
- The AER shall identify any current or impending conditions at the Landfills which may require additional expenditures.

The 6NYCRR Part 360-2.15 requirements indicate in Subsection (k)(4), that an Annual Summary report must be submitted to the department describing the results of the maintenance, monitoring and/or sampling for the environmental and facility monitoring points. The intent of the AER is to meet this requirement, and therefore, at each of the three sites, Cornerstone has performed a site inspection of the monitoring points, inspected the landfill for areas where maintenance may be required, reviewed records of maintenance that has been performed in the past year, and compiled the results of any sampling events. The site inspections for the C&D landfill was performed on September 19, 2017 and the Eastern and Central landfill inspections were performed on September 20, 2017.

To meet the objectives described above, the report has been organized into three main sections. The findings of the site inspections and monitoring data reports are summarized in Sections 2 and 3 of this report, respectively. A summary of maintenance completed during 2016 is also included in Section 2. In addition to the site inspection and data components, the AER report is required to include a cost estimate for the following calendar year (2018 for this report), identify any potential maintenance items and associated costs. Potential maintenance items are identified in Sections 2 and 3 of the report, while cost estimates are summarized in Section 4 of the report. This AER includes a review of environmental data from 2016 and includes the observations from an annual inspection performed in 2017.

1.2 Site Descriptions

The Eastern Landfill (ELF) is an approximately 47-acre landfill located on Antlers Road in the Village of Fort Johnson, Montgomery County, New York. The site location can be seen in Figure 1-1. The landfill closure construction was completed during the 1999 construction season. The major components of the closure system included a landfill gas venting and collection system, a high-density polyethylene (HDPE) geomembrane hydraulic barrier, and an overlying barrier protection layer with topsoil to promote vegetative growth. Along with this capping system, drainage swales were constructed to manage on-site surface water. MOSA records indicate an approximate waste placement of 1.1 million tons.

The Central Landfill (CLF) is an approximately 32 acre landfill located along Route 5S in the Town of Root, Montgomery County, New York. The site location can be seen in Figure 1-2. The closure construction took place during 1994, with substantial completion by December of that year. The major components of the closure system included lateral leachate interceptors, a 20,000 gallon underground steel leachate holding tank, a landfill gas venting



Rev. 0 Project 170614

system, a low permeability soil layer as the hydraulic barrier, and an overlying barrier protection layer with topsoil. A storm water drainage system was also constructed to manage surface water. MOSA records indicate an approximate waste placement of 1.1 million tons.

The C&D Landfill is a 1.9 acre landfill located on Routes 28 and 80, in the Town of Otsego, Otsego County, New York. The site location can be seen in Figure 1-3. The closure was completed in the fall of 1997 with compact soil fill, a barrier protection layer, and topsoil as the major components.



2 SITE INSPECTIONS

2.1 Eastern Landfill

The Eastern Landfill was inspected by Mr. Robert Holmes, P.E. of Cornerstone Engineering and Land Surveying, PLLC, on the morning of September 20, 2017. The site was dry and the weather was sunny and warm, with temperatures estimated at 70 degrees. The results of the observations made during the site inspection as well as recommended maintenance items are summarized in the following sections.

2.1.1 Final Cover and Vegetation

The landfill final cover appeared to be intact and fully vegetated. Vegetation appeared to consist of a primarily stalky grass approximately ankle height and low growing clover. During the site visit it appeared that the site had recently been mowed. Coverage appeared to be fully established and self-sustaining. The vegetation around the landfill gas flare perimeter fence appeared to be overgrown and should be cleared to facilitate access to the landfill gas flare.

The area of cap erosion on the south face of the landfill previously identified in the 2014 AER Report requires additional attention. The erosion, which occurred in early March 2013, appears to have been triggered by a zone of frozen material within the sand layer in the cap and concentrated flow of water within the sand layer above the frozen zone. More specifically, it appears that the sand layer that sits above the geomembrane cap was transported through the topsoil by water within the cap system that was under pressure as a result of the frozen zone blocking its normal flow path, and discharged into surface drainage features at the site. As a result, an approximately 10-foot wide area of the cap for has dropped approximately 12 inches forming a what looks like a rough channel. The topsoil in this area generally remained in place. There is a small area of exposed geomembrane toward the lower end of the erosion. The length of this area is approximately 200 feet. Photos of this area can be seen in Appendix A-1 (Photo #11).

It is recommended that this area be repaired consistent with repairs on the southeast face of the landfill completed in 2009. That is, the topsoil and vegetation should be removed and the remaining low areas (estimated to be 18 inches) be filled with 4- to 8-inch rip-rap. It is recommended that a minimum of 6 inches of sand remain as a cushion layer between the rip-rap and the geomembrane cap. It is also recommended that a 16-ounce (minimum) non-woven geotextile be placed between the sand and the rip-rap. The sand from the cap is



present in downstream surface channels and should be removed so that it does not impact the performance of the channel.

There are also areas of cap erosion on the northeast portion of the landfill that require additional attention. The approximate areas where this erosion is located can be seen on Figure 2-1 and a representative photo can be seen in Appendix A-1 (Photo #9). The repairs for the areas on the northeast portion of the cap are consistent with those recommended for the south face of the cap.

There are no other signs of erosion and/or excessive settlement at the site and the cap appears to be in good condition. While there were some isolated shallow areas, there were no areas of standing water noted during the inspection. Photos of the cap and vegetation can be seen in the Photo Log in Appendix A-1.

2.1.2 Landfill Gas System

The landfill gas collection system of the ELF consists of a passive system that is connected via collection trench and header system that directs landfill gas to a central point on the landfill and a flare. There are several above grade valves (where the landfill gas collection trenches intersect the header) and several cleanouts (at condensate knockouts). The above grade landfill gas collection system structures appeared to be intact and in good working order. The flare, which is in a secure fenced area, was lit and operating. There is a single stand-alone landfill gas vent connected to an interceptor trench north of the waste footprint. The landfill gas vent and interceptor trench, which drains into the rip-rap lined perimeter trench, does not appear to be damaged.

2.1.3 Landfill Gas Monitoring Probes

The site is surrounded by a series of landfill gas monitoring probes. During the site investigation several landfill gas probes were observed and located in the field. The Landfill gas Monitoring Probes are marked in the field with a sign.

2.1.4 Stormwater Management Structures

2.1.4.1 Rip-Rap Lined Perimeter Channels

The majority of the cap area drains via sheet flow to two rip-rap lined perimeter channels. The channels border much of the north and south sides of the waste footprint and the entire west side of the waste footprint. The two channels intersect immediately east of the leachate tank area and discharge into a sediment pond at the southwest corner of the site.



The rip-rap lined perimeter channels appear to be intact. There was no visual evidence of erosion, or overtopping of these channels. The top of the swale at the base of the erosion on the south face has little vegetative growth, and several erosion rills. It is recommended that this area be regraded, topsoiled, seeded, and stabilized to prevent future/additional erosion.

At the downstream end of the combined section of the channel, immediately before an access road culvert that leads to the pond, a sheen was observed in standing water within the channel. It was not evident at the time of the site inspection what the source of the sheen was. It should be noted that a similar sheen was observed at this location during previous AER site visits. While a sheen was observed in the channel, there was no indication of a sheen in the pond and the discharge from the pond did not have any sheen or discoloration.

2.1.4.2 Site Collection Channels

Culverts

Culverts at the site, generally passing under access roads on the east and west sides of the site, appear to be intact and operational.

Miscellaneous Channels

Runoff from the southwestern portion of the landfill cap area is not collected by the rip-rap lined perimeter channel and instead sheet flows to a channel at the toe of the landfill. This channel discharges under the access road to an existing drainage feature that eventually discharges off the site to the east. This channel, which is partially lined with vegetation and partially lined with rip-rap, appears to be intact with no signs of distressed vegetation or erosion.

A portion of the south face of the waste footprint is below the rip-rap lined perimeter channel and drains via sheet flow to either a grass lined swale that discharges to the east, or to the grass lined channel along Antlers Road. The area below the rip-rap perimeter channel is small and the flows are limited. The grass lined channels along the south side of the landfill appear to be intact with no visual signs of distressed vegetation, erosion, or overtopping problems.

Rip-Rap Collector Trench

The rip-rap collector trenches on the southeast face of the landfill, installed to capture water within the cap system and discharge via overland flow appear to be intact.



2.1.4.3 Pond

The perimeter drainage system is directed to a stormwater management pond at the southwest corner of the site. Two inlets, one from the former borrow areas on the east side of the site and one from the rip-rap lined perimeter channel discharge into the eastern portion of the pond. At the time of the inspection, the water level was low – with a water level several feet below the emergency spillway. A perforated riser pipe is present in the center of the pond and a discharge structure is present outside the pond area. The top of the riser pipe is several feet over the top of the pond elevation. The rip-rap protection at the overflow structure appeared to be in good condition. The water observed in the pond and at the discharge point did not appear to have a sheen or excessive turbidity. There did not appear to be significant sedimentation at the inlet to the pond.

2.1.5 Groundwater Monitoring Wells

The six monitoring well locations, which can be seen in Figure 2-1, were observed and found to be intact and accessible. Barton & Loguidice has been performing the semi-annual and annual monitoring of the groundwater wells over the last several years and no accessibility or integrity issues that would impact the sampling have been reported.

2.1.6 Facility Access Road and Fencing

The facility has two access roads. One access road, with an mechanical security gate, is located on the west side of the site and provides access to the leachate unloading area and the west side of the landfill. These access roads appear to be in good condition. The access road on the east side of the site, which is protected by a locked gate, also appears to be functioning as intended.

The access road roadways are serviceable for access to the monitoring wells with a sampling vehicle.

2.1.7 Leachate Collection System

The leachate collection system consists of a series of five gravity lines that generally border the west, south and east sides of the landfill. The gravity lines discharge to one of three (3) pump stations, one of which is located at the southwest corner of the site while the other two pump stations are located in a fenced area near the leachate tank. The pump station at the southeast corner of the site discharges to a manhole in the fenced area near the leachate tank via force main. Manholes were observed to be intact from the surface.



The leachate collection tank and loading station appear to be in good working order. There is a small area of exposed cushion geotextile along the top of the leachate secondary containment berm. The geotextile acts as a cushion between the geomembrane, and the stone/soil. This area should be covered per the original design to prevent damage from lawn mowing, maintenance vehicles, photodegradation, or any other potential source of damage to the secondary containment materials. In accordance with the Draft Post-Closure Maintenance and Monitoring Plan, all sections of the leachate collection line should be internally inspected annually. It is our understanding that this work was not performed in 2016. However, a report from Kenyon Pipeline Inspection indicates that the internal leachate line inspection was performed in early November of 2017. The results of the 2017 leachate line internal inspection will be included in the 2018 AER covering the 2017 calendar year.

2.1.8 Offsite Areas

Offsite areas do not appear to be impacted by landfill activities or stormwater runoff volumes at this time.

2.1.9 Recommended Measures – Eastern Landfill

Due to the potential for impacting the surface waters at the site and for protection of the environment, continued investigation/monitoring is recommended as follows:

- Holes observed in the cap during the monthly inspections and during mowing events should be filled and continued to be monitored to determine if continued soil loss is occurring or if the holes are being caused by settlement. If soil loss or settlement appear to be ongoing, a more detailed inspection of the area may be required to determine the cause of the soil loss or settlement.
- It is recommended that the area of cap erosion on the south face and northeast portion of the landfill be repaired consistent with previous cap repairs on the southeast face of the landfill. That is, the topsoil and vegetation should be removed and the remaining low areas (estimated to be 18 inches) be filled with 4-to 8-inch rip-rap. It is recommended that a minimum of 6 inches of sand remain as a cushion layer between the rip-rap and the geomembrane cap. It is also recommended that a 16-ounce (minimum) non-woven geotextile be placed between the sand and the rip-rap.
- Sand from the cap erosion present in downstream surface channels and should be removed so that it does not impact the performance of the channels.
- The rocks that are present in the leachate line coming into Manhole #5 should be regularly monitored (annually) to determine if the condition is getting worse and



if a worsened condition prevents leachate from passing. If leachate cannot flow past the rocks, a more significant repair to open the blocked line may be required in the future.

- Several gas monitoring probes were noted during the September 20, 2017 inspection as damaged or could not be found. The damaged gas probes (GP-5, and GP-6) should be repaired prior to the next gas monitoring event. If the gas probes that could not be found (GP-10 and GP-11) are determined to be missing, they should be re-established prior to the next monitoring event.
- Stone should be placed over the exposed geotextile around the leachate collection tank (north side). It is recommended that a minimum of 12 inches of stone be installed.
- Overgrown vegetation around the landfill gas flare perimeter fence should be cleared.
- It is recommended that a more detailed log be submitted from leachate line Contractors in the future detailing which lines were jetted and if any issues were noted during the video inspection. It is our understanding that this has already occurred in the 2017 calendar year and should be completed again in 2018 per the post-closure plan.
- This report should be submitted to the NYSDEC as required by 6NYCRR Part 360-2.15, Subsection (k)(4) requirements.

Upon completion of a more thorough determination of causes/impacts of the items listed above, appropriate measures, if required, should be implemented within a reasonable time frame depending upon the complexity of the project.

2.1.10 Maintenance Completed in 2016

Site operations and maintenance activities for the ELF site included inspection, maintenance, and repairs, as needed. Maintenance items performed at the ELF during the 2016 calendar year that were reported by the County included:

- Monthly inspections were reportedly performed by Montgomery County
 Department of Public Works personnel in accordance with the post-closure plan.
- Maintenance was performed on the leachate, landfill gas, and surface water controls, and the final cover as necessary to maintain functionality and integrity of these components.
- Regular mowing.
- Road/gate/building maintenance.



- General maintenance was performed on the leachate, landfill gas, and surface water controls, and the final cover as necessary to maintain functionality and integrity of these components.
- Temporary erosion protection and channel reconfiguration was performed to mitigate erosion as a result of the loss of sand in the cap material on the south face of the landfill.
- Maintenance was performed on the landfill gas flare.

Miscellaneous maintenance activities at the ELF site involved inspection of the condition of groundwater monitoring wells and checking the integrity of the permitted landfill facility's fences, gates, signs, and the security of the site in general. There were no observed issues with either the groundwater monitoring wells or permitted landfill facility security measures during the reporting period.

2.2 Central Landfill

The Central Landfill was inspected by Mr. Robert Holmes, P.E. of Cornerstone Engineering and Land Surveying, PLLC, on the morning of September 20, 2017. Cornerstone was accompanied by Montgomery County employee, Mr. Dan Herrick. The site was dry and the weather was sunny and warm, with temperatures estimated at 70 degrees. The results of the observations made during the site inspection as well as recommended maintenance items are summarized in the following sections.

2.2.1 Final Cover and Vegetation

The landfill final cover appeared to be intact and fully vegetated. Vegetation appeared to consist of a primarily stalky grass approximately knee height. During the site visit it appeared that the site had recently been mowed. Coverage appeared to be fully established and self-sustaining. In previous years vegetation appeared to impacted by leachate seeps or outbreaks. During the 2017 inspection very little distressed vegetation was observed As the distressed vegetation appears to be primarily a function of the presence of rocky ground and does not appear to be resulting in erosion, it is only recommended that these areas be regularly monitored. In general, these areas of distressed vegetation have decreased compared to previous annual inspections. Should erosion be observed, topsoil installation and re-vegetation may be required.

Overgrown vegetation around several monitoring wells and manholes was observed and should be cleared in 2018.



The cap area has experienced differential settlement, although there were no signs of significant erosion on the cap. This settlement has impacted the functionality of the side slope swales at the site and is likely a contributor to cracking or distress in the clay cap. The distress or cracking in the cap has likely contributed to leachate and landfill gas seeps that are impacting vegetation. Additionally, as the functionality of the cap decreases due to settlement and cracking, additional surface water can enter the waste mass, which in turn can result in increased leachate levels and collection rates. With the exception of the low area in the sideslope swales that remain where ponding could occur, there was no ponding on the cap observed during the site visit.

In previous AER reports (2010 through 2012) Cornerstone recommended that a long-term review and repair program be established to address the condition of the cap and the side-slope swales. At the time of the inspection in 2013 approximately 300 total feet of grading work had been completed at the eastern end of the lowest two side-slope swales It was recommended that these swale areas be repaired as the ponding of water in these swales may have been contributing to the seep at the eastern toe of the landfill. This grading work was completed in 2013 prior to the 2013 AER inspection. No additional grading had taken place at the time of the 2017 AER inspection. It is recommended that finished grading be completed (to achieve positive drainage throughout the channel length) and that permanent vegetation be established.

2.2.2 Landfill Gas Vents

During the 2017 site inspection there were several gas vents that appeared to have been knocked over. Some gas vents appear damaged and should be replaced while others should just be re-installed. There are several photos of downed gas vents in the photo log in Appendix A-2.

2.2.3 Landfill Gas Monitoring Probes

Barton & Loguidice did not note any current issues with the probes.

2.2.4 Stormwater Management Structures

2.2.4.1 Side-Slope Swales

Stormwater runoff from the landfill cap generally sheet flows down the surface of the cap to a series of side-slope swales that are directed to the east and west sides of the landfill. The side-slope swale drainage divide is roughly located in the center (east-to-west) of the landfill.



As described in Section 2.2.1 the landfill cap has experienced differential settlement in all areas of the site. The results of this settlement is that the side-slope swales which traverse the cap, no longer have positive drainage in all locations to the perimeter swales. There are several low spots in the side-slope swales, which, during storm events will pond water. Although some of this water may evaporate, it is likely that a portion of the standing water infiltrates the cap. Additionally, in low spots where significant settlement has occurred (i.e., settlement that is greater than the depth of the channel) the swales can overtop during larger storm events, sending concentrated flows to side-slope channels further down the landfill cap, or eroding the vegetative soil layer.

Based on visual observation only, several low areas in the swales were observed where water can pond in the swale or overtopping could occur. These areas are marked on Figure 2-2. Evidence of overtopping was observed in isolated locations, however, significant downslope erosion or impacts were not observed. It is recommended that finished grading be completed (to achieve positive drainage throughout the channel length) and that permanent vegetation be established. Additionally some erosion is occurring at the transition from the side slope swale to the perimeter swale as identified in Figure 2-2. It is recommended that this area be regraded and that rock protection consistent with the protection in the perimeter swale be extended a minimum of 20 feet into the side slope swale.

It is recommended that the repair program be continued until all of the sideslope swales are addressed.

2.2.4.2 Gabion Liner Perimeter Channels

The gabion lined perimeter channels, which receive flow from the side slope swales generally appeared to be intact with no signs of significant erosion or significant vegetative growth that would inhibit flow.

2.2.4.3 Miscellaneous Structures and Drainage Features

Culverts at the site, generally passing under access roads on the north and west sides of the site and around the leachate unloading facility appear to be intact and operating as intended.

As recommended in the 2012 AER, and as a result of a seep observed along the toe of the landfill slope and staining in the channels at the toe of the landfill slope during the 2012 site inspection, significant work was performed to manage these seeps. This work, which is described in more detail in the 2013 AER, consisted of the installation of additional leachate collectors near the toe of the slope. The work was recently completed and while some staining and evidence of seeps were observed during the inspection for the 2017 AER



(generally to the west of the recently completed leachate collection line), the significance of both appears to have been reduced from previous years

While determination of the effectiveness of the seep management measures recently installed using visual methods is still ongoing, it is recommended that a stormwater sampling program be implemented for discharge locations (including from the channel along the bike path). The details are described in Section 2.2.9.

In the 2016 AER it was recommended that surface water sampling be performed in accordance with the methods and procedures outlined in the current version of the New York State SPDES Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (MSGP). It is our understanding that sampling was not performed in 2016 as a result of the observed staining during the 2016 AER inspection. The location in question was observed as part of the recent AER site inspection and soil staining or a sheen was observed in the areas to the west of the recently installed collection line.

2.2.4.4 Ponds

The site does not have a stormwater management pond.

2.2.5 Groundwater Monitoring Wells

The four (4) monitoring well locations, which can be seen in Figure 2-2, were reportedly intact and accessible. Barton & Loguidice has been performing the semi-annual and annual monitoring of the groundwater wells over the last several years and no accessibility or integrity issues have been reported.

2.2.6 Facility Access Road and Fencing

The facility access road and security fencing at the entrance to the landfill site appear to be intact. The access roadways are serviceable for access to the monitoring wells with a sampling vehicle.

2.2.7 Leachate Collection System

The leachate collection system reportedly consists of one gravity line that generally borders the northern limits of the landfill. The gravity lines discharge to a below grade 20,000 gallon leachate tank, which is monitored for level, and regularly pumped to tanker trucks for off-site treatment.



Manholes #4, located along the leachate line at the toe of the slope, was opened and leachate was observed to be flowing and appeared to be in good condition (Photograph 2, Appendix A-2). The wet well installed in 2013 was observed to be operational and in good condition (Photograph 1, Appendix A-2). Manholes were observed to be intact from the surface. The leachate collection tank area and loading pump station appear to be in good working order and there were no reported issues.

As recommended in the 2012 AER, and as a result of a seep observed along the toe of the landfill slope and staining in the channels at the toe of the landfill slope during the 2012 site inspection, significant work was performed in 2013 to manage these seeps. This work, which consisted of the installation of a concrete wetwell at the northeast corner of the landfill, a power supply from a utility line located on the north of the site, surface water management features, and rock and fabric lined leachate collection trenches. The leachate collection trenches extend approximately 50 feet east of the wet well and 150 feet west of the landfill are generally aligned with the toe of the landfill, and are reportedly installed 4 to 8 feet below the existing ground surface. The intent of the new leachate collection lines was to intercept flow that was observed seeping from the ground surface at a location known to be below the existing leachate collection line or beyond the eastern extent of the existing leachate collection line and direct it to the concrete wet well. The concrete wet well was installed at an elevation that was below the existing leachate collection line. A force main was installed from the new pump in the wet well to an existing manhole west of the wet well where a solid gravity line exists.

In accordance with the Draft Post-Closure Maintenance and Monitoring Plan, all sections of the leachate collection line should be internally inspected annually. It is our understanding that that this work was not performed in 2016. However, a report from Kenyon Pipeline Inspection indicates that the internal leachate line inspection was performed in early November of 2017. The results of the 2017 leachate line internal inspection will be included in the 2018 AER covering the 2017 calendar year.

The Draft Post-Closure Maintenance and Monitoring Plan indicated the tank should be leak tested once every three years. Based on previous discussions with MOSA, it is our understanding that leak testing was performed in 2013. Cornerstone was not able to review the results of the 2013 inspection. It is our understanding that the tank was not leak tested in 2016 and it is recommended that the tank be leak tested as soon as practical.

2.2.8 Offsite Areas

Offsite areas do not appear to be impacted by landfill activities or stormwater runoff volumes at this time.



2.2.9 Recommended Measures – Central Landfill

It is recommended that the following maintenance items be implemented as soon as practical at the site:

- It is recommended that the repair of the sideslope swales continue as a regular maintenance item. The continued repair will reduce the amount of stormwater that is allowed to infiltrate the clay cap. Based on the completion of the entire swale at the top of the landfill during the 2012 construction season, it is anticipated that repair at a rate of one swale per year (almost 5 swales remain to be repaired) would be reasonable.
- It is recommended that the leachate seep observed at the east end of the landfill, along the toe of the waste mass (but generally west of the recently installed collection line) be continually monitored. At the time of the 2017 inspection the seeps appeared to be limited to the area west of the recently installed collection line. Should continued seeps be observed, additional management techniques (i.e., clay plugs, leachate collection lines, sumps, blind drains, pumping wells) may be required.
- Based on the continued observance of a sheen and or staining in the channel at the toe of the landfill (along the bike path) and generally west of the area where the new collection line has been installed, it is recommended that stormwater sampling protocols consistent with the current version of the New York State SPDES Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (MSGP) for Landfills be implemented at discharge locations that could be impacted by stormwater from the site. The protocols include quarterly visual sampling, annual dry-weather flow monitoring, and annual analytical sampling. It is recommended that the sampling be performed only for discharge locations where potential seeps have been observed and the stormwater quality may be impacted. At this time, it would include the culverts that discharge the swale at the toe of the landfill (2 sampling locations) to the north of the bike path. It should be noted that these location may be off the landfill property. Sampling should be performed in accordance with the methods and procedures outlined in the current version of the MSGP for Landfills (Sector L). The results should be compared to the Numeric Effluent Limitations and Benchmark Monitoring Requirements in the MSGP for landfills. Should exceedances be indicated, or the presence of pollutants be identified, implementation of additional seep management or other seep management practices may be required. It is recommended these stormwater sampling protocols be implemented by the 3rd quarter of 2018 and annual sampling is completed in 2018.



- The erosion that is occurring in the east end of the lowest sideslope swale, at the transition to the perimeter swale be regraded and that rock protection consistent with the protection in the perimeter swale be extended a minimum of 20 feet into the side slope swale.
- It is recommended that a more detailed log be submitted from leachate line Contractors in the future detailing which lines were jetted and if any issues were noted during the video inspection.
- All passive gas vents that have been knocked down should be reinstalled and reconnected to the below grade portion of the pipe (which is presumably intact and set in stone below the cap per the original detail).
- This report should be submitted to the NYSDEC as required by 6NYCRR Part 360-2.15, Subsection (k)(4) requirements.

The cost implications of the recommended measures are described elsewhere in this report.

In addition, due to the potential for impacting the long term functionality of the landfill and for protection of the environment, further investigation is recommended to identify management solutions for the following items:

- The long term integrity of the clay cap should be further investigated. Due to potential impacts to the functionality of the cap, and the potential for allowing stormwater to unnecessarily infiltrate the waste mass and become leachate, investigation into remediating cap areas that have settled and degraded over time may be warranted.
- The condition of the leachate tank needs to be assessed. Based on its construction (steel, and below grade), the potential for leaking exists. Identification of is condition is critical in identifying potential environmental impacts and future cost/budget implications.

Upon completion of a more thorough determination of causes/impacts of the items listed above, appropriate measures, if required, should be implemented within a reasonable time frame depending upon the complexity of the project.

2.2.10 Maintenance Completed in 2016

Site operations and maintenance activities for the CLF site included inspection, maintenance, and repairs, as needed. Maintenance items performed at the CLF during the 2016 calendar year included:

 Monthly inspections were reportedly performed in accordance with the postclosure plan.



- General maintenance was performed on the leachate, landfill gas, and surface water controls, and the final cover as necessary to maintain functionality and integrity of these components.
- Regular mowing and access road maintenance.

Miscellaneous maintenance activities at the CLF site involved inspection of the condition of groundwater monitoring wells and checking the integrity of the permitted landfill facility's fences, gates, signs, and the security of the site in general. There were no observed issues with either the groundwater monitoring wells or permitted landfill facility security measures during the reporting period.

2.3 C&D Landfill

The C&D Landfill was inspected by Mr. Robert Holmes, P.E. of Cornerstone Engineering and Land Surveying, PLLC, during the afternoon of September 19, 2017. The site was dry and the weather was sunny and warm, with temperatures estimated at 70 degrees. The results of the observations made during the site inspection as well as recommended maintenance items are summarized in the following sections..

2.3.1 Final Cover and Vegetation

The landfill final cover appears to be intact and fully vegetated. Vegetation appears to consist of a primarily of stalky grass approximately knee height. Coverage appears to be fully established and self-sustaining. Vegetation growth should continue to be monitored for signs of distress and the County should continue regular mowing. There are no signs of erosion and or excessive settlement at the site and the cap appears to be in good condition. Photos of the cap, vegetation, and drainage features can be seen in the Photo Log in Appendix A-3.

2.3.2 Landfill Gas Vents

The site has two passive landfill gas vents, one located in the center of the main fill area, and one in the center of the berm fill area on the west side of the site. The landfill gas vents appear to be in good condition with no signs of damage.

2.3.3 Landfill Gas Monitoring Probes

There are no landfill gas monitoring probes at this site.



2.3.4 Stormwater Management Structures

The stormwater management features at this site consist of lined rip-rap channels that convey off-site flow around the fill areas as well as capturing runoff from the fill areas. The three channels, located north of the berm fill, located between the berm fill and the main fill, and located south of the main fill appeared to be in good working order. There were no signs of significant erosion or growth of woody vegetation. Photos of the drainage channels can be seen in the Photo Log in Appendix A-3.

2.3.5 Groundwater Monitoring Wells

Although the site has one groundwater monitoring well, which was observed to be intact, there is no requirement for regular groundwater monitoring at the site.

2.3.6 Facility Access Road and Fencing

The facility access road and security fencing at the entrance to the landfill site appear to be intact.

2.3.7 Offsite Areas

Offsite areas do not appear to be impacted by landfill activities or stormwater runoff volumes at this time.

2.3.8 Leachate Collection System

There is no leachate collection system for the C&D landfill.

2.3.9 Recommended Measures

There are no additional recommended measures at this time for the C&D landfill. It is recommended that regular maintenance, mowing and visual inspections continue in accordance with the Post-Closure Monitoring and Maintenance Plan. It is also recommended that debris from the adjacent transfer facility operations be removed from the C&D landfill site. This report should be submitted to the NYSDEC as required by 6NYCRR Part 360-2.15, Subsection (k)(4) requirements.



2.3.10 Maintenance Completed in 2016

Site operations and maintenance activities for the C&D Landfill site included inspection, maintenance, and repairs, as needed. Maintenance items performed at the C&D landfill during the 2016 calendar year included:

- Monthly inspections were reportedly performed in accordance with the postclosure plan.
- Regular mowing and road maintenance

Miscellaneous maintenance activities at the C&D Landfill site involved checking the integrity of the permitted landfill facility's fences, gates, signs, and the security of the site in general. There were no observed issues with landfill facility security measures during the reporting period.



3 SUMMARY OF 2016 POST CLOSURE ENVIRONMENTAL MONITORING

In accordance with the New York State Part 360 regulations, closed landfills require a comprehensive post-closure monitoring and maintenance operations manual. This post-closure document shall provide all information needed to effectively monitor and maintain the facility for the entire post-closure period. Components of this manual include, but are not limited to, items such as a description of the type, location, sampling and sample preservation methodologies to be used, recordkeeping and reporting requirements for all environmental monitoring activities, description of all environmental control systems, and maintenance and contingency plans. In December 2003 a draft Post-Closure Monitoring and Maintenance Plan (PCMMP) was developed for MOSA for all three closed sites that Montgomery County currently maintains – the ELF, CLF and C&D landfills. Although documentation indicating that the post-closure plan was submitted to the New York State Department of Environmental Conservation (NYSDEC) is not available, this document has been followed during the post-closure period and based on past procedures we have assumed the document to have been approved by the NYSDEC for the purposes of this report.

Although records of environmental monitoring prior to 2003 were not available, it is reported that environmental monitoring was performed at the Eastern and Central landfills following closure of the sites. Reports indicate that groundwater monitoring was performed on a quarterly basis through 2003 at the ELF and CLF sites.

Within the draft PCMMP the following environmental monitoring was identified for each site:

Eastern Landfill

- Groundwater Annual Sampling of six on-site wells
- Surface Water Annual Sampling of the Sedimentation (Stormwater) Pond
- Leachate Bi-Annual Sampling for wastewater treatment plant requirements
- Landfill Gas Bi-Annual Monitoring of 22 landfill gas monitoring probes

Central Landfill

- Groundwater Annual Sampling of four on-site wells
- Leachate Bi-Annual Sampling for wastewater treatment plant requirements
- Landfill Gas Bi-Annual Monitoring of landfill gas monitoring probes



C&D Landfill

None (Landfill is primarily C&D waste)

Prior to the development of the draft PCMMP, the bi-annual landfill gas monitoring for the ELF and CLF was reportedly approved in correspondence from the NYSDEC on June 12, 2000. Subsequent to the development of the draft PCMMP, the NYSDEC approved a request to monitor overall site water quality on an annual basis on March 29, 2004. Also of note, in 2009 the water sampling programs for both the Eastern and Central Landfills, which previously had been done during separate quarters, were synchronized to the same quarter.

In addition to the water sampling and landfill gas monitoring, the PCMMP requires that monthly inspections be performed at all three sites to identify any problems that may have developed with the cap system, drainage system, leachate collection system, flares and vent system. A monthly inspection form was included in the PCMMP.

The intent of this section is to describe the results of the monitoring and/or sampling for the environmental and facility monitoring points per the 6NYCRR Part 360-2.15(k)(4) requirements.

3.1 Eastern Landfill

3.1.1 **Groundwater 2016**

In accordance with the PCMMP, sampling and analyses from the six (6) on-site groundwater wells was performed once during 2016. Sampling from all 6 wells was performed on March 24, 2016 and the results presented in a report titled, *Environmental Monitoring Report –* 2016 First Quarter/Annual Review – Eastern Landfill (Closed), Village of Fort Johnson, Montgomery County, New York, dated March 2016 and prepared by Barton & Loguidice. This report, referred to as the Eastern Landfill EMR, is included in Appendix B. The groundwater samples were obtained by Pace Analytical Services, Inc. (PACE) and transported to their laboratory for analysis in accordance with the NYSDEC 1993 Part 360 Baseline Parameter List. It should be noted that Cornerstone has not analyzed the analytical data presented in the EMP reports and is only providing a summary of the information. The results, which were presented and analyzed by Barton & Loguidice in the Eastern Landfill EMR, can be summarized as follows:

MW-2N and MW-3N (Upgradient Wells)



Review of the EMR indicates that both wells exhibit concentrations that exceeded NYSDEC Part 703 groundwater quality standards. Monitoring well MW-2N exceeded the turbidity parameters. Monitoring well MW-3N exceeded parameters including turbidity, total dissolved solids, and total sodium, iron and manganese. The 2016 results are reportedly consistent with historical data for these locations.

MW-1N (Downgradient Well)

Monitoring well MW-1N, which is located southeast of and downgradient from the closed landfill, exhibits turbidity, total iron, and total sodium levels which exceed applicable groundwater quality standards (see Table-1 in the Eastern Landfill EMR). The elevated turbidity and iron levels are consistent with upgradient levels. The elevated sodium levels are reportedly consistent with naturally occurring level. The remaining water quality test results for monitoring well MW-1N are reportedly consistent with historical data and do not suggest a landfill influence.

MW-4N (Downgradient Well)

This monitoring well is located east of and downgradient from the closed landfill. MW-4N exhibited elevated levels of total dissolved solids, turbidity and total magnesium, iron and manganese. These exceedances are reportedly consistent with historical results for this location.

MW-5N (Downgradient Well)

This monitoring well is located southeast of and downgradient from the closed landfill. MW-5N did not exceed any Part 703 groundwater quality standards during this monitoring event. The results from this monitoring event are consistent with historical results for this location and with upgradient groundwater quality.

MW-6N (Downgradient Well)

This monitoring well is located south of and downgradient from the closed landfill. MW-6N exhibited turbidity, total iron, and total manganese in exceedance of Part 703 groundwater quality standards. These exceedances reflect natural site groundwater quality and are reportedly consistent with historical results for this location.

The PCMMP does not call out any specific action levels for groundwater exceedances but does indicate that affected monitoring points will be re-sampled on a contingency basis and continued until the NYSDEC determines that the data not be related to a release from the landfill.



3.1.2 Surface Water 2016

In accordance with the PCMMP, the surface water from the sedimentation pond at the east end of the site was reportedly obtained. A sample was obtained on March 24, 2016 from the pond and submitted for analytical testing. The EMR indicated the surface water quality data were consistent with historical results, and the sedimentation pond does not appear to be influenced by the closed landfill.

The PCMMP does not call out any specific action levels but does indicate that affected water resources will be resampled on a contingency basis and continued until the NYSDEC determines that the data not be related to a release from the landfill.

3.1.3 Leachate 2016

In accordance with the approved monitoring schedule for leachate, two leachate sampling events took place in 2016. One set of samples was obtained on April 12, 2016 and a second set of samples was obtained on October 7, 2016. The leachate is treated at the Amsterdam and Canajoharie Wastewater Treatment Plants, which are the local POTWs. The results, which were submitted to the treatment facility reportedly did not exceed any limitations they have set forth for the leachate from the closed sites. The results of the sampling event can be found in Appendix B.

3.1.4 Landfill Gas 2016

In accordance with the approved monitoring schedule for landfill gas, two landfill gas monitoring events took place in 2016. One was performed on May 31, 2016, and a second monitoring event took place December 13, 2016. The results of both monitoring events can be found in Appendix B.

None of the monitoring points indicated the presence of methane during either sampling event, with the exception of GP-17, which registered a reading of 0.04% by volume. The PCMMP indicates that landfill gas concentrations exceeding 25% LEL methane at the property line will result in notification of the NYSDEC and resulting remedial actions. All landfill gas probes at the property boundaries indicated readings well below 25% LEL methane. The reported concentrations are consistent with historical results at the ELF.

3.1.5 Monthly Inspections 2016

Monthly inspections were reportedly performed for the ELF in the 2016 calendar year. The inspections that were performed included a review of all systems at the site and generated maintenance work orders. The work orders document that the systems at the site were



being reviewed and repaired/updated as necessary. Beginning in 2010, the results of the monthly inspections, following the general outline of the forms in the PCMMP, have reportedly been recorded and made part of the file for the site.

3.2 Central Landfill

3.2.1 Groundwater 2016

In accordance with the PCMMP, sampling and analyses from the four (4) on-site groundwater wells was performed once during 2016. Sampling from the wells was performed on March 21, 2016 and the results presented in a report titled, *Environmental Monitoring Report – 2016 First Quarter/Annual Review – Central Landfill(Closed), Route 5S, Town of Root, Montgomery County, New York*, dated March 2016 and prepared by Barton & Loguidice. This report, referred to as the Central Landfill EMR, is included in Appendix B.

The samples were obtained by Pace Analytical Services, Inc. and transported to their laboratory for analysis in accordance with the NYSDEC 1988 Part 360 Baseline Parameter List. It should be noted that Cornerstone has not analyzed the analytical data presented in the EMP reports and is only providing a summary of the information. The results, which were prepared and analyzed by Barton & Loguidice, and reported in the Central Landfill EMR, can be summarized as follows:

MW-1 (Upgradient Well)

This monitoring well located southwest of and upgradient from the closed landfill represents the upgradient water quality. This location was reported as dry during the 2016 First Quarter monitoring event. Historical groundwater quality data for MW-1 has not demonstrated any apparent influence from the closed landfill.

MW-2 (Downgradient Well)

This monitoring well is located west of and downgradient from the closed landfill. The water quality at this location exhibited no exceedances above Part 703 Groundwater Standards (see Table 1 in the Central Landfill EMR). The overall results were reportedly consistent with historical data and not influenced by the closed landfill.

MW-5 (Downgradient Well)

This monitoring well, located northwest and downgradient from the closed landfill exhibits turbidity, total dissolved solids, total phenols, and total arsenic, total iron, magnesium and



sodium concentrations that exceed Part 703 groundwater quality standards. Barton & Loguidice performed analyses comparing the trend in concentration of several of the parameters. Although the rising concentration over time in sodium and chloride concentrations could indicate a trend that is indicative of a road salt impact (based on well location being downgradient from on-site salt storage), the elevated levels of other constituents reportedly indicated an apparent residual impact from the closed landfill.

As indicated in the Draft PCMMP, should groundwater or surface water quality demonstrate a significant statistical variance from the historical water quality or exhibits the presence of leachate indicators which have been historically absent or present at low levels, "all of the affected monitoring points will be resampled on a contingency basis and continued until NYSDEC determines the data to be not related to a release from the landfill." However, based upon a review of the groundwater data by Barton & Loguidice, and as presented in the environmental monitoring report, the referenced constituents levels appear to be influenced by road salt. Continued examination of these constituents is recommended in future monitoring events per the recommendations in the environmental monitoring report.

MW-6 (Downgradient Well)

This monitoring well is located north of and downgradient from the closed landfill. The water quality at this location exhibits exceedances above Part 703 Groundwater Standards (see Table 1 in the Central Landfill EMR). The exceeded parameters for MW-6 were turbidity and total iron. The overall results were reportedly consistent with historical data and closely reflect the natural groundwater conditions for the site.

3.2.2 Surface Water

The 2016 AER recommended that annual surface water sampling be implemented to assess the potential impact of the seeps that were observed at the east end of the site.

It is our understanding that annual sampling has not recently taken place. Based on historical surface water sampling, the 2012 report indicated that that leachate seeps at the site were potentially impacting stormwater discharges at the site.

It is recommended that stormwater samples be obtained at least annually at a minimum of two locations; one sample at each culvert that crosses under the bike path at the toe of the slopes (i.e., where the stormwater discharges off-site). Should there be additional locations where the perimeter channel discharges off site, additional sampling may be required. The annual sampling should be performed in accordance with the methods and procedures outlined in the current version of the New York State SPDES Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (MSGP). The results should



be compared to the Numeric Effluent Limitations and Benchmarks in the MSGP for landfills.

3.2.3 Leachate 2016

In accordance with the approved monitoring schedule for leachate, two leachate sampling events took place in 2016. One set of samples was obtained on April 12, 2016 and a second set of samples was obtained on October 7, 2016. The leachate was treated at the Canajoharie Wastewater Treatment Plant, which is the local POTW. The results, which were submitted to the treatment facility reportedly did not exceed any limitations they have set forth. The results of both monitoring events can be found in Appendix B.

3.2.4 Landfill Gas 2016

In accordance with the approved monitoring schedule for landfill gas, two landfill gas monitoring events took place in 2016. One was performed on May 31, 2016, and a second monitoring event took place December 13, 2016. The results of both monitoring events can be found in Appendix B.

The results of both sampling events indicate that the 2016 results are consistent with historical results. In both events methane gas was not detected at any of the monitoring point locations. The PCMMP indicates that landfill gas concentrations exceeding 25% LEL methane at the property line will result in notification of the NYSDEC and resulting remedial actions. All landfill gas probes at the property boundaries indicated readings well below 25% LEL methane.

3.2.5 Monthly Inspections 2016

Monthly inspection were reportedly performed at the CLF during the 2016 calendar year. The inspections that were performed included a review of all systems at the site and generated maintenance work orders. The work orders document that the systems at the site were being reviewed and repaired/updated as necessary. Beginning in 2010, the results of the monthly inspections, following the general outline of the forms in the PCMMP, have reportedly been recorded by the County and made part of the file for the site.

3.3 C&D Landfill

The C&D landfill does not require water (surface or ground), leachate, or landfill gas monitoring as part of the PCMMP.



3.3.1 Monthly Inspections 2016

Monthly inspections were reportedly performed at the C&D landfill during the calendar year. The inspections that were performed included a review of all systems at the site and generated maintenance work orders. The work orders document that the systems at the site were being reviewed and repaired/updated as necessary. Beginning in 2010, the results of the monthly inspections, following the general outline of the forms in the PCMMP, have reportedly been recorded by the County and made part of the file for the site.



4 RECOMMENDATION SUMMARY/COST ESTIMATE

4.1 Annual Maintenance/Recommendations for 2018

The AER is required to include an estimate for the Post Closure Expenses for the following calendar year and shall contain a specific, itemized estimate of costs for all monitoring, maintenance, and repairs identified for implementation in the following year. Additionally, the AER shall identify any current or impending conditions at the Landfills which may require additional expenditures.

Using information included in past estimates, historical costs associated with the operation and maintenance of the landfill, recognized cost estimating references, and our experience in costing maintenance and repairs at solid waste facilities, Cornerstone has developed an estimate for the 2018 Post Closure Expenses for the three landfill sites. To facilitate tracking of costs in future years, the estimates are organized by line items that match historical budgeting line items.

The 2018 costs for each site have been summarized, by task, in Table 4-1. Detailed breakdowns, including cost assumptions and references for each site can be seen in Appendix C.

In addition to the normal maintenance that would occur at the various sites, Cornerstone has also included costs for the recommended maintenance items at each site outlined in Sections 2 and 3. The recommended maintenance/action items for each landfill in 2018 are as follows:

Eastern Landfill

- Holes observed in the cap during the monthly inspections and during mowing
 events should be filled and continued to be monitored to determine if continued soil
 loss is occurring or if the holes are being caused by settlement. If soil loss or
 settlement appear to be ongoing, a more detailed inspection of the area may be
 required to determine the cause of the soil loss or settlement.
- It is recommended that the area of cap erosion on the south face of the landfill be repaired consistent with previous cap repairs on the southeast face of the landfill. That is, the topsoil and vegetation should be removed and the remaining low areas (estimated to be 18 inches) be filled with 4- to 8-inch rip-rap. It is recommended that a minimum of 6 inches of sand remain as a cushion layer between the rip-rap and the geomembrane cap. It is also recommended that a 16-ounce (minimum) non-woven geotextile be placed between the sand and the rip-rap.



- Sand from the cap erosion present in downstream surface channels and should be removed so that it does not impact the performance of the channels.
- The rocks that are present in the leachate line coming into Manhole #5 should be regularly monitored (annually) to determine if the condition is getting worse and if a worsened condition prevents leachate from passing. If leachate cannot flow past the rocks, a more significant repair to open the blocked line may be required in the future.
- It is recommended that a more detailed log be submitted from leachate line Contractors in the future detailing which lines were jetted and if any issues were noted during the video inspection.
- Several gas monitoring probes were noted during the September 20, 2017 monitoring event as damaged or missing. These probes should be repaired or replaced prior to the next gas monitoring event.
- Stone should be placed over the exposed geotextile around the leachate collection tank (north side). It is recommended that a minimum of 12 inches of stone be installed.
- This report should be submitted to the NYSDEC as required by 6NYCRR Part 360-2.15, Subsection (k)(4) requirements.
- The leachate collection lines should be internally inspected per the post-closure monitoring plan.

Central Landfill

- It is recommended that the repair of the sideslope swales continue as a regular maintenance item. The continued repair will reduce the amount of stormwater that is allowed to infiltrate the clay cap. Based on the completion of the entire swale at the top of the landfill during the 2012 construction season, it is anticipated that repair at a rate of one swale per year (almost 5 swales remain to be repaired) would be reasonable.
- The condition of the leachate tank needs to be assessed. Based on its construction (steel, and below grade), the potential for leaking exists. Identification of is condition is critical in identifying potential environmental impacts and future cost/budget implications.
- It is recommended that the leachate seep observed at the east end of the landfill, along the toe of the waste mass (but generally west of the recently installed collection line) be continually monitored. At the time of the 2017 inspection the seeps appeared to be limited to the area west of the recently installed collection line.



Should seeps continue to be observed, additional management techniques (i.e., clay plugs, leachate collection lines, sumps, blind drains, pumping wells) may be required.

- Based on the continued observance of a sheen and or staining in the channel at the toe of the landfill (along the bike path) and generally west of the area where the new collection line has been installed, it is recommended that stormwater sampling protocols consistent with the current version of the New York State SPDES Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (MSGP) for Landfills be implemented at discharge locations that could be impacted by stormwater from the site. The protocols include quarterly visual sampling, annual dry-weather flow monitoring, and annual analytical sampling. It is recommended that the sampling be performed only for discharge locations where potential seeps have been observed and the stormwater quality may be impacted. At this time, it would include the culverts that discharge the swale at the toe of the landfill (2 sampling locations) to the north of the bike path. It should be noted that these location may be off the landfill property. Sampling should be performed in accordance with the methods and procedures outlined in the current version of the MSGP for Landfills (Sector L). The results should be compared to the Numeric Effluent Limitations and Benchmark Monitoring Requirements in the MSGP for landfills. Should exceedances be indicated, or the presence of pollutants be identified, implementation of additional seep management or other seep management practices may be required. It is recommended these stormwater sampling protocols be implemented by the 3rd quarter of 2018 and annual sampling is completed in 2018.
- The erosion that is occurring in the east end of the lowest sideslope swale, at the transition to the perimeter swale be regraded and that rock protection consistent with the protection in the perimeter swale be extended a minimum of 20 feet into the side slope swale.
- All passive gas vents that have been knocked down should be reinstalled and reconnected to the below grade portion of the pipe (which is presumably intact and set in stone below the cap per the original detail).
- It is recommended that a more detailed log be submitted from leachate line Contractors in the future detailing which lines were jetted and if any issues were noted during the video inspection.
- This report should be submitted to the NYSDEC as required by 6NYCRR Part 360-2.15, Subsection (k)(4) requirements.
- As reported in the Central Landfill EMR, Barton & Loguidice noted that that the elevated levels of total dissolved solids, total magnesium and total sodium, in MW-5 indicate an apparent residual impact from the closed landfill. Per the Draft PCMMP,



should groundwater or surface water quality demonstrate a significant statistical variance from the historical water quality or exhibits the presence of leachate indicators which have been historically absent or present at low levels, "all of the affected monitoring points will be resampled on a contingency basis and continued until NYSDEC determines the data to be not related to a release from the landfill." However, based upon a review of the groundwater data by Barton & Loguidice, and as presented in the environmental monitoring report, the referenced constituents levels appear to be influenced by road salt. Continued examination of these constituents is recommended in future monitoring events per the recommendations in the environmental monitoring report.

• The leachate collection lines should be internally inspected per the post-closure monitoring plan.

C&D Landfill

• This report should be submitted to the NYSDEC as required by 6NYCRR Part 360-2.15, Subsection (k)(4) requirements.

The cost estimates (where applicable) for these items have been tabulated in Table 4-1. A more detailed breakdown of each line item can be seen in the Summary Estimate of Annual Post-Closure Care Costs of Appendix C.

It is possible that larger, more costly maintenance events could be required at the site; however; the cost and likelihood of such an occurrence is difficult to estimate in year-to-year budgeting.



LIMITATIONS

The work product included in the attached was undertaken in full conformity with generally accepted professional consulting principles and practices and to the fullest extent as allowed by law. We expressly disclaim all warranties, express or implied, including warranties of merchantability or fitness for a particular purpose. The work product was completed in full conformity with the contract with our client and this document is solely for the use and reliance of our client (unless previously agreed upon that a third party could rely on the work product) and any reliance on this work product by an unapproved outside party is at such party's risk.

The work product herein (including opinions, conclusions, suggestions, etc.) was prepared based on the situations and circumstances as found at the time, location, scope and goal of our performance and thus should be relied upon and used by our client recognizing these considerations and limitations. Cornerstone shall not be liable for the consequences of any change in environmental standards, practices, or regulations following the completion of our work and there is no warrant to the veracity of information provided by third parties, or the partial utilization of this work product.



TABLES



Table 4-1 2018 POST CLOSURE COST ESTIMATE

Annual Engineer's Report (AER) - Closed Sites Montgomery County, New York

Item 1	Description	Eastern Landfill	Central Landfill	C&D Landfill	2018
1]	Personnel Expenses	\$ 33,011.05	\$85,359.97	\$2,667.16	\$121,038.18
2]	Leachate Disposal	\$ 95,989.87	\$80,492.14	\$0.00	\$176,482.01
3]	Leachate System Cleaning	\$ 9,102.11	\$10,516.82	\$0.00	\$19,618.93
4]	Fuel	\$ 7,605.49	\$5,170.68	\$314.17	\$13,090.34
5]	Equipment Repairs and Maintenance	\$ 4,774.05	\$2,333.98	\$0.00	\$7,108.03
6]	Landfill Repairs and Maintenance	\$ 6,406.73	\$24,902.97	\$375.00	\$31,684.71
7]	Engineering	\$ 4,218.06	\$2,867.70	\$174.24	\$7,260.00
8	Monitoring	\$ 11,413.22	\$25,679.09	\$0.00	\$37,092.31
9	Waste Transporter Permits	\$ 740.89	\$503.70	\$30.60	\$1,275.20
10 Uniforms		\$ 581.35	\$395.24	\$24.01	\$1,000.61
11 Utilities		\$ 4,302.11	\$2,924.44	\$199.99	\$7,426.54
12 Insurance		\$ 6,777.22	\$4,607.58	\$279.95	\$11,664.75
,	Subtotal	\$184,922.16	\$245,754.31	\$4,065.13	\$434,741.60
	Contingency Costs (10%)	\$18,492.22	\$24,575.43	\$406.51	\$43,474.16
,	ГОТАL	\$203,414.38	\$270,329.74	\$4,471.64	\$478,215.76

Notes:

1) See cost estimates for each individual landfill, along with references and assumptions in Appendix C

FIGURES





Colonie

Albany



1200 Scottsville Rd. Rochester, NY 14624 Eastern Landfill Site Location Map Annual Engineer's Report (AER) MOSA Landfills Montgomery County, N.Y.

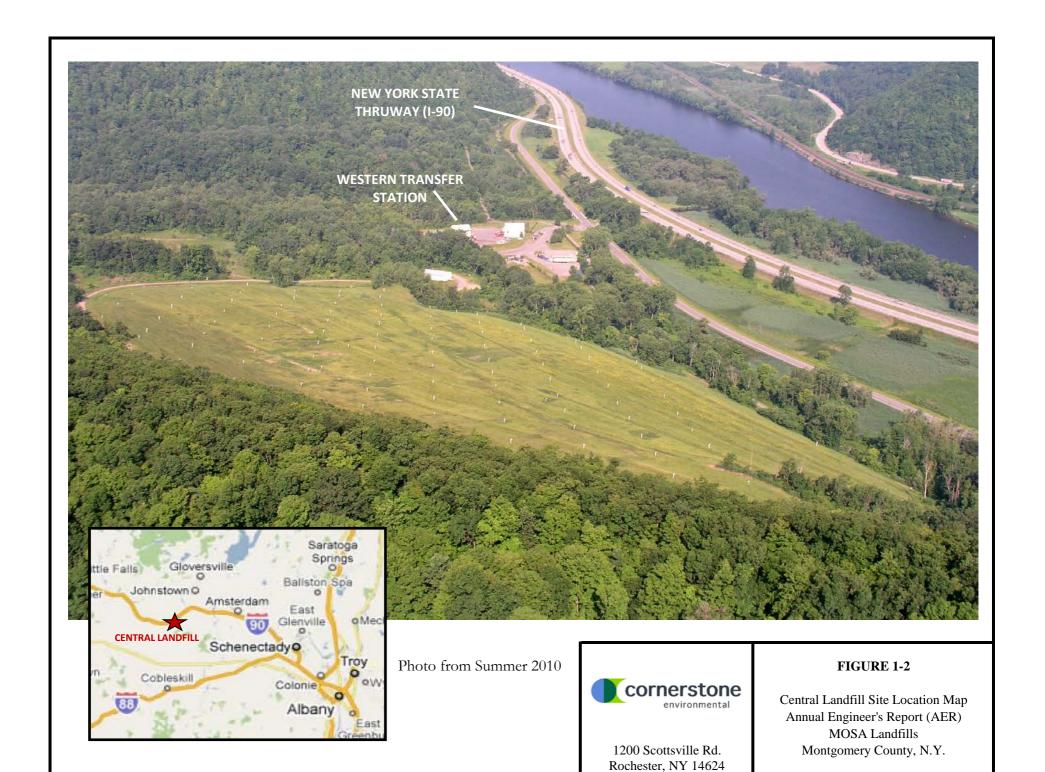
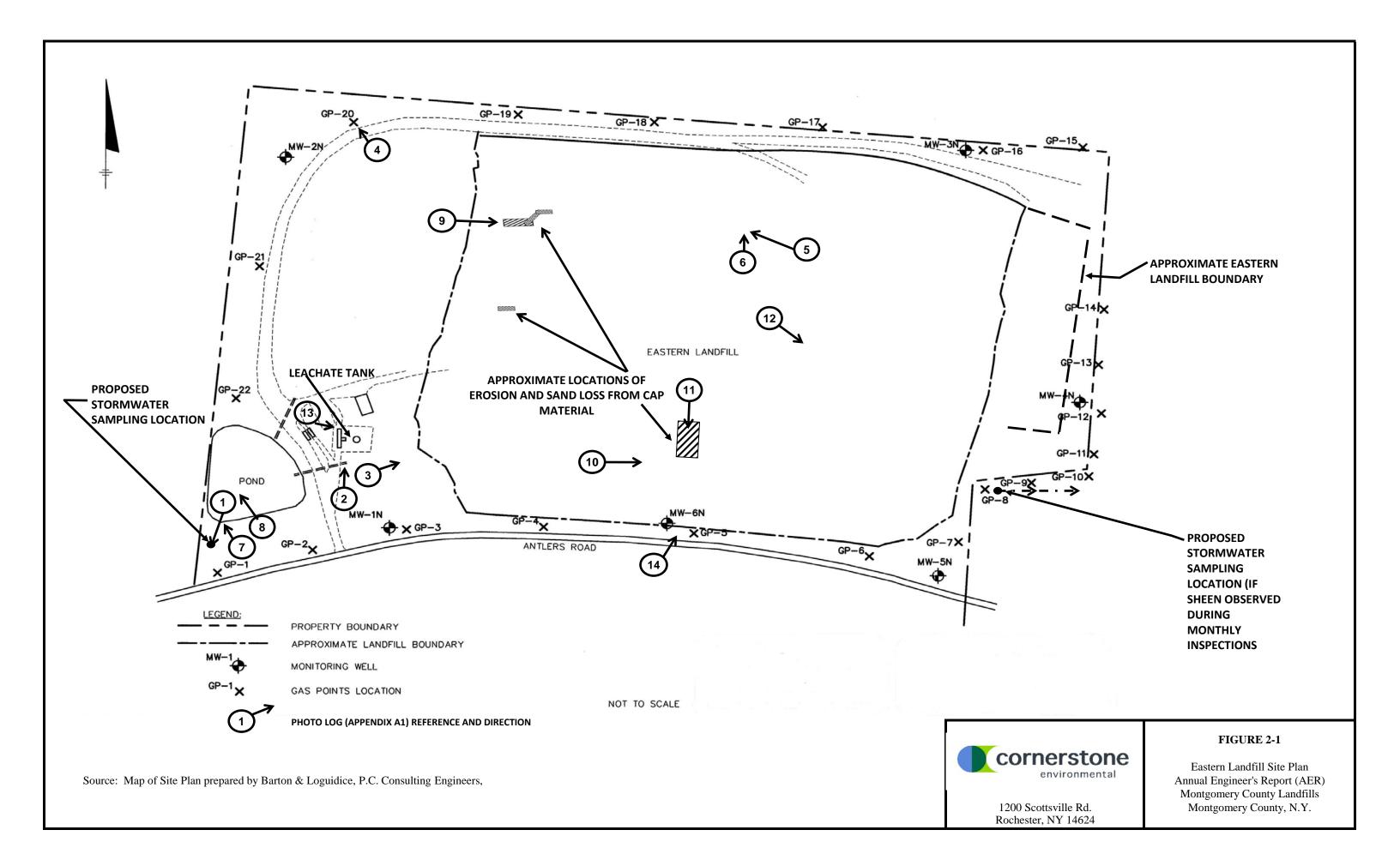


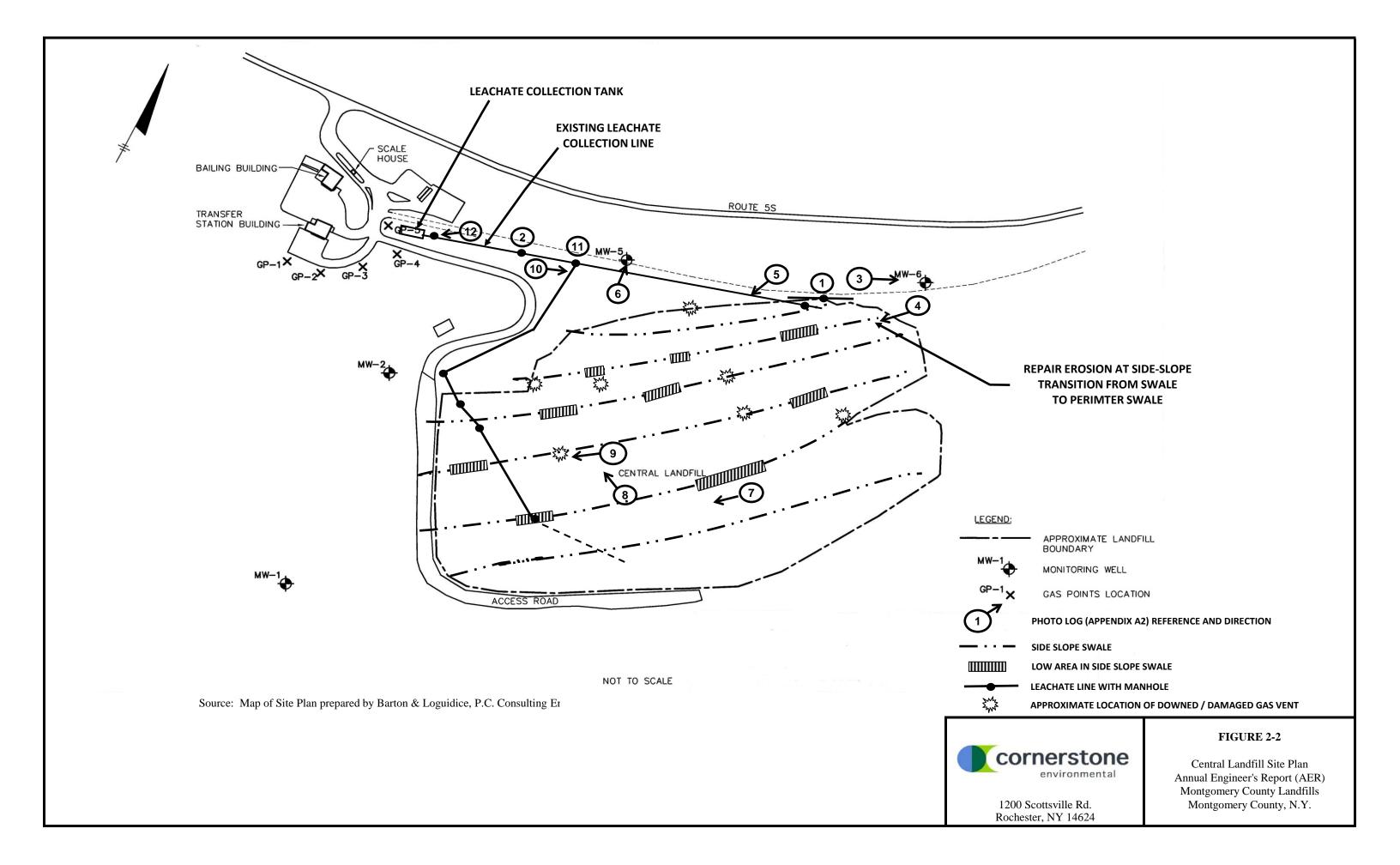


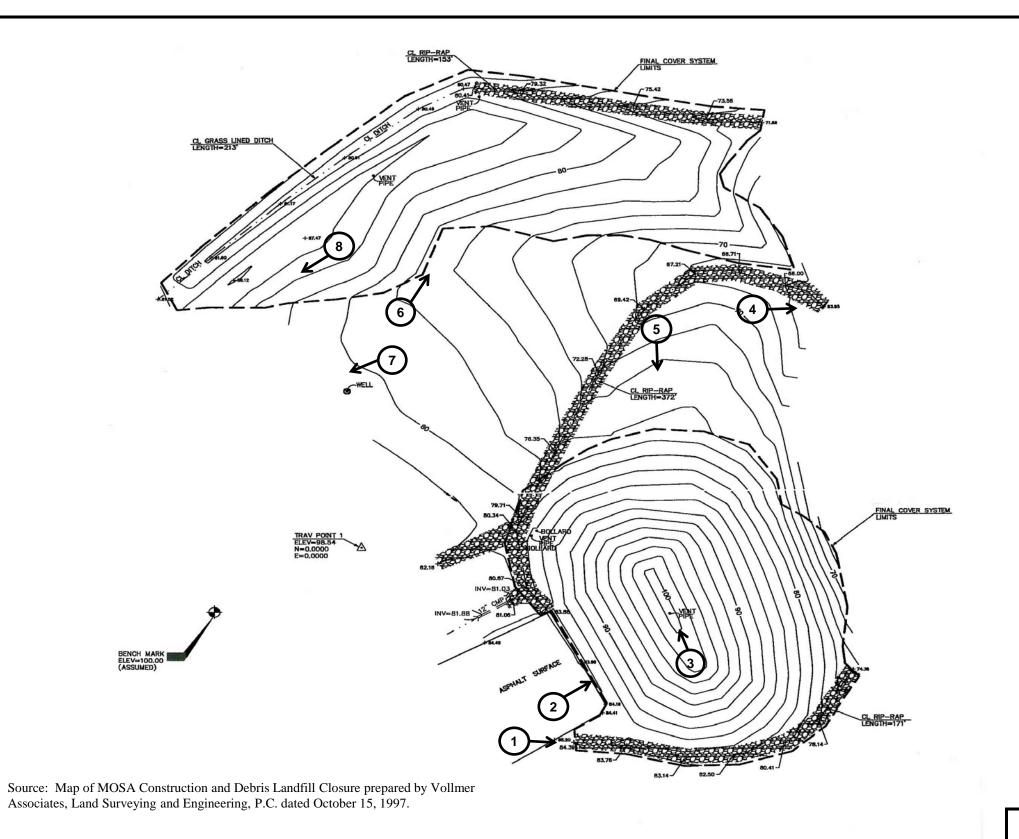
Photo from Summer 2010



1200 Scottsville Rd. Rochester, NY 14624 Annual Engineer's Report (AER) MOSA Landfills Otsego County, N.Y.







N W W REST. CS

LEGEND:



Photo Log (Appendix A3) Reference and Direction



1200 Scottsville Rd. Rochester, NY 14624

FIGURE 2-3

C&D Landfill Site Plan Annual Engineer's Report (AER) Montgomery County Landfills Otsego County, N.Y.



APPENDIX A-1 PHOTO LOG – EASTERN LANDFILL

September 2017

Client: Project Number: Site Name: Site Location: Montgomery County 170614 Eastern Landfill Fort Johnson, N.Y. Montgomery County

Photograph No.:

Comments:

Looking southwest
- discharge from
stormwater
sediment pond.



Photograph No.: 002

Comments:

Looking north – drainage channel, leachate tank.





September 2017

Client: Project Number: Site Name: Site Location: Montgomery County 170614 Eastern Landfill Fort Johnson, N.Y. Montgomery County

Photograph No.:

Comments:

Looking northeast – iron staining in drainage channel to the south of the leachate tank.



Photograph No.: 004

Comments:

Looking northwest – gas probe 20 at northwest corner of site.





September 2017

Client: Project Number: Site Name: Site Location: Montgomery County 170614 Eastern Landfill Fort Johnson, N.Y. Montgomery County

Photograph No.:

Comments:

Looking west - landfill gas flare.



Photograph No.: 006

Comments:

Looking north -Overgrown vegetation on fence around landfill gas flare.





September 2017

Client: Project Number: Site Name: Site Location: Montgomery County 170614 Eastern Landfill Fort Johnson, N.Y. Montgomery County

Photograph No.:

Comments:

Looking northwest – sediment pond emergency spillway



Photograph No.: 008

Comments:

Looking northwest – sediment pond.





September 2017

Client: Project Number: Site Name: Site Location: Montgomery County 170614 Eastern Landfill Fort Johnson, N.Y. Montgomery County

Photograph No.:

Comments:

Looking east – cap area erosion.



Photograph No.: 010

Comments:

Looking east – Drainage channel and east cap area.





September 2017

Client: Project Number: Site Name: Site Location: Montgomery County 170614 Eastern Landfill Fort Johnson, N.Y. Montgomery County

Photograph No.:

Comments:

Looking south – cap area erosion.



Photograph No.: 012

Comments:

Looking southeast – cap area.





September 2017

Client: Project Number: Site Name: Site Location: Montgomery County 170614 Eastern Landfill Fort Johnson, N.Y. Montgomery County

Photograph No.:

Comments:

Exposed cushion geotextile at leachate tank secondary containment area.



Photograph No.: 014

Comments:

Looking northeast – Monitoring Well #6 and Gas Point #5 on the south side of the site.





APPENDIX A-2 PHOTO LOG – CENTRAL LANDFILL

September 2017

Client: Project Number: Site Name: Site Location: Montgomery County 170614 Central Landfill Root, N.Y. Montgomery County

Photograph No.: 001

Comments:

Leachate flow – Wet well in northeast corner of site.



Photograph No.: 002

Comments:

Leachate flow – Manhole #4.





September 2017

Client: Project Number: Site Name: Site Location: Montgomery County 170614 Central Landfill Root, N.Y. Montgomery County

Photograph No.: 003

Comments:

Looking east – Monitoring well # 6.



Photograph No.: 004

Comments:

Looking southwest

– erosion in side
slope swale at toe
of landfill.





September 2017

Client: Project Number: Site Name: Site Location: Montgomery County 170614 Central Landfill Root, N.Y. Montgomery County

Photograph No.: 005

Comments:

Looking southwest

– staining in
surface water at toe
of landfill.



Photograph No.: 006

Comments:

Looking north – Overgrown vegetation around Monitoring Well #5.





September 2017

Client: Project Number: Site Name: Site Location: Montgomery County 170614 Central Landfill Root, N.Y. Montgomery County

Photograph No.: 007

Comments:

Looking southwest – southwest cap area.



Photograph No.: 008

Comments:

Looking west – northwest cap area.





September 2017

Client: Project Number: Site Name: Site Location: Montgomery County 170614 Central Landfill Root, N.Y. Montgomery County

Photograph No.: 009

Comments:

Looking southwest – downed gas vent.



Photograph No.: 010

Comments:

Looking west – drainage channel along north side of landfill.





September 2017

Client: Project Number: Site Name: Site Location: Montgomery County 170614 Central Landfill Root, N.Y. Montgomery County

Photograph No.: 011

Comments:

Looking south – overgrown vegetation around Manhole #3.



Photograph No.: 012

Comments:

Looking west – Manhole #6 and leachate pump house.





APPENDIX A-3 PHOTO LOG – C&D LANDFILL

September 2017

Client: Project Number: Site Name: Site Location: Montgomery County 170614 C&D Landfill Cooperstown, N.Y Otsego County

Photograph No.: 001

Comments:

Looking east – southern drainage swale.



Photograph No.: 002

Comments:

Looking northeast – debris on edge of landfill in southwest corner.





September 2017

Client: Project Number: Site Name: Site Location: Montgomery County 170614 C&D Landfill Cooperstown, N.Y Otsego County

Photograph No.: 003

Comments:

Looking north northwest – gas vent on eastern cell.

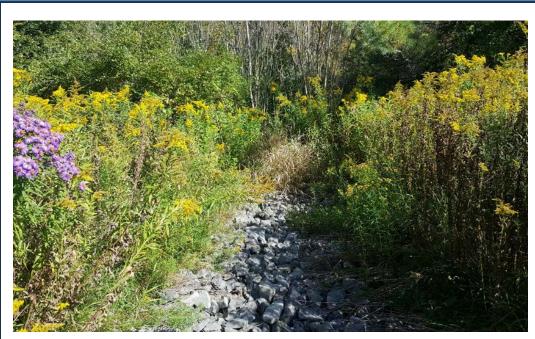


Photograph No.: 004

Comments:

Looking east

– Central
drainage
swale.





September 2017

Client: Project Number: Site Name: Site Location: Montgomery County 170614 C&D Landfill Cooperstown, N.Y Otsego County

Photograph No.: 005

Comments:

Looking south – central drainage swale.



Photograph No.: 006

Comments:

Looking northeast – interspersed vegetation between cells due to rocky ground.





September 2017

Client: Project Number: Site Name: Site Location: Montgomery County 170614 C&D Landfill Cooperstown, N.Y Otsego County

Photograph No.: 007

Comments:

Looking southwest – overgrown vegetation on western side of site.



Photograph No.: 008

Comments:

Looking southwest – overgrown vegetation in western cell.





APPENDIX B 2016 INSPECTION / SAMPLING REPORTS

Environmental Monitoring Report 2016 First Quarter/Annual Report – Montgomery County Eastern Landfill (Closed)

Environmental Monitoring Report 2016 First Quarter/Annual Review – Montgomery County Central Landfill (Closed)

2016 Second Quarter Semi-Annual Leachate Compliance Monitoring Report – Montgomery County Central and Eastern Landfills (Closed)

2016 Fourth Quarter Leachate Compliance Report – Montgomery County Central and Eastern Landfills (Closed)

Excerpted Gas Monitoring Pages from Environmental Monitoring Report 2017 Second Quarter/Annual Report – Montgomery County Eastern Landfill (Closed)

Excerpted Gas Monitoring Pages from Environmental Monitoring Report 2017 Second Quarter/Annual Report - Montgomery County Central Landfill (Closed)

Montgomery County Eastern Landfill (Closed)

Environmental Monitoring Report 2016 First Quarter/Annual Review

Village of Fort Johnson Montgomery County, New York

March 2016

Environmental Monitoring Report 2016 First Quarter/Annual Review

Eastern Landfill (Closed)

Village of Fort Johnson Montgomery County, New York

NYSDEC Region 4

Prepared for:

Montgomery County Department of Public Works County Highway Building 6 Park Street P.O. Box 1500 Fonda, New York 12068-1500

Prepared by:

Barton & Loguidice, D.P.C. 443 Electronics Parkway Liverpool, New York 13088

Project No.: 666.006.002 March 2016

Table of Contents

ž.	<u>Page</u>
Sample Collection Information	1
Sampling Firm	1
Sampling Dates	1
Sampling Locations	
Field Determinations	
Tiola Data Hillian Colo	
Sample Testing	2
Laboratory Information	
Parameters Tested	
Assessment of Monitoring Results	2
Introduction	د
Groundwater Quality – Upgradient	
Groundwater Quality - Downgradient	4
Surface Water	5
Conclusions	5

List of Tables

Table 1 – Groundwater Standards Exceeded (2016 First Quarter)

List of Figures

Figure 1 – Eastern Landfill Site Plan

Figure 2 – Groundwater Contour Map

List of Appendices

Appendix A – Field Sampling Data Sheets/Field Calibration Worksheet

Appendix B - Pace Analytical Services, Inc. (PACE) Analytical Report

Appendix C - Historical Analytical Data

Appendix D - Historical Groundwater Elevation Data

Sample Collection Information

Sampling Firm:

Pace Analytical Services, Inc. (PACE)

Sampling Date(s):

March 22, 2016

Sampling Locations:

(See Figure 1 sampling locations.)

Monitoring Wells					
Downgradient	Upgradient				
MW-1N	MW-2N				
MW-4N	MW-3N				
MW-5N					
MW-6N					
Gas Points					
GP-1	GP-12				
GP-2	GP-13				
GP-3	GP-14				
GP-4	GP-15				
GP-5	GP-16				
GP-6	GP-17				
GP-7	GP-18				
GP-8	GP-19				
GP-9	GP-20				
GP-10	GP-21				
GP-11	GP-22				
Surface Water					
Sedimentation Pond					

Field Determinations:

(See Field Data Sheets in Appendix A.)

pН

Temperature

Specific Conductance

Eh (Oxidation Reduction Potential)

Groundwater Elevation Levels

Dissolved Oxygen (Surface Water Only)

Sample Testing

Laboratory:

Pace Analytical Services, Inc. (PACE)

2190 Technology Drive Schenectady, NY 12308

EPA: NY00906, ELAP: 11078

Parameters Tested:

All monitoring locations were analyzed for the 1993 Part 360

Baseline parameter list.

Test Report:

Pace Analytical Services, Inc., Report IDs #16030528

(See Laboratory Report in Appendix B.)

Assessment of Monitoring Results

Introduction

The Montgomery County Eastern Landfill is approximately 47-acres in size, and is located on Antlers Road in the Village of Fort Johnson, Montgomery County, New York. A site plan is included as Figure 1. The landfill closure construction was completed during the 1999 construction season. The major components of the landfill cap include a gas venting and collection system, a high-density polyethylene (HDPE) geomembrane liner, and an overlying barrier protection layer with topsoil and established vegetation. Post-closure monitoring activities were initiated in the year 2000.

This report represents the results of environmental monitoring activities conducted during the First Quarter of 2016 at the Eastern Landfill. The environmental monitoring points utilized consist of two upgradient and four downgradient monitoring wells, and one surface water sampling location. Perimeter gas monitoring is required during the Second and Fourth Quarters of each year and, therefore, was not completed during this monitoring period. The 2016 biannual landfill gas monitoring results along with the landfill inspections will be included in the 2017 annual environmental monitoring report. The environmental monitoring work was conducted in accordance with the NYSDEC approved Site Post-Closure Plan (Barton & Loguidice, P.C., 1996) and the reduced post-closure monitoring schedule. In a letter dated March 29, 2004, the NYSDEC granted a sampling reduction for the Eastern Landfill, from quarterly (four times a year) to annually (once a year). This report marks the twelfth annual monitoring event under the NYSDEC granted sampling variance.

Groundwater samples were collected by field representatives from Pace Analytical Services, Inc. (PACE), on March 24, 2016, and the collected samples were submitted to and analyzed by PACE, Schenectady, New York.

Groundwater Quality - Upgradient

The upgradient monitoring well network at the Eastern Landfill consists of monitoring well MW-2N which is located to the northwest of the landfill, and MW-3N which is located to the northeast of the closed landfill facility. The groundwater at the landfill flows in a southerly direction towards Antlers Road as indicated on the groundwater contour map (Figure 2). A historical groundwater elevation table is also attached in Appendix D. All Part 703 groundwater exceedances observed within both upgradient and downgradient monitoring well locations is included in Table 1

During this monitoring event MW-2N had a turbidity value that exceeded NYSDEC Part 703 groundwater quality standards. Monitoring location MW-3N exhibited total dissolved

solids, turbidity, total iron, total magnesium, and total sodium in excess of Part 703 groundwater quality standards. The total lead concentration within MW-3N was elevated during the 2015 annual monitoring event, but during this monitoring event was reported at a concentration more consistent with historical data. Three volatile organic compounds were detected at estimated concentrations in MW-3N during the 2015 and 2016 monitoring events. These volatile organic compounds were not detected in remaining monitoring points at the Eastern Landfill. Further trends associated with the volatile organic compounds in MW-3N will be evaluated after the next monitoring event (Second Quarter of 2017).

The results obtained during this monitoring event from both upgradient monitoring locations are consistent with historical data for each location and are not suspected to indicate any influence from the closed landfill.

Groundwater Quality - Downgradient

MW-1N

Monitoring well MW-1N, which is located southwest of and downgradient from the closed landfill, exhibits turbidity, total iron, and total sodium concentrations that exceed applicable groundwater quality standards. The turbidity and total iron concentration are generally consistent with concentrations observed within upgradient groundwater. The 2016 First Quarter results for monitoring well MW-1N are generally consistent with historical data and do not suggest a landfill influence.

<u>MW-4N</u>

This monitoring well is located east of and downgradient from the closed landfill. MW-4N exhibited concentrations of total dissolved solids, turbidity, total iron, total magnesium, and total manganese above groundwater standards. The 2016 First Quarter results are generally consistent with historical values.

<u>MW-5N</u>

This monitoring well is located southeast of and downgradient from the closed landfill. MW-5N did not exceed any Part 703 groundwater quality standards during this monitoring event. The results from this monitoring event are consistent with historical results for this location and with upgradient groundwater quality.

MW-6N

This monitoring well is located south of and downgradient from the closed landfill. MW-6N exhibited concentrations of turbidity, total iron, and total manganese above Part 703

groundwater quality standards. These exceedances are consistent with upgradient groundwater quality, and are consistent with historical results for this location.

Overall, the downgradient groundwater quality is similar to that of upgradient wells MW-2N and MW-3N. Historically, color, total dissolved solids, turbidity, and total iron, magnesium and manganese have exceeded Part 703 groundwater standards at both upgradient and downgradient locations. MW-1N has historically demonstrated higher concentrations of total sodium when compared to the rest of the monitoring network with concentrations remained consistent over time. The 2016 First Quarter data does not suggest a landfill influence within the downgradient monitoring locations at the Montgomery County Eastern Landfill.

Surface Water

The landfill facility surface water sample is collected from the sedimentation pond located on the southwest side of the landfill to the north of Antlers Road (see Figure 1). The Sedimentation Pond sample represents surface water quality downgradient from the closed landfill. No upgradient/background surface water exists at the site; and therefore, a comparison to background surface water quality cannot be performed.

The surface water quality data reported for the 2016 First Quarter is consistent with historical results, and the sedimentation pond does not appear to be influenced by the closed landfill.

Conclusions

The results of the 2016 First Quarter groundwater monitoring event are generally consistent with historical data and there does not appear to be an influence from the closed landfill upon the groundwater monitoring network. The next annual groundwater monitoring event is scheduled to occur during the Second Quarter of 2017.

Tables

	TABLE 1 - 201	MOR E4 2016 Part 703 (MONTGOMERY COUNTY EASTERN LANDFILL 703 GROUNDWATER STA	OUNTY FILL ER STANDARE	MONTGOMERY COUNTY EASTERN LANDFILL 6 Part 703 GROUNDWATER STANDARDS EXCEEDED		
	6 NYCRR			MONITORING W	MONITORING WELL LOCATION		
PARAMETER	STANDARD OR	NI-WM	MW-2N	MW-3N	MW-4N	MW-5N	MW-6N
	GUIDANCE	1ST QUARTER	1ST QUARTER	1ST QUARTER	1ST QUARTER	1ST QUARTER	1ST QUARTER
Total Dissolved Solids	500 mg/L		•	896	501	a	3
Turbidity	SNTU	39	7	14	10	ø	37
Iron - T	300 ng/L	1050	,	5240	3140	,	921
Magnesium - T	35000 ug/L	216	3	110000	38100		£
Manganese - T	300 ng/L	ē.	1	322	1110	,	446
Sodium - T	20000 ug/L	27700	3	,		E	£

Figures

Plotted: May 18, 2016 – 3:04PM SYR By. Imw I:\Shared\600\666006\666006_EASIERN_FIG1_2016.dwg

666.006.001

Plotted: May 19, 2016 – 7:56AM SYR By: Imw I: \Shared\600\666006\666006_EASTERN_FIGZ_2016.dwg

Appendix A

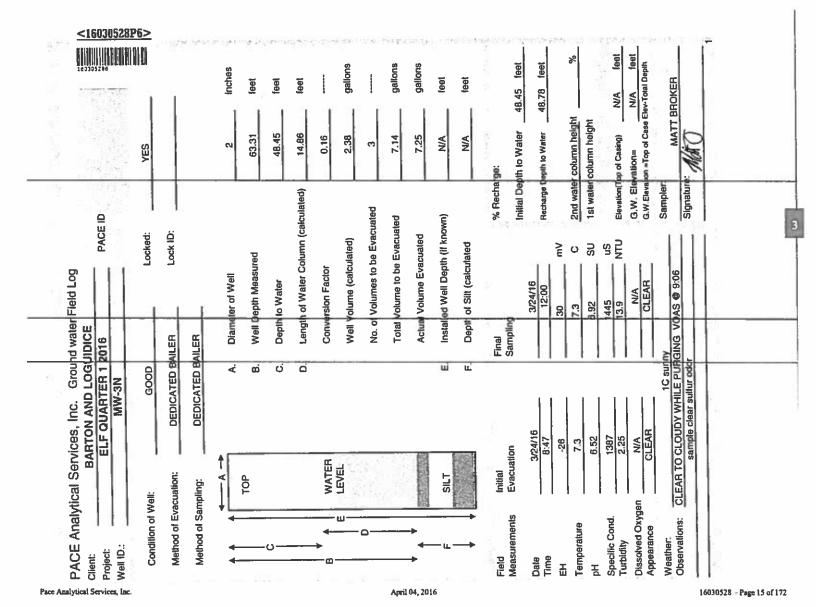
≤16030528 				2 inches	27.08 feet	1.8 feet	25.28 feet	0.16	4.04 gallons	3	12.12 gallons	12.5 gallons	N/A feet	N/A feet	.e.	Initial Depth to Water 1.8 feet	pth to Water 2.2 feet	column height	olumn height	o of Casing) N/A feet	ation= N/A	n =10p of Case Erev-10tal Deptin	MATT BROKEH	**************************************	
Field Log	Locked:	Lock ID:		Diameler of Well	Well Depth Measured	to Water	Length of Water Column (calculated)	Conversion Factor	Well Volume (calculated)	Volumes to be Evacuated	/olume to be Evacuated	Actual Volume Evacuated	Installed Well Depth (if known)	of Silt (calculated	% Rechar	3/24/16	000	.3 C 2nd water	1st water	3.3 uS 9.4 NTU Elevation(To	N/A G.W. Elev	Sampler			
Ground water LOGUIDICE ER 12016	G000	DEDICATED BAILER	DEDICATED BAILER	A. Dlame	B. Well D	C. Depth	D. Length	Conve	Well	No. of	Total	Actual	E. Install	F. Depth	Final			ज च	8	200		sunny	ODOR VOA		
PACE Analytical Services, Inc. Ground wate client: BARTON AND LOGUIDICE Project: ELF QUARTER 1 2016 Well ID::	Condition of Well:	Method of Evacuation: DEDICATE	Method of Sampling: DEDICATE	↑ ∀ ↓ ↓ ↓	TOP	υ—		WATER	1 (SILT		Field Initial Maceramente Frontestion		6	EM 55 Camperature 2.8		Specific Cond. 126.7 Turbidity 10.5	худеп	Weather 2Cs	Observations: CLEAR TO CLOUDY WHILE PURGING VOAS @ 950 SAMPLE CLOUDY NO ODOR	T 1 (5)	

April 04, 2016

16030528 - Page 13 of 172

Pace Analytical Services, Inc.

<1603	a nacitaliti			inches	feet	feet	feet		gallons		gallons	gallons	feet	feet		3.78 feet	3.75 feet	%		N/A feet	N/A feet	OKER		
	YES			2	16.95	3.78	13.17	0.16	2.11	62	6.33	6.5	N/A	NA	:00	Initial Depth to Water 3.	epith to Water 3.	column height	column height	up of Casing) N	of Case Ek	MATT BROKER	MATO	
Field Log	Locked:	Lock ID:	1	Diameter of Well	Well Depth Measured	to Water	Length of Water Column (calculated)	Conversion Factor	volume (calculated)	Volumes to be Evacuated	Volume to be Evacuated	Actual Volume Evacuated	Installed Well Depth (if known)	of Silt (calculated	% Recharge:	w 83	3/24/16 12:25 Recharge De	244 mV	SU 1sl water	12.6 uS 6.7 NTU Elevation(Ion	A G.W. Eleval	Sampler	Signature:	
-	GOOD	DEDICATED BAILER	DEDICATED BAILER	A. Diamet	B. Well D	C. Depth	D. Length	Conve	Well	No. o	Total	Actua	E Instale	F. Depth	Final	Sampling						1C sunny	52	
PACE Analytical Services, Inc. Ground wate Clent: BARTON AND LOGUIDICE Project: ELF QUARTER 1 2016 Well ID.: MW-2N	35			↑	ТОР			WATER	EVEL.				SILT		Initial	Evacuation	3/24/16	29	7.28	598.1	N/A CI FAB		Cloudy while purging 69:25	Salipie Crea no con
PACE Analytical Client: Project: Well ID.:	Condition of Well:	Method of Evacuation:	Method of Sampling:	1	<u>-</u>	-o-		M + B	ш <u>—</u>	0		-			Field	urements	Date	.	Temperature	Specific Cond.	Dissolved Oxygen		Observations: clour	5

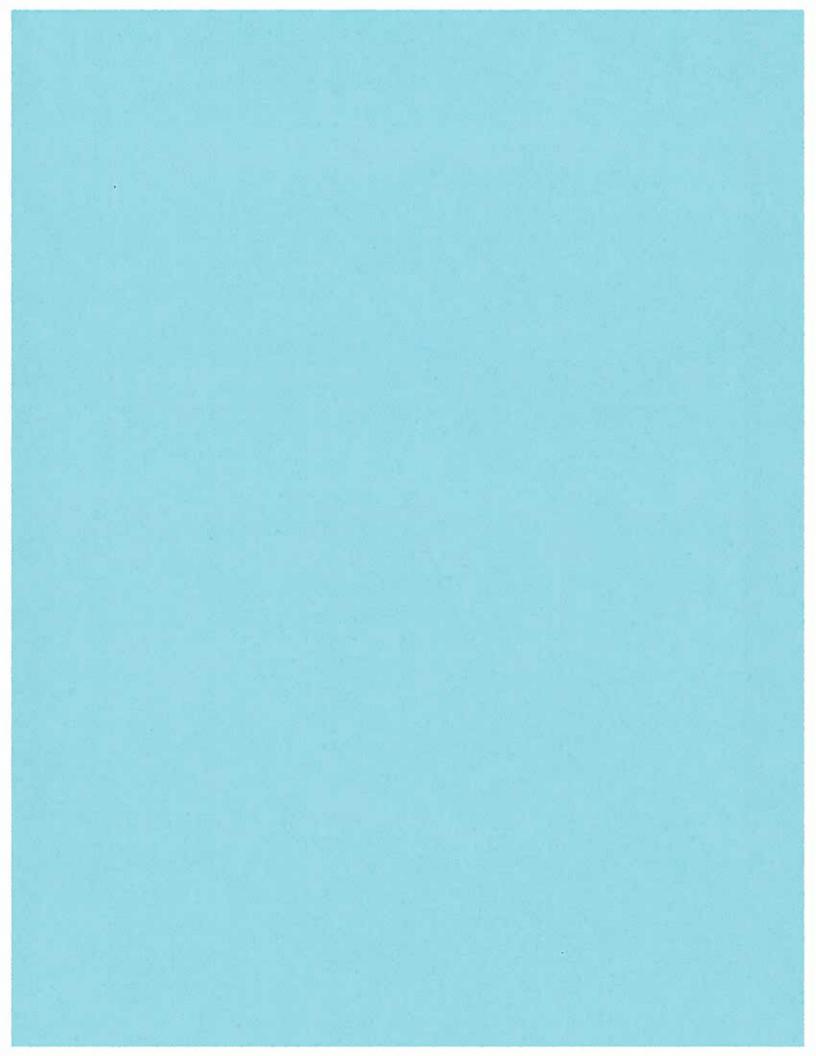


Client: BART Project: EL	PACE Analytical Services, Inc. Ground water Client: BARTON AND LOGUIDICE Project: ELF QUARTER 1 2016 Well ID: MW-4N	-	PACE ID	9		100305257
Condition of Well:	GOOD	2	Locked:		YES	
l l Igo:	DEDICATED PENCIL BAILER	IL BAILEF	Lock ID:			ļ
Method of Sampling: D	DEDICATED PENC	L BAILER				
† ¥ + +	ď.	Diamek	Diameter of Well		2	inches
4OT	κi	Well De	Well Cepth Measured		30	feet
0-	Ú	Depth	to Water		5.85	feet
	Ġ	Length	of Water Column (calculated)	alculated)	24.15	feet
B + WATER		Convers	Conversion Factor		0.16	
		Well Vo	Well Volume (calcutated)		3.86	gallons
		No. of	Volumes to be Evacuated	nated	8	1
		Total V	olume to be Evacuated	pel	11.58	gallons
		Actual	Volume Evacuated		7	galtons
SILT	ш	Installe	Installed Well Depth (If known)	Nu)	N/A	feet
	u.	Depth	Depth of Silt (calcutated		N/A	feet
Field	III	Final	84 10 10	% Recharge:		
Measurements Evacuation		Sampling		Initial Depth to Water	n to Water	5.85 feet
8	2		3:45	Recharge Dapth to Water	pth to Water	5.78 feet
Temperature 3,9			C C	2nd water	2nd water column height	%
		1	.14 SU	1st water c	1st water column height	
Specific Cond. 814.5	20	200	35.1 uS	Elevation(Top of Casing)	ool Casing)	N/A feet
xygen	2010		N/A	G.W. Elevation=Too	ation= N/A fe	N/A feet
	3C sun	2			1	MATT BROKEB
Observations: CLEAR TO CLC	CLEAR TO CLOUDY WHILE PUHSING VOAS W 1113 Sample clear w/sulfur odor	S S S S S S S S S S S S S S S S S S S	S & 11:13	Signature	AMI)	
	340	0		×		1

160705200		1500		inches	feet	feet	feet		gallons	i	gallons	gallons	leet	leet		6.52 feet	6.49 feet	%		N/A feet	N/A feet	ev-Total Depth	MATT BROKER			
	YES			2	16.6	6.52	10.08	0.16	1.61	3	4.83	so.	N/A	N/A		Initial Depin to Water	pih to Water	2nd water column height	1st water column height	o of Cashng)	alion=	n «Top of Case Elev-Total Depth		CHAM		
PACEID	ij	ق					(calculated)	•		acuated	uated	70	nown)	•	% Recharge:	Initial Dep	Recharge Depth to Water	2nd water	1st water	Elevation(Tdp of Casing)	G.W. Elev	G.W.Elevatio		Signature		
Field Log	Locked:	Lock ID:		r of Well	Well Depth Measured	Water	Length of Water Cotumn (calculated)	Conversion Factor	olume (calculated)	Volumes to be Evacuated	/olume to be Evacuated	Actual Volume Evacuated	Installed Well Depth (if known)	Depth of Silt (calculated		3/24/16	13:30 mV		SU SU	Su 6	N/A	EAH	AS @ 10:34			
		AILER	EAILER	Diameter of Well		Depth to Water	Length o	Convers	Well Vol	No. of	Total Vo	Actual			Final	, ,	11.	5.7	7.65	409.6		<u>0</u>	GING VOAS	HQ.		
الخاطاه	0000	DEDICATED BAILER	DEDICATED 6	¥.	æi	Ö	Ġ						ш	u.		5							CLEAR TO CLOUDY WHILE PURGING VO	CLEAR NO OD	ik.	
PACE Analytical Services, Inc. BARTON AN Client: BARTON AN BAR	ell:	cualion:	pling:	†	<u> </u>			WATER	EVEL				SILT		Initial	3/24/16	10:25	4.1	7.5	390.1		CLEAF	LEAR TO CLOU	SAMPLE		
PACE Analyt Client:	Condition of Well:	Method of Evacuation:	Method of Sampling:	*		υ —		+ 	ш—	o—		→ → →	— ц		Field	Date	Time	Temperature	Ħ	Specific Cond. Turbidity	Dissolved Oxygen	Appearance	ions:			

<16030528P9>	and the second of the second	e in the interest of the property of the prope		
750203566	inches feet feet	gallons gallons feet	7 feet % % A feet oral Depth	
YES	22.45	3.14 3.14 9.42 9.5 NVA NVA	Initial Depth to Water 2.84 feet Recharge Depth to Water 2.77 feet 2nd water column height 1st water column height 6.W. Elevation= 6.W. Elevation = Top of Case Elev-Total Depth Sampler: MATT BROKER	O
Face ID PACE ID Locked: Lock ID:	Diameter of Well Well Depth Measured Depth to Water Length of Water Column (calculated)	Conversion Factor Well Volume (calculated) No. of Volumes to be Evacuated Total Volume to be Evacuated Actua Volume Evacuated Installed Well Depth (if known) Depth of Silt (calculated	24/16 Recharge D Sinson Su Su Su Su Su Su Su Su Su S	
Ground water Field Log LOG UIDICE ER 1 2016 N COOD TED BAILER	Diamete Well De Depth to	Well Vo	Sampting	ON I
이번의 의 종 종	∢ αi υ o	ш	Sampting Sampting 3/24/16 3/16/20 1 12/7 22/7 22/2 22/	10 SAMPLE CLOUD
E Analytical Se	100 do 0	WATER D SILT SILT Initial	urements serature liftic Cond. dilty olived Oxyge sarance ther:	VOAS @ 10:
A Meth Meth Meth Meth Meth Meth Meth Meth		- Ω	Measure Date Time EH Tempers pH Specific Turbidity Dissolve Appears	16030528 - Page 18 of 172

123	31-11				1					Т		\neg						_		_			775				_	Т		T	╗	3	_	-1							ឧ
		МАТТ ВВОКЕВ	fð.		12:40 PACE ID. NO.	oudy			sample slightly cloudy no odor		IF TESTING FOR PHENOLICS:	CHLORINE RES. N/A		PACE ID. NO.	S 3					IF TESTING FOR PHENOLICS:	CHLORINE RES.		PACE ID. NO.						IF TESTING FOR PHENOLICS:	CHLORINE RES.		D. NO.						IF TESTING FOR PHENOLICS:	CHLOPINE RES.		Page
		MAT	JIMTO		D PAC	5C cloudy		SNO	slightly		IF TE	GHLO		PACE			SNO			F T	CHLOR		PACE			SNC			FTE	CHLOR-		PACE			NS			IF TES	CHLOF		
		Sampler (print):	ture:		12:4	HON:		BSERVATI	sample		CYANIDE	Υ _N			HON:		BSERVATI			SYANIDE:				TION:		BSERVATION			:YANIDE:				TION:		SERVATIC			YANIDE:			
		Samp	Signature:		TIME SAMPLED	WEATHER CONDITION:		APPEARANCE / OBSERVATIONS			IF TESTING FOR CYANIDE:	VE RES.		SAMPLED	WEATHER CONDITION:		APPEARANCE / OBSERVATIONS			IF TESTING FOR CYANIDE	E RES.		SAMPLED	HER CONDITION:		APPEARANCE / OBSERVATIONS			IF TESTING FOR CYANIDE:	E RES.		TIME \$AMPLED	HER CONDITION:		RANCE / OBSERVATIONS			IF TESTING FOR CYANIDE:	E RES.		
	Tap Water / Surface Water / Wastewater Field Log			 	TIME	WEAT		APPEA			IF TES	CHLORINE RES.	SULFICE	TIME	WEATH		APPEA			IF TES	CHLOR NE RES.	SULFIDE	TIMES	WEAT		APPEA			IF TES	CHLORINE RES.	SULFIDE	TIME S	WEATH		APPEA			IF TEST	CHLORINE RES.	SULFIDE	
Inc.	water						******																																		
Analytical Services, Inc.	Waste	DICE	MOSA ELF QUARTER 1 2016			pellons	ບຸ	7.57 STDJJMT9	5 .	NTU	À	MOA	MOA	ia.	gallons	C 08 F	STD.UMTS	UNENDSCH	MTU	Α.	MGAL	MGV		gallons	F PO 3	STOLUMES	UMHOS/CM	₹.	, ₩.	MGAL	HCA.		gallons	C ON F	STIMU.CTS	UMHOS/CM	UTN	Aut.	MGAL	MG/L	
Sen	/Vater/	BARTON AND LOGUIDICE	JARTER	3/24/16			4.1	7.57	567.9 us	3.76 мти	169 mv		3.7							ŀ																					
lytica	ırface	ON NO	ELF OI		POND	N/A						N/A																													
	ter / St				2		ATURE		ND.	<u>≻</u>			EN	_		ATURE		OND.	> -			EN	_		TURE		ON.	>		i			·	TURE	•	Ğ.	· ~	•	•	Z.	
PACE	Гар Wa	Client:	Project:	Date:	Location	Flow	TEMPERATURE	PH	SPEC. COND.	TURBIDITY	표	SULFITE	DIS.OXYGEN	Location	FLOW	TEMPERATURE	F	SPEC. COND.	TURBIDITY	EH	SULFITE	DIS.OXYGEN	Location	FLOW	TEMPERATURE	FH	SPEC, COND,	TURBIDITY	击	SULFITE	DIS.OXYGEN	Location	FLOW	TEMPERATURE	H.	SPEC. COND.	TURBIDITY	毌	SULFITE	DIS.OXYGEN	
Analytica								_		•				_		1.5				il 04,	_				_		77	_	ш	<i>V)</i>			<u>и</u>	_	Q.	(O)	<u> -</u>				 age 19 o



	2016			8S.	NOTES											
	ELF Quarter 1 1C sunny				Ž											3
N SHEET	SITE: WEATHER:	Myron Ultrameter II GPFCe	Myron Ultrameter II 6PFCe Myron Ultrameter II 6PFCe	c 850041 03	TIME	836	835	837	839		839	840	841	842	:	
 PACE ANALYICAL INC. FIELD GALIBRATION SHEET		Myron Ultran	Myron Ultrar Myron Ultrar	Sper Scientific 850041 Hanna HI 98703	ADJUSTED	4.00	7.00	10.00	1413		0.1	15	100	750		
PACE			JRE .	OXYGEN	INTIAL	4.04	7.31	10.12	1425		0.21	14.8	99.2	752		
17.	3/24/16 Matt Broker		CONDUCTIVITY TEMPERATURE	DISSOLVED OXYGEN TURBIDITY	STANDARD	4.00	7.00	10.00	1413		<0.10	15	100	750		
	DATE: TECHNICIAN:	INSTRUMENT:			INSTRUMENT	뜐		e#	Conductivity		Turbidity				NOTES:	

Pace Analytical Services, Inc.

April 04, 2016

16030528 - Page 20 of 172

Appendix B



Pace Analytical e-Report

Report prepared for: BARTON AND LOGUIDICE 11 CENTRE PARK SUITE 203 ROCHESTER, NY 14614 CONTACT: DARIK JORDAN

Project ID: ELF QUARTERLY Sampling Date(s): March 24, 2016

Lab Report ID: 16030528

Client Service Contact: Chelsea Farmer (518) 346-4592 ext. 3843

Analysis Included:

Total Phenolics by 420.4 - Subcontracted Misc Field Analysis VOCs E8260C - Sub Pace LI Alkalinity SM2320B - Sub Pace LI Bromide - Sub - Pace-LI Chloride SM4500-CL-E - Sub Pace LI COD by 410.4 - Sub Pace-LI Color - Sub Pace-LI Total CN SM4500-CN-E - Sub Pace LI Hardness E6010C (Calc) - Sub Pace LI Mercury E7470A - Sub Pace LI Metals E200.7 - Sub Pace LI Ammonia E350.1 - Sub Pace LI Sulfate 300.0 - Sub Pace LI Total Dissolved Solids SM2540C - Sub Pace LI Total Kjeldahl Nitrogen E351.2 - Sub Pace LI BOD SM5210B

Hexavalent Chromium (7196A)

Nitrate (NO3) **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 Smith **Technical Director**

This page intentionally left blank.

Table of Contents

Section 1: CASE NARRATIVE	4
Section 2: QUALIFIERS	7
Section 3: SAMPLE CHAIN OF CUSTODY	9
Section 4: SAMPLE RECEIPT	21
Section 5: Wet Chemistry - TOC/DTOC	27
Section 6: Wet Chemistry - Hexavalent Chromium	35
Section 7: Wet Chemistry - BOD	43
Section 8: Wet Chemistry - Nitrate-Nitrite	51
Section 9: Field Analysis	59
Section 10: Quality Control Samples (Field)	67
Section 11: Quality Control Samples (Lab)	.72
Section 12: Subcontract Analysis	.81

CASE NARRATIVE

CASE NARRATIVE

This data package (SDG ID: 16030528) consists of 14 water samples received on 03/24/2016. The samples are from Project Name: ELF QUARTERLY.

This sample delivery group consists of the following samples:

Lab Sample ID	Client ID	Collection Date
AT07069	MW-IN	03/24/2016 09:50
AT07070	MW-1N	03/24/2016 13:00
AT07071	MW-2N	03/24/2016 09:25
AT07072	MW-2N	03/24/2016 12:25
AT07073	MW-3N	03/24/2016 09:06
AT07074	MW-3N	03/24/2016 12:00
AT07075	MW-4N	03/24/2016 11:15
AT07076	MW-4N	03/24/2016 13:45
AT07077	MW-5N	03/24/2016 10:34
AT07078	MW-5N	03/24/2016 13:30
AT07079	MW-6N	03/24/2016 10:10
AT07080	MW-6N	03/24/2016 13:15
AT07081	POND	03/24/2016 12:40
AT07082	TRIP BLANK	03/24/2016

Sample Delivery and Receipt Conditions

- (1.) Lab provided sample pickup service on 03/24/2016.
- (2.) All samples were received at the laboratory intact and within holding times.
- (3.) All samples were received at the laboratory properly preserved, if applicable.

Subcontract Analysis

Please see the ALS Environmental laboratory report for method and quality assurance details pertaining to Phenolics analysis. The following technical and administrative items were noted for the analysis:

(1.) All quality assurance parameters were met for this analysis, unless otherwise noted.

Field Parameters Analysis

Analysis for Temperature, pH, Specific Conductance, Turbidity, Reduction Potential, and Dissolved Oxygen were performed in the field. The following technical and administrative items were noted for the analysis:

(1.) All quality assurance parameters were met for this analysis, unless otherwise noted.

Subcontract Analysis

Please see the Pace Analytical Services Long Island laboratory report for method and quality assurance details. The following technical and administrative items were noted for the analysis:

(1.) All quality assurance parameters were met for this analysis, unless otherwise noted.

Biological Oxygen Demand

Biological Oxygen Demand was performed by SM 5210B. The following technical and administrative items were noted for the analysis:

- (1.) The glucose/glutamic acid standard exceeded the range of 198 plus or minus 30.5 mg/L.
- (2.) The percent recovery for the laboratory control spike sample (LAB ID: AT07101L) was below quality control limits.

Hexavalent Chromium Analysis

Analysis for hexavalent chromium was performed by method SW-846 7196A. The following technical and administrative items were noted for the analysis:

(1.) All quality assurance parameters were met for this analysis, unless otherwise noted.

Nitrate Analysis

Analysis for nitrate was performed by EPA 353.2. The following technical and administrative items were noted for the analysis:

(1.) All quality assurance parameters were met for this analysis, unless otherwise noted.

Total Organic Carbon Analysis

Analysis for Total Organic Carbon was performed by Standard Methods 5310B. The following technical and administrative items were noted for the analysis:

(1.) All quality assurance parameters were met for this analysis, unless otherwise noted.

Respectfully submitted,

Chelsea L. Farmer Project Manager

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 <a href="mailto:<a href="mailto:<a href="mailto:<a href="mailto:<a href="mailto:<a href="mailto:<a href="mailto:<a href="mailto:<a href="mailto:160305

1	(518) 3	46-4592				
	tion A	Section B	Section C	;		NEIMINITERREPORTED Page: F of 1
	uired Client Information:	Required Project Information:	Invoice Info	rmation:		
	pany: Barton & Loguidice	Report To: Barton & Loguid	ce Attention:	Barton (& Loguidica	REGULATORY AGENCY
Add	783E	Copy To:	Company N	lame:		MPDES GROUND WATER TO DRINKING WATER
L			Address:			C UST C RCRA COTHER
Елы	ul Ta:	Purchase Order No.:	Pace Quote R	Reterence: 726	36	SITE F GA F A F N F VII F VC
Pho	ne; Fax:	Project Name: ELF Quarter	1 2016 Face Project (Manager: Che	elsea Farmer	LOCATION OH FSC TWI COTHER
	sisted Standard DeterTAT:	Project Humber:	Pace Profile	to the second		Filtered (Y/N) ///////////////////////////////////
1	Confidence of result individually	3000	COLLECTED	- 2	Preservatives	Requested ////////////////////////////////////
пем в	SAMPLE ID SAMPLE ID (A-Z, 0-97) Sample IDs MUST BE UNIQUE (**) (**) Sample IDs MUST BE UNIQUE (**) (**) (**) (**)		AMPOSITE COMPOSIT TARY ENDICINAL	SAMPLE TELEPAT COLLECTION 8 OF CONTAMERS	14,50, 14,50, 14,50, 140,50, 140,50,	Ans Fig. 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1
;	MW-1N	GW		5C 3	 	8 ////\$/\$/\$/\$////\$/\$/#///\$/#/ Labi.0
2	MW-1N	GW		300 9		2705CTA
3	Mw2n	GW	1/24/16 9		 ^ ^ 	
-4	MW-2N	GW	1 6 . 1		 	x x x // // // // // // // // // // // /
5				CL		XXXXXXXXXXXX
	MC-WM	GW	361012	CC 3	 	
6	MW-3N	GW		200 9	XXXXX	xxxxxxxxxxx
7	MW-4N	GW	141741114 1 1	15 3	x	x x x
8	MW-4N	GW		345 9	XXXXX	XXXXXXXXXXX
9	MW-SN	GW		<u>تا ا</u>	x	רכרכדל געווא x
10	MW-SN	GW		330 9	xxxxx	STCTCTA XXXXXXXXX
11	MW-6N	вw	touble 10	>i0 3	x	x 4707079
t2	MW-6N	GW	13/18/1/	315 9	xxxxx	SO TO TAX X X X X X X X X X X X X X X X X X X
Alle	ADDITIONAL COMMENTS	RELINQUISHED BY:	AFFILIATION	i		Y / APPIEIATION DATE TIME SAMPLE CONDITIONS
NYS	Part 360 1993 Baselines ASP B	1165	PACE. 3	124/16 14	135 J. Kull C	7 (PACE) 3/44/16 14:35 57 3 3
					7	10000000000000000000000000000000000000
						3.4 2 GV 2
			SAMPLER NAME A	NO SIGNATURI	E	
			PRINT Name of SAM	MPLER:		S S S S S S S S S S S S S S S S S S S
			SIGNATURE of SAM		Broker PACE	Per Committee and Committee an
			L	-//8	TA U	

e-File(ALL:0020rev:4,29Mar06)22Jun2005

Pace Analytical Services, Inc.

April 04, 2016

16030528 - Page 10 of 172

New York Office 2190 Technology Or. 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 <16030528PZ>

	www.pacadas.com	(518) 346-4592																						HIII			ili	1111		١							
-	tion A	Section					Section	C																169				WA	UU	١ -		age:	1		of	2	٦
	uired Client Information:		ed Proje		_		Invoice (ntormatic	ın.		•																				Ť	-,		_		_	-
	pany: Barton & Loguidice	Report	To: Bar	ton &	Loguidic	0	Attentio	n:	0ar	ton &	Log	Juidi	ce			\neg								ŀ	1EC	UL	ΑT	OR'	ΥA	ĞΕ	NC	Υ					
Addr	ess:	Copy T	a.				Compan	y Name:								٦		F N	(POI	ES		Γ.	BRO	אעוכ	D W	/ATI	A	ŗ)RIN	4KIN	G W	ATER				7
							Address	i.		-		_				┪		-	UST			ا ما	ace	IA				ſ	זכ	THE	R						
Ema	i To:	Purchas Order N			_		Pace Que	te Referen	ice:	7268	_					┪				5	ITE					_	GA		_			N.	ᆕ	• F	- 90	_	-
Phor	fax:		Name:	ELF	Quarter 1	2016	Pace Proj	eci Manag	er.	Chel	308	Fan	mer	_		\dashv						ioi	4			_								THER			
Requ	ested Standard	Project F	Aumber:				Pace Pro	nhie II:				_			_	\dashv	E1	lern			2731	//	7	7	,	'	7 /	7	7	7	$\dot{\overline{}}$	~	77	77	一	-	┨
	Section D	TROL CODE											-			-	-		÷	÷	7	77	4	7	+	\forall	7	/	4	4	×	#	#	+	\leftarrow		#
	undificult Callet sectors (CD)	ename on	삥	발충	<u> </u>	COLL	ECTED		¥ 3	ER3	⊢		Presi	ervab	ves	т	- "	ique	15.000	· /	//	7.	//	[[Z	//	//	Z	//	! [7.	//	7/	'/			
		TEMATRA SHAP DUST B	MATRIX CODE	SAMPLE TYPE G-GRAB C-COM	COL	POSITE	COMP	OSITE	AMPLE TEM COLLECTIO	CONTAINERS		- {			Ш		ľ	**		k	//3	/	3/	å,	E	fi k	4 A				//	//	1/3	/			
2	(A-Z, 0-97,-)	DL 400	MAT N	A MAR	\$1	ART	ENCH	SPEAG	WALE TE	8	<u>}</u>		1		ايرا	,	-		A	8	18/		//	6/		É	7	6/		1/	//	77	 #	,			
ITEM	Sample IDs MUST BE UNIQUE #10	ро дт LE 1E		" å	DATE	TIME	DATE	TIME	8	10	P P	9	ş q	ğ	4e,5,0,	ᆲ	2	1	8/	Ž	/3/		//		[*/		18			//	//	[]	Ĭ/	P	sce P	roject I	
1	POND		GW	,		11111111	akılıc	1240		12		~	x x	7		*	" -	Ĺ	x	1.	/ 3	70	1	Τ.	7	Н	7,		Н	7	\mathbf{f}	M		. 7. 1	91	Labi	4
2	TRIP SLAN		WT	ì			skyln.		Н	2	Ĥ	î	╅	1-	H	\dagger	╈	怜	Ĥ	7	₹ ×	H	7	4	X	^	ť	X	Н	┿	╫	Н		070	_	_	\dashv
3	Train digram	<u> </u>	- '''	\top			SICATIO		Н	-2	\vdash	+	+	┰	┤┤	+	╫	+	H	+	╁	Н	+	╁	-	H	╫	Н	Н	╬	+	\vdash	A	070	L d.		-
4	·			\vdash	 	-	_		Н		Н	ᆉ	╌	+	H	╅	╫	+	Н	╬	╀	Н	+	╁	Н	H	+	Н	Н	+	╀┦		-	_			-
5			-	⊨				_		-		+	+	+	H	+	+	+	Н	+	╄	Н	+	╬	H	H	+	Н	Н	+	┦	H	H				4-
			+	╫	-	-		_	┝		H	+	+		₩	+	- -	╀	Н	+	╀	H	4	+	Н	H	╬	Н	Н	+	\dashv	Ш					4
G			+	╫				-	Н			+	+	╀	┦╾┤	+	+-	╀	Н	+	╀	Н	4	4	Н	4	+	1	-	+	\sqcup	Ш	\vdash				_
	-			╁	1				\vdash		╼┤	=	┿	┿	H	+	= -	\vdash	H	╪	╪	H	#	╪	H	4	#	Ħ	H	#	╬	H	=		_		=
8			-	╁		-		-	⊢		H	\dashv	- -	+	Н	4	- -	╀	Н	+	╄	Н	4	╀	Н	Ц.	- -	Н	Ц	4	$\downarrow \downarrow$	Ш					_
			+	┼╌	-	-			\vdash		Н	4	+	-	Н	4	-	L	Ц	4	╀	Ц	4	1	Ц	4	1	-	Ц	4	Ц	Ш	L				_
10		 -	+	₩	<u> </u>	-			Ш			4	+	╀	\sqcup	4	- -	1	Ц	1	╀	Ц	4	1	Ц	Ц	4	Ц	Ц	4	Ц	Ш	匚				
11				╀	-				Н		Н	4	+	╀	Ш	4	4	Ļ	Ц	4	╀	Ц	4	╀	Ц	4	ļ	Ц	Ц	1	Ш		L				
12														<u> </u>			丄				L			1		-		Ш				Ш	乚				
NVS	ADDITIONAL GOMMENTS Part 360 1993 Baselines ASP B				ED BY /	AFFILIA 		DAT			ME	Ų	Д	CCE	PTF!	D 5Y	' / AF	FILI				Ļ			DAT			Ţ	îM!E		L	_	WPL	E ÇON	IDITK	ONS	
l'''	I DI GOO 1993 DESCRIES AGI' D	1	M	7		74CE	,	3/24/1	6	14	3>	1	7	p '	12	ull	<u>((</u>		4	40	E	1		3 <i>/</i> 4	4/	16	1	/4:.	35	;	3	ir\	匮	N.A.		Ĕ	
												1	ŀ			_/	1		$\overline{}$			_	┙								8.	161	3	Š		B	٦
								OV.				1				_	_										Ι				3	ik 1	Š	Ş	7	N.	7
																							\int				T				T	7	Ϋ́M	3	П	Š	7
							ER NAM			TURE																						ç.	8	7	8	*	٦
							Name of			Matt	Brol	ær	PAC	CE]	Temp in	Received	Custody		Sample	
						SIGNAT	TURE of :	SAMPLE	R:	M	-	2							- 1	MATE MAN	Sign 00	ved / YY):	3	/z·	ılı	6					1	=	<u>8</u>	٦٥	See	8 4	

e-File(ALLQ020rev.4,29Mar06)22Jun2005

Pace Analytical Services, Inc.

April 04, 2016

16030528 - Page 11 of 172



Sample Condition Upon Receipt

CLIENT NAME: BAR-ROC PROJECT: ELF 07 N/AUPS a COURIER: FedEx o Client 🗆 Pace Other D N/A-B CUSTODY SEAL PRESENT: Yes 🗖 INTACT: Yes 🗆 No o TRACKING #_ None pull Other a PACKING MATERIAL: Bubble Wrap 🗈 (Bubble Bagsှလ် ICE USED: Weပို့ဝှ Blue p None 🗅 COOLER TEMPERATURE (*C): 5.7 #122087967 🗆 IR Gun 03 D THERMOMETER USED: #16425 Temp should be above freezing to 6°C N/AM BIOLOGICAL TISSUE IS FROZEN: Yes II No 🗈 Temperature is Acceptable? COMMENTS: Chain of Custody Present: MY99 □Ne 2. Chain of Custody Filled Out: □No ~₩Yes 3. Chain of Custody Relinquished: □Ne Yes 4. Sampler Name / Signature on COC: M Yes **□**No Samples Arrived within Hold Time: YYes ONo. Short Hold Time Analysis (<72hr): NO3, BOD Color, Cr+6 **W**Yes **□**No Rush Turn Around Time Requested: 7. Iweek (CNo □Yes Sufficient Volume: 8, 70 Yes □N₀ Correct Containers Used: Vive ПNо - Pace Containers Used: MYn □No 10 Containers Intact: KİYes □No Filtered volume received for Dissolved tests: □ves DIRVA 11, □N₀ Sample Labels match COC: 12. □No -Dyres - Includes date/time/ID/Analysis 13. All containers needing preservation have been ☐Yes **WA** checked: All containers needing preservation are in **□**Yes □ No **EINA** compliance with EPA recommendation: Initial when N/A Lot # of added preservative: - Exceptions that are not checked: TOC, VOA, Subcontract Analyses completed: Headspace in VOA Vials (>6mm): 14. □ Yes S)No **□**N/A Trip Blank Present: Tg/Yes □No **□**N/A Trip Blank Custody Seals Present - 1457 TB Pace Trip Blank Lot #: _____ AJB 3/24/16 Sample Receipt form filled in: A35 3/84/16 Line-Out (Includes Copying Shipping Documents and verifying sample pH): AJO Log In (Includes notifying PM of any discrepacies and documenting in LIMS): BLA Labeling (Includes Scanning Bottles and entering LAB IDs into pH logbook):

Document Control# F-NY-C-034-rev:00 (15July2015)

Pace Analytical Services, Inc.

April 04, 2016

16030528 - Page 12 of 172

4

SAMPLE RECEIPT



SAMPLE RECEIPT REPORT 16030528

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

CLIENT: BARTON AND LOGUIDICE

PROJECT: ELF QUARTERLY

LRF: 16030528

REPORT: ANALYTICAL REPORT

EDD: YES LRF TAT: 1 WEEK

TEMPERATURE(S): \$ 7, 6.6, 5.9 °C

RECEIVED DATE: 03/24/2016 14:35 SAMPLE SEALS INTACT: NA SHIPPED VIA: PICK UP 1-SAMPLES PRESERVED PER METHOD GUIDANCE: YES

³ SAMPLES REC'D IN HOLDTIME: YES SHIPPING ID:

DISPOSAL: BY LAB (45 DAYS) NUMBER OF COOLERS: 3

COC DISCREPANCY: NO CUSTODY SEAL INTACT: NA COOLER STATUS: CHILLED

COMMENTS:

CLIENT ID (LAB ID)	TAT-DUE Date	DATE-TIME SAMPLED	MATRIX	METHOD	TEST DESCRIPTION	QC REQUES
WW IN (AT07069)	1 WEEK 03-31-16	03/24/2016 09:50	Water	Misc Field Analysis	Misc Field Analysis	
	1 WEEK 03-31-16	03/24/2016 09:50	Water	VOCs E8260C	VOCs E8260C - Sub Pace LI	
MW-1N (AT07078)	1 WEEK 03-31-16	03/24/2016 13:00	Water		Sulfate 300.0 - Sub Pace LI	
	1 WEEK 03-31-16	03/24/2016 13:00	Water		Total Phenolics by 420.4 - Subcontracted	
	1 WEEK 03-31-16	03/24/2016 13:00	Water		COD by 410.4 - Sub Pace-LI	
	1 WEEK 03-31-16	03/24/2016 13:00	Water	Alkalinity SM2320B	Alkalinity SM2320B - Sub Pace L1	
	1 WEEK 03-31-16	03/24/2016 13:00	Water	Ammonia E350.1	Ammonia E350.1 - Sub Pace LI	
	1 WEEK 03-31-16	03/24/2016 13:00	Water	BROMIDE	Bromide - Sub - Pace-LI	
	1 WEEK 03-31-16	03/24/2016 13:00	Water	Chloride SM4500-CL-E	Chloride SM4500-CL-E - Sub Pace LI	
	1 WEEK 03-31-16	03/24/2016 13:00	Water	Color	Color - Sub Pace-LI	
	I WEEK 03-31-16	03/24/2016 13:00	Water	EPA 353.2 Rev. 2.0	Nitrate (NO3)	
	1 WEEK 03-31-16	03/24/2016 13:00	Water	EPA 7196A	Hexavalent Chromium (7196A)	
	1 WEEK 03-31-16	03/24/2016 13:00	Water	Hardness E6010C	Hardness E6010C (Calc) - Sub Pace LI	
	1 WEEK 03-31-16	03/24/2016 13:00	Water	Mercury E7470A	Mercury E7470A - Sub Pace LI	
	I WEEK 03-31+16	03/24/2016 13:00	Water	Metals E200.7	Metals E200.7 - Sub Pace Li	
	1 WEEK 03-31-16	03/24/2016 13:00	Water	SM 5210B-01,-11	BOD SM5210B	
	1 WEEK 03-31-16	03/24/2016 13:00	Water	SM 5310B-00,-11	Total Organic Carbon	
	1 WEEK 03-31-16	03/24/2016 13:00	Water	TDS SM2540C	Total Dissolved Solids SM2540C - Sub Pac	ii .
	! WEEK 03-31-16	03/24/2016 13:00	Water	TKN E351.2	Total Kjeldahl Nitrogen E351.2 - Sub Pace	1
	1 WEEK 03-31-16	03/24/2016 13:00	Water	Total CN SM4500-CN-E	Total CN SM4500-CN-E - Sub Pace LI	
MW-2N (AT07071)	1 WEEK 03-31-16	03/24/2016 09:25	Water	Misc Field Analysis	Misc Field Analysis	
	1 WEEK 03-31-[6	03/24/2016 09:25	Water	VOCs E8260C	VOCs E8260C - Sub Pace LI	



SAMPLE RECEIPT REPORT 16030528

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

CLIENT: BARTON AND LOGUIDICE

PROJECT: ELF QUARTERLY

LRF: 16030528

REPORT: ANALYTICAL REPORT

EDD: YES LRF TAT: 1 WEEK RECEIVED DATE: 03/24/2016 14:35

SAMPLE SEALS INTACT: NA

SHIPPED VIA: PICK UP LEAMPLES PRESERVED PER METHOD GUIDANCE: YES ³ SAMPLES REC'D IN HOLDTIME: YES

SHIPPING ID: NUMBER OF COOLERS: 3

DISPOSAL: BY LAB (45 DAYS) COC DISCREPANCY: NO

CUSTODY SEAL INTACT: NA COOLER STATUS: CHILLED TEMPERATURE(S): 5.7, 6.6, 5.9 °C

COMMENTS:

CLIENT ID (LAB ID)	TAT-DUE Date	DATE-TIME SAMPLED	MATRIX	METHOD	TEST DESCRIPTION	QC REQUEST
MW-2N (AT87072)	1 WEEK 03-31-16	03/24/2016 12:25	Water	· · · · · · · · · · · · · · · · · · ·	Sulfate 300.0 - Sub Pace LI	
	1 WEEK 03-31-16	03/24/2016 12:25	Water		Total Phenolics by 420.4 - Subcontracted	
	1 WEEK 03-31-16	03/24/2016 12:25	Water		COD by 410.4 - Sub Pace-LI	
	1 WEEK 03-31-16	03/24/2016 12:25	Water	Alkalinity SM2320B	Alkalinity SM2320B - Sub Pace LI	
	1 WEEK 03-31-16	03/24/2016 12:25	Water	Ammonia E350.1	Ammonia E350.1 - Sub Pace LI	
	1 WEEK 03-31-16	03/24/2016 12:25	Water	BROMIDE	Bromide - Sub - Pace-LI	
	(WEEK 03-31-16	03/24/2016 12:25	Water	Chloride SM4500-CL-E	Chloride SM4500-CL-E - Sub Pace LI	
	1 WEEK 03-31-16	03/24/2016 12:25	Water	Color	Color - Sub Pace-L1	
	1 WEEK 03-31-16	03/24/2016 12:25	Water	EPA 353.2 Rev. 2.0	Nitrate (NO3)	
	1 WEEK 03-31-16	03/24/2016 12:25	Water	EPA 7196A	Hexavalent Chromium (7196A)	
	1 WEEK 03-31-16	03/24/2016 12:25	Water	Hardness E6010C	Hardness E6010C (Calc) - Sub Pace LI	
	1 WEEK 03-31-16	03/24/2016 12:25	Water	Mercury E7470A	Mercury E7470A - Sub Pace L1	
	1 WEEK 03-31-16	03/24/2016 12:25	Water	Metals E200,7	Metals E200.7 - Sub Pace LI	
	1 WEEK 03-31-16	03/24/2016 12:25	Water	SM 5210B-01,-11	BOD SM5210B	
	1 WEEK 03-31-16	03/24/2016 12:25	Water	SM 5310B-00,-11	Total Organic Carbon	
	1 WEEK 03-31-16	03/24/2016 12:25	Water	TDS SM2540C	Total Dissolved Solids SM2540C - Sub Page	a
	1 WEEK 03-31-16	03/24/2016 12:25	Water	TKN E351,2	Total Kjeldahl Nitrogen E351.2 - Sub Pace	1
	1 WEEK 03-31-16	03/24/2016 12:25	Water	Total CN SM4500-CN-E	Total CN SM4500-CN-E - Sub Pace LI	81
MW 3N (AT07073)	1 WEEK 03-31-16	03/24/2016 09:06	Water	Misc Field Analysis	Misc Field Analysis	
	1 WEEK 03-31-16	03/24/2016 09:06	Water	VOCs E8260C	VOCs E8260C - Sub Pace LI	
MW 3N (AT07074)	1 WEEK 03-31-16	03/24/2016 12:00	Water		Sulfate 300,0 - Sub Pace LI	
	1 WEEK 03-31-16	03/24/2016 12:00			Total Phenolics by 420.4 - Subcontracted	
	1 WEEK 03-31-16	03/24/2016 12:00			COD by 410.4 - Sub Pace-LI	
	1 WEEK 03-31-16	03/24/2016 12:00		Alkalinity SM2320B	Alkalinity SM2320B - Sub Pace LI	
	I WEEK 03-31-16	03/24/2016 12:00		Ammonia E350.1	Ammonia E350.1 - Sub Pace LI	
	1 WEEK 03-31-16	03/24/2016 12:00		BROMIDE	Bromide - Sub - Pace-LI	
	1 WEEK 03-31-16	03/24/2016 12:00		Chloride SM4500-CL-E	Chloride SM4500-CL-E - Sub Pace LI	
	1 WEEK 03-31-16	03/24/2016 12:00		Color	Color - Sub Pace-LI	
	1 WEEK 03-31-16	03/24/2016 12:00		EPA 353.2 Rev. 2.0	Nitrate (NO3)	
	1 WEEK 03-31-16	03/24/2016 12:00		EPA 7196A	Hexavalent Chromium (7196A)	
	1 WEEK 03-31-16	03/24/2016 12:00		Hardness E6010C	Hardness E6010C (Calc) - Sub Pace LI	
	1 WEEK 03-31-16	03/24/2016 12:00		Mercury E7470A	Mercury E7470A - Sub Pace LI	
	1 WEEK 03-31-16	03/24/2016 12:00		Metals E200.7	Metals E200.7 - Sub Pace LI	
	I WEEK 03-31-16	03/24/2016 12:00		SM 5210B-01,-11	BOD SM5210B	
	I WEEK 03-31-16	03/24/2016 12:00		SM 5310B-00-11	Total Organic Carbon	
	1 WEEK 03-31-16	03/24/2016 12:00		TDS SM2540C	Total Dissolved Solids SM2540C - Sub Pa	C1
	1 WEEK 03-31-16	03/24/2016 12:00		TKN E351.2	Total Kjeldahl Nitrogen E351,2 - Sub Pace	

This report may not be reproduced except in full, without the written approval of Pace Analytical Services, Inc.

Page 2 of 5



SAMPLE RECEIPT REPORT 16030528

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

CLIENT: BARTON AND LOGUIDICE

PROJECT: ELF QUARTERLY

LRF: 16030528

REPORT: ANALYTICAL REPORT

EDD: YES LRF TAT: 1 WEEK RECEIVED DATE: 03/24/2016 14:35

NUMBER OF COOLERS: 3

CUSTODY SEAL INTACT: NA

COOLER STATUS: CHILLED

TEMPERATURE(S): 5.7, 6.6, 5.9 °C

SAMPLE SEALS INTACT: NA

SHIPPED VIA: PICK UP 1-SAMPLES PRESERVED PER METHOD GUIDANCE: YES

BOD SM5210B

Total Organic Carbon

Total Dissolved Solids SM2540C - Sub Paci

Total Kjeldahl Nitrogen E351.2 - Sub Pace I

Total CN SM4500-CN-E - Sub Pace LI

SHIPPING ID:

³ SAMPLES REC'D IN HOLDTIME: YES

DISPOSAL: BY LAB (45 DAYS)

COC DISCREPANCY: NO

COMMENTS:

CLIENT ID (LAB ID)	TAT-DUE Date	DATE-TIME SAMPLED	MATRIX	METHOD	TEST DESCRIPTION	QC REQUEST
MW-4N (AT07075)	1 WEEK 03-31-16	03/24/2016 11:15	Water	Misc Field Analysis	Misc Field Analysis	-
	1 WEEK 03-31-16	03/24/2016 11:15	Water	VOCs E8260C	VOCs E8260C - Sub Pace LI	
MW-4N (AT07076)	1 WEEK 03-31-16	03/24/2016 13:45	Water		Sulfate 300.0 - Sub Pace L1	
	1 WEEK 03-31-16	03/24/2016 13:45	Water		Total Phenolics by 420.4 - Subcontracted	
	1 WEEK 03-31-16	03/24/2016 13:45	Water		COD by 410.4 - Sub Pace-LI	
	1 WEEK 03-31-16	03/24/2016 13:45	Water	Alkalinity SM2320B	Alkalinity SM2320B - Sub Pace LI	
	1 WEEK 03-31-16	03/24/2016 13:45	Water	Ammonia E350.1	Ammonia E350.1 - Sub Pace LI	
	1 WEEK 03-31-16	03/24/2016 13:45	Water	BROMIDE	Bromide - Sub - Pace-LI	
	1 WEEK 03-31-16	03/24/2016 13:45	Water	Chloride SM4500-CL-E	Chloride SM4500-CL-E - Sub Pace LI	
	1 WEEK 03-31-16	03/24/2016 13:45	Water	Color	Color - Sub Pace-LI	
	1 WEEK 03-31-16	03/24/2016 13:45	Water	EPA 353.2 Rev. 2.0	Nitrate (NO3)	
	1 WEEK 03-31-16	03/24/2016 13:45	Water	EPA 7196A	Hexavalent Chromium (7196A)	
	1 WEEK 03-31-16	03/24/2016 13:45	Water	Hardness E6010C	Hardness E6010C (Calc) - Sub Pace LI	
	1 WEEK 03-31-16	03/24/2016 13:45	Water	Mercury E7470A	Mercury E7470A - Sub Pace LI	
	1 WEEK 03-31-16	03/24/2016 13:45	Water	Metals E200.7	Metals E200.7 - Sub Pace LI	
	I WEEK 03-31-16	03/24/2016 13:45	Water	SM 5210B-01,-11	BOD SM5210B	
	1 WEEK 03-31-16	03/24/2016 13:45	Water	SM 5310B-00,-11	Total Organic Carbon	
	1 WEEK 03-31-16	03/24/2016 13:45	Water	TDS SM2540C	Total Dissolved Solids SM2540C - Sub Pac	
	1 WEEK 03-31-16	03/24/2016 13:45	Water	TKN E351.2	Total Kjeldahl Nitrogen E351.2 - Sub Pace l	1
	1 WEEK 03-31-16	03/24/2016 13:45	Water	Total CN SM4500-CN-E	Total CN SM4500-CN-E - Sub Pace L1	
MW-SN (AT07077)	I WEEK 03-31-16	03/24/2016 10:34	Water	VOCs E8260C	VOCs E8260C - Sub Pace LI	
MW-5N (ATD7078)	1 WEEK 03-31-16	03/24/2016 13:30	Water		Sulfate 300.0 - Sub Pace LI	
	1 WEEK 03-31-16	03/24/2016 13:30			Total Phenolics by 420.4 - Subcontracted	
	1 WEEK 03-31-16	03/24/2016 13:30			COD by 410.4 - Sub Pace-LI	
	1 WEEK 03-31-16	03/24/2016 13:30		Alkalinity SM2320B	Alkalinity SM2320B - Sub Pace LI	
	1 WEEK 03-31-16	03/24/2016 13:30		Ammonia E350 I	Ammonia E350.1 - Sub Pace LI	
	I WEEK 03-31-16	03/24/2016 13:30	Water	BROMIDE	Bromide - Sub - Pace-L1	
	1 WEEK 03-31-16	03/24/2016 13:30		Chloride SM4500-CL-E	Chloride SM4500-CL-E - Sub Pace LI	
	1 WEEK 03-31-16	03/24/2016 13:30		Color	Color - Sub Pace-LI	
	1 WEEK 03-31-16	03/24/2016 13:30		EPA 353.2 Rev. 2.0	Nitrate (NO3)	
	I WEEK 03-31-16	03/24/2016 13:30		EPA 7196A	Hexavalent Chromium (7196A)	
	1 WEEK 03-31-16	03/24/2016 13:30		Hardness E6010C	Hardness E6010C (Calc) - Sub Pace LI	
	1 WEEK 03-31-16	03/24/2016 13:30		Mercury E7470A	Mercury E7470A - Sub Pace LI	
	1 WEEK 03-31-16	03/24/2016 13:30		Metals E200.7	Metals E200.7 - Sub Pace L.I	

This report may not be reproduced except in full, without the written approval of Pace Analytical Services, Inc.

Water

Water

Water

Water

Water

1 WEEK 03-31-16

1 WEEK 03-31-16

1 WEEK 03-31-16

1 WEEK 03-31-16

I WEEK 03-31-16

03/24/2016 13:30

03/24/2016 13:30

03/24/2016 13:30

03/24/2016 13:30

03/24/2016 13:30

Page 3 of 5

SM 5210B-01,-11

SM 5310B-00,-11

Total CN SM4500-CN-E

TDS SM2540C

TKN E351.2



SAMPLE RECEIPT REPORT 16030528

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

CLIENT: BARTON AND LOGUIDICE

PROJECT: ELF QUARTERLY

LRF: 16030528

REPORT: ANALYTICAL REPORT

EDD: YES LRF TAT: 1 WEEK RECEIVED DATE: 03/24/2016 14:35

SAMPLE SEALS INTACT: NA

SHIPPED VIA: PICK UP L'SAMPLES PRESERVED PER METHOD GUIDANCE: YES

SHIPPING ID:

3 SAMPLES REC'D IN HOLDTIME: YES

NUMBER OF COOLERS: 3 DISPOSAL: BY LAB (45 DAYS)
CUSTODY SEAL INTACT: NA COC DISCREPANCY: NO

COOLER STATUS: CHILLED TEMPERATURE(S): \$.7, 6.6, 5.9 °C

COMMENTS:

CLIENT ID (LAB ID)	TAT-DUE Date	DATE-TIME SAMPLED	MATRIX	METHOD	TEST DESCRIPTION	QC REQUEST
MW-6N (AT07079)	1 WEEK 03-31-16	03/24/2016 10:10	Water	VOCs E8260C	VOCs E8260C - Sub Pace LI	
MW-6N (AT07000)	1 WEEK 03-31-16	03/24/2016 13:15	Water		Sulfate 300.0 - Sub Pace L.I	
	1 WEEK 03-31-16	03/24/2016 13:15	Water		Total Phenolics by 420.4 - Subcontracted	
	1 WEEK 03-31-16	03/24/2016 13:15	Water		COD by 410.4 - Sub Pace-LI	
	1 WEEK 03-31-16	03/24/2016 13:15	Water	Alkalinity SM2320B	Alkalinity SM2320B - Sub Pace LI	
	1 WEEK 03-31-16	03/24/2016 13:15	Water	Ammonia E350.1	Ammonia E350.1 - Sub Pace LI	
	1 WEEK 03-31-16	03/24/2016 13:15	Water	BROMIDE	Bromide - Sub - Pace-LI	
	1 WEEK 03-31-16	03/24/2016 13:15	Water	Chloride SM4500-CL-E	Chloride SM4500-CL-E - Sub Pace LI	
	1 WEEK 03-31-16	03/24/2016 13:15	Water	Color	Color - Sub Pace-LI	
	1 WEEK 03-31-16	03/24/2016 13:15	Water	EPA 353.2 Rev. 2.0	Nitrate (NO3)	
	1 WEEK 03-31-16	03/24/2016 13:15	Water	EPA 7196A	Hexavalent Chromium (7196A)	
	1 WEEK 03-31-16	03/24/2016 13:15	Water	Hardness E6010C	Hardness E6010C (Calc) - Sub Pace LI	
	1 WEEK 03-31-16	03/24/2016 13:15	Water	Mercury E7470A	Mercury E7470A - Sub Pace LI	
	1 WEEK 03-31-16	03/24/2016 13:15	Water	Metals E200.7	Metals E200.7 - Sub Pace LI	
	1 WEEK 03-31-16	03/24/2016 13:15	Water	SM 5210B-01,+11	BOD SM5210B	
	1 WEEK 03-31-16	03/24/2016 13:15	Water	SM 5310B-00,-11	Total Organic Carbon	
	1 WEEK 03-31-16	03/24/2016 13:15	Water	TDS SM2540C	Total Dissolved Solids SM2540C - Sub Page	3
	1 WEEK 03-31-16	03/24/2016 13:15		TKN E351.2	Total Kjeldahl Nitrogen E351.2 - Sub Pace	1
	1 WEEK 03-31-16	03/24/2016 13:15	Water	Total CN SM4500-CN-E	Total CN SM4500-CN-E - Sub Pace LI	
POND (ATU7081)	1 WEEK 03-31-16	03/24/2016 12:40	Water		Sulfate 300.0 - Sub Pace LI	
	1 WEEK 03-31-16	03/24/2016 12:40	Water		Total Phenolics by 420.4 - Subcontracted	
	1 WEEK 03-31-16	03/24/2016 12:40	Water		COD by 410.4 - Sub Pace-LI	
	1 WEEK 03-31-16	03/24/2016 12:40	Water	Alkalinity SM2320B	Alkalinity SM2320B - Sub Pace LI	
	1 WEEK 03-31-16	03/24/2016 12:40	Water	Ammonia E350,1	Ammonia E350.1 - Sub Pace LI	
	1 WEEK 03-31-16	03/24/2016 12:40	Water	BROMIDE	Bromide - Sub - Pace-LI	
	1 WEEK 03-31-16	03/24/2016 12:40	Water	Chloride SM4500-CL-E	Chloride SM4500-CL-E - Sub Pace LI	
	1 WEEK 03-31-16	03/24/2016 12:40	Water	Color	Color - Sub Pace-L1	
	1 WEEK 03-31-16	03/24/2016 12:40	Water	EPA 353.2 Rev. 2.0	Nitrate (NO3)	
	1 WEEK 03-31-16	03/24/2016 12:40	Water	EPA 7196A	Hexavalent Chromium (7196A)	
	1 WEEK 03-31-16	03/24/2016 12:40	Water	Hardness E6010C	Hardness E6010C (Calc) - Sub Pace LI	
	1 WEEK 03-31-16	03/24/2016 12:40		Mercury E7470A	Mercury E7470A - Sub Pace LI	
	1 WEEK 03-31-16	03/24/2016 12:40		Metals E200.7	Metals E200.7 - Sub Pace LI	
	1 WEEK 03-31-16	03/24/2016 12:40		Misc Field Analysis	Misc Field Analysis	
	1 WEEK 03-31-16	03/24/2016 12:40		SM 5210B-01,-11	BOD SM5210B	
	1 WEEK 03-31-16	03/24/2016 12:46		SM 5310B-00,-11	Total Organic Carbon	
	1 WEEK 03-31-16	03/24/2016 12:40		TDS SM2540C	Total Dissolved Solids SM2540C - Sub Pa	a
	1 WEEK 03-31-16	03/24/2016 12:40		TKN E351.2	Total Kicldahl Nitrogen E351.2 - Sub Pace	
	1 WEEK 03-31-16	03/24/2016 12:40		Total CN SM4500-CN-E	Total CN SM4500-CN-E - Sub Pace LI	
	1 WEEK 03-31-16	03/24/2016 12:44		VOCs E8260C	VOCs E8260C - Sub Pace LI	



SAMPLE RECEIPT REPORT 16030528

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

CLIENT: BARTON AND LOGUIDICE

PROJECT: ELF QUARTERLY

LRF: 16030528

REPORT: ANALYTICAL REPORT

EDD: YES LRF TAT: 1 WEEK RECEIVED DATE: 03/24/2016 14:35

NUMBER OF COOLERS: 3

TEMPERATURE(S): 3.7, 6.6, 5.9 °C

SAMPLE SEALS INTACT: NA

SHIPPED VIA: PICK UP 1-SAMPLES PRESERVED PER METHOD GUIDANCE: YES

SHIPPING ID:

³ SAMPLES REC'D IN HOLDTIME: YES

DISPOSAL: BY LAB (45 DAYS)

COC DISCREPANCY: NO

QC

CUSTODY SEAL INTACT: NA COOLER STATUS: CHILLED

COMMENTS:

DATE-TIME TEST TAT-DUE Date **SAMPLED** MATRIX METHOD DESCRIPTION

REQUEST **CLIENT ID (LAB ID)** TRIP BLANK (AT07082)

1 WEEK 03-31-16 03/24/2016 VOCs E8260C VOCs E8260C - Sub Pace LI Water

The 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. 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.

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

4is 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.

SAll 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.

Samples 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

EPA 353.2 Rev. 2.0 - Nitrate (NO3) - (mg/L)

Nitrate Nitrate-Nitrite

Nitrite

EPA 7196A - Hexavalent Chromium (7196A) - (mg/L)

Hexavalent Chromium

Misc Field Analysis - Misc Field Analysis - (mg/L)

Dissolved Oxygen (\$) Flow (\$) pH(\$)

Reduction Potential (\$) Specific Conductance (\$)

Static Water Level (S)

Sulfite (\$)

Temperature (\$)

Total Residual Chlorine (\$)

Turbidity (\$)

SM 5210B-01,-11 - BOD SM5210B - (mg/L)

Biochemical Oxygen Demand

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

Total Organic Carbon

This report may not be reproduced except in full, without the written approval of Pace Analytical Services, Inc.

Page 5 of 5



Job Number: 16030528

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF QUARTERLY Client Sample ID: MW-1N

Lab Sample ID: 16030528-01 (AT07069)

Collection Date: 03/24/2016 09:50

Sample Matrix: WATER

Received Date: 03/24/2016 14:35

Percent Solid: N/A

Batch ID	Method		Date	Analyst	Init Wt./Vol. F	inal Vol.	Column
Analysis 1: Field Test	Field Analysis	·····	03/24/2016 13:00	MEB	NA	NA	NA
Analyte	CAS No.	Resul	lt	PQL	Dilution Factor	Flags	File ID
pH (\$)	NA	8.21	(pH)	0.00	1.00		Field Test
Reduction Potential (\$)	NA	216	(mV)	0.00	1.00		Field Test
Specific Conductance (\$)	NA	283	(umhos/cn	0.00	1.00		Field Test
Temperature (\$)	NA	5.30	(°C)	0.00	1.00		Field Test
Turbidity (\$)	NA	39.4	(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.





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 : 3/24/2016 1:00:00 PM

Received :3/25/2016 10:20:00 AM AT07070

Collected By CLIENT

LABORATORY RESULTS

Results are only 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 tests requested.

Lab No. : 1603K41-002

Client Sample ID: MW-1N

Sample Information:

Type: Aqueous

Origin:

Analytical Method: E300.0:							Analyst; bka
Parameter(s)	Results	Qualifier	D.F.	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
Chloride	2.25		1	mg/L	2.00	03/30/16 12:54 AM	Container-01 of 01
Sulfate	17.6		1	mg/L	5.00	03/30/16 12:54 AM	Container-01 of 01
Analytical Method: SM22 4500-CN E:	Prep Method;	SM4500-CN	E		Prep Da	te; 03/30/16	Analyst: JDLR
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	PQL	Analyzed:	Container:
Cyanide	< 10		1	µg/L	10	03/30/16 3:44 PM	Container-01 of 01
Analytical Method: E410.4:		<u>-</u>					Analyst: VaS
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
Chemical Oxygen Demand	< 10.0		1	mg/L	10.0	03/28/16 11:34 AM	Container-01 of 01
Analytical Method: SM22 2120B : IOC							Analyst: MLa
Parameter(s)	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed;	<u>Container:</u>
Color	< 5.00		1	units	5.00	03/26/16 7:45 AM	Container-01 of 01
Color pH	6.00	+	1	units	0	03/26/16 7:45 AM	Container-01 of 0
NOTES: True Color							
Analytical Method: E200.7:						-	Analyst: CGZ
Parameter(s)	<u>Results</u>	Qualifier	D.F.	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
Hardness, Calcium (As CaCO3)	56,500		1	ug/L	0.500	03/31/16 1:38 AM	Container-01 of 0
Hardness, Magnesium (As CaCO3)	56,000		1	ug/L	0.800	03/31/16 1:38 AM	Container-01 of 0
Analytical Method: SW7470A:	Prep Method:	\$W7470			Prep Da	ate: 03/30/16	Analyst, BC
Parameter(s)	Results	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	PQL	Analyzed:	Container:
Mercury	< 0.200		1	ug/L	0.200	03/30/16 9:31 AM	Container-01 of 0
Analytical Method: SM22 4500-NH3 H :	3						Analyst: bka
Parameter(s)	Results	Qualifier	D.F.	Units	PQL	Analyzed:	Container:

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

4/1/2016

Cathlin Panyarella
Project Manager: Caittin Panzarella

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 76



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 :3/24/2016 1:00:00 PM Received :3/25/2016 10:20:00 AM

AT07070

LABORATORY RESULTS

Results are only 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 tests requested.

Lab No. : 1603K41-002

Client Sample ID: MW-1N

Sample Information:

Type: Aqueous

Origin:

Collected By CLIENT							
Analytical Method: SM22 4500-NH3 H				-			Analyst: bka
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
Nitrogen, Ammonia (As N)	0,19		1	mg/L	0.10	03/30/16 1:11 PM	Container-01 of 01
Analytical Method: SM22 2540C : IOC						11271-2	Analyst; SH2
Parameter(s)	<u>Results</u>	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
Total Dissolved Solids	174		1	mg/L	10	03/29/16 2:40 PM	Container-01 of 01
Analytical Method: E351.2:	Prep Method:	E351.2			Prep	Date: 03/29/16	Analyst: SO
Parameter(s)	<u>Results</u>	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
Nitrogen, Kjeldahl, Total	< 0.10		1	mg/L	0.10	03/29/16 2:36 PM	Container-01 of 01

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

4/1/2016

Cathlin Panyarella
Project Manager: Caitlin Panzarella

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 76





Job Number: 16030528

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF QUARTERLY Client Sample ID: MW-1N

Pace Analytical Services, Inc.

Lab Sample ID: 16030528-02 (AT07070)

Collection Date: 03/24/2016 13:00

Sample Matrix: WATER

Received Date: 03/24/2016 14:35

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	180	SW-846 7196A	03/24/2016 18:27	JS	NA	NA	NA NA

Analyte	CAS No.	Result (mg/L)	PQL	Dilution Factor	Flags	File ID	
Hexavalent Chromium	18540-29-9	ND	0.0400	1.02	U	180	

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





Job Number: 16030528

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF QUARTERLY Client Sample ID: MW-1N

Lab Sample ID: 16030528-02 (AT07070)

Collection Date: 03/24/2016 13:00

Sample Matrix: WATER

Received Date: 03/24/2016 14:35

Percent Solid: N/A

					•		
İ	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	454	Nitrate - 353.2	03/25/2016 15:17	JS	NA	NA	NA .
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Fact	or Flags	File ID
Nitrate		NA	ND	0.165	1.00	U	454

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





Job Number: 16030528

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF QUARTERLY Client Sample ID: MW-1N

Lab Sample ID: 16030528-02 (AT07070)

Collection Date: 03/24/2016 13:00

Sample Matrix: WATER

Received Date: 03/24/2016 14:35

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	600	BOD SM5210B	03/25/2016 11:27	KM	NA	NA	NA NA
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Fact	or Flags	File ID
Biochemical	Oxygen Dema	nd NA	ND	2.0	1.00	B4	600

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

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

B4 - The glucose/glutamic acid standard exceeded the range of 198 plus or minus 30.5 mg/L.





Job Number: 16030528

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

Phone: 518.346.4592 Fax: 518.381.6055

875

Client: BARTON AND LOGUIDICE

Project: ELF QUARTERLY
Client Sample ID: MW-1N

Total Organic Carbon

Lab Sample ID: 16030528-02 (AT07070)

Collection Date: 03/24/2016 13:00

Sample Matrix: WATER

Received Date: 03/24/2016 14:35

1.00

Percent Solid: N/A

Analyte		CAS No.	Result (mg/L)	POL	Dilution Fac	tor Flags	File ID
Analysis 1:	875	SM 5310B	03/29/2016 18 51	JS	NA	NA	NA NA
	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column

ND

1.00

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

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

OC002

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:

Pace Analytical Services - NY

Project:

16030528

Sample Matrix:

Water

AA WIEI

Sample Name: Lab Code: MW-IN

R1602751-001

Service Request: R1602751

Date Collected: 3/24/16 1300 Date Received: 3/25/16

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor		Date Analyzed	Note
Phenolics, Total Recoverable	420.4	0.0020 U	mg/L	0.0020	1	NA	3/29/16 10:30	

16-0000370131 rev 00

SuperSet Reference:





AT07070

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

Attn To:

William A. Kotas

Collected :3/24/2016 1:00:00 PM Received :3/25/2016 10:20:00 AM

Collected By CLIENT

LABORATORY RESULTS

Results are only 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 tests requested.

Lab No. : 1603K41-002

Client Sample ID: MW-1N

Sample Information:

Type: Aqueous

Origin:

Analytical Method; E200.7 :	Prep Method:	E200.7			Prep Da	te: 03/28/16	Analyst: CGZ
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
Aluminum	796		1	ug/L	200	03/31/16 1:38 AM	Container-01 of 0
Antimony	< 60.0		1	ug/L	60.0	03/31/16 1:38 AM	Container-01 of 0
Arsenic	9.16	J	1	ug/L	10.0	03/31/16 1:38 AM	Container-01 of 0
Barium	26.9	J	1	ug/L	200	03/31/16 1:38 AM	Container-01 of 0
Beryllium	< 5.00		1	ug/L	5.00	03/31/16 1:38 AM	Container-01 of 0
Boron	56.4	J	1	ug/L	500	03/31/16 1:38 AM	Container-01 of 0
Cadmium	0.400	J	1	ug/L	5.00	03/31/16 1:38 AM	Container-01 of 0
Calcium	22,600		1	ug/L	5000	03/31/16 1:38 AM	Container-01 of 0
Chromium	2.50	J	1	ug/L	10.0	03/31/16 1:38 AM	Container-01 of 0
Cobalt	< 50.0		1	ug/L	50.0	03/31/16 1:38 AM	Container-01 of 0
Copper	2.00	J	1	ug/L	25.0	03/31/16 1:38 AM	Container-01 of 0
Iron	1,050		1	ug/L	100	03/31/16 1:38 AM	Container-01 of 0
Lead	3.86		1	ug/L	3.00	03/31/16 1:38 AM	Container-01 of 0
Magnesium	13,600		1	ug/L	5000	03/31/16 1:38 AM	Container-01 of 0
Manganese	32.5		1	ug/L	15.0	03/31/16 1:38 AM	Container-01 of 0
Nickel	< 40.0		1	ug/L	40.0	03/31/16 1:38 AM	Container-01 of 0
Potassium	1,180	J	1	ug/L	5000	03/31/16 1:38 AM	Container-01 of 0
Selenium	2.37	J	1	ug/L	5.00	03/31/16 1:38 AM	Container-01 of 0
Silver	< 10.0		1	ug/L	10.0	03/31/16 1:38 AM	Container-01 of 0
Sodium	27,700		1	ug/L	5000	03/31/16 1;38 AM	Container-01 of 0
Thallium	< 10.0		1	ug/L	10.0	03/31/16 1:38 AM	Container-01 of 0
Vanadium	2.50	J	1	ug/L	50.0	03/31/16 1:38 AM	Container-01 of 0
Zinc	7.20	J	1	ug/L	20.0	03/31/16 1:38 AM	Container-01 of 0

Analytical Method; SM22 2320B:							Analyst: JDLR
Parameter(s)	<u>Results</u>	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
Alkalinity, Total (As CaCO3)	142	D		mg/L	2.00	03/31/16 2:44 PM	Container-01 of 01

Analytical Method: E300.0 :						<u></u>	Analyst: bka
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
Bromide	< 0.50		1	mg/L	0.50	03/30/16 12:54 AM	Container-01 of 01

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

4/1/2016

Cathlin Panyarella
Project Manager: Caitlin Panzarella

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 3 of 76





TEL: (631) 694-3040 FAX: (631) 420-8436 NYSDOH ID#10478 www.pacelabs.com

Pace Analytical Services Inc.

2190 Technology Drive Schenectady, NY 12308

William A. Kotas Attn To:

Collected :3/24/2016 9:50:00 AM

AT07069 Received :3/25/2016 10:20:00 AM

Collected By CLIENT

LABORATORY RESULTS

Results are only for the samples and analytes requested.

The tab is not directly responsible for the integrity of the sample before receipt at the tab and is responsible only for the tasts requested.

Lab No. : 1603K41-001

Client Sample ID: MW-1N

Sample Information:

Type: Aqueous

Origin:

Analytical Method: SW8260C:	Prep Method:	5030C					Anaiyst: BL
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
1,1,1,2-Tetrachloroethane	< 5.0		1	µg/L	5.0	03/29/16 12:12 AM	Container-02 of 0
1,1,1-Trichloroethane	< 5.0		1	μg/L	5.0	03/29/16 12:12 AM	Container-02 of 0
1,1,2,2-Tetrachloroethane	< 5.0		1	μg/L	5.0	03/29/16 12:12 AM	Container-02 of 0
1,1,2-Trichloroethane	< 5.0		1	µg/L	5.0	03/29/16 12:12 AM	Container-02 of 0
1,1-Dichloroethane	< 5.0		1	µg/L	5.0	03/29/16 12:12 AM	Container-02 of 0
1,1-Dichloroethene	< 5.0		1	μg/L	5.0	03/29/16 12:12 AM	Container-02 of 0
1,2,3-Trichloropropane	< 5.0		1	μg/L	5.0	03/29/16 12:12 AM	Container-02 of 0
1,2-Dibromo-3-chloropropane	< 5.0		1	μg/L	5.0	03/29/16 12:12 AM	Container-02 of 0
1,2-Dibromoethane	< 5.0		1	μg/L	5.0	03/29/16 12:12 AM	Container-02 of 0
1,2-Dichlorobenzene	< 5.0		1	μg/L	5.0	03/29/16 12:12 AM	Container-02 of 0
1,2-Dichloroethane	< 5.0		1	μg/L	5.0	03/29/16 12:12 AM	Container-02 of 0
1,2-Dichloropropane	< 5.0		1	μg/L	5.0	03/29/16 12:12 AM	Container-02 of 0
1,4-Dichlorobenzene	< 5.0		1	μg/L	5.0	03/29/16 12:12 AM	Container-02 of 0
2-Butanone	< 5.0		1	μg/L	5.0	03/29/16 12:12 AM	Container-02 of 0
2-Hexanone	< 5.0	S	1	μg/L	5.0	03/29/16 12:12 AM	Container-02 of 0
4-Methyl-2-pentanone	< 5.0		1	µg/L	5.0	03/29/16 12:12 AM	Container-02 of 0
Acetone	< 5.0		1	µg/L	5.0	03/29/16 12:12 AM	Container-02 of 0
Acrylonitrile	< 5.0		1	μg/L	5.0	03/29/16 12:12 AM	Container-02 of (
Benzene	< 5.0		1	μg/L	5.0	03/29/16 12:12 AM	Container-02 of (
Bromochloromethane	< 5.0		1	µg/L	5.0	03/29/16 12:12 AM	Container-02 of
Bromodichloromethane	< 5.0		1	μg/L	5.0	03/29/16 12:12 AM	Container-02 of (
Bromoform	< 5.0		1	μg/L	5.0	03/29/16 12:12 AM	Container-02 of
Bromomethane	< 5.0		1	μg/L	5.0	03/29/16 12:12 AM	Container-02 of
Carbon disulfide	< 5.0		1	μg/L	5.0	03/29/16 12:12 AM	Container-02 of
Carbon tetrachloride	< 5.0		1	µg/L	5.0	03/29/16 12:12 AM	Container-02 of
Chlorobenzene	< 5.0	S	1	μg/L	5.0	03/29/16 12:12 AM	Container-02 of
Chloroethane	< 5.0	С	1	μg/L	5.0	03/29/16 12:12 AM	Container-02 of
Chloroform	< 5.0		1	μg/L	5.0	03/29/16 12:12 AM	Container-02 of
Chloromethane	< 5.0		1	μg/L	5.0	03/29/16 12:12 AM	Container-02 of
cis-1,2-Dichloroethene	< 5.0		1	µg/L	5.0	03/29/16 12:12 AM	Container-02 of
cis-1,3-Dichloropropene	< 5.0		1	µg/L	5.0	03/29/16 12:12 AM	Container-02 of
Dibromochloromethane	< 5.0		1	µg/L	5.0	03/29/16 12:12 AM	Container-02 of

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

4/1/2016

Cathlin Panzarella Project Manager: Caitlin Panzarella

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 76





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 :3/24/2016 9:50:00 AM Received

AT07069 :3/25/2016 10:20:00 AM

Collected By CLIENT

LABORATORY RESULTS

Results are only 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 tests requested.

Lab No. : 1603K41-001

Client Sample ID: MW-1N

Sample Information:

Type: Aqueous

Origin:

Analytical Method: SW8260C:	Prep Method:	5030C						Analyst: BL
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>		Analyzed:	Container:
Dibromomethane	< 5.0		1	μg/L	5.0		03/29/16 12:12 AM	Container-02 of 03
Ethylbenzene	< 5.0		1	μg/L	5.0		03/29/16 12:12 AM	Container-02 of 03
lodomethane	< 5.0	C	1	µg/L	5.0		03/29/16 12:12 AM	Container-02 of 03
Methylene chloride	< 5.0		1	μg/L	5.0		03/29/16 12:12 AM	Container-02 of 03
Styrene	< 5.0		1	μg/L	5.0		03/29/16 12:12 AM	Container-02 of 03
Tetrachloroethene	< 5.0		1	μg/L	5.0		03/29/16 12:12 AM	Container-02 of 03
Toluene	< 5.0		1	µg/L	5.0		03/29/16 12:12 AM	Container-02 of 03
trans-1,2-Dichloroethene	< 5.0		1	μg/L	5.0		03/29/16 12:12 AM	Container-02 of 03
trans-1,3-Dichloropropene	< 5.0		1	μg/L	5.0		03/29/16 12:12 AM	Container-02 of 03
trans-1,4-Dichloro-2-butene	< 5.0	cS	1	μg/L	5.0		03/29/16 12:12 AM	Container-02 of 03
Trichloroethene	< 5.0		1	μg/L	5.0		03/29/16 12:12 AM	Container-02 of 03
Trichlorofluoromethane	< 5.0		1	µg/L	5.0		03/29/16 12:12 AM	Container-02 of 03
Vinyl acetate	< 5.0		1	µg/L	5.0		03/29/16 12:12 AM	Container-02 of 03
Vinyl chloride	< 5.0		1	μg/L	5.0		03/29/16 12:12 AM	Container-02 of 03
Xylene (total)	< 5.0		1	μg/L	5.0		03/29/16 12:12 AM	Container-02 of 03
Surr: 1,2-Dichloroethane-d4	100		1	%Rec		Limit 79-116	03/29/16 12:12 AM	Container-02 of 03
Surr: 4-Bromofluorobenzene	93.3		1	%Rec		Limit 79-122	03/29/16 12:12 AM	Container-02 of 03
Surr: Toluene-d8	91.0		1	%Rec		Limit 69-125	03/29/16 12:12 AM	Container-02 of 03

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

4/1/2016

Cathlin Panzarella Project Manager: Caitlin Panzarella

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 2 of 76





Job Number: 16030528

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF QUARTERLY
Client Sample ID: MW-2N

Lab Sample ID: 16030528-03 (AT07071)

Collection Date: 03/24/2016 09:25

Sample Matrix: WATER

Received Date: 03/24/2016 14:35

Percent Solid: N/A

Batch ID	Method		Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1: Field Test	Field Analysis		03/24/2016 12:25	MEB	NA	NA	NA
Analyte	CAS No.	Resu	lt	PQL	Dilution Facto	or Flags	File ID
pH (\$)	NA	7.52	(pH)	0.00	1.00		Field Test
Reduction Potential (\$)	NA	244	(mV)	0.00	1.00		Field Test
Specific Conductance (\$)	NA	613	(umhos/cn	0.00	1.00		Field Test
Temperature (\$)	NA	3.90	(°C)	0.00	1.00		Field Test
Turbidity (\$)	NA	6.70	(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.



575 Broad Hollow Road , Metville, 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

Received

Attn To: William A. Kotas
Collected: 3/24/2016 12:25:00 PM

:3/25/2016 10:20:00 AM AT07072

LABORATORY RESULTS

Results are only 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 tests requested.

Lab No. : 1603K41-004

Client Sample ID: MW-2N

Sample Information:

Type: Aqueous

Origin:

Analytical Method; E300.0 : Parameter(s)	Results	Qualifier	D.E.	<u>Units</u>	PQL	Analyzed:	Analyst: bka Container:
Chloride	22.5	<u>Quannor</u>	1	mg/L	2.00	03/30/16 1:07 AM	Container-01 of 01
Sulfate	15.7		1	mg/L	5.00	03/30/16 1:07 AM	Container-01 of 01
Analytical Method: SM22 4500-CN E :	Prep Method:	SM4500-CN	E		Prep Da	<u>e:</u> 03/30/16	Analyst: JDLR
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	PQL	Analyzed:	Container:
Cyanide	< 10		1	µg/L	10	03/30/16 3:47 PM	Container-01 of 01
Analytical Method; E410.4:							Analyst: VaS
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
Chemical Oxygen Demand	< 10.0		1	mg/L	10.0	03/28/16 11:36 AM	Container-01 of 0
Analytical Method: SM22 2120B : IOC							Analyst: MLa
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
Color	< 5.00		1	units	5.00	03/26/16 7:45 AM	Container-01 of 0
Color pH	6.00	+	1	units	0	03/26/16 7:45 AM	Container-01 of 0
NOTES: True Color							
Analytical Method: E200.7:					•		Analyst: CGZ
Parameter(s)	Results	Qualifier	D.F.	<u>Units</u>	PQL	Analyzed:	Container:
Hardness, Calcium (As CaCO3)	222,000		1	ug/L	0.500	03/31/16 2:09 AM	Container-01 of 0
Hardness, Magnesium (As CaCO3)	127,000		1	ug/L	008.0	03/31/16 2:09 AM	Container-01 of 0
Analytical Method: SW7470A:	Prep Method:	SW7470			Preo Da	te: 03/30/16	Analyst: BC
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container;
Mercury	< 0.200		1	ug/L	0.200	03/30/16 9:33 AM	Container-01 of 0
Analytical Method; SM22 4500-NH3 H :	E C					G.	Analyst; bka
Parameter(s)	Results	Qualifier	<u>D.F.</u>	Units	PQL	Analyzed:	Container.

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

4/1/2016

Cathlin Panyarella
Project Manager: Caitlin Panzarella

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 9 of 76



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

:3/24/2016 12:25:00 PM Collected Received :3/25/2016 10:20:00 AM

AT07072

LABORATORY RESULTS

Results are only 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 tests requested.

Sample Information:

Type: Aqueous

Origin:

Collected By CLIENT							
Analytical Method: SM22 4500-NH3 H	:			_			Analyst: bka
Parameter(s)	<u>Results</u>	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>POL</u>	Analyzed:	Container:
Nitrogen, Ammonia (As N)	< 0.10		1	mg/L	0.10	03/30/16 1:12 PM	Container-01 of 01
Analytical Method: SM22 2540C : IOC							Analyst; SH2
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	PQL	Analyzed:	Container:
Total Dissolved Solids	348		1	mg/L	10	03/29/16 2:41 PM	Container-01 of 01
Analytical Method: E351.2:	Prep Method:	E351.2				ep Date: 03/29/16	Analysi; SO
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
Nitrogen, Kjeldahi, Total	< 0.10		1	mg/L	0.10	03/29/16 2:37 PM	Container-01 of 01

Lab No. : 1603K41-004

Client Sample ID: MW-2N

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

4/1/2016

Cathlin Panzarella Project Manager: Caitlin Panzarella

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 10 of 76





Job Number: 16030528

Pace Analytical Services, Inc. 2190 Technology Drive

Schenectady, NY 12308 Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF QUARTERLY Client Sample ID: MW-2N

Lab Sample ID: 16030528-04 (AT07072)

Collection Date: 03/24/2016 12:25

Sample Matrix: WATER

Received Date: 03/24/2016 14:35

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	180	SW-846 7196A	03/24/2016 18:28	JS	NA	NA	NA NA
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Fact	or Flags	File ID
Hexavalent Chr	omium	18540-29-9	ND	0.0400	1.02	U	180

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





Job Number: 16030528

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF QUARTERLY Client Sample ID: MW-2N

Lab Sample ID: 16030528-04 (AT07072)

Collection Date: 03/24/2016 12:25

Sample Matrix: WATER

Received Date: 03/24/2016 14:35

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	454	Nitrate - 353.2	03/25/2016 15:21	JS	NA	NA	NA
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Facto	r Flags	File ID
Nitrate		NA	ND	0.165	1.00	TT.	454

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





Job Number: 16030528

Pace Analytical Services, Inc. 2190 Technology Drive

Schenectady, NY 12308 Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF QUARTERLY Client Sample ID: MW-2N

Lab Sample ID: 16030528-04 (AT07072)

Collection Date: 03/24/2016 12:25

Sample Matrix: WATER

Received Date: 03/24/2016 14:35

Percent Solid: N/A

I	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1: 6	00	BOD SM5210B	03/25/2016 11:30	KM	NA	NA	NA
Analyte		CAS No.	Result (mg/L)	POL	Dilution Facto	or Flags	File ID
Analyte		CW9 140*	resure (mg/p)	I QL	Dilation I net	nr r.m.P.	1110110

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

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

B4 - The glucose/glutamic acid standard exceeded the range of 198 plus or minus 30.5 mg/L.





Job Number: 16030528

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF QUARTERLY Client Sample ID: MW-2N

Lab Sample ID: 16030528-04 (AT07072)

Collection Date: 03/24/2016 12:25

Sample Matrix: WATER

Received Date: 03/24/2016 14:35

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol. F	inal Vol.	Column
Analysis I: 8	875	SM 5310B	03/29/2016 19:04	JS	NA	NA	NA NA
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Factor	r Flags	File ID
Total Organic C	Carbon	OC002	1.57	1.00	1.00		875

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

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:

Pace Analytical Services - NY

Project:

16030528

Sample Matrix:

Water

Sample Name: Lab Code:

MW-2N

R1602751-002

Service Request: R1602751

Date Collected: 3/24/16 1225

Date Received: 3/25/16

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL		n Date Extracted	Date Analyzed	Note
Phenolics, Total Recoverable	420.4	0.0020 U	mg/L	0.0020	1	NA	3/29/16 10:30	

Pace Analytical"

575 Broad Hollow Road , Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

AT07072

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

Attn To:

William A. Kotas

Collected :3/24/2016 12:25:00 PM Received :3/25/2016 10:20:00 AM

Received: 3/25/2016 10:2 Collected By CLIENT LABORATORY RESULTS

Results are only 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 tests requested.

Lab No. : 1603K41-004

Client Sample ID: MW-2N

Sample Information:

Type: Aqueous

Origin:

Analytical Method, E200.7:	Prep Method:	E200.7			Prep Da	te: 03/28/16	Analyst: CGZ
Parameter(s)	Results	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
Aluminum	60,6	J	1	ug/L	200	03/31/16 2:09 AM	Container-01 of 0
Antimony	4.31	J	1	ug/L	60.0	03/31/16 2:09 AM	Container-01 of 0
Arsenic	< 10.0		1	ug/L	10.0	03/31/16 2:09 AM	Container-01 of 0
Barium	46.8	J	1	ug/L	200	03/31/16 2:09 AM	Container-01 of 0
Beryllium	< 5.00		1	ug/L	5.00	03/31/16 2:09 AM	Container-01 of 0
Boron	13.0	J	1	ug/L	500	03/31/16 2:09 AM	Container-01 of 0
Cadmium	< 5.00		1	ug/L	5.00	03/31/16 2:09 AM	Container-01 of 0
Calcium	88,900		1	ug/L	5000	03/31/16 2:09 AM	Container-01 of 0
Chromium	1.40	J	1	ug/L	10.0	03/31/16 2:09 AM	Container-01 of 0
Cobalt	< 50.0		1	ug/L	50.0	03/31/16 2:09 AM	Container-01 of 0
Copper	< 25.0		1	ug/L	25.0	03/31/16 2:09 AM	Container-01 of 0
Iron	137		1	ug/L	100	03/31/16 2:09 AM	Container-01 of 0
Lead	3.49		1	ug/L	3.00	03/31/16 2:09 AM	Container-01 of 0
Magnesium	30,900		1	ug/L	5000	03/31/16 2:09 AM	Container-01 of 0
Manganese	136		1	ug/L	15.0	03/31/16 2:09 AM	Container-01 of 0
Nickel	< 40.0		1	ug/L	40.0	03/31/16 2:09 AM	Container-01 of 0
Potassium	939	J	1	ug/L	5000	03/31/16 2:09 AM	Container-01 of 0
Selenium	< 5.00		1	ug/L	5.00	03/31/16 2:09 AM	Container-01 of 0
Silver	< 10.0		1	ug/L	10.0	03/31/16 2:09 AM	Container-01 of (
Sodium	6,850	Р	1	ug/L	5000	03/31/16 2:09 AM	Container-01 of
Thallium	< 10.0		1	ug/L	10.0	03/31/16 2:09 AM	Container-01 of
Vanadium	< 50.0		1	ug/L	50.0	03/31/16 2:09 AM	Container-01 of
Zinc	1.00	J	1	ug/L	20.0	03/31/16 2:09 AM	Container-01 of

Analytical Method: SM22 2320B :							Analyst: JDLR
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
Alkalinity, Total (As CaCO3)	303	D	2	mg/L	2.00	03/31/16 2:54 PM	Container-01 of 01
Analytical Method: E300.0:							Analyst: bka
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container,
Bromide	< 0.50		1	mg/L	0.50	03/30/16 1:07 AM	Container-01 of 01

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

4/1/2016

Cathlin Panyarella
Project Manager: Caitlin Panzarella

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 8 of 76





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 : 3/24/2016 9:25:00 AM Received : 3/25/2016 10:20:00 AM

AT07071

LABORATORY RESULTS

Results are only 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 tests requested.

Lab No. : 1603K41-003

Client Sample ID: MW-2N

Sample Information:

Type: Aqueous

Origin:

Analytical Method: SW8260C:	Prep Method:	5030C					Analyst: BL
Parameter(s)	<u>Results</u>	Qualifier	D.F.	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
1,1,1,2-Tetrachloroethane	< 5.0		1	µg/L	5.0	03/29/16 12:34 AM	Container-03 of 03
1,1,1-Trichloroethane	< 5.0		1	μg/L	5.0	03/29/16 12:34 AM	Container-03 of 03
1,1,2,2-Tetrachloroethane	< 5.0		1	µg/L	5.0	03/29/16 12:34 AM	Container-03 of 03
1,1,2-Trichloroethane	< 5.0		1	μg/L	5.0	03/29/16 12:34 AM	Container-03 of 03
1,1-Dichloroethane	< 5.0		1	µg/L	5.0	03/29/16 12:34 AM	Container-03 of 03
1,1-Dichloroethene	< 5.0		1	μg/L	5.0	03/29/16 12:34 AM	Container-03 of 03
1,2,3-Trichloropropane	< 5.0		1	μg/L	5.0	03/29/16 12:34 AM	Container-03 of 03
1,2-Dibromo-3-chloropropane	< 5.0		1	μg/L	5.0	03/29/16 12:34 AM	Container-03 of 03
1,2-Dibromoethane	< 5.0		1	μg/L	5.0	03/29/16 12:34 AM	Container-03 of 03
1,2-Dichlorobenzene	< 5.0		1	μg/L	5.0	03/29/16 12:34 AM	Container-03 of 03
1,2-Dichloroethane	< 5.0		1	μg/L	5.0	03/29/16 12:34 AM	Container-03 of 03
1,2-Dichloropropane	< 5.0		1	µg/L	5.0	03/29/16 12:34 AM	Container-03 of 0
1,4-Dichlorobenzene	< 5.0		1	μg/L	5.0	03/29/16 12:34 AM	Container-03 of 0
2-Butanone	< 5.0		1	μg/L	5.0	03/29/16 12:34 AM	Container-03 of 0
2-Hexanone	< 5.0	S	1	μg/L	5.0	03/29/16 12:34 AM	Container-03 of 0
4-Methyl-2-pentanone	< 5.0		1	μg/L	5.0	03/29/16 12:34 AM	Container-03 of 0
Acetone	< 5.0		1	μg/L	5.0	03/29/16 12:34 AM	Container-03 of 0
Acrylonitrile	< 5.0		1	μg/L	5.0	03/29/16 12:34 AM	Container-03 of 0
Benzene	< 5.0		1	µg/L	5.0	03/29/16 12:34 AM	Container-03 of 0
Bromochloromethane	< 5.0		1	µg/L	5.0	03/29/16 12:34 AM	Container-03 of 0
Bromodichloromethane	< 5.0		1	μg/L	5.0	03/29/16 12:34 AM	Container-03 of 0
Bromoform	< 5.0		1	μg/L	5.0	03/29/16 12:34 AM	Container-03 of 0
Bromomethane	< 5.0		1	μg/L	5.0	03/29/16 12:34 AM	Container-03 of 0
Carbon disulfide	< 5.0		1	μg/L	5.0	03/29/16 12:34 AM	Container-03 of 0
Carbon tetrachloride	< 5.0		1	µg/L	5.0	03/29/16 12:34 AM	Container-03 of 0
Chlorobenzene	< 5.0	S	1	μg/L	5.0	03/29/16 12:34 AM	Container-03 of 0
Chloroethane	< 5.0	С	1	μg/L	5.0	03/29/16 12:34 AM	Container-03 of 0
Chloroform	< 5.0		1	μg/L	5.0	03/29/16 12:34 AM	Container-03 of 0
Chloromethane	< 5.0		1	μg/L	5.0	03/29/16 12:34 AM	Container-03 of 0
cis-1,2-Dichloroethene	< 5.0		1	μg/L	5.0	03/29/16 12:34 AM	Container-03 of 0
cis-1,3-Dichleropropene	< 5.0		1	μg/L	5.0	03/29/16 12:34 AM	Container-03 of 0
Dibromochloromethane	< 5.0		1	µg/L	5.0	03/29/16 12:34 AM	Container-03 of 0

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

4/1/2016

Cathlin Panzarella Project Manager: Caitlin Panzarella

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 6 of 76



Pace Analytical

575 Broad Hollow Road , Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacejabs.com

Pace Analytical Services Inc. 2190 Technology Drive

Schenectady, NY 12308

Attn To:

William A. Kotas

Collected : 3/24/2016 9:25:00 AM Received : 3/25/2016 10:20:00 AM

AT07071

LABORATORY RESULTS

Results are only 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 tests requested.

Lab No. : 1603K41-003

Client Sample ID: MW-2N

Sample Information:

Type: Aqueous

Origin:

Collected By CLIENT								
Analytical Method: SW8260C:	Prep Method:	5030C						Anaiyst: BL
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>		Analyzed:	Container:
Dibromomethane	< 5.0		1	µg/L	5.0		03/29/16 12:34 AM	Container-03 of 03
Ethylbenzene	< 5.0		1	µg/L	5.0		03/29/16 12:34 AM	Container-03 of 03
lodomethane	< 5.0	C	1	μg/L	5.0		03/29/16 12:34 AM	Container-03 of 03
Methylene chloride	< 5.0		1	μg/L	5.0		03/29/16 12:34 AM	Container-03 of 03
Styrene	< 5.0		1	μ g /L	5.0		03/29/16 12:34 AM	Container-03 of 03
Tetrachloroethene	< 5.0		1	μg/L	5.0		03/29/16 12:34 AM	Container-03 of 03
Toluene	< 5.0		1	μg/L	5.0		03/29/16 12:34 AM	Container-03 of 03
trans-1,2-Dichloroethene	< 5.0		1	µg/L	5.0		03/29/16 12:34 AM	Container-03 of 03
trans-1,3-Dichloropropene	< 5.0		1	μg/L	5.0		03/29/16 12:34 AM	Container-03 of 03
trans-1,4-Dichloro-2-butene	< 5.0	cS	1	μg/L	5.0		03/29/16 12:34 AM	Container-03 of 03
Trichloroethene	< 5.0		1	μg/L	5.0		03/29/16 12:34 AM	Container-03 of 03
Trichtorofluoromethane	< 5.0		1	µg/L	5.0		03/29/16 12:34 AM	Container-03 of 03
Vinyl acetate	< 5.0		1	μg/L	5.0		03/29/16 12:34 AM	Container-03 of 03
Vinyl chloride	< 5.0		1	μg/L	5.0		03/29/16 12:34 AM	Container-03 of 03
Xylene (total)	< 5.0		1	μg/L	5.0		03/29/16 12:34 AM	Container-03 of 03
Surr: 1,2-Dichloroethane-d4	99.8		1	%Rec		Limit 79-116	03/29/16 12:34 AM	Container-03 of 03
Surr: 4-Bromofluorobenzene	91.6		1	%Rec		Limit 79-122	03/29/16 12:34 AM	Container-03 of 03
Surr: Toluene-d8	90.5		1	%Rec		Limit 69-125	03/29/16 12:34 AM	Container-03 of 03

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range, Value estimated,

S = Recovery outside of control limits for this analyte

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

Date Reported:

4/1/2016

Cathlin Panzarella

Project Manager : Caittin Panzarella

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 7 of 76





Job Number: 16030528

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF QUARTERLY Client Sample ID: MW-3N

Lab Sample ID: 16030528-05 (AT07073)

Collection Date: 03/24/2016 09:06

Sample Matrix: WATER

Received Date: 03/24/2016 14:35

Percent Solid: N/A

Batch ID	Method	Da	ate Analyst	Init Wt./Vol. F	inal Vol.	Column
Analysis 1: Field Test	Field Analysis	03/24/20	16 12:00 MEB	NA	NA	NA
Analyte	CAS No.	Result	PQL	Dilution Factor	Flags	File ID
pH (\$)	NA	6.92 (pH)	0,00	1.00	·-	Field Test
Reduction Potential (\$)	NA	30.0 (mV)	0.00	1.00		Field Test
Specific Conductance (\$)	NA	1450 (umho	s/cm 0.00	1.00		Field Test
Temperature (\$)	NA	7.30 (°C)	0.00	1.00		Field Test
Turbidity (\$)	NA	13.9 (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.

TEL: (631) 694-3040 FAX: (631) 420-8436 NYSDOH ID#10478 www.pacelabs.com

AT07074

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

William A. Kotas Attn To: :3/24/2016 12:00:00 PM Collected

:3/25/2016 10:20:00 AM

Received

LABORATORY RESULTS

Results are only 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 tests requested.

Lab No. : 1603K41-006

Client Sample ID: MW-3N

Sample Information:

Type: Aqueous

Origin:

Analytical Method: E300.0:							Analyst: bka
Parameter(s)	<u>Results</u>	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
Chioride	11.6		1	mg/L	2.00	03/30/16 1:21 AM	Container-01 of 01
Sulfate	40.5		1	mg/L	5.00	03/30/16 1:21 AM	Container-01 of 01
Analytical Method; SM22 4500-CN E :	Prep Method:	SM4500-CN	E	<u>. </u>	Prep Dat	e: 03/30/16	Analvst; JDLR
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	<u>Container:</u>
Cyanide	< 10		1	μg/L	10	03/30/16 3:48 PM	Container-01 of 01
Analytical Method: E410.4:							Analyst; VaS
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	PQL	Analyzed:	Container:
Chemical Oxygen Demand	< 10.0		1	mg/L	10.0	03/28/16 11:38 AM	Container-01 of 01
Analytical Method: SM22 2120B : IOC							Analyst: MLa
Parameter(s)	Results	Qualifier	D.F.	<u>Units</u>	<u>PQL</u>	Analyzed:	Container.
Color	< 5.00		1	units	5.00	03/26/16 7:45 AM	Container-01 of 0
Color pH	6.50	+	1	units	0	03/26/16 7:45 AM	Container-01 of 0
NOTES: True Color					<u>.</u>		
Analytical Method; E200.7:							Analyst: CGZ
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
Hardness, Calcium (As CaCO3)	580,000		1	ug/L	0.500	03/31/16 2:51 AM	Container-01 of 0
Hardness, Magnesium (As CaCO3)	452,000		1	ug/L	0.800	03/31/16 2:51 AM	Container-01 of 0
Analytical Method: SW7470A:	Prep Method:	SW7470			Prep Da	nte: 03/30/16	Analyst; BC
Parameter(s)	Results	Qualifier	D.F.	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
Mercury	< 0.200		1	ug/L	0.200	03/30/16 9:35 AM	Container-01 of 0
Analytical Method: SM22 4500-NH3 H		(2)					Analyst, bka
Parameter(s)	Results	Qualifier	D.F.	<u>Units</u>	PQL	Analyzed:	Container:

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

B = Found in Blank

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

c = Catibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

4/1/2016

Project Manager: Caitlin Panzarella

Cathlin Panzarella

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 14 of 76

11

Pace Analytical"

575 Broad Hollow Road , Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.oacelabs.com

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

Attn To:

Collected

Received

William A. Kotas :3/24/2016 12:00:00 PM

:3/25/2016 10:20:00 AM

AM AT07074

LABORATORY RESULTS

Results are only 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 tests requested.

Lab No. : 1603K41-006

Client Sample ID: MW-3N

Sample Information:

Type: Aqueous

Origin:

Collected By CLIENT						
Analytical Method: SM22 4500-NH3 H	1:					Analyst: bka
Parameter(s)	<u>Results</u>	Qualifier	D.F. Units	<u>PQL</u>	Analyzed:	Container:
Nitrogen, Ammonia (As N)	< 0.10		1 mg/L	0.10	03/30/16 1:14 PM	Container-01 of 01
Analytical Method, SM22 2540C : IOC	:					Analyst: SH2
Parameter(s)	Results	Qualifier	D.F. Units	<u>PQL</u>	Analyzed:	Container:
Total Dissolved Solids	896		1 mg/L	10	03/29/16 2:46 PM	Container-01 of 01
Analytical Method: E351.2 :	Prep Method:	E351.2		Prep [<u>Date:</u> 03/29/16	Analyst: SO
Parameter(s)	Results	Qualifier	D.F. Units	PQL	Analyzed:	Container:
Nitrogen, Kjeldahl, Total	< 0.10		1 mg/L	0.10	03/29/16 4:13 PM	Container-01 of 01

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

4/1/2016

Cathlin Panzarella

Project Manager: Caitlin Panzarella

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 15 of 76





Job Number: 16030528

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF QUARTERLY Client Sample ID: MW-3N

Lab Sample ID: 16030528-06 (AT07074)

Collection Date: 03/24/2016 12:00

Sample Matrix: WATER

Received Date: 03/24/2016 14:35

Percent Solid: N/A

Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis I: 180	SW-846 7196A	03/24/2016 18:29	JS	NA	NA	NA NA
Analyte	CAS No.	Result (mg/L)	PQL	Dilution Facto	r Flags	File ID
Hexavalent Chromium	18540-29-9	ND	0.0400	1.02	U	180

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





Job Number: 16030528

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF QUARTERLY Client Sample ID: MW-3N

Lab Sample ID: 16030528-06 (AT07074)

Collection Date: 03/24/2016 12:00

Sample Matrix: WATER

Received Date: 03/24/2016 14:35

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	454	Nitrate - 353.2	03/25/2016 15:22	JS	NA	NA	NA .
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Facto	or Flags	File ID
Vitrate	NA:	NA	ND	0.165	1.00	U	454

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





Job Number: 16030528

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF QUARTERLY Client Sample ID: MW-3N

Lab Sample ID: 16030528-06 (AT07074)

Collection Date: 03/24/2016 12:00

Sample Matrix: WATER

Received Date: 03/24/2016 14:35

Percent Solid: N/A

[Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	600	BOD SM5210B	03/25/2016 11:32	КМ	NA	NA	NA NA
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Facto	or Flags	File ID
Biochemica	l Oxygen Dema	nd NA	6.2	2.0	1.00	B4	600

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

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

B4 - The glucose/glutamic acid standard exceeded the range of 198 plus or minus 30.5 mg/L.





Job Number: 16030528

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF QUARTERLY Client Sample ID: MW-3N

Lab Sample ID: 16030528-06 (AT07074)

Collection Date: 03/24/2016 12:00

Sample Matrix: WATER

Received Date: 03/24/2016 14:35

Percent Solid: N/A

							
	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	875	SM 5310B	03/29/2016 19:17	JS	NA	NA	NA
Analyte	7,61	CAS No.	Result (mg/L)	PQL	Dilution Fact	or Flags	File ID
Total Organi	ic Carbon	OC002	2.49	1.00	1.00		875

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

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:

Pace Analytical Services - NY

Project:

16030528

Sample Matrix:

Water

Sample Name: Lab Code:

MW-3N

R1602751-003

Service Request: R1602751

Date Collected: 3/24/16 1200 Date Received: 3/25/16

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL		Date Extracted	Date Analyzed	Note
Phenolics, Total Recoverable	420.4	0.0020 U	mg/L	0.0020	1	NA	3/29/16 10:30	

\\alprews001\starlimsS\LIMSRcps\AnalyticalReport.rpt



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:

Collected Received

William A. Kotas

AT07074

:3/24/2016 12:00:00 PM :3/25/2016 10:20:00 AM

Collected By CLIENT

LABORATORY RESULTS

Results are only 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 tests requested.

Lab No. : 1603K41-006

Client Sample ID: MW-3N

Sample Information:

Type: Aqueous

Origin:

Analytical Method: E200.7:	Prep Method:	E200.7			Prep Da	ite; 03/28/16	Analyst: CGZ
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	POL	Analyzed;	Container:
Numinum	35.8	J	1	ug/L	200	03/31/16 2:51 AM	Container-01 of 0
Antimony	4.39	J	1	ug/L	60.0	03/31/16 2:51 AM	Container-01 of 0
Arsenic	12.2		1	ug/L	10.0	03/31/16 2:51 AM	Container-01 of 0
3arium	136	J	1	ug/L	200	03/31/16 2:51 AM	Container-01 of 0
Beryllium	< 5.00		1	ug/L	5.00	03/31/16 2:51 AM	Container-01 of 0
Boron	25.2	J	1	ug/L	500	03/31/16 2:51 AM	Container-01 of 0
Cadmium	0.200	J	1	ug/L	5.00	03/31/16 2:51 AM	Container-01 of 0
Catcium	232,000		1	ug/L	5000	03/31/16 2:51 AM	Container-01 of
Chromium	2.30	J	1	ug/L	10.0	03/31/16 2:51 AM	Container-01 of (
Cobalt	6.80	J	1	ug/L	50.0	03/31/16 2:51 AM	Container-01 of (
Copper	3.20	J	1	ug/L	25.0	03/31/16 2:51 AM	Container-01 of
ron	5,240		1	ug/L	100	03/31/16 2:51 AM	Container-01 of
Lead	7.71		1	ug/L	3.00	03/31/16 2:51 AM	Container-01 of
Magnesium	110,000		1	ug/L	5000	03/31/16 2:51 AM	Container-01 of
Manganese	322		1	ug/L	15.0	03/31/16 2:51 AM	Container-01 of
Nickel	11.9	J	1	ug/L	40.0	03/31/16 2:51 AM	Container-01 of
Potassium	2,180	J	1	ug/L	5000	03/31/16 2:51 AM	Container-01 of
Selenium	< 5.00		1	ug/L	5.00	03/31/16 2:51 AM	Container-01 of
Silver	< 10.0		1	ug/L	10.0	03/31/16 2:51 AM	Container-01 of
Sodium	10,600		1	ug/L	5000	03/31/16 2:51 AM	Container-01 of
Thallium	< 10.0		1	ug/L	10.0	03/31/16 2:51 AM	Container-01 of
Vanadium	2.90	J	1	ug/L	50.0	03/31/16 2:51 AM	Container-01 of
Zinc	5.10	J	1	ug/L	20.0	03/31/16 2:51 AM	Container-01 of

08	D	2				
	_	~	mg/L	2.00	03/31/16 3:04 PM	Container-01 of 01
						Analyst: bka
Results	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
0.50		1	mg/L	0.50	03/30/16 1:21 AM	Container-01 of 01
	Results 0.50		Results Qualifier D.F.	Results Qualifier D.F. Units	Results Qualifier D.F. Units PQL	Results Qualifier D.F. Units PQL Analyzed:

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

4/1/2016

Project Manager: Caitlin Panzarella

Cathlin Panzarella

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 13 of 76





575 Broad Hollow Road , Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

AT07073

Pace Analytical Services Inc.

2190 Technology Drive Schenectady, NY 12308

Attn To: William A. Kotas

Collected :3/24/2016 9:06:00 AM Received :3/25/2016 10:20:00 AM

Collected By CLIENT

LABORATORY RESULTS

Results are only 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 tests requested.

Lab No. : 1603K41-005

Client Sample ID: MW-3N

Sample Information:

Type: Aqueous

Origin:

Analytical Method: SW8250C:	Prep Method:	5030C					Anatyst: BL
Parameter(s)	<u>Results</u>	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
1,1,1,2-Tetrachloroethane	< 5.0		1	μg/L	5.0	03/29/16 12:56 AM	Container-03 of 0
1,1,1-Trichloroethane	< 5.0		1	μg/L	5.0	03/29/16 12:56 AM	Container-03 of 0
1,1,2,2-Tetrachloroethane	< 5.0		1	µg/L	5.0	03/29/16 12:56 AM	Container-03 of 0
1,1,2-Trichloroethane	< 5.0		1	μg/L	5.0	03/29/16 12:56 AM	Container-03 of 0
1,1-Dichloroethane	3.2	J	1	µg/L	5.0	03/29/16 12:56 AM	Container-03 of 0
1,1-Dichloroethene	< 5.0		1	μg/L	5.0	03/29/16 12:56 AM	Container-03 of 0
1,2,3-Trichloropropane	< 5.0		1	μg/L	5.0	03/29/16 12:56 AM	Container-03 of 0
1,2-Dibromo-3-chloropropane	< 5.0		1	μg/L	5.0	03/29/16 12:56 AM	Container-03 of 0
1,2-Dibromoethane	< 5.0		1	μg/L	5.0	03/29/16 12:56 AM	Container-03 of 0
1,2-Dichlorobenzene	< 5.0		1	μg/L	5.0	03/29/16 12:56 AM	Container-03 of 0
1,2-Dichloroethane	< 5.0		1	μg/L	5.0	03/29/16 12:56 AM	Container-03 of 0
1,2-Dichloropropane	< 5.0		1	μg/L	5.0	03/29/16 12:56 AM	Container-03 of 0
1,4-Dichlorobenzene	< 5.0		1	µg/L	5.0	03/29/16 12:56 AM	Container-03 of 0
2-Butanone	< 5.0		1	μg/L	5.0	03/29/16 12:56 AM	Container-03 of 0
2-Hexanone	< 5.0	S	1	μg/L	5.0	03/29/16 12:56 AM	Container-03 of 0
4-Methyl-2-pentanone	< 5.0		1	µg/L	5.0	03/29/16 12:56 AM	Container-03 of 0
Acetone	< 5.0		1	μg/L	5.0	03/29/16 12:56 AM	Container-03 of 0
Acrylonitrile	< 5.0		1	μg/L	5.0	03/29/16 12:56 AM	Container-03 of 0
Benzene	< 5.0		1	μg/L	5.0	03/29/16 12:56 AM	Container-03 of 0
Bromochloromethane	< 5.0		1	μg/L	5.0	03/29/16 12:56 AM	Container-03 of 0
Bromodichloromethane	< 5.0		1	µg/L	5.0	03/29/16 12:56 AM	Container-03 of 0
Bromoform	< 5.0		1	µg/L	5.0	03/29/16 12:56 AM	Container-03 of 0
Bromomethane	< 5.0		1	μg/L	5.0	03/29/16 12:56 AM	Container-03 of 0
Carbon disulfide	< 5.0		1	μg/L	5.0	03/29/16 12:56 AM	Container-03 of 0
Carbon tetrachloride	< 5.0		1	µg/l_	5.0	03/29/16 12:56 AM	Container-03 of 0
Chlorobenzene	< 5.0	S	1	µg/L	5.0	03/29/16 12:56 AM	Container-03 of 0
Chloroethane	2.3	Jc	1	µg/L	5.0	03/29/16 12:56 AM	Container-03 of 0
Chloroform	< 5.0		1	µg/L	5.0	03/29/16 12:56 AM	Container-03 of 0
Chloromethane	< 5.0		1	μg/L	5.0	03/29/16 12:56 AM	Container-03 of (
cis-1,2-Dichloroethene	2.9	J	1	μg/L	5.0	03/29/16 12:56 AM	Container-03 of (
cis-1,3-Dichloropropene	< 5.0		1	μg/L	5.0	03/29/16 12:56 AM	Container-03 of (
Dibromochloromethane	< 5.0		1	μg/L	5.0	03/29/16 12:56 AM	Container-03 of (

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

4/1/2016

Cathlin Panzarella

Project Manager: Caitlin Panzarella

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 11 of 76





TEL: (631) 694-3040 FAX: (631) 420-8436 NYSDOH ID#10478 www.pacelaba.com

Pace Analytical Services Inc. 2190 Technology Drive

Schenectady, NY 12308 Attn To:

William A. Kotas

Collected :3/24/2016 9:06:00 AM Received

:3/25/2016 10:20:00 AM

AT07073

Collected By CLIENT

LABORATORY RESULTS

Results are only 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 tests requested.

Lab No. : 1603K41-005

Client Sample ID: MW-3N

Sample Information:

Type: Aqueous

Origin:

Analytical Method: SW8260C:	Prep Method:	5030C						Analyst: BL
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>		Analyzed:	Container.
Dibromomethane	< 5.0		1	μg/L	5.0		03/29/16 12:56 AM	Container-03 of 03
Ethylbenzene	< 5.0		1	µg/L	5.0		03/29/16 12:56 AM	Container-03 of 03
lodomethane	< 5.0	С	1	µg/L	5.0		03/29/16 12:56 AM	Container-03 of 03
Methylene chloride	< 5.0		1	μg/L	5.0		03/29/16 12:56 AM	Container-03 of 03
Styrene	< 5.0		1	µg/L	5.0		03/29/16 12:56 AM	Container-03 of 03
Tetrachloroethene	< 5.0		1	µg/L	5.0		03/29/16 12:56 AM	Container-03 of 03
Toluene	< 5.0		1	μg/L	5.0		03/29/16 12:56 AM	Container-03 of 03
trans-1,2-Dichloroethene	< 5.0		1	µg/L	5.0		03/29/16 12:56 AM	Container-03 of 03
trans-1,3-Dichloropropene	< 5.0		1	µg/L	5.0		03/29/16 12:56 AM	Container-03 of 03
trans-1,4-Dichloro-2-butene	< 5.0	cS	1	µg/L	5.0		03/29/16 12:56 AM	Container-03 of 03
Trichloroethene	< 5.0		1	μg/L	5.0		03/29/16 12:56 AM	Container-03 of 03
Trichlorofluoromethane	< 5.0		1	μg/L	5.0		03/29/16 12:56 AM	Container-03 of 03
Vinyl acetate	< 5.0		1	μg/L	5.0		03/29/16 12:56 AM	Container-03 of 03
Vinyl chloride	< 5.0		1	µg/L	5.0		03/29/16 12:56 AM	Container-03 of 03
Xylene (total)	< 5.0		1	µg/L	5.0		03/29/16 12:56 AM	Container-03 of 03
Surr: 1,2-Dichloroethane-d4	100		1	%Rec		Limit 79-116	03/29/16 12:56 AM	Container-03 of 0
Surr: 4-Bromofluorobenzene	91.1		1	%Rec		Limit 79-122	03/29/16 12:56 AM	Container-03 of 0
Surr: Toluene-d8	90.9		1	%Rec		Limit 69-125	03/29/16 12:56 AM	Container-03 of 0

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

4/1/2016

Cathlin Panzarella

Project Manager: Caitlin Panzarella

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 76





Job Number: 16030528

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

Phone: 518.346.4592 Fax: 518,381.6055

Client: BARTON AND LOGUIDICE

Project: ELF QUARTERLY Client Sample ID: MW-4N

Lab Sample ID: 16030528-07 (AT07075)

Collection Date: 03/24/2016 11:15

Sample Matrix: WATER

Received Date: 03/24/2016 14:35

Percent Solid: N/A

Batch ID Method		_	Date A		Init Wt./Vol. Fi	nal Vol.	Column
Analysis 1: Field Test	Field Analysis	03	3/24/2016 13:45	MEB	NA	NA	NA
Analyte	CAS No.	Result		PQL	Dilution Factor	Flags	File ID
pH (\$)	NA	7.14 (pH)	0.00	1.00		Field Test
Reduction Potential (\$)	NA	-3.00 (mV)	0.00	1.00		Field Test
Specific Conductance (\$)	NA	765 (umhos/cn	0.00	1.00		Field Test
Temperature (\$)	NA	6.70 (°C)	0.00	1.00		Field Test
Turbidity (\$)	NA	9.77 (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.



TEL: (631) 694-3040 FAX: (631) 420-8436 NYSDOH ID#10478 www.pacelabs.com

AT07076

Pace Analytical Services Inc. 2190 Technology Drive

Schenectady, NY 12308

Attn To:

William A. Kotas

Collected :3/24/2016 1:45:00 PM Received

:3/25/2016 10:20:00 AM

LABORATORY RESULTS

Results are only 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 tests requested.

Lab No. : 1603K41-008

Client Sample ID: MW-4N

Sample Information:

Type: Aqueous

Origin:

Analytical Method: E300.0:				14-14-	501	Analyzed:	Analyst: bka
Parameter(s)	Results	Qualifier	D.F.	<u>Units</u>	PQL	03/30/16 1:34 AM	Container: Container-01 of 0
Chloride	3.18 17.4		1	mg/L	2.00 5.00	03/30/16 1:34 AM 03/30/16 1:34 AM	Container-01 of 0
Sulfate	17.4		1	mg/L	5.00	03/30/10 1.34 AIN	Container-or or o
Analytical Method: SM22 4500-CN E :	Prep Method:	SM4500-CN	E		Preo Da	te; 03/30/16	Analyst: JDLR
Parameter(s)	Resuits	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed;	Container:
Cyanide	< 10	.	1	μg/L	10	03/30/16 3:49 PM	Container-01 of 0
Analytical Method; E410.4:							Analyst: VaS
Parameter(s)	Results	Qualifier	D.F.	<u>Units</u>	PQL	Analyzed:	Container.
Chemical Oxygen Demand	< 10.0		1	mg/L	10.0	03/28/16 11:40 AM	Container-01 of 0
Analytical Method: SM22 2120B : IOC						<u> </u>	Analyst: MLa
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
Color	10.0		1	units	5.00	03/26/16 7:45 AM	Container-01 of 0
Color pH	6.50	+	1	units	0	03/26/16 7:45 AM	Container-01 of 0
NOTES: True Color							
Analytical Method: E200.7:							Analyst: CGZ
Parameter(s)	Results	Qualifier	D.F.	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
Hardness, Calcium (As CaCO3)	323,000		1	ug/L	0.500	03/31/16 2:57 AM	Container-01 of 0
Hardness, Magnesium (As CaCO3)	157,000		1	ug/L	0.800	03/31/16 2:57 AM	Container-01 of 0
Analytical Method: SW7470A:	Prep Method:	SW7470			Prep Dr	ate: 03/30/16	Analyst: BC
Parameter(s)	<u>Results</u>	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
Mercury	< 0.200		1	ug/L	0.200	03/30/16 9:37 AM	Container-01 of 0
Analytical Method: SM22 4500-NH3 H							Analyst: bka
Parameter(s)	Results	Qualifier	D.F.	<u>Units</u>	PQL	Analyzed.	Container,

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

4/1/2016

Cathlin Panzarella Project Manager: Caitlin Panzarella

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 19 of 76





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

:3/24/2016 1:45:00 PM Collected Received

AT07076 :3/25/2016 10:20:00 AM

Collected By CLIENT

LABORATORY RESULTS

Results are only 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 tests requested

Sample Information:

Type: Aqueous

Origin:

Analytical Method; SM22 4500-NH3 H	:						Analyst: bka
Parameter(s)	Results	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	PQL	Analyzed:	Container:
Nitrogen, Ammonia (As N)	0.11		1	mg/L	0.10	03/30/16 1:15 PM	Container-01 of 01
Analytical Method: SM22 2540C : IOC							Analyst: SH2
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	PQL	Analyzed:	Container:
Total Dissolved Solids	501		1	mg/L	10	03/29/16 2:47 PM	Container-01 of 01
Analytical Method: E351.2:	Prep Method:	E351.2				Prep Date: 03/29/16	Analyst; SO
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	PQL	Analyzed:	Container:
Nitrogen, Kjeldahl, Total	0.34		1	mg/L	0.10	03/29/16 4:13 PM	Container-01 of 0

Lab No. : 1603K41-008

Client Sample ID: MW-4N

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

4/1/2016

Cathlin Panzarella

Project Manager: Caitlin Panzarella

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 20 of 76





Job Number: 16030528

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF QUARTERLY Client Sample ID: MW-4N

Lab Sample ID: 16030528-08 (AT07076)

Collection Date: 03/24/2016 13:45

Sample Matrix: WATER

Received Date: 03/24/2016 14:35

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	80	SW-846 7196A	03/24/2016 18:29	JS	NA	NA	NA
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Facto	r Flags	File ID
Hexavalent Chr	omium	18540-29-9	ND	0.0400	1.02	U	180

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

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





Job Number: 16030528

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

Schenectady, NY 12308 Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF QUARTERLY Client Sample ID: MW-4N

Lab Sample ID: 16030528-08 (AT07076)

Collection Date: 03/24/2016 13:45

Sample Matrix: WATER

Received Date: 03/24/2016 14:35

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	454	Nitrate - 353.2	03/25/2016 15:23	JS	NA	NA	NA
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Facto	or Flags	File ID
Nitrate		NA	ND	0.165	1.00	U	454

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

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





Job Number: 16030528

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF QUARTERLY Client Sample ID: MW-4N

Lab Sample ID: 16030528-08 (AT07076)

Collection Date: 03/24/2016 13:45

Sample Matrix: WATER

Received Date: 03/24/2016 14:35

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column	
Analysis 1:	600	BOD SM5210B	03/25/2016 11:35	KM	NA	NA	NA	
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Fact	or Flags	File ID	
Biochemical	Oxygen Dema	nd NA	4,3	2.0	1.00	B4	600	

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

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

B4 - The glucose/glutamic acid standard exceeded the range of 198 plus or minus 30.5 mg/L.





Job Number: 16030528

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF QUARTERLY Client Sample ID: MW-4N

Lab Sample ID: 16030528-08 (AT07076)

Collection Date: 03/24/2016 13:45

Sample Matrix: WATER

Received Date: 03/24/2016 14:35

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	875	SM 5310B	03/29/2016 19:33	JS	NA	NA	NA
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Fact	or Flags	File ID
Total Organic C	Carbon	OC002	5.21	1.00	1.00		875

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

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

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:

Pace Analytical Services - NY

Project:

16030528

Sample Matrix:

Water

Sample Name:

Lab Code:

MW-4N

Service Request: R1602751 **Date Collected: 3/24/16 1345**

Date Received: 3/25/16

R1602751-004

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor		Date Analyzed	Note
Phenolics, Total Recoverable	420.4	0.0020 U	mg/L	0.0020	I	NA	3/29/16 10:30	

16-0000370131 rev 00

SuperSet Reference:



575 Broad Hollow Road , Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8438
NYSDOH ID#10478 www.oacelabs.com

AT07076

Pace Analytical Services Inc.

2190 Technology Drive Schenectady, NY 12308

Schenectady, NY 12308
Attn To: William A. Kotas

Collected :3/24/2016 1:45:00 PM

Received :3/25/2016 10:20:00 AM

Collected By CLIENT

LABORATORY RESULTS

Results are only 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 tests requested.

Lab No. : 1603K41-008

Client Sample ID: MW-4N

Sample Information:

Type: Aqueous

Origin:

Analytical Method: E200.7:	Prep Method:	E200.7			Prep D	ate: 03/28/16	Analyst: CGZ
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	<u>Container.</u>
Aluminum	122	J	1	ug/L	200	03/31/16 2:57 AM	Container-01 of 01
Antimony	< 60.0		1	ug/L	60.0	03/31/16 2:57 AM	Container-01 of 01
Arsenic	7.68	J	1	ug/L	10.0	03/31/16 2:57 AM	Container-01 of 01
Barium	76.1	J	1	ug/L	200	03/31/16 2:57 AM	Container-01 of 0
Beryllium	< 5.00		1	ug/L	5.00	03/31/16 2:57 AM	Container-01 of 01
Boron	29.5	J	1	ug/L	500	03/31/16 2:57 AM	Container-01 of 0
Cadmium	0.200	J	1	ug/L	5.00	03/31/16 2:57 AM	Container-01 of 0
Calcium	129,000		1	ug/L	5000	03/31/16 2:57 AM	Container-01 of 0
Chromium	2.50	J	1	ug/L	10.0	03/31/16 2:57 AM	Container-01 of 0
Cobalt	< 50.0		1	ug/L	50.0	03/31/16 2:57 AM	Container-01 of 0
Copper	2.30	J	1	ug/L	25.0	03/31/18 2:57 AM	Container-01 of 0
Iron	3,140		1	ug/L	100	03/31/16 2:57 AM	Container-01 of 0
Lead	3.93		1	ug/L	3.00	03/31/16 2:57 AM	Container-01 of 0
Magnesium	38,100		1	ug/L	5000	03/31/16 2:57 AM	Container-01 of 0
Manganese	1,110		1	ug/L	15.0	03/31/16 2:57 AM	Container-01 of 0
Nickel	2.00	J	1	ug/L	40.0	03/31/16 2:57 AM	Container-01 of 0
Potassium	1,600	J	1	ug/L	5000	03/31/16 2:57 AM	Container-01 of 0
Selenium	< 5.00		1	ug/L	5.00	03/31/16 2:57 AM	Container-01 of 0
Silver	< 10.0		1	ug/L	10.0	03/31/16 2:57 AM	Container-01 of 0
Sodium	12,000		1	ug/L	5000	03/31/16 2:57 AM	Container-01 of 0
Thallium	< 10.0		1	ug/L	10.0	03/31/16 2:57 AM	Container-01 of 0
Vanadium	< 50.0		1	ug/L	50.0	03/31/16 2:57 AM	Container-01 of 0
Zinc	5.50	J	1	ug/L	20.0	03/31/16 2:57 AM	Container-01 of 0

Analytical Method: SM22 2320B :							Analyst: JDLR
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed;	Container.
Alkalinity, Total (As CaCO3)	473	D	2	mg/L	2.00	03/31/16 3:15 PM	Container-01 of 01
Analytical Method: E300.0:		<u>-</u>					Analyst: bka
Parameter(s)	Results	Qualifier	D.F.	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
Bromide	< 0.50		1	mg/L	0.50	03/30/16 1:34 AM	Container-01 of 01

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

4/1/2016

Cathlin Pangarella
Project Manager: Caitlin Panzarella

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 18 of 76



TEL: (631) 694-3040 FAX: (631) 420-8436 NYSDOH ID#10478 www.pacelabs.com

Pace Analytical Services Inc.

2190 Technology Drive Schenectady, NY 12308

William A. Kotas

Collected :3/24/2016 11:15:00 AM Received

AT07075 :3/25/2016 10:20:00 AM

Collected By CLIENT

Attn To:

LABORATORY RESULTS

Results are only 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 tests requested.

Lab No. : 1603K41-007

Client Sample ID: MW-4N

Sample Information:

Type: Aqueous

Origin:

Analytical Method: SW8260C:	Prep Method:	5030C					Analyst: BL
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container
,1,1,2-Tetrachloroethane	< 5.0		1	µg/L	5.0	03/29/16 1:18 AM	Container-01 of
,1,1-Trichloroethane	< 5.0		1	μg/L	5.0	03/29/16 1:18 AM	Container-01 of
,1,2,2-Tetrachloroethane	< 5.0		1	μg/L	5.0	03/29/16 1:18 AM	Container-01 of
,1,2-Trichloroethane	< 5.0		1	μg/L	5.0	03/29/16 1:18 AM	Container-01 of
,1-Dichloroethane	< 5.0		1	μg/L	5.0	03/29/16 1:18 AM	Container-01 of
_1-Dichloroethene	< 5.0		1	µg/L	5.0	03/29/16 1:18 AM	Container-01 of
1,2,3-Trichloropropane	< 5.0		1	μg/L	5.0	03/29/16 1:18 AM	Container-01 of
,2-Dibromo-3-chloropropane	< 5.0		1	µg/L	5.0	03/29/16 1:18 AM	Container-01 of
1,2-Dibromoethane	< 5.0		1	µg/L	5.0	03/29/16 1:18 AM	Container-01 of
1,2-Dichlorobenzene	< 5.0		1	μg/L	5.0	03/29/16 1:18 AM	Container-01 of
1,2-Dichloroethane	< 5.0		1	μg/L	5.0	03/29/16 1:18 AM	Container-01 of
1,2-Dichloropropane	< 5.0		1	μg/L	5.0	03/29/16 1:18 AM	Container-01 of
,4-Dichlorobenzene	< 5.0		1	µg/L	5.0	03/29/16 1:18 AM	Container-01 of
2-Butanone	< 5.0		1	μg/L	5.0	03/29/16 1:18 AM	Container-01 of
2-Hexanone	< 5.0	S	1	μg/L	5.0	03/29/16 1:18 AM	Container-01 of
4-Methyl-2-pentanone	< 5.0		1	μg/L	5.0	03/29/16 1:18 AM	Container-01 of
Acetone	1.0	J	1	μg/L	5.0	03/29/16 1:18 AM	Container-01 of
Acrylonitrile	< 5.0		1	μg/L	5.0	03/29/16 1:18 AM	Container-01 of
Benzene	< 5.0		1	µg/L	5.0	03/29/16 1:18 AM	Container-01 of
Bromochloromethane	< 5.0		1	μg/L	5.0	03/29/16 1:16 AM	Container-01 of
Bromodichloromethane	< 5.0		1	μg/L	5.0	03/29/16 1:18 AM	Container-01 of
Bromoform	< 5.0		1	µg/L	5.0	03/29/16 1:18 AM	Container-01 of
Bromomethane	< 5.0		1	μg/L	5.0	03/29/16 1:18 AM	Container-01 of
Carbon disulfide	< 5.0		1	μg/L	5.0	03/29/16 1:18 AM	Container-01 of
Carbon tetrachloride	< 5.0		1	μg/L	5.0	03/29/16 1:18 AM	Container-01 o
Chlorobenzene	< 5.0	S	1	μg/L	5.0	03/29/16 1:18 AM	Container-01 o
Chloroethane	< 5.0	С	1	µg/L	5.0	03/29/16 1:18 AM	Container-01 o
Chloroform	< 5.0		1	µg/L	5.0	03/29/16 1:18 AM	Container-01 o
Chloromethane	< 5.0		1	μg/L	5.0	03/29/16 1:18 AM	Container-01 of
cis-1,2-Dichloroethene	< 5.0		1	μg/L	5.0	03/29/16 1:18 AM	Container-01 c
cis-1,3-Dichloropropene	< 5.0		1	μg/L	5.0	03/29/16 1:18 AM	Container-01 of
Dibromochloromethane	< 5.0		1	μg/L	5.0	03/29/16 1:18 AM	Container-01 c

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

4/1/2016

Cathlin Panzarella

Project Manager: Caitlin Panzarella

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 16 of 76





575 Broad Hollow Road , Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pscelabs.com

Pace Analytical Services Inc.

2190 Technology Drive Schenectady, NY 12308

Attn To:

William A. Kotas

Collected : 3/24/2016 11:15:00 AM Received : 3/25/2016 10:20:00 AM

AT07075

LABORATORY RESULTS

Results are only 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 tests requested.

Lab No. : 1603K41-007

Client Sample ID: MW-4N

Sample Information:

Type: Aqueous

Origin:

Analytical Method: SW8260C:	Prep Method:	5030C						Analyst: BL
Parameter(s)	Results	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>		Analyzed:	Container:
Dibromomethane	< 5.0		1	µg/L	5.0		03/29/16 1;18 AM	Container-01 of 03
Ethylbenzene	< 5.0		1	μg/L	5.0		03/29/16 1;18 AM	Container-01 of 03
lodomethane	< 5.0	С	1	μg/L	5.0		03/29/16 1:18 AM	Container-01 of 03
Methylene chloride	< 5.0		1	µg/L	5.0		03/29/16 1:18 AM	Container-01 of 03
Styrene	< 5.0		1	µg/L	5.0		03/29/16 1:18 AM	Container-01 of 03
Tetrachloroethene	< 5.0		1	μg/L	5.0		03/29/16 1:18 AM	Container-01 of 03
Toluene	< 5.0		1	µg/L	5.0		03/29/16 1:18 AM	Container-01 of 03
trans-1,2-Dichloroethene	< 5.0		1	μg/L	5.0		03/29/16 1:18 AM	Container-01 of 03
trans-1,3-Dichloropropene	< 5.0		1	μg/L	5.0		03/29/16 1:18 AM	Container-01 of 03
trans-1,4-Dichloro-2-butene	< 5.0	cS	1	μg/L	5.0		03/29/16 1:18 AM	Container-01 of 03
Trichloroethene	< 5.0		1	μg/L	5.0		03/29/16 1:18 AM	Container-01 of 03
Trichlorofluoromethane	< 5.0		1	µg/L	5.0		03/29/16 1:18 AM	Container-01 of 03
Vinyl acetate	< 5.0		1	μg/L	5.0		03/29/16 1:18 AM	Container-01 of 03
Vinyl chloride	< 5.0		1	μg/L	5.0		03/29/16 1:18 AM	Container-01 of 03
Xylene (total)	< 5.0		1	μg/L	5.0		03/29/16 1:18 AM	Container-01 of 03
Surr: 1,2-Dichloroethane-d4	101		1	%Rec		Limit 79-116	03/29/16 1:18 AM	Container-01 of 03
Surr: 4-Bromofluorobenzene	92.5		1	%Rec		Limit 79-122	03/29/16 1:18 AM	Container-01 of 03
Surr: Toluene-d8	91.2		1	%Rec		Limit 69-125	03/29/16 1:18 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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

4/1/2016

Cathlin Pangarella
Project Manager: Caitlin Panzarella

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 17 of 76





Job Number: 16030528

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF QUARTERLY Client Sample ID: MW-5N

Lab Sample ID: 16030528-09 (AT07077)

Collection Date: 03/24/2016 10:34

Sample Matrix: WATER

Received Date: 03/24/2016 14:35

Percent Solid: N/A

	Batch ID	Method		Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	Field Test	Field Analysis		03/24/2016 13:30	MEB	NA	NA	NA NA
Analyte		CAS No.	Resu	It	PQL	Dilution Facto	or Flags	File ID
pH (\$)		NA	7.65	(pH)	0.00	1.00		Field Test
Reduction P	otential (\$)	NA	252	(mV)	0.00	1.00		Field Test
Specific Cor	iductance (\$)	NA	410	(umhos/cn	0.00	1.00		Field Test
Temperature	(\$)	NA	5.70	(°C)	0.00	1.00		Field Test
Turbidity (\$		NA	2.49	(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.



TEL: (631) 694-3040 FAX: (631) 420-8436 NYSDOH ID#10478 www.pacelabs.com

AT07078

Pace Analytical Services Inc.

2190 Technology Drive Schenectady, NY 12308

> William A. Kotas :3/24/2016 10:34:00 AM

Collected Received :3/25/2016 10:20:00 AM

Attn To:

LABORATORY RESULTS

Results are only 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 tests requested.

Lab No. : 1603K41-010

Client Sample ID: MW-5N

Sample Information:

Type: Aqueous

Origin:

Analytical Method: E300.0:							Analyst: bka
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container.
Chloride	4,61	•••	1	mg/L	2.00	03/30/16 1:48 AM	Container-01 of 01
Sulfate	40.5		1	mg/L	5.00	03/30/16 1:48 AM	Container-01 of 01
Analytical Method: SM22 4500-CN E :	Prep Method:	SM4500-CN	E		Prep Dat	e; 03/30/16	Anaiyst; JDLR
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	PQL	Analyzed:	Container:
Cyanide	< 10		1	μg/L	10	03/30/16 3:52 PM	Container-01 of 01
Analytical Method: E410.4:							Analyst; VaS
Parameter(s)	Results	Qualifier	D.F.	<u>Units</u>	PQL	Analyzed:	Container:
Chemical Oxygen Demand	< 10,0		1	mg/L	10.0	03/28/16 11:42 AM	Container-01 of 0
Analytical Method: SM22 2120B : IOC							Analyst: MLa
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	<u>Container</u>
Color	5.00		1	units	5.00	03/26/16 7:45 AM	Container-01 of 0
Color pH	6.00	+	1	units	0	03/26/16 7;45 AM	Container-01 of 0
NOTES: True Color	_						
Analytical Method: E200 7:							Analyst: CGZ
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
Hardness, Calcium (As CaCO3)	171,000		1	ug/L	0.500	03/31/16 3:04 AM	Container-01 of 0
Hardness, Magnesium (As CaCO3)	60,200		1	ug/L	0.800	03/31/16 3:04 AM	Container-01 of 0
Analytical Method: SW7470A :	Prep Method:	SW7470			Prep Da	<u>ite;</u> 03/30/16	Analyst BC
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
Mercury	< 0.200		1	ug/L	0.200	03/30/16 9:38 AM	Container-01 of 0
Analytical Method: SM22 4500-NH3 H						<u></u>	Analyst bka
Parameter(s)	Results	Qualifier	D.F.	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

4/1/2016

Cathlin Panzarella Project Manager: Caitlin Panzarella

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 24 of 76

Pace Analytical"

575 Broad Hollow Road , Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8438
NYSDOH ID#10478 www.pacelabs.com

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

Attn To:

William A. Kotas

Collected :3/24/2016 10:34:00 AM Received :3/25/2016 10:20:00 AM

AT07078

LABORATORY RESULTS

Results are only for the samples and analytes requested.

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

Lab No. : 1603K41-010 Sample Information: Type : Aqueous

Client Sample ID: MW-5N

Origin:

Collected By CLIENT						
Analytical Method: SM22 4500-NH3 H	:					Analyst: bka
Parameter(s)	<u>Results</u>	<u>Qualifier</u>	D.F. Units	<u>PQL</u>	Analyzed:	Container:
Nitrogen, Ammonia (As N)	< 0.10	2,400	1 mg/L	0.10	03/30/16 1:16 PM	Container-01 of 01
Analytical Method: SM22 2540C : IOC						Analyst SH2
Parameter(s)	<u>Results</u>	Qualifier	D.F. Units	<u>PQL</u>	Analyzed:	Container:
Total Dissolved Solids	255		1 mg/L	10	03/29/16 2:47 PM	Container-01 of 01
Analytical Method; E351.2:	Prep Method:	E351.2		Pı	rep Date: 03/29/16	Analyst; SO
Parameter(s)	<u>Results</u>	Qualifier	D.F. Units	PQL	Analyzed:	Container:
Nitrogen, Kjeldahl, Total	< 0.10		1 mg/L	0.10	03/29/16 4:14 PM	Container-01 of 01

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

4/1/2016

Cathlen Pangarella
Project Manager: Caitlin Panzarella

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 25 of 76





Job Number: 16030528

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF QUARTERLY Client Sample ID: MW-5N

Lab Sample ID: 16030528-10 (AT07078)

Collection Date: 03/24/2016 13:30

Sample Matrix: WATER

Received Date: 03/24/2016 14:35

Percent Solid: N/A

1	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1: 1	80	SW-846 7196A	03/24/2016 18:30	JS	NA	NA	NA.
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Fact	or Flags	File ID
Hexavalent Chro	omium	18540-29-9	ND	0.0400	1.02	U	180

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

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





Job Number: 16030528

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF QUARTERLY Client Sample ID: MW-5N

Lab Sample ID: 16030528-10 (AT07078)

Collection Date: 03/24/2016 13:30

Sample Matrix: WATER

Received Date: 03/24/2016 14:35

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column	
Analysis 1:	454	Nitrate - 353.2	03/25/2016 15:25	JS	NA	NA	NA	
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Facto	r Flags	File ID	
Nitrate		NA	ND	0,165	1.00	U	454	

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

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





Job Number: 16030528

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF QUARTERLY Client Sample ID: MW-5N

Lab Sample ID: 16030528-10 (AT07078)

Collection Date: 03/24/2016 13:30

Sample Matrix: WATER

Received Date: 03/24/2016 14:35

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	600	BOD SM5210B	03/25/2016 11:39	KM	NA	NA	NA
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Facto	r Flags	File ID
Biochemical	Oxygen Dema	nd NA	ND	2.0	1.00	B4	600

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

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

B4 - The glucose/glutamic acid standard exceeded the range of 198 plus or minus 30.5 mg/L.





Job Number: 16030528

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF QUARTERLY Client Sample ID: MW-5N

Lab Sample ID: 16030528-10 (AT07078)

Collection Date: 03/24/2016 13:30

Sample Matrix: WATER

Received Date: 03/24/2016 14:35

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	875	SM 5310B	03/29/2016 19:49	JS	NA	NA	NA .

Analyte	CAS No.	Result (mg/L)	PQL	Dilution Factor	Flags	File ID	
Total Organic Carbon	OC002	1.58	1.00	1.00		875	

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

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

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:

Pace Analytical Services - NY

Project:

16030528

Sample Matrix:

Water

Sample Name:

Lab Code:

MW-5N R1602751-005

Service Request: R1602751

Date Collected: 3/24/16 1330

Date Received: 3/25/16

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Date Factor Extract	Date d Analyzed	Note
Phenolics, Total Recoverable	420.4	0.0020 U	mg/L	0.0020	1 NA	3/29/16 10:30)

16-0000370131 rev 00

SuperSet Reference:

\\alprews001\starlims\$\LIMSReps\AnalyticalReport.rpt



TEL: (631) 694-3040 FAX: (631) 420-8436 NYSDOH ID#10478 www.pacelebs.com

Pace Analytical Services Inc.

2190 Technology Drive Schenectady, NY 12308

Attn To:

William A. Kotas

Collected :3/24/2016 10:34:00 AM Received

:3/25/2016 10:20:00 AM

AT07078

Collected By CLIENT

LABORATORY RESULTS

Results are only 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 tests requested.

Lab No.: 1603K41-010

Client Sample ID: MW-5N

Sample Information:

Type: Aqueous

Origin:

Analytical Method: E200.7:	Prep Method:	E200.7			Prep Di	ate; 03/28/16	Analyst: CGZ
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
Aluminum	31.4	J	1	ug/L	200	03/31/16 3:04 AM	Container-01 of 0
Antimony	< 60.0		1	ug/L	60.0	03/31/16 3:04 AM	Container-01 of 0
Arsenic	< 10.0		1	ug/L	10.0	03/31/16 3:04 AM	Container-01 of 0
Barium	7.40	J	1	ug/L	200	03/31/16 3:04 AM	Container-01 of 0
Beryllium	< 5.00		1	ug/L	5.00	03/31/16 3:04 AM	Container-01 of 0
Boron	< 500		1	ug/L	500	03/31/16 3:04 AM	Container-01 of 0
Cadmium	< 5.00		1	ug/L	5.00	03/31/16 3:04 AM	Container-01 of 0
Calcium	68,500		1	ug/L	5000	03/31/16 3:04 AM	Container-01 of 0
Chromium	1.80	J	1	ug/L	10.0	03/31/16 3:04 AM	Container-01 of 0
Cobalt	< 50.0		1	ug/L	50.0	03/31/16 3;04 AM	Container-01 of 0
Copper	< 25.0		1	ug/L	25.0	03/31/16 3:04 AM	Container-01 of 0
Iron	32.6	J	1	ug/L	100	03/31/16 3:04 AM	Container-01 of 0
Lead	2.25	J	1	ug/L	3.00	03/31/16 3:04 AM	Container-01 of 0
Magnesium	14,600		1	ug/L	5000	03/31/16 3:04 AM	Container-01 of 0
Manganese	2.60	J	1	ug/L	15.0	03/31/16 3:04 AM	Container-01 of 0
Nickel	< 40.0		1	ug/L	40.0	03/31/16 3:04 AM	Container-01 of 0
Potassium	< 5,000		1	ug/L	5000	03/31/16 3:04 AM	Container-01 of 0
Selenium	< 5.00		1	ug/L	5.00	03/31/16 3:04 AM	Container-01 of 0
Silver	< 10.0		1	ug/L	10.0	03/31/16 3:04 AM	Container-01 of 0
Sodium	3,540	J	1	ug/L	5000	03/31/16 3:04 AM	Container-01 of 0
Thallium	< 10.0		1	ug/L	10.0	03/31/16 3:04 AM	Container-01 of 0
Vanadium	< 50.0		1	ug/L	50.0	03/31/16 3:04 AM	Container-01 of 0
Zinc	< 20.0		1	ug/L	20.0	03/31/16 3:04 AM	Container-01 of 0

Analytical Method: SM22 2320B :							Analyst: JDLR
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
Alkalinity, Total (As CaCO3)	212	D	2	mg/L	2.00	03/31/16 3:38 PM	Container-01 of 01
Analytical Method; E300.0:							Analyst: bka
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
Bromide	< 0.50		1	mg/L	0.50	03/30/16 1:48 AM	Container-01 of 01

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

4/1/2016

Cathlin Panzarella Project Manager: Caitlin Panzarella

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 23 of 76





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 Received

:3/24/2016 1:45:00 PM

:3/25/2016 10:20:00 AM

AT07077

LABORATORY RESULTS

Results are only 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 tests requested.

Lab No. : 1603K41-009

Client Sample ID: MW-5N

Sample Information:

Type: Aqueous

Origin:

Analytical Method: SW8260C:	Prep Method:	5030C					Analyst: BL
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
1,1,1,2-Tetrachloroethane	< 5.0		1	μg/L	5.0	03/29/16 1:40 AM	Container-01 of 0
1,1,1-Trichloroethane	< 5.0		1	μg/L	5.0	03/29/16 1:40 AM	Container-01 of 0
1,1,2,2-Tetrachloroethane	< 5.0		1	μg/L	5.0	03/29/16 1:40 AM	Container-01 of 0
1,1,2-Trichloroethane	< 5.0		1	μg/L	5.0	03/29/16 1:40 AM	Container-01 of 0
1,1-Dichloroethane	< 5.0		1	μg/L	5.0	03/29/16 1:40 AM	Container-01 of 0
1,1-Dichloroethene	< 5.0		1	μg/L	5.0	03/29/16 1:40 AM	Container-01 of 0
1,2,3-Trichloropropane	< 5.0		1	μg/L	5.0	03/29/16 1:40 AM	Container-01 of 0
1,2-Dibromo-3-chloropropane	< 5.0		1	µg/L	5.0	03/29/16 1:40 AM	Container-01 of 0
1,2-Dibromoethane	< 5.0		1	μg/L	5.0	03/29/16 1:40 AM	Container-01 of 0
1,2-Dichlorobenzene	< 5.0		1	μg/L	5.0	03/29/16 1:40 AM	Container-01 of 0
1,2-Dichloroethane	< 5.0		1	µg/L	5.0	03/29/16 1:40 AM	Container-01 of 0
1,2-Dichloropropane	< 5.0		1	µg/L	5.0	03/29/16 1:40 AM	Container-01 of 0
1,4-Dichlorobenzene	< 5.0		1	μg/L	5.0	03/29/16 1:40 AM	Container-01 of 0
2-Butanone	< 5.0		1	μg/L	5.0	03/29/16 1:40 AM	Container-01 of 0
2-Hexanone	< 5.0	S	1	µg/L	5.0	03/29/16 1:40 AM	Container-01 of 0
4-Methyl-2-pentanone	< 5.0		1	μg/L	5.0	03/29/16 1:40 AM	Container-01 of 0
Acetone	< 5.0		1	µg/L	5.0	03/29/16 1:40 AM	Container-01 of 0
Acrylonitrile	< 5.0		1	µg/L	5.0	03/29/16 1:40 AM	Container-01 of 0
Benzene	< 5.0		1	μg/L	5.0	03/29/16 1:40 AM	Container-01 of 0
Bromochloromethane	< 5.0		1	µg/L	5.0	03/29/16 1:40 AM	Container-01 of (
Bromodichloromethane	< 5.0		1	µg/L	5.0	03/29/16 1:40 AM	Container-01 of (
Bromoform	< 5.0		1	μg/L	5.0	03/29/16 1:40 AM	Container-01 of (
Bromomethane	< 5.0		1	μg/L	5.0	03/29/16 1:40 AM	Container-01 of (
Carbon disulfide	< 5.0		1	µg/L	5.0	03/29/16 1:40 AM	Container-01 of
Carbon tetrachloride	< 5.0		1	μg/L	5.0	03/29/16 1:40 AM	Container-01 of
Chlorobenzene	< 5,0	S	1	μg/L	5.0	03/29/16 1:40 AM	Container-01 of
Chloroethane	< 5,0	С	1	μg/L	5.0	03/29/16 1:40 AM	Container-01 of
Chloroform	< 5.0		1	µg/L	5.0	03/29/16 1:40 AM	Container-01 of
Chloromethane	< 5.0		1	µg/L	5.0	03/29/16 1:40 AM	Container-01 of
cis-1,2-Dichloroethene	< 5.0		1	μg/L	5.0	03/29/16 1:40 AM	Container-01 of
cis-1,3-Dichloropropene	< 5.0		1	μg/L	5.0	03/29/16 1:40 AM	Container-01 of
Dibromochloromethane	< 5.0		1	µg/L	5.0	03/29/16 1:40 AM	Container-01 of

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

4/1/2016

Cathlin Panzarella

Project Manager: Caitlin Panzarella

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 21 of 76





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

:3/24/2016 1:45:00 PM Collected Received

AT07077 :3/25/2016 10:20:00 AM

Collected By CLIENT

LABORATORY RESULTS

Results are only 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 tests requested

Lab No.: 1603K41-009

Client Sample ID: MW-5N

Sample Information:

Type: Aqueous

Origin:

Analytical Method: SW8260C:	Prep Method:	5030C						Analyst: BL
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	PQL		Analyzed:	<u>Container:</u>
Dibromomethane	< 5.0		1	μg/L	5.0		03/29/16 1:40 AM	Container-01 of 0
Ethylbenzene	< 5.0		1	μg/L	5.0		03/29/16 1:40 AM	Container-01 of 0
lodomethane	< 5.0	C	1	μg/L	5.0		03/29/16 1:40 AM	Container-01 of 0
Methylene chloride	< 5.0		1	μg/L	5.0		03/29/16 1:40 AM	Container-01 of 0
Styrene	< 5.0		1	μg/L	5.0		03/29/16 1:40 AM	Container-01 of 0
Tetrachloroethene	< 5.0		1	µg/L	5.0		03/29/16 1:40 AM	Container-01 of 0
Toluene	< 5.0		1	μg/L	5.0		03/29/16 1:40 AM	Container-01 of 0
trans-1,2-Dichloroethene	< 5.0		1	μg/L	5.0		03/29/16 1:40 AM	Container-01 of 0
trans-1,3-Dichloropropene	< 5.0		1	μg/L	5.0		03/29/16 1:40 AM	Container-01 of 0
trans-1,4-Dichloro-2-butene	< 5.0	cS	1	μg/L	5.0		03/29/16 1:40 AM	Container-01 of 0
Trichloroethene	< 5.0		1	μg/L	5.0		03/29/16 1:40 AM	Container-01 of 0
Trichlorofluoromethane	< 5.0		1	μg/L	5.0		03/29/16 1:40 AM	Container-01 of 0
Vinyl acetate	< 5.0		1	μg/L	5.0		03/29/16 1:40 AM	Container-01 of 0
Vinyl chloride	< 5.0		1	μg/L	5.0		03/29/16 1:40 AM	Container-01 of 0
Xylene (total)	< 5.0		1	μg/L	5.0		03/29/16 1:40 AM	Container-01 of 0
Surr: 1,2-Dichloroethane-d4	101		1	%Rec		Limit 79-116	03/29/16 1:40 AM	Container-01 of 0
Surr: 4-Bromofluorobenzene	91.0		1	%Rec		Limit 79-122	03/29/16 1:40 AM	Container-01 of 0
Surr: Toluene-d8	90.7		1	%Rec		Limit 69-125	03/29/16 1:40 AM	Container-01 of 0

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

4/1/2016

Cathlin Panzarella

Project Manager: Caitlin Panzarella

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 22 of 76





Job Number: 16030528

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF QUARTERLY Client Sample ID: MW-6N

Lab Sample ID: 16030528-11 (AT07079)

Collection Date: 03/24/2016 10:10

Sample Matrix: WATER

Received Date: 03/24/2016 14:35

Percent Solid: N/A

Batch ID	Method	I	Date Analyst	Init Wt./Vol. F	inal Vol.	Column
Analysis 1: Field Test	Field Analysis	03/24/7	2016 13:15 MEB	NA	NA	NA NA
Analyte	CAS No.	Result	PQL	Dilution Factor	r Flags	File ID
pH (\$)	NA	7.57 (pH)	0.00	1.00		Field Test
Reduction Potential (\$)	NA	227 (mV	0.00	1.00		Field Test
Specific Conductance (\$)	NA	624 (uml	nos/cm 0.00	1.00		Field Test
Temperature (\$)	NA	3.80 (°C)	0.00	1.00		Field Test
Turbidity (\$)	NA	36.5 (NT)	U) 0.00	1.00		Field Test
* • •		E-7				

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.



TEL: (831) 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 :3/24/2016 1:15:00 PM Received

AT07080 :3/25/2016 10:20:00 AM

LABORATORY RESULTS

Lab No. : 1603K41-012

Client Sample ID: MW-6N

Results are only 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 tasts requested.

Sample Information:

Type: Aqueous

Origin:

Analytical Method: E300.0 : Parameter(s)	Results	Qualifier	D.F.	Unite	<u>PQL</u>	Analyzed:	Analyst: bka Container:
Chloride	3.83	Coaille	1	<u>Units</u> mg/L	2.00	03/30/16 2:01 AM	Container-01 of 0
Sulfate	48.3		1	mg/L	5.00	03/30/16 2:01 AM	Container-01 of 01
Analytical Method: SM22 4500-CN E :	Prep Method:	SM4500-CN	E		Prep Da	<u>le:</u> 03/30/16	<u>Analyst;</u> JDLR
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	PQL	Analyzed:	Container:
Cyanide	< 10		1	µg/L	10	03/30/16 3;53 PM	Container-01 of 0
Analytical Method; E410.4:					3		Analyst; VaS
Parameter(s)	Results	Qualifier	<u>D.F.</u>	Units	<u>PQL</u>	Analyzed:	Container:
Chemical Oxygen Demand	< 10.0		1	mg/L	10.0	03/28/16 11:44 AM	Container-01 of 0
Analytical Method: SM22 2120B : IOC							Analyst; MLa
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
Color	5.00		1	units	5.00	03/26/16 7:45 AM	Container-01 of 0
Color pH	6.00	+	1	units	0	03/26/16 7:45 AM	Container-01 of 0
NOTES: True Color							
Analytical Method: E200.7:							Analyst: CGZ
Parameter(s)	Results	Qualifier	D.F.	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
Hardness, Calcium (As CaCO3)	319,000	-	1	ug/L	0.500	03/31/16 3:10 AM	Container-01 of 0
Hardness, Magnesium (As CaCO3)	91,300		1	ug/L	0.800	03/31/16 3:10 AM	Container-01 of 0
Analytical Method: SW7470A:	Prep Method:	SW7470			Prep Da	te: 03/30/16	Analyst: BC
Parameter(s)	<u>Results</u>	Qualifier	<u>D.F.</u>	<u>Units</u>	PQL	Analyzed:	Container:
Mercury	< 0.200		1	ug/L	0.200	03/30/16 9:40 AM	Container-01 of 0
Analytical Method; SM22 4500-NH3 H :							Analyst, bka
Parameter(s)	Results	Qualifier	D.F.	<u>Units</u>	PQL	Analyzed:	Container,

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

4/1/2016

Test results meet the requirements of NELAC

Cathlin Panzarella

Project Manager: Caitlin Panzarella

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

unless otherwise noted.

Page 29 of 76





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 ±3/24/2016 1:15:00 PM Received

AT07080 :3/25/2016 10:20:00 AM

Collected By CLIENT

LABORATORY RESULTS

Results are only 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 tests requested.

Sample Information:

Type: Aqueous

Origin:

Analytical Method: SM22 4500-NH3 H	:						Analyst: bka
Parameter(s)	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
Nitrogen, Ammonia (As N)	< 0.10		1	mg/L	0.10	03/30/16 1:17 PM	Container-01 of 0
Analytical Method: SM22 2540C : IOC							Analyst; SH2
Parameter(s)	<u>Results</u>	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
Total Dissolved Solids	397		1	mg/L	10	03/29/16 2:48 PM	Container-01 of 0
Analytical Method: E351.2 :	Prep Method:	E351.2				Prep Date: 03/29/16	Analyst: SO
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
Nitrogen, Kjeldahl, Total	< 0.10		1	mg/L	0.10	03/29/16 4:15 PM	Container-01 of 0

Lab No. : 1603K41-012

Client Sample ID: MW-6N

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

4/1/2016

Cathlin Panzarella Project Manager: Caitlin Panzarella

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 30 of 76





Job Number: 16030528

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF QUARTERLY Client Sample ID: MW-6N

Lab Sample ID: 16030528-12 (AT07080)

Collection Date: 03/24/2016 13:15

Sample Matrix: WATER

Received Date: 03/24/2016 14:35

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	180	SW-846 7196A	03/24/2016 18:30	JS	NA	NA	NA
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Facto	r Flags	File ID
Hexavalent Cl	ıromium	18540-29-9	ND	0.0400	1.02	U	180

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

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





Job Number: 16030528

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

Schenectady, NY 12308 Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF QUARTERLY Client Sample ID: MW-6N

Lab Sample ID: 16030528-12 (AT07080)

Collection Date: 03/24/2016 13:15

Sample Matrix: WATER

Received Date: 03/24/2016 14:35

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	454	Nitrate - 353.2	03/25/2016 15:28	JS	NA	NA	NA NA
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Facto	r Flags	File ID
Nitrate		NA	ND	0.165	1.00	U	454

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

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





Job Number: 16030528

Pace Analytical Services, Inc. 2190 Technology Drive

Schenectady, NY 12308 Phone: 518,346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF QUARTERLY

Client Sample ID: MW-6N

Lab Sample ID: 16030528-12 (AT07080)

Collection Date: 03/24/2016 13:15

Sample Matrix: WATER

Received Date: 03/24/2016 14:35

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	600	BOD SM5210B	03/25/2016 11:45	KM	NA	NA	NA .
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Fact	or Flags	File ID
D: 1 : 1	Oxygen Dema	and NA	ND	2.0	1.00	B4	600

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

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

B4 - The glucose/glutamic acid standard exceeded the range of 198 plus or minus 30.5 mg/L.





Job Number: 16030528

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

Phone: 518.346,4592 Fax: 518,381.6055

Client: BARTON AND LOGUIDICE

Project: ELF QUARTERLY Client Sample ID: MW-6N

Lab Sample ID: 16030528-12 (AT07080)

Collection Date: 03/24/2016 13:15

Sample Matrix: WATER

Received Date: 03/24/2016 14:35

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis I:	B75	SM 5310B	03/29/2016 20 08	JS	NA	NA	NA
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Facto	r Flags	File ID
Total Organic	Carbon	OC002	3.95	1.00	1.00		875

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

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

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:

Pace Analytical Services - NY

Project:

16030528

Sample Matrix:

Water

Sample Name: Lab Code:

MW-6N

R1602751-006

Service Request: R1602751 Date Collected: 3/24/16 1315

Date Received: 3/25/16

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Date Factor Extrac	e Date ted Analyzed Note	e
Phenolics, Total Recoverable	420.4	0.0020 U	mg/L	0.0020	1 NA	3/29/16 10:30	



TEL: (631) 694-3040 FAX: (631) 420-8436 NYSDOH ID#10478 www.pacelabs.com

AT07080

Pace Analytical Services Inc. 2190 Technology Drive

Schenectady, NY 12308

Attn To:

Collected

William A. Kotas :3/24/2016 1:15:00 PM

Received :3/25/2016 10:20:00 AM

Collected By CLIENT

LABORATORY RESULTS

Results are only 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 tests requested.

Lab No.: 1603K41-012

Client Sample ID: MW-6N

Sample Information:

Type: Aqueous

Origin:

Analytical Method: E200.7:	Preo Method:	E200.7			<u>Prep Da</u>	te: 03/28/16	Analyst: CGZ
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
Aluminum	333		1	ug/L	200	03/31/16 3:10 AM	Container-01 of 0
Antimony	< 60.0		:: 1	ug/L	60.0	03/31/16 3:10 AM	Container-01 of 0
Arsenic	< 10.0		1	ug/L	10.0	03/31/16 3:10 AM	Container-01 of 0
Barium	37.6	J	1	ug/L	200	03/31/16 3:10 AM	Container-01 of 0
Beryllium	< 5.00		1	ug/L	5.00	03/31/16 3:10 AM	Container-01 of 0
Boron	48.5	j	1	ug/L	500	03/31/16 3:10 AM	Container-01 of 0
Cadmium	< 5.00		1	ug/L	5.00	03/31/16 3:10 AM	Container-01 of 0
Calcium	128,000		1	ug/L	5000	03/31/16 3:10 AM	Container-01 of 0
Chromium	2.10	J	1	ug/L	10.0	03/31/16 3:10 AM	Container-01 of 0
Cobalt	< 50.0		1	ug/L	50.0	03/31/16 3:10 AM	Container-01 of 0
Copper	2.60	J	1	ug/L	25.0	03/31/16 3:10 AM	Container-01 of 0
Iron	921		1	ug/L	100	03/31/16 3:10 AM	Container-01 of 0
Lead	4.76		1	ug/L	3.00	03/31/16 3:10 AM	Container-01 of 0
Magnesium	22,200		1	ug/L	5000	03/31/16 3:10 AM	Container-01 of 0
Manganese	446		1	ug/L	15.0	03/31/16 3:10 AM	Container-01 of 0
Nickel	2.90	J	1	ug/L	40.0	03/31/16 3:10 AM	Container-01 of 0
Potassium	567	J	1	ug/L	5000	03/31/16 3:10 AM	Container-D1 of 0
Selenium	< 5.00		1	ug/L	5.00	03/31/16 3:10 AM	Container-01 of 0
Silver	< 10.0		1	ug/L	10.0	03/31/16 3:10 AM	Container-01 of 0
Sodium	2,490	J	1	ug/L	5000	03/31/16 3:10 AM	Container-01 of (
Thallium	< 10.0		1	ug/L	10.0	03/31/16 3:10 AM	Container-01 of (
Vanadium	< 50.0		1	ug/L	50.0	03/31/16 3:10 AM	Container-01 of (
Zinc	3.60	J	1	ug/L	20.0	03/31/16 3:10 AM	Container-01 of 0

Analytical Method: SM22 2320B:							Analyst: JDLR
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed.	Container:
Alkalinity, Total (As CaCO3)	318	D	2	mg/L	2.00	03/31/16 4:04 PM	Container-01 of 01
Analytical Method: E300.0 :							Analyst, bka
Parameter(s)	Results	Qualifier	D.F.	<u>Units</u>	PQL	Analyzed:	Container,
Bromide	< 0.50		1	mg/L	0.50	03/30/16 2:01 AM	Container-01 of 01

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

4/1/2016

Cathlin Panzarella Project Manager: Caitlin Panzarella

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 28 of 76

Analyst: JDLR





575 Broad Hollow Road , Melvilla, 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 :3/24/2016 10:10:00 AM Received :3/25/2016 10:20:00 AM

AT07079

LABORATORY RESULTS

Results are only 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 tests requested.

Lab No. : 1603K41-011

Client Sample ID: MW-6N

Sample Information:

Type: Aqueous

Origin:

Analytical Method: SW8260C:	Prep Method:	5030C					Analyst: BL
Parameter(s)	<u>Results</u>	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
1,1,1,2-Tetrachloroethane	< 5.0		1	µg/L	5.0	 03/29/16 2:01 AM	Container-02 of 0
1,1,1-Trichloroethane	< 5.0		1	μg/L	5,0	03/29/16 2:01 AM	Container-02 of 0
1,1,2,2-Tetrachloroethane	< 5.0		1	μg/L	5.0	03/29/16 2:01 AM	Container-02 of 0
1,1,2-Trichloroethane	< 5.0		1	μg/L	5.0	03/29/16 2:01 AM	Container-02 of 0
1,1-Dichloroethane	< 5.0		1	µg/L	5.0	03/29/16 2:01 AM	Container-02 of 0
1,1-Dichloroethene	< 5.0		1	µg/L	5.0	03/29/16 2:01 AM	Container-02 of 0
1,2,3-Trichloropropane	< 5.0		1	μg/L	5.0	03/29/16 2:01 AM	Container-02 of 0
1,2-Dibromo-3-chloropropane	< 5.0		1	µg/L	5.0	03/29/16 2:01 AM	Container-02 of 0
1,2-Dibromoethane	< 5.0		1	μg/L	5.0	03/29/16 2:01 AM	Container-02 of 0
1,2-Dichlorobenzene	< 5.0		1	μg/L	5.0	03/29/16 2:01 AM	Container-02 of 0
1,2-Dichloroethane	< 5.0		1	μg/L	5.0	03/29/16 2:01 AM	Container-02 of 0
1,2-Dichloropropane	< 5.0		1	μg/L	5.0	03/29/16 2:01 AM	Container-02 of 0
1,4-Dichlorobenzene	< 5.0		1	μg/L	5.0	03/29/16 2:01 AM	Container-02 of 0
2-Butanone	< 5.0		1	μg/L	5.0	03/29/16 2:01 AM	Container-02 of 0
2-Hexanone	< 5.0	S	1	μg/L	5.0	03/29/16 2:01 AM	Container-02 of 0
4-Methyl-2-pentanone	< 5.0		1	µg/L	5.0	03/29/16 2:01 AM	Container-02 of 0
Acetone	< 5.0		1	µg/L	5.0	03/29/16 2:01 AM	Container-02 of 0
Acrylonitrile	< 5.0		1	μg/L	5.0	03/29/16 2:01 AM	Container-02 of 0
Benzene	< 5.0		1	μg/L	5.0	03/29/16 2:01 AM	Container-02 of 0
Bromochloromethane	< 5.0		1	μg/L	5.0	03/29/16 2:01 AM	Container-02 of 0
Bromodichloromethane	< 5.0		1	µg/L	5.0	03/29/16 2:01 AM	Container-02 of 0
Bromoform	< 5.0		1	μg/L	5.0	03/29/16 2:01 AM	Container-02 of 0
Bromomethane	< 5.0		1	μg/L	5.0	03/29/16 2:01 AM	Container-02 of 0
Carbon disulfide	< 5.0		1	μg/L	5.0	03/29/16 2:01 AM	Container-02 of 0
Carbon tetrachloride	< 5.0		1	µg/L	5.0	03/29/16 2:01 AM	Container-02 of 0
Chlorobenzene	< 5.0	S	1	µg/L	5.0	03/29/16 2:01 AM	Container-02 of 0
Chloroethane	< 5.0	С	1	µg/L	5.0	03/29/16 2:01 AM	Container-02 of 0
Chloroform	< 5.0		1	μg/L	5.0	03/29/16 2:01 AM	Container-02 of (
Chloromethane	< 5.0		1	μg/L	5.0	03/29/16 2:01 AM	Container-02 of (
cis-1,2-Dichloroethene	< 5.0		1	µg/L	5.0	03/29/16 2:01 AM	Container-02 of (
cis-1,3-Dichloropropene	< 5.0		1	μg/L	5.0	03/29/16 2:01 AM	Container-02 of
Dibramochloromethane	< 5.0		1	μg/L	5.0	03/29/16 2:01 AM	Container-02 of

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

4/1/2016

Cathlin Panzarella

Project Manager: Caitlin Panzarella

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 26 of 76



Pace Analytical"

575 Broad Hollow Road , Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8438
NYSDOH ID#10478 www.pacelabs.com

Pace Analytical Services Inc.

2190 Technology Drive Schenectady, NY 12308

Attn To:

Colleged By, CLIENT

William A. Kotas

Collected : 3/24/2016 10:10:00 AM Received : 3/25/2016 10:20:00 AM

AT07079

LABORATORY RESULTS

Results are only 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 tests requested.

Lab No. : 1603K41-011

Client Sample ID: MW-6N

Sample Information:

Type: Aqueous

Origin:

Analytical Method: SW8260C:	Prep Method:	5030C						Analyst: BL
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	PQL		Analyzed:	Container:
Dibromomethane	< 5.0		1	μg/L	5.0		03/29/16 2:01 AM	Container-02 of 03
Ethylbenzene	< 5.0		1	μg/L	5.0		03/29/16 2:01 AM	Container-02 of 03
lodomethane	< 5.0	C	1	µg/L	5.0		03/29/16 2:01 AM	Container-02 of 03
Methylene chloride	< 5.0		1	μg/L	5.0		03/29/16 2:01 AM	Container-02 of 03
Styrene	< 5.0		1	µg/L	5.0		03/29/16 2:01 AM	Container-02 of 03
Tetrachloroethene	< 5.0		1	µg/L	5.0		03/29/16 2:01 AM	Container-02 of 03
Toluene	< 5.0		1	μg/L	5.0		03/29/16 2:01 AM	Container-02 of 03
trans-1,2-Dichloroethene	< 5.0		1	μg/L	5.0		03/29/16 2:01 AM	Container-02 of 03
trans-1,3-Dichloropropene	< 5.0		1	µg/L	5.0		03/29/16 2:01 AM	Container-02 of 03
trans-1,4-Dichloro-2-butene	< 5.0	cS	1	μg/L	5.0		03/29/16 2:01 AM	Container-02 of 03
Trichloroethene	< 5.0		1	μg/L	5.0		03/29/16 2:01 AM	Container-02 of 03
Trichlorofluoromethane	< 5.0		1	μg/L	5.0		03/29/16 2:01 AM	Container-02 of 03
Vinyl acetate	< 5.0		1	μg/L	5.0		03/29/16 2:01 AM	Container-02 of 03
Vinyl chloride	< 5.0		1	μg/L	5.0		03/29/16 2:01 AM	Container-02 of 03
Xylene (total)	< 5.0		1	µg/L	5.0		03/29/16 2:01 AM	Container-02 of 03
Surr. 1,2-Dichloroethane-d4	101		1	%Rec		Limit 79-116	03/29/16 2:01 AM	Container-02 of 0
Surr: 4-Bromofluorobenzene	91.0		1	%Rec		Limit 79-122	03/29/16 2:01 AM	Container-02 of 03
Surr: Toluene-d8	90.8		1	%Rec		Limit 69-125	03/29/16 2:01 AM	Container-02 of 03

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

4/1/2016

Cathlin Pangarella
Project Manager: Caitlin Panzarella

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 27 of 76



Job Number: 16030528

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF QUARTERLY Client Sample ID: POND

Lab Sample ID: 16030528-13 (AT07081)

Collection Date: 03/24/2016 12:40

Sample Matrix: WATER

Received Date: 03/24/2016 14:35

Percent Solid: N/A

Batch ID	Method	Date	Analyst	Init Wt./Vol. Fir	nal Vol.	Column
Analysis 1: Field Test	Field Analysis	03/24/2016 12:40	MEB	NA	NA	NA NA
Analyte	CAS No.	Result	PQL	Dilution Factor	Flags	File ID
Dissolved Oxygen (\$)	7782-44-7	3.70 (mg/L)	0.00	1.00		Field Test
pH (\$)	NA	7.57 (pH)	0.00	1.00		Field Test
Reduction Potential (\$)	NA	169 (mV)	0.00	1.00		Field Test
Specific Conductance (\$)	NA	568 (umhos/cn	0.00	1.00		Field Test
Temperature (\$)	NA	4.10 (°C)	0.00	1.00		Field Test
Turbidity (\$)	NA	3.76 (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.





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

William A. Kotas

:3/24/2016 12:40:00 PM Collected

AT07081 Received :3/25/2016 10:20:00 AM

Collected By CLIENT

Attn To:

LABORATORY RESULTS

Results are only 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 tests requested.

Lab No. : 1603K41-013

Client Sample ID: POND

Sample Information:

Type: Aqueous

Origin:

Analytical Method: E410.4 :							Analyst:	VaS
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Cont	alner:
Chemical Oxygen Demand	< 10.0		1	mg/L	10.0	03/28/16 11:46 AM	Containe	r-01 of 01
Analytical Method: SM22 2120B : IOC							Analyst:	MLa
Parameter(s)	<u>Results</u>	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed;	Соп	tainer:
Calar	10.0		1	units	5.00	03/26/16 7:45 AM	Containe	r-01 of 0
Color pH	6.00	+	1	units	0	03/26/16 7:45 AM	Containe	r-01 of 0
Analytical Method; E200.7:							Analyst:	CGZ
Parameter(s)	Results	Qualifier	D.E.	<u>Units</u>	<u>PQL</u>	Analyzed:	Con	tainer,
Hardness, Calcium (As CaCO3)	231,000	-	1	ug/L	0.500	03/31/16 3:16 AM	Containe	er-01 of 0
Hardness, Magnesium (As CaCO3)	60,000		1	ug/L	0.800	03/31/16 3:16 AM	Containe	r-01 of 0
Analytical Method: SW7470A:	Prep Method:	SW7470			Prep	Date: 03/30/16	Anaiyşt;	BC
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed;	Con	tainer.
Mercury	< 0.200		1	ug/L	0.200	03/30/16 9:42 AM	Containe	er-01 of 0
Analytical Method: SM22 4500-NH3 H :							Analyst:	bka
Parameter(s)	<u>Results</u>	Qualifier	D.F.	<u>Units</u>	<u>PQL</u>	Analyzed:	Cor	tainer.
Nitrogen, Ammonia (As N)	< 0.10		1	mg/L	0.10	03/30/16 1:18 PM	Containe	er-01 of 0
Analytical Method: E420.1	Prep Method:	E420.1			Prep	Date: 03/29/16	Analyst:	CA
Parameter(s)	Results	Qualifier	D.F.	<u>Units</u>	POL	Analyzed:	Cor	tainer.
Phenolics, Total Recoverable	< 5,0		1	μg/L	5.0	03/29/16 12:30 PM	Contain	er-01 of (
Analytical Method: SM22 2540C : IOC							Analyst:	SH2
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Cor	ntainer.
Total Dissolved Solids	345		1	mg/L	10	03/29/16 2:49 PM	Contain	er-01 of 0

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

4/1/2016

Cathlin Panzarella

Project Manager: Caitlin Panzarella

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 34 of 76





AT07081

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

Attn To:

William A. Kotas

Collected :3/24/2016 12:40:00 PM Received :3/25/2016 10:20:00 AM

Collected By CLIENT

LABORATORY RESULTS

Results are only 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 tests requested.

Lab No. : 1603K41-013

Client Sample ID: POND

Sample Information:

Type: Aqueous

Origin:

Analytical Method; E351.2 :	Prep Method;	E351,2			Prep Date: 03/29/16		Analyst: SO
Parameter(s)	<u>Results</u>	Qualifier	<u>D.F.</u>	<u>Units</u>	PQL	Analyzed:	Container:
Nitrogen, Kjeldahl, Total	< 0.10	20	1	mg/L	0.10	03/29/16 4:16 PM	Container-D1 of 01

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

4/1/2016

Cathlin Panzarella

Project Manager: Caitlin Panzarella

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 35 of 76



16030528 - Page 42 of 172



Analytical Sample Results

Job Number: 16030528

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF QUARTERLY Client Sample ID: POND

Lab Sample ID: 16030528-13 (AT07081)

Collection Date: 03/24/2016 12:40

Sample Matrix: WATER

Received Date: 03/24/2016 14:35

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	180	SW-846 7196A	03/24/2016 18:32	JS	NA	NA	NA
Analyte	147	CAS No.	Result (mg/L)	PQL_	Dilution Facto	or Flags	File ID
Hexavalent (Chromium	18540-29-9	ND	0.0400	1.02	U	180

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

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





Analytical Sample Results

Job Number: 16030528

Pace Analytical Services, Inc. 2190 Technology Drive

Schenectady, NY 12308 Phone; 518.346.4592 Fax; 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF QUARTERLY Client Sample ID: POND

Lab Sample ID: 16030528-13 (AT07081)

Collection Date: 03/24/2016 12:40

Sample Matrix: WATER

Received Date: 03/24/2016 14:35

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	454	Nitrate - 353.2	03/25/2016 15:29	JS	NA	NA	NA.
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Facto	or Flags	File ID
Nitrate		NA	ND	0.165	1.00	**	454

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

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





Analytical Sample Results

Job Number: 16030528

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF QUARTERLY Client Sample ID: POND

Lab Sample ID: 16030528-13 (AT07081)

Collection Date: 03/24/2016 12:40

Sample Matrix: WATER

Received Date: 03/24/2016 14:35

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	600	BOD SM5210B	03/25/2016 11:43	JS	NA	NA	NA NA
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Facto	or Flags	File ID
Biochemica	l Oxygen Dema	and NA	ND	2,0	1.00	B4	600

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

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

B4 - The glucose/glutamic acid standard exceeded the range of 198 plus or minus 30.5 mg/L.





Analytical Sample Results

Job Number: 16030528

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF QUARTERLY Client Sample ID: POND

Lab Sample ID: 16030528-13 (AT07081)

Collection Date: 03/24/2016 12:40

Sample Matrix: WATER

Received Date: 03/24/2016 14:35

Percent Solid: N/A

ſ							
1	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis I 8	75	SM 5310B	03/29/2016 20:23	JS	NA	NA	NA
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Fact	or Flags	File ID
Total Organic C	arbon	OC002	3.93	1.00	1.00		875

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

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

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:

Pace Analytical Services - NY

Project:

16030528

Sample Matrix:

Water

Sample Name: Lab Code: POND

R1602751-007

Service Request: R1602751

Date Collected: 3/24/16 1240

Date Received: 3/25/16

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor		Date Analyzed	Note
Phenolics, Total Recoverable	420.4	0.0026	mg/L	0.0020	1	NA	3/29/16 10:30	

16-0000370131 rev 00

SuperSet Reference:

Pace Analytical Services, Inc.



TEL: (631) 694-3040 FAX: (631) 420-8438 NYSDOH ID#10478 www.pacelabs.com

Pace Analytical Services inc.

2190 Technology Drive Schenectady, NY 12308

Attn To:

William A. Kotas

Collected :3/24/2016 12:40:00 PM Received

AT07081 :3/25/2016 10:20:00 AM

Collected By CLIENT

LABORATORY RESULTS

Results are only 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 tests requested.

Lab No. : 1603K41-013

Client Sample ID: POND

Sample Information:

Type: Aqueous

Origin:

Analytical Method; E200,7:	Prep Method:	E200.7			<u>Preo Da</u>	<u>ite:</u> 03/28/16	Analyst: CGZ
Parameter(s)	Results	Qualifier	<u>D.F.</u>	Units	PQL	Analyzed:	Container:
Aluminum	21.8	J	1	ug/L	200	03/31/16 3:16 AM	Container-01 of 0
Antimony	< 60.0		1	ug/L	60.0	03/31/16 3:16 AM	Container-01 of 0
Arsenic	2.02	J	1	ug/L	10.0	03/31/16 3:16 AM	Container-01 of 0
Barium	30.4	J	1	ug/L	200	03/31/16 3:16 AM	Container-01 of 0
Beryllium	< 5.00		1	ug/L	5.00	03/31/16 3:16 AM	Container-01 of 0
Boron	32.4	J	1	ug/L	500	03/31/16 3:16 AM	Container-01 of 0
Cadmium	< 5.00		1	ug/L	5.00	03/31/16 3:16 AM	Container-01 of 0
Calcium	92,600		1	ug/L	5000	03/31/16 3:16 AM	Container-01 of 0
Chromium	2.00	J	1	ug/L	10.0	03/31/16 3;16 AM	Container-01 of 0
Cobalt	< 50.0		1	ug/L	50.0	03/31/16 3:16 AM	Container-01 of 0
Copper	1.80	J	1	ug/L	25.0	03/31/16 3:16 AM	Container-01 of 0
Iron	20.0	J	1	ug/L	100	03/31/16 3:16 AM	Container-01 of 0
Lead	2.54	J	1	ug/L	3.00	03/31/16 3:16 AM	Container-01 of 0
Magnesium	14,600		1	ug/L	5000	03/31/16 3:16 AM	Container-01 of 0
Manganese	11.4	J	1	ug/L	15.0	03/31/16 3:16 AM	Container-01 of 0
Nickel	< 40.0		1	ug/L	40.0	03/31/16 3;16 AM	Container-01 of 0
Potassium	1,740	J	1	ug/L	5000	03/31/16 3:16 AM	Container-01 of 0
Selenium	< 5.00		1	ug/L	5.00	03/31/16 3:16 AM	Container-01 of 0
Silver	< 10.0		1	ug/L	10.0	03/31/16 3:16 AM	Container-01 of 0
Sodium	7,270		1	ug/L	5000	03/31/16 3:16 AM	Container-01 of 0
Thallium	< 10.0		1	ug/L	10.0	03/31/16 3:16 AM	Container-01 of 0
Vanadium	< 50.0		1	ug/L	50.0	03/31/16 3:16 AM	Container-01 of 0
Zinc	1.20	J	1	ug/L	20.0	03/31/16 3:16 AM	Container-01 of 0

Analytical Method: SW8260C:	Prep Method;	5030C					Analyst: BL
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed,	Container.
1,1,1,2-Tetrachloroethane	< 5.0		1	μg/L	5.0	03/29/16 2:23 AM	Container-01 of 03
1,1,1-Trichloroethane	< 5.0		1	µg/L	5.0	03/29/16 2:23 AM	Container-01 of 03
1,1,2,2-Tetrachloroethane	< 5.0		1	μg/L	5.0	03/29/16 2:23 AM	Container-01 of 03
1,1,2-Trichloroethane	< 5.0		1	μg/L	5.0	03/29/16 2:23 AM	Container-01 of 03
1,1-Dichloroethane	< 5.0		1	μg/L	5.0	03/29/16 2:23 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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

4/1/2016

Cathlin Panzarella Project Manager: Caitlin Panzarella

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 31 of 76



575 Broad Hollow Road , Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

AT07081

Pace Analytical Services Inc.

2190 Technology Drive Schenectady, NY 12308

William A. Kotas

Collected : 3/24/2016 12:40:00 PM Received : 3/25/2016 10:20:00 AM

Collected By CLIENT

Attn To:

LABORATORY RESULTS

Results are only 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 tests requested.

Lab No. : 1603K41-013

Client Sample ID: POND

Sample Information:

Type: Aqueous

Origin:

Analytical Method: SW8260C:	Prep Method:	5030C					Analyst: BL
Parameter(s)	<u>Results</u>	Qualifier	<u>D.F.</u>	<u>Units</u>	PQL	Analyzed:	Container:
I,1-Dichloroethene	< 5.0		1	μg/L	5.0	03/29/16 2:23 AM	Container-01 of
,2,3-Trichloropropane	< 5.0		1	µg/L	5.0	03/29/16 2:23 AM	Container-01 of
,2-Dibromo-3-chloropropane	< 5.0		1	μg/L	5.0	03/29/16 2:23 AM	Container-01 of
,2-Dibromoethane	< 5.0		1	μg/L	5.0	03/29/16 2:23 AM	Container-01 of
,2-Dichlorobenzene	< 5.0		1	μg/L	5.0	03/29/16 2:23 AM	Container-01 of
,2-Dichloroethane	< 5.0		1	µg/L	5.0	03/29/16 2:23 AM	Container-01 of
,2-Dichloropropane	< 5.0		1	μg/L	5.0	03/29/16 2:23 AM	Container-01 of
I,4-Dichlorobenzene	< 5.0		1	μg/L	5.0	03/29/16 2:23 AM	Container-01 of
2-Butanone	< 5.0		1	μg/L	5.0	03/29/16 2:23 AM	Container-01 of
2-Hexanone	< 5.0	S	1	μg/L	5.0	03/29/16 2:23 AM	Container-01 of
I-Methyl-2-pentanone	< 5.0		1	μ g /L	5.0	03/29/16 2:23 AM	Container-01 of
Acetone	< 5.0		1	μg/L	5.0	03/29/16 2:23 AM	Container-01 of
Acrylonitrile	< 5.0		1	μg/L	5.0	03/29/16 2:23 AM	Container-01 of
Benzene Benzene	< 5.0		1	μg/L	5.0	03/29/16 2:23 AM	Container-01 of
Bromochloromethane	< 5.0		1	µg/L	5.0	03/29/16 2:23 AM	Container-01 of
Bromodichloromethane	< 5.0		1	μg/L	5.0	03/29/16 2:23 AM	Container-01 of
Bromoform	< 5.0		1	μg/L	5.0	03/29/16 2:23 AM	Container-01 of
Bromomethane	< 5.0		1	µg/L	5.0	03/29/16 2:23 AM	Container-01 of
Carbon disulfide	< 5.0		1	μg/L	5.0	03/29/16 2:23 AM	Container-01 of
Carbon tetrachloride	< 5.0		1	μg/L	5.0	03/29/16 2:23 AM	Container-01 of
Chlorobenzene	< 5.0	S	1	μg/L	5.0	03/29/16 2:23 AM	Container-01 of
Chloroethane	< 5.0	С	1	µg/L	5.0	03/29/16 2:23 AM	Container-01 of
Chloroform	< 5.0		1	μg/L	5.0	03/29/16 2:23 AM	Container-01 of
Chloromethane	< 5.0		1	μg/L	5.0	03/29/16 2:23 AM	Container-01 of
cis-1,2-Dichloroethene	< 5.0		1	μg/L	5.0	03/29/16 2:23 AM	Container-01 of
cis-1,3-Dichloropropene	< 5.0		1	µg/L	5.0	03/29/16 2:23 AM	Container-01 of
Dibromochloromethane	< 5.0		1	μg/L	5.0	03/29/16 2:23 AM	Container-01 o
Dibromomethane	< 5.0		1	µg/L	5.0	03/29/16 2:23 AM	Container-01 o
Ethylbenzene	< 5.0		1	μg/L	5.0	03/29/16 2:23 AM	Container-01 o
lodomethane	< 5.0	C	1	µg/L	5.0	03/29/16 2:23 AM	Container-01 o
Methylene chloride	< 5.0		1	µg/L	5.0	03/29/16 2:23 AM	Container-01 o
Styrene	< 5.0		1	µg/L	5.0	03/29/16 2:23 AM	Container-01 o

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

4/1/2016

Cathlin Panyarella
Project Manager: Caitlin Panzarella

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 32 of 76



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 :3/24/2016 12:40:00 PM

Received :3/25/2016 10:20:00 AM AT07081

Collected By CLIENT

LABORATORY RESULTS

Results are only 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 tests requested.

Lab No. : 1603K41-013

Client Sample ID: POND

Sample Information:

Type: Aqueous

Origin:

Analytical Method: SW8260C:	Prep Method:	5030C						Analyst: BL
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	POL		Analyzed:	Container:
Tetrachloroethene	< 5.0		1	μg/L	5.0		03/29/16 2:23 AM	Container-01 of
Toluene	< 5.0		1	μg/L	5.0		03/29/16 2:23 AM	Container-01 of
trans-1,2-Dichloroethene	< 5.0		1	μg/L	5.0		03/29/16 2:23 AM	Container-01 of
trans-1,3-Dichloropropene	< 5.0		1	μg/L	5.0		03/29/16 2:23 AM	Container-01 of
trans-1,4-Dichloro-2-butene	< 5.0	cS	1	µg/L	5.0		03/29/16 2:23 AM	Container-01 of
Trichloroethene	< 5.0		1	μg/L	5.0		03/29/16 2:23 AM	Container-01 of
Trichlorofluoromethane	< 5.0		1	μg/L	5.0		03/29/16 2:23 AM	Container-01 of
Vinyl acetate	< 5.0		1	μg/L	5.0		03/29/16 2:23 AM	Container-01 of
Vinyl chloride	< 5.0		1	µg/L	5.0		03/29/16 2:23 AM	Container-01 of
Xylene (total)	< 5.0		1	μg/L	5.0		03/29/16 2:23 AM	Container-01 of
Surr: 1,2-Dichloroethane-d4	100		1	%Rec		Limit 79-116	03/29/16 2:23 AM	Container-01 of
Surr: 4-Bromofluorobenzene	91.0		1	%Rec		Limit 79-122	03/29/16 2:23 AM	Container-01 of
Surr: Toluene-d8	89.8		1	%Rec		Limit 69-125	03/29/16 2:23 AM	Container-01 of
Analytical Method: SM22 2320B :								Analyst: JDLR
Parameter(s)	Results	Qualifier	D.F.	<u>Units</u>	PQL		Analyzed:	<u>Container.</u>
Alkalinity, Total (As CaCO3)	268	D	2	mg/L	2.00		03/31/16 4;13 PM	Container-01 of
Analytical Method: E300.0 :								Analyst; bka
Parameter(s)	Results	Qualifier	D.F.	Units	PQL		Analyzed:	Container
Bromide	< 0.50		1	mg/L	0.50		03/30/16 2:42 AM	Container-01 of
Chloride	8.39		1	mg/L	2.00		03/30/16 2:42 AM	Container-01 of
Sulfate	19.2		1	mg/L	5.00)	03/30/16 2:42 AM	Container-01 of
Analytical Method: SM22 4500-CN E :	Prep Method:	SM4500-CN	E			Prep Date: 03/3	30/16	Analyst: JDLR
Parameter(s)	Results	Qualifier	D.F.	<u>Units</u>	PQL		Analyzed:	Container:
Letailieter(2)	11000110							

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range, Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

4/1/2016

Cathlin Panyarella
Project Manager: Caitlin Panzarella

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 33 of 76





AT07082

Pace Analytical Services Inc. 2190 Technology Drive

Schenectady, NY 12308

William A. Kotas

Collected : 3/24/2016
Received : 3/25/2016 10:20:00 AM

Collected By CLIENT

Attn To:

LABORATORY RESULTS

Results are only 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 tests requested.

Lab No. : 1603K41-014

Client Sample ID: TRIP BLANK

Sample Information:

Type: Aqueous

Origin;

Analytical Method: SW8260C:	Prep Method:	5030C					Analyst: BL
Parameter(s)	<u>Results</u>	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
1,1,1,2-Tetrachloroethane	< 5.0		1	μg/L	5.0	03/28/16 11:50 PM	Container-02 of 0
1,1,1-Trichloroethane	< 5.0		1	μg/L	5.0	03/28/16 11:50 PM	Container-02 of 0
1,1,2,2-Tetrachloroethane	< 5.0		1	μg/L	5.0	03/28/16 11:50 PM	Container-02 of 0
1,1,2-Trichloroethane	< 5.0		1	μg/L	5.0	03/28/16 11:50 PM	Container-02 of (
1,1-Dichloroethane	< 5.0		1	μg/L	5.0	03/28/16 11:50 PM	Container-02 of (
1,1-Dichloroethene	< 5.0		1	μg/L	5.0	03/28/16 11:50 PM	Container-02 of 0
1,2,3-Trichloropropane	< 5.0		1	μg/L	5.0	03/28/16 11:50 PM	Container-02 of 0
1,2-Dibromo-3-chloropropane	< 5.0		1	µg/L	5.0	03/28/16 11:50 PM	Container-02 of 0
1,2-Dibromoethane	< 5.0		1	μg/L	5.0	03/28/16 11:50 PM	Container-02 of 0
1,2-Dichlorobenzene	< 5.0		1	μg/L	5.0	03/28/16 11:50 PM	Container-02 of
1,2-Dichloroethane	< 5.0		1	µg/L	5.0	03/28/16 11:50 PM	Container-02 of (
1,2-Dichloropropane	< 5.0		1	µg/L	5.0	03/28/16 11:50 PM	Container-02 of
1,4-Dichlorobenzene	< 5.0		1	μg/L	5.0	03/28/16 11:50 PM	Container-02 of
2-Butanone	< 5.0		1	µg/L	5.0	03/28/16 11:50 PM	Container-02 of
2-Hexanone	< 5.0	S	1	µg/L	5.0	03/28/16 11:50 PM	Container-02 of
4-Methyl-2-pentanone	< 5.0		1	μg/L	5.0	03/28/16 11:50 PM	Container-02 of
Acetone	1,3	J	1	μg/L	5.0	03/28/16 11:50 PM	Container-02 of
Acrylonitrile	< 5.0		1	µg/L	5.0	03/28/16 11:50 PM	Container-02 of
Benzene	< 5.0		1	μg/L	5.0	03/28/16 11:50 PM	Container-02 of
Bromochloromethane	< 5.0		1	μg/L	5.0	03/28/16 11:50 PM	Container-02 of
Bromodichloromethane	< 5.0		1	μg/L	5.0	03/28/16 11:50 PM	Container-02 of
Bromoform	< 5.0		1	μg/L	5.0	03/28/16 11:50 PM	Container-02 of
Bromomethane	< 5.0		1	μg/L	5.0	03/28/16 11:50 PM	Container-02 of
Carbon disulfide	< 5.0		1	μg/L	5.0	03/28/16 11:50 PM	Container-02 of
Carbon tetrachloride	< 5.0		1	μg/L	5.0	03/28/16 11:50 PM	Container-02 of
Chlorobenzene	< 5.0	S	1	μg/L	5.0	03/28/16 11:50 PM	Container-02 of
Chloroethane	< 5.0	C	1	μg/L	5.0	03/28/16 11:50 PM	Container-02 of
Chloroform	< 5.0		1	μg/L	5.0	03/28/16 11:50 PM	Container-02 of
Chloromethane	< 5.0		1	µg/L	5.0	03/28/16 11:50 PM	Container-02 of
cis-1,2-Dichloroethene	< 5.0		1	μg/L	5.0	03/28/16 11:50 PM	Container-02 of
cis-1,3-Dichloropropene	< 5.0		1	μg/L	5.0	03/28/16 11:50 PM	Container-02 of
Dibromochloromethane	< 5.0		1	µg/L	5.0	03/28/16 11:50 PM	Container-02 of

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

4/1/2016

Cathlin Panyarella
Project Manager: Caitlin Panzarella

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 36 of 76





TEL: (631) 694-3040 FAX: (631) 420-8436 NYSDOH ID#10478 www.pacelabs.com

AT07082

Pace Analytical Services Inc.

2190 Technology Drive Schenectady, NY 12308

Attn To: William A. Kotas Collected

:3/24/2016

Received :3/25/2016 10:20:00 AM

Collected By CLIENT

LABORATORY RESULTS

Results are only 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 lasts requested.

Lab No.: 1603K41-014

Client Sample ID: TRIP BLANK

Sample Information:

Type: Aqueous

Origin:

Analytical Method: SW8260C:	Prep Method:	5030C						Analyst: BL
Parameter(s)	Results	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	PQL		Analyzed:	Container:
Dibromomethane	< 5.0		1	µg/L	5.0		03/28/16 11:50 PM	Container-02 of 03
Ethylbenzene	< 5.0		1	μg/L	5.0		03/28/16 11:50 PM	Container-02 of 03
lodomethane	< 5.0	С	1	μg/L	5.0		03/28/16 11:50 PM	Container-02 of 03
Methylene chloride	< 5.0		1	µg/L	5.0		03/28/16 11:50 PM	Container-02 of 03
Styrene	< 5.0		1	μg/L	5.0		03/28/16 11:50 PM	Container-02 of 03
Tetrachloroethene	< 5.0		1	μg/L	5.0		03/28/16 11:50 PM	Container-02 of 03
Toluene	< 5.0		1	μg/L	5.0		03/28/16 11:50 PM	Container-02 of 03
trans-1,2-Dichloroethene	< 5.0		1	µg/L	5.0		03/28/16 11:50 PM	Container-02 of 03
trans-1,3-Dichloropropene	< 5.0		1	µg/L	5.0		03/28/16 11:50 PM	Container-02 of 03
trans-1,4-Dichloro-2-butene	< 5.0	cS	1	μg/L	5.0		03/28/16 11:50 PM	Container-02 of 03
Trichloroethene	< 5.0		1	μg/L	5.0		03/28/16 11:50 PM	Container-02 of 03
Trichlorofluoromethane	< 5.0		1	µg/L	5.0		03/28/16 11:50 PM	Container-02 of 03
Vinyl acetate	< 5.0		1	μg/L	5.0		03/28/16 11:50 PM	Container-02 of 03
Vinyl chloride	< 5.0		1	μg/L	5.0		03/28/16 11:50 PM	Container-02 of 03
Xylene (total)	< 5.0		1	μg/L	5.0		03/28/16 11:50 PM	Container-02 of 03
Surr: 1,2-Dichloroethane-d4	99.0		1	%Rec		Limit 79-116	03/28/16 11:50 PM	Container-02 of 03
Surr: 4-Bromofluorobenzene	92.8		1	%Rec		Limit 79-122	03/28/16 11:50 PM	Container-02 of 03
Surr: Toluene-d8	90.1		1	%Rec		Limit 69-125	03/28/16 11:50 PM	Container-02 of 03

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

4/1/2016

Cathlin Panzarella Project Manager: Caitlin Panzarella

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 37 of 76

Quality Control Samples (Field)

Pace Analytical Services, Inc. April 04, 2016 16030528 - Page 67 of 172



Quality Control Results Matrix Spike Sample (MS)

Job Number: 16030528

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF QUARTERLY
Client Sample ID: MW-1N MS

Lab Sample ID: 16030528-02M (AT07070M)

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

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.		Column
Analysis 1:	180	SW-846 7196A	03/24/2016 18:27	JS	NA	NA		NA
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Facto	r Flags	÷	File ID
Hexavalent	Chromium	18540-29-9	0.217	0.0400	1.06			180

Analyte Spiked	CAS No.	Sample (mg/L)	Added (mg/L)	MS (mg/L)	MS % Rec.	Q¹	Limits (%)	
Hexavalent Chromium	18540-29-9	0.00283	0.213	0.217	101		85.0-115	

Qualifier column where 'e' 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 Matrix Spike Duplicate (MSD)

Job Number: 16030528

Pace Analytical Services, Inc. 2190 Technology Drive

Schenectady, NY 12308 Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF QUARTERLY
Client Sample ID: MW-1N MSD

Lab Sample ID: 16030528-02K (AT07070K)

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

Percent Solid: N/A

	Batch ID	Method		Dat	e A	nalyst	Init Wt./	Vol. Fina	il Vol.		Columi	1
Analysis 1:	180	SW-846 7196A		03/24/2016	18:28	IS	NA		NA		NA	
Analyte		CAS No.	Re	sult (mg/L) P	QL	Dilution	Factor	Flags	File	ID	
Hexavalent	Chromium	18540-29-9		0.219	0	.0400	1.06			180		
			\$10/10/10	O CHEST OF SHIP						Preg	cision	
Analyte S	oiked	CAS No.	Sample (mg/L)	Added (mg/L)	MSD (mg/L)	MSI % R	1	Limits (%)	MS % Rec.	RPD	Q¹	Limits (%)
Hexavalent C		18540-29-9	0.00283	0.213	0.219	10:	2	85.0-115	101	0.807		20

Qualifier column where 141 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 Matrix Spike Sample (MS)

Job Number: 16030528

Pace Analytical Services, Inc. 2190 Technology Drive

Schenectady, NY 12308 Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF QUARTERLY
Client Sample ID: MW-1N MS

Lab Sample ID: 16030528-02M (AT07070M)

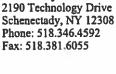
Collection Date: N/A
Sample Matrix: WATER
Received Date: N/A
Percent Solid: N/A

	Children Co.					
Batch ID	Method	Date	Analyst I	nit Wt./Vol. Fin	al Vol.	Column
Analysis 1:	Nitrate - 353.2	03/25/2016 15:19	JS	NA	NA	NA
Analyte	CAS No.	Result (mg/L)	PQL I	Dilution Factor	Flags	File ID
Nitrate	NA	4.08	0.165	1.00		
		Sample Added M	MS MS	Limits	i	
Analyte Spiked	CAS No.	•	g/L) % Re	c. Q (%)		
Mitrata	NA	4.00 4.08	102	90.0-11	0	·

Qualifier column where 'e' 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.



Pace Analytical Services, Inc.



Job Number: 16030528

Client: BARTON AND LOGUIDICE

Project: ELF QUARTERLY Client Sample ID: MW-1N MSD

Nitrate

Lab Sample ID: 16030528-02K (AT07070K)

Pace Analytical®

Collection Date: N/A

Sample Matrix: WATER

Received Date: N/A

Percent Solid: N/A

102

90.0-110

102

0.00

20

Batch	ID Method	<u> </u>	Date Analyst	Init Wt./Vol.	Final Vol.	Colum	1
Analysis 1:	Nitrate - 353.2	03/25/2	016 15:20 JS	NA	NA	NA	
Analyte	CAS No.	Result (mg	/L) PQL	Dilution Fac	ctor Flags	File ID	
Nitrate	NA	4.08	0.165	1.00			
						Precision	
Analyte Spiked	CAS No.	Sample Added (mg/L) (mg/L)			imits MS (%) Rec	. RPD Q	Limits (%)

4.08

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

4.00

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

NA

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

Quality Control Samples (Lab)

Pace Analytical Services, Inc. April 04, 2016 16030528 - Page 72 of 172





Quality Control Results Method Blank

Job Number: 16030528

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF QUARTERLY

Client Sample ID: Method Blank (AT07198B)

Lab Sample ID: BLANK-01

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

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	875	SM 5310B	03/29/2016 15:20	JS	NA	NA	NA
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Facto	r Flags	File ID
Total Organ	ic Carbon	OC002	ND	1.00	1.00	U	875

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: 16030528

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF QUARTERLY

Client Sample ID: Lab Control Sample (AT07198L)

Lab Sample ID: LCS-01

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

1								
ı	3	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
١	Analysis 1:	875	SM 5310B	03/29/2016 15:34	JS	NA	NA	NA NA

		Added	LCS	LCS	, Limits	
Analyte Spiked	CAS No.	(mg/L)	(mg/L)	% Rec.	Q (%)	
Total Organic Carbon	OC002	10.0	9.71	97.1	80.0-120	

¹Qualifier column where 'e' 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: 16030528

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

Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF QUARTERLY

Client Sample ID: Method Blank (AT07070B)

Lab Sample ID: BLANK-65

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

1.5 (1975) (1916) (19.5)						100	
	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	180	SW-846 7196A	03/24/2016 18:25	JS	NA	NA	NA NA
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Facto	or Flags	File ID
Hexavalent C	Chromium	18540-29-9	ND	0.0400	1.00	Ū	180

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: 16030528

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF QUARTERLY

Client Sample ID: Lab Control Sample (AT07070L)

Lab Sample ID: LCS-65

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

١							
ı	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
ı	Analysis 1: 180	SW-846 7196A	03/24/2016 18:26	JS	NA	NA	NA NA

Analyte Spiked	CAS No.	Added (mg/L)	LCS (mg/L)	LCS % Rec.	1	Limits (%)	
Hexavalent Chromium	18540-29-9	0.200	0.207	104	9	90.0-110	

¹ Qualifier column where 'a' 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: 16030528

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

Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF QUARTERLY

Client Sample ID: Method Blank (AT07101B)

Lab Sample ID: BLANK-18

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

	7.42						
	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	600	BOD - SM 5210B	03/25/2016 10:24	KM	NA	NA	NA
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Facto	r Flags	File ID
Biological C	xygen Demand	NA NA	ND	0.200	1.00	U	600

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: 16030528

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

Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF QUARTERLY

Client Sample ID: Lab Control Sample (AT07101L)

Lab Sample ID: LCS-18

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

Percent Solid: N/A

ſ	200 C TO 100							
ı		Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
ı	Analysis 1:	600	BOD SM5210B	03/25/2016 10:26	KM	NA	NA	NA

Analyte Spiked	CAS No.	Added (mg/L)	LCS (mg/L)	LCS % Rec.	\mathbf{Q}^{1}	Limits (%)	
Biochemical Oxygen Demand	NA	198	152	76.9		84.6-115	

¹Qualifier column where 'e' 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: 16030528

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

Client: BARTON AND LOGUIDICE

Project: ELF QUARTERLY

Client Sample ID: Method Blank (AT07070B)

Lab Sample ID: BLANK-48

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

	11 Y10304 1						
	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	454	Nitrate - 353.2	03/25/2016 15:14	JS	NA	NA	NA
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Fact	or Flags	File ID
Nitrate		NA	ND	0.165	1.00	U	454

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: 16030528

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

Client: BARTON AND LOGUIDICE

Project: ELF QUARTERLY

Client Sample ID: Lab Control Sample (AT07070L)

Lab Sample ID: LCS-48

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

1	1.14 20 × 1						
	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
l	Analysis 1: 454	Nitrate - 353.2	03/25/2016 15:15	JS	NA	NA	NA

Analyte Spiked	CAS No.	Added (mg/L)	LCS (mg/L)	LCS % Rec.	Q ¹	Limits (%)	
Nitrate	NA	4.00	4.15	104		90.0-110	

¹Qualifier column where '9' 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.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:

Pace Analytical Services - NY

Project:

16030528

Sample Matrix:

Water

Sample Name: Lab Code: water

Method Blank R1602751-MB Service Request: R1602751

Date Collected: NA

Date Received: NA

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor 1		Date Analyzed	Note
Phenolics, Total Recoverable	420.4	0.0020 U	mg/L	0.0020	1	NA	3/29/16 10:30	

16-0000370131 rcv 00

SuperSet Reference:



QC SUMMARY REPORT

VO#:

1603K41

01-Apr-16

Client: Project: Pace Analytical Services Inc.

16030528 - BAR-ROC ELF Q1

BatchID:

D: 55111

Sample ID MB-55111	SampType: MBLK	TestCode	e: 200.7_RT	Units: mg/L		Prep Da	te: 3/28/2	016	RunNo: 94	723	
Client ID: PBW	Batch ID: 55111	TestN	o: E200.7	E200.7		Analysis Da	te: 3/30/2	016	SeqNo: 20	53291	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLImit	Qual
Aluminum	0.0053	0.20		-							J
Antimony	< 60	60									
Arsenic	< 10	10									
Barlum	< 0.20	0.20									
Beryllium	< 5.0	5.0									
Cadmium	< 5.0	5.0									
Calcium	< 1.0	1.0									
Chromium	0.0019	D.010									J
Cobalt	< 0.050	0.050									
Copper	< 0.020	0.020									
Iron	< 0.10	0.10									
Lead	< 5.0	5.0									
Magnesium	< 1.0	1.0									
Manganese	0.0018	0.020									J
Nickel	< 0.040	0.040									
Potassium	< 5.0	5.0									
Selenium	< 10	10									
Silver	0.00030	0.010									J
Sodium	< 5.0	5.0									
Thallium	0.39	10									J
Vanadium	< 0.050	0.050									
Zinc	< 0.020	0.020									

Qualiflers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSDlimit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response
- P Second column confirmation exceeds
- W Sample container temperature is out of limit as specified
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
 - RPD outside accepted recovery limits

Page 38 of 76

tage 30 or 10

12



QC SUMMARY REPORT

WO#:

1603K41

01-Apr-16

Client: Project: Pace Analytical Services Inc. 16030528 - BAR-ROC ELF Q1

BatchID:

D: 55111

Sample ID LCS-55111	SampType: LCS	TestCod	de: 200.7_RT	Units: mg/L		Prep Dai	te: 3/28/20	116	RunNo: 94	723	
Client ID: LCSW	Batch ID: 55111	Testi	No: E200.7	E200.7		Analysis Da	te: 3/30/20	116	SeqNo: 20	53292	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	50	0.20	50.00	0	101	85	115		-		
Antimony	1,000	60	1,000	0	101	85	115				
Arsenic	510	10	500.0	0	102	85	115				
Barium	2.4	0.20	2.500	0	97.8	85	115				
Beryilium	2,400	5.0	2,500	0	97.8	85	115				
Cadmium	2,400	5.0	2,500	0	96.6	85	115				
Calcium	49	1.0	50.00	0	98.8	85	115				
Chromium	2.4	0.010	2.500	0	95.4	85	115				
Cobalt	2.4	0.050	2.500	0	96.0	85	115				
Copper	2.4	0.020	2.500	0	94.5	85	115				
tron	50	0.10	50.00	0	99.8	85	115				
Lead	500	5.0	500.0	0	101	85	115				
Magnesium	48	1.0	50.00	0	96.9	85	115				
Manganese	2.4	0.020	2.500	0	96.6	65	115				
Nickel	2.4	0.040	2.500	0	94.9	85	115				
Potassium	80	5.0	80.00	0	99.8	85	115				
Selenium	490	10	500.0	0	97.9	85	115				
Silver	1.0	0.010	1.000	0	102	85	115				
Sodium	75	5.0	80.00	0	94.0	85	115				
Thallium	490	10	500.0	0	98.9	85	115				
Vanadium	2.3	0.050	2.500	0	92.7	85	115				
Zinc	2.4	0.020	2.500	0	96.9	85	115				

Qualifiers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSDlimit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response
 - Second column confirmation exceeds
- W Sample container temperature is out of limit as specified
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

Page 39 of 76



QC SUMMARY REPORT

WO#:

1603K41

01-Apr-16

Client: Project: Pace Analytical Services Inc.

16030528 - BAR-ROC ELF Q1

BatchID:

55111

Sample ID MB-55111	SampType: MBLK	TestCod	de: 200.7_MDL	Units: ug/L		Prep Da	te: 3/28/2	016	RunNo: 947	781	
Client ID: PBW	Batch ID: 55111	TestN	lo: E200.7	E200.7		Analysis Da	te: 3/31/2	016	SeqNo: 20	34620	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	< 200	200									
Antimony	< 60.0	60.0									
Arsanic	< 10.0	10.0									
Barium	< 200	200									
Beryllium	< 5.00	5.00									
Cadmium	< 5.00	5.00									
Calcium	< 5,000	5,000									
Chromium	< 10.0	10.0									
Cobalt	< 50.0	50.0									
Copper	< 25.0	25.0									
Iron	< 100	100									
Lead	< 3.00	3.00									
Magnesium	< 5,000	5,000									
Manganese	1.90	15.0									J
Nickel	< 40.0	40.0									
Potassium	< 5,000	5,000									
Selenium	< 5.00	5.00									
Silver	< 10.0	10.0									
Sodium	610	5,000									J
Thallium	< 10.0	10.0									
Vanadium	< 50.0	50.0									
Zinc	< 20.0	20.0									

Qualifiers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSDlimit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response
- P Second column confirmation exceeds
- W Sample container temperature is out of limit as specified
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

Page 40 of 76

Pace Analytical Services, Inc.

April 04, 2016

16030528 - Page 132 of 172

12



QC SUMMARY REPORT

WO#:

1603K41

01-Apr-16

Client: Project: Pace Analytical Services Inc. 16030528 - BAR-ROC ELF Q1

BatchID:

55111

Sample ID LCS-55111	SampType: LCS	TestCod	le: 200.7_MDL	Units: ug/L		Prep Dat	te: 3/28/20	116	RunNo: 94	781	
Client ID: LCSW	Batch ID: 55111	TestN	ło: E200.7	E200.7		Analysis Da	te: 3/31/20	116	SeqNo: 20	54621	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	49,600	200	50,000	0	99.1	85	115				
Antimony	985	60.0	1,000	0	98.5	85	115				
Arsenic (514	10.0	500.0	0	103	85	115				
Barlum	2,420	200	2,500	0	96.8	85	115				
Beryllium	2,420	5.00	2,500	0	96.9	65	115				
Cadmium	2,400	5.00	2,500	0	98.0	85	115				
Calcium	49,400	5,000	50,000	0	98.8	85	115				
Chromium	2,410	10.0	2,500	0	96.5	85	115				
Cobalt	2,390	50.0	2,500	0	95.7	85	115				
Copper	2,400	25.0	2,500	0	96.0	85	115				
tron	49,600	100	50,000	0	99.2	85	115				
Lead	503	3.00	500.0	0	101	85	115				
Magnesium	48,400	5,000	50,000	0	96.7	85	115				
Manganese	2,430	15.0	2,500	0	97.1	85	115				
Nickel	2,380	40.0	2,500	0	95.2	85	115				
Potassium	82,500	5,000	80,000	0	103	85	115				
Selenium	500	5.00	500.0	0	100	85	115				
Silver	1,010	10.0	1,000	0	101	85	115				
Sodium	80,900	5,000	80,000	0	101	85	115				
Thaillum	521	10.0	500.0	0	104	85	115				
Vanadium	2,430	50.0	2,500	0	97.1	85	115				
Zinc	2,440	20.0	2,500	0	97.5	85	115				

Qualifiers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSD limit
- Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response
 - Second column confirmation exceeds
- W Sample container temperature is out of limit as specified
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

Page 41 of 76

16030528 - Page 133 of 172

12



OC SUMMARY REPORT

WO#:

1603K41

01-Apr-16

Client: Project: Pace Analytical Services Inc.

16030528 - BAR-ROC ELF Q1

BatchID:

55111

Sample ID 1603K41-002EDUP	SampType: DUP	TestCod	ie: 200.7_MDL	. Units: ug/L		Prep Dat	io: 3/28/20	116	RunNo: 947	781	
Client ID: MW-1N	Batch ID: 55111	Testi	lo: E200.7	E200.7		Analysis Dai	e: 3/31/20)16	SeqNa: 20	54624	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLImit	Qual
Aluminum	885	200						796.2	10.5	20	
Antimony	< 60.0	60.0						0	0	20	
Arsenic	7.29	10.0						9.158	22.8	20	JR
Barium	28.4	200						26.90	5.42	20	J
Beryllium	< 5.00	5.00						0	0	20	
Cadmium	< 5.00	5.00						0.4000	200	20	R
Calcium	23,800	5,000						22,620	5.04	20	
Chromium	3.50	10.0						2.500	33.3	20	JR
Cobalt	< 50.0	50.0						0	0	20	
Copper	2.00	25.0						2.000	0	20	J
tron	1,150	100						1,047	9.46	20	
Lead	4.14	3.00						3.857	7.05	20	
Magnesium	14,300	5,000						13,610	4 59	20	
Manganese	34.6	15.0						32.50	6.26	20	
Nickal	1.80	40.0						0	200	20	JR
Potassium	1,020	5,000						1,175	13.9	20	J
Selenium	< 5.00	5.00						2.369	200	20	R
Silver	< 10.0	10.0						0	0	20	
Sodium	29,200	5,000						27,670	5.31	20	
Thallium	< 10.0	10.0						0	0	20	
Vanadium	< 50.0	50.0						2.500	200	20	R
Zinc	7.00	20.0						7.200	2.82	20	J

Qualifiers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSDlimit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response
- P Second column confirmation exceeds
- W Sample container temperature is out of limit as specified
- Value above quantitation range
- NO Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

Page 42 of 76

Pace Analytical Services, Inc.

April 04, 2016

16030528 - Page 134 of 172



QC SUMMARY REPORT

1603K41

01-Apr-16

Client: Project: Pace Analytical Services Inc. 16030528 - BAR-ROC ELF Q1

BatchID:

55111

Sample ID 1603K41-002EMS	SampType: MS	TestCod	de: 200.7_MOL	. Units: ug/L	Prep Date: 3/28/2016				RunNo; 947	781	
Client ID: MW-1N	9atch ID: 55111	Testh	No: E200.7	E200.7		Analysis Date:	3/31/2016		SeqNo: 20	34625	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit H	lighLimit R	PD Ref Val	%RPD	RPDLimit	Qual
Aluminum	3,280	200	2,000	798.2	124	70	130				
Antimony	496	60.0	500.0	0	99.3	70	130				
Arsenic	52.7	10.0	40.00	9,158	109	70	130				
Barlum	2,030	200	2,000	26.90	100	70	130				
Beryllium	48.0	5.00	50.00	0	96.0	70	130				
Cadmium	50.3	5.00	50.00	0.4000	99.8	70	130				
Chromlum	203	10.0	200.0	2.500	100	70	130				
Cobalt	497	50.0	500.0	0	99.4	70	130				
Copper	251	25.0	250.0	2.000	99.7	70	130				
Iron	2,160	100	1,000	1,047	111	70	130				
Lead	26.4	3.00	20.00	3.857	112	70	130				
Manganese	537	15.0	500.0	32.50	101	70	130				
Nickel	500	40.0	500.0	0	100	70	130				
Selenium	9.75	5.00	10.00	2.369	73.8	70	130				
Silver	49.3	10.0	50.00	0	98.6	70	130				
Thallium	55.7	10.0	50.00	0	111	70	130				
Vanadium	502	50.0	500.0	2.500	99.9	70	130				
Zinc	515	20.0	500.0	7.200	102	70	130				
Sample ID 1603K41-004EDUP	SampType: DUP	TestCo	de: 200.7_MDI	. Units: ug/L		Prep Date:	3/28/2016	3	RunNo: 94	781	

Sample 10	1803K41-004EDUF	Samp Type. Dur	resico	18. 200./_IND	L UIIIIS. Ugri,		Ligh ng	9 3120120	10	LOUISO 341	91	
Client ID:	MW-2N	Batch ID: 55111	TestN	lo: E200.7	E200.7		Analysis Da	te: 3/31/20	16	SeqNo: 20!	54630	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLImit	Qual
Aluminum		73.7	200		40				60.60	19.5	20	J
Antimony		< 60.0	60.0					×	4.308	200	20	R

Qualifiers:

- Value exceeds Maximum Contaminant Level
- II Holding times for preparation or analysis exceeded
- O RSD is greater than RSDlimit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.

Р

- M Manual Integration used to determine area response
 - Second column confirmation exceeds
- W Sample container temperature is out of limit as specified
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

Page 43 of 76

12



QC SUMMARY REPORT

WO#:

1603K41

01-Apr-16

Client: Project: Pace Analytical Services Inc. 16030528 - BAR-ROC ELF Q1

BatchID:

55111

Sample ID 1603K41-004EDUP	SampType: DUP	TestCoo	ia: 200.7_MDL	Units: ug/L		Prep Dat	e: 3/28/20	116	RunNo: 94	781	
Client ID: MW-2N	Batch ID: 55111	TestN	lo: E200.7	E200.7		Analysis Dat	B: 3/31/20	116	SeqNo: 20	54630	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	< 10.0	10.0						0	0	20	
Barium	48.9	200						46.80	4.39	20	J
Beryllium	< 5.00	5.00						0	0	20	
Cadmium	< 5.00	5.00						0	0	20	
Calcium	90,800	5,000						58,880	2.18	20	
Chromium	< 10.0	10.0						1.400	200	20	R
Cobalt	< 50.0	50.0						0	0	20	
Copper	< 25.0	25.0						0	0	20	
Iron	160	100						136.9	15.4	20	
Lead	< 3.00	3.00						3.494	200	20	R
Magnesium	32,000	5,000						30,940	3.43	20	
Manganese	141	15.0						136.2	3.46	20	
Nickel	< 40.D	40.0						0	0	20	
Potassium	1,030	5,000						938.6	9.09	20	J
Selenium	< 5.00	5.00						0	0	20	
Silver	< 10.0	10.0						0	0	20	
Sodium	9,190	5,000						6,851	29.2	20	R
Thallium	< 10.0	10.0						0	0	20	
Vanadium	< 50.0	50.0						0	0	20	
Zinc	1.20	20.0						1.000	16.2	20	J

Sa	mple ID	1603K41-004EMS	SampType:	MS	TestCode	200.7_MDI	L Units ug/L		Prep Date:	3/28/20	116	RunNo: 947	781	
Cli	ent ID:	MW-2N	Batch ID:	55111	TestNo	E200.7	E200.7		Analysis Date:	3/31/20	116	SeqNo: 20!	54631	
An	alyte		3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit H	lighLimit	RPD Ref Vel	%RPD	RPDLimit	Qual

Qualifiers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- 0 RSD is greater than RSDlimit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response
 - Second column confirmation exceeds
- Sample container temperature is out of limit as specified W
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
 - RPD outside accepted recovery limits

Page 44 of 76

Pace Analytical Services, Inc.

April 04, 2016

16030528 - Page 136 of 172

12



QC SUMMARY REPORT

WO#:

1603K41

01-Apr-16

Client: Project: Pace Analytical Services Inc.

16030528 - BAR-ROC ELF Q1

BatchID:

55111

Sample ID 1603K41-004EN	IS SampType: MS	TestCoo	ie: 200.7_MDL	. Units: ug/L		Prep Date	3/28/2016	RunNo: 94761	
Client ID: MW-2N	Batch ID: 55111	Testh	lo: E200.7	E200.7		Analysis Dat	3/31/2016	SeqNo: 2054631	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit RPD Re	f Val %RPD RPDLimit	Qual
Aluminum	2,050	200	2,000	60.60	99.5	70	130		
Antimony	501	60.0	500.0	4.308	99.4	70	130		
Arsenic	45.7	10.0	40.00	0	114	70	130		
Sarium	2,020	200	2,000	46.60	98.6	70	130		
Beryllium	47.6	5.00	50.00	0	95.2	70	130		
Cadmium	49.7	5.00	50.00	0	99.4	70	130		
Chromium	197	10.0	200.0	1,400	97.7	70	130		
Cobalt	491	50.0	500.0	0	98,1	70	130		
Copper	248	25.0	250.0	0	99.1	70	130		
Iron	1,100	100	1,000	136.9	95.8	70	130		
Lead	24.5	3.00	20.00	3.494	105	70	130		
Manganese	630	15.0	500.0	136.2	98.8	70	130		
Nickel	494	40.0	500.0	0	98.7	70	130		
Selenium	8.82	5.00	10.00	0	88.2	70	130		
Silver	48.5	10.0	50.00	0	97.0	70	130		
Thallium	56.1	10.0	50.00	0	112	70	130		
Vanadium	494	50.0	500.0	0	98.7	70	130		
Zinc	504	20.0	500.0	1.000	101	70	130		

Qualifiers:

- Value exceeds Maximum Contaminant Level
- II Holding times for preparation or analysis exceeded
- O RSD is greater than RSDlimit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response P
 - Second column confirmation exceeds
- W Sample container temperature is out of limit as specified
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
 - RPD outside accepted recovery limits

Page 45 of 76



QC SUMMARY REPORT

WO#:

1603K41

01-Apr-16

Client: Project: Pace Analytical Services Inc.

16030528 - BAR-ROC ELF QI

BatchID:

55142

Sample ID MB-55142	SampType: MBLK	TestCode: (PHENOLS	W Units: µg/L		Prep Date	a: 3/29/20	16	RunNo: 946	309	·
Client ID: PBW	Batch 1D: 55142	TestNo: 1	E420.1	E420.1		Analysis Date	e: 3/29/20	16	SeqNo: 205	50781	
Analyte	Result	PQL S	PK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Di #11 T.11 D	-50	5.0								-	

Phenolics, Total Recoverable	< 5.0	5.0
------------------------------	-------	-----

Sample ID LCS-55142	SampType: LCS			W Units: µg/L			te: 3/29/20		RunNo: 940		
Client ID: LCSW Analyte	Batch ID: 55142 Result	PQL	lo: E420.1	E420.1 SPK Ref Val	%REC		te: 3/29/20	RPD Ref Val	SeqNo: 20!		Qual
Phenolics, Total Recoverable	28.7	5.0	30.0	0	95.7	90	110		7.1.2.0	14 52,,,,,	

Sample ID 1503E57-004BMS	SampType: MS	TestCod	le: PHENOLS	_W Units: µg/L		Prep Dat	te: 3/29/201	16	RunNo: 94	309	
Client ID: ZZZZZZ	Batch ID: 55142	Testh	lo: E420.1	E420.1		Analysis Dai	te: 3/29/201	16	SeqNo: 20	50787	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLlmlt	RPD Ref Val	%RPD	RPDLimit	Qual
Discoller Total Consumphie	17.4	E 0	20.0	n	87.0	75	125				

Phenolics, Total Recoverable	17.4	5.0	20.0	0	87.0	75	125
------------------------------	------	-----	------	---	------	----	-----

Sample ID 1603E57-004BDUP	SampType: DUP	TestCode: PHE	NOLS_W Units: µg/L		Prep Dat	e: 3/29/20	16	RunNo: 94	609	
Client ID: ZZZZZZ	Batch ID: 55142	TestNo: E42	1.1 E420.1		Analysis Dat	e: 3/29/2 0	15	SeqNo: 20	50788	
Analyte	Result	PQL SPK	value SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLImit	Qual
Phenolics, Total Recoverable	< 5.0	5.0					0	0	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSDlimit
- Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response P
 - Second column confirmation exceeds
 - Sample container temperature is out of limit as specified
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

Page 46 of 76

April 04, 2016

Pace Analytical Services, Inc.

16030528 - Page 138 of 172



QC SUMMARY REPORT

WO#:

1603K41

01-Apr-16

Client: Project: Pace Analytical Services Inc.

16030528 - BAR-ROC ELF Q1

BatchID:

55142

Sample ID 1603K41-013CMS Client ID: POND	SampType: MS Batch ID: 55142		de: PHENOLS Vo: E420.1	S_W Units: µg/L E420.1		Prep Dat Analysis Dat	te: 3/29/20 te: 3/29/20		RunNo: 946 SeqNo: 205		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	16.2	5.0	20.0	0	81.0	75	125				

Sample ID 1803K41-013CDUP	SampType: DUP	TestCode: PHENOLS	S_W Units: µg/L	Prep Date: 3/29/2016	RunNo: 94609
Client ID: POND	Batch ID: 55142	TestNo: E420.1	E420.1	Analysis Date: 3/29/2016	SeqNo: 2050802
Analyte	Result	PQL SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qui
Phenolics, Total Recoverable	< 5.0	5.0		0	0 20

Qualifiers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSDlimit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response
 - Second column confirmation exceeds
 - Sample container temperature is out of limit as specified
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

Page 47 of 76

Pace Analytical Services, Inc.

April 04, 2016

16030528 - Page 139 of 172

12



QC SUMMARY REPORT

WO#:

1603K41

01-Apr-16

Client: Project: Pace Analytical Services Inc.

16030528 - BAR-ROC ELF Q1

BatchID:

55143

Sample ID MB-55143	SampType: MBLK	TestCode: tkn_w	Units: mg/L	Prep Date: 3/29/2016	RunNo: 94633
Client ID: PBW	Batch ID: 55143	TestNo: E351.2	E351.2	Analysis Date: 3/29/2016	SeqNo: 2051180
Analyte	Result	PQL SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLImit Qual
Nitrogen, Kjeldahl, Total	< 0.10	0.10		-	

Nitrogen, Kjeldahl, Total	< 0.10	0.10

Sample ID LCS-55143	SampType: LCS	TestCode: tkn_w		Units: mg/L	Prep Date: 3/29/2016		16	RunNo: 94633			
Client ID: LCSW	Batch ID: 55143	TestN	o: E351.2	E351.2	Analysis Date: 3/29/2016			SeqNo: 2051181			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLImit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	3.63	0.10	4.00	0	90.7	90	110				

Sample ID 1603E17-002BDUP	SampType: DUP	TestCode: TKN_W	Units: mg/L	Prep Date: 3/29/2016	RunNo: 94633		
Client ID: ZZZZZZ	Batch ID: 55143	TestNo: E351.2	2 E351.2 Analysis Date: 3/29/2016		SeqNo: 2951199		
Analyte	Result	PQL SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual		
Nitrogen, Kjeldahl, Total	0.70	0.10		0.68	3.31 20		

Sample ID 1603E17-002BMS	SampType: MS	TestCode: TKN_W Units: mg/L		Pre	p Date: 3/29/2016	RunNo: 94633		
Client ID: ZZZZZZ	Batch ID: 55143	TestNo: E351.2	E351.2	Analys	s Date: 3/29/2016	SeqNo: 2051200		
Analyte	Result	PQL SPK value	SPK Ref Val	%REC LowL	imit HighLimit RPC	Ref Val %RPD RPDUmit	Qual	
Nitrogen, Kieldahl, Total	3.40	0.50 4.00	0.68	67.9	90 110		DS	

Qualiflers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- 0 RSD is greater than RSDlimit
- Spike Recovery outside accepted recovery limits S
- D Dilution was required.
- M Manual Integration used to determine area response P
 - Second column confirmation exceeds
- Sample container temperature is out of limit as specified W
- Value above quantitation range
- ND Not Detected at the Reporting Limit
- RPD outside accepted recovery limits

Page 48 of 76

Pace Analytical Services, Inc.

April 04, 2016

16030528 - Page 140 of 172



OC SUMMARY REPORT

1603K41

01-Apr-16

Client: Project: Pace Analytical Services Inc. 16030528 - BAR-ROC ELF Q1

BatchID:

55143

Sample ID MB-55143	SampType: MBLK	TestCode: tkn_w	Units: mg/L	Prep Date: 3/29/2016	RunNo: 94633
Client ID: PBW	Batch ID: 55143	TestNo: E351.2	E351.2	Analysis Date: 3/29/2018	SeqNo: 2051218
Analyte	Result	PQL SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Nitrogen, Kjeldahl, Total	< 0.10	0.10			

Sample ID LCS-55143	SampType: LCS	TestCode: tlun_w		Units: mg/L	Prep Date: 3/29/2016		e: 3/29/2016	RunNo: 94633
Client 1D: LCSW	Batch ID: 55143	TestN	o: E351.2	€351.2	Analysis Date: 3/29/2016			SeqNo: 2951219
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit RPD Ref Va	i %RPD RPDLimit Qua
Nitronen Kieldahl Total	4.15	0.10	4.00	0	104	90	110	

Sample ID 1603E57-004BDUP RunNo: 94633 Prep Date: 3/29/2016 SampType: DUP TestCode: TKN W Units: mg/L Client ID: ZZZZZZ Analysis Date: 3/29/2016 SeqNo: 2051221 Batch ID: 55143 TestNo: E351.2 E351.2 %REC LowLimit HighLimit RPD Ref Val %RPD RPDUmit Analyte Result POL SPK value SPK Ref Val Qual Nitrogen, Kjeldahl, Total < 0.10 0.10 O 20

Sample ID 1603E57-004BMS Client ID: ZZZZZZ	SampType: MS Batch ID: 55143		e: TKN_W o: E351.2	Units: mg/L E351.2	Prep Date: 3/29/2016 Analysis Date: 3/29/2016			RunNo: 94833 SeqNo: 2051222			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	4.14	0.10	4.00	0	103	90	110				

Qualifiers:

- Value exceeds Maximum Contaminant Level
- II Holding times for preparation or analysis exceeded
- 0 RSD is greater than RSDlimit
- Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response P
 - Second column confirmation exceeds
- W Sample container temperature is out of limit as specified
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- RPD outside accepted recovery limits

Page 49 of 76

Pace Analytical Services, Inc.

April 04, 2016

16030528 - Page 141 of 172

12



PACE ANALYTICAL 575 Broad Hallow Road Melville, NY 11747 TEL: (631) 694-3040 FAX: (631) 420-8436 Website: <u>www.pacelabs.com</u>

QC SUMMARY REPORT

WO#:

1603K41

01-Apr-16

Client: Project: Pace Analytical Services Inc.

16030528 - BAR-ROC ELF Q1

BatchID:

55143

Sample ID 1603H53-002BDUP	SampType: DUP	TestCode	D: TKN_W	Units: mg/L		Prep Da	te: 3/29/2 0)16	RunNo: 940	633	
Client ID: ZZZZZZ	Batch ID: 55143	TestNo	o: E351.2	E351.2		Analysis Da	te: 3/29/20	116	SeqNo: 20!	51236	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLlmit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	8.76	0.10						8.79	0.32	20	E

Sample ID 1603H53-002BMS	SampType: MS	TestCode	e: TKN_W	Units: mg/L		Prep Dat	e: 3/29/20	16	RunNo: 941	533	
Client ID: ZZZZZZ	Batch ID: 55143	TestNo	o: E351.2	E351.2		Analysis Dat	te: 3/29/20	16	SeqNo: 20	51237	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	15.1	0.10	4.00	8.79	158	90	110				ES

Qualifiers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSDlimit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response
 - Second column confirmation exceeds
- W Sample container temperature is out of limit as specified
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

Page 50 of 76

Pace Analytical Services, Inc.

April 04, 2016

16030528 - Page 142 of 172



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

PQL

PQL

0.10

POL

0.10

0.10

OC SUMMARY REPORT

WO#:

1603K41

01-Apr-16

Client: Project: Pace Analytical Services Inc.

16030528 - BAR-ROC ELF Q1

TestCode: tkn_w Units: mg/L

Prep Date: 3/29/2016

BatchID:

RunNo: 94639

55143

Client ID: PBW

Sample ID MB-55143

SampType: MBLK Batch ID: 55143

TestNo: E351.2 E351.2 Analysis Date: 3/29/2016

SeqNo: 2051279

Analyte

Result

3.67

Result

1.50

SPK value SPK Ref Val

%REC LowLimit HighLimit RPD Ref Val

%RPD RPDLimit Qual

Nitrogen, Kjeldahl, Total

< 0.10 0.10

Units: mg/L

Prep Date: 3/29/2016

RunNo: 94639

Sample ID LCS-55143 Client ID: LCSW

SampType: LCS Batch 1D: 55143 TestCode: tkn_w TestNo: E351.2

E351.2

Analysis Date: 3/29/2016

Analyte

SPK value SPK Ref Val

SPK value SPK Ref Val

4.00

%REC LowLimit HighLimit RPD Ref Val 91.8

110

SeqNo: 2051280

%RPD RPDLimit Qual

Nitrogen, Kjeldahl, Total

Sample ID 1603E40-002BDUP

SampType: DUP

TestCode: TKN_W

Units: ma/L

Prep Date: 3/29/2016

90

RunNo: 94639

Client ID: ZZZZZZ Analyte

Batch ID: 55143

TestNo: E351.2

E351.2

Analysis Date: 3/29/2016

SeqNo: 2051296

%RPD

RPDLimit Qual 30.1 20

Nitrogen, Kjeldahl, Total

Sample ID 1603E40-002BMS

TestCode: TKN_W

Units: mg/L

Prep Date: 3/29/2016

110

%REC LowLimit HighLimit RPD Ref Val

RunNo: 94639

R

Analyte Nitrogen, Kleidahl, Total

Client ID: ZZZZZZ Result

SampType: MS Batch ID: 55143

5.70

TestNo: E351.2 PQL

E351.2 SPK value SPK Ref Val

Analysis Date: 3/29/2016 %REC LowLimit HighLimit RPD Ref Val

90

SeqNo: 2051297

%RPD RPDLImit

Qual ES

Qualifiers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- 0 RSD is greater than RSDlimit
- Spike Recovery outside accepted recovery limits
- Dilution was required.

4.00

Manual Integration used to determine area response

Sample container temperature is out of limit as specified

- Value above quantitation range
- ND Not Detected at the Reporting Limit
 - RPD outside accepted recovery limits

Page 51 of 76

Pace Analytical Services, Inc.

April 04, 2016

Second column confirmation exceeds

16030528 - Page 143 of 172



PACE ANALYTICAL 575 Broad Hollow Road Meiville, NY 11747 TEL: (631) 694-3040 FAX: (631) 420-8436 Website: <u>www.pacelabs.com</u>

QC SUMMARY REPORT

WO#:

1603K41

01-Apr-16

Client: Project: Pace Analytical Services Inc.

16030528 - BAR-ROC ELF Q1

BatchID:

55159

Sample ID 1603J63-007ADUP Client ID: ZZZZZZ	SampType: DUP Batch ID: 55159		ie: HG_7470/	A_D Units: ug/L SW7470		Prep Da Analysis Da	te: 3/30/20 te: 3/30/20		RunNo: 946 SeqNo: 205		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLImit	Qual
Mercury	0.02	0.20						0	200	20	JR

Sample ID 1603J63-007AMS	SampType: MS	TestCo	de: HG_7470A	D Units ug/L		Prep Dat	e: 3/30/20	16	RunNo: 946	184	
Client ID: ZZZZZZ	Batch ID: 55159	TestNo: SW7470		SW7470		Analysis Dai	e: 3/30/20	16	SeqNo: 20!	2533	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDUmit	Qual
Mercury	1.37	0.20	1.00	0	137	75	125				S

Qualiflers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSD limit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response
 - Second column confirmation exceeds
- W Sample container temperature is out of limit as specified
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

Page 52 of 76



PACE ANALYTICAL 575 Broad Hellow Road Mebille, NY 11747 TEL: (631) 694-3040 FAX: (631) 420-8436 Website: www.pacelabs.com

OC SUMMARY REPORT

WO#:

1603K41

01-Apr-16

Client: Project: Pace Analytical Services Inc.

16030528 - BAR-ROC ELF Q1

BatchID:

55159

Sample ID MB-55159	SampType: MSLK	TestCode	HG 7470A B	f Units: ug/L		Prep Date:	3/30/20	16	RunNo: 94	384	
Client ID: PBW	Batch ID: 55159		SW7470	SW7470		Analysis Date:			SeqNo: 20		
A - (A - (C)	D			me n en e		1 11 11 11					
Analyte	Result	PQL	SPK value S	PK Ref Val	%REC	LowLimit Hi	Aurmu	RPD Ret Val	%RPD	RPOLImit	Qual

Mercury < 0.200 0.200

1/3	LCS-55159 LCSW	SampType: LC Batch ID: 55			HG_7470A SW7470	_M Units: ug/L SW7470		Prep Dat Analysis Dat	e: 3/30/20		RunNo: 94 SeqNo: 20		
Analyte		R	esult F	QL S	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLImit	Qual
Mercury			1.01 0.3	200	1.000	0	101	80	120				

Qualifiers:

Value exceeds Maximum Contaminant Level

H Holding times for preparation or analysis exceeded

RSD is greater than RSDlimit

S Spike Recovery outside accepted recovery limits

D Dilution was required.

M Manual Integration used to determine area response

Second column confirmation exceeds

W Sample container temperature is out of limit as specified

E Value above quantitation range

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

Page 53 of 76



PACE ANALYTICAL 575 Brood Hollow Road Meiville, NY 11747 TEL: (631) 694-3040 FAX: (631) 420-8436 Website: <u>www.pacelabs.com</u>

QC SUMMARY REPORT

WO#:

1603K41

01-Apr-16

Client: Project: Pace Analytical Services Inc.

16030528 - BAR-ROC ELF Q1

BatchID:

55166

Sample ID MB-55166 Client ID: PBW	SampType: MBLK Batch ID: 55166		e: cn_w sm450 o: SM4509-CN	Units: µg/L E SM4500-CN E		Prep Dat Analysis Dat	e: 3/30/20		RunNo: 947 SeqNo: 20:		
Analyte	Result	PQL	SPK value S	PK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	< 10	10									
					···						
Sample ID 1603K41-002DMS	SampType: MS	TestCod	e: cn w sm450	Units: µg/L		Prep Dal	a: 3/30/21	016	RunNo: 94	730	

Sample ID 16	03K41-002DDUP	SampType: DUP	TestCod	ie: cn_w sm4	50 Units: μg/L		Prep Date	: 3/30/20	16	RunNo: 94	730	
Cyanide	·	85	10	100.0	0	84.9	75	125				
Analyte		Result	PQL SPK value SPK Ref Val				LowLimit	Hight.imit	RPD Ref Val	%RPD	RPQLimit	Qual
Client ID: MV	N-1N	Batch ID: 55166	Testi	lo: SM4500-C	NE SM4500-CNE		Analysis Date	: 3/30/20	16	SeqNa: 20	53404	

1 '	MW-1N	Batch ID: 55166		la: SM4500-CN	E SM4500-CN E		Analysis Date	e: 3/30/20		SeqNo: 20!		
Analyte		Result	PQL	SPK value 5	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cvanide		< 10	10						0	0	20	

Qualifiers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSDlimit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response
 - Second column confirmation exceeds
 - Sample container temperature is out of limit as specified
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

Page 54 of 76

Pace Analytical Services, Inc.

April 04, 2016

16030528 - Page 146 of 172



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

QC SUMMARY REPORT

WO#:

1603K41

01-Apr-16

Client: Project: Pace Analytical Services Inc.

16030528 - BAR-ROC ELF Q1

BatchID:

R94456

RunNo: 94456

Sample ID MB-032616 SampType: MBLK TestCode: COLOR_W_S Units: units Prep Date: Client ID: PBW Batch ID: R94456 TestNo: SM2120B Analysis Date: 3/26/2016 SeqNo: 2046517 Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual Color < 5.00 5.00

Color pH < 0 0

Sample ID LCS-032616 Client ID: LCSW	SampType: LCS Batch ID: R94456		de: COLOR_V do: SM2120B	V_S Units units		Prep Dat Analysis Dat		16	RunNo: 944 SeqNo: 204		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowUmit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Color	40.0	5.00	40.00	0	100	85	115				

Sample ID 1603K41-013DDUP Client ID: POND	SampType: DUP Batch ID: R94456		le: COLOR_V	N_S Units: units		Prep Da Analysis Da		016	RunNo: 944 SeqNo: 204		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Color Color pH	10.0 6.00	5.00 0						10.00 6.000	0	20 0	

Qualifiers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- RSD is greater than RSDlimit
- Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response
 - Second column confirmation exceeds
- W Sample container temperature is out of limit as specified
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- RPD outside accepted recovery limits

Page 55 of 76



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

OC SUMMARY REPORT

WO#:

1603K41

01-Apr-16

Client: Project: Pace Analytical Services Inc.

16030528 - BAR-ROC ELF Q1

Units: mg/L

BatchID:

R94523

Sample ID MB-032816 Client ID: PBW

SampType: MBLK

TestCode: COD_W

Prep Date:

RunNo: 94523

Batch ID: R94523

TestNo: E410.4

Analysis Date: 3/28/2016

SeqNo: 2048924

Analyte

Analyte

Result

Result

93.3

Result

Result

67.0

SPK value SPK Ref Val

%REC LowLimit HighLimit RPD Ref Val

%RPD RPDLimit Qual

Chemical Oxygen Demand

< 10.0

Units: mg/L

Prep Date:

RunNo: 94523

Sample ID LCS-032816 Client ID: LCSW

SampType: LCS Batch ID: R94523 TestCode: COD_W

Analysis Date: 3/28/2016

TestNo: E410.4

SeqNo: 2048925

%REC LowLimit HighLimit RPD Ref Val

93.3

110

%RPD RPDLimit Qual

Chemical Oxygen Demand

Sample ID 1603E57-004BDUP SampType: DUP

TestCode: COD_W

POL

10.0

PQL

10.0

PQL

20.0

Units: mg/L

Prep Date:

90

RunNo: 94523

Client ID: ZZZZZZ

Batch IO: R94523

TestNo: E410.4

Analysis Date: 3/28/2016

SeqNo: 2048932

%RPD RPDUmit

Analyte

SPK value SPK Ref Val

%REC LowLimit HighLimit RPD Ref Val

20

Chemical Oxygen Demand

< 10.0

SPK value SPK Ref Val

100.0

87.8

10.0

Prep Date:

90

110

RunNo: 94523

Analyte

Sample ID 1603E57-004BMS SampType: MS Client ID: ZZZZZZ Batch ID: R94523 TestCode: COD_W TestNo: E410.4

SPK value

100.0

Units: mg/L

SPK Ref Val

Analysis Date: 3/28/2016 %REC LowLimit HighLimit RPD Ref Val

SeqNo: 2048933

%RPD RPDLImit Qual

Chemical Oxygen Demand

Value exceeds Maximum Contaminant Level

H Holding times for preparation or analysis exceeded

RSD is greater than RSDlimit 0 Spike Recovery outside accepted recovery limits

Dilution was required. Manual Integration used to determine area response

Sample container temperature is out of limit as specified

Value above quantitation range

ND Not Detected at the Reporting Limit RPD outside accepted recovery limits

Qual

Page 56 of 76

DS

Pace Analytical Services, Inc.

Qualifiera:

April 04, 2016

Second column confirmation exceeds

16030528 - Page 148 of 172



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

OC SUMMARY REPORT

₩O#:

1603K41

01-Apr-16

Client: Project: Pace Analytical Services Inc.

16030528 - BAR-ROC ELF Q1

BatchID:

: R94652

Sample ID VBLK032816	SampType: MBLK	TestCode: 8260_W_360 Units: µg/L			Prep Date:			RunNo: 946	152	
Client ID: PBW	Batch ID: R94652	TestNo: SW6	3260	A	nalysis Date:	3/28/20	16	SeqNa: 205	1561	
Analyte	Result	PQL SPK	/alue SPK Ref Val	%REC	LowLimit Hi	ighLimit	RPD Ref Val	%RPD	RPDLImit	Qual
Chloromethane	< 5.0	5.0								
Vinyt chloride	< 5.0	5.0								
Bromomethane	< 5.0	5.0								
Chloroethane	< 5.0	5.0								
Acrylonitrile	< 5.0	5.0								
Trichlorofluoromethane	< 5.0	5.0								
1,1-Dichloroethene	< 5.0	5.0								
fodomethane	1.3	5.0								J
Vinyl acetate	< 5.0	5.0								
Acetone	< 5.0	5.0								
Carbon disulfide	< 5.0	5.0								
Methylene chloride	< 5.0	5.0								
trans-1,2-Dichloroethene	< 5.0	5.0								
1,1-Dichloroethane	< 5.0	5.0								
cis-1,2-Dichloroethene	< 5.0	5.0								
2-Butanone	1.2	5.0								J
Bromochloromethane	< 5.0	5.0								
Chloroform	< 5.0	5.0								
1,1,1-Trichloroethane	< 5.0	5.0								
Carbon tetrachloride	< 5.0	5.0								
Benzene	< 5.0	5.0								
1,2-Dichloroethane	< 5.0	5.0								
Trichloroethene	< 5.0	5.0								
1,2-Dichloropropane	< 5.0	5.0								
Dibromomethane	< 5.0	5.0								
Bromodichloromethane	< 5.0	5.0								

Qualifiers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSDlimit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response
 - Second column confirmation exceeds
- W Sample container temperature is out of limit as specified
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

Page 57 of 76

7 01 70



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

QC SUMMARY REPORT

WO#:

1603K41

01-Apr-16

Client: Project: Pace Analytical Services Inc.

16030528 - BAR-ROC ELF Q1

BatchID:

R94652

Sample ID VBLK032816	SampType: MBLK	TestCod	e: 8260_W_360 Units: µg/L		Prep Dat	6 :		RunNo: 941	152	
Client ID: PBW	Batch ID: R94652	TestN	o: SW8260		Analysis Dat	e: 3/28/2	016	SeqNo: 20	51561	
Analyte	Result	PQL	SPK value SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Vai	%RPD	RPDUmlt	Qual
cis-1,3-Dichloropropane	< 5.0	5.0								
4-Methyl-2-pentanone	< 5.0	5.0								
Toluene	< 5.0	5.0								
trans-1,3-Dichloropropene	< 5.0	5.0	19							
1,1,2-Trichloroethane	< 5.0	5.0								
Tetrachloroethene	< 5.0	5.0								
2-Hexanone	< 5.0	5.0								
Dibromochloromethane	< 5.0	5.0								
1,2-Dibromoethane	< 5.0	5.0								
Chlorobenzene	< 5.0	5.0								
trans-1,4-Dichloro-2-butene	< 5.0	5.0								
Ethylbenzene	< 5.0	5.0								
1,1,1,2-Tetrachloroethane	< 5.0	5.0								
Xylene (total)	< 5.0	5.0								
Styrene	< 5.0	5.0								
Bromoform	< 5.0	5.0								
1,1,2,2-Tetrachloroethane	< 5.0	5.0								
1,2,3-Trichloropropane	< 5.0	5.0								
1,4-Dichlorobenzene	< 5.0	5.0								
1,2-Dichlorobenzene	< 5.0	5.0								
1,2-Dibromo-3-chloropropane	< 5.0	5.0								
Surr. 1,2-Dichloroethane-d4	46		50.00	92.6	79	116				
Surr. Toluene-d8	44		50.00	87.1	69	125				
Surr: 4-Bromofluorobenzene	44		50.00	88.8	79	122				

Qualifiers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- 0 RSD is greater than RSDlimit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response P
 - Second column confirmation exceeds
 - Sample container temperature is out of limit as specified
- Value above quantitation range
- ND Not Detected at the Reporting Limit
- RPD outside accepted recovery limits

Page 58 of 76



PACE ANALYTICAL 575 Broad Hallow Road Melville, NY 11747 TEL: (631) 694-3040 FAX: (631) 420-8436 Website: <u>www.pacelabs.com</u>

QC SUMMARY REPORT

WO#:

1603K41

01-Apr-16

Client: Project: Pace Analytical Services Inc.

16030528 - BAR-ROC ELF Q1

BatchID:

R94652

		TestCode: 8260_W_360 Units: µg/L 52 TestNo: SW8260			Prep Date:				RunNo: 94652		
Client ID: ZZZZZZ	Batch ID: R94652	Testif	lo: SW8260			Analysis Da	te: 3/28/20	116	SeqNo: 20:	51562	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLImit	Qual
Chloromethane	35	5.0	50.00	0	70.5	46	144				
Vinyl chloride	36	5.0	50.00	0	71.5	43	143				
Bromomethane	43	5.0	50.00	0	86.1	52	147				
Chloroethane	37	5.0	50.00	0	73.5	49	151				
Acrylonitrile	49	5.0	50.00	0	97.5	59	148				
Trichlorofluoromethane	44	5.0	50.00	0	88.2	27	173				
1,1-Dichloroethene	42	5.0	50.00	0	83.9	45	146				
Iodomethane	34	5.0	50.00	0	67.6	61	144				
Vinyt acetate	56	5.0	50.00	0	113	20	158				
Acetone	61	5.0	50.00	0	123	23	188				
Carbon disulfide	45	5.0	50.00	0	91.1	48	132				
Methylene chloride	44	5.0	50.00	0	88.3	61	142				
trans-1,2-Dichloroethene	42	5.0	50.00	. 0	83.8	56	142				
1,1-Dichloroethane	45	5.0	50.00	0	90.2	83	151				
cis-1,2-Dichloroethene	45	5.0	50.00	0	89.5	72	121				
2-Butanone	44	5.0	50.00	0	87.3	44	162				
Bromochloromethane	54	5.0	50.00	0	107	81	116				
Chloroform	48	5.0	50.00	0	96.5	72	122				
1,1,1-Trichloroethane	46	5.0	50.00	0	92.6	65	118				
Carbon tetrachloride	42	5.0	50.00	0	84.5	59	120				
Benzene	40	5.0	50.00	0	79.7	73	119				
1,2-Dichloroethane	49	5.0	50.00	0	97.9	74	129				
Trichloroethene	41	5.0	50.00	0	81.2	69	117				
1,2-Dichloropropane	42	5.0	50.00	0	84.9	75	117				
Dibromomethane	45	5.0	50.00	0	90.3	75	125				
Bromodichloromethane	46	5.0	50.00	0	96.5	78	117				

Qualifiers:

- Value exceeds Maximum Contaminant Level
- 11 Itolding times for preparation or analysis exceeded
- O RSD is greater than RSDlimit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response
- P Second column confirmation exceeds
- W Sample container temperature is out of limit as specified
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

Page 59 of 76

Pace Analytical Services, Inc.

April 04, 2016

16030528 - Page 151 of 172



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

QC SUMMARY REPORT

WO#:

1603K41

01-Apr-16

Client: Project: Pace Analytical Services Inc. 16030528 - BAR-ROC ELF Q1

BatchID:

R94652

Sample ID LFB032816	SampType: LFB	TestCode: 8260_W_360 Units: µg/L Prep Date:					RunNo: 940	352			
Client ID: ZZZZZZ	Batch ID: R94652	Testh	4o; SW8260			Analysis Da	te: 3/28/20 1	16	SeqNo: 20!	51562	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
cis-1,3-Dichloropropene	47	5.0	50.00	0	94.9	78	116				
4-Methyl-2-pentanone	45	5.0	50.00	0	89.0	69	132				
Toluene	41	5.0	50.00	0	81.9	72	119				
trans-1,3-Dichloropropene	47	5.0	50.00	0	94.5	79	116				
1,1,2-Trichloroethane	44	5.0	50.00	0	87.4	60	117				
Tetrachloroethene	35	5.0	50 00	O	71.5	60	128				
2-Hexanone	40	5.0	50.00	0	80.1	83	115				S
Dibromochloromethane	39	5.0	50.00	0	78.0	70	120				
1,2-Dibromosthane	46	5.0	50.00	0	91,1	83	115				
Chlorobenzene	37	5.0	50.00	0	74.0	75	113				S
trans-1,4-Dichloro-2-butene	21	5.0	50.00	0	41.5	71	121				S
Ethylbenzene	37	5.0	50.00	0	74.7	70	113				
1,1,1,2-Tetrachloroethane	43	5.0	50.00	0	86.7	74	113				
Xylene (total)	120	5.0	150.0	0	79.9	71	109				
Styrene	41	5.0	50.00	0	82,0	72	118				
Bromoform	36	5.0	50.00	0	72.8	65	122				
1,1,2,2-Tetrachloroethane	43	5.0	50.00	0	85.4	74	121				
1,2,3-Trichloropropane	42	5.0	50.00	0	83.4	71	123				
1,4-Dichlorobenzene	39	5.0	50.00	0	77.2	71	113				
1,2-Dichlorobenzene	39	5.0	50.00	0	78.0	74	113				
1,2-Dibromo-3-chloropropane	38	5.0	50.00	0	75.9	74	119				
Surr. 1,2-Dichloroethane-d4	45		50.00		90.1	79	116				
Surr: Toluene-d8	44		50.00		88.6	69	125				
Surr. 4-Bromofluorobenzene	46		50.00		92.7	79	122				

Qualifiers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- 0 RSD is greater than RSDlimit
- Spike Recovery outside accepted recovery limits
- Dilution was required.
- Manual Integration used to determine area response
 - Second column confirmation exceeds
- Sample container temperature is out of limit as specified W
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- RPD outside accepted recovery limits

Page 60 of 76



PACE ANALYTICAL 575 Broad Hollow Road Meiville, NY 11747 TEL: (631) 694-3040 FAX: (631) 420-8436 Website: www.pacelabs.com

QC SUMMARY REPORT

WO#:

1603K41

01-Apr-16

Client: Project: Pace Analytical Services Inc. 16030528 - BAR-ROC ELF Q1

BatchID:

D: R94652

Sample ID 1603J05-001ADUP	SampType: DUP	TestCode: 8260_V	TestCode: 8260_W_360 Units; µg/L		Prep Dat		RunNo: 94652			
Client ID: ZZZZZZ	Batch ID: R94652	TestNo: SW826	0		Analysis Dat	ie: 3/29/2	016	SeqNo: 20!	51574	
Analyte	Result	PQL SPK valu	e SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloromethane	< 5.0	5.0					0	0	0	
Vinyl chloride	< 5.0	5.0					0	0	0	
Bromomethane	< 5.0	5.0					0	0	0	
Chloroethane	< 5.0	5.0					0	0	0	
Acrylonitrile	< 5.0	5.0					0	0	0	
Trichlorofluoromethane	< 5.0	5.0					0	0	0	
1,1-Dichloroethene	< 5.0	5.0					0	0	0	
lodomethane	< 5.0	5.0					0	0	0	
Vinyl acetate	< 5.0	5.0					C	0	0	
Acetone	< 5.0	5.0					0	0	0	
Carbon disulfide	< 5.0	5.0					0	D	0	
Methylene chloride	< 5.0	5.0					0	0	0	
trans-1,2-Dichloroethene	< 5.0	5.0					0	0	0	
1,1-Dichloroethane	< 5.0	5.0					0	0	0	
cis-1,2-Dichloroethene	1.3	5.0					1.260	0.797	0	J
2-Butanone	< 5.0	5.0					0	0	0	
Bromochloromethane	< 5.0	5.0					0	0	0	
Chloraform	< 5.0	5.0					0	0	0	
1,1,1-Trichloroethane	1.5	5.0					1.530	5.37	0	J
Carbon tetrachloride	< 5.0	5.0					0	0	0	
Benzene	< 5.0	5.0					0	0	0	
1,2-Dichloroethane	< 5.0	5.0					0	0	0	
Trichloroethene	< 5.0	5.0					0	0	0	
1,2-Dichloropropane	< 5.0	5.0					0	0	0	
Dibromomethane	< 5.0	5.0					0	0	0	
Bromodichloromethane	< 5.0	5.0					0	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSDlimit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response
 - Second column confirmation exceeds
- W Sample container temperature is out of limit as specified
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
 R RPD outside accepted recovery limits

Page 61 of 76



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

OC SUMMARY REPORT

WO#:

1603K41

01-Apr-16

Client: Project: Pace Analytical Services Inc. 16030528 - BAR-ROC ELF Q1

BatchID:

R94652

Sample ID 1603J05-001ADUP	SampType: DUP	21 (C) (F = 17				Prep Da	te:		RunNo: 946	852	
Client ID: ZZZZZZZ	Batch ID: R94652	Test	lo: SW8260			Analysis Da	te: 3/29/2 0)16	SeqNo: 20!	51574	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLImit	Qual
cis-1,3-Dichloropropane	< 5.0	5.0						0	0	0	
4-Methyl-2-pentanone	< 5.0	5.0						0	0	0	
Toluene	< 5.0	5.0						٥	0	0	
trans-1,3-Dichloropropene	< 5.0	5.0						0	0	0	
1,1,2-Trichloroethane	< 5.0	5.0						0	0	0	
Tetrachloroethene	< 5.0	5.0						0	0	0	
2-Hexanone	< 5.0	5.0						0	0	0	
Dibromochloromethane	< 5.0	5.0						0	0	0	
1,2-Dibromoethane	< 5.0	5.0						0	0	0	
Chlorobenzene	< 5.0	5.0						0	0	0	
trans-1,4-Dichloro-2-butene	< 5.0	5.0						0	0	0	
Ethylbenzene	< 5.0	5.0						a	0	0	
1,1,1,2-Tetrachloroethane	< 5.0	5.0						0	0	0	
Xylene (total)	< 5.0	5.0						0	0	0	
Styrene	< 5.0	5.0						0	0	0	
Bromoform	< 5.0	5.0						0	0	0	
1,1,2,2-Tetrachloroethane	< 5.0	5.0						0	0	0	
1,2,3-Trichloropropane	< 5.0	5.0						D	0	0	
1,4-Dichlorobenzene	< 5.0	5.0						0	0	0	
1,2-Dichlorobenzene	< 5.0	5.0						0	0	0	
1,2-Dibromo-3-chloropropane	< 5.0	5.0						0	0	0	
Surr. 1,2-Dichloroethane-d4	51		50.00		102	79	116		0	0	
Surr: Toluene-d8	45		50.00		90.7	69	125		0	0	
Surr. 4-Bromofluorobenzene	46		50.00		92.1	79	122		0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level
- 11 Holding times for preparation or analysis exceeded
- 0 RSD is greater than RSDlimit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response
 - Second column confirmation exceeds
 - Sample container temperature is out of limit as specified
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- RPD outside accepted recovery limits

Page 62 of 76

Pace Analytical Services, Inc.

April 04, 2016

16030528 - Page 154 of 172



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

QC SUMMARY REPORT

WO#:

1603K41

01-Apr-16

Client: Project: Pace Analytical Services Inc. 16030528 - BAR-ROC ELF Q1

BatchID:

R94652

Sample ID 1603J05-002AMS	SampType: MS	- 43					te:		RunNo: 946	152	
Client ID: 277777	Batch ID; R94652	TestN	lo: SW8260			Analysis Da	te: 3/29/20	116	SeqNo: 20	51575	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPOLImit	Qual
Chloromethane	58	5.0	50.00	0	117	46	144				
Vinyl chloride	63	5.0	50.00	0	126	43	143				
Bromomethane	65	5.0	50.00	0	131	52	147				
Chloroethane	63	5.0	50.00	0	126	49	151				
Acrylonitrile	84	5.0	50.00	0	167	59	148				S
Trichlorofluoromethane	76	5.0	50.00	0	152	27	173				
1,1-Dichloroethene	72	5.0	50.00	0	143	45	146				
todomethane	57	5.0	50.00	0	113	61	144				
Vinyl acetale	68	5.0	50.00	0	136	20	158				
Acetone	110	5.0	50.00	0	221	23	188				s
Carbon disulfide	89	5.0	50.00	0	177	48	132				Ş
Methylene chlorida	62	5.0	50.00	0	125	61	142				
trans-1,2-Dichloroethene	67	5.0	50.00	0	135	56	142				
1,1-Dichloroethane	69	5.0	50.00	0	138	83	151				
cls-1,2-Dichloroathene	67	5.0	50.00	0	134	72	121				s
2-Butanone	79	5.0	50.00	0	158	44	162				
Bromochloromethane	65	5.0	50.00	0	130	81	116				S
Chloroform	71	5.0	50.00	0	143	72	122				S
1,1,1-Trichloroethane	75	5.0	50.00	0	149	65	118				\$
Carbon tetrachloride	67	5.0	50.00	0	135	59	120				\$
Benzena	59	5.0	50,00	0	118	73	119				
1,2-Dichloroethane	69	5.0	50.00	0	137	74	129				S
Trichloroethene	61	5.0	50.00	0	121	69	117				S
1,2-Dichloropropane	59	5.0	50.00	0	119	75	117				S
Dibromomethane	60	5.0	50.00	0	120	75	125				
Bromodichloromethane	65	5.0	50.00	0	130	78	117				Ş

Qualifiers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSDlimit
- Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response
- Second column confirmation exceeds
- Sample container temperature is out of limit as specified
- Value above quantitation range
- ND Not Detected at the Reporting Limit R RPD outside accepted recovery limits

Page 63 of 76



PACE ANALYTICAL 575 Broad Hollow Road Meiville, NY 11747 TEL: (631) 694-3040 FAX: (631) 420-8436 Website: <u>www.pacelabs.co</u>m

QC SUMMARY REPORT

WO#:

1603K41

01-Apr-16

Client: Project: Pace Analytical Services Inc.

16030528 - BAR-ROC ELF Q1

BatchID:

: R94652

Sample ID 1603J05-002AMS	SampType: MS	TestCo	de: 8260_W_:	360 Units: µg/L		Prep Da	te:		RunNo: 94	852	
Client ID: ZZZZZZ	Batch ID: R94652	Testi	No: SW8260			Analysis Da	te: 3/29/20	116	SeqNo: 20	51575	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPOLImit	Qual
cis-1,3-Dichloropropene	63	5.0	50.00	C	126	78	116				s
4-Methyl-2-pentanone	80	5.0	50.00	0	160	69	132				S
Toluena	62	5.0	50.00	0	124	72	119				S
trans-1,3-Dichloropropene	64	5.0	50.00	0	127	79	116				S
1,1,2-Trichloroethane	59	5.0	50.00	0	118	80	117				S
Tetrachloroethene	54	5.0	50.00	O	109	60	125				
2-Hexanone	74	5.0	50.00	D.	147	83	115				S
Dibromochloromethane	48	5.0	50.00	0	96.4	70	120				
1,2-Dibromoethane	60	5.0	50.00	0	120	83	115				S
Chlorobenzene	53	5.0	50.00	0	106	75	113				
trans-1,4-Dichloro-2-butene	40	5.0	50.00	0	79.2	71	121				
Ethylbenzene	56	5.0	50.00	0	113	70	113				
1,1,1,2-Tetrachloroethene	60	5.0	50.00	0	119	74	113				S
Xylene (total)	180	5.0	150.0	0	118	71	109				S
Styrene	59	5.0	50.00	0	118	72	118				
Bromoform	44	5.0	50.00	0	87.6	65	122				
1,1,2,2-Tetrachloroethane	56	5.0	50.00	0	112	74	121				
1,2,3-Trichloropropane	53	5.0	50.00	0	107	71	123				
1.4-Dichlorobenzene	54	5.0	50.00	0	109	71	113				
1,2-Dichlorobenzene	54	5.0	50.00	0	108	74	113				
1,2-Dibromo-3-chloropropane	45	5.0	50.00	0	89.9	74	119				
Surr: 1,2-Dichloroethane-d4	48		50.00		95.5	79	116				
Surr: Toluene-d8	47		50.00		93.1	69	125				
Surr: 4-Bromofluorobenzene	49		50.00		98.1	79	122				

Qualifiers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSDlimit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response
- P Second column confirmation exceeds
- W Sample container temperature is out of limit as specified
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

Page 64 of 76

16030528 - Page 156 of 172



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

QC SUMMARY REPORT

WO#:

1603K41

01-Apr-16

Client: Project: Pace Analytical Services Inc. 16030528 - BAR-ROC ELF Q1

BatchID:

R94695

Sample iD 1803116-001AMS Client ID: ZZZZZZZ	SampType: MS Batch ID: R94695		TestCode: ANION300_D Units: mg/L TestNo: E300.0			Analysis Date: 3/29/2016				RunNo: 94695 SeqNo: 2052787		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Chloride Suffate	26.6 13.8	2.00 5.00	10.00 10.00	15.62 4.76	109 89.9	80 60	120 120					
Cample ID Associate not a DUD	Company DATE	TantCa	4 ANIIONI201	D. Unite: mail		Pres Del			RunNo: 94	tos.		

Sample ID 1603I16-001ADUP	SampType: DUP	TestCod	ie: ANION300	_D Units: mg/L		Prep Da	te:		RunNo: 940	95	
Client ID: ZZZZZZ	Batch ID: R94695	TestN	lo: E300,0			Analysis Da	te: 3/29/20	116	SeqNo: 20	52788	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLImit	Qual
Chloride	15.6	2.00						15.62	0.15	20	
Sulfate	< 5.00	5.00						4.76	200	20	R

Sample ID 1603J52-002AMS Client ID: 222222	SampType: MS Batch ID: R94695		TestCode: ANION300_D Units: mg/L TestNo: E300.0			Prep Date: Analysis Date: 3/29/2016				RunNo: 94695 SeqNo: 2052796		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Chloride	27.0	2.00	10.00	16.67	103	80	120					
Sulfate	14.5	5.00	10.00	5.01	95.2	80	120					

Sample ID 1603J52-002ADUP	SampType: DUP	TestCod	TestCode: ANION300_D Units: mg/L			Prep Da	te		RunNo: 940		
Client ID: 227722	Batch ID: R94695	Testi	la: E300.0			Analysis Da	te: 3/29/20)16	SeqNo: 20	52797	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	16.9	2.00						16.67	1.63	20	

Qualiflers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSDlimit
- Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response
 - Second column confirmation exceeds
 - Sample container temperature is out of limit as specified
- Value above quantitation range
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

Page 65 of 76



Sample ID 1603J52-002ADUP

Client ID: ZZZZZZ

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

QC SUMMARY REPORT

WO#:

1603K41

01-Apr-16

Client: Project: Pace Analytical Services Inc.

16030528 - BAR-ROC ELF Q1

SampType: DUP

Batch ID: R94695

TestCode: ANION300_D Units: mg/L

R94695

RunNo: 94695

Prep Date: Analysis Date: 3/29/2016

SeqNo: 2052797

%RPD RPDLimit Qual

Analyte Sulfate

Result

5.12

TestNo: £300.0 POL SPK value SPK Ref Val

5.00

%REC LowLimit HighLimit RPD Ref Val

BatchID:

5.01

2.27

20

Qualiflers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- RSD is greater than RSDlimit 0
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- Manual Integration used to determine area response
- P Second column confirmation exceeds
- w Sample container temperature is out of limit as specified
- Value above quantitation range
- ND Not Detected at the Reporting Limit
- RPD outside accepted recovery limits

Page 66 of 76

12

Pace Analytical Services, Inc.

April 04, 2016

16030528 - Page 158 of 172



PACE ANALYTICAL 575 Broad Hallow Road Melville, NY 11747 TEL. (631) 694-3040 FAX: (631) 420-8436 Website: www.pacelabs.com

QC SUMMARY REPORT

1603K41 01-Apr-16

Client: Project: Pace Analytical Services Inc.

16030528 - BAR-ROC ELF Q1

BatchID:

R94695

Sample ID 160:	E57-004ADUP	SampType: DUP	TestCod	ie: ANION300	_W Units: mg/L		Prep Dat	te:		RunNo: 948	395	
Client ID: 222	777	Batch ID: R94695	TestN	TestNo: E300.0			Analysis Date: 3/29/2016			SeqNo: 2052767		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride		< 2.00	2.00				65		1.30	200	20	R
Bromide		< 0.50	0.50						0.03	200	20	R
Sulfate		10.5	5.00						10.64	0.94	20	

Sample ID LCS-	32916 SampType: LCS	TestCo	TestCode: ANION300_W Units: mg/L			Prep Dat	le:		RunNo: 94695		
Client ID: LCS\	Batch ID: R94695	Test	No: E300.0			Analysis Da	te: 3/29/20	16	SeqNo: 205	52776	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	10.6	2.00	10.00	0	106	90	110				
Bromide	2.54	0.50	2.50	0	101	90	110				
Sulfate	10.4	5.00	10.00	0	104	90	110				

Sample ID	нъ-032916 777777	SampType: Ifb Batch ID: R94695		de: ANION300 No: E300.0)_W Units: mg/L		Prep Dat		15	RunNo: 946 SeaNo: 205		
Analyte		Result	PQL		SPK Ref Val	%REC	•		RPD Ref Val	%RPD	RPDLImit	Qual
Chloride		10.5	2.00	10.00	0	105	90	110				
Bromide		0.90	0.50	1.00	a	90.5	90	110				
Sulfate		9.31	5.00	10.00	0	93.1	90	110				

Qualifiers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSDlimit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response
- Second column confirmation exceeds
- W Sample container temperature is out of limit as specified
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- RPD outside accepted recovery limits

Page 67 of 76

Pace Analytical Services, Inc.

April 04, 2016



PACE ANALYTICAL 575 Broad Hollow Road Metville, NY 11747 TEL: (631) 694-3040 FAX: (631) 420-8436 Website: <u>www.pacelabs.com</u>

QC SUMMARY REPORT

D#: 1603K41

01-Apr-16

Client: Project: Pace Analytical Services Inc.

16030528 - BAR-ROC ELF Q1

BatchID:

R94695

Sample ID MB-032915 Client ID: PBW	SampType: MBLK Batch ID: R94695		TestCode: ANION300_W Units: mg/L TestNo: E300.0			Prep Da Analysis Da		D16	RunNo: 94695 SeqNo: 2052779		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimIt	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	< 2.00	2.00									
Bromide	< 0.50	0.50									
Sulfate	< 5.00	5.00									

Sample ID	1603E57-004AMS	SampType: MS	TestCod	TestCode: ANION300_W Units: mg/L			Prep Dai	te;		RunNo: 94695		
Client ID:	777777	Batch ID: R94695	TestN	lo: E300.6		Analysis Date: 3/29/2016				SeqNa: 205	52808	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLImit	Qual
Chloride		12.4	2.00	10.00	1.30	111	80	120				
Bromide		1.13	0.50	1.00	0.03	111	80	120				
Sulfate		19.5	5.00	10.00	10.64	88.6	80	120				

Sample ID	1603K41-012AMS	SampType: MS	TestCod	ie: ANION301	_W Units: mg/L		Prep Da	to:		RunNo: 946	595	
Client ID:	MW-6N	Batch ID: R94695	TestNo: E300.0				Analysis Da	te: 3/30/20	116	SeqNo. 2052825		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chioride		13.7	2.00	10.00	3.83	99.1	80	120				
Bromide		1-16	0.50	1.00	0	116	80	120				
Sulfate		59.3	5.00	10.00	48.32	110	80	120				E

Qualifiers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSDlimit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response
- P Second column confirmation exceeds
- W Sample container temperature is out of limit as specified
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
 R RPD outside accepted recovery limits

Page 68 of 76

Pace Analytical Services, Inc.

April 04, 2016

16030528 - Page 160 of 172



PACE ANALYTICAL 575 Broad Hollow Road Meiville, NY 11747 TEL: (631) 694-3040 FAX: (631) 420-8336 Website: <u>www.pacelabs.com</u>

QC SUMMARY REPORT

VO#:

1603K41

01-Apr-16

Client: Project: Pace Analytical Services Inc.

16030528 - BAR-ROC ELF Q1

BatchID:

R94695

Sample ID 1603K41-012ADUP	SampType: DUP	TestCod	la: ANION30	_W Units: mg/L		Prep Da	te:		RunNo: 94	195	
Client ID: MW-6N	Batch ID: R94695	TestN	lo: E300.0			Analysis Da	te: 3/30/20)16	SeqNo: 20	52827	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPO	RPDLimit	Qual
Chloride	3.98	2.00						3.63	3.69	20	
Bromide	< 0.50	0.50						0	0	20	
Sulfate	48.9	5.00						48.32	1.19	20	

Qualifiers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSDlimit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual integration used to determine area response
- P Second column confirmation exceeds
- W Sample container temperature is out of limit as specified
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
 R RPD outside accepted recovery limits

Page 69 of 76

Pace Analytical Services, Inc.

April 04, 2016

16030528 - Page 161 of 172



PACE ANALYTICAL 575 Broad Hollow Road Meiville, NY 11747 TEL: (631) 694-3040 FAX: (631) 420-8436 Website: <u>www.pacelabs.com</u>

QC SUMMARY REPORT

D#: 1603K41

01-Apr-16

Client: Project: Pace Analytical Services Inc.

16030528 - BAR-ROC ELF Q1

BatchID:

R94722

Sample ID 1603I64-001AMS	SampType: MS	TestCode: NH3_DW_SM Units: mg/L	Prep Date:	RunNo: 94722
Client ID: ZZZZZZ	Batch ID: R94722	TestNo: SM4500-NH3	Analysis Date: 3/30/2018	SeqNo: 2053214
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPOLimit Qual
Nitrogen, Ammonia (As N)	0.49	0.10 0.50 0	97.9 75 125	
Sample ID 1603I64-001ADUP	SampType: DUP	TestCode: NH3_DW_SM Units: mg/L	Prep Date:	RunNo: 94722
Client ID: ZZZZZZ	Batch ID: R94722	TestNo: SM4500-NH3	Analysis Date: 3/36/2016	SeqNo: 2053215
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Nitrogen, Ammonia (As N)	< 0,10	0.10	0	0 20
Sample ID 1603N29-001AMS	SampType: MS	TestCode: NH3_DW_SM Units: mg/L	Prep Date:	RunNo: 94722
Client ID: 227277	Batch ID: R94722	TestNo: SM4500-NH3	Analysis Date: 3/30/2016	SeqNo: 2053246
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLImit Qual
Nitrogen, Ammonia (As N)	0.49	0.10 0.50 0	97.4 75 125	

Sample ID 1803N29-001ADUP Client ID: ZZZZZZZ	SampType: DUP Batch ID: R94722		le: NH3_DW_ lo: SM4500-N	SM Units: mg/L IH3		Prep Da Analysis Da		916	RunNo: 947 SeqNo: 205		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Vai	%RPD	RPDUmit	Qual
Nitrogen, Ammonia (As N)	< 0.10	0.10						0	0	20	

Qualifiers:

- Value exceeds Maximum Contaminant Level
- H I folding times for preparation or analysis exceeded
- O RSD is greater than RSDlimit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response
- P Second column confirmation exceeds
- W Sample container temperature is out of limit as specified
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
 R RPD outside accepted recovery limits

Page 70 of 76

Pace Analytical Services, Inc.

April 04, 2016

16030528 - Page 162 of 172



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

QC SUMMARY REPORT

NO#:

1603K41 01-Apr-16

Client: Project: Pace Analytical Services Inc.

16030528 - BAR-ROC ELF Q1

BatchID:

R94722

Sample ID 1603E57-004BMS	SampType: MS	TestCod	le: NH3_W_S	iM Units: mg/L		Prep Dat	io:		RunNo: 947	722	
Client ID: ZZZZZZZ	Batch ID: R94722	Testi	TestNo: SM4500-NH3			Analysis Date: 3/30/2016			SeqNo: 20	53192	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia (As N)	0.50	0.10	0.50	0	99.4	75	125				

Sample ID 1603E57-004BDUP	SampType: DUP	TestCode:	: NH3_W_SM Units: mg/L	<u> </u>	Prep Date:		RunNo: 947	722	
Client ID: ZZZZZZ	Batch ID: R94722	TestNo:	: SM4500-NH3		Analysis Date: 3/30/2	016	SeqNo: 205	53271	
Analyte	Result	PQL :	SPK value SPK Ref Val	%REC	LowLimit HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia (As N)	< 0.10	0.10				0	0	20	

Qualifiers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSDlimit
- S Spike Recovery outside accepted recovery limits
- D Dilation was required.
- M Manual Integration used to determine area response
- P Second column confirmation exceeds
- W Sample container temperature is out of limit as specified
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

Page 71 of 76

Pace Analytical Services, Inc.

April 04, 2016

16030528 - Page 163 of 172



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

QC SUMMARY REPORT

1603K41

01-Apr-16

Client:

Pace Analytical Services Inc.

TI - 4 - L-1175 -

D04536

Project: 16030528 -	BAR-ROC ELF Q1		BatchID: R	94725
Sample ID LCS-032916 Client ID: LCSW	SampType: LCS Batch ID: R94725	TestCode: TDS_W_SM Units: mg/L TestNo: SM2540C	Prep Dato: Analysis Date: 3/29/2016	RunNo: 94725 SeqNo: 2053311
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	KRPD RPDLimit Qual
Total Dissolved Solids	446	10 500 G	89 85 115	
Sample ID MB-032916	SampТуре: MBLK	TestCode: TDS_W_SM Units: mg/L	Prep Date:	RunNo: 94725
Client ID: PBW	Batch ID: R94725	TestNo: SM2540C	Analysis Date: 3/29/2016	SeqNo: 2053312
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDUmit Qual
Total Dissolved Solids	< 10	10		
Sample ID 1603J51-004ADup	SampType: Dup	TestCode: TDS_W_SM Units: mg/L	Prep Date:	RunNo: 94725
Client ID: ZZZZZZ	Batch ID: R94725	TestNo: SM2540C	Analysis Date: 3/29/2016	SeqNo: 2053317
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual-
Total Dissolved Solids	752	20	740	2 20 D
Sample ID 1603J51-004AMS	SampType: MS	TestCode: TDS_W_SM Units: mg/L	Prep Date:	RunNo: 94725
Client ID: 222772	Batch ID: R94725	TestNo: SM2540G	Analysis Date: 3/29/2016	SeqNo: 2053318
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual

Qualiflers:

Total Dissolved Solids

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded

1,160

20

- O RSD is greater than RSDlimit
- Spike Recovery outside accepted recovery limits
- D Dilution was required.

600

- Manual Integration used to determine area response
- Second column confirmation exceeds W
 - Sample container temperature is out of limit as specified

75

70

125

- E Value above quantitation range ND Not Detected at the Reporting Limit
- RPD outside accepted recovery limits

Page 72 of 76

ps

Pace Analytical Services, Inc.

April 04, 2016

740

16030528 - Page 164 of 172



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

QC SUMMARY REPORT

WO#:

1603K41

01-Apr-16

Client: Project:		tical Services Inc. BAR-ROC ELF Q1						F	BatchID: I	R94725		
'	1603J80-001ADup	SampType: Dup Batch ID: R94725		le: TDS_W_S	-		Prep Dat		nts	RunNo: 94' SegNo: 20		
Analyte		Result	PQL		SPK Ref Val	%REC			RPD Ref Val	%RPD		Qual
Total Disso	lived Solids	289	10						293	1	20	
	1603J80-001AMS	SampType: MS		le: TDS_W_S	•		Prep Dat			RunNo: 94		
Cilent ID:	777777	Batch ID: R94725		lo: SM2540C			Analysis Dat			SeqNo: 20		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLlmit	RPD Ref Val	%RPD	RPDUmit	Qual
Total Disso	elved Solids	597	10	300	293	101	75	125				
Sample ID	1603K41-012ADup	SampТуре: Dup	TestCoo	de: TDS_W_S	SM Units: mg/L		Prep Dat	te:		RunNo: 94	725	
Client ID:	MW-6N	Batch ID: R94725	Test/	lo: SM2540C			Analysis Dai	te: 3/29/2	016	SeqNo: 20	53341	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDUmit	Qual

Qualifiers:

Analyte

Total Dissolved Solids

Client ID: MW-6N

Total Dissolved Solids

Sample ID 1603K41-012AMS

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded

SampType: MS

Batch ID: R94725

437

Result

709

10

PQL

10

- O RSD is greater than RSDlimit
- Spike Recovery outside accepted recovery limits
- D Dilution was required.

SPK value SPK Ref Val

TestCode: TDS_W_SM Units: mg/L

300

TestNo: SM2540C

Manual Integration used to determine area response M

397

- Second column confirmation exceeds W
 - Sample container temperature is out of limit as specified

104

E Value above quantitation range

397

Prep Date:

75

Analysis Date: 3/29/2016

%REC LowLimit HighLimit RPD Ref Val

125

10

RunNo: 94725

SeqNo: 2053342

20

%RPD RPDLimit Qual

- ND Not Detected at the Reporting Limit
- RPD outside accepted recovery limits

Page 73 of 76

Pace Analytical Services, Inc.

April 04, 2016

16030528 - Page 165 of 172



PACE ANALYTICAL 575 Broad Hollow Road Melville, NY 11747 TEL: (631) 694-3040 FAX: (631) 420-8436 Website. <u>www.pacelabs.com</u>

QC SUMMARY REPORT

O#: 1603K41

01-Apr-16

Client: Project: Pace Analytical Services Inc.

16030528 - BAR-ROC ELF Q1

BatchID:

D: R94805

Sample ID LCS-633116	SampType: LCS	TestCode: ALK_DW	Units: mg/L		Prep Date:	RunNo: 94805
Client ID: LCSW	Balch ID: R94805	TestNo: SM2320B		Ar	nalysis Date: 3/31/2016	SeqNo: 2055175
Analyte	Result	PQL SPK value	SPK Ref Val	%REC I	LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qua
Alkalinity, Total (As CaCQ3)	25.0	1.0 25.0	0	100	80 120	
Sample ID MB-033116	SampType: MBLK	TestCode: ALK_DW	Units: mg/L		Prep Date:	RunNo: 94805
Client ID: PBW	Batch ID: R94805	TestNo: SM2320B		Ar	nalysis Date: 3/31/2016	SeqNo: 2055176
Analyte	Result	PQL SPK value	SPK Ref Val	%REC	LowLimit HighLimit RPD Ref Va	%RPD RPDLimit Qua
Alkalinity, Total (As CaCO3)	< 1.0	1.0	0	0	0 0	
Sample ID 1503G14-001AMS	SampType: MS	TestCode: ALK_DW	Units: mg/L		Prep Date:	RunNo: 94805
	Batch ID: R94805	TestNo: SM2320B		A	nalysis Date: 3/31/2016	SeqNo: 2055180
Client ID: ZZZZZZ	Date: 10. Ka4003					
Client ID: ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ	Result	PQL SPK value	SPK Ref Val	%REC	LowUmit HighUmit RPD Ref Va	I %RPD RPDLimit Que

Sample ID 1603G14-001ADUP	SampType: DUP	TestCo	de: ALK_DW	Units: mg/L		Prep Dat	e:		RunNo: 948	305	
Client ID: ZZZZZZ	Batch ID: R94805	Testi	No: SM2320B			Analysis Dal	e: 3/31/20	16	SeqNo: 201	55182	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDUmit	Quai
Alkalinity, Total (As CaCO3)	42.6	2.0		0	0	0	0	42.6	0	20	D

Qualifiers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSDlimit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response
- P Second column confirmation exceeds
- W Sample container temperature is out of limit as specified
- E Value above quantitation range ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

Page 74 of 76

Pace Analytical Services, Inc.

April 04, 2016

16030528 - Page 166 of 172



PACE ANALYTICAL 575 Broad Hollow Road Melville, NY 11747

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

Website: www.pacelabs.com

Sample Receipt Checklist

Date and Time Received: 3/25/2016 10:20:00 AM Client Name PACE-NY RcptNo: 1 Received by George Cappadona Work Order Number: 1603K41 Cathlin Panzarella Completed by: Reviewed by: 3/25/2016_1;46:56 PM 3/25/2016 3:58:49 PM Completed Date: Reviewed Date: Carrier name: FedEx Chain of custody present? Yes No 🛄 Chain of custody signed when relinquished and received? Yes 🗸 No ... Yes 🗹 No 🗔 Chain of custody agrees with sample labels? Yes 🔽 No 🔲 Are matrices correctly identified on Chain of custody? Yes 🗹 No 🗌 Is it clear what analyses were requested? No 🔲 Yes Not Present Custody seals intact on sample bottles? Samples in proper container/bottle? Yes 🗸 No 🗆 Yes 🗹 No 🗌 NA Were correct preservatives used and noted? Preservative added to bottles: Broken 🔲 Intact 🔽 Sample Condition? Leaking Yes 🗹 No 🗔 Sufficient sample volume for indicated test? Yes 🔽 No 🔲 Were container labels complete (ID, Pres, Date)? Yes 🗸 No 🗀 All samples received within holding time? Yes V No 🗌 Was an attempt made to cool the samples? NA Yes 🗸 No 🗀 All samples received at a temp. of > 0° C to 6.0° C? NA Response when temperature is outside of range: No 🗀 Yes V Sample Temp. taken and recorded upon receipt? To Yes 🗸 No 🛄 Water - Were bubbles absent in VOC vials? No Vials Yes No 🗆 NA Water - Was there Chlorine Present? Yes 🔽 No 🗆 No Water Water - pH acceptable upon receipt? Yes V No 🗔 Are Samples considered acceptable? No 🗌 Yes 🔽 **Custody Seals present?** Air Bil 🔽 Sticker 🔲 Not Present Airbill or Sticker? 6661 5913 4484 Airbill No: Case Number: SDG: SAS: Any No response should be detailed in the comments section below, if applicable. ✓ NA Client Contacted? Yes ☐ No Person Contacted: Phone: Fax: Contact Mode: Email: In Person: Client Instructions: Date Contacted: Contacted By: Regarding: Comments: CorrectiveAction:





WorkOrder: 1603K41

Certifications

STATE	CERTIFICATION #
NEW YORK	10478
NEW JERS EY	NY1 58
CONNECTICUT	PH-0435
MARYLAND	208
MAS S ACHUS ETTS	MNY026
NEW HAMPS HIRE	2987
RHODE IS LAND	LAO00340
PENINS YLVANIA	68-00350

Page 76 of 76

12

8 - Other (Na2SO3) PRESERVATIVE KEY OTHER NOTES: Analytical Report | LEVEL-2| EDD: Excal Stands 5 - Zn. Acetate 7 - NaHSO4 3-H2SO4 6 - MeOH 2-HN03 4 - NaOH 0-ICE 1-HCL DISPOSAL REQUIREMENTS: (To be filled in by Client) REMARKS: RECEIVED BY ENTER ANALYSIS AND METHOD NUMBER REQUESTED R1602751 Additional charges incurred for disposal (if hazardous) or archival. PRINTED NAME ARCHIVAL BY RECEIVING LAB DISPOSAL BY RECEIVING LAB SIGNATURE RETURN TO CLIENT RELINCOUGHED BY INTED HAME **JOHATURE** MATEMINE Z Call for details. P DEP AN EXECUTION A PRESERVATIVE CODE: RECVD WA HOLDING TIMES: BOTTLE TYPE: BOTTLE SIZE: PROPERLY PRESERVED: RECEIVED BY × × RINTED NAME (LAB USE ONLY) GNATURE DATEMINE COUPANY 0 0 NUMBER OF CONTAINERS 0 0 0 3/30/2016 LRF # 16030528 (LAB USE ONLY) 2 SAMPLE ID 300 PAGE 10F RELENQUISHED BY Maris Wish AT07069 AT07070 GRAB AT07073 GRAB | AT07074 GRAB |AT07075 **GRAB** AT07076 GRAB AT07078 GRAB |AT07071 GRAB | AT07072 GRAB AT07077 DATE/THAF 2 125/ 16 z OCATION (CITY/STATE) ADDRESS: COMPANYALS REQUIRED TURN AROUND TIME: (AME OF COURIER (IF USED): GRAB GRAB PROJECT WPROJECT NAME: GRAB/ COMP 2190 Technology Ďrive, Schenectady, NY 12308 Telephone (518) 346-4592 Fax (518) 381-6055 Pace Analytical Services, Inc. COC DISCREPANCIES: 16030528 CHAIN OF CUSTODY RECORD MATRIX COC TAPE: ⋛ Chelsea Fermer@pacelabs.com 9:25 12:00 11:15 13:45 Nicole. Johnson@pacelabs.com 9:50 13:00 12:25 9:06 RECEIVED BY 10:34 13:30 TIME PRESERVATION NOT VERIFIED AT SCHENECTADY LAB. CORP 3/24/16 3/24/16 3/24/16 3/24/16 3/24/16 3/24/16 3/24/16 3/24/16 3/24/16 3/24/16 DATE NATE/TIME TEMP. Navy Or 00.9 CLIENT (REPORTS TO BE SENT TO) www.pacelabs.com ECEIVED BROKEN OR LEAKING: RELLINGUISHED BY SAMPLE ID ELECTRONIC RESULTS Chelsea Farmer MBIENT OR CHILLED: PROJECT MANAGER: ELF Q2 PACE MW-1N MW-2N MW-3N MW-4N MW-4N WW-5N MW-2N MW-3N AW-5N MW-1N

ALS

DISPOSAL REQUIREMENTS: (To be filled in by Client) RETURN TO CLIENT	DISPOSAL BY RECEIVING LAB ARCHIVAL BY RECEIVING LAB Additional charges incurred for disposal (if hazardous) or erchival.	CHACLI CAG GARANTA TO THE	ENTER ANALYSIS AND METHOD NUMBER REQUESTED	PRESERVALIVE KET	9-10	1 - HCL	2 - HNO3 3 - H2SO4	HO80-4	5 - Zn. Acetate	S - MeCH	8 - Other (Na2SO3)		REMARKS:								OTHER NOTES: Analytical Report (LEVEL.2) EDD: Excel Standard		RECEIVED BY	SIGNATURE	PRINTED MAME					
DISPOSAL REGI	DIS Additional charges incur	Call for details.	FER ANALYSIS AN			_	\ \ \	\ \	\ \ \	\ \ \	<u></u>	\ \	<i>'</i>	+	+		+	+			- - - -	,	-	SIGNATURE	DEWLTPD MAME		COMILANA	DATETIME		
	ONLY)		EN	PRESERVATIVE CODE:	BOTTLE TYPE:	BOTTLE SIZE:	Si				FO RE	IBWI	\ \ \ \ \ \ \ \		+	× -	×	0		+	DECIDERS V PRESERVED.	NO ENERGY DISC.	RECVO W// HOLDING TIMES:	SIGNATURE		RINIED MANE	AyydiyOO	DATE/TIKE		
PAGE 2 OF 2	LRF # 16030528 (LAB USE ONLY)				ADDRESS:		(4)	별	3/30/2016			LAB	SAMPLE ID	(LAB USE ONLY)	AT07079	AT07080	AT07081	AT07082							XX			3/26 16 1000		
	16. 308 6055		DECT NAME:		Y/STATE) ADD			N AROUND TIM			BER (IF USED):		GRAB/	COMP	GRAB	GRAB	GRAB	GRAB			.	ŽÌ	•	100	Ž		COMPANY ALL	DATE/TIME		
CORD	.es, = 7, NY 12 18) 381-1		PROJECTAPROJECT NAM	16030528	OCATION (CIT		×	RECURRED TURN AROUND TIME			NAME OF COUMER (IF US			MATRIX	٦	١	_	-1				COC TAPE:	COC DISCREPANCIES:							5
DY RE	Service enectad Fax (5			-								Opecelabs.com	pacalaba.com	TIME	10:10	13:15	12:40							RECEIVED BY	2 C.X					8
USTO	ical S ive, Scho 14592										SCHENECTA	Chelses Farmer@pacelabs.com	Nicole.Johnson@pacalaba.com	DATE	3/24/16	3/24/16	3/24/16	3/24/16				TEMP:	×		SIGNATURE	1	COMPANY	DATE/TIME		
CHAIN OF CUSTODY RECORD	Pace Analytical Services, Inc. 2190 Technology Drive, Schenectady, NY 12308 Telephone (518) 346-4592 Fax (518) 381-6055	www.pacelabs.com	CLIENT (REPORTS TO BE SENT TO):	PACE		PROJECT MANAGER:	Chelsea Farmer		Projecti (ELF Q2	Notes:	PRESERVATION NOT VERIFIED AT SCHENECTADY LAB.	ELECTRONIC RESULTS		SAMPLE ID	MW-6N	MW-6N	dNod	TRIP BLANK				AMBIENT OR CHILLED:	RECEIVED BROKEN OR LEAKING:	RELINCUISHED BY	antiblished 1603	PRINCES NAME	MANOS	Pa CC	2124116 (10.	172



Cooler Receipt and Preservation Check Form

Project/Clien	· Paus				Fo	lder 1	Vum	ber_	R	16-2	75	<u>/</u> .				
Cooler received	, , , , , , , , , , , , , , , , , , ,	6		by:_	CAN	C	OUR	HER:	ALS	UPS	FEDI	VE	LOCIT	Y CL	ENT	المائد فيور
1 Were Cust	ody seals on o	utside	of coc	ler?	(Y)	ग्रा	5a	Perch	lorate	samples	have r	equired h	eadspa	ce?	Y	N (NA
2 Custody p	apers properl	y comp	leted (ink, si	gned)? (Y)N	1 1	5ъ	Did V	OA via	is, Alk,o	r Sulfi	de have s	ig* bu	bbles?	Y	N (NA)
3 Did all bot	les arrive in g	ood co	nditio	n (unb	proken)? Y N	ᆌ	6	When	e did th	e bottles	origin	ate?	ALS	/ROC	QL.	ENT
4 Circle: (W	et Lee Dry l	ce Ge	l pacl	CS p	resent? Y)	1	7	Soil V	OA re	ceived as	; 1	Bulk 1	Encore	503	5set	NA),
8. Temperature	Readings	Date	: 3/2	25/1	6 Time: 10	20		ID:	IR#3	(IR#5)	From	: Tem	p Blani	k Sat	nple Bothe
Observed Ten	ıp (°C)	1	3,8		-	Ţ			- 1							
Correction Fa	ctor (°C)															
Corrected Ten	ap (°C)		3.8				0.0									T.
Within 0-6°C	?	-(N	YN	,	Y]	N	Y	N	Y	N	Y	N	T	Y N
If<0°C, were	samples froze	n?	Y	N	YN	1	Y]	N	Y	N	Y	N	Y	N		Y N
If out of Te	mperature, 1	ote pa	cking	/ice co	ondition:		I	ce mel	ted	Poor	ly Pac	ked	S	ame D	ay Ruk	3
	proval to Ru	-	-							at drop-	off	Client no	tified b	у:		
All samples in 5035 samples	placed in sto			r: — F-		by <u>C</u>	_≱∨	ν 	on _	3/25	16	at k	25			
PC Seconds		in contract in	The state of the s		ate best are the on the	والمراجع والمراجع المراجع	·==	Lucian Sa	eri en-ila	on the Palace	Subject of	dun a alve	THE POPUL	un er jevi.	i distant	Central (Validation 2)
	kdown: Dat		31	26/1	Time:	140	23		y:	(A)				1		
			omple	te (i.e.	analysis, prese		n, etc	.)?				NO				22
					with custody page tests indicated					_	ES)	NO NO				×
	ir Samples: C				1.2		ictero	Pressi	rized	G		B Bags I			N	<i>N</i>
	y discrepanci		, , , ,			-	19trl 3	11000	111200	2	1 00101	0 2060	3121444			כ
рН	Reagent	Yes	No	Lot F	Received	Ехр	Sai	mple l	Ď	Vol. Added	1	Added	- 1	Final pH		s=All nples OK
≥12	NaOH						-				-				- _{No}	-Comples
9	HNO ₃	V	<u> </u>	- AV	0 4	-	*		-	528	-				- INC	≔Samples re
<4	NaHSO ₄	V		CA	sent	+	\vdash				-					eserved at
Residual	For CN			lf÷.	contact PM to	 	+				-				_ `	e lab as
Chlorine	Phenol		ł	add l	Na ₂ S ₂ O ₃ (CN),										lis	ted
(-)	and 522			ascor	rbic (phenol).											
1	Na ₂ S ₂ O ₃	-	-													I OK to
	ZnAcetate	-1	-			ļ				ted befor				i and	A	ijust:
	HCI	**	**				red	corded	by VC	As on a	separ	ate work	sheet		_	
D-441-1-4-		04	1:	L												
Bottle lot r Other Con			e a se													

PC Secondary Review:

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

P:\INTRANET\QAQC\Forms Controlled\Cooler Receipt 19.doc

9/24/15

ACE ANAIVICAL Schen ephone (518) 346-4592 Faw. pacelabs.com REPORTS TO BE SENT TO!: RANAGER: ROC: ELF Q1 ROC: ELF Q1 SAMPLE ID Chatsa Famer@personic Results Chatsa Famer@personic Results Chatsa Famer@personic Results Chatsa Famer@personic Results Chatsa Famer@personic Results RAMPLE ID DATE 3/24/16 3/24/16 3/24/16	X (518) 381-6055 X (518) 381-6055 X (518) 381-6055 I 6030528 LOCATION (CITY/STATE) ADDITED TO THE OF COURTER (IF USED): Th. V.Z. IN. MAME OF COURTER (IF USED): Th. ACTORY GRABI ALCOM GRABI GRABI GRABI	CeS, INC. ly, NY 12308 18) 381-6055 PROJECTAPROJECT NAME: 16030528 LOCATION (CITY/STATE) ADDR	LRF# 16030528			 i		DISPOSAL BY RECEIVING LAB	3Y RECEI	DISPOSAL BY RECEIVING LAB ARCHIVAL BY RECEIVING LAB Additional charges incurred for disposel (if hazardous) or archival.	
2190 Technology Drive, Schenec Telephone (518) 346-4592 Faxwww.pacelabs.com CLIENT (REPORTS TO BE SENT TO): PACE PROJECT MANAGER: Chelsea Farmer Project: BAR-ROC: ELF Q1 Notes: RETALSALSRÁSIA, BE.B.C.D.CA.C.D.C.D.E.P.B.MOLANITY AMM-1N 3/24/16 9: MWW-1N 3/24/16 13: MWW-2N 3/24/16 13:	X (518) 381- X (51	2308 6055 DECT NAME: YYSTATE) ADD!	LRF # 16030528			_			3Y RECEI	VING LAB dous) or archival.	
RANAGER: RANAGER: ROC: ELF Q1 SRÁSJÁNBER, CO, CO, CO, PRESERVATION NOT VENIFED AT SAMPLE ID SAMPLE ID	PROJECTIFPR 16030528 LOCATION (CIT LOCATION (CIT LOCATION CIT LA LOCATION CIT	JJECT NAME: Y/STATE) ADD!	(LAB USE ONLY)	E ONLY)	İ	Additional chan	nal changes in details.	RCHIVAL I	osal (if haza		
MANAGER: ROC: ELF Q1 SRÀLABERCO, CULT PRESERVATION NOT VERIFIED AT SAMPLE ID	16030528 LOCATION (CIT NY REQUIRED TUR TILVA INAME OF COUR TILVA AATONY THE COMMENT OF COUR TILVA THE COMMENT OF COUR THE COMMENT OF COUR THE COMMENT OF COUR	Y/STATE) ADDF				ENTER A	JALYSIS A	VD METHO	D NUMBI	ENTER ANALYSIS AND METHOD NUMBER REQUESTED	0
MANAGER: BA FARMER ROC: ELF Q1 SAÀSIA, BE B. CO, CO, CO, CO, CO, CO, CO, CO, CO, CO,	NY REQUIRED TUR TILV2 NAME OF COUR TILV2 AATDIX	Y/STATE) ADDF		PRESER	PRESERVATIVE CODE:	JE:				á	PRESERVATIVE KEY
ROC: ELF Q1 SEÀSIA,BEB.CD,CA,CR,CD,CU,F PRESERVATION NOT VERIFIED AT 8 SAMPLE ID SAMPLE ID			ESS:	BOTT	BOTTLE TYPE:						0 - ICE
ROC: ELF Q1 COC: ELF Q1 PRESERVATION NOT VERHIEID ATS ONIC RESULTS SAMPLE ID				BOT	BOTTLE SIZE:				\dashv	1	1-HCL
ROC: ELF Q1 SRASIA,BEB.CD,CA,CR.CD,CU,FI SAMPLE ID				SA		\	\	\	_	\	/ 2 - HNO3 3 - H2SO4
SAÁSA, BEB, CD, CA, CR, CO, CU, FRESERVATION NOT VERIFED AT 8 ONIC RESULTS SAMPLE ID	NAME OF COUR	IN AROUND TIM	a)31/2016	ЭИІАТ		(09)	00	\ \ \	(THS)		4 - NaOH 5 - Zn. Acetate 6 - MeOH
ONIC RESULTS SAMPLE ID	1 1 1	VER (IF USED):		OE CON	3,204	NOC (85	DOEHNANA	TON'SHO	WIN SHOW	BOINVIO	7 - NaHSO4 8 - Other (Na2SO3)
SAMPLE ID			LAB	ABBN	\				`		
SAMPLE ID	ı	GRAB/	SAMPLEID	יחוי	\	\	\	\	\		
3/24/16 3/24/16 3/24/16		COMP	(LAB USE ONLY)	_						RE	REMARKS:
3/24/16	9:50 L	GRAB	AT07069	3	×			-		NYS PT360 1993 BASELLMES ASP B	ELIMES ASP B
3/24/16	13:00 L	GRAB	AT07070	9	×	×	×	×	×	1 (203KY	/h>
	9:25 L	GRAB /	AT07071	6	×				-	MYS PTISG 1943 BASELINEB ASP B	ELINEB A3P B
MW-2N 3/24/16 12:	12:25 L	GRAB /	AT07072	9	×	×	×	×	×		
MW-3N 3/24/16 9:	9:06	GRAB /	AT07073	3	×					NYS PT346 1993 BASELINES ASP B	ELINES ASP B
MW-3N 3/24/16 12:	12:00 L	GRAB /	AT07074	9	×	×	×	×	×		
MW-4N 3/24/16 11:	11:15 L	GRAB /	AT07075	3	×	-		$\frac{1}{2}$		NYS PT364 1913 RASELINES ASP B	ELINES ASP B
MW-4N 3/24/16 13:	13:45 L	GRAB /	AT07076	9	×	×	×	×	×		
MW-5N 3/24/16 10:	10:34 L	GRAB /	4T07077	က	×	-				NYS PT310 1993 BASELINES ASP B	ELINES ASP @
	13:30 L	GRAB //	AT07078	9	×	×	×	×	×		
OR CHILLED: TEMP	COC TAPE:	N (X)		PROPERLY	PROPERLY PRESERVED	Ð	Z		ROTES: A	alytical Report (LEVE	OTHER NOTES: Analytical Raport [LEVEL-2] EDD: Excel Standard
KING: Y	COC DISCREPANCIES.	NCIES. Y		RECVO WITH	RECVO WII HOLDING TIMES:	(2)	z				
RELINGUISHED BY	VED BY				RECEIVED BY	1		RELINCARSHED BY	2		RECEIVED BY
SIGNATURE FEDE	定文	SIGNATURE	FEDEX	SIGNATURE PCLE	3	Synction				SKGNATURE	
MARE		PRINTED NAME		PRINTED WATER	~	Character	-	tu:		PRINTED NAME	
COMPANY		COMPANY		ANYMOS	知CE	17	COMPANY			COMPANY	
DATE/TIME		DATETIME		DATETHE / JE/LL		02.01	DATE/TIME			DATE/TIME	

Mehh-6165-1999

Pace Analytical Schrides, Inc. Description of the USE ONLY) Interpretation of	CHAIN OF	CHAIN OF CUSTODY RECORD	REC.	ORD.		PAGE 2 OF 2			DISPO	SAL REG	EQUIREMENTS: (T	VTS: (To CLIENT	DISPOSAL REQUIREMENTS: (To be filled in by Client) RETURN TO CLIENT	by Client)
10 Technology Division The Schenecidady NY 12305 LKF # 1903026 LK	Pace Analy	rtical Ser	Z Z	3S, L	ည်						SPOSAL E	Y RECEIV	ING LAB	
FOURTH DISTRICT FOUNTH DISTRICT FOURTH DISTRICT FOURTH DISTRICT FOURTH DISTRICT FOURTH DISTRICT FOUNTH DISTRICT FOUNTH DISTRICT FOURTH DISTRICT FOUNTH DIS	2190 Technology C Telephone (518) 34	ive, Schenec 6-4592 Fax	stady, x (51ε	NY 12: 3) 381-6	308 3055	LRF # 16030528 (LAB US)	E ONLY)		Additional Call for det	charges incu	TECHIVAL I	or RECEIV	lous) or archival.	
16030528 PRESERVATVE CODE	WWW. Datcelaus.culti		PRC	NECTAIPRO	ECT NAME:			E	TER ANA	LYSIS AN	D METHO	D NUMBE	R REQUEST	ED
SAMPLE ID SAMP	2 4 0		16	030528			PRESERVA	TIVE CODE:						PRESERVATIVE KEY
NATIONS NATI	FACE		Ş	ATION (CITY	ISTATE) ADD	RESS:	BOTTL	E TYPE:						D-ICE
COC. ELF Q1 Coconsistence	PROJECT MANAGER:		Τ				BOTTL	E SIZE:		+	_	\downarrow	_	
COC: ELF Q1	Chelsea Farmer		2	.			S8:		\	\	\	<u> </u>	_	2 - HNO3 3 - H2SO4
Column C	Project:		Ä	INNED TURE	AROUND TH		ЭИІАТІ	'0,	SQ.		\	(UH)	\ \ '	4 - NaOH 5 - Zn. Acetate
SAMPLE ID Confidence of the property of th	Notes:		T				CON	⁹ 28,	CAOCIA	00.3/t	S 70.	24120 	3011	6 - MeOH
SAMPLE ID DATE TIME MATRIX COMP (LAB USE ONLY) SAMPLE ID SAMPL	METALS:ALSBAS,BA,BE,B,CD,CA,CR,CO,CU R, BAMPLE PRESERVATION NOT VERHIED AI	FE,PB,MG,MH,M,X,SE,AG,MA, I SCHEMECTADY LAB.	NAN.	ME OF COUR	ER (IF USED)		R OF	201	TE CONTRACTOR	HNNOU	8070s	LETALES.	VENS	7 - NaHSO4 8 - Other (Na2SO3
SAMPLE ID DATE TIME MATRIX COMP (LAB USE ONLY) 3 X X X X X X X X X	ELECTRONIC RESULTS	Chalsea Farmer@pacals	tbs.com				BBW	\	\	\	<u>\</u>	\	/	
SAMPLE ID DATE TIME MATRIX COMP (LAB USE ONLY) 3 X X X X X X X X X		Nicole Johnson@pecolat	bs.com		GRAB/	SAMPLE ID	NN	\	\	\		\		
ANK 3/24/16 13.24 ANK 3/24/16 12.40 L GRAB AT07080 6 X X X X X X X X X X X X	SAMPLE ID	DATE TIM		MATRIX	COMP	(LAB USE ONLY)		1	1	1	$\frac{1}{1}$	\downarrow		KEMAKNS.
ANK 3/24/16 12:40 L GRAB AT07081 9 X X X X X X X X X X X X	l		01:10		GRAB	AT07079	\dashv	×			+	+	NYS PTSIG THE	BASELDRES ABY D
ANK 3/24/16 L GRAB AT07082 2 X X X X X X X X X X X X X X X X X X	MW-6N	_	3:15		GRAB	AT07080	9	×	×	×	\dashv	+		
LANK 3/24/16 L GRAB AT07082 2 X	DOND		2:40		GRAB	AT07081	\dashv	\dashv	×	×	\dashv	+	NYS PT360 1963	BASELINES ASP B
TEMP 2,3 COC TAPE. Y N RECOVER THESE TO N PROPERLY PRESERVED. Y N RECOVER HOLDING THARS. Y N RECOVER THARS. Y N RECENTED BY SIGNATURE PRINTED NAME P	TRIP BLANK	_		1	GRAB	AT07082	\dashv	×		+	+	+	NYS PT360 1993	BASELINES ASP B
TEMP 2, 3 COC TAPE. (**) N TEMP 2, 3 COC DISCREPANCIES. (**) N RECEIVED BY RELINGUISHED			\vdash							+		+		
TEMP 2,3 COC TAPE: (Y) N TEMP 2,3 COC TAPE: (Y) N RECEIVED BY RECEI								-			+	$\frac{1}{1}$		
TEMP 2,3 COC TAPE: (Y) N TEMP 2,3 COC DISCREPANCIES. Y N RECEIVED BY SIGNATURE PRINTED NAME P										+	+	+		
TEMP 2,3 CDC TAPE: Y N RECEIVED: Y N RECEIVED: Y N RECEIVED: Y N RECEIVED: Y N RECEIVED WITHOUGHG TIMES: Y N RELINOUS RECEIVED BY RECEIVED								+		1		-		
TEMP 2.3 COC TAPE: (Y) N RECYDENTY PRESERVED: (Y) N RELIMONSHED BY RECEIVED BY RECEIVED BY RECEIVED BY RECEIVED BY RECEIVED BY RECEIVED BY RELIMONSHED BY SIGNATURE FEDEX SIGNATURE PRINTED NAME PRINTED NAME PRINTED NAME COMPANY COM			+					+	1	+		-		
TEMP 2.5 UCU INC. Y NO COC DISCREPANCIES. Y N RECEVED BY RECIPED BY RELINQUISHED BY RECEIVED BY SIGNATURE SIGNATURE SIGNATURE FEDEX SIGNATURE FRUITED NAME PRINTED NAME PRINTED NAME COMPANY		7	1	٦.			PROPERLY PE	RESERVED: (h	1	ОТНЕ	R NOTES: A	alytical Report (L	EVEL-2 EDD: Excel Stands
TOUR DISCRETABLE TO THE PRINTED BY RECEIVED BY RELINQUISHED BY RECEIVED BY REC	AMBIENT OR CHILLED:	1	3 8	L IAPE	-	١	DH IIM UNU HO	N DING TIMES:		z				
SEGNATURE FEDEX SIGNATURE FEDEX SIGNATURE PRINTED NAME PRINTED NAME PRINTED NAME PRINTED NAME PRINTED NAME COMPANY COM	RECEIVED BROKEN OR LEAKING:		2 2	חשכאברא		RELINOUSHED BY		RECEIVED BY			ELINOUISHED	16		RECEIVED BY
PRINTED NAME PRINT	-1	SIGNATURE	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		SIGNATURE	ロドンドメ	1 30	1		SIGNATURE			BIGNATURE	:
COMPANY COMPANY COMPANY COMPANY $OMEDIA$ $OMEDIA$ $OMEDIA$ $OMEDIA$ $OMEDIA$	PRINTED MAME	PRINTED NAME	\ \ \		PRINTED NAME		PRINTEGNAME	10		PRINTED NAME			PRINTED NAME	
DATECTIME DATECTIME DATECTIME DATECTIME DATECTIME DATECTIME	COMPANY	COMPANY			COMPANY		COMPANY	Ų.		COMPANY			COMPANY	
	DATE/TIME	DATE/TIME			SATEITIME		DATE/TIME 3/2	1		DATE/TIME			DATE/TIME	

6661-5913-448

12

Intact

ендшес

Sealed Coole

Custody

90|

Received on

O" nt gane T

Pile(ALLC020rev.4,29Mar06)22Jun2005

GAVE Signed
GAW/DD/YM: 3/24/11

Matt Broker PACE

SAMPLE RIVATE AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

N/A NA

N/A N/A N/A

N/A N/A N/A N/A

1435

ग्रीस्या

12 PAC/1/2

MERT

/S Part 360 1993 Baselines ASP B

CHAIN-OF-CUSTODY / Analytical Request Document

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

Schenectady, NY 12308

Sace Analytical

2190 Technology Dr.

New York Office

Pace Project No. Lab I.D. SAMPLE CONDITIONS ŗ. I OTHER 5 P DRINKING WATER Page: ₹ z REGULATORY AGENCY TOTHER 닐 ပ္သ 开加 L F ð ☐ GROUND WATER L DATE × × ××××× × × × T ACRA × × LOCATION ××× × ××× ××× SITE Filtered (Y/N) ACCEPTED BY AFF LIATION ××× × × × T NPDES × Requested UST × × × 3)ther lonartial EOES EN HOF × × × × Chelsea Farmer × Barton & Loguidice × × × × × CONI × × × 1054 × × TIME × × bevreengnL × × 7266 Ò Ġ d 8 **♦ QE CONTAINERS** 0 e ď SAMPLE TEMP AT Pace Quote Reference: Pace Project Manager. Invoice Information: DATE ्रा[िक्माप्यह उथिक 950 रिट्टी बालावा विकास 1906 वाष्य 1242 Julia 1330 CD2/ 11/48 _{भट्टिया आन्यदा} SPIN ICIG 2/5/HIPA HWE T Сотралу Nате 575 शास्यर Pace Profile #: COMPOSITE END/GRAB Section C Attention: Address: shylle V 17-1 K COLLECTED DATE RELINQUISHED BY / AFRILIATION TIME COMPOSITE ELF Quarter 1 2016 Report To: Barton & Loguidice DATE Required Project Information: GEGRAS CECOMP SAMPLE TYPE <u>₹</u> ß₩ G₩ G₩ GW 8 ₩Đ. ₹ ĕ Mg Ø 80 MATRIX CODE Project Name: roject Number Section B Copy To: Purchase Order No.: (518) 346-4592 뿕 MATRIX ADDITIONAL COMPOSTS MW-1N MW-2N MW-3N NE-MM MW-1N MW2N MW-4N MW-5N MW-5N MW-6N MW-6N MW-4N (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE Sompany: Barton & Loguidice SAMPLE ID Standard Required Client Information: gebod Client brion Section D Section A Address: mail To: thone: April 04, 2016 Pace Analytical Services, Inc.

16030528 - Page 171 of 172

12

SIGNATURE of SAMPLER:

A-File(Al I Onthrey 4 29MarnR122 Lundans

DATE Stoned 3/24/16

CHAIN-OF-CUSTODY / Analytical Request Document

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

Pace Project No. Lab I.D. toatril NA N/λ N/A SAMPLE CONDITIONS **Затріез** Ş L Sealed Cooler ŏ N/A P OTHER. Custody ₹ L **60**] T DRINKING WATER N/A N/A N/A N/A Received on .₹ L z O" ni qmeT REGULATORY AGENCY L LUTHER ⊃s L 1 발 P 8 I GROUND WATER L_ ∃JVC XXXXXX I RCHA LOCATION ACCEPTED BY / AFFIL ATION Filtered (Y/N) T NPDES ××× Requested UST ŝ 10 MILE 18⁴2³O³ HOPN Matt Broker PACE ICI Chelsea Farmer Barton & Loguidice ²ONF 120° 3111E 1435 bevisserqui 7266 SAMPLEP NAME AND SIGNATURE # OF CONTAINERS 헏 N TA GENT TEMP AT ace Quote Reference: 3/24/16 PRINT Name of SAMPLER: Invoice Information: Pace Project Manager. DATE Dh21 TIME Company Name Pace Profile #: COMPOSITE END/GRAB Section C Attention: Address: 3/24/10 DATE COLLECTED 3/cy/lk RELINGUISHED BY LAFF LIATION P.S.(F.) TIME COMPOSITE ELF Quarter 1 2016 Report To: Barton & Loguidice DATE Required Project information: SAMPLE TYPE C+1937 3 ₹ Purchase Order No.: Project Name: 3000 XIFTAM roject Number Section B Copy To: Diseases watta water waste water product acada et WATTROX A COMMISSION S TRIP BLANK VS Part 360 1993 Baselines ASP B POND (A-Z, 0-9 / ..) Sample IDs MUST BE UNIQUE ompany: Barton & Loguidice SAMPLE ID Standard equired Clent Information: Section D Required Clari Information mail To: ddress: hone: # WHI April 04, 2016

Pace Analytical Services, Inc.

Schenectady, NY 12308

(518) 346-4592

2190 Technology Dr.

'ace Analytical"

New York Office

16030528 - Page 172 of 172

Appendix C

MONTGOMERY COUNTY

EASTERN LANDFILL

PAGE INDEX

SAMPLING LOCATION	FIELD/INORGANIC PARAMETERS	TOTAL METALS	DISSOLVED METALS	ORGANIC COMPOUNDS (DETECTED)
		•).0
MW-1N	2-3	4-5	6-7	. 8
MW-2N	10-11	12-13	14-15	16
MW-3N	18-19	20-21	22-23	24
MW-4N	26-27	28-29	30-31	32
MW-5N	34-35	36-37	38-39	40
MW-6N	42-43	44-45	46-47	48
SEDIMENTATION POND	50-51	52-53	54-55	56

		FIE	LD PARAME	TERS		l	INC	ORGANIC	PARAMET	TERS	
OVERBURDEN				SP.			ALK.	HARD.			
UNIT	TEMP.	Eh	рH	COND.	TURB.	COLO	R(mg/L	(mg/L	TDS	CI	SO4
	(deg. F)	(mV)	(Std Units)	(uS/cm)	(NTU)	(Units)	CaCO3)	CaCO3)	(mg/L)	(mg/L)	(mg/L)
6NYCRR Part 703	1			(==:=:;:)	31.12.27	(=:::::-,			(1115)	(···g/	(111)
GROUNDWATER	-		6.5-8.5	•	5	15	•	•	500	250	250
STANDARD											
Monitoring Wells											
MW-1N											
09-Mar-04	40	266	8.0	635	37	12	150	110	230	2	16
10-Jun-04	60	122	8.0	377	159		160	160	137	< 1	< 5
17-May-05	53	37	8.4	401	217	1000	170	183	225	2	13
20-Sep-06 10-Oct-07	61	-108 65	8.4	310	11	60	140	106	1060	20	44
17-Jan-08	64 34	70	8.5 8.3	881 1286	20 109	120 75	160 160	88 98	193 213	2 1	< 10 < 10
17-3an-08 14-Apr-09	48	43	8.1	212	149	10	150	115	190	1	16
14-Api-09	75	73	8.6	447	97	35	140	113	180	2	14
25-Oct-11	56	-91	8.3	458	0	12	160	116	180	2	13
16-Mar-12	43	56	8.6	318	41	7	150	116	500	< 1	13
17-May-13	62	164	8.3	302	20	< 5	161	114	158	1	14
08-Jul-14	74	40	8.5	301	27	< 5	140	110	120	1	14
09-Oct-15	57	133	7.9	308	28	5	143	68	170	1	14
24-Mar-16	42	216	8.2	283	39	< 5	142	57	174	2	18
	a.										

					INORGA	NIC PAR	RAMETER	IS		_	
OVERBURSEN.					£9					TOTAL	TOTAL
OVERBURDEN UNIT	Br	BORON	Cr+6	NO3-N	NH3-N	TKN	COD	BOD-5	TOC	TOTAL	TOTAL S CYANIDE
0,417	(mg/L)	(mg/L)	(mg/L)		(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
6NYCRR Part 703	,,	(****	(····g	1	VII 3 -7	V-13-7	(3)	((8 - /		13/
GROUNDWATER	[2.0]	1.0	0.05	10	2.0	-	-	-	-	0.001	0.10
STANDARD											
Monitoring Wells											
MW-1N 09-Mar-04	< 0.2	< 0.50	- 0.01	< 0.20	< 0.5	< 0.5	< 20	< 4		< 0.005	< 0.01
10-Jun-04	< 0.2	- 0.50	- 0.01	< 0.20	< 0.5	< 0.5			< 3	< 0.005	- 0.01
17-May-05	< 0.2	< 0.50	< 0.01	< 0.20	< 0.5	< 0.5			< 3		< 0.01
20-Sep-06	< 0.2	< 0.50	< 0.01	< 0.20	< 0.5	< 0.5	< 20		< 3		< 0.01
10-Oct-07	< 2.0	< 0.50	< 0.02	< 0.20	< 0.5	< 0.5			< 3		< 0.01
17-Jan-08	< 20.0	< 0.50		< 0.20	< 0.5	< 0.5			< 3		< 0.01
14-Apr-09	< 20.0	< 0.50	< 0.01	< 0.20	< 0.5	< 0.5			< 3	< 0.005	< 0.01
14-Jul-10	< 1.6	< 0.50	< 0.01	0.14	< 0.5	< 0.5			< 3	< 0.005	< 0.01
25-Oct-11	< 0.8	< 0.50	< 0.01	0.09	< 0.5	0.5			< 3	< 0.005	< 0.01
16-Mar-12	< 0.8	< 0.50	< 0.01	0.11	< 0.5	< 0.5	< 20	< 4	< 3	< 0.005	< 0.01
17-May-13	< 1.0	< 0.50	< 0.04	< 0.10	< 0.1	< 1.0	42	< 2	1	< 0.002	< 0.02
08-Jul-14	< 0.1	0.05	0.04	0.12	< 0.1	< 0.5	11	< 2	1	< 0.002	< 0.02
09-Oct-15	< 0.5	0.08	< 0.04	< 0.10	< 0.1	< 0.5	< 10	1	< 1	< 0.002	< 0.01
24-Mar-16	< 0.5	0.06	< 0.04	< 0.17	0.2	< 0.1	< 10	< 2	< 1	< 0.002	< 0.01

					T	OTAL MET	TALS				
OVERBURDEN											
UNIT	Al	Sb	As	Ва	Ве	Cd	Ca	Сг	Co	Cu	Fe
O.W.	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
6NYCRR Part 703	(09-2)	(092)	(09-/	(092/	(09/2/	(ug/L)	(092)	(ugre)	(ug/L)	(ug/E/	(ugra)
GROUNDWATER	-	[3]	25	1000	[3]	10		50	•	200	300
STANDARD											
Monitoring Wells	i										
MW-1N											
09-Mar-04	1410	< 15	13	< 50	< 3	< 5.0	21800	11		< 10	1940
10-Jun-04			-	-	-	< 5.0	32500			•	4930
17-May-05	10800	< 15	< 10	129	< 3	< 5.0	41000	51	< 20	21	1640
20-Sep-06	371	< 15	< 10	< 50	< 3	< 5.0	20300	< 5	< 20	11	595
10-Oct-07	346	< 15	< 10	< 50	< 3	< 5.0	16700	< 5		< 10	416
17-Jan-08	1050	< 15	< 10	< 50	< 3	< 5.0	18800	34		< 10	1690
14-Apr-09	1110 1080	< 30 < 5	< 10 6	< 50 < 50	< 3 3	< 5.0 < 5.0	23200 21200	< 5 < 10		< 10	1170 1530
14-Jul-10 25-Oct-11	982	< 5 < 5	10	< 50 < 50	< 3	< 5.0 < 5.0	21200 21900	< 10 < 10	< 20 < 20	< 10 17	1040
	1040	< 5 < 5	10	< 50	< 3	< 5.0 < 5.0				< 10	1260
16-Mar-12 17-May-13	333	< 5	6	< 50 22	< 4	< 4.0	21900	< 10 < 5		< 10 < 5	409
08-Jul-14	924	< 5	7	22 29	< 4	< 4.0	22900 21600	< 5 < 5		< 5 < 5	1030
09-Oct-15	909	< 60	8	34	1	0.4	27000	1		< 25	849
24-Mar-16	796	< 60	9	27	< 5	0.4	22600	3	< 50	2	1050

						TOTAL	METALS					
OVERBURDEN	DL	1.4-	1.4-	11-	N.I.	17	NI-	0-		71	14	-
UNIT	Pb	Mg	Mn (val)	Hg	Ni (vent)	K	Na (val)	Se	Ag	TI	V	Zn
6NYCRA Part 703	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L
GROUNDWATER	25	[35000]	300	2			20000	10	50	[4]		300
STANDARD		fooogol	000	•			20000		-	ניין		000
Monitoring Wells												
MW-1N												
09-Mar-04	6	14100	40	< 0.20	< 30	1430	21800	-	< 10	< 10	< 30	58
10-Jun-04	6	18300	110	-	-	1990	26200	•	•	•	-	•
17-May-05	11	19500	282	< 0.20	33	4280	22000 <		< 10	< 10	< 30	93
20-Sep-06	< 3	13400	15	< 0.20	< 30	< 1000	25100 <	5.0	< 10	< 10	< 30	15
10-Oct-07	< 3	11200	18	< 0.20	< 30	< 1000	19200 <		< 10	< 10	< 30	26
17-Jan-08	< 3	12300	41	< 0.20	< 30	1120	22100 <		< 10	< 10	< 30	26
14-Apr-09	< 3	13700	37	< 0.20	< 30	< 1000	25200 <		< 10	< 10	< 30	15
14-Jul-10	< 3	14400	41	< 0.20	< 30	< 5000	24500 <	3.0	< 10	< 3	< 30	12
25-Oct-11	< 3	15000	17	< 0.20	< 30	< 5000	30800 <		< 10	< 3	< 30	26
16-Mar-12	< 3	14900	31	< 0.20	< 30	< 5000	27000 <	3.0	< 10	< 3	< 30	10
17-May-13	< 5	13900	24	< 0.20	< 5	993	26900 <	10.0	< 7	< 10	•	< 5
0B-Jul-14	< 5	13600	23	< 0.20	< 5	1220	27000 <	10.0	< 7	< 10	•	< 5
09-Oct-15	13	16400	34	0.06	< 40	862	30300 <	5.0	1	< 10	2.5	8
24-Mar-16	4	13600	33	< 0.20	< 40	1180	27700	2.4	< 10	< 10	2.5	7

					DIS	SOLVED N	IETALS				
01/5051-0051											
OVERBURDEN UNIT	Al	Sb	As	Ва	Be	Cd	Ca	Cr	Co	Си	Fe
ONT	(ug/L)	(ug/L)	(ug/L)	ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
6NYCRR Part 703	(ug/L)	(Ug/L)	(ug/L)	(ug/c)	(ug/c)	(ug/L)	(Ug/L)	(ug/L)	(ug/c)	(ug/c)	(ug/c)
GROUNDWATER	.	[3]	25	1000	[3]	10	-	50	-	200	300
STANDARD		[-]		,,,,,	f-1						
Monitoring Wells											
MW-1N											
09-Mar-04	-	-	-	-	-	-	-	-	-	-	-
10-Jun-04		•	•	-	-	-			-	-	-
17-May-05	•	•	-	•	•	•	•	•		•	•
20-Sep-06	-	-	-	•	-	-	•	•		•	•
10-Oct-07	-	-	-	-	-	-	-	-	-	-	-
17-Jan-08	•	•	•	-	-	-	-	-	-	-	-
14-Apr-09	< 100	< 30	< 10	< 50	< 3	< 5	21400		< 20	< 10	< 60
14-Jul-10	< 100	< 5	6	< 50	< 3	< 5	19800		< 20	< 10	< 60
25-Oct-11	-	-	-	-	-	-	-	-	-	-	-
16-Mar-12	•	•	•	-	-	-	7	-	-	-	-
17-May-13	-	•	•	•	-	•	-	-	-	-	•
08-Jul-14	-	•	-	•	•	•	•	•	-	-	•
09-Oct-15 24-Mar-16	-	-	-	-		2		•	• 93	-	-
24-War-10	-	•	•	-	-	-		-	-	-	-
									Steto		

					Đ	ISSOLVE	D METAL	S				
OVERBURDEN												
UNIT	Pb	Mg	Mn	Hg	Ni	K	Na	Se	Ag	TI	V	Zn
	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
6NYCRR Part 703	(= 2, = 7	1-3-1	1-37	(-3/	1-37	(-g/	(-2	(-3)	(-37	(-3	\- <u>J</u>	1-3
GROUNDWATER	25	[35000]	300	2	-	-	20000	10	50	[4]		300
STANDARD												
Monitoring Wells												
MW-1N	1											
09-Mar-04		•	•	-	•	•	-	-	-	-	-	-
10-Jun-04	-	-	-	-	-	-	0.00	-	-	-	•	•
17-May-05	-	-	-	•	-	-	•	•	•	•	•	•
20-Sep-06	-	•	•	•	•	-	•	•	•	•	•	-
10-Oct-07	-	-	•	•	•	•	-	•	•	-	-	-
17-Jan-08	-	-	-	-	-	-	-		-	-	•	•
14-Apr-09	< 3			< 0.20		< 1000	27400	< 5	< 10	< 10	< 30	67
14-Jul-10	< 3	13500	< 10	< 0.20	< 30	< 5000	24600	< 3	< 10	< 3	< 30	21
25-Oct-11	-	•	-	-	•	-	•	•	-	-	-	-
16-Mar-12	-	-	-	-	-	-	-	-	-	-	-	•
17-May-13	-	-	-	-	-	-	-	-	-	-	•	•
08-Jul-14	•	•	-	•	•	•	•	-	•	•	•	•
09-Oct-15	•	•	-	•	•	-	•	•	•	-	-	-
24-Mar-16	-	-	-	-	-	-	19	-	-	-	-	-

	ORGANIC PARAMETERS (DETECTED)
OVERBURDEN UNIT		SUM OF ORGANIC COMPOUNDS (DETECTED)
6NYCRR Part 703 GROUNDWATER STANDARD		
Monitoring Wells		
MW-1N	ANALYSIS METHOD	
09-Mar-04	EPA 8260	0
10-Jun-04	•	•
17-May-05	EPA 8260	0
20-Sep-06	EPA 8260	0
10-Oct-07	EPA 8260	0
17-Jan-08	EPA 8260	0
14-Apr-09	EPA 8260	0
14-Jul-10	EPA 8260	0
25-Oct-11	EPA 8260	0
16-Mar-12	EPA 8260	0
17-May-13	EPA 8260	0
08-Jul-14	EPA 8260	0
09-Oct-15	EPA 8260	0
24-Mar-16	EPA 8260	0

÷€		
e ¹²		
	\$ \$	

		FIE	LD PARAMET	ERS		Γ	INC	DRGANIC	PARAMET	ERS	
OVERBURDEN				SP.		İ	ALK.	HARD.			
UNIT	TEMP.	Eh	рН	COND.	TURB.	COLO		(mg/L	TDS	CI	SO4
	(deg. F)	(mV)	(Std Units)	(uS/cm)	(NTU)	(Units)	CaCO3)	CaCO3)	(mg/L)	(mg/L)	(mg/L)
6NYCRR Part 703						1					
GROUNDWATER	-	•	6.5-8,5	•	5	15	-	•	500	250	250
STANDARD	-										
Monitoring Wells	1										
MW-2N 09-Mar-04	41	206	7.8	1499	170	21	310	300	330	6	18
10-Jun-04	56	48	7.5	926	231	-	360	380	242	6	14
17-May-05	54	8	8.1	779	75	500	380	382	332	10	13
20-Sep-06	61	-66	7.5	533	14	35	270	290	530	5	15
10-Oct-07	59	25	7.5	7290	11	1000	280	214	390	1	< 50
17-Jan-08	34	30	8.1	1228	34	12	310	220	127	4	33
14-Apr-09	50	34	7.9	292	31	8	310	320	350	4	14
15-Jul-10	67	53	7.8	850	159	35	340	312	370	7	15
25-Oct-11	56	-76	7.0	980	6	12	450	374	210	5	14
16-Mar-12	42	46	7.9	636	13	18	400	319	380	3	8
17-May-13	58	142	7.6	583	30	< 5	347	315	358	4	19
08-Jul-14	68	-32	7.3	622	14	< 5	337	328	276	2	12
09-Oct-15	53	127	7.7	537	21	25	263	163	340	2	22
24-Mar-16	39	244	7.5	613	7	< 5	303	222	348	23	16
	1										

								INORGA	N	IC PAF	۱A۶	/ETEP	is.	-			
Γ	OVERDITEDEN!															TOTAL	TOTAL
	OVERBURDEN UNIT	Br	BORON	. ,	Pe. 6		NO3-N	NH3-N		TKN		COD		3OD-5	тос	TOTAL	TOTAL S CYANIDE
	OMIT	(mg/L)	(mg/L)		Cr+6 (mg/L)		(mg/L)	(mg/L)		(mg/L)		(mg/L)		mg/L)	(mg/L)	(mg/L)	(mg/L)
\vdash	6NYCRR Part 703	(mg/L)	(mg/c)		nig/E/		(mg/c/	(iiig/L)		(mg/L/		(mg/c)		ing/c/	(mg/L/	(mg/L)	(mg/L)
	GROUNDWATER	[2.0]	1.0	(0.05		10	2.0		-		-			-	0.001	0.10
	STANDARD	_ ` -															
	Monitoring Wells																
	MW-2N																
	09-Mar-04	< 0.2	< 0.50		0.01					0.5			< 4		-		< 0.01
	10-Jun-04	< 0.2	-				0.20			0.5			< 4		< 3	< 0.005 < 0.005	. 0.01
	17-May-05 20-Sep-06	< 0.2 < 0.2	< 0.50 < 0.50				0.20 0.20			0.5 0.5			< 1		< 3 < 3		< 0.01 < 0.01
1	10-Oct-07	< 200.0	< 0.50		0.02					0.5			< .		< 3		< 0.01
	17-Jan-08	< 2.0	< 0.50				0.20			0.5	_		< 1		47		< 0.01
	14-Apr-09	< 2.0	< 0.50		0.01					0.5	<		< 1		< 3		< 0.01
	15-Jul-10	< 0.8	< 0.50		0.01		80.0	< 0.5		0.5			< .		< 3		< 0.01
	25-Oct-11	< 0.8	< 0.50		0.01		0.05	< 0.5		0.5			<		< 3		< 0.01
	16-Mar-12	< 0.8	< 0.50	< 1	0.01	<	0.05	< 0.5	<	0.5	<	20	<	4	< 3	< 0.005	< 0.01
	17-May-13	< 1.0	< 0.50	< 1	0.04	<	0.10	0.1	<	1.0		32	į	3	2	< 0.002	< 0.02
	08-Jul-14	< 0.1	< 0.05	<	0.04	<	0.10	0.1		0.5		17	< .		3		< 0.02
	09-Oct-15	< 0.5	0.02		0.04		0.14	0.1		0.5		10		2	1		< 0.01
	24-Mar-16	< 0.5	0.01	<	0.04	<	0.17	< 0.1	<	0.1	<	10	<	2	2	< 0.002	< 0.01

Al			100							
l										
l		As	Ва	Be	Cd	Ca	Cr	Co	Cu	Fe
. /(I)	Sb		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/c)	(ug/L
١.	[3]	25	1000	[3]	10		50		200	300
	[0]		1000	[0]					200	-
2650	< 15	< 10	64	< 3	< 5.0	71.6	9	< 20	13.1	441
	•	-	•	-	< 5.0	89700	-	•	•	724
7540	< 15	< 10	109	< 3	< 5.0	95000	35	< 20	18.6	123
206	< 15	< 10	61	< 3	< 5.0	65500	< 5	< 20	12.2	517
162	< 15	< 10	< 50	< 3	< 5.0	48300	< 5	< 20	< 10.0	249
238	< 15	< 10	< 50	< 3		59000				365
188		< 10	< 50	< 3		76400		< 20	< 10.0	380
136	< 5	< 5	53	< 3	< 5.0	69600	< 10	< 20	< 10.0	293
1570	< 5	7	72	< 3	< 5.0	88100	< 10	< 20	15.7	267
< 100			60	< 3		76300	< 10			417
148		< 5	49	< 4		73500				340
183	< 5	< 5	47	< 4	< 4.0	76100	< 5		< 5.0	857
215			55	< 5		65200		< 50		395
61	4	< 10	47	< 5	< 5.0	88900	1	< 50	< 25.0	137
		ă•	27							
	7540 206 162 238 188 136 1570 < 100 148 183			7540 < 15 < 10 109 206 < 15 < 10 61 162 < 15 < 10 < 50 238 < 15 < 10 < 50 188 < 30 < 10 < 50 136 < 5 < 5 53 1570 < 5 7 7 100 < 5 6 60 148 < 5 < 5 49 183 < 5 < 5 47 215 < 60 3 55 61 4 < 10 47	7540 < 15	7540 < 15 < 10	7540	7540 < 15	7540	7540

						TOTAL	METALS					
OVERBURDEN												
UNIT	Pb	Mg	Mn	Hg	Ni	K	Na	Se	Ag	TI	V	Zn
	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/l
6NYCRR Part 703												
GROUNDWATER	25	[35000]	300	2	-	-	20000	10	50	[4]	-	300
STANDARD												
Monitoring Wells MW-2N												
09-Mar-04	< 3	28800	197	< 0.20	< 30	1730	6220	•	< 10	< 10	< 30	64
10-Jun-04	8	37200	255	-	•	2940	8500	-	-	-	-	-
17-May-05	8	35100	285	0.34	< 30	3720	8520 <	5.0	< 10	< 10	< 30	49
20-Sep-06	< 3	30800	114	< 0.20	< 30	2080	11800	14.3	< 10	15	< 30	19
10-Oct-07	< 3	22800	24	< 0.20	< 30	2120	7520 <	5.0	< 10	< 10	< 30	22
17-Jan-08	< 3	17700	< 10	< 0.20	< 30	< 1000	4240 <	5.0	< 10	< 10	< 30	21
14-Apr-09	< 3	31500	82	< 0.20	< 30	1090	9670 <	: 5.0	< 10	< 10	< 30	< 10
15-Jul-10	< 3	33500	60	< 0.20	< 30	< 5000	10900 <		< 10	< 3	< 30	< 10
25-Oct-11	< 3	37400	211	< 0.20	< 30	< 5000	12800 <		< 10	< 3	< 30	30
16-Mar-12	< 3	31300	119	< 0.20	< 30	< 5000	9180 <		< 10	< 3	< 30	< 10
17-May-13	< 5	31800	124	< 0.20	< 5	1790	9630 <		< 7	< 10	-	< 5
08-Jul-14	< 5	33600	143	< 0.20	< 5	2470	11700 <		< 7	< 10		6
09-Oct-15	< 18	31200	53	0.06	< 40	1880	11600 <		< 10	< 10	3	11
24-Mar-16	3	30900	136	< 0.20	< 40	939	6850 <		< 10	< 10	< 50	1
	:											

					DISS	SOLVED M	IETALS				
OVERBURDEN											
UNIT	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe
OWN	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
6NYCRR Part 703	(49/1/	(ug/L)	(09/2)	(09.2)	(ug/c/	(ug/u/	(ug/L)	(092)	(09.27	(09.07	(03/0)
GROUNDWATER		[3]	25	1000	[3]	10		50	-	200	300
STANDARD		• •									
Monitoring Wells											
MW-2N											
09-Mar-04		-	•	•	•	-	-	•	•	-	•
10-Jun-04	•	•	-	-	-	-	•	-	•	-	-
17-May-05	'	-	-	-	-	•	•	•	-	-	-
20-Sep-06 10-Oct-07	-	-	•	-		-	-	-	-		
17-Jan-08	-	•	•	-	-	-				-	-
14-Apr-09	:		-	-		-			-	-	-
15-Jul-10	_		-		-		-	-			
25-Oct-11	[•			-	-	•			•
16-Mar-12				_	_	_	•			-	_
17-May-13	.	-	-	-	-	•	•	•	-	-	-
08-Jul-14	-	-	1.5		•		-	5.5	-	-	•
09-Oct-15	-			•	•		-	-	•	-	•
24-Mar-16			•	•	-	-	•	•	-	-	-
	8										
	ı										

					D	ISSOLVE	D METALS	S				
OVER THE TOTAL												
OVERBURDEN UNIT	Pb	Mg	Mn	Hg	Ni	к	Na	Se	Ag	TI	V	Zn
[ONII	(ug/L)	(ug/L)	(ug/L)	rry (ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	Ay (ug/L)	(ug/L)	v (ug/L)	(ug/L)
6NYCRR Part 703	\~3°=/	(-9)		\- <u>9</u> '-/	(-Sr = /	/-B-i	\-y-=/	(-gr=)	\-9/=/	\-#=!	1-31	1-9-1
GROUNDWATER	25	[35000]	300	2	•	-	20000	10	50	[4]	-	300
STANDARD												
Monitoring Wells MW-2N												
09-Mar-04	-	•	•	•	•	•	•	•	•	•	•	•
10-Jun-04	-	•	•	-	•	-	•	•	-	•	-	•
17-May-05		•	-	•	•	•	•	•	-	-	-	-
20-Sep-06	-	-	-	-	-	-	-	-	-	-	-	-
10-Oct-07	-	-	•	-	-	-	-	-	•	•	-	•
17-Jan-08	•	•	•	•	-	-	•	-	•	•	-	•
14-Apr-09	•	•	-	•	•	•	•	•	-	-	-	-
15-Jul-10	-	-	-	-	-	-	-		-	-	-	-
25-Oct-11	-	•	•	*	-	-	-	-	•	•	-	•
16-Mar-12		•	•	•		•	•		•	•	-	•
17-May-13 08-Jul-14		-	-	-	-	-	-	-	-	-		-
09-Oct-15]]			-	-	-	-				-	-
24-Mar-16]											
	!											

	ORGANIC PARAMETERS (DETECTED)	
OVERBURDEN UNIT	UNGANIC PANAMETERS (DETECTED)	SUM OF ORGANIC COMPOUNDS (DETECTED)
6NYCRR Part 703 GROUNDWATER STANDARD		
Monitoring Wells MW-2N 09-Mar-04 10-Jun-04 17-May-05	ANALYSIS METHOD EPA 8260 - EPA 8260 EPA 8260	0 - 0 0
20-Sep-06 10-Oct-07 17-Jan-08 14-Apr-09 15-Jul-10 25-Oct-11	EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260	0 0 0 0
25-00-11 16-Mar-12 17-May-13 08-Jul-14 09-0ct-15 24-Mar-16	EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260	0 0 0 0
		8
	TE CONTRACTOR OF THE CONTRACTO	

		FIF	ELD PARAMET	TERS		1	INC	ORGANIC	PARAMET	ERS	
		1 IL	MINIME			i					
OVERBURDEN				SP.			ALK.	HARD.			
UNIT	TEMP.	Eh	pН	COND.	TURB.	COLO	R (mg/L	(mg/L	TDS	CI	SO4
	(deg. F)	(mV) _	(Std Units)	(uS/cm)	(NTU)	(Units)	CaCO3)	CaCO3)	(mg/L)	(mg/L)	(mg/L)
6NYCRR Part 703											
GROUNDWATER	-	•	6.5-8.5	•	5	15	-	•	500	250	250
STANDARD											
Monitoring Wells	1										
MW-3N 09-Mar-04	49	153	7.3	1210	27	42	900	910	980	27	56
10-Jun-04	53	16	6.8	2000	83		630	1000	798	24	44
17-May-05	54	24	7.0	699	25	200	1100	984	932	22	36
20-Sep-06	55	-26	7.1	1180	12	35	850	895	185	1	13
10-Oct-07	55	25	6.9	5530	21	95	870	887	978	15	39
17-Jan-08	45	55	7.4	2670	103	19	960	866	942	14	35
14-Apr-09	52	18	7.3	984	67	12	1700	1040	950	14	36
15-Jul-10	62	44	6.9	221	259	75	900	1000	920	14	36
25-Oct-11	53	-67	6.3	226	0	120	940	892	850	12	28
16-Mar-12	49	59	7.1	1512	25	< 5	330	909	950	12	34
17-May-13	62	-24	6.8	1542	27	< 5	1200	992	967	15	29
08-Jul-14	65	-46	7.2	1580	47	< 5	985	1010	927	6	28
09-Oct-15	50	134	7.5	2190	23	10	925	570	948	11	33
24-Mar-16	45	30	6.9	1450	14	< 5	908	580	896	12	41

					INORGA	NIC PAR	RAMETER	RS			
											
OVERBURDEN										TOTAL	TOTAL
UNIT	Br	BORON	Cr+6	NO3-N	NH3-N	TKN	COD	BOD-5	TOC		CYANIDE
CNIVORR Rest 700	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
6NYCRR Part 703 GROUNDWATER	[2.0]	1.0	0.05	10	2.0			_	_	0.001	0.10
STANDARD	[2.0]	1.0	0.00		2.0	_	_			0.001	0
Monitoring Wells											
MW-3N											
09-Mar-04	< 0.2	< 0.50	< 0.01		< 0.5	< 0.5	27	14	12		: 0.01
10-Jun-04	< 0.2	-	•	< 0.20	< 0.5	8.0		< 4	92	< 0.005	•
17-May-05	-	< 0.50	< 0.01	< 0.20	< 0.5	< 0.5	< 20	9	150	Annual Control of the	0.01
20-Sep-06	< 0.2	< 0.50	< 0.01		< 0.5 < 0.5	< 0.5 < 0.5	< 20 < 20	< 4 < 4	160 < 3		< 0.01 < 0.01
10-Oct-07 17-Jan-08	< 20.0	< 0.50 < 0.50	< 0.02 < 0.02		< 0.5	< 0.5	< 20	12	24		< 0.01
14-Apr-09	< 20.0	< 0.50	< 0.01	< 0.20	< 0.5	< 0.5	< 20		< 3		< 0.01
15-Jul-10	< 1.6	< 0.50	< 0.01	< 0.05	< 0.5	< 0.5	32	< 4	4		< 0.01
25-Oct-11	< 0.8	< 0.50	< 0.01	0.07	< 0.5	0.8	< 20		< 3		< 0.01
16-Mar-12	< 8.0	< 0.50	< 0.01	0.06	< 0.5	< 0.5	< 20	13	17		< 0.01
17-May-13	< 1.0	< 0.50	< 0.04		< 0.1	< 1.0	34	12	3		< 0.02
08-Jul-14	< 0.1	< 0.05	< 0.04	< 0.10	< 0.1	0.6	29	5	4		< 0.02
09-Oct-15	< 0.5	0.03	< 0.04	< 0.10	< 0.1	0.6	< 10	5	4		< 0.01
24-Mar-16	< 0.5	0.03	< 0.04	< 0.17	< 0.1	< 0.1	< 10	6	2	< 0.002	< 0.01
	70 C										

					Т	OTAL MET	TALS				
OVERBURDEN											
UNIT	Al	Sb	As	Ва	Be	Cd	Ca	Сг	Co	Cu	Fe
	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
6NYCRR Part 703											
GROUNDWATER	-	[3]	25	1000	[3]	10	•	50	-	200	300
STANDARD											
Monitoring Wells MW-3N											
09-Mar-04	658	17.7	< 10	134	< 3	< 5.0	201000	90	30.1	< 10	5630
10-Jun-04		•	•		-	< 5.0	218000	•	- 66	-	1060
17-May-05	106	< 15	< 10	133	< 3	< 5.0	221000	9	< 20.0	< 10	5000
20-Sep-06	153	< 15	26	130	< 3	< 5.0	200000	10	38.5		3230
10-Oct-07	189	< 15	< 10	134	< 3	< 5.0	198000	7	22.7		2460
17-Jan-08	175	< 15	< 10	118	< 3	< 5.0		< 5	< 20.0		4800
14-Apr-09	< 100	< 30	12	154	< 3	< 5.0		< 5	< 20.0		5770
15-Jul-10	< 100	< 5	13	148	< 3	< 5.0		< 10	< 20.0		4980
25-Oct-11	104	< 5	10	119	< 3	< 5.0		< 10	< 20.0		120
16-Mar-12	< 100	< 5	10	136	< 3	< 5.0		< 10	< 20.0		5630
17-May-13	131	< 5	8	128	< 4	< 4.0		< 5		< 5	812
08-Jul-14	91	< 5	9	122	< 4	< 4.0	227000	8		< 5	122
09-Oct-15	117	< 60	19	158	< 5	0.4		< 10	27.0	2	332
24-Mar-16	36	4	12	136	< 5	0.2	232000	2	6.8	3	524
	1										
	1										

						TOTAL	METALS					
OVERBURDEN												
UNIT	Pb	Mg	Mn	Hg	Ni	К	Na	Se	Ag	TI	V	Zn
Oitti	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/
NYCRR Part 703	(ug/c/	(ogre)	(09.0)	(ug/c)	(09:1)	(09/1)	(ug/c)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/
GROUNDWATER	25	[35000]	300	2	_		20000	10	50	[4]		300
STANDARD		[00000]		_			20000		-	[1]		
Monitoring Wells MW-3N												
09-Mar-04	< 3	99900	503	< 0.20	89	6150	12100	-	< 10	< 10	< 30	54
10-Jun-04	5	110000	620		•	2910	13900	•		•	•	•
17-May-05	< 3	105000	485	< 0.20	< 30	3050	12100 <	< 5.0	< 10	< 10	< 30	25
20-Sep-06	< 3	96100	477	< 0.20	< 62	1920	11500	20.3	< 10	13	< 30	15
10-Oct-07	< 3	95500	327	< 0.20	33	3210	9780 -	< 5.0	< 10	< 10	< 30	22
17-Jan-08	< 3	92900	455	< 0.20	< 30	1820	10600 <	< 5.0	< 10	< 10	< 30	23
14-Apr-09	< 3	105000	508	< 0.20	< 30	1750	10600 <	< 5.0	< 10	< 10	< 30	< 10
15-Jul-10	< 3	103000	316	< 0.20	< 30	< 5000	10400	4.1	< 10	< 3	< 30	< 10
25-Oct-11	< 3	95300	319	< 0.20	< 30	< 5000	11600 -	< 3.0	< 10	< 3	< 30	25
16-Mar-12	< 3	99500	333	< 0.20	< 30	< 5000	10700 -	< 3.0	< 10	< 3	< 30	16
17-May-13	< 5	106000	383	0.40	13	2540	10300 -	< 10.0	< 7	< 10		11
08-Jul-14	6	108000	425	< 0.20	12	2730	11100 -		< 7	< 10		19
09-Oct-15	30	112000	258	0.06	36	3870	10300 4		< 10	< 10	2.8	24
24-Mar-16	8	110000	322	< 0.20	12	2180	10600 -		< 10	< 10	2.9	5
					78							
					20							
					2.							
					20							
					7.							

Number A Sb As Ba Ba Cd Ca Cr Co Cu Fe						DIS	SOLVED M	ETALS				
NINT	OVERBUREEN									-		
Control Cont		Δι*	Sh	Δe	Ra	Be	Cd	Ca	Cr	Co	Cu	Fe
GROUNDWATER STANDARD Monitoring Wells MW-3N 09-Mar-04	Olti	1										
GROUNDWATER STANDARD Monitoring Wells MW-3N 09-Mar-04 10-Jun-04	6NYCRR Part 703	(09/2)	(ug-u/	(0912)	(49-2)	(092/	(59.27	(09-0)	(-9-)	(09,07	1-5/	(09-0)
Monitoring Wells MW-3N O9-Mar-04		-	[3]	25	1000	[3]	10		50	-	200	300
MW-3N 09-Mar-04 10-Jun-04												
09-Mar-04 10-Jun-04 117-May-05 20-Sep-06 10-Oct-07 17-Jan-08 14-Apr-09 15-Jul-10 15-Mul-10 16-Mar-12 17-May-13 08-Jul-14 09-Oct-15 24-Mar-16												
10-Jun-04 17-May-05 20-Sep-06 10-Oct-07 17-Jan-08 14-Apr-09 <100 <30 <10 122 <3 <5 240000 <10 <20.0 <10 <60 15-Jul-10 <16-May-12 17-May-13 08-Jul-14 09-Oct-15 24-Mar-16												
17-May-05 20-Sep-06		-	-	-	-	•	•	-	-	-	•	•
20-Sep-06 10-Oct-07 17-Jan-08 1-			-	•	•	•			•	•	-	
10-Oct-07 17-Jan-08 14-Apr-09 15-Jul-10 100 15-Jul-10 16-Mar-12 17-May-13 08-Jul-14 09-Oct-15 24-Mar-16					•	-						
17-Jan-08 14-Apr-09 15-Jul-10 15-Jul					-						-	
14-Apr-09					-			•			•	
15-Jul-10					122			- 240000			- 10	
25-Oct-11 16-Mar-12 17-May-13 08-Jul-14 09-Oct-15 24-Mar-16												
16-Mar-12 17-May-13 08-Jul-14												
17-May-13 08-Jul-14 09-Oct-15 24-Mar-16												
08-Jul-14 09-Oct-15 24-Mar-16												
09-Oct-15 24-Mar-16												
24-Mar-16		l									-	
		۱.	-	-		•		-				-

					ח	ISSOLVE	ED METAL	_S				
OVERBURDEN									_			_
UNIT	Pb	Mg	Mn	Hg	Ni	K	Na	Se	Ag	TI	٧	Zn
	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
6NYCRR Part 703	05	[05000]	000	•			00000	40	50	643		300
GROUNDWATER	25	[35000]	300	2	•	-	20000	10	50	[4]	-	300
STANDARD Monitoring Wells												
MW-3N												
09-Mar-04	-	_	_	_	-	-					•	
10-Jun-04	-	•					•			_	-	-
17-May-05	.	•	•			-		•	-	-		-
20-Sep-06		•	-	-		-	-	-	-	•	•	-
10-Oct-07	-	-	-	-	-	-	-	-	•	•	•	-
17-Jan-08	-	-	•	-	-	•	•	•	•	-	-	-
14-Apr-09	< 3	108000		< 0.20	< 30	1880	13800	< 5.0	< 10	< 10	< 30	22
15-Jul-10	< 3	89300	305	< 0.20	< 30	< 5000	10000	< 3.0	< 10	< 3	< 30	32
25-Oct-11	-	-	271-236	-	-	-	-	•	-	•	•	•
16-Mar-12	-	-	-	-	-	•	•	•	•	•	-	-
17-May-13	•	•	•	•	•	•	•		-	-	-	-
08-Jul-14	•	•	•	•	•	•	- 176	-	-	•	•	•
09-Oct-15	-	-	-	-	-	-	-	-	•	•	•	•
24-Mar-16	-	-	-	-	-	-	-	•	•	•	-	-

		0004	AUC DADAM	TERS (RETECTER)	
		UHGA	NIC PAHAME	ETERS (DETECTED)	SUM OF
OVERBURDEN		1,1 -		cis-1,2-	ORGANIC
UNIT			Chloroethane	Dichloroethene	COMPOUNDS
0		(ug/l)	(ug/l)	(ug/l)	(DETECTED)
6NYCRR Part 703		7-3-0			
GROUNDWATER		5	5	5	
STANDARD		_			
Monitoring Wells				 	
MW-3N	ANALYSIS METHOD				
09-Mar-04	EPA 8260	•	-	< 5	0
10-Jun-04	•	•	-	•	•
17-May-05	EPA 8260	1 J	-	< 5	1
20-Sep-06	EPA 8260	-		< 5	0
10-Oct-07	EPA 8260	< 5	•	< 5	0
17-Jan-08	EPA 8260	< 5	-	< 5	0
14-Apr-09	EPA 8260	< 5	-	< 5	0
15-Jul-10	EPA 8260	2 J		< 5	2
25-Oct-11	EPA 8260	< 5	•	< 5	0
16-Mar-12	EPA 8260	< 5	_	< 5	0
17-May-13	EPA 8260	2	-	1	3
08-Jul-14	EPA 8260	1	•	< 1	1
09-Qct-15	EPA 8260	1.4 J	1.1 J	1 J	4
24-Mar-16	EPA 8260	3.2 J	2.3 J	2.9 J	8
	(6)				
	33				
	1				

		FIEL	D PARAMET	TER\$			INC	DRGANIC	PARAMETE	ERS	
OVERBURDEN				SP.	71.000	0010	ALK.	HARD.	TOO		\$04
UNIT	TEMP.	Eh	pH (Std Units)	COND.	TURB. (NTU)	COLO	CaCO3)	(mg/L CaCO3)	TDS (mg/L)	Cl (mg/L)	(mg/L)
6NYCRR Part 703	(deg. F)	(mV)	(Std Units)	(uS/cm)	(410)	(Units)	Cacos	Cacosi	(mg/c)	(mg/L)	(Hig/L)
GROUNDWATER	.	-	6.5-8.5		5	15	_		500	250	250
STANDARD	F0		0.0 0.0			'•				,	
Monitoring Wells			·								
MW-4N											
09-Mar-04	WELL DA	AMAGED	-	•	15-15	-	-	•		-	-
10-Jun-04	56	-47	7.4	669	13	·	520	470	622	9	71
17-May-05	50	-39	7.5	1318	10	200	640	496	585	8	37
20-Sep-06	WELL DE		•	-	-	•	•	-	-	•	•
10-Oct-07	59	Οt	7.6	1732	48	180	490	401	570	6	34
17-Jan-08		IN SNOW	-			- <u>-</u>	-		-	-	-
14-Apr-09	50	54	8.1	583	116	15	480	523	550	5	35
15-Jul-10	61	-48	7.6	1315	180	35	330	528	520	6	30
25-Oct-11	57	-54	6.9	1319	2	75	440	565	530 540	4 3	21 17
16-Jun-12	46	92	7.5	873	9	15 5	490 469	474 466	461	3	17
17-May-13 08-Jul-14	61 69	-17 86	7.0 7.2	860 832		5 < 5	532	480	461	1	17
09-Oct-15	55	168	7.2 7.4	873	32	10	481	306	505	4	17
24-Mar-16	44	-3	7.1	765	10	10	473	323	501	3	17
24-1441-10		-3	7.1	703	10	١ ''	470	020	55.		

						INORG	AN	IIC PAI	RAN	METER	RS					
									••							
OVERBURDEN	D.	BODON	00		NOO N	Allio		TUN		000	POS	. =	TOO	TOT		TOTAL
UNIT	Br	BORON	Cr+6		NO3-N	NH3-N		TKN		COD	BOD		TOC			CYANIDE
6NYCRR Part 703	(mg/L)	(mg/L)	(mg/L)		(mg/L)	(mg/L)		(mg/L)		(mg/L)	(mg/L	./	(mg/L)	(mg/L	,	(mg/L)
GROUNDWATER	[2.0]	1.0	0.05		10	2.0							_	0.00	I	0.10
STANDARD	[,	****	0.00													
Monitoring Wells																
MW-4N																
09-Mar-04		DAMAGED	-					•		-	•		•	-		•
10-Jun-04	< 0.2	-			0.20	1.58		1.9		47	14		14	0.01		-
17-May-05				<	0.20	< 0.50	<	0.5		37	< 4		34	< 0.00	· <	0.01
20-Sep-06	WELL		- 0.00		-	-		-	_	20	< 4		3	0.01	1000	- 0.01
10-Oct-07			0.02	<	0.20	0.63		1.1	<	-	-		-	0.01	, .	. 0.01
17-Jan-08		IN SNOW	: 0.01	_		- < 0.50		- 0.7	_	20	< 4		7	< 0.00		: 0.01
14-Apr-09 15-Jul-10			: 0.01		0.25	< 0.50		1.4		26	< 4		8	< 0.00		: 0.01
25-Oct-11			: 0.01		0.25	< 0.50		1.2	-	20	5		5	< 0.00		: 0.01
16-Jun-12					0.05	< 0.50	_	0.5		20	< 4		11	< 0.00		: 0.01
17-May-13					0.10	0.16		1.0		28	2		6	< 0.00		0.02
08-Jul-14			: 0.04			0.16	-	0.8		21	< 2		6	< 0.00		: 0.02
09-Oct-15	< 0.5				0.10	0.26		0.8		9	2		5	< 0.00		0.01
24-Mar-16	< 0.5		0.17			0.11		0.3	<	10	4		5	< 0.00		0.01
:																

	TOTAL METALS											
OVERBURGEN												
OVERBURĐEN UNIT	Al	Sb	As	Ва	Ве	Cd	Ca	Cr	Co	Си	Fe	
UNII	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	
6NYCRR Part 703	(ug/L)	(ug/c)	(ugru)	(ug/L)	(ug/L/	(09/2)	(09/2)	(dg/L)	(ug/L)	(ugre)	(09/0)	
GROUNDWATER	-	[3]	25	1000	[3]	10		50	-	200	300	
STANDARD	l											
Monitoring Wells MW-4N												
09-Mar-04	WELL D	AMAGED	-	•	-	•	•	-	-	-		
10-Jun-04	-	-	-	-	-	< 5.0	110000	•	-	-	2990	
17-May-05	< 100	< 15	< 10	85	< 3	< 5.0		< 5	< 20	10	4440	
20-Sep-06	WELL D		-	-	-					•	-	
10-Oct-07	389	< 15	< 10	76	< 3	< 5.0	92200	15		< 10	3090	
17-Jan-08		IN SNOW	•		-		-	376	-	-		
14-Apr-09	193	< 30	< 10	89	< 3	< 5.0		< 5		< 10	2810	
15-Jul-10	258	< 5	10	89	< 3	< 5.0		< 10		< 10	4250	
25-Oct-11	786	< 5	10	100	< 3	< 5.0	150000		< 20	13	5020	
16-Jun-12	< 100	< 5	В	80	< 3	< 5.0		< 10		< 10	2190	
17-May-13	56	< 5	< 5	73	< 4	< 4.0	129000			< 5	3620	
08-Jul-14	80	< 5	8	82	< 4	< 4.0		< 5		< 5	4200	
09-Oct-15	470	< 60	8	88	< 5	0.4	123000			< 25	4360	
24-Mar-16	122	< 60	8	76	< 5	0.2	129000	3	< 50	2	3140	
		F3										

			-			TOTAL	METALS					
OVERBURDEN												
UNIT	Pb	Mg	Mn	Hg	Ni	K	Na	Se	Ag	TI	V	Zn
0	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/l
NYCRR Part 703	1-3-1		1.0-7		, <u>, , , , , , , , , , , , , , , , , , </u>							
ROUNDWATER	25	35000	300	2			20000	10	50	[4]	-	300
STANDARD										75		
Monitoring Wells MW-4N												
09-Mar-04	WELL	DAMAGED		gr •	•	•	•	· -	-	-		•
10-Jun-04	6	48100	B17	-	•	2420	20800	•	-	-	-	•
17-May-05	< 3	48900	894	< 0.20	< 30	2240	21600	< 5	< 10	< 10	< 30	15
20-Sep-06	WELL	DRY	-	-	-	•	•		-	•	-	-
10-Oct-07	17	41400	589	< 0.20	< 30	< 1000	20400	< 5	< 10	< 10	< 30	19
17-Jan-08	BURIE	D IN SNOW	•	•	-	-	•	-	-	•	•	•
14-Apr-09	< 3	47800	890	< 0.20	< 30	1520	21900	< 5	< 10	< 10	< 30	12
15-Jul-10	13	49300	855	< 0.20	< 30	< 5000	23400	< 3	24	< 3	< 30	19
25-Oct-11	11	46000	1260	< 0.20	< 30	< 5000	16800	< 3	< 10	< 3	< 30	32
16-Jun-12	9	38000	1180	< 0.20	< 30	< 5000	11500	< 3	< 10	< 3	< 30	23
17-May-13	< 5	34700	1290	< 0.20	< 5	1690	8880	< 10	< 7	< 10	•	< 5
08-Jul-14	< 5	42800	987	< 0.20	< 5	1960	17800	< 10	< 7	< 10		9
09-Oct-15	22	46800	913	0.08	< 40	1660	19800	< 5	< 10	< 10	2.5	- 11
24-Mar-16	4	38100	1110	< 0.20	2	1600	12000	< 5	< 10	< 10	< 50	6

				-	DISS	SOLVED M	ETALS				**
	İ								-		
OVERBURDEN	1	Ot-	4 -	р.	В-	0.1	0-	0-	0-	0	Г-
UNIT	Al (v=t)	Sb	As	Ba	Be	Cd	Ca	Cr (v=0.)	Co	Cu (ug/L)	Fe
6NYCRR Part 703	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
GROUNDWATER	-	[3]	25	1000	[3]	10		50	_	200	300
STANDARD		[O]	20	,,,,,	[0]						-
Monitoring Wells											
MW-4N											
09-Mar-04	-	-	-	-	•	•	•	-	-	-	-
10-Jun-04	-	-	-	-	•	•	•	•	-	-	-
17-May-05	-	-	•	•	•	•	-	-:	-	•	-
20-Sep-06		-	-	-	-	•	-	•	-	-	-
10-Oct-07		•	-	-	-	-	•	-	•	•	-
17-Jan-08	-	•	•	•	•	•	-	-	-	•	-
14-Apr-09	< 100	< 30	< 10	75	< 3	< 5	126000		< 20	< 10	634
15-Jul-10	< 100	< 5	< 5	66	< 3	< 5	110000		< 20		< 60
25-Oct-11		•	-	-	-	-	•	•	-	•	-
16-Jun-12	-	-	-	-	•	•	•	-	-	-	-
17-May-13	-	-	•	•	•	•	-		-	-	•
08-Jul-14	-	•	•	•	•	-	-	•	•	•	•
09-Oct-15	•	•	•	-	-	-	•	-	-	129	-
24-Mar-16	•	-	-	-	-	•	•	•	-	0.00	-

					D	ISSOLVE	D METAL					
OVERBURDEN		<u> </u>										
OVERBORDEN	Pb	Mg	Mn	Hg	Ni	К	Na	Se	Ag	TI	٧	Zn
OMIT	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
6NYCRR Part 703	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/c)	(ug/L)	(Ug/L)	(UG/L)	(Ug/L)	(ug/L)	(ug/L)	(ug/L)
GROUNDWATER	25	35000	300	2	_		20000	10	50	[4]		300
STANDARD		99990	500	-			20000			1.1		
Monitoring Wells												
MW-4N												
09-Mar-04		•	-	-	-	•	•	-	-	-	•	
10-Jun-04		•	•	-	2.5	-	•	-	-	-	•	•
17-May-05		- ,	-	-	•	•	•	-	-	-	-	-
20-Sep-06		•	•	-	-	-	-	-	-	-	-	•
10-Oct-07	-	•	•	•	•	-	-	-	•	70	-	•
17-Jan-08	1 .	-	-	-	•	•	•		•	•	•	-
14-Apr-09	< 3	47000		< 0.20	< 30	1530	21600	< 5	< 10	< 10	< 30	20
15-Jul-10	< 3	44200		< 0.20		< 5000	20700	< 3	< 10	< 3	< 30	20
25-Oct-11	-	•	-	-	-	-	-	•	•	-	-	•
16-Jun-12	-	•	•	-	-	-	-	-	-	-	•	-
17-May-13	-	-	-	-	•	•	•	94		-	•	•
08-Jul-14	-	-	-	•	•	•	•	-	•	•	-	
09-Oct-15	-	•	-	•	•	-	-	•	•	-	-	•
24-Mar-16	•	•	•	-	-	-	•	•	-	-	•	7

	<u> </u>	ORGANIC PARA	METERS (DETECTED)	_
		07(0.000 (700	,	SUM OF
OVERBURDEN				ORGANIC
UNIT		Vinyl Chloride	Acetone	COMPOUNDS
		(ug/l)	(ug/l)	(DETECTED)
6NYCRR Part 703				
GROUNDWATER		2	[50]	
STANDARD				
Monitoring Wells				
MW-4N	ANALYSIS METHOD			
09-Mar-04	WELL DAMAGED			•
10-Jun-04	•	•	-	•
17-May-05	EPA 8260	•	•	0
20-Sep-06	WELL DRY	-	-	-
10-Oct-07	EPA 8260	-	(80)	0
17-Jan-08	BURIED IN SNOW	•	•	•
14-Apr-09	EPA 8260	•	•	0
15-Jul-10	EPA 8260	-	•	0
25-Oct-11	EPA 8260	-	-	0
16-Jun-12	EPA 8260	•	-	0
17-May-13	EPA 8260	•	-	0
08-Jul-14	EPA 8260		•	0
09-Oct-15	EPA 8260	1.8 J	•	1.8
24-Mar-16	EPA 8260	< 5	1 J	1
ì				
(D)				
1				
	1			
	1			

		2

		FIEI	LD PARAMET	TERS		INORGANIC PARAMETERS							
OVEDBURDEN				CD.			AL IC	HADD					
OVERBURDEN UNIT	TEMP.	Eh	pН	SP. COND.	TURB.	COLO	ALK. A (mg/L	HARD. (mg/L	TDS	CI	SO4		
0,417	(deg. F)	(mV)	(Std Units)	(uS/cm)	(NTU)	(Units)	CaCO3)	CaCO3)	(mg/L)	(mg/L)	(mg/L)		
6NYCRR Part 703	(dog. r)	(11147	(010 01110)	(00/011)	(110)	(Grats)	02000,	00000,	(1119/2)	(mg·c)	(mg/c/		
GROUNDWATER	-	-	6.5-8.5	•	5	15	-	-	500	250	250		
STANDARD			28, 350										
Monitoring Wells													
MW-5N					-								
09-Mar-04	39	320	7.8	699	126	75	180	350	280	9	27		
10-Jun-04	55	168	7.3	445	154		290	380	337	8	44		
17-May-05	49	71	7.9	719	576	500	300	420	280	8	16		
20-Sep-06	60 62	-54	7.4	564 613	28 40	70 600	290 290	331 260	405 392	30 13	25 25		
10-Oct-07 17-Jan-08	37	90 85	7.6 8.0	1119	73	30	200	150	210		< 20		
14-Apr-09	48	76	8.4	250	36	15	190	219	270	4	17		
15-Jul-10	68	113	7.4	857	16	15	290	342	360	5	22		
25-Oct-11	56	-21	6.8	819	0	14	320	301	360	4	23		
16-Mar-12	46	97	7.7	540	8	13	310	273	420	3	50		
17-May-13	62	126	7.5	417	3	< 5	249	237	291	4	32		
08-Jul-14	67	93	7.5	555	15	< 5	262	304	304	2	48		
09-Oct-15	56	157	7.4	792	5	5	305	358	513	5	116		
24-Mar-16	42	252	7.7	410	2	5	212	171	255	5	41		

	INORGANIC PARAMETERS										
										7074	
OVERBURDEN] 	BODON	C 6	NO3 N	NILIO NI	TKN	COD	BOD 5	TOC	TOTAL	TOTAL S CYANIDE
UNIT	Br (mail)	BORON	Cr+6	NO3-N	NH3-N	TKN (ma/L)	COD	BOD-5	TOC (mg/L)	(mg/L)	(mg/L)
6NYCRR Part 703	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(IIIg/L)	(mg/L)	(mg/c)
GROUNDWATER	[2.0]	1.0	0.05	10	2.0	-			•	0.001	0.10
STANDARD											
Monitoring Wells											
MW-5N	ļ										
09-Mar-04	< 0.2			< 0.20	< 0.5	< 0.5		< 4	•	< 0.005	< 0.01
10-Jun-04	< 0.2	• • 0.50	- < 0.01	< 0.20 < 0.20	< 0.5 < 0.5	1.0 < 0.5	< 20 < 20	310 < 4	26 < 3	< 0.005 < 0.005	- < 0.01
17-May-05 20-Sep-06	< 0.2 < 2.0	< 0.50 < 0.50	< 0.01	< 0.20	< 0.5	< 0.5			< 3	< 0.005	< 0.01
10-Oct-07	< 0.2	< 0.50	< 0.02		< 0.5	< 0.5		< 4	8	< 0.005	< 0.01
17-Jan-08	< 20.0	< 0.50		< 0.20	< 0.5	< 0.5			< 3	< 0.005	< 0.01
14-Apr-09	< 20.0	< 0.50		< 0.20	< 0.5	< 0.5			< 3	< 0.005	< 0.01
15-Jul-10	< 4.0	< 0.50	< 0.01	0.07	< 0.5	1.0			< 3	< 0.005	< 0.01
25-Oct-11	< 8.0	< 0.50	< 0.01	0.09	< 0.5	0.6			< 3	< 0.005	< 0.01
16-Mar-12	< 0.8	< 0.50	< 0.01	0.17	< 0.5	< 0.5			< 3	< 0.005	< 0.01
17-May-13	< 1.0	< 0.50		< 0.10	< 0.1	< 1.0		< 2	2	< 0.002	< 0.02
08-Jul-14	< 0.1	< 0.05		< 0.10	< 0.1	< 0.5		< 2	2	< 0.002	< 0.02
09-Oct-15	< 0.5	0.02	< 0.04	0.35	< 0.1	< 0.5	< 10	1	2 2	< 0.002 < 0.002	< 0.01
24-Mar-16	< 0.5	< 0.50	< 0.04	< 0.17	< 0.1	< 0.1	< 10	< 2	2	< 0.002	< 0.01
İ	1										
I											

		TOTAL METALS											
					•		· · · · · · · · · · · · · · · · · · ·						
OVERBURDEN	41	Sb	A -	D-	D-	Cđ	Ca	Cr	Со	Cu	Fe		
TINU	Al (ug/L)	SD (ug/L)	As (ug/L)	Ba (ug/L)	Be (ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)		
6NYCRR Part 703	(ug/c)	(ug/L)	(ug/L)	(09/1/	(Ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(Bg/L/	(09/1/		
GROUNDWATER	-	[3]	25	1000	[3]	10	-	50	•	200	300		
STANDARD													
Monitoring Wells MW-5N													
09-Mar-04	14400	22.9	< 10	120	< 3	< 5	95300	34	< 20	32.7	25200		
10-Jun-04	-	-	-	•	•	< 5	111000	-	-	•	19700		
17-May-05	16900	< 15	< 10	127	< 3	< 5	120000	57	< 20	45	33300		
20-Sep-06	345	< 15	< 10	< 50	< 3	< 5	97000	< 5	< 20	12	712		
10-Oct-07	1060	< 15	< 10	< 50	< 3	< 5	76800	12		< 10	1700		
17-Jan-08	941	< 15	< 10	< 50	< 3	< 5	42300	9	< 20	< 10	1670		
14-Apr-09	719	< 30	< 10	< 50	< 3	< 5	64300	< 5	< 20	< 10	896		
15-Jul-10	277	< 5	< 5	< 50	< 3	< 5	101000	< 10	< 20	< 10	407		
25-Oct-11	227	< 5	< 5	< 50	< 3	< 5	88600	< 10	< 20	< 10	305		
16-Mar-12	< 100	< 5	< 5	< 50	< 3	< 5	79300	< 10	< 20	< 10	< 60		
17-May-13	< 50	< 5	< 5	8	< 4	< 4	71400	< 5	< 5	< 5	< 50		
08-Jul-14	243	< 5	< 5	13	< 4	< 4	90500	< 5	< 5	< 5	321		
09-Oct-15	117	< 60	< 10	20	< 5	< 5	144000	< 10	< 50	< 25	126		
24-Mar-16	31	< 60	< 10	7	< 5	< 5	68500	2	< 50	< 25	33		

						TOTAL	METALS					
OVERBURDEN			- 4							_		_
UNIT	Pb	Mg	Mn	Hg	Ni	K	Na	Se	Ag	π	V	Zn
	(ug/L)	(ug/L.)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
6NYCRR Part 703				_			20000	40	50	6.41		200
GROUNDWATER	25	[35000]	300	2	-	•	20000	10	50	[4]	-	300
STANDARD												
Monitoring Wells MW-5N												
09-Mar-04	8	26400	840	< 0.20	39	3790	2040		< 10	< 10	31	116
10-Jun-04	15	25700	466	-	-	2270	3460	-	-	•	•	-
17-May-05	19	29500	788	< 0.20	45	4700		< 5.0	< 10	< 10	41	117
20-Sep-06	< 3	21700	29	< 0.20	< 30	< 1000	4730	16.0	< 10	19	< 30	15
10-Oct-07	< 3	16600	47	< 0.20	< 30	< 1000	4020	< 5.0	< 10	< 10	< 30	22
17-Jan-08	< 3	10800	44	< 0.20	44	< 1000	2080	< 5.0	< 10	< 10	< 30	37
14-Apr-09	< 3	14200	23	< 0.20	< 30	< 1000	3870	< 5.0	< 10	< 10	< 30	< 10
15-Jul-10	< 3	21800	22	< 0.20	< 30	< 5000	6160	< 3.0	< 10	< 3	< 30	< 10
25-Oct-11	< 3	19500	72	< 0.20	< 30	< 5000		< 3.0	< 10	< 3	< 30	18
16-Mar-12	< 3	18200	< 10	< 0.20	< 30	< 5000	< 5000	< 3.0	< 10	< 3		< 10
17-May-13	< 5	14200	< 5	< 0.20	< 5	< 500		< 10.0	< 7	< 10	2	< 5
08-Jul-14	< 5	18900	23	< 0.20	< 5	< 500		< 10.0	< 7	< 10	-	5
09-Oct-15	11	30800	5	0.07	< 40	< 5000		< 5.0	< 10	< 10	< 50	7
24-Mar-16	2	14600	3	< 0.20	< 40	< 5000	3540	< 5.0	< 10	< 10	< 50	< 20

	DISSOLVED METALS										
性											
OVERBURDEN	l	5 :		п.		0.1	0:	0.	0.	0	F
UNIT	Al (unit)	Sb	As	Ba	Be	Cd	Ca	Çr (v=1)	Co	Cu	Fe
6NYCRR Part 703	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
GROUNDWATER		[3]	25	1000	[3]	10	_	50	-	200	300
STANDARD		t-1			(-)						
Monitoring Wells											
MW-5N											
09-Mar-04	-	-	-	-	•	•	•	-	•	-	-
10-Jun-04	-	•	•	•	•	•	2000	-	-	-	-
17-May-05 20-Sep-06	:		-	-	•	13	-	-			
10-Oct-07			-	-	-	-	-			-	-
17-Jan-08	-	-	•	•	•		•		_	-	-
14-Apr-09	.		•		-	-	-	-	-		•
15-Jul-10		•	_	-	-	-	-	•	-		
25-Oct-11	-	-	-	-	-	-	•	•	-	-	-
16-Mar-12	-	-	•	-	•	-	-	•	-	-	-
17-May-13		•	•	•	•	-	1.0	-	-	-	•
08-Jul-14	·	•	-	-	-	-	-	•	•	-	•
09-Oct-15	-	-	-	-	-	•	-	•	-	•	-
24-Mar-16	-	-	-	•	•	•	-	•	-	-	-

	DISSOLVED METALS											
OVERBURDEN												
UNIT	Pb	Mg	Mn	Hg	Ni	K	Na	Se	Ag	TI	٧	Zn
	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
6NYCRR Part 703												
GROUNDWATER	25	[35000]	300	2	•	•	20000	10	50	[4]	-	300
STANDARD												
Monitoring Wells												
MW-5N 09-Mar-04	_		_	_	_			_	_			
10-Jun-04		•		_				_			_	-
17-May-05			-				-		•	-	-	-
20-Sep-06	-	-		•		-		-		-		
10-Oct-07	-	•	-	-	-	-	•	-	-	•	•	•
17-Jan-08		•	•	-	•	•	•	-	•	•	-	-
14-Apr-09	-	•	-	-	-	•		•	•	-	-	-
15-Jul-10	-	-	•	•	•	-	-	•	•	-	•	-
25-Oct-11	-	•	•	•	-	-	•	-	-	•	•	•
16-Mar-12		•	•	-	-	•	•	-	-	-	-	-
17-May-13		•	-	-	-	•	-	•	•	-		-
08-Jul-14	-	-	•	•	•	-	•	•	-	-	•	•
09-Oct-15	-			-	-	-	•		-		-	-
24-Mar-16	•	•	•	-	-	•	•	•	-	•	-	-
	1											
	1											
	1											
	1											
	1											
	1											

	ORGANIC PARAMETERS (DETECTED)	
OVERBURDEN UNIT		SUM OF ORGANIC COMPOUNDS (DETECTED)
6NYCRR Part 703		
GROUNDWATER		
STANDARD		
Monitoring Wells		
MW-5N	ANALYSIS METHOD	_
09-Mar-04	EPA 8260	0
10-Jun-04	- EPA 8260	0
17-May-05 20-Sep-06	EPA 8260	0
10-Oct-07	EPA 8260	0
17-Jan-08	EPA 8260	0
14-Apr-09	EPA 8260	0
15-Jul-10	EPA 8260	0
25-Oct-11	EPA 8260	0
16-Mar-12	EPA 8260	0
17-May-13	EPA 8260	0
08-Jul-14	EPA 8260	0
09-Oct-15	EPA 8260	0
24-Mar-16	EPA 8260	0
200		

		e
	22	

		FIE	LD PARAMET	TERS .			INC	ORGANIC	PARAMET	ERS	
							A1.16	LIABB			
OVERBURDEN UNIT	ТЕМР.	Eh	pН	SP. COND.	TURB.	COLO	ALK. R (mg/L	HARD. (mg/L	TDS	CI	SO4
J. Oilli	(deg. F)	(mV)	(Std Units)	(uS/cm)	(NTU)	(Units)	CaCO3)	CaCO3)	(mg/L)	(mg/L)	(mg/L)
6NYCRR Part 703	(deg. 17	(1114)	(310 01#13)	(uo/ciii)	(141 <u>0)</u>	(0.113)	00000,	00000,	(mg/c)	(11.85-27	(9.27
GROUNDWATER	-	-	6.5-8.5		5	15	-	•	500	250	250
STANDARD											
Monitoring Wells											
MW-6N	1					-					
09-Mar-04	39	311	7.6	758	194	20	470	710	550	7	29
10-Jun-04	57	167	13.7	466	261	-	390	520	442	3	30
17-May-05	50	85	7.5	1096	105	500	660	613	538	9	19
20-Sep-06	60	-62	7.4	582	53	100	370	377	490	6	15
10-Oct-07	63	65	7.4	1751	18	400	400	335	535	31	24
17-Jan-08	37	75	7.9	2100	110	24	320	343	408	2	37
14-Apr-09	47	74	8.5	348	35	15	300 380	341 560	420 440	4 6	24 18
15-Jul-10	69 53	113 -25	7.7 6.4	1055 1100	52	35 55	480	429	440	2	18
25-Oct-11 16-Mar-12	43	-25 87	7.7	712	6 34	12	440	398	390	< 1	8
17-May-13	61	156	7.4	679	9	5	540	393	444	< 5	38
08-Jul-14	72	89	7.8	687	32	< 5	433	411	364	< 5	19
09-Oct-15	56	150	7.7	809	12	10	165	367	513	9	44
24-Mar-16	39	227	7.6	624	37	5	318	319	397	4	48

			_		INORGA	NIC PAR	AMETER	เร			
OVERBURDEN					-					TOTAL	TOTAL
UNIT	Br	BORON	Cr+6	NO3-N	NH3-N	TKN	COD	BOD-5	TOC		S CYANIDE
6NYCRR Part 703	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
GROUNDWATER	[2.0]	1.0	0.05	10	2.0	-	-	•	-	0.001	0.10
STANDARD						<u>.</u>					
Monitoring Wells											
MW-6N 09-Mar-04	< 0.2	< 0.50	< 0.01	< N2	< 0.5	< 0.5	27	< 4		< 0.005	< 0.01
10-Jun-04	< 0.2	•	- 0.01	< 0.2	< 0.5	< 0.5	21	< 4	7	< 0.005	•
17-May-05	< 0.2		< 0.01	< 0.2	< 0.5	< 0.5	< 20	< 4	22		< 0.01
20-Sep-06	< 0.2			< 0.2	< 0.5	< 0.5	29	< 4	9	< 0.005	< 0.01
10-Oct-07	< 2.0		< 0.02	< 0.2	< 0.5	< 0.5	< 20	< 4	5		< 0.01
17-Jan-08	< 20.0		< 0.04	< 0.2	< 0.5	0.7	< 20	< 4	66		< 0.01
14-Apr-09	< 20.0	< 0.50		< 0.2	< 0.5	< 0.5	< 20	< 4	4		< 0.01
15-Jul-10	< 0.8	< 0.50	< 0.01		< 0.5	1.0	< 20	< 4	5		< 0.01
25-Oct-11	< 8.0	< 0.50	< 0.01	0.1	< 0.5	0.8	< 20		< 3		< 0.01
16-Mar-12	< 0.8	< 0.50	< 0.01	0.1	< 0.5	< 0.5	< 20	< 4 < 2	6		< 0.01 < 0.02
17-May-13	< 1.0	< 0.50	< 0.04	< 0.1	< 0.2 < 0.1	< 1.0 0.5	28 29	< 2	5 5		< 0.02
08-Jul-14 09-Oct-15	< 0.1 < 0.5	0.06 0.10	< 0.04 < 0.04	< 0.1	< 0.1	< 0.5	< 10	1	4		< 0.02
24-Mar-16	< 0.5	0.05	< 0.04		< 0.1	< 0.1	< 10	< 2	4		< 0.01

	TOTAL METALS										
OVERBURDEN											
UNIT	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Сп	Fe
ONII	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
6NYCRR Part 703	(bg/L)	(09-2)	(09-1)	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	(-3)	(-97	(==,=/	\- <i>y</i> -/	<u> </u>		
GROUNDWATER		[3]	25	1000	[3]	10		50		200	300
STANDARD											
Monitoring Wells											
MW-6N											
09-Mar-04	8650	< 15	< 10	137	< 3	< 5	210000	31	< 20	10	1840
10-Jun-04	· .	-	-	•	-	< 5	154000	-		-	1170
17-May-05	9060	< 15	< 10	142	< 3	< 5	181000	75	< 20	24	1450
20-Sep-06	1100	< 15	< 10	67	< 3	< 5	113000	23	< 20	12	4470
10-Oct-07	322	< 15	< 10	57	< 3	< 5	97000	7		< 10	751
17-Jan-08	1000	< 15	< 10	< 50	< 3	< 5	102000	6		< 10	1620
14-Apr-09	308	< 30	< 10	< 50	< 3	< 5	104000	< 5		< 10	624
15-Jul-10	4700	< 5	< 5	96	< 3	< 5	173000	< 10		< 10	8300
25-Oct-11	1270	< 5	< 5	71	< 3	< 5		< 10	< 20	11	3490
16-Mar-12	366	< 5	< 5	< 50	< 3	< 5	121000	< 10		< 10	674
17-May-13	457	< 5	< 5	41	< 4	< 4	120000	< 5	< 5	< 5	841
08-Jul-14	420	< 5	< 5	47	< 4	< 4	127000	< 5	< 5	< 5	1130
09-Oct-15	231	< 60	< 10	45	< 5	< 5	147000	< 10	< 50	< 25	468
24-Mar-16	333	< 60	< 10	38	< 5	< 5	128000	2	< 50	3	921
	522										

						TOTAL	METALS					
OVERBURDEN	Dh.	Mar	NA-	L/a	Ni	К	Min	Se	٨٠	TI	٧	Zn
UNIT	Pb	Mg	Mn	Hg			Na		Ag			
6NYCRR Part 703	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
GROUNDWATER	25	35000	300	2	_	_	20000	10	50	[4]		300
STANDARD	25	33000	300	2	•	-	20000	10	30	[7]	-	300
Monitoring Wells	+											
MW-6N												
09-Mar-04	< 3	43700	674	< 0.20	32	3480	9650		< 10	< 10	< 30	100
10-Jun-04	11	32500	433		•	2430	7640		-		-	•
17-May-05	7	39200	461	< 0.20	44	4170	10800 <	: 5.0	< 10	< 10	< 30	60
20-Sep-06	< 3	23300	336	< 0.20	< 30	1290	7260	21.2	< 10	18	< 30	60
10-Oct-07	< 3	22700	212	< 0.20	< 30	1160		5.0	< 10	< 10	< 30	13
17-Jan-08	< 3	21300	179	< 0.20	< 30	< 1000		< 5.0	< 10	< 10	< 30	12
14-Apr-09	< 3	19500	144	< 0.20	< 30	< 1000		5.0	< 10	< 10	< 30	< 10
15-Jul-10	4	30800	389	< 0.20	< 30	< 5000		3.0	< 10	< 3	< 30	29
25-Oct-11	< 3	25800	268	< 0.20	< 30	< 5000		3.0	< 10	< 3	< 30	23
16-Mar-12	< 3	23600	224	< 0.20	< 30	< 5000		< 3.0	< 10	< 3	< 30	12
17-May-13	< 5	22700	227	< 0.20	< 5	987		: 10.0	< 7	< 10		< 5
08-Jul-14	< 5	22500	192	< 0.20	< 5	1200		< 10.0	< 7	< 10		< 5
09-Oct-15	17	28100	167	0.06	3	881		< 5.0	< 10	< 10	2	13
24-Mar-16	5	22200	446	< 0.20	3	567		< 5.0	< 10	< 10	< 50	4

	DISSOLVED METALS										
OVERBURDEN		O.	A =	D-	Be	Cd	Ca	Cr	Co	Си	Fe
UNIT	Al (vet)	Şb (v=#.)	As	Ba			(ug/L)	(ug/L)	(ug/L)	(ug/L)	re (ug/L)
6NYCRR Part 703	(ug/ <u>L)</u>	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/c)	(ug/L)
GROUNDWATER		[3]	25	1000	[3]	10		50		200	300
STANDARD		1-1			1-1						
Monitoring Wells							·-				
MW-6N											
09-Mar-04	• :	•	-	-	•	•	-	-	-	• **	-
10-Jun-04	-	•	-	•	•	•	-	•	•	-	-
17-May-05	-	-	•	•	-	-	•	-	-	-	•
20-Sep-06	-	•	•	•	-	-	•	•	-	•	•
10-Oct-07	•	•	-	-	•	•	•	-	-	•	
17-Jan-08	•	•	-	•	•	•	-		•	-	
14-Apr-09 15-Jul-10		-		-	-	-		•	-	-	
15-Jul-10 25-Oct-11				-			-		-		-
16-Mar-12			-	-			-			•	-
17-May-13		_	-								
08-Jul-14	_	-	•		-	-	•		-		
09-Oct-15	-	•	•	-	•	•		-	-		-
24-Mar-16		•	-	-	•		-	-	•	-	-

	DISSOLVED METALS											
OVERBURDEN												
UNIT	РЬ	Mg	Mn	Hg	Ni	К	Na	Se	Ag	Τŧ	٧	Zn
ONT	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
6NYCRR Part 703	1092/	(49-2)	(49-4)	(-9-/	(-5-)	(03-0)	(03-0)	1-5-1	\- <i>y</i> -/.	1-5-1	1-3-7	1-3-1
GROUNDWATER	25	35000	300	2	-	-	20000	10	50	[4]	-	300
STANDARD											-	
Monitoring Wells MW-6N												
09-Mar-04		•	-	-	•	•	-	-	•	-	-	-
10-Jun-04	-	-	•	-	-	-	-	•	•	•	-	- 3
17-May-05	-	•	-	-	-	-	•	•	-	-	-	•
20-Sep-06		•	•	-	-	•	•	-	-	-	•	•
10-Oct-07		•	-	-	•	•	•	-	•	-	-	-
17-Jan-08	•	-	-	•	•	-	-	•	•	-	-	-
14-Apr-09	-	-	•	•	-	-	•	-	•	-	-	•
15-Jul-10	-	•	•	-	-	•		50%	-	-	•	•
25-Oct-11		•	-	-	•	•	•	-	•	•	•	-
16-Mar-12	-	-	-	•	•	•	-	•	•	-	-	-
17-May-13	-	-	•	-	-	-	•	•	•	-	•	•
08-Jul-14		•	-	-	-		-		-	-		-
09-Oct-15 24-Mar-16		-	-	-	-		-	•		-	-	-
	Ì											
	1											
	1											
	1											

	ORGANIC PARAMETERS (DETECTED)	
·	ORGANIC PARAMETERS (DETECTED)	SUM OF
OVERBURDEN UNIT		ORGANIC COMPOUNDS
22		(DETECTED)
6NYCRR Part 703		
GROUNDWATER		
STANDARD		 .
Monitoring Wells		
MW-6N	ANALYSIS METHOD	
09-Mar-04	EPA 8260	0
10-Jun-04	<u>-</u>	-
17-May-05	EPA 8260	0
20-Sep-06	EPA 8260	0
10-Oct-07	EPA 8260	0
17-Jan-08	EPA 8260	0
14-Apr-09	EPA 8260	0
15-Jul-10	EPA 8260	0
25-Oct-11	EPA 8260	0
16-Mar-12	EPA 8260	0 0
17-May-13	EPA 8260	0
08-Jul-14	EPA 8260	0
09-Oct-15	EPA 8260	0
24-Mar-16	EPA 8260	U

	1 9		CK.
		QC	

				FIELD PAR	AMETERS			INORG/	NIC PARA	METERS	3	
	<u> </u>											
SURFACE WATER	75140	C.	Diss.	الم	SP. COND.	TURB.	COLOR	ALK. (mg/L	HARD. (mg/L	TDS	CI	SO4
	TEMP. (deg. F)	Eh (mV)	Oxygen mg/L	pH (Std Units)	(uS/cm)	(NTU)	(Units)	(mg/L CaCO3)	(mg/L CaCO3)	(mg/L)	(mg/L)	(mg/L)
	(deg. F)	(IIIV)	mg/L	(Sid Othis)	(BG/GII)	(1110)	(5/11/2)	04000,	04000)	(1119-2)	(mg/b)	(g-=/
	-		•	-	•	-		-	•	-	-	
				<u> </u>								
TRIGGER VALUES	-	•	-	•		-	-	-	-	-	•	-
Surface Water Sedimentation Pond												
09-Mar-04	38	278	_	7.4	1444	2	18	260	370	770	180	33
10-Jun-04	63	95	-	7.5	418	1	.	380	360	395		< 10
24-May-05	52	73		7.6	853	3	25	450	359	377	12	12
20-Sep-06	61	-78	•	7.8	686	3	100	430	395	542	26	16
10-Oct-07	61	-15	•	7.9	5050	2	29	280	348	663	25	139
17-Jan-08	33	10	-	8.1	2200	11	19	280	247	305	7	18
14-Apr-09	50	49	8.9	8.1	406	2	18	290	336	380	13	17
15-Jul-10	72	69	6.2	8,2	1144	35	15	360	476	490	27	28
25-Oct-11	51	-70	5.6	7.9	892	0	21	350	327	370	5	9
16-Mar-12	42	43	8.7	8.4	594	4	25	310	282	360	11	25
17-May-13	61	112	7.2	7.9	628	1	10	372	350	366	10	12
08-Jul-14	71	-29	6.4	7.4	589	12	15	433	329	289	1	3
09-Oct-15	54	136	6.6	7.7	737	16	10	249	279	442	28	81 19
24-Mar-16	39	169	3.7	7.6	568	4	10	268	231	345	8	19
							2					

					IN	ORGANIC	PARAME	TERS			
SURFACE WATER	Br (mg/L)	BORON (mg/L)	Cr+6 (mg/L)	NO3-N (mg/L)	NH3-N (mg/L)	TKN (mg/L)	COD (mg/L)	BOD-5 (mg/L)	TOC (mg/L)	TOTAL PHENOLS (mg/ <u>L)</u>	TOTAL CYANID (mg/L)
-		-		•	-		•	1	-	•	ū.
TRIGGER VALUES	-	•	•	-	•	•	-	Ų.	•		•
Surface Water											
Sedimentation Pond										0.005	0.04
09-Mar-04	< 0.2		< 0.01		< 0.50	< 0.5	29	< 4			< 0.01
10-Jun-04	< 0.2		-		< 0.50	8.0	31	< 4	11	< 0.005	-
24-May-05	< 0.2		< 0.01		< 0.50	< 0.5	< 20	< 4	9		< 0.01
20-Sep-06	< 0.2		< 0.01	< 0.2	0.56	2.6	23	< 4	9		< 0.01
10-Oct-07	< 2.0		< 0.01		< 0.50	0.6	< 20	< 8	6		< 0.01
17-Jan-08	< 0.2		< 0.01		< 0.50	0.6	< 20	< 4	11		< 0.01
14-Apr-09	< 0.2	< 0.50	< 0.01		< 0.50	< 0.5	< 20	< 4	5		< 0.01
15-Jul-10	< 0.8	< 0.50	< 0.01		< 0.50	< 0.5	21	< 4	5		< 0.01
25-Oct-11	< 0.8	< 0.50	< 0.01		< 0.50	0.7	< 20	< 4	4		< 0.01
16-Mar-12	< 0.8	< 0.50	< 0.01		< 0.50	< 0.5	< 20	< 4	4		< 0.01
17-May-13	< 1.0	< 0.50	< 0.04		< 0.10	< 1.0	26	< 2	5		< 0.02
08-Jul-14	< 0.1	< 0.05	< 0.04		< 0.10	0.6	25	< 2	8		< 0.02
09-Oct-15	< 0.5	0.09	< 0.04		< 0.10	0.5	7	1	4		< 0.01
24-Mar-16	< 0.5	0.03	< 0.04	< 0.2	< 0.10	< 0.1	< 10	< 2	4	0.003	< 0.01
						8.					

					TO	OTAL MET	TALS				
SURFACE WATER											
SURFACE WATER	AI	Sb	As	Ва	Ве	Cd	Ca	Сг	Co	Cu	Fe
	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
-											
•	•	-	•	-	•	-	•	•	•	•	-
TRIGGER VALUES	-	•	-	•	-	-	•	-	-		-
Surface Water											
Sedimentation Pond	400	. 46	< 10	66	< 3	< 5	116000	- 5	< 20	11	125
09-Mar-04 10-Jun-04	138	< 15	< 10	-	-	< 5	104000	-	- 20	-	196
24-May-05	< 100	< 15	< 10	< 50	< 3	< 5	105000		< 20	< 10	194
20-Sep-06	< 100	< 15	< 10	67	< 3	< 5	114000		< 20	< 10	340
10-Oct-07	< 100	< 15	< 10	62	< 3	< 5	104000		< 20	< 10	316
17-Jan-08	< 100	< 15	< 10	< 50	< 3	< 5	78700	< 5.0	< 20	< 10	< 60
14-Apr-09	< 100	< 30	< 10	< 50	< 3	< 5	105000		< 20	< 10	< 60
15-Jul-10	< 100	< 5	< 5	85	< 3	< 5	141000		< 20	< 10	4120
25-Oct-11	< 100	< 5	< 5	< 50	< 3	< 5	103000		< 20	< 10	187
16-Mar-12	< 100	< 5	6	< 50	6	7	86500	< 10.0	< 20	< 10	114
17-May-13	< 50	< 5	5	39	< 4	< 4	109000		< 5	< 5	< 50
08-Jul-14	< 50	< 5	< 5	38	< 4	< 4	109000		< 5	< 5	1850
09-Oct-15	171	< 60	3	58	< 5	< 5		< 10.0	< 50	< 25	1020
24-Mar-16	22	< 60	2	30	< 5	< 5	92600	2.0	< 50	2	20
24 18121 10		1 00	-			-					
	100										

TRIGGER VALUES				_	ALO	OTAL MET	T						
Pb Mg Mn Hg Ni K Na Se Ag Ti Ni Na Na Na Na Na Na N	5												OUDEAGE WATER
TRIGGER VALUES	Zn	V	TI	Ag	Se	Na	К	Ni	Ha	Mn	Mo	Pb	SURFACE WATER
TRIGGER VALUES Surface Water Sedimentation Pond 09-Mar-04	<u>y/L) (ug/L)</u>	(ug/L)	(ug/L)	(ug/L)	(ug/L)							1	
TRIGGER VALUES Surface Water Sedimentation Pond 09-Mar-04													
Surface Water Sedimentation Pond 09-Mar-04 < 3	•	•	-	•	•	-	•	-	•	•	•	-	•
Sedimentation Pond 09-Mar-04 < 3	-		•	-		-			-		-	-	TRIGGER VALUES
09-Mar-04 < 3													
10-Jun-04	20	< 30	- 10	- 10		70200	6000	- 20	. 0.00	-00	40000	١.	
24-May-05		-											1 ' '
20-Sep-06		< 30											
10-Oct-07		< 30											
17-Jan-08		< 30		< 10									
14-Apr-09	27	< 30	< 10	< 10	< 5.0								1
15-Jul-10		< 30	< 10	< 10	< 5.0	8870	1460						
25-Oct-11		< 30		< 10		13800		< 30					
16-Mar-12		< 30				< 5000	< 5000	< 30					
17-May-13		< 30			< 3.0		< 5000	< 30	< 0.20	30	16100		1
09-Oct-15 6 20200 147 0.05 < 40 2710 20500 < 5.0 < 10 < 10 <	< 5	•						< 5	< 0.20	42	19200	< 5	1
03-06(-13)	< 5	•						< 5				< 5	
24-Mar-16 3 14600 11 < 0.20 < 40 1740 7270 < 5.0 < 10 < 10 <		< 50										6	09-Oct-15
	0 1	< 50	< 10	< 10	< 5.0	7270	1740	< 40	< 0.20	11	14600	3	24-Mar-16

				00	DIS	SOLVED M	SETALS	-		_	
						<u> </u>					-
SURFACE WATER	Al	Sb	As	Ва	Be	Cd	Ca	Cr	Co	Cu	Fe
	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
		· · ·									
•	-	•	-	-	-	•	-	•	-	•	-
TRIGGER VALUES		-	-	-		-	-	-	-	-	
Surface Water											
Sedimentation Pond											
09-Mar-04 10-Jun-04	-	•	-	•	-	-	-		-		-
10-Jun-04 24-May-05		•	•	_	•	-		21	-	-	
20-Sep-06			-		_		_				-
10-Oct-07	-	•	-			-		-		-	•
17-Jan-08	.	-	-	-		-	-	-	•	-	-
14-Apr-09	.	-	•	-	•	-	-	7.0	•	-	•
15-Jul-10	-	-	-	•	-	•	-	•	•	•	•
25-Oct-11	-	•	-	•	-	•	-	•		•	-
16-Mar-12	•	-	-	-	•	•	•	-	-	-	-
17-May-13	•	-	•	-	•	-	•	-	•	-	•
08-Jul-14	-	•	-	•	-	•	-		-		-
09-Oct-15 24-Mar-16	:	•	-	-	-	-	-		-	-	-
24-14(0)-10	1										
150											
	1										
]							•				
•											
I	1										

						DISS	OLVED M	ETALS				
SURFACE WATER	Pb (ug/L)	Mg (ug/L)	Mn (ug/L)	Hg (ug/L)	Ni (ug/L)	K (ug/L)	Na (ug/L)	Se (ug/L)	Ag (ug/L)	TI (ug/L)	V (ug/L)	Zn (ug/L)
-		•			-		•	•	-	-	•	
TRIGGER VALUES	-	-	-		•	•	-	-		•	-	-
Surface Water												
Sedimentation Pond												
09-Mar-04 10-Jun-04	-	•	-	-	•	•	-	-	-		•	-
	-	-	-		•	-	-	-	-		Ü	-
24-May-05 20-Sep-06	-	-	-	-	1.20	-				-	-	
10-Oct-07	-				-	_		•		-	-	
17-Jan-08		_		•		-	_	-	-			_
14-Apr-09		_		•	-	_	-				_	_
15-Jul-10	-			-	-	-				-	•	-
25-Oct-11		•	-	-		-		-	-	-	-	•
16-Mar-12	-	-	-	-	-	-	-	2	-	•		-
17-May-13	-	-	•	•	•	-	-	-	•	•	-	-
08-Jul-14	-	•	•	-	-	-	•	-	•	-	-	•
09-Oct-15	-	-	•	-	-	•	-	•	-	-	•	
24-Mar-16		-	-	-	•	•	•	-	-	•	•	-

		GROUNDWATER QUALITY DATA	
		ORGANIC PARAMETERS (DETECTED)	
SURFACE WATER	1,1-l chlo etha (ug/L	Di ro rne	SUM OF ORGANIC COMPOUNDS (DETECTED)
-	5		
TRIGGER VALUES	-		
Surface Water Sedimentation Pond	ANALYSIS METHOD		
09-Mar-04	EPA 8260 < 5.0		0.0
10-Jun-04			-
24-May-05	EPA 8260 < 5.0		0.0
20-Sep-06	EPA 8260 < 5.0		0.0
10-Oct-07	EPA 8260 5.4		5.4
17-Jan-08	EPA 8260 < 5.0		0.0
14-Apr-09	EPA 8260 < 5.0		0.0
15-Jul-10	EPA 8260 < 5.0		0.0
25-Oct-11	EPA 8260 < 5.0		0.0
16-Mar-12	EPA 8260 < 5.0 EPA 8260 < 1.0		0.0 0.0
17-May-13 08-Jul-14	EPA 8260 < 1.0 EPA 8260 < 1.0		0.0
09-Oct-15	EPA 8260 < 1.0		0.0
24-Mar-16	EPA 8260 < 5.0		0.0

Appendix D

MONTGOMERY COUNTY EASTERN LANDFILL HISTORICAL GROUNDWATER ELEVATION DATA

of 1	9N	.47	elevation	1015.96 1015.00 1014.15 1016.77 1016.57 1014.80 1014.80 1014.52 1014.52
Page 1 of 1	MW-6N	1019.47	water level	26.4.4.2.2.4.4.2.2.4.4.2.2.4.4.4.4.4.4.4
	NS	82	elevation	1015.66 1014.25 1014.25 1017.34 1014.74 1013.45 1013.32 1013.32 1013.30
	MW-5N	1019.82	water level	4.16 6.57 7.28 6.37 6.37 7.24 7.24 6.50 6.50
	4N	.56	elevation	1024.35 1024.35 1022.28 1025.01 1026.88 1024.96 1025.38 1024.86 1026.87
	MW-4N	1032.56	water level	DAMAGED 8.21 7.97 10.28 7.55 11.68 7.60 7.18 7.70 5.69 12.31 5.85
	3N	40	elevation	1077.66 1082.03 1073.85 1073.85 1083.43 1075.13 1075.13 1076.97 1076.97 1076.97
	MW-3N	1122.40	water level	44.74 46.06 48.55 42.32 38.97 47.27 40.05 43.10 45.43 48.45
	ZN	.37	elevation	1033.35 1032.08 1028.26 1026.16 1035.12 1032.84 1032.84 1032.96 1032.84 1032.96
	MW-2N	1036.37	water level	3.02 4.29 6.11 10.21 1.25 3.60 3.41 4.55 3.97 3.97 3.97
	1N	.32	elevation	1008.79 1008.53 1006.86 1009.04 1009.12 1009.32 1009.32 1009.36 1008.96 1008.96
	MW-1N	1010.32	water level	1.53 3.46 1.28 1.28 1.15 1.36 1.36 1.36 1.36 1.36
	MONITORING LOCATION	TOP OF PVC PIPE	DATE	3/8/2004 5/16/2005 9/16/2006 10/9/2010 1/16/2008 4/13/2009 7/14/2010 10/25/2011 3/16/2012 5/17/2013 7/8/2014 10/8/2015

Montgomery County Central Landfill (Closed)

Environmental Monitoring Report 2016 First Quarter/Annual Review

Route 5S, Town of Root Montgomery County, New York

March 2016

Environmental Monitoring Report 2016 First Quarter/Annual Review

Central Landfill (Closed)

Route 5S, Town of Root Montgomery County, New York

NYSDEC Region 4

Prepared for:

Montgomery County Department of Public Works County Highway Building 6 Park Street P.O. Box 1500 Fonda, New York 12068-1500

Prepared by:

Barton & Loguidice, D.P.C. 443 Electronics Parkway Liverpool, New York 13088

March 2016 Project No.: 666.006.002

Table of Contents

	<u>Page</u>
Sample Collection Information	1
Sampling Firm	1
Sampling Dates	1
Sampling Locations	1
Field Determinations	1
Sample Testing	2
Laboratory Information	2
Parameters Tested	2
Assessment of Monitoring Results	3
Introduction	3
Groundwater	3
Conclusions	5

Figures

Figure 1 -Site Plan

Tables

Table 1 – Groundwater Standards Exceeded (2016 First Quarter)

Appendices

Appendix A – Field Sampling Data Sheets/Instrument Calibration Records/Landfill Gas Survey Logs/Landfill Inspection Reports

Appendix B – Pace Analytical Services, Inc. (PACE) Analytical Report

Appendix C – Historical Analytical Data

Sample Collection Information

Sampling Firm:

Pace Analytical Services, Inc. (PACE)

Sampling Date(s):

Monitoring Wells: March 21, 2016

Gas Monitoring/Landfill Inspections: Semi-Annual Gas

Inspection has not yet been conducted in 2016.

Sampling Locations:

(See Figure 1 – Sampling Locations)

Monitor	ing Wells
Downgradient	Upgradient
MW-2 MW-5 MW-6	MW-1 ⁽¹⁾

Gas I	Points
GP-1	Transfer Station
GP-2	Storage Building
GP-3	Maintenance Building
GP-4	Scale House
GP-5	

⁽¹⁾Location dry and unable to be sampled.

Field Determinations:

(See Field Data Sheets in Appendix A)

pН

Temperature

Specific Conductance

Eh (Oxidation Reduction Potential)

Turbidity

Groundwater Elevation Levels

Sample Testing

Laboratory: Pace Analytical Services, Inc. (PACE)

2190 Technology Drive Schenectady, NY 12308

EPA: NY00906, ELAP: 11078

Parameters Tested: All monitoring locations were analyzed for the 1988 Part

360 Baseline parameter list.

Test Report: Pace Analytical Services, Inc. Report ID #16030418 (See

Laboratory Report in Appendix B.)

Assessment of Monitoring Results

Introduction

The Montgomery County Central Landfill is an approximately 32-acre landfill that is located along Route 5S in the Town of Root, Montgomery County, New York. The closure construction took place during 1994, with substantial completion by December of that year. The major components of the closure system included lateral leachate interceptors, a 20,000-gallon underground steel leachate holding tank, a gas venting system, a low permeability soil layer as the hydraulic barrier, and an overlying barrier protection layer with topsoil. A stormwater drainage system was also constructed to manage surface water. The first complete post-closure year reported for this landfill was 1997. A site plan is included as Figure 1.

This report represents the results of environmental monitoring conducted for the 2016 First Quarter at the Central Landfill. The environmental monitoring points selected for the First Quarter monitoring event consist of one upgradient and three downgradient monitoring wells. Perimeter gas monitoring and landfill inspections are required during the Second and Fourth Quarters of each year and, therefore, were not completed during this monitoring period. The 2016 bi-annual landfill gas monitoring results along with the landfill inspections will be included in the 2017 annual environmental monitoring report. The environmental monitoring was conducted in accordance with the approved Site Post-Closure Plan (Barton & Loguidice, P.C., 1996) and the reduced post-closure variance schedule (Barton and Loguidice, P.C., 2004). Samples were collected by field representatives from Pace Analytical Services, Inc. (PACE) and all environmental samples were submitted to and analyzed by PACE, Schenectady, New York.

In the letter dated March 29, 2004, prepared by Barton & Loguidice, D.P.C. (B&L), NYSDEC granted a sampling reduction for the Central Landfill, which changed the sampling frequency from quarterly (four times a year) to annually (once a year). This report marks the thirteenth annual monitoring event under the NYSDEC-granted sampling variance.

Groundwater

Historically, the landfill monitoring well locations have demonstrated elevated turbidity values as the result of fine soil particulates being drawn into the well during the purging process and the elevated turbidities have also resulted in elevated concentrations of certain total metals. During this monitoring event MW-1 was reported as dry and unable to be sampled. Historical results for each monitoring well location are included in Appendix C.

<u>MW-1</u>

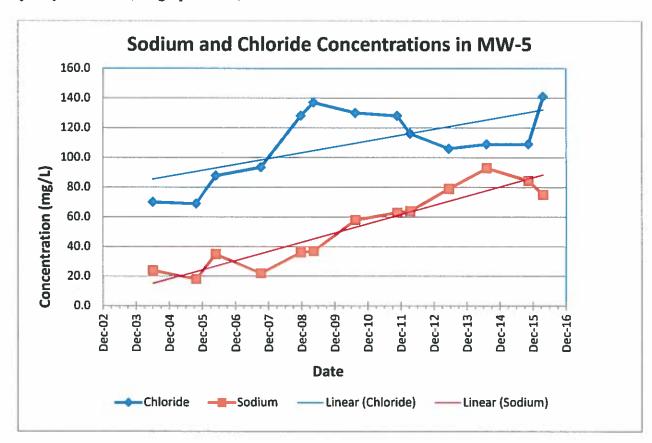
This monitoring well represents upgradient groundwater quality and is located southwest of and upgradient from the closed landfill. As noted above, this location was reported as dry during the 2016 First Quarter monitoring event. Historical groundwater quality data for MW-1 has not demonstrated any influence from the closed landfill.

MW-2

This monitoring well is located west of and downgradient from the closed landfill and exhibited no exceedances of groundwater standards for this sampling event. Historical groundwater quality data for MW-2 has not demonstrated any influence from the closed landfill.

<u>MW-5</u>

This monitoring well, located northwest of and downgradient from the closed landfill had reported concentrations of turbidity, total dissolved solids, total phenols, and total arsenic, iron, magnesium, and sodium above groundwater standards. Concentrations of sodium and chloride have been rising in recent years, although the chloride concentrations do not exceed water quality standards (see graph below).



An increase of these two parameters occurring at the same time is typically associated with road salt impacts. This well is located downgradient from the landfill storage building which is situated along the landfill access road. The landfill storage building has historically been used to store road salt which, in addition to the landfill, also appears to be influencing the groundwater in the area of MW-5. Sodium and chloride concentrations will continue to be examined during future monitoring events. Historical groundwater quality at this location may have residual influence from the closed landfill at this location.

<u>MW-6</u>

This monitoring well, located north of and downgradient from the closed landfill exhibited turbidity and total iron in exceedance of the Part 703 groundwater quality standard. The overall results are generally consistent with historical data and are believed to reflect the natural groundwater conditions for the site.

Conclusions

The groundwater quality conditions at the closed Montgomery County Central Landfill have generally remained consistent since the last sampling event. MW-5 demonstrates a residual influence from the closed landfill, and also appears to be impacted by historical road salt storage within the landfill storage building. Downgradient monitoring locations MW-2 and MW-6 do not appear to be influenced by the closed landfill and exhibits parameter concentrations similar to historical concentrations observed within upgradient monitoring location MW-1. The next scheduled monitoring event will occur during the Second Quarter of 2017.

Figures

MONTGOADTY COUNTY, N.Y. Scole NOT TO SCALE Project Number 666.006.002 Dote May 2016 ngon Guidice, D.P.C. SITE PLAN MONTGOMERY COUNTY CENTRAL LANDFILL 2016 FIRST QUERTER / PÁNUJAL REVIEW ENVIRONMENTAL MONTOGRIG REPORT APPROXIMATE LANDFILL BOUNDARY GAS POINTS LOCATION MONITORING WELL ROUTE 55 CENTRAL LANDFILL TRANSFER STATION BUILDING -BALLING BUILDING-

Tables

		MONTGOMERY COUNTY	COUNTY		
ai	TABLE 1 - 2016	E 1 - 2016 GROUNDWATER STANDARDS EXCEEDED	STANDARDS E)	KCEEDED	
	6 NYCRR PART 703		MONITORING W	MONITORING WELL LOCATION	
PARAMETER	STANDARD OR	MW-1	MW-2	MW-5	MW-6
	[GUIDANCE VALUE]	1ST QUARTER (DRY)	1ST QUARTER (MARCH)	1ST QUARTER (MARCH)	1ST QUARTER (MARCH)
Total Dissolved Solids	500 mg/L	•	-	934	-
Total Phenols	0.001 mg/L	•		0.004	
Turbidity	5 NTU's	•	(2 5)	28	14
Arsenic - T	25 ug/L	-		52	•
lron - T	300 ng/L	§ .		18400	586
Magnesium - T	35000 ug/L		•	102000	ž
Sodium - T	20000 ug/L		ΥC	74500	

Appendix A

ı	r	3	5
4	ø	1	S
1	6	d	ń
1			

B. Well Depth Measured 26.79 C Depth to Water Dry 26.79 D Length of Water Column (calculated) Conversion Factor 0.16 Well Volume (calculated) No. of Volumes to be Evacuated Actual Volume Evacuated Actual Volume Evacuated SILT E. Installed Well Depth (if known) N/A F. Depth of Silt (calculated) N/A Final Sampling Initial Depth to Water Recharge: Sampling Initial Depth to Water		BARTON AND LO				NCE.	ID.		16030
Indition of Well: GOOD Locked: YES Thod of Evacuation: DEDICATED BAILER A Diameter of Well C Depth Measured C Depth to Water Dry © 26.79 D. Length of Water Column (calculated) Conversion Factor Well Volume (calculated) No. of Volumes to be Evacuated Actual Volume to be Evacuated Actual Volume Evacuated Installed Well Depth (if known) N/A Initial Evacuation Journal of Sampling Initial Depth to Water Initial Depth to Water Initial Depth to Water Initial Depth to Water Initial Depth to Water Initial Depth to Water Initial Depth to Water Initial Depth to Water Initial Depth to Water Initial Depth to Water Initial Depth to Water Initial Depth to Water Initial Depth to Water			1 1 2010			TOE			183
thod of Evacuation: DEDICATED BAILER DEDICATED BAILER DEDICATED BAILER A Diameter of Well 2 C Depth to Water Dry @ 26.79 D Length of Water Column (calculated) Conversion Factor 0.16 Well Volume (calculated) No. of Volumes to be Evacuated 3 Total Volume to be Evacuated Actual Volume Evacuated Actual Volume Evacuated N/A Initial Evacuation Initial Evacuation Initial Depth to Water Initial Depth to Water Initial Depth to Water Initial Depth to Water Initial Depth to Water Initial Depth to Water Depth to Water Initial Depth to Water Depth to Water Initial Depth Initial Depth		***	19000			ar ja			(1,0,1)
TOP A Diameter of Well C Depth Measured C Depth to Water Dry @ 26.79 Depth of Water Column (calculated) No. of Volume (calculated) No. of Volume to be Evacuated Actual Volume Evacuated Actual Volume Evacuated Initial Evacuation Silt Final Sampling Initial Depth to Water Initial Depth to Water Recharge Depth to Water	of Well:	GOO	<u> ac</u>		Locke	ed:		YES	
A Diameter of Well 2 TOP B. Well Depth Measured 26.79 D. Length of Water Column (calculated) Conversion Factor 0.16 Well Volume (calculated) No. of Volumes to be Evacuated 3 Total Volume to be Evacuated 4 Actual Volume Evacuated 5 Initial Evacuation 9/21/16 10:25 Fecharge Depth to Water 126.79 Dry © 26.79 Dry © 26.79 Initial 2 Final 3 Final 3 Final 3 Final 5 Fin	Evacuation	: DEDICATE	D BAILE	R	Lock	ID:			
TOP A. Diameter of Well 2 B. Well Depth Measured 26.79 C. Depth to Water Dry @ 26.79 D. Length of Water Column (calculated) Conversion Factor 0.16 Well Volume (calculated) No. of Volumes to be Evacuated 3 Total Volume to be Evacuated Actual Volume Evacuated Actual Volume Evacuated F. Depth of Silt (calculated) N/A Initial Evacuation 3/21/16 10:25 Recharge Depth to Water	Sampling:	DEDICATE	D BAILE	R	_				
B. Well Depth Measured 26.79 C. Deptr to Water Dry @ 26.79 D. Length of Water Column (calculated) Conversion Factor 0.16 Well Volume (calculated) No. of Volumes to be Evacuated Actual Volume Evacuated Actual Volume Evacuated Initial Evacuation Initial Evacuation SILT Final Sampling Initial Depth to Water Sampling Initial Depth to Water Recharge Depth to Water	↑		Α. [Diame	ter of Well			2	inches
WATER LEVEL Water Column (calculated) Conversion Factor Well Volume (calculated) No. of Volumes to be Evacuated Actual Volume Evacuated Actual Volume Evacuated Installed Well Depth (if known) F. Depth of Silt (calculated N/A Initial Evacuation Initial Evacuation Initial Evacuation Initial Depth to Water Recharge Depth to Water	109		B. V	Vell (epth Measured			26.79	feet
WATER LEVEL Well Volume (calculated) No. of Volumes to be Evacuated Actual Volume Evacuated Actual Volume Evacuated SILT E. Installed Well Depth (if known) N/A Pr. Depth of Silt (calculated N/A Final % Recharge: Sampling Initial Depth to Water			С) Depth	to Water			Dry @ 26.79	feet
Well Volume (calculated) No. of Volumes to be Evacuated Actual Volume Evacuated Actual Volume Evacuated Actual Volume Evacuated Initial E. Installed Well Depth (if known) F. Depth of Silt (calculated N/A Final Sampling Initial Depth to Water 3/21/16 10:25 Recharge Depth to Water			D L	.engt	n of Water Column	n (ca	Iculated)		feet
Well Volume (calculated) No. of Volumes to be Evacuated Total Volume to be Evacuated Actual Volume Evacuated Actual Volume Evacuated Initial E. Installed Well Depth (if known) F. Depth of Silt (calculated N/A Final % Recharge: Sampling Initial Depth to Water 3/21/16 10:25 Recharge Depth to Water			(Sonve	ersion Factor			0.16	
No. of Volumes to be Evacuated Total Volume to be Evacuated Actual Volume Evacuated Actual Volume Evacuated Installed Well Depth (if known) F. Depth of Silt (calculated N/A Final % Recharge: Sampling Initial Depth to Water Recharge Depth to Water	LEV	EL	v	Vell \	olume (calculated	i)			gallons
Actual Volume Evacuated F. Installed Well Depth (if known) F. Depth of Silt (calculated N/A Initial Evacuation Final Sampling Initial Depth to Water 3/21/16 10:25 Recharge Depth to Water		3		Vo. 0	Volumes to be E	/acua	ated	3	31
F. Installed Well Depth (if known) N/A F. Depth of Silt (calculated N/A Initial Final % Recharge: Sampling Initial Depth to Water 3/21/16 10:25 Recharge Depth to Water		A Total	1	Fotal	Volume to be Eva	cuate	ed		gallons
F. Depth of Silt (calculated N/A Initial Final % Recharge: Sampling Initial Depth to Water 3/21/16 10:25 Recharge Depth to Water				Actua	l Volume Evacuat	ed			gallons
Initial Final % Recharge: Sampling Initial Depth to Water 3/21/16 10:25 Recharge Depth to Water	SILT		E. I	nstal	ed Well Depth (if	know	/n)	N/A	feet
Initial Depth to Water 3/21/16 10:25 Recharge Depth to Water	* * * * * * * * * *		F. [Depth	of Silt (calculated	i		N/A	feet
3/21/16 Initial Depth to Water 10:25 Recharge Depth to Water					in (1)		% Rechai	ge:	(200) <u>(15</u> -70)
10:25 Recharge Depth to Water	19 140		Jan	ip.iiig	8	- 5	Initial Dep	th to Water	feet
mV							Recharge D	epth to Water	feet
			<u> </u>		mV				
erature C 2nd water column height						*-!			-
SU 1st water column height us	_						1st water	column height	40 July 1
	ı <u> </u>						Elevation(T	op of Casing)	N/A fe
ved Oxygen G.W. Elevation= N/	ygen						G.W. Ele	vation=	N/A fe
arance G.W.Elevation =Top of Case Elev-T			= 2		- A R ROS A	. 4		\$150 mm \$50000	lev-Total Depth
ner: OC sunhy Sampler: MATT BRO	, ——	0C	sunhy			- 8	Sampler:		BROKER
After SWL it was determined the well is dry Signature		SWL it was determined	the well	is dr		10.73	Signature		
1170A U			i		i	95		11/4	

16030418 - Page 123 of 127

oject:	CLP	QUARTER 1	2016		PA	CEID		
ell ID.:		MW-2						
	= D + 9	A1 50 54	vi (4)	to Paris I	- 17 m	14 P	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	W. 1571
Condition of We	oli:	GOOD			Locked	d:	YES	
Method of Evac	uation:	DEDICATED B	AILER	_	Lock IC	D:		
Method of Samp	oling:	DEDICATED B	AILER	_				
↑ ↑ ↑	— A →		Diame	ter of Well			2	inches
	TOP	В.		10				 -
¢		Б.	went	epth Meas	urea		26.79	feet
		* C.	Depth	to Water			13.67	feet
		D,	Lengti	of Water (Column ((calculated)	13.12	feet
B ↑	WATER	50	Conve	rsion Facto	r		0.16	
	LEVEL		Well V	olume (cal	culated)		2.1	gallons
			No. of	Volumes to	be Eva	cuated	3	V
13		!	Total	/olume to b	e Evacu	ated	6.3	gallons
+			Actual	Volume Ev	acuated	· I	8	gallons
F	SILT	Ε.				•	N/A	feet
		F.		Installed Well Depth (if known) Depth of Silt (calculated			N/A	feet
(A) 200		v		or our (dare	and to d	ota miliorida	PACE DISERVE CON	
d asurements	Initial Evacuation		Final Sampling			% Rechar	ge:	
e						Initial Dep	h to Water	13.67 feet
g G	3/21/16 10:35			3/21/16 12:10	-	Recharge D	 epth to Water	14.16 feet
	216		1	18	mV	V S	-	
nperature	4.2			.6	- с	2nd water	column heigh	ıt %
*	7.46			57	SU		column height	
ecific Cond.	522.8			1.2	uS	71.00	100000000000000000000000000000000000000	
bidity	12.7			84	NTU	Elevation(To	p of Casing)	N/A feet
solved Oxygen	N/A		<u> </u>	N/A	-	G.W. Elev	vation=	N/A feet
earance	clear	110000	15 30	clear	A rus		on =Top of Case	Elev-Total Depth
ather: servations: Vo	as @ 10:48	0C sunn	iy			Sampler:	MATE	BROKER
		sample was	clear			Signature		DHOKEN
						4	MONU	

ent:		ON AND LOG							
oject:	CL	F QUARTER 1	2016	-	PAC	EID			
ell ID.:	S 4	MW-5	er ^{Co} deces						
Condition of We	əli:	GOOD			Locked	:	YES		204182 204101-21-21-21-21-21-21-21-21-21-21-21-21-21
Method of Evac	uation:	DEDICATED E	AILER		Lock ID): ([
Method of Sam	pling:	DEDICATED E	AILER			¥			- 100 - 100
4-	——A →								*8
†† † †	ТОР	A.	Diame	ter of We	H		2	_ in	ches
	TOP	В.	Well C	epth Mea	sured		21.45	_ fe	et
		C.	Depth	to Water			5.2	_ fe	et
		D.	Lengti	of Water	Column (calculated)	16.25	_ fe	et
	WATER	20	Conve	rsion Fac	tor	ļ	0.16	_	
E	LEVEL		· Well \	olume (ca	alculated)		2.6	_ ga	allons
			No. of	Volumes	to be Evad	cuated	3	_	
			Total 1	Volume to	be Evacua	ated	7.8	ga	allons
↑ ■ 選			Actual	Volume E	Evacuated		8	ga	allons
F	SILT	E.	Install	ed Well D	epth (if kno	own)	N/A	_ fe	et
† † 		F.	Depth	of Silt (ca	lculated		N/A	_ fe	et
d	Initial	11 12	Final	J. 1	1.44	% Rechar	je:	V 1	3. 1.
asurements	Evacuation		Sampling				th to Water	5.0	4
9	3/21/1			3/21/16	_	пппаг рер	li to water	5.2	feet
е	10:00	<u> </u>		11:45		Recharge De	pth to Water	6.2	feet 🭦
nperature	3.1		-	48 4.9	_ mV	0-1			}
iperatu.	6.99		1	97	_ c su		column height		<u>%</u>
cific Cond.	1450			616	uS	151 Water (olumn height		1 2 W 1
bidity	485			7.8	- NTU :	Elevation(To	p of Casing)	N/A	feet
solved Oxygen	N/A			N/A	_	G.W. Elev		N/A	feet
earance	cloudy or	ange	cloudy	w/orange	parts		n =Top of Case E		
ather:	183 54°AV	0C sunr	ייי	952 HEVS 4		Sampler:		7.246	
ervations: or	ange while pur					S	MATTE	BROKE	R
sample		OAS @ 10:15 me orange particle	es and slin	ht odor		Signature:	MATA		
X 8 T	7	6 6 Par 10 K		75.00	es, ce.f		TINTIC)	300	1
							S -5180 3140		** N- X-1x

ect:	CLI	F QUARTER 1	2016		PAG	CEID		
ID.:		MW-6				N 411		
A 400 TR 2 4	4475 4	27 S - 2 Sec. 1	10.11	rogrant"				-7-74
Condition of We	əli:	GOOD			Locked	:	YES	
lethod of Evac	uation:	DEDICATED 6	SAILER		Lock IE):		
lethod of Sam	pling:	DEDICATED E	AILER					
·	— A →	^	Diam	-A	1			
	ТОР	A.	Diame	eter of Well			2	inches
C		В.	Well	Pepth Meas	sured		21.45	feet
1 11		C.	Depth	to Water			4.9	feet
		D.	Lengt	of Water	Column (calculated)	-16.55	feet
1	WATER		Conve	rsion Fact	or		0.16	
E	LEVEL	*1	Weil \	'olume (ca	lculated)		2.65	_ gallons
			No. of	Volumes t	o be Eva	cuated	з з	
			Total 1	/olume to I	be Evacu	ated	7.95	gallons
↑	4439		Actual	Volume E	vacuated		8	_ gallons
F	SILT	E.	Install	ed Well De	pth (if kn	own)	N/A	feet
1 1		F.	Depth	of Silt (cal-	culated		N/A	feet
Yes -	Initial	Y	Final	00150	4 - 1. 4 (g. c)		977-154	7 G31.
urements	Evacuation		Sampling			% Rechar		
	3/21/16	3		3/21/16		Initial Dep	th to Water _	4.9 feet
	9:27			11:30	_	Recharge D	epth to Water	5.19 feet
	188	<u> </u>	2	40	_ mV	1		
erature	3.3	200		.2	_ с	2nd water	column height	
	7.75		7	34	SU	1st water	column height	
fic Cond.	622.5		60	5.7	uS		The Mark	
dity	40.9		1	3.9	_ אדט	Elevation(To	op of Casing)	N/A fe
lved Oxygen	N/A			N/A	_	G.W. Elev	4.1	N/A fe
arance	cloudy	100 F 10 10 10 10 10 10 10 10 10 10 10 10 10	0.0	clear	- ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	G.W Elevati	on =Top of Case El	ev-Total Depth
her:		0C sunr		9.07 23 12		Sampler:	100-200	WO WOULD SEE
rvations: clo	udy to orange t	to brown while pu	rging			§ E		BROKER
		ple clear no odor	-	 		Signature	MATT	
1 1 1 1 To	Sam	7.1 0.04. 110 0d0l	3/5/	21	(Sec. 13.11.1		1/M	94.5

in Land
24.0
100
13
- 65 - 1
1
000
- P - N - N
5 E 8
4 - 5 24
1 21
- 66 4
21/1 5 5
3

PACE ANALYICAL INC. FIELD CALIBRATION SHEET

DATE: TECHNICIAN: Matt Broker

3/21/16

SITE:

CLF Quarter 1 2016 WEATHER: OC sunny

INSTRUMENT:

PH

Myron Ultrameter II 6PFCe

CONDUCTIVITY TEMPERATURE

Myron Ultrameter II 6PFCe Myron Ultrameter II 6PFCe

DISSOLVED OXYGEN

Sper Scientific 850041

TURBIDITY

Hanna HI 98703

INSTRUMENT ANALYTE	STANDARD	INTIAL READING	ADJUSTED READING	TIME	NOTES
Ph	4.00	4.06	4.00	917	
	7.00	7.37	7.00	913	
	10.00	10.12	10.00	915	
	1413	1436	1413	919	
Conductivity					
	4				
Turbidity	<0.10	0.12	0.1	920	
!	15	15.3	15	921	N
	100	98	100	922	
	750	751	750	923	

NOTES:

16030418 - Page 127 of 127

Appendix B

Date Issued: April 01, 2016



Pace Analytical e-Report

Report prepared for:
BARTON AND LOGUIDICE
11 CENTRE PARK
SUITE 203
ROCHESTER, NY 14614
CONTACT: DARIK JORDAN

Project ID: CLF QUARTERLY Sampling Date(s): March 21, 2016 Lab Report ID: 16030418

Client Service Contact: Chelsea Farmer (518) 346-4592 ext. 3843

Analysis Included:

Total Phenolics by 420.4 - Subcontracted Misc Field Analysis VOCs E624 - Sub Pace LI Alkalinity SM2320B - Sub Pace LI Chloride SM4500-CL-E - Sub Pace LI COD by 410.4 - Sub Pace-LI Color - Sub Pace-LI Total CN SM4500-CN-E - Sub Pace LI Hardness E6010C (Calc) - Sub Pace LI Mercury E7470A - Sub Pace LI Metals E200.7 - Sub Pace LI Ammonia E350.1 - Sub Pace LI Sulfate 300.0 - Sub Pace LI Total Dissolved Solids SM2540C - Sub Pace LI Total Kjeldahl Nitrogen E351.2 - Sub Pace LI **BOD SM5210B** Hexavalent Chromium (7196A) Nitrate (NO3) Total Organic Carbon Turbidity

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 Smith Technical Director

Koy bomo,



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

This page intentionally left blank.

Table of Contents

Section 1: CASE NARRATIVE
Section 2: QUALIFIERS
Section 3: SAMPLE CHAIN OF CUSTODY
Section 4: SAMPLE RECEIPT17
Section 5: Wet Chemistry - TOC/DTOC
Section 6: Wet Chemistry - Turbidity25
Section 7: Wet Chemistry - Hexavalent Chromium29
Section 8: Wet Chemistry - BOD
Section 9: Wet Chemistry - Nitrate-Nitrite
Section 10: Field Analysis41
Section 11: Quality Control Samples (Field)45
Section 12: Quality Control Samples (Lab)
Section 13: Subcontract Analysis

O

CASE NARRATIVE

CASE NARRATIVE

This data package (SDG ID: 16030418) consists of 7 water samples received on 03/21/2016. The samples are from Project Name: CLF QUARTERLY.

This sample delivery group consists of the following samples:

Lab Sample ID	Client ID	Collection Date
AT06437	MW-2	03/21/2016 10:48
AT06438	MW-2	03/21/2016 12:10
AT06439	MW-5	03/21/2016 10:15
AT06440	MW-5	03/21/2016 11:45
AT06441	MW-6	03/21/2016 09:41
AT06442	MW-6	03/21/2016 11:30
AT06443	TRIP BLANK	03/21/2016

Sample Delivery and Receipt Conditions

- (1.) Lab provided sample pickup service on 03/21/2016.
- (2.) All samples were received at the laboratory intact and within holding times.
- (3.) All samples were received at the laboratory properly preserved, if applicable.

Subcontract Analysis

Please see the ALS Environmental laboratory report for method and quality assurance details pertaining to Phenolics analysis. The following technical and administrative items were noted for the analysis:

(1.) All quality assurance parameters were met for this analysis, unless otherwise noted.

Field Parameters Analysis

Analysis for Temperature, pH, Specific Conductance, Turbidity, and Reduction Potential were performed in the field. The following technical and administrative items were noted for the analysis:

(1.) All quality assurance parameters were met for this analysis, unless otherwise noted.

Subcontract Analysis

Please see the Pace Analytical Services Long Island laboratory report. The following technical and administrative items were noted for the analysis:

(1.) All quality assurance parameters were met for this analysis, unless otherwise noted.

Biological Oxygen Demand

Biological Oxygen Demand was performed by SM 5210B. The following technical and administrative items were noted for the analysis:

(1.) The RPD between high and low values of valid dilutions exceeded 30%.

Hexavalent Chromium Analysis

Analysis for hexavalent chromium was performed by method SW-846 7196A. The following technical and administrative items were noted for the analysis:

(1.) All quality assurance parameters were met for this analysis, unless otherwise noted.

Nitrate Analysis

Analysis for nitrate was performed by EPA 353.2. The following technical and administrative items were noted for the analysis:

(1.) All quality assurance parameters were met for this analysis, unless otherwise noted.

Total Organic Carbon Analysis

Analysis for Total Organic Carbon was performed by Standard Methods 5310B. The following technical and administrative items were noted for the analysis:

(1.) All quality assurance parameters were met for this analysis, unless otherwise noted.

Turbidity

Turbidity was performed by EPA Method 180.1. The following technical and administrative items were noted for the analysis:

(1.) All quality assurance parameters were met for this analysis, unless otherwise noted.

Respectfully submitted,

Chelsea L. Farmer Project Manager

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 Othce 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 <a href="mailto: 16030418P1

•	l Sart	tion A			1																				Ш	Ш	}		Ш	H							
		aired Client Information:		Section Required		ct Info	aren salanes -		Section																160	iė.	61	HINGS (i ewn j	щ	7	Page:	1	ol		1	1
- [Com	pany: Barton & Loguic	lice	Report To				ce	Attenti	Informati on:		rton a	L Loc	auid	CR	_	_	-									_										ŀ
ĺ	Addn	P\$3:		Copy To:					Compa	ny Name								4	L											'AG							
ı				_	_	_			Addres	15:	_					_	_			T N		S			OUN	D W	ATE	A	1	DR	NKIN	IG W	ATER				
	Emai	To:		Purchasa						ote Flatere	ncu:	726	6					_		T.			-	ACI	AF				F	THE	H	_	_				
ı	Phon	4:	Fax:	Order No.: Project Na	me:	CLF	Quarter	1 2016	Pace Pro	yect Mane	Der:		isea	Eas				_				SI.	t.			ľ	F (GΑ	Г	u.	Γ.	N	[v	1 F	VC.		
	Reque	standard		Project Nurs		_			Pace Pr			Cite	1269	rai	mer	_		4			LC	DC/	TIC	N			<u> </u>	DH	٢	sc		N)	Го	THER			
-		Section D	MATERIA COMP						1	-						_	_	_		teres	LCYA	¥)	11	<u>Ł</u>	//	Z	/-/	7	7	7.	77	7	77,	7	_	_	
	тем #	SAMPLE II (A-Z, 0-9 /-) Sample IDs MUST BE U	D Harmonian of the state of the	CODE	MATRIX CODE	SAMPLE TYPE G-GRAB C-COMP	COA ST	POSITE	COLA	CRAN	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	perserved		Prese		ō	Aethanol	An	iquei														7	ce Proje	et Ma	
	1		#44-1 #G 1/21/16		ow					1.00	H			7	Ŧ	 	3	44	╬	Н	4	Н	3/4	/-/	7/	4	4	74	4	44	4	Æ,	_		L	th LD.	
	2		TUN-1		GW	,			 	-	-	-	M	-+	┿	╀	\vdash	+	╀	Н	╀	Н	╄	4	╀	‡	*	척	4	${\downarrow \downarrow}$	╜	Ц				_	
	3	100	WW-S		GW	7		 	366	IC#B	\vdash	-	1*1	*	<u>* *</u>	*	\dashv	- -	╀	1	4 4	Ā	<u> </u>	Α.	××	×	_	Ц	1	Ц	Ш	Ш				$ _ $	
	4		MW-2		GW	1		_		1210	Н	3	×	┽	+	Н	+	+	╀	Н	+	Н	╀	4	Ļ	Ц	× _	x	4	Ц	┦	Ш	_	443	_		
-	5		MW-S		GW		 -			1012	H	9		×	× ×	×	4	+	╄	ļ×ļ	(X	A	Ų¥,	4	4	×	╪	H	\downarrow	₩	剒		£ 11	11:	; G _	\dashv	
	6		MW-5		GW	1	 			10,-	Н	3	X	+	+	Н	4	+	<u> </u>	Ц	Ц	Ц.	Ц	4	Ц		x	x	1	Ц	1		Ĺ٣٦	44	39		
	7		MW-6		$\overline{}$		-		7146	941	H	9	×	×I.	× ×	X	4	-	╄	X.	(x	x	¢χ	x >	<u>(X</u>	x	┸	Ц	_	Ц	Ш		LTS	611	13		
-	В		MW-6		GW						H	_1_	×	=	#	H	=	+	<u> </u>		H		目	+		-	4	x	+	壯	11		1.1	347	41	7	
	9	71	IIP BLANK		GW				3/21/16	11(Н	9	X	× :	× ×	ļ×	4	+	L	X	×	X.	١x	x x	(x	x	L	Ц	\perp	Ш	Ш		LTA.	644	12		
	10		III- DLANK		WT.	В			3/22/16		Н	2	×	4	4	Ц	4	4	L	Ц	Ц		Ш	\perp	Ц	,	ıL.			\prod			ΔT:	641	43		
	11				\vdash	-					\vdash		1	4	\perp	Ц	4	1	L	Ц	Ц		Ц		Ш	⊥			\mathbf{I}	П	П	П				\neg	
	12				-	\vdash				<u> </u>	Ш		H	4	1	Ц		4	L	Ц	Ц	⊥			П	Τ	Π		Τ	Π	П	T				┪	
-	142	ADDITIONAL CO	PHILID C	ne	IMO												1	上	Ŀ]]			Ţ		Т	П		Т	П	П	\neg				一	
N	IYS F	Part 360 1988 Baseline		al ii	-1-	_	D BY / /		HON	DAT			ME		AC	CEF	7TF(BY	AFF						D.	ATE	.		TiM		Г	SAI	APLE	COND	ITIONS	┪	
		-1 Dy		JI J			H	Œ_		<u> 1/2//2</u>		137	ν	4	1	<u> 7</u>	1/4	O	3		PA	C	(ک]3	/a	1//	6	1	3.	30	1.	3	<u></u> \$,	نچ	7 3	P	
ı		,			_						_			1	<u>0</u>			/	L	-	ė		7	Ţ		1	٦				<u> </u>	7	¥.	200	, S		
ı											_[\perp			_	U						7						_	\vdash	\dashv	N/W	N/A	× ×	_	
L																								T								寸	YM	V.W.	<u> </u>	_	
								BAMPLE PRINT N SIGNAT	lame of 5	SAMPLE	R:	_		er	PAG	کے					DATI (MM)	E \$49	red rny	3/	21/	16					Temp in "C	,	Received on Ice	Custody Sealed Cooler		_	
1	Pace	Analytical Services, Inc.										Apri	101.	2016	i											e-F	ile(/	ALL(D02	Orev.	4,291	Marc	6)22 160	un200	DS Pag	e 10 c	ıf 127



Sample Condition Upon Receipt

PACKING #_N/A PACKING MATERIAL: Bubble Wrap O THERMOMETER USED: #164% IR BIOLOGICAL TISSUE IS FROZEN: Yes O	Bubble Ba Gun 03 pi No p	ags 🗆	DY SEAL PRES None pr 87967 🗆	Other D ICE USED: Wet 36 Blue D None D COOLER TEMPERATURE (*C): 13	
COMMENTS:				Temp should be above freezing to 6°C Temperature is Acceptable?	
Chain of Custody Present:	-619es	□No		Temperature is Acceptable? 194€ □No	
Chain of Custody Filled Out:)DYes	□No		2.	
Chain of Custody Relinquished:	70) Yes	□No		3.	
Sampler Name / Signature on COC:	Yes			4.	
Samples Arrived within Hold Time:	⊠Yes	□No		5.	
Short Hold Time Analysis (<72hr):	Z)Yes				
Rush Turn Around Time Requested:	DYes	ZINo		6. Ma. BOD, Color, Turbidity, Cr+6	
Sufficient Volume:	⊠γ̃es			8.	
Correct Containers Used:	<u>E</u> lγes	□No		9.	
Pace Containers Used:	∭NYes			7.	
Containers Intact:	Zives .	□No		10.	
Filtered volume received for Dissolved t	ests: Over	□No	TENA	11.	
Sample Labels match COC:	AS Yes	□No	MA	12.	
- Includes date/time/ID/Analysis	69141	₩a		12.	
All containers needing preservation have been checked:	n 🖸 Yes	□No	ŽINUA	13.	
All containers needing preservation are in	□Yes	Ü№	- Dave		
compliance with EPA recommendation:			BINA	Initial when , /k	
+Exceptions that are not checked: TOC, VOA, Sub	contract Analyses			completed: N/A Lot # of added preservative: N/A	
Headspace in VOA Vials (>6mm):	□Yes	151ho	□n/A	14.	
Trip Blank Present:	Yes	ĎNo	DINA	15. Top blanks created by sample .	
Trip Blank Custody Seals Present:	∏Yes	DAM.	EIN/A	Land Areturn Condens DA relicked.	
Pace Trip Blank Lot #: <u>D31816 - 1319</u>	- TB	-On-	LINA		
Sample Receipt form filled in: 126 3/3	1/15	Line-Out	(Includes Co	pying Shipping Documents and verifying sample pH): A36 3/a/16	
7	1	Log In (II	ncludes notif	pying Shipping Documents and verifying sample pH): (A 16 3/21/16 ying PM of any discrepacies and documenting in LIMS): (A 16 3/21/16	

Pace Analytical Services, Inc.

April 01, 2016

16030418 - Page 11 of 127

April 01, 2016

16030418 - Page 12 of 127

0 000
2/84 NTII Elevation(T-A) at Cactool N/A
522.8
522.8 501.2 uS
C 000
0 000
7.46 757 SU 1st water C
7.46 C
7.46 C 2nd water 7.57 SU 1st water 7.57 SU 1st water 7.50 SU 1st w
7.46 757 SU 1st water of the state of the st
4.2 6.6 C 2nd water 7.46 757 SU 1st water c
216 118 mV 4.2 6.6 C 2nd water 7.46 757 SU 1st water 0
216 118 mV 4.2 6.6 C 2nd water column height 7.46 757 SU 1st water qolumn height
216 118 mV 4.2 6.6 C 2nd water column height 7.46 757 SU 1st water column height
10:35 12:10 Recharge Do 216 148 mV 4.2 6.6 C 2nd water 7.46 757 SU 1st water 1st water 6.6 C 2nd water 6.6 C 2
10.35 12:10 Recharge Depth to Water 14.16 14.16 14.16 14.2 6.6 C 2nd water column height 7.46 7.57 SU 1st water column height
3/21/16 3/21/16 3/21/16 10.35 14.16 10.35 12:10 Recharge Depth to Water 14.16 216 1/18 mV 4.2 6.6 C 2nd water column height 7.46 757 SU 1st water dolumn height
3/21/16 3/21/16 Initial Depth to Water 13.67 10:35 12:10 Recharge Depth to Water 14.16 4.2 6.6 C 2nd water column height 7.46 7.57 SU 1st water column height
3/21/16 3/21/16 Initial Depth to Water 13.67 10:35 12:10 Recharge Depth to Water 14.16 216 1/18 mV 2nd water column height 7.46 7.57 SU 1st water column height
3221/16 3221/16 Initial Depth to Water 13.67 10:35 12:10 Recharge Depth to Water 14.16 216 118 mV 4.2 6.6 C 2nd water column height 7.46 7.57 SU 1st water column height
3/21/16 3/21/18 Initial Depth to Water 13.67 10:35 12:10 Recharge Depth to Water 14.16 14.16 4.2 6.6 C 2nd water column height 7.46 7.57 SU 1st water dolumn height
321/16 321/16 10:35 12:10 Recharge Depth to Water 14:16 216 18 mV 4.2 6.6 C 2nd water column height 7.46 757 SU 1st water dolumn height
Sampling Sampling
Sampling Sampling Initial Depth to Water 13.67 3/21/16 3/21/16 12:10 Recharge Depth to Water 14.16 10:35 18 mV A.2 6.6 C 2nd water column height 7.46 7.57 SU 1st water column height
Sampling Sampling Initial Depth to Water 13.67 10:35 12:10 Recharge Depth to Water 13.67 14:16 14:16 14:2 6:6 C 2nd water column height 7:46 7:57 SU 1st water column height 15:10 15:10 1st water column height 15:10 1st water column
Sampling 3/21/16 3/21/16 10:35 12:10 Recharge Depth to Water 13.67 10:35 12:10 Recharge Depth to Water 14.16 14.2 6.6 C 2nd water column height 7.46 7.57 SU 1st water dolumn height
Final Sampling % Recharge: Sampling 3/21/16 3/21/16 10:35 12:10 Recharge Depth to Water 13.67 10:35 12:10 Recharge Depth to Water 14.16 14.2 6.6 C 2nd water 2nd
Final Final % Recharge: % Recharge: % Recharge: 3321/16 10:35 12:10 Recharge Depth to Water 13.67 14.16 14.16
Initial Sampling Sampling Sampling Sampling Sampling 3/21/16 10:35 12:10 Secharge Depth to Water 13.67 10:35 118 mV Secharge Depth to Water 14.16 14.16 14.2 6.6 C 2nd water column height 7.46 7.57 SU 1st water column height 1st water column height 15.00 1st water column height 1s
Final Sampling % Recharge: % Recharge:
Final Sampling Sampling % Recharge: Sampling 3/21/16 3/21/16 12:10 Recharge Depth to Water 13.67 10:35 118 mV Recharge Depth to Water 14.16 14.2 6.6 C 2nd water column height 7.46 7.57 SU 1st water dolumn height 1st water dolumn height 15 15 15 15 15 15 15 1
Final Sampling Sampling Sampling Sampling Sampling 3/21/16 10:35 12:10 Secharge Depth to Water 13.67 10:35 118 mV Secharge Depth to Water 14.16 14.2 6.6 C 2nd water column height 7.46 7.57 SU 1st water column height 1st water co
Final Final % Recharge:
Initial Final % Recharge:
Final Sampling Fina
Final Final Sampling Sampling Sampling Sampling 10:35 12:10 Set water column height 14:16 Sampling 16:35 16:35 16:35 17:46 Substitute Substi
Final Final Sampling Samp
Initial Final Sampling Sampling Sampling 12:10 Sampling 12:10 Sampling 14:16 Sampling 14:16 Sampling Sam
F. Depth of Silt (calculated N/A 16e 13.67 16.35 12.10 16.35 12.10 16.35 12.10 16.35 12.10 16.35 12.10 16.35 12.10 16.35 12.10 18 mV 13.67 14.16 17.46 15.7 57 50 1st water column height
Shelp Shel
SILT E. Installed Well Depth (if known) NJA fee
SILT E. Installed Well Depth (if known) NJA fee
Silf.T
Silt T
SilLT
SiLT
SilLT
Silt T
SILT E. Installed Well Depth (if known) NJA fee
SILT
SILT E. Installed Well Depth (if known) NJA fee
Silt T
Silf.T
Silf_T
SILT E. Instatled Well Depth (if known) NJA fee
SilLT
Silf.T
SILT E. Installed Well Depth (if known) NJA fee
Sheat Calculated Nuka F. Depth of Silt (calculated Nuka Fee
F. Depth of Silt (calculated N/A 16e 13.67 16.35 12.10 16.35 12.10 16.35 12.10 16.35 12.10 16.35 12.10 16.35 12.10 16.35 12.10 18 mV 13.67 14.16 17.46 15.7 57 50 1st water column height
Initial Final Sampling Sampling Sampling 12:10 Sampling 12:10 Sampling 14:16 Sampling 14:16 Sampling Sam
Initial Final Sampling Sampling Sampling Sampling 12:10 Secharge Sampling 12:10 Secharge 14:16 Secharge Secharge 14:16 Secharge Sec
F. Depth of Silt (calculated NJA 16e
Final Sampling Fina
Final Sampling Final Sampling Sampling
Final Sampling Final Sampling Sampling
Final Sampling Final Sampling Sampling
Final Final Sampling Sampling Sampling Sampling 10:35 12:10 Sampling 10:35 12:10 Sampling Sampl
Final Sampling Final Sampling Sampling
F. Depth of Silt (calculated NJA 16e
Initial Final Sampling Sampling Sampling 12:10 Sampling 16:35 16:4 Sampling 16:35 16:4 Sampling 16:4 Sampling 16:4 Sampling 16:4 Sampling 16:4 Sampling 16:4 Sampling 16:4 Sampling
Initial Final Sampling Sampling Sampling 12:10 Sampling 16:35 16:4 Sampling 16:35 16:4 Sampling 16:4 Sampling 16:4 Sampling 16:4 Sampling 16:4 Sampling 16:4 Sampling 16:4 Sampling
Initial Final Sampling Sampling Sampling 12:10 Sampling 16:35 16:4 Sampling 16:35 16:4 Sampling 16:4 Sampling 16:4 Sampling 16:4 Sampling 16:4 Sampling 16:4 Sampling 16:4 Sampling
Final Final Sampling Sampling Sampling 10:35 12:10 Section 13.67 Sampling 14:16 Section 16:35 16:00 Section 16:35 Section
Final Final Sampling Sampling Sampling 10:35 12:10 Section 13.67 Sampling 14:16 Section 16:35 16:00 Section 16:35 Section
Initial Final Sampling Sampling Sampling 12:10 Sampling 12:10 Sampling 14:16 Sampling 14:16 Sampling Sam
Initial Final Sampling Sampling 12:10 Section 13:67 Sampling 12:10 Section 14:16 Section 14:16 Section 16:35 Section 18
Initial Final Sampling Sampling 12:10 Section 13:67 Sampling 12:10 Section 14:16 Section 14:16 Section 16:35 Section 18
Initial Final Sampling Sampling 12:10 Section 13:67 Sampling 12:10 Section 14:16 Section 14:16 Section 16:35 Section 18
Final Final Sampling Final Sampling 12:10 Sampling 12:10 Sampling 12:10 Sampling 14:16 Sampling 14:16 Sampling
F. Depth of Silt (calculated N/A fee Initiat Final Sampling 3/21/16 10:35 12:10 216 18 mV Sander column height 7.46 C 2nd water column height 15 15 20 15t water column height 15 15 20 15t water column height 15 15 15 15 15 15 15 1
F. Depth of Silt (calculated NJA 18et
F. Depth of Silt (calculated NJA fee
Shell F. Depth of Silt (calculated NJA fee
Sheat Calculated Nuka F. Depth of Silt (calculated Nuka Fee
Shelp Shel
Silit E. Installed Well Depth (if known) NJA fee
Silf.T
Silf.T
SILT E. Installed Well Depth (if known) NJA fee
SilLT
SiLT
SilLT
SILT E. Installed Well Depth (if known) NJA fee
SILT E. Installed Well Depth (if known) NJA fee
Silf.T
SILT E. Installed Well Depth (if known) NJA fee
Silit E. Installed Well Depth (if known) NJA fee
Shelp Shel
Shelp Shel
Sheat Calculated Nuka F. Depth of Silt (calculated Nuka Fee
F. Depth of Silt (calculated NJA fee
F. Depth of Silt (calculated NJA 18et
F. Depth of Silt (calculated N/A 16e 13.67 16.35 12.10 16.35 12.10 16.35 12.10 16.35 12.10 16.35 12.10 16.35 12.10 16.35 12.10 18 mV 13.67 14.16 17.46 15.7 57 50 1st water column height
Initial Final Sampling Sampling 12:10 Section 13:67 Sampling 12:10 Section 14:16
Final Final Sampling Sampling Sampling 10:35 12:10 Section 13.67 Sampling 14:16 Section 16:35 16:00 Section 16:35 Section
Initial Final Sampling Sampling Sampling 12:10 Sampling 12:10 Sampling 14:16 Sampling 14:16 Sampling Sam
Initial Final Sampling Sampling Sampling Sampling 12:10 Secharge Sampling 12:10 Secharge 14:16 Secharge Secharge 14:16 Secharge Sec
Initial Final Sampling Sampling Sampling Sampling 12:10 Secharge Sampling 12:10 Secharge 14:16 Secharge Secharge 14:16 Secharge Sec
Final Sampling Final Sampling Sampling
Final Sampling Fina
Final Sampling Final Sampling Sampling
Final Sampling Final Sampling Sampling
Final Final Sampling Samp
Final Final Sampling Samp
F. Depth of Silt (calculated NJA fee Initial Final Sampling Sampling 3/21/16 10:35 12:10 Sampling 10:35 12:10 Sampling Sam
Initial
Initial Final Sampling Sampling Sampling Sampling 3/21/16 Sampling 12:10 Sampling 14:16 Sampling 14:16 Sampling S
Final Final % Recharge: % Recharge: % Recharge: % Recharge: % Recharge: % Recharge: % Recharge: 13.67 10.35 12.10
Initial Final Sampling 3/21/16 10:35 12:10 Recharge 13.67 14.16 14.2 6.6 C 2nd water column height 7.46 7.57 SU 1st water dolumn height
Final Final % Recharge:
Final Final Sampling Sampling Sampling Sampling 3/21/16 3/21/16 10:35 12:10 Secharge Depth to Water 13.67 10:35 14.16 Secharge Depth to Water 14.16 14.2 6.6 C 2nd water column height 2.16 1st water dolumn height 15.7 SU SU SU SU SU SU SU
Final Sampling Sampling Sampling Sampling Sampling 3/21/16 10:35 12:10 Secharge Depth to Water 13.67 10:35 118 mV Secharge Depth to Water 14.16 14.16 14.2 6.6 C 2nd water column height 2.757 SU 1st water dolumn height 15.757 SU SU SU SU SU SU SU S
Final Sampling Sampling Sampling Sampling Sampling 3/21/16 10:35 12:10 Secharge Depth to Water 13.67 10:35 18 mV Secharge Depth to Water 14.16 14.2 6.6 C 2nd water column height 7.46 7.57 SU 1st water column height 15 multiple 15 mu
Final Sampling S
Final Sampling Sampling % Recharge: Sampling 3/21/16 3/21/16 10:35 12:10 Recharge Depth to Water 13.67 14.16 14.16 14.2 6.6 C 2nd water column height 7.46 7.57 SU 1st water column height
Final Sampling Sampling % Recharge: % Recharge:
Final Sampling Sampling % Recharge: Sampling 3/21/16 3/21/16 12:10 Recharge Depth to Water 13.67 10:35 118 mV Recharge Depth to Water 14.16 14.2 6.6 C 2nd water column height 7.46 7.57 SU 1st water dolumn height
Final Sampling Sampling % Recharge: % Recharge:
Final Sampling Sampling % Recharge: Sampling 3/21/16 3/21/16 12:10 Recharge Depth to Water 13.67 10:35 118 mV Recharge Depth to Water 14.16 14.2 6.6 C 2nd water column height 7.46 7.57 SU 1st water dolumn height
Final Sampling Sampling % Recharge: Sampling 3/21/16 3/21/16 12:10 Recharge Depth to Water 13.67 10:35 118 mV Recharge Depth to Water 14.16 14.2 6.6 C 2nd water 2nd m height 7.46 7.57 SU 1st water dolumn height 15 15 15 15 15 15 15 1
Final Sampling Sampling % Recharge:
Final Sampling % Recharge: % Recharge:
Pinitiat Final % Recharge: % Recharge:
Initial Sampling Sampling Sampling Sampling Sampling 3/21/16 10:35 12:10 Secharge Depth to Water 13.67 10:35 118 mV Secharge Depth to Water 14.16 14.16 14.2 6.6 C 2nd water column height 7.46 7.57 SU 1st water column height 1st water column height 15.00 1st water column height 1s
Final Sampling % Recharge: % Recharge:

PACEID		D Locked: YES	BAILER Lock ID:	BALER	A. Diameter of Well 2 inches	B. Well Depth Measured 21.45 feet	C. Depth to Water 5.2 feet	D. Length of Water Column (calculated) 16.25 (eet	Conversion Factor 0.16	Well Volume (calculated) 2.6 gallons	No. of Volumes to be Evacuated	Total Volume to be Evacuated 7.8 gallons	Actual Volume Evacuated 8 gallons	E. Installed Well Depth (if known) N/A feet	F. Depth of Sit (calculated N/A feet	Final % Recharge: Sampling	3/21/16 Initial Depth to Water 5.2	1:45	4.9 C 2nd water column height		1816 uS 27.8 NTU Elevation(Top of Casing) N/A	G.W. Elevation = Ton of Care Fla	MAIL BROKEH
CLFO	WASHID:	Condition of Welt: GOOD	Method of Evacuation: DEDICATED BAILER	Method of Sampling: DEDICATED BAILER	†	400)—		B WATER	J) 	ng - 1	b b	SILT	→ → → ××××××××××××××××××××××××××××××××	Field Initial Measurements Evacuation	Date 3/21/16	Time 10:00	Temperature 3.1	6.99	Specific Cond. 1450 Turbidity 485	Dissolved Oxygen N/A Appearance cloudy orange	Cuservations: orange write purging

Method of Sampting: DEDICAT	CLF QUARTER 1 2016 PACE ID MW-6 GOOD DEDICATED BAILER DEDICATED BAILER A. Diameter of Well Well Depth Measured C. Depth to Water C. Depth to Water D. Length of Water Column (calculated)	Culated)	2 21.45 4.9	inches feet feet
E LEVEL.	onversion Factor ell Volume (calculated) o. of Volumes to be Evacuate stal Volume Evacuated stalled Welt Depth (if know spith of Silt (calculated	n) anted	0.16 2.65 3 7.95 N/A N/A	gallons gallons feet feet
Field initial Measurements Evacuation Date 3/21/16 Time 9:27 EH 188 Temperature 3.3 pH 7.75 Specific Cond. 622.5 Turbidity 40.9 Dissolved Oxygen N/A Appearance cloudy Observations: cloudy to orange to brown while pur VOAS © 9:41 sample clear no odor	Final Sampling 3/21/16 11:30 mV 3/2 C C 7 3/4 SU 6/65.7 uS 18.9 NTU N/A clear v	% Recharge: Initial Depth to Water Recharge Depth to Water Recharge Depth to Water 1st water Column height 1st water Column he		5.19 feet N/A feet N/A leet W-Total Depth TOKER



	1							_	_	Τ_	_	1	_	T		T			1	
	Quarter : 2016					NOTES													2.3	3
			به به	e)			_		ļ				_							E
L INC. I SHEET	SITE: WEATHER	1	neter II 6PFC neter II 6PFC	neter II 6PFC	03	TIME	917	913	915		919			920	921	922	923			
A K	_			Ultram	187	9 8	0	0	8		9									
ANAL			Ayron	Ayron	lanna t	ADJUS	4.0	7.0	10.0		141			0.1	15	100	750			
ACE LD C			-2 2	 ~ ~	<u>가 폭 </u>	12														
집Ⅱ			ΥĪ	JRE	OVIGEN	INTIAL	4.06	7.37	10.12		1436			0.12	15.3	86	751			
	3/21/16 Matt Broke		PH CONDUCTIV	TEMPERATE	TURBIDITY	STANDARD	4.00	7.00	10.00		1413			<0.10	15	100	750			
	DATE: TECHNICIAN:	INSTRUMENT:				INSTRUMENT	Ph				Conductivity			Turbidity					NOTES:	
	PACE ANALY CAL INC. FIELD CALIBRATION SHEET	PACE ANALY (CAL INC. FIELD CALIBRATION SHEET 3/21/16 SITE: CLF Quarter: Matt Broker WEATHER: 0C sunny	PACE ANALYICAL INC. FIELD CALIBRATION SHEET 3/21/16 SITE: CLF Quarter ICIAN: Matt Broker WEATHER: OC sunny JMENT:	PACE ANALYICAL INC. FIELD CALIBRATION SHEET 3/21/16 SITE: CLF Quarter Matt Broker WEATHER: OC sunny MATCH WAYON Ultrameter 6PF.Ce CONDUCTIVITY Myron Ultrameter 6PF.Ce CONDUCTIVITY Myron Ultrameter 6PF.Ce CONDUCTIVITY Myron Ultrameter 6PF.Ce	PACE ANALY (CAL INC. FIELD CALIBRATION SHEET 3/21/16 SITE: CLF Quarter Matt Broker WEATHER: OC sunny Myron Ultrameter 6PFCe CONDUCTIVITY Myron Ultrameter 6PFCe CONDUCTIVITY Myron Ultrameter 6PFCe TEMPERATURE MYRON ULTRAMETER 6PFCe TEMPERATURE MYRON ULTRAMETER 6PFCe TEMPERATURE MYRON ULTRAMETER 6PFCe	ICIAN: Matt Broker Myron Ultrameter II 6PFCe CONDUCTIVITY Myron Ultrameter II 6PFCe CONDUCTIVITY Myron Ultrameter II 6PFCe CONDUCTIVITY Myron Ultrameter II 6PFCe CONDUCTIVITY Myron Ultrameter II 6PFCe DISSOLVED OXYGEN Sper Scientific 850041 TURBIDITY Hanna HI 98703	SITE: CLF Quarter SITE	Clan: Matt Broker SiTE: CLF Quarter Size Site: CLF Quarter Size Size CLF Quarter Size Size CLF Quarter Size Size Size CLF Quarter Size Size Size CLF Quarter Size Size Size Size Size Size Size Size Size Size Size Size Size Size Size Size	ICIAN: Matt Broker MEATHER: CLF Quarter: CONDUCTIVITY TEMPERATURE DISSOLVED OXYGEN TURBIDITY MATTAL ADJUSTED SITE: CLF Quarter: CLF Quarter: CONDUCTIVITY MYRON Ultrameter il 6PFCe MYRON ULTRAMETER IL 6	SITE: CLF Quarter SITE: CLF Quarter	ICIAN: Matt Broker MEATHER: CLF Quarter: CONDUCTIVITY TEMPERATURE DISSOLVED OXYGEN TURBIDITY ALOR A.00	STEE CLF Quarter	STEE CLF Quarter STEE CLF Quarter STEE CLF Quarter STEE CLF Quarter STEE CLF Quarter STEE CLF Quarter STEE CC Sunny STEE CC Sunny STEE CC Sunny STEE CC Sunny STEE CC Sunny STEE CC Sunny STEE CC SUNNY STEE	STEE SITE: CLF Quarter	PACE ANALYICAL INC.	STEELD CALIBRATION SHEET STEELD CALIBRATION SHEET STEELD CALIBRATION SHEET STEELD CALIBRATION SHEET STEELD CALIBRATION SHEET STEELD CALIBRATION	STEELD CALIBRATION SHEET	STEELD CALIBRATION SHEET SITE: CLF Quarter: Matt Broker WEATHER: OC sunny 10.00 10.12 10.00 10.00 15.3 15.3 10.00 15.3 15.3 10.00 15.3 15.3 10.00 15.3 15.3 10.00 10.12 10.00 10.00 10.00 10.00 10.00 10.00 10.0	STEED CALIBRATON SHEET STEED CALIBRATON SHEET 3/21/16	PACE ANALY CAL INC.

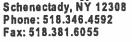
Pace Analytical Services, Inc.

April 01, 2016

16030418 - Page 16 of 127

SAMPLE RECEIPT

Pace Analytical Services, Inc.



2190 Technology Drive

SAMPLE RECEIPT REPORT 16030418

CLIENT: BARTON AND LOGUIDICE

ace Analytical °

PROJECT: CLF QUARTERLY

LRF: 16030418

REPORT: ANALYTICAL REPORT

EDD: YES LRFTAT: 1 WEEK RECEIVED DATE: 03/21/2016 13:20

SHIPPED VIA: PICK UP 1-SAMPLES PRESERVED PER METHOD GUIDANCE: YES

SHIPPED VIA: FICK OF SAMPLES PRESERVED FER METHOD GOIDANCE: YES SHIPPENG ID:

3 SAMPLES REC'D IN HOLDTIME: YES

NUMBER OF COOLERS: 1

DISPOSAL: BY LAB (45 DAYS)

CUSTODY SEAL INTACT: NA COC DISCREPANCY: NO

COOLER STATUS: CHILLED TEMPERATURE(S): \$\frac{1}{2}.3 \cdot C

COMMENTS:

CLIENT ID (LAB ID)	TAT-DUE Date	DATE-TIME SAMPLED	MATRIX	METHOD	TEST DESCRIPTION	QC REQUEST
MW-2 (AT06417)	1 WEEK 03-28-16	03/21/2016 10:48	Water	Misc Field Analysis	Misc Field Analysis	
	1 WEEK 03-28-16	03/21/2016 10:48	Water	VOCs E624	VOCs E624 - Sub Pace LI	
MW-2 (AT06438)	1 WEEK 03-28-16	03/21/2016 12:10	Water	-	Sulfate 300.0 - Sub Pace LI	
	1 WEEK 03-28-16	03/21/2016 12:10	Water		Total Phenolics by 420.4 - Subcontracted	
	1 WEEK 03-28-16	03/21/2016 12:10	Water		COD by 410.4 - Sub Pace-LI	
	I WEEK 03-28-16	03/21/2016 12:10	Water	Alkalinity SM2320B	Alkalinity SM2320B - Sub Pace LI	
	1 WEEK 03-28-16	03/21/2016 12:10	Water	Ammonia E350.1	Ammonia E350.1 - Sub Pace LI	
	1 WEEK 03-28-16	03/21/2016 12:10	Water	Chloride SM4500-CL-E	Chloride SM4500-CL-E - Sub Pace LI	
	1 WEEK 03-28-16	03/21/2016 12:10	Water	Color	Color - Sub Pace-LI	
	1 WEEK 03-28-16	03/21/2016 12:10	Water	EPA 180.1 Rev. 2.0	Turbidity	
	1 WEEK 03-28-16	03/21/2016 12:10	Water	EPA 353.2 Rev. 2.0	Nitrate (NO3)	
	1 WEEK 03-28-16	03/21/2016 12:10	Water	EPA 7196A	Hexavalent Chromium (7196A)	
	1 WEEK 03-28-16	03/21/2016 12:10	Water	Hardness E6010C	Hardness E6010C (Calc) - Sub Pace L1	
	1 WEEK 03-28-16	03/21/2016 12:10	Water	Mercury E7470A	Mercury E7470A - Sub Pace LI	
	1 WEEK 03-28-16	03/21/2016 12:10	Water	Metals E200.7	Metals E200.7 - Sub Pace LI	
	1 WEEK 03-28-16	03/21/2016 12:10	Water	SM 5210B-01,-11	BOD SM5210B	
	1 WEEK 03-28-16	03/21/2016 12:10	Water	SM 5310B-00,-11	Total Organic Carbon	
	1 WEEK 03-28-16	03/21/2016 12:10	Water	TDS SM2540C	Total Dissolved Solids SM2540C - Sub Pa	Ç1
	1 WEEK 03-28-16	03/21/2016 12:10	Water	TKN E351.2	Total Kjeldahl Nitrogen E351.2 - Sub Pace	:1
	1 WEEK 03-28-16	03/21/2016 12:10	Water	Total CN SM4500-CN-E	Total CN SM4500-CN-E - Sub Pace LI	
MW-5 (AT06439)	1 WEEK 03-28-16	03/21/2016 10:15	Water	Misc Field Analysis	Misc Field Analysis	
	1 WEEK 03-28-16	03/21/2016 10:15	Water	VOCs E624	VOCs E624 - Sub Pace LI	



SAMPLE RECEIPT REPORT 16030418

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

CLIENT: BARTON AND LOGUIDICE

PROJECT: CLF QUARTERLY

LRF: 16030418

REPORT: ANALYTICAL REPORT

EDD: YES LRF TAT: 1 WEEK RECEIVED DATE: 03/21/2016 13:20

SAMPLE SEALS INTACT: NA SHIPPED VIA: PICK UP L'SAMPLES PRESERVED PER METHOD GUIDANCE: YES

³ SAMPLES REC'D IN HOLDTIME: YES SHIPPING ID:

NUMBER OF COOLERS: 1 DISPOSAL: BY LAB (45 DAYS) CUSTODY SEAL INTACT: NA COC DISCREPANCY: NO

COOLER STATUS: CHILLED TEMPERATURE(S): 1.3 °C

COMMENTS:

CLIENT ID (LAB ID)	TAT-DUE Date	DATE-TIME SAMPLED	MATRIX	METHOD	TEST DESCRIPTION	QC REQUES
MW 5 (AT06440)	1 WEEK 03-28-16	03/21/2016 11:45	Water		Sulfate 300.0 - Sub Pace LI	
	1 WEEK 03-28-16	03/21/2016 11:45	Water		Total Phenolics by 420.4 - Subcontracted	
	1 WEEK 03-28-16	03/21/2016 11:45	Water		COD by 410.4 - Sub Pace-LI	
	1 WEEK 03-28-16	03/21/2016 11:45	Water	Alkalinity SM2320B	Alkalinity SM2320B - Sub Pace LI	
	1 WEEK 03-28-16	03/21/2016 11:45	Water	Ammonia E350.1	Ammonia E350.1 - Sub Pace LI	
	1 WEEK 03-28-16	03/21/2016 11:45	Water	Chloride SM4500-CL-E	Chloride SM4500-CL-E - Sub Pace L1	
	1 WEEK 03-28-16	03/21/2016 11:45	Water	Color	Color - Sub Pace-L1	
	1 WEEK 03 28-16	03/21/2016 11:45	Water	EPA 180.1 Rev. 2.0	Turbidity	
	L WEEK 03-28-16	03/21/2016 11:45	Water	EPA 353.2 Rev. 2.0	Nitrate (NO3)	
	1 WEEK 03-28-16	03/21/2016 11:45	Water	EPA 7196A	Hexavalent Chromium (7196A)	
	1 WEEK 03-28-16	03/21/2016 11:45	Water	Hardness E6010C	Hardness E6010C (Calc) - Sub Pace LI	
	1 WEEK 03-28-16	03/21/2016 11:45	Water	Mercury E7470A	Mercury E7470A - Sub Pace LI	
	1 WEEK 03-28-16	03/21/2016 11:45	Water	Metals E200.7	Metals E200.7 - Sub Pace LI	
	1 WEEK 03-28-16	03/21/2016 11:45	Water	SM 5210B-01,-11	BOD SM5210B	
	! WEEK 03-28-16	03/21/2016 11:45	Water	SM 5310B-00,-11	Total Organic Carbon	
	1 WEEK 03-28-16	03/21/2016 11:45	Water	TDS SM2540C	Total Dissolved Solids SM2540C - Sub Pag	
	1 WEEK 03-28-16	03/21/2016 11:45	Water	TKN E351.2	Total Kjeldahl Nitrogen E351.2 - Sub Pace	1
	1 WEEK 03-28-16	03/21/2016 11:45	Water	Total CN SM4500-CN-E	Total CN SM4500-CN-E - Sub Pace LI	
MW-6 (AT06441)	I WEEK 03-28-16	03/21/2016 09:41	Water	Misc Field Analysis	Misc Field Analysis	
	1 WEEK 03-28-16	03/21/2016 09:41	Water	VOCs E624	VOCs E624 - Sub Pace LI	
MW-6 (AT06442)	1 WEEK 03-28-16	03/21/2016 11:30	Water		Sulfate 300.0 - Sub Pace LI	
	1 WEEK 03-28-16	03/21/2016 11:30			Total Phenolics by 420.4 - Subcontracted	
	I WEEK 03-28-16	03/21/2016 11:30	Water		COD by 410.4 - Sub Pace-LI	
	1 WEEK 03-28-16	03/21/2016 11:30	Water	Alkalinity SM2320B	Alkalinity SM2320B - Sub Pace LI	
	1 WEEK 03-28-16	03/21/2016 11:30) Water	Ammonia E350,1	Ammonia E350.1 - Sub Pace LI	
	1 WEEK 03-28-16	03/21/2016 11:30) Water	Chloride SM4500-CL-E	Chloride SM4500-CL-E - Sub Pace LI	
	I WEEK 03-28-16	03/21/2016 11:30) Water	Color	Color - Sub Pace-LI	
	1 WEEK 03-28-16	03/21/2016 11:30) Water	EPA 180.1 Rev. 2.0	Turbidity	
	1 WEEK 03-28-16	03/21/2016 11:30	Water	EPA 353.2 Rev. 2.0	Nitrate (NO3)	
	1 WEEK 03-28-16	03/21/2016 11:30) Water	EPA 7196A	Hexavalent Chromium (7196A)	
	1 WEEK 03-28-16	03/21/2016 11:30) Water	Hardness E6010C	Hardness E6010C (Calc) - Sub Pace L1	
	1 WEEK 03-28-16	03/21/2016 11:30) Water	Mercury E7470A	Mercury E7470A - Sub Pace LI	
	1 WEEK 03-28-16	03/21/2016 11:30		Metals E200.7	Metals E200.7 - Sub Pace LI	
	1 WEEK 03-28-16	03/21/2016 11:30		SM 5210B-01,-11	BOD SM5210B	
	1 WEEK 03-28-16	03/21/2016 11:30		SM 5310B-00,-11	Total Organic Carbon	
	1 WEEK 03-28-16	03/21/2016 11:30		TDS SM2540C	Total Dissolved Solids SM2540C - Sub Pa	C1
	1 WEEK 03-28-16	03/21/2016 11:30		TKN E351.2	Total Kjeldahl Nitrogen E351.2 - Sub Pace	
	1 WEEK 03-28-16	03/21/2016 11:30		Total CN SM4500-CN-E	Total CN SM4500-CN-E - Sub Pace LI	
TRIP BLANK (AT06443)	1 WEEK 03-28-16	03/21/2016	Water	VOCs E624	VOCs E624 - Sub Pace LI	

The 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.

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.

This report may not be reproduced except in full, without the written approval of Pace Analytical Services, Inc.

Page 2 of 3

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.

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 4is not possible for the laboratory to perform the test in that time. Sample Certificates of Analysis reports are noted as such.

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.



SAMPLE RECEIPT REPORT 16030418

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

CLIENT: BARTON AND LOGUIDICE

PROJECT: CLF QUARTERLY

LRF: 16030418

REPORT: ANALYTICAL REPORT

EDD: YES LRF TAT: 1 WEEK RECEIVED DATE: 03/21/2016 13:20

SAMPLE SEALS INTACT: NA SHIPPED VIA: PICK UP 1. SAMPLES PRESERVED PER METHOD GUIDANCE: YES

³ SAMPLES REC'D IN HOLDTIME: YES SHIPPING ID: NUMBER OF COOLERS: 1

DISPOSAL: BY LAB (45 DAYS) CUSTODY SEAL INTACT: NA COC DISCREPANCY: NO

COOLER STATUS: CHILLED TEMPERATURE(S): 1.3 °C

COMMENTS:

DATE-TIME TAT-DUE Date

TEST DESCRIPTION

OC REQUEST

CLIENT ID (LAB ID) SAMPLED MATRIX METHOD 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

EPA 180.1 Rev. 2.0 - Turbidity - (NTU)

Turbidity

EPA 353.2 Rev. 2.0 - Nitrate (NO3) - (mg/L)

Nitrate

Nitrate-Nitrite

Nitrite

EPA 7196A - Hexavalent Chromium (7196A) - (mg/L)

Hexavalent Chromium

Misc Field Analysis - Misc Field Analysis (mg/L)

Dissolved Oxygen (\$)

Flow (\$)

pH (\$)

Reduction Potential (\$)

Specific Conductance (\$)

Static Water Level (\$)

Sulfite (\$)

Temperature (\$)

Total Residual Chlorine (\$)

Turbidity (\$)

SM 5210B-01,-11 - BOD SM5210B - (mg/L)

Biochemical Oxygen Demand

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

Total Organic Carbon

This report may not be reproduced except in full, without the written approval of Pace Analytical Services, Inc.

Page 3 of 3

 \triangleleft

8 - Other (Na2503) PRESERVATIVE KEY OTHER NOTES: Analytical Report (LEVEL-2) EDD: Excel Stands 5 - Zn. Acetate 7 - NaHSO4 3 - H2SO4 6 - MeOH ហ 4 - NaOH 2-HN03 0-ICE 1-HCL DISPOSAL REQUIREMENTS: (To be filled in by Client) REMARKS: RECEIVED BY ENTER ANALYSIS AND METHOD NUMBER REQUESTED R1602741 Pue Analytical Services - N Inorganica Analysis Project Additional charges incurred for disposal (if hazardous) or archival. PRINTED NAME **DISPOSAL BY RECEIVING LAB** ARCHIVAL BY RECEIVING LAB HOMATURE RETURN TO CLIENT RELINCUISHED BY PRINTED NAME DATE/TIME COMPANY Call for details. という (8:058) Blonsled हि PRESERVATIVE CODE: SPIGNATURE (1 RECVO WA HOLDING TIMES: BOTTLE TYPE: PROPERLY PRESERVED: BOTTLE SIZE: RHITED HAMIEL SANTE DATETINE 5/24/16/ × × STEWNOO (LAB USE ONLY) 0 NUMBER OF CONTAINERS 0 0 O 3/28/2016 LRF# 16030418 (LAB USE ONLY) SAMPLE ID PAGE 1 OF AT06439 AT06438 **GRAB** AT06440 AT06442 AT06443 GRAB AT06441 AT06437 16030418 LOCATION (CITY/STATE) ADDRESS REQUIRED TURN AROUND TIME: GRAB NAME OF COURSER (IF USED): GRAB GRAB GRAB GRAB RIVITED NAME PROJECTAPROJECT NAME GRAB/ COMP DATETIME Fax (518) 381-6055 2190 Technology Ďrive, Schenectady, NÝ 12308 Telephone (518) 346-4592 Fax (518) 381-6055 Pace Analytical Services, Inc. COC DISCREPANCIES: CHAIN OF CUSTODY RECORD MATRIX Theory mething COC TAPE: South None Lui De ž Chelsea.Farmer@pacelebs.com 10:48 12:10 10:15 11:45 Vicola.Johnson@pacelabs.com 9:41 11:30 RECEIVED 57 9 H H PPB RL. SAMPLE PRESERVATION NOT VERFIED AT CHENECTADY LAB. Z 3/21/16 3/21/16 3/21/16 3/21/16 3/21/16 3/21/16 3/21/16 DATE HEAP. 0.00 CLIENT (REPORTS TO BE SENT TO): www.pacelabs.com ECEIVED BROKEN OR LEAKING: RELINGUISHED BY LECTRONIC RESULTS SAMPLE ID Chelsea Farmer 194/16 MBIENT OR CHILLED: PROJECT MANAGER: **TRIP BLANK** CLF Q1 PACE **MW-5** WW-2 MW-5 WW-6 AW-6 WW-2

13

Analytical Services Request

P.O. Number: SRS-1019

Pace Analytical Services, Inc. 2190 Technology Dr. Schenectady, NY 12308 Phone: (518) 346-4592

16030418	3/21/2016	3/28/2016	Chelsea.Farmer@pacelabs.com	NYAP@pacelabs.com	
Pace Project No:	Date Prepared	ANALYSIS DUE DATE:	Report to:	Involce to:	

To the contract of	AI S ROCHESTER	-	Sending Project Mar.			Chelsea Farmer	
Substitution of the substi	1565 tofferen Rd Britiding 300 Shife 3	300 Suite 360 Rochester 14323	Certification Required				
Address	The second and the least second		O O Comple	1	F.	FVFI _2VFxcel Standard	Γ
Contact	DEB PATTON		UC Deliverable				7
	Allquest	ions should be addres	All questions should be addressed to sending project manager.	ger.			
Type of Work:	Analytical	Other (Identify)	(Å)				
portable Units		Report Wet or Dry Weight?	<i>12</i>				
25 20 20 20 20 20 20 20 20 20 20 20 20 20		WORK R	WORK REQUESTED				П
Analysis / Method	Container Type (include volume)	Quentity of containers	Preservative	Quantity of Samples	Unit Price	Amount	
Total Phanolics by 420 4 - Subconfraited	racted 250mL amber	e e	H2S04	6		\$	
						\$	Π
						S	
						s	,
						8	Ţ
				- -		8	٦
						\$	
						\$	
						\$	
					Unit Price Total:	S	
				Discoun	Discount/Surcharge Factors:	••	
					Total: 5	8	Ţ

10
31
男
_
_
7
-
46
- 23
70
- 92
5
- 100
- 60
=
_
- 5
مة
~~
-
-
-
- C
ය
- 5

	e: X No			
E THIS SECTION ALSO	Return Samples to Pace:	Other (Identify)	COMPLETED	Receiving Project Manager:
FOR ANALYTICAL WORK COMPLETE THIS SECTION ALSO		Air	CONFIRMATION OF WORK COMPLETED	Rec
FORA	2	× Water		
	× \	Sall		
	Chain of Custody Included:	Matrix	50 CM 0500 W	Date Completed:



Cooler Receipt and Preservation Check Form



roject/Clien	t Pace																
ooler received		16		by:_S	shu /85	3	CO		ALS U						NT		
Were Cus	ody seals on o	utside (of coo	ler?	Ø	D.N	5a	Perch	lorate sar	nples h	eve requir	ed hea	dspac	e?	Y	N	MAS
Custody p	apers properly	compl	leted (ink, sig	ned)? (N Q	5b	Did V	OA vials,	Alk,or	Sulfide h	ave sig	* bub	bles?	Y	N	AD AD
	tles arrive in go						6	When	e did the b	ottles o	riginate?		ALS/	ROC	(F	IEN	7
Circle: W	ecte Dry I	ce Ge	l pack	e pr	esent?	N	7	Soil \	/OA recei	ved as:	Bulk	En	core	503	set	NA	P.
Temperature	Readings	Date	3/2	4/16	Time:_	ملتما	<u></u>	ID:	16#3 I	R#5	F	rom:		Blank	Sa	nple	Hotele
Observed Ten	np (°C)	T	610	D.	4110		3	30	5180		5,00		31			,A.	
Correction Fa	ctor (°C)		±0.0		±0.c		±o	nô"	±00		±0.6'		±0.			700	
Corrected Ter	np (°C)		COLO	1	Hill			131	Sið		S:0			7,		3	
Within 0-6°C			80 1		Q	N	8	N	80	N	Ø N	[]	0	N		Y	N
If <0°C, were	samples froze		Y :	_	Y	N	Y	N	Y	N	Y N		Y	N		Y	N
If out of To	emperature, n	ote pa	cking	ice co	ndition:			Ice me	lted	Poorly	Packed	5	Sa	me Da	y Rul	е	
	pproval to Ru					ding A	pprovi		it aware a	drop-o	ff Clie	nt noti	fied by	y:			*
	Phroise so ter		P				£ £										
771						1.	. ~	169	- C7	CT11///	o:	11.0	71				
All samples l					R-002	-		W/53			81	16	26	69			
771				: =		b		wiss	on 3		a:	16	16	si			,
All samples l 5035 sample	s placed in sto			:: !}\/		-		w/53			a:	16	16	63			÷
All samples l	s placed in sto	rage lo	cation	UN	R-002	b	у		on _		a	-			1 P. S. S. S. S. S. S. S. S. S. S. S. S. S.	76747	સ્લાઉ:
All samples I 5035 sample PC Second Cooler Bre	ary Review:akdown: Date	rage lo	cation 3/	26/1	K-007	b	/3	109 t	on _	a	5.	TOUR BOOK SI			11 pt 2 12 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	, <u>2012</u>	ing Park Fra
All samples I 5035 sample PC Second Cooler Bre 1. W	ary Review:akdown: Date	rage lo	3/	26// to (i.e.	R-007	b preser	/3 vation,	109 t	on	a	a	NO			u po priva	ggtv Z	. તુન્દ્રસ્થાનિ
All samples I 5035 sample PC Second Cooler Bre 1. W 2. D	s placed in sto ary Review: akdown: Date /ere all bottle labited labite	rage lo	3/omple	26/10 to fi.e. agree v	K-007 Time: analysis, with custo	preser	/3 vation,	109 t	on	a	5.	NO NO				ক্রন্ত	- 0 = 2 d f = 1
All samples I 5035 samples PC Second Cooler Bre 1. W. 2. D. 3. W.	ary Review:akdown: Date libit all bottle late lete correct corr	rage lo	3/ omple tags	26/16 te (i.e. agree v	K-oot Time: analysis, vith custo	preser	/3 vation, pers?	69 t	on	8	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	NO NO NO			₩.	A.	. v = 241 FT.
All samples I 5035 samples PC Second Cooler Bre 1. W. 2. D. 3. W. 4. A	ary Review:akdown: Date libettle labettle	abels coels and	3/ omple tags	26/16 te (i.e. agree v	K-oot Time: analysis, vith custo	preser	/3 vation, pers?	109 t	on	8	5.	NO NO NO			(N)	5	žors≥d Gr
All samples I 5035 samples PC Second Cooler Bre 1. W. 2. D. 3. W. 4. A	ary Review:akdown: Date libit all bottle late lete correct corr	abels coels and	3/ omple tags	26// te (i.e. agree v for the	K-oot Time: analysis, vith custo	preser	/3 vation, pers?	69 t	on	8	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	NO NO NO Bags In	flated		Ye	s=A	JI es OK
All samples I 5035 samples PC Second Cooler Bre 1. W 2. D 3. W 4. A Explain an	ary Review: ary Review: akdown: Date /ere all bottle lab /ere correct co ir Samples: Cr y discrepance Reagent	rage lo	3/omple itags sused	26// te (i.e. agree v for the	Time: analysis, with custo tests indict	preser	y /3 vation, pers? Canis	etc.)?	on	A CO	ar S S S S S S Cedlar® F	NO NO NO Bags In	flated	Final	Yesa	s=A mple	s OK
All samples I 5035 sample PC Second Cooler Bre 1. W 2. D 3. W 4. A Explain an pH ≥12	ary Review: ary Review: akdown: Date /ere all bottle lab /ere correct co ir Samples: Cr y discrepanci Reagent NaOH	rage lo	3/omple itags sused	26// te (i.e. agree v for the	Time: analysis, with custo tests indict	preser	y /3 vation, pers? Canis	etc.)?	on	A CO	ar S S S S S S Cedlar® F	NO NO NO Bags In	flated	Final	Yesa	es=A mple o=Sa	s OK
All samples I 5035 sample PC Second Cooler Bre 1. W 2. D 3. W 4. A Explain an pH ≥12 ≤2	ary Review: ary Review: akdown: Date /ere all bottle lab /ere correct co ir Samples: Cr y discrepanci Reagent NaOH HNO3	rage lo	3/omple itags sused	26//ste (i.e. agree v for the es Inta	Time: analysis, with custo e tests indict	preser	y /3 vation, pers? Canis	etc.)?	on	A CO	ar S S S S S S S S C C C C C C C C C C C	NO NO NO Bags In	flated	Final	Yesai	es=A mple e=Sa	s OK
All samples I 5035 sample PC Second Cooler Bre 1. W 2. D 3. W 4. A Explain an pH ≥12	ary Review: ary Review: akdown: Date /ere all bottle lab /ere correct co ir Samples: Cr y discrepanci Reagent NaOH	rage lo	3/omple itags sused	te (i.e. agree v for the es Inta	Time: analysis, with custo tests indict	preser dy papicated	y /3 vation, pers? Canis	etc.)?	on	A CO	ar S S S S S S S S C C C C C C C C C C C	NO NO NO Bags In	flated	Final	Ye sai	es=A mple o=Sa ere eser	s OK imples
All samples I 5035 sample PC Second Cooler Bre 1. W 2. D 3. W 4. A Explain an pH ≥12 ≤2	ary Review: ary Review: akdown: Date /ere all bottle la /ere correct co ir Samples: Cr y discrepanci Reagent NaOH HNO ₃ H ₂ SO ₄	rage lo	3/omple itags sused	te (i.e. agree v for the es Inta	Time: analysis, with custo tests indict acceived	preser dy papicated	y /3 vation, pers? Canis	etc.)?	on	A CO	ar S S S S S S S S C C C C C C C C C C C	NO NO NO Bags In	flated	Final	Ye sai	es=A mple o=Sa ere eser he la	s OK imple: ved at
All samples I 5035 sample PC Second Cooler Bre 1. W 2. D 3. W 4. A Explain an pH ≥12 ≤2 <4	ary Review: akdown: Date /ere all bottle late /ere correct control if Samples: Control in Samples: Contro	rage lo	3/omple itags sused	ZG/// te (i.e. agree v for the ses Inta- Lot R If+, c add N	Time: analysis, vith custo tests indict acceived	preser dy papicated	y /3 vation, pers? Canis	etc.)?	on	A CO	ar S S S S S S S S C C C C C C C C C C C	NO NO NO Bags In	flated	Final	Ye sai	es=A mple o=Sa ere eser	s OK imple: ved at
All samples I 5035 sample PC Second Cooler Bre I. W. 2. D. 3. W. 4. A Explain an pH ≥12 ≤2 <4 Residual	ary Review: akdown: Date /ere all bottle late /ere correct control if Samples: Control in Samples: Contro	rage lo	3/omple itags sused	ZG/// te (i.e. agree v for the ses Inta- Lot R If+, c add N	Time: analysis, with custo tests indict acceived	preser dy papicated	y /3 vation, pers? Canis	etc.)?	on	A CO	a a a a a a a a a a a a a a a a a a a	NO NO NO Bags In	flated	Final	Ye san	es=Ample =Sample =sere =sere =sted	es OK amples wed at b as
All samples I 5035 sample PC Second Cooler Bre 1. W 2. D 3. W 4. A Explain an pH ≥12 ≤2 <4 Residual Chlorine	ary Review: ary Review: akdown: Date akdown: Date akdown: Date are all bottle late beid all bottle late are correct con ir Samples: Con y discrepanci Reagent NaOH HNO3 H2SO4 NaHSO4 For CN Phenol	rage lo	3/omple itags sused	ZG/// te (i.e. agree v for the ses Inta- Lot R If+, c add N	Time: analysis, vith custo tests indict acceived	preser dy papicated	y /3 vation, pers? Canis	etc.)?	on	Vol.	edlar® E	NO NO NO Bags In	flated	Final pH	Ye san	es=A mple o=Sa ere eser he la sted	es OK ample: ved at b as K to
All samples I 5035 sample PC Second Cooler Bre 1. W 2. D 3. W 4. A Explain an pH ≥12 ≤2 <4 Residual Chlorine	ary Review: ary Review: akdown: Date akdown: Date akdown: Date are all bottle late beid all bottle late are correct con ir Samples: Con y discrepanci Reagent NaOH HNO2 H2SO4 NaHSO4 For CN Phenol and 522	abels coels and national research	cation 3/ omple i tags s used i / Tub	ZG/// te (i.e. agree v for the ses Inta- Lot R If+, c add N	Time: analysis, vith custo tests indict acceived	preser dy papicated	y /3 vation, pers? Canis	ters Press Sample	on	Vol. Added	analysi:	NO NO NO Bags In ded	flated	Final pH	Ye san	es=Ample =Sample =sere =sere =sted	es OK amples ved at b as K to

PC Secondary Review:	BU
I C populari J regulari	

*significant air bubbles: VOA > 5-6 mm : WC >1 in, diameter





Job Number: 16030418

Pace Analytical Services, Inc. 2190 Technology Drive

Schenectady, NY 12308 Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: CLF QUARTERLY Client Sample ID: MW-2

Lab Sample ID: 16030418-01 (AT06437)

Collection Date: 03/21/2016 10:48

Sample Matrix: WATER

Received Date: 03/21/2016 13:20

Percent Solid: N/A

E	Batch ID	Method		Date	Analyst	Init Wt./Vol. 1	Final Vol.	Column
Analysis 1: Fi	ield Test	Field Analysis		03/21/2016 12:10	MEB	NA	NA	NA
Analyte		CAS No.	Resu	lt	PQL	Dilution Facto	r Flags	File ID
pH (\$)		NA	7.57	(pH)	0.00	1.00		Field Test
Reduction Poten	tial (\$)	NA	118	(mV)	0.00	1.00		Field Test
Specific Conduc	. ,	NA	501	(umhos/cn	0.00	1.00		Field Test
Temperature (\$)		NA	6.60	(°C)	0.00	1.00		Field Test
Turbidity (\$)		NA	2.84	(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.





Job Number: 16030418

Pace Analytical Services, Inc. 2190 Technology Drive

Schenectady, NY 12308 Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: CLF QUARTERLY Client Sample ID: MW-2

Lab Sample ID: 16030418-02 (AT06438)

Collection Date: 03/21/2016 12:10

Sample Matrix: WATER

Received Date: 03/21/2016 13:20

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol. Fina	al Vol.	Column	_
Analysis 1:	124	EPA 180.1	03/22/2016 11:15	JS	NA	NA	NA NA	
Analyte		CAS No.	Result (NTU)	PQL	Dilution Factor	Flags	File ID	
Turbidity		NA	9.9	1.0	1.00		124	

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

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





575 Broad Hollow Road , Melville, NY 11747
TEL: (631) 894-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

AT06438

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

Attn To: William A. Kotas

Collected : 3/21/2016 12:10:00 PM Received : 3/22/2016 10:30:00 AM

Collected By:

LABORATORY RESULTS

Results are only 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 tests requested.

Lab No. : 1603G89-002

Client Sample ID: MW-2

Sample Information:

Type: Aqueous

Origin:

Analytical Method; SM22 4500-CN E:	Prep Method:	SM4500-CN	E		Preo Dat	e: 03/24/16	Analyst: JDLR
Parameter(s)	Results	Qualifier	D.E.	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
Cyanide	< 10		1	µg/L	10	03/24/16 3:52 PM	Container-01 of 01
Analytical Method: E410.4:	<u> </u>						Analyst; VaS
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	PQL	Analyzed:	Container:
Chemical Oxygen Demand	< 10.0		1	mg/L	10.0	03/23/16 1:30 PM	Container-01 of 01
Analytical Method: SM22 2120B ; IOC		<u> </u>					Analyst; CA
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
Color	< 5.00		1	units	5.00	03/23/16 11:30 AM	Container-01 of 0
Color pH	8.00	+	1	units	0	03/23/16 11:30 AM	Container-01 of 0
NOTES:							
True Color	<u>-</u>			_			
Analytical Method: E200.7:						a 1 d.	Analyst: CGZ
Parameter(s)	Results	Qualifier	D.E.	<u>Units</u>	PQL	Analyzed:	Container:
Hardness, Calcium (As CaCO3)	261,000		1	mg/L	0.500	03/24/16 10:37 PM	Container-01 of 0
Hardness, Magnesium (As CaCO3)	57,500		1	mg/L	0.800	03/24/16 10:37 PM	Container-01 of 0
Analytical Method: SW7470A:	Prep Method:	SW7470			Prep Da	ite; 03/25/16	Analyst; BC
Parameter(s)	<u>Results</u>	Qualifier	D.E.	<u>Units</u>	PQL	Analyzed:	<u>Container:</u>
Mercury	< 0.200		1	ug/L	0.200	03/25/16 9:53 AM	Container-01 of 0
Analytical Method: SM22 4500-NH3 H	1	 -				···	Analyst: bka
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	PQL	Analyzed:	Container:
Nitrogen, Ammonia (As N)	< 0.10		1	mg/L	0.10	03/24/16 2:28 PM	Container-01 of 0
Analytical Method: SM22 2540C : IOC						<u> </u>	Analyst: SH2
Parameter(s)	Results	Qualifier	D.F.	Units	PQL	Analyzed:	Container;

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limits

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

3/28/2016

Project Manager: Caitlin Panzarella

Cathlin Panzarella

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 54





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: Collected : 3/21/2016 12:10:00 PM

William A. Kotas

Received : 3/22/2016 10:30:00 AM

AT06438

LABORATORY RESULTS

Results are only 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 tests requested.

Sample Information:

Type: Aqueous

Origin:

Collected By:							
Analytical Method: SM22 2540C : IOC		•					Analyst: SH2
Parameter(s)	Results	Qualifier	D.E.	<u>Units</u>	POL	Analyzed:	Container:
Total Dissolved Solids	311		1	mg/L	10	03/23/16 3:50 PM	Container-01 of 01
Analytical Method: E351.2:	Prep Method:	E351.2			Prep C	ate; 03/25/16	Analyst; SO
Parameter(s)	Results	Qualifier	D.F.	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
Nitrogen, Kjeldahl, Total	0.14		1	mg/L	0.10	03/25/16 2:50 PM	Container-01 of 01

Lab No. : 1603G89-002

Client Sample ID: MW-2

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte.Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limits

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

3/28/2016

Cathlin Panzarella

Project Manager: Caitlin Panzarella

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 54

16030418 - Page 70 of 127





Job Number: 16030418

Pace Analytical Services, Inc. 2190 Technology Drive

Schenectady, NY 12308 Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: CLF QUARTERLY Client Sample ID: MW-2

Lab Sample ID: 16030418-02 (AT06438)

Collection Date: 03/21/2016 12:10

Sample Matrix: WATER

Received Date: 03/21/2016 13:20

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol. I	Final Vol.	Column
Analysis 1:	179	SW-846 7196A	03/21/2016 15:46	JS	NA	NA	NA
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Facto	r Flags	File ID
Hexavalent	Chromium	18540-29-9	ND	0.0400	1.02	Ų	179

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

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





Job Number: 16030418

Pace Analytical Services, Inc. 2190 Technology Drive

Schenectady, NY 12308 Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: CLF QUARTERLY

Client Sample ID: MW-2 Lab Sample ID: 16030418-02 (AT06438) Collection Date: 03/21/2016 12:10

Sample Matrix: WATER

Received Date: 03/21/2016 13:20

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol. I	inal Vol.	Column
Analysis 1:	450	Nitrate - 353.2	03/22/2016 16:27	JS	NA	NA	NA
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Factor	r Flags	File ID
Nitrate		NA	ND	0.165	1.00	11	450

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

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





Job Number: 16030418

Pace Analytical Services, Inc. 2190 Technology Drive

Schenectady, NY 12308 Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: CLF QUARTERLY

Client Sample ID: MW-2

Lab Sample ID: 16030418-02 (AT06438)

Collection Date: 03/21/2016 12:10

Sample Matrix: WATER

Received Date: 03/21/2016 13:20

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis It	598	BOD SM5210B	03/23/2016 11:18	KM	NA	NA	NA NA
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Fact	or Flags	File ID
	Oxygen Dema	and NA	ND	2.0	1.00	U	598

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

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





Job Number: 16030418

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: CLF QUARTERLY

Client Sample ID: MW-2

Lab Sample ID: 16030418-02 (AT06438)

Collection Date: 03/21/2016 12:10

Sample Matrix: WATER

Received Date: 03/21/2016 13:20

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column	
Analysis 1: 8	374	SM 5310B	03/25/2016 21:43	JS	NA	NA	NA	
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Fact	or Flags	File ID	
Total Organic C	arbon	OC002	0.888	0.500	1.00		874	

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

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

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:

Pace Analytical Services - NY

Project:

16030418

Sample Matrix:

Water

Sample Name: Lab Code:

MW-2 R1602741-001

Service Request: R1602741 Date Collected: 3/21/16 1210

Date Received: 3/24/16

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor I		Date Analyzed	Note
Phenolics, Total Recoverable	420.4	0.0020 U	mg/L	0.0020	1	NA	3/29/16 10:30	

16-0000370130 rev 00

SuperSet Reference:





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:

Collected By:

William A. Kotas

Collected : 3/21/2016 12:10:00 PM Received : 3/22/2016 10:30:00 AM

AT06438

LABORATORY RESULTS

Results are only 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 tests requested.

Lab No. : 1603G89-002

Client Sample ID: MW-2

Sample Information:

Type: Aqueous

Origin:

Aluminum 1: Antimony	Results 21 60.0 10.0 6.8 5.00 .50 5.00 05,000	Qualifier J M+ J	D.F. 1 1 1 1 1 1 1 1	Units ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	200 60.0 10.0 200 5.00 500 5.00 5000	Analyzed: 03/24/16 10:37 PM 03/24/16 10:37 PM 03/24/16 10:37 PM 03/24/16 10:37 PM 03/24/16 10:37 PM 03/24/16 10:37 PM 03/24/16 10:37 PM	Container-01 of 01 Container-01 of 01 Container-01 of 01 Container-01 of 01 Container-01 of 01 Container-01 of 01 Container-01 of 01 Container-01 of 01 Container-01 of 01
Aluminum Antimony Arsenic Barium Beryllium Boron Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Nickel Potassium Selenium Silver	60.0 10.0 6.8 5.00 .50 5.00 05,000	J W+	1 1 1 1 1 1	ug/L ug/L ug/L ug/L ug/L	60.0 10.0 200 5.00 500 5.00	03/24/16 10:37 PM 03/24/16 10:37 PM 03/24/16 10:37 PM 03/24/16 10:37 PM 03/24/16 10:37 PM 03/24/16 10:37 PM	Container-01 of 0° Container-01 of 0° Container-01 of 0° Container-01 of 0° Container-01 of 0°
Arsenic Sarium 1 Beryllium Soron 6 Cadmium Salcium 1 Chromium 2 Cobalt Copper Iron 2 Lead Magnesium 1 Manganese 2 Nickel Potassium Selenium Silver 5	10.0 6.8 5.00 .50 5.00 05,000	J J	1 1 1 1 1	ug/L ug/L ug/L ug/L ug/L	10.0 200 5.00 500 5.00	03/24/16 10:37 PM 03/24/16 10:37 PM 03/24/16 10:37 PM 03/24/16 10:37 PM 03/24/16 10:37 PM	Container-01 of 0' Container-01 of 0' Container-01 of 0' Container-01 of 0' Container-01 of 0
Arsenic <	6.8 5.00 .50 5.00 05,000	J J	1 1 1 1 1	ug/L ug/L ug/L ug/L	200 5.00 500 5.00	03/24/16 10:37 PM 03/24/16 10:37 PM 03/24/16 10:37 PM 03/24/16 10:37 PM	Container-01 of 0° Container-01 of 0° Container-01 of 0° Container-01 of 0°
Beryllium Boron Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Nickel Potassium Selenium Silver	5.00 .50 : 5.00 .05,000	J	1 1 1	ug/L ug/L ug/L	5.00 500 5.00	03/24/16 10:37 PM 03/24/16 10:37 PM 03/24/16 10:37 PM	Container-01 of 0 Container-01 of 0 Container-01 of 0
Boron 6 Cadmium 5 Calcium 1 Chromium 2 Cobalt 5 Copper 6 Iron 2 Lead 2 Magnesium 6 Manganese 2 Nickel 7 Potassium 8 Selenium 8	5.50 5.00 05,000		1 1 1	ug/L ug/L	500 5.00	03/24/16 10:37 PM 03/24/16 10:37 PM	Container-01 of 0 Container-01 of 0
Boron 6 Cadmium 5 Calcium 1 Chromium 2 Cobalt 5 Copper 6 Iron 2 Lead 2 Magnesium 1 Manganese 2 Nickel 7 Potassium 5 Selenium 5	5.00 05,000 2.00		1	ug/L	5.00	03/24/16 10:37 PM	Container-01 of 0
Calcium Chromium Chromium Cobalt Copper Iron Lead Magnesium Manganese Nickel Potassium Selenium Silver	05,000 2.00	J	1	_			
Chromium 2 Cobalt 4 Copper 4 Iron 2 Lead 2 Magnesium 1 Manganese 2 Nickel 4 Potassium 4 Selenium 5	2.00	J		ug/L	5000	03/24/16 10:37 PM	Container-01 of 0
Cobalt Copper Iron Lead Magnesium Manganese Nickel Potassium Selenium Silver		J					
Copper Iron 2 Lead 2 Magnesium 1 Manganese 2 Nickel 9 Potassium 5 Selenium 5	50.0		1	ug/L	10.0	03/24/16 10:37 PM	Container-01 of 0
Copper Iron 2 Lead 2 Magnesium 1 Manganese 2 Nickel 9 Potassium 5 Selenium 5			1	ug/L	50.0	03/24/16 10:37 PM	Container-01 of 0
Iron 2 Lead 2 Magnesium 1 Manganese 2 Nickel 9 Potassium 5 Selenium 5	25.0		1	ug/L	25.0	03/24/16 10:37 PM	Container-01 of 0
Lead 2 Magnesium 1 Manganese 2 Nickel 9 Potassium 9 Selenium 9 Silver 1	234	M+	1	ug/L	100	03/24/16 10:37 PM	Container-01 of 0
Magnesium Manganese Sickel Potassium Selenium Silver	2.22	J	1	ug/L	3.00	03/24/16 10:37 PM	Container-01 of 0
Manganese 2 Nickel 9 Potassium 9 Selenium 9 Silver 9	14,000		1	ug/L	5000	03/24/16 10:37 PM	Container-01 of 0
Nickel Potassium Selenium Silver	20.7		1	ug/L	15.0	03/24/16 10:37 PM	Container-01 of 0
Potassium Selenium Silver	< 40.0		1	ug/L	40.0	03/24/16 10:37 PM	Container-01 of 0
Selenium Silver	< 5,000		1	ug/L	5000	03/24/16 10:37 PM	Container-01 of 0
Silver	< 5.00		1	ug/L	5.00	03/24/16 10:37 PM	Container-01 of 0
	< 10.0		1	ug/L	10.0	03/24/16 10:37 PM	Container-01 of 0
	2,320	J	1	ug/L	5000	03/24/16 10:37 PM	Container-01 of 0
	< 10.0		1	ug/L	10.0	03/24/16 10:37 PM	Container-01 of 0
***	1.90	J	1	ug/L	20.0	03/24/16 10:37 PM	Container-01 of 0
Analytical Method: SM22 23208 :	<u> </u>				· · · · · · · · · · · · · · · · · · ·		Analyst: JDLR
	Results	Qualifier	D.F.	<u>Units</u>	POL	Analyzed:	Container:
	275	D	5	mg/L	5.00	03/28/16 10:42 AM	Container-01 of
Analytical Method; E300.0:							Analyst; bka
Parameter(s)	Results	Qualifier	D.F.	<u>Units</u>	PQL	Analyzed;	Container:
	3.24		1	mg/L	2.00	03/25/16 B:26 AM	Container-01 of

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

B = Found in Blank

Sulfate

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

25.6

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limits

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported :

3/28/2016

Project Manager: Caitlin Panzarella

03/25/16 8:26 AM

Cathlin Panzarella

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.

Container-01 of 01

mg/L

5.00





575 Broad Hollow Road , Melville, NY 11747 TEL: (631) 694-3040 FAX: (631) 420-8436 www.pacelabs.com NYSDOH ID#10478

AT06437

Pace Analytical Services Inc.

2190 Technology Drive Schenectady, NY 12308

Attn To : William A. Kotas

Collected : 3/21/2016 10:48:00 AM Received : 3/22/2016 10:30:00 AM LABORATORY RESULTS

Results are only 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 tests requested.

Lab No. : 1603G89-001

Client Sample ID: MW-2

Sample Information:

Type: Aqueous

Origin:

Analytical Method: E624:							Analyst: MF
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
1,1,1-Trichloroethane	< 1.0		1	μg/L	1.0	03/22/16 6:13 PM	Container-01 of 03
1,1,2,2-Tetrachloroethane	< 1.0		1	μg/L	1.0	03/22/16 6:13 PM	Container-01 of 03
1.1.2-Trichloroethane	< 1.0		1	µg/L	1.0	03/22/16 6:13 PM	Container-01 of 03
1.1-Dichloroethane	< 1.0		1	µg/L	1.0	03/22/16 6:13 PM	Container-01 of 03
1.1-Dichtoroethene	< 1.0		1	µg/L	1.0	03/22/16 6:13 PM	Container-01 of 0
1,2-Dichlorobenzene	< 1.0		1	μg/L	1.0	03/22/16 6:13 PM	Container-01 of 03
1.2-Dichloroethane	< 1.0		1	μg/L	1.0	03/22/16 6:13 PM	Container-01 of 03
1.2-Dichloropropane	< 1.0		1	μg/L	1.0	03/22/16 6:13 PM	Container-01 of 0
1.3-Dichlorobenzene	< 1.0		1	µg/L	1.0	03/22/16 6:13 PM	Container-01 of 0
1.4-Dichlorobenzene	< 1.0		1	μg/L	1.0	03/22/16 6:13 PM	Container-01 of 0
2-Chloroethylvinyl ether	< 1.0	s	1	μg/L	1.0	03/22/16 6:13 PM	Container-01 of 0
Benzene	< 1.0		1	µg/L	1.0	03/22/16 6:13 PM	Container-01 of 0
Bromodichloromethane	< 1.0		1	µg/L	1.0	03/22/16 6:13 PM	Container-01 of 0
Bromoform	< 1.0		1	µg/L	1.0	03/22/16 6:13 PM	Container-01 of 0
Bromomethane	< 1.0		1	µg/L	1.0	03/22/16 6:13 PM	Container-01 of 0
Carbon tetrachloride	< 1.0		1	μg/L	1.0	03/22/16 6:13 PM	Container-01 of 0
Chlorobenzene	< 1.0		1	μg/L	1.0	03/22/16 6:13 PM	Container-01 of 0
Chloroethane	< 1.0		1	μg/L	1.0	03/22/16 6:13 PM	Container-01 of 0
Chloroform	< 1.0		1	μg/L	1.0	03/22/16 6:13 PM	Container-01 of 0
Chloromethane	< 1.0		1	μg/L	1.0	03/22/16 6:13 PM	Container-01 of 0
cis-1.2-Dichloroethene	< 1.0		1	µg/L	1.0	03/22/16 6:13 PM	Container-01 of (
cis-1,3-Dichloropropene	< 1.0		1	μg/L	1.0	03/22/16 6:13 PM	Container-01 of 0
Dibromochloromethane	< 1.0		1	µg/L	1.0	03/22/16 6:13 PM	Container-01 of 0
Dichlorodifluoromethane	< 1.0		1	μg/L	1.0	03/22/16 6:13 PM	Container-01 of 0
Ethylbenzene	< 1.0		1	µg/L	1.0	03/22/16 6:13 PM	Container-01 of (
Methylene chloride	< 1.0		1	μg/L	1.0	03/22/16 6:13 PM	Container-01 of
Tetrachioroethene	< 1.0		1	µg/L	1.0	03/22/16 6:13 PM	Container-01 of
Toluene	< 1.0		1	μg/L	1.0	03/22/16 6:13 PM	Container-01 of
trans-1,2-Dichloroethene	< 1.0		1	μg/L	1.0	03/22/16 6:13 PM	Container-01 of
trans-1,3-Dichloropropene	< 1.0		1	μg/L	1.0	03/22/16 6:13 PM	Container-01 of
Trichloroethene	< 1.0		1	µg/L	1.0	03/22/16 6:13 PM	Container-01 of
Trichlorofluoromethane	< 1.0		1	µg/L	1.0	03/22/16 6:13 PM	Container-01 of
Vinvl chloride	< 1.0		1	µg/L	1.0	03/22/16 6:13 PM	Container-01 of

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limits

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

3/28/2016

Cathlin Panzarella

Project Manager: Caitlin Panzarella

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.



575 Broad Hollow Road, Melville, NY 11747 TEL: (631) 694-3040 FAX: (631) 420-8438 NYSDOH ID#10478 www.pacelabs.com

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

Attn To:

William A. Kotas

Collected : 3/21/2016 10:48:00 AM

AT06437 Received : 3/22/2016 10:30:00 AM

Collected By : CLIENT

LABORATORY RESULTS

Results are only 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 tests requested.

Lab No.: 1603G89-001

Client Sample ID: MW-2

Sample Information:

Type: Aqueous

Origin:

Analytical Method: E624:	а		-					Analyst: MF
Parameter(s)	Results	Qualifier	D.F.	<u>Units</u>	PQL		Analyzed;	Container;
Xylene (total)	< 1.0		1	μg/L	1.0		03/22/16 6:13 PM	Container-01 of 03
Surr. 1,2-Dichloroethane-d4	97.5		1	%Rec		Limit 51-156	03/22/16 6:13 PM	Container-01 of 03
Surr: 4-Bromofluorobenzene	98.9		1	%Rec		Limit 40-150	03/22/16 6:13 PM	Container-01 of 03
Surr. Toluene-d8	100		1	%Rec		Limit 61-156	03/22/16 6:13 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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limits

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

3/28/2016

Cathlin Panzarella

Project Manager: Caitlin Panzarella

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 2 of 54

16030418 - Page 67 of 127





Job Number: 16030418

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

Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: CLF QUARTERLY Client Sample ID: MW-5

Lab Sample ID: 16030418-03 (AT06439)

Collection Date: 03/21/2016 10:15

Sample Matrix: WATER

Received Date: 03/21/2016 13:20

Percent Solid: N/A

Batch ID	Method	Date	Analyst	Init Wt./Vol. Fir	nal Vol.	Column
Analysis 1: Field Test	Field Analysis	03/21/2016 11:45	MEB	NA	NA	NA
Analyte	CAS No.	Result	PQL	Dilution Factor	Flags	File ID
pH (\$)	NA	6.97 (pH)	0.00	1.00		Field Test
Reduction Potential (\$)	NA	-48.0 (mV)	0.00	1.00		Field Test
Specific Conductance (\$)	NA	1620 (umhos/cn	0.00	1.00		Field Test
Temperature (\$)	NA	4.90 (°C)	0.00	1,00		Field Test
Turbidity (\$)	NA	27.8 (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.





Job Number: 16030418

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

Schenectady, NY 1230 Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: CLF QUARTERLY Client Sample ID: MW-5

Lab Sample ID: 16030418-04 (AT06440)

Collection Date: 03/21/2016 11:45

Sample Matrix: WATER

Received Date: 03/21/2016 13:20

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	124	EPA 180.1	03/22/2016 12:43	JS	NA	NA	NA NA
Analyte		CAS No.	Result (NTU)	PQL	Dilution Facto	or Flags	File ID
Turbidity		NA	220	20	1.00		124

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

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





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

: 3/21/2016 11:45:00 AM

AT06440

Collected Received : 3/22/2016 10:30:00 AM LABORATORY RESULTS

Results are only 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 tests requested.

Lab No. : 1603G89-004

Client Sample ID: MW-5

Sample Information:

Type: Aqueous

Origin:

Analytical Method: SM22 4500-CN E:	Prep Method:	SM4500-CN	Ε		Prep	Date: 03/24/16	Analyst: JDLR
Parameter(s)	Results	Qualifier	D.F.	<u>Units</u>	PQL	Analyzed:	Container:
Cyanide	< 10		1	µg/L	10	03/24/16 3:53 PM	Container-01 of 01
Analytical Method: E410.4:						<u> </u>	Analyst: VaS
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
Chemical Oxygen Demand	32.0		1	mg/L	10.0	03/23/16 1:35 PM	Container-01 of 01
Analytical Method: SM22 2120B : IOC					<u> </u>	=	Analyst: CA
Parameter(s)	Results	Qualifier	D.F.	<u>Units</u>	PQL	Analyzed:	Container;
Color	5.00		1	units	5.00	03/23/16 11:30 AM	Container-01 of 01
Color pH	8.00	+	1	units	0	03/23/16 11:30 AM	Container-01 of 0
NOTES: True Color							
Analytical Method: E200.7:							Analyst: CGZ
Parameter(s)	Results	Qualifier	D.F.	<u>Units</u>	PQL	Analyzed:	Container:
Hardness, Calcium (As CaCO3)	441,000	72	1	mg/L	0.500	03/24/16 11:19 PM	Container-01 of 0
Hardness, Magnesium (As CaCO3)	420,000		1	mg/L	0.800	03/24/16 11:19 PM	Container-01 of 0
Analytical Method; SW7470A:	Prep Method:	SW7470		*****	Pres	Date; 03/25/16	Analyst: BC
Parameter(s)	Results	Qualifier	D.F.	<u>Units</u>	PQL	<u>Analyzed:</u>	<u>Container:</u>
Mercury	< 0.200		1	ug/L	0.200	03/25/16 9:58 AM	Container-01 of 0
Analytical Method: SM22 4500-NH3 H	:	<u> </u>			<u></u>		Analyst; bka
Parameter(s)	Results	Qualifier	D.F.	<u>Units</u>	PQL	Analyzed:	Container:
Nitrogen, Ammonia (As N)	0.33	·	1	mg/L	0.10	03/24/16 2:29 PM	Container-01 of 0
Analyticat Method: SM22 2540C : IOC					<u></u>		Analyst; SH2
						Analyzed:	Container:

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limits

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

3/28/2016

Cathlin Panzarella Project Manager: Caitlin Panzarella

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.





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 : 3/21/2016 11:45:00 AM Received : 3/22/2016 10:30:00 AM

AT06440

LABORATORY RESULTS

Results are only 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 tests requested.

Lab No. : 1603G89-004

Client Sample ID: MW-5

Sample Information:

Type: Aqueous

Origin:

Collected By:							
Analytical Method: SM22 2540C : IOC		_					Analyst: SH2
Parameter(s)	Results	Qualifier	D.F.	<u>Units</u>	PQL	Analyzed:	Container
Total Dissolved Solids	934	<u> </u>	1	mg/L	10	03/23/16 3:50 PM	Container-01 of 01
Analytical Method; E351.2:	Prep Method:	E351.2			Prep	Date; 03/25/16	Analyst: SO
Parameter(s)	Results	Qualifier	D.E.	<u>Units</u>	PQL	Analyzed:	Container:
Nitrogen, Kjeldahl, Total	0.59		1	mg/L	0.10	03/25/16 2:51 PM	Container-01 of 01

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limits

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

3/28/2016

Cathlin Panyanella
Project Manager: Caitlin Panzarella

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.





Job Number: 16030418

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: CLF QUARTERLY Client Sample ID: MW-5

Lab Sample ID: 16030418-04 (AT06440)

Collection Date: 03/21/2016 11:45

Sample Matrix: WATER

Received Date: 03/21/2016 13:20

Percent Solid: N/A

32	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	179	SW-846 7196A	03/21/2016 15:49	JS	NA	NA	NA NA
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Facto	or Flags	File ID
	Chromium	18540-29-9	ND	0.0400	1.02		179

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





Job Number: 16030418

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: CLF QUARTERLY

Client Sample ID: MW-5

Lab Sample ID: 16030418-04 (AT06440)

Collection Date: 03/21/2016 11:45

Sample Matrix: WATER

Received Date: 03/21/2016 13:20

Percent Solid: N/A

[Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column	
Analysis 1:	450	Nitrate - 353.2	03/22/2016 16:28	JS	NA	NA	NA	
Analyte	-	CAS No.	Result (mg/L)	PQL	Dilution Facto	or Flags	File ID	

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





Job Number: 16030418

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: CLF QUARTERLY Client Sample ID: MW-5

Lab Sample ID: 16030418-04 (AT06440)

Collection Date: 03/21/2016 11:45

Sample Matrix: WATER

Received Date: 03/21/2016 13:20

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	598	BOD SM5210B	03/23/2016 11:11	JS	NA	NA NA	NA
Amalina		CAEN	Popult (mg/I)	POL	Dilution Facto	or Flags	File ID
Analyte		CAS No.	Result (mg/L)	rųL	Duduon Pacti	nt tings	riie 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.

B10 - The RPD between high and low values of valid dilutions exceeded 30%.





Job Number: 16030418

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: CLF QUARTERLY Client Sample ID: MW-5

Lab Sample ID: 16030418-04 (AT06440)

Collection Date: 03/21/2016 11:45

Sample Matrix: WATER

Received Date: 03/21/2016 13:20

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	874	SM 5310B	03/25/2016 23:43	JS	NA	NA	NA NA
Analyte	-	CAS No.	Result (mg/L)	PQL	Dilution Fact	or Flags	File ID
Total Organic C	arbon	OC002	16.4	0.500	1.00	_	874

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

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:

Pace Analytical Services - NY

Project:

16030418

Sample Matrix:

Water

Sample Name: Lab Code: MW-5

R1602741-002

Service Request: R1602741

Date Collected: 3/21/16 1145

Date Received: 3/24/16

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	- 150	Date Analyzed	Note
Phenolics, Total Recoverable	420.4	0.0037	mg/L	0.0020	1	NA	3/29/16 10:30	





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:

Collected By:

William A. Kotas

Collected : 3/21/2016 11:45:00 AM : 3/22/2016 10:30:00 AM Received

AT06440

LABORATORY RESULTS

Results are only 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 tests requested.

Lab No. : 1603G89-004

Client Sample ID: MW-5

Sample Information:

Type: Aqueous

Origin:

Analytical Method: E200.7:	Prep Method:	E200.7			Prep Da	te: 03/23/16	Analyst: CGZ
Parameter(s)	<u>Results</u>	Qualifier	D.F.	<u>Units</u>	PQL	Analyzed:	Container:
Aluminum	< 200		1	ug/L	200	03/24/16 11:19 PM	Container-01 of 01
Antimony	< 60.0		1	ug/L	60.0	03/24/16 11:19 PM	Container-01 of 01
Arsenic	52.1	M-	1	ug/L	10.0	03/24/16 11:19 PM	Container-01 of 01
3arium	353		1	ug/L	200	03/24/16 11:19 PM	Container-01 of 01
Beryllium	< 5.00		1	ug/L	5.00	03/24/16 11:19 PM	Container-01 of 01
Boron	497	J	1	ug/L	500	03/24/16 11:19 PM	Container-01 of 01
Cadmium	1.00	J	1	ug/L	5.00	03/24/16 11:19 PM	Container-01 of 0
Calcium	177,000		1	ug/L	5000	03/24/16 11:19 PM	Container-01 of 0
Chromium	< 10.0		1	ug/L	10.0	03/24/16 11:19 PM	Container-01 of 0
Cobalt	5.30	J	1	ug/L	50.0	03/24/16 11:19 PM	Container-01 of 0
Copper	9.70	J	1	ug/L	25.0	03/24/16 11:19 PM	Container-01 of 0
Iron	18,400	M-	1	ug/L	100	03/24/16 11:19 PM	Container-01 of 0
Lead	4.94		1	ug/L	3.00	03/24/16 11:19 PM	Container-01 of 0
Magnesium	102,000		1	ug/L	5000	03/24/16 11:19 PM	Container-01 of 0
Manganese	44.3		1	ug/L	15.0	03/24/16 11:19 PM	Container-01 of 0
Nickel	22.0	J	1	ug/L	40.0	03/24/16 11:19 PM	Container-01 of 0
Polassium	1,480	J	1	ug/L	5000	03/24/16 11:19 PM	Container-01 of 0
Selenium	< 5.00	M-	1	ug/L	5.00	03/24/16 11:19 PM	Container-01 of 0
Silver	1.93	J	1	ug/L	10.0	03/24/16 11:19 PM	Container-01 of 0
Sodium	74,500		1	ug/L	5000	03/24/16 11:19 PM	Container-01 of 0
Thallium	< 10.0		1	ug/L	10.0	03/24/16 11:19 PM	Container-01 of 0
Zinc	3.90	J	1	ug/L	20.0	03/24/16 11:19 PM	Container-01 of 0
Analytical Method: SM22 2320B :							Analyst: JDLR
Parameter(s)	Results	Qualifier	D.F.	<u>Units</u>	PQL	Analyzed:	Container:
Alkalinity, Total (As CaCO3)	831	D	5	mg/L	5.00	03/28/16 10:50 AM	Container-01 of 0
Analytical Method: E300.0:							Analyst: bka
			D.F.		PQL	Analyzed;	Container:

5

mg/L

mg/L

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

B = Found in Blank

Chloride

Sulfate

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

141

0.55

D

J

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limits

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

3/28/2016

Cathlin Panzarella Project Manager: Caitlin Panzarella

03/25/16 9:06 AM

03/25/16 B:53 AM

10.0

5.00

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.

Container-01 of 01

Container-01 of 01





575 Broad Hollow Road , Melville, NY 11747 TEL: (831) 694-3040 FAX: (631) 420-8436 NYSDOH ID#10478 www.pacelabs.com

AT06439

Pace Analytical Services Inc.

2190 Technology Drive Schenectady, NY 12308

Attn To:

William A. Kotas

Collected : 3/21/2016 10:15:00 AM Received : 3/22/2016 10:30:00 AM

Collected By: CLIENT

LABORATORY RESULTS

Results are only 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 tests requested.

Lab No.: 1603G89-003

Client Sample ID: MW-5

Sample Information:

Type: Aqueous

Origin:

Analytical Method: E624:							Analyst: MF
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	POL	Analyzed:	Container:
1,1,1-Trichloroethane	< 1.0		1	µg/L	1.0	03/22/16 6:33 PM	Container-01 of 0
1,1,2,2-Tetrachloroethane	< 1.0		1	µg/L	1.0	03/22/16 6:33 PM	Container-01 of 0
1,1,2-Trichloroethane	< 1.0		1	μg/L	1.0	03/22/16 6:33 PM	Container-01 of 0
1,1-Dichloroethane	< 1.0		1	µg/L	1.0	03/22/16 6:33 PM	Container-01 of 0
1,1-Dichloroethene	< 1.0		1	μg/L	1.0	03/22/16 6:33 PM	Container-01 of 0
1,2-Dichlorobenzene	< 1.0		1	μg/L	1.0	03/22/16 6:33 PM	Container-01 of
1,2-Dichloroethane	< 1.0		1	μg/L	1.0	03/22/16 6:33 PM	Container-01 of
1,2-Dichloropropane	< 1.0		1	μg/L	1.0	03/22/16 6:33 PM	Container-01 of
1,3-Dichlorobenzene	< 1.0		1	µg/L	1.0	03/22/16 6 33 PM	Container-01 of
1,4-Dichlorobenzene	< 1.0		1	μg/L	1.0	03/22/16 6:33 PM	Container-01 of
2-Chloroethylvinyl ether	< 1.0	S	1	μg/L	1.0	03/22/16 6:33 PM	Container-01 of
Benzene	< 1.0		1	μg/L	1.0	03/22/16 6:33 PM	Container-01 of
Bromodichloromethane	< 1.0		1	μg/L	1.0	03/22/16 6:33 PM	Container-01 of
Bromoform	< 1.0		1	µg/L	1.0	03/22/16 6:33 PM	Container-01 of
Bromomethane	< 1.0		1	μg/L	1.0	03/22/16 6:33 PM	Container-01 of
Carbon tetrachloride	< 1.0		1	μg/L	1.0	03/22/16 6:33 PM	Container-01 of
Chlorobenzene	< 1.0		1	μg/L	1.0	03/22/16 6:33 PM	Container-01 of
Chloroethane	< 1.0		1	μg/L	1.0	03/22/16 6:33 PM	Container-01 of
Chloroform	< 1.0		1	μg/L	1.0	03/22/16 6:33 PM	Container-01 of
Chloromethane	< 1.0		1	μg/L	1.0	03/22/16 6:33 PM	Container-01 of
cis-1,2-Dichloroethene	< 1.0		1	µg/L	1.0	03/22/16 6:33 PM	Container-01 of
cis-1,3-Dichloropropene	< 1.0		1	μg/L	1.0	03/22/16 6:33 PM	Container-01 of
Dibromochloromethane	< 1.0		1	μg/L	1.0	03/22/16 6:33 PM	Container-01 of
Dichlorodifluoromethane	< 1.0		1	μg/L	1.0	03/22/16 6:33 PM	Container-01 of
Ethylbenzene	< 1.0		1	μg/L	1.0	03/22/16 6:33 PM	Container-01 of
Methylene chloride	< 1.0		1	μg/L	1.0	03/22/16 6:33 PM	Container-01 of
Tetrachloroethene	< 1.0		1	µg/L	1.0	03/22/16 6:33 PM	Container-01 of
Toluene	< 1.0		1	μg/L	1.0	03/22/16 6:33 PM	Container-01 of
trans-1,2-Dichloroethene	< 1.0		1	µg/L	1.0	03/22/16 6:33 PM	Container-01 o
trans-1,3-Dichloropropene	< 1.0		1	μg/L	1.0	03/22/16 6:33 PM	Container-01 of
Trichloroethene	< 1.0		1	µg/L	1.0	03/22/16 6:33 PM	Container-01 o
Trichlorofluoromethane	< 1.0		1	μg/L	1.0	03/22/16 6:33 PM	Container-01 o
Vinyl chloride	< 1.0		1	μg/L	1.0	03/22/16 6:33 PM	Container-01 o

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limits

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

3/28/2016

Cathlin Panyarella

Project Manager: Caitlin Panzarella

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.



575 Broad Hollow Road , Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

AT06439

Pace Analytical Services Inc.

2190 Technology Drive Schenectady, NY 12308

Attn To:

William A. Kotas

Collected : 3/21/2016 10:15:00 AM Received : 3/22/2016 10:30:00 AM

Collected By : CLIENT

LABORATORY RESULTS

Results are only 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 tests requested.

Lab No. : 1603G89-003

Client Sample ID: MW-5

Sample Information:

Type: Aqueous

Origin:

Condition by . CELETT								
Analytical Method: E624:								Analyst: MF
Parameter(s)	Results	Qualifier	D.F.	<u>Units</u>	PQL		Analyzed:	Container:
Xylene (total)	< 1.0		1	µg/L	1.0		03/22/16 6:33 PM	Container-01 of 03
Surr. 1,2-Dichloroethane-d4	99.6		1	%Rec	I	Limit 51-156	03/22/16 6:33 PM	Container-01 of 03
Surr. 4-Bromofluorobenzene	102		1	%Rec	1	Limit 40-150	03/22/16 6:33 PM	Container-01 of 03
Surr: Toluene-d8	104		1	%Rec		Limit 61-156	03/22/16 6:33 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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limits

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

3/28/2016

Cathlin Panzarella

Project Manager: Caitlin Panzarella

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 7 of 54

16030418 - Page 72 of 127





Job Number: 16030418

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

Schenectady, NY 12308 Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: CLF QUARTERLY

Client Sample ID: MW-6

Lab Sample ID: 16030418-05 (AT06441)

Collection Date: 03/21/2016 09:41

Sample Matrix: WATER

Received Date: 03/21/2016 13:20

Percent Solid: N/A

Ba	tch ID	Method		Date	Analyst	Init Wt./Vol. Fi	nal Vol.	Column
Analysis 1: Field	d Test	Field Analysis		03/21/2016 11:30	MEB	NA	NA	NA
Analyte	,	CAS No.	Resu	lt	PQL	Dilution Factor	Flags	File ID
H(\$)		NA	7.34	(pH)	0.00	1.00	10	Field Test
Reduction Potentia	al (\$)	NA	240	(mV)	0.00	1,00		Field Test
Specific Conductar		NA	606	(umhos/cm	0.00	1,00		Field Test
Temperature (\$)	(.,	NA	3.20	(°C)	0.00	1.00		Field Test
Turbidity (\$)		NA	13.9	(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.





Job Number: 16030418

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: CLF QUARTERLY

Client Sample ID: MW-6

Pace Analytical Services, Inc.

Lab Sample ID: 16030418-06 (AT06442)

Collection Date: 03/21/2016 11:30

Sample Matrix: WATER

Received Date: 03/21/2016 13:20

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	124	EPA 180.1	03/22/2016 11:27	JS	NA	NA .	NA
Analyte	>	CAS No.	Result (NTU)	PQL	Dilution Facto	or Flags	File ID
Turbidity		NA	45	5.0	1.00		124

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



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 : 3/21/2016 11:30:00 AM

Received : 3/22/2016 10:30:00 AM

AT06442

LABORATORY RESULTS

Results are only 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 tests requested.

Lab No. : 1603G89-006

Client Sample ID: MW-6

Sample Information:

Type: Aqueous

Origin:

nalytical Method; SM22 4500-CN E :	Preo Method:	SM4500-CN	E		Prep Dat	e; 03/24/16	Analyst: JDLR
Parameter(s)	Results	Qualifier	D.F.	<u>Units</u>	PQL	Analyzed:	Container:
yanide	< 10		1	µg/L	10	03/24/16 3:54 PM	Container-01 of 01
Analytical Method: E410.4:	<u>. </u>	<u> </u>			<u> </u>		Analyst; VaS
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	PQL	Analyzed:	Container:
Chemical Oxygen Demand	< 10.0		1	mg/L	10,0	03/28/16 11;30 AM	Container-01 of 01
Analytical Method: SM22 2120B : IOC	<u> </u>				. <u></u>		Analyst; CA
Parameter(s)	Results	Qualifier	D.E.	<u>Units</u>	POL	Analyzed;	Container:
Color	10.0		1	units	5,00	03/23/16 11:30 AM	Container-01 of 01
Color pH	8.00	+	1	units	0	03/23/16 11:30 AM	Container-01 of 01
Analytical Method: E200.7:							Analyst, CGZ
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
Hardness, Calcium (As CaCO3)	241,000	(1)	1	mg/L	0.500	03/24/16 11:49 PM	Container-01 of 01
Hardness, Magnesium (As CaCO3)	140,000		1	mg/L	0.800	03/24/16 11:49 PM	Container-01 of 0
Analytical Method; SW7470A:	Prep Method:	SW7470			Prep Da	nte; 03/25/16	Analyst: BC
Parameter(s)	Results	Qualifier	D.E.	<u>Units</u>	PQL	Analyzed,	<u>Container</u>
Mercury	< 0.200		1	ug/L	0.200	03/25/16 10:04 AM	Container-01 of 0
Analytical Method: SM22 4500-NH3 H	:	·					Analyst: bka
Parameter(s)	Results	Qualifier	D.E.	<u>Units</u>	PQL	Analyzed:	Container:
Nitrogen, Ammonia (As N)	0.12		1	mg/L	0.10	03/24/16 2:30 PM	Container-01 of 0
Analytical Method; SM22 2540C HOC							Analyst; SH2
4							
Parameter(s)	Results	Qualifier	D.F.	<u>Units</u>	PQL	Analyzed:	Container:

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limits

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

3/28/2016

Cathlin Panzarella Project Manager: Caitlin Panzarella

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 14 of 54



TEL: (831) 694-3040 FAX: (631) 420-8436 NYSDOH ID#10478 www.pacelabs.com

Pace Analytical Services Inc. 2190 Technology Drive

Schenectady, NY 12308

William A. Kotas Attn To: : 3/21/2016 11:30:00 AM Collected

Received Collected By:

AT06442 : 3/22/2016 10:30:00 AM

LABORATORY RESULTS

Results are only 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 tests requested.

Sample Information:

Type: Aqueous

Origin:

Analytical Method: E351.2:	Prep Method:	E351.2			Prep	Date: 03/25/16	Anaivst: SO
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
Nitrogen, Kjeldahl, Total	< 0.10	607176	1	mg/L	0.10	03/25/16 2:52 PM	Container-01 of 01

Lab No. : 1603G89-006

Client Sample ID: MW-6

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limits

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

3/28/2016

Cathlin Panzarella

Project Manager: Caitiin Panzarella

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 15 of 54





Job Number: 16030418

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: CLF QUARTERLY Client Sample ID: MW-6

Lab Sample ID: 16030418-06 (AT06442)

Collection Date: 03/21/2016 11:30

Sample Matrix: WATER

Received Date: 03/21/2016 13:20

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	179	SW-846 7196A	03/21/2016 15:49	JS	NA	NA	NA NA
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Fact	or Flags	File ID
	romium	18540-29-9	ND	0.0400	1.02	T T	179

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





Job Number: 16030418

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: CLF QUARTERLY

Client Sample ID: MW-6

Lab Sample ID: 16030418-06 (AT06442)

Collection Date: 03/21/2016 11:30

Sample Matrix: WATER

Received Date: 03/21/2016 13:20

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	450	Nitrate - 353.2	03/22/2016 16:30	JS	NA	NA	NA NA
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Facto	or Flags	File ID
Nitrate		NA	ND	0.165	1.00	Ū	450

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





Job Number: 16030418

Pace Analytical Services, Inc. 2190 Technology Drive

Schenectady, NY 12308 Phone: 518,346.4592 Fax: 518,381.6055

Client: BARTON AND LOGUIDICE

Project: CLF QUARTERLY Client Sample ID: MW-6

Lab Sample ID: 16030418-06 (AT06442)

Collection Date: 03/21/2016 11:30

Sample Matrix: WATER

Received Date: 03/21/2016 13:20

Percent Solid: N/A

		lethod D SM5210B	Date 03/23/2016 11:08	Analyst KM	Init Wt./Vol. F	inal Vol.	Column
Analysis 1: 5 Analyte	198 BO	CAS No.	Result (mg/L)	PQL	Dilution Factor	Flags	File ID
Biochemical Ox	ygen Demand	NA	ND	2.0	1.00	U	598

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





Job Number: 16030418

Pace Analytical Services, Inc.

2190 Technology Drive Schenectady, NY 12308 Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: CLF QUARTERLY

Client Sample ID: MW-6

Lab Sample ID: 16030418-06 (AT06442)

Collection Date: 03/21/2016 11:30

Sample Matrix: WATER

Received Date: 03/21/2016 13:20

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	874	SM 5310B	03/25/2016 22:14	JS	NA	NA	NA
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Fact	tor Flags	File ID
Total Organic C	Carbon	OC002	0.642	0.500	1.00		874

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

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:

Pace Analytical Services - NY

Project:

16030418

Sample Matrix:

Water

Sample Name: Lab Code:

MW-6

R1602741-003

Service Request: R1602741

Date Collected: 3/21/16 1130

Date Received: 3/24/16

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	-	Date Analyzed	Note
Phenolics, Total Recoverable	420.4	0.0020 U	mg/L	0.0020	1	NA	3/29/16 10:30	

16-0000370130 rev 00

SuperSet Reference:





TEL: (631) 694-3040 FAX: (631) 420-8436 NYSDOH ID#10478 www.pacelabs.com

AT06442

Pace Analytical Services Inc. 2190 Technology Drive

Schenectady, NY 12308

Attn To:

William A. Kotas

: 3/21/2016 11:30:00 AM Collected Received : 3/22/2016 10:30:00 AM Lab No. : 1603G89-006

LABORATORY RESULTS Results are only 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 tests requested.

Client Sample ID: MW-6

Sample Information:

Type: Aqueous

Origin:

Collected By:

Analytical Method: E200.7:	Prep Method:	E200.7			Preo I	Date: 03/23/16	Analyst: CGZ
Parameter(s)	Results	Qualifier	D.F.	<u>Units</u>	POL	Analyzed:	Container:
Aluminum	186	1	1	ug/L	200	03/24/16 11:49 PM	Container-01 of 01
Antimony	< 60.0		1	ug/L	60.0	03/24/16 11:49 PM	Container-01 of 01
Arsenic	< 10.0		1	ug/L	10.0	03/24/16 11:49 PM	Container-01 of 01
Barium	89.7	J	1	ug/L	200	03/24/16 11:49 PM	Container-01 of 0
Beryllium	< 5.00		1	ug/L	5.00	03/24/16 11:49 PM	Container-01 of 0
Boron	6.60	J	1	ug/L	500	03/24/16 11:49 PM	Container-01 of 0
Cadmium	< 5.00		1	ug/L	5.00	03/24/16 11:49 PM	Container-01 of 0
Calcium	96,400		1	ug/L	5000	03/24/16 11:49 PM	Container-01 of 0
Chromium	< 10.0		1	ug/L	10.0	03/24/16 11:49 PM	Container-01 of 0
Cobalt	< 50.0		1	ug/L	50.0	03/24/16 11:49 PM	Container-01 of 0
Copper	< 25.0		1	ug/L	25.0	03/24/16 11:49 PM	Container-01 of 0
Iron	586		1	ug/L	100	03/24/16 11:49 PM	Container-01 of 0
Lead	3.53		1	ug/L	3.00	03/24/16 11:49 PM	Container-01 of 0
Magnesium	34,000		1	ug/L	5000	03/24/16 11:49 PM	Container-01 of 0
Manganese	88.6		1	ug/L	15.0	03/24/16 11:49 PM	Container-01 of 0
Nickel	< 40.0		1	ug/L	40.0	03/24/16 11:49 PM	Container-01 of 0
Potassium	346	J	1	ug/L	5000	03/24/16 11:49 PM	Container-01 of 0
Selenium	< 5.00		1	ug/L	5.00	03/24/16 11:49 PM	Container-01 of 0
Silver	< 10.0		1	ug/L	10.0	03/24/16 11:49 PM	Container-01 of 0
Sodium	2,130	J	1	ug/L	5000	03/24/16 11:49 PM	Container-01 of 0
Thallium	< 10.0		1	ug/L	10.0	03/24/16 11:49 PM	Container-01 of 0
Zinc	1.90	J	1	ug/L	20.0	03/24/16 11:49 PM	Container-01 of 0
Analytical Method: SM22 23208 :					. <u></u>		Analyst: JDLR
Parameter(s)	Results	Qualifier	D.E.	<u>Units</u>	PQL	Analyzed:	<u>Container:</u>
Alkalinity, Total (As CaCO3)	361	D	5	mg/L	5.00	03/28/16 10:59 AM	Container-01 of 0

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

B = Found in Blank

Analytical Method: E300.0:

Parameter(s)

Chloride

Sulfate

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

Results

4.53

19.1

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limits

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

3/28/2016

Cathlin Panzarella

Analyzed:

03/25/16 9:20 AM

03/25/16 9:20 AM

Project Manager: Caitlin Panzarella

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 13 of 54

Analyst, bka

Container:

Container-01 of 01

Container-01 of 01

Units

mg/L

mg/L

Qualifier

POL

2.00

5.00





575 Broad Hollow Road , Melville, NY 11747 TEL: (631) 694-3040 FAX: (631) 420-8436 www.pacelabs.com NYSDOH ID#10478

AT06441

Pace Analytical Services Inc.

2190 Technology Drive Schenectady, NY 12308

Attn To:

William A. Kotas

Collected : 3/21/2016 9:41:00 AM Received : 3/22/2016 10:30:00 AM

LABORATORY RESULTS

Results are only for the samples and analytes requested. The lab is not directly responsible for the integrity of the sample before receipt at the lab end is responsible only for the tests requested.

Lab No. : 1603G89-005

Client Sample ID: MW-6

Sample Information:

Type: Aqueous

Origin:

Analytical Method: E624:							Analyst: MF
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	PQL	Analyzed:	Container:
1.1.1-Trichloroethane	< 1.0		1	µg/L	1.0	03/22/16 6:54 PM	Container-01 of 0
1.1.2.2-Tetrachioroethane	< 1.0		1	µg/L	1.0	03/22/16 6:54 PM	Container-01 of 0
1,1,2-Trichloroethane	< 1.0		1	µg/L	1.0	03/22/16 6:54 PM	Container-01 of 0
1,1-Dichloroethane	< 1.0		1	μg/L	1.0	03/22/16 6:54 PM	Container-01 of 6
1,1-Dichloroethene	< 1.0		1	μg/L	1.0	03/22/16 6:54 PM	Container-01 of
1.2-Dichlorobenzene	< 1.0		1	µg/L	1.0	03/22/16 6:54 PM	Container-01 of
1.2-Dichloroethane	< 1.0		1	μg/L	1.0	03/22/16 6:54 PM	Container-01 of
1,2-Dichloropropane	< 1.0		1	μg/L	1.0	03/22/16 6:54 PM	Container-01 of
1,3-Dichlorobenzene	< 1.0		1	μg/L	1.0	03/22/16 6:54 PM	Container-01 of
1,4-Dichlorobenzene	< 1.0		1	μg/L	1.0	03/22/16 6:54 PM	Container-01 of
2-Chloroethylvinyl ether	< 1.0	S	1	µg/L	1.0	03/22/16 6:54 PM	Container-01 of
Benzene	< 1.0		.1	μg/L	1.0	03/22/16 6:54 PM	Container-01 of
Bromodich/oromethane	< 1.0		1	μg/L	1.0	03/22/16 6:54 PM	Container-01 of
Bromoform	< 1.0		1	µg/L	1.0	03/22/16 6:54 PM	Container-01 of
Bromomethane	< 1.0		1	μg/L	1.0	03/22/16 6:54 PM	Container-01 of
Carbon tetrachloride	< 1.0		1	μg/L	1.0	03/22/16 6:54 PM	Container-01 of
Chlorobenzene	< 1.0		1	μg/L	1.0	03/22/16 6:54 PM	Container-01 of
Chloroethane	< 1.0		1	μg/L	1.0	03/22/16 6:54 PM	Container-01 of
Chloroform	< 1.0		1	μg/L	1.0	03/22/16 6:54 PM	Container-01 of
Chloromethane	< 1.0		1	μg/L	1.0	03/22/16 6:54 PM	Container-01 of
cis-1,2-Dichloroethene	< 1.0		1	μg/L	1.0	03/22/16 6:54 PM	Container-01 of
cis-1,3-Dichloropropene	< 1.0		1	μg/L	1.0	03/22/16 6:54 PM	Container-01 of
Dibromochloromethane	< 1.0		1	µg/L	1.0	03/22/16 6:54 PM	Container-01 of
Dichlorodifluoromethane	< 1.0		1	µg/L	1.0	03/22/16 6:54 PM	Container-01 of
Ethylbenzene	< 1.0		1	μg/L	1.0	03/22/16 6:54 PM	Container-01 of
Methylene chloride	< 1.0		1	µg/L	1.0	03/22/16 6:54 PM	Container-01 o
Tetrachloroethene	< 1.0		1	μg/L	1.0	03/22/16 6:54 PM	Container-01 of
Toluene	< 1.0		1	μg/L	1.0	03/22/16 6:54 PM	Container-01 o
trans-1.2-Dichloroethene	< 1.0		1	μg/L	1.0	03/22/16 6:54 PM	Container-01 o
trans-1,3-Dichloropropene	< 1.0		1	μg/L	1.0	03/22/16 6:54 PM	Container-01 o
Trichloroethene	< 1.0		1	µg/L	1.0	03/22/16 6:54 PM	Container-01 o
Trichtorofluoromethane	< 1.0		1	µg/L	1.0	03/22/16 6:54 PM	Container-01 o
Vinyl chloride	< 1.0		1	μg/L	1.0	03/22/16 6:54 PM	Container-01 o

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limits

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

3/28/2016

Cathlin Panzarella Project Manager: Caitlin Panzarella

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.



575 Broad Hollow Road , Mehille, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

AT06441

Pace Analytical Services Inc.

2190 Technology Drive Schenectady, NY 12308

Attn To: William A. Kotas

Collected : 3/21/2016 9:41:00 AM Received : 3/22/2016 10:30:00 AM

Collected By: CLIENT

LABORATORY RESULTS

Results are only 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 tests requested.

Lab No. : 1603G89-005

Client Sample ID: MW-6

Sample Information:

Type: Aqueous

Origin:

Analytical Method: E624 :								Analyst: MF
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	PQL		Analyzed:	Container:
Xylene (total)	< 1.0	-	1	µg/L	1.0		03/22/16 6:54 PM	Container-01 of 03
Surr. 1,2-Dichloroethane-d4	98.2		1	%Rec		Limit 51-156	03/22/16 6:54 PM	Container-01 of 03
Surr: 4-Bromofluorobenzene	98.4		1	%Rec		Limit 40-150	03/22/16 6:54 PM	Container-01 of 03
Surr: Toluene-d8	99.6		1	%Rec		Limit 61-156	03/22/16 6 54 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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limits

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported ;

3/28/2016

Cathlin Panzarella

Project Manager: Caitlin Panzarella

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 54





575 Broad Hollow Road , Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacalabs.com

AT06443

Pace Analytical Services Inc.

2190 Technology Drive Schenectady, NY 12308

Attn To: William A. Kotas
Collected: 3/21/2016

Received : 3/22/2016 10:30:00 AM

Collected By: CLIENT

LABORATORY RESULTS

Results are only 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 tests requested.

Lab No. : 1603G89-007 Client Sample ID: TRIP BLANK Sample Information:

Type: Aqueous

Origin:

Analytical Method: E624:							Analyst: MF
Parameter(s)	Results	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	POL	Analyzed:	Container:
1,1,1-Trichloroethane	< 1.0		1	μg/L	1.0	03/22/16 5:53 PM	Container-01 of 0
1,1,2,2-Tetrachloroethane	< 1.0	M+	1	µg/L	1.0	03/22/16 5:53 PM	Container-01 of 0
1,1,2-Trichloroethane	< 1.0		1	μg/L	1.0	03/22/16 5:53 PM	Container-01 of
I,1-Dichloroethane	< 1.0		1	μg/L	1.0	03/22/16 5:53 PM	Container-01 of
,1-Dichloroethene	< 1.0		1	μg/L	1.0	03/22/16 5:53 PM	Container-01 of
,2-Dichlorobenzene	< 1.0		1	µg/L	1.0	03/22/16 5:53 PM	Container-01 of
1,2-Dichloroethane	< 1.0		1	µg/L	1.0	03/22/16 5:53 PM	Container-01 of
1,2-Dichloropropane	< 1.0		1	μg/L	1.0	03/22/16 5:53 PM	Container-01 of
1,3-Dichlorobenzene	< 1.0		1	µg/L	1.0	03/22/16 5:53 PM	Container-01 of
1,4-Dichlorobenzene	< 1.0		1	μg/L	1.0	03/22/16 5:53 PM	Container-01 of
2-Chloroethylvinyl ether	< 1.0	s	1	μg/L	1.0	03/22/16 5:53 PM	Container-01 of
Benzene	< 1.0		1	μg/L	1.0	03/22/16 5:53 PM	Container-01 of
Bromodichloromethane	< 1.0		1	µg/L	1.0	03/22/16 5:53 PM	Container-01 of
Bromoform	< 1.0		1	µg/L	1.0	03/22/16 5:53 PM	Container-01 of
3romomethane	< 1.0		1	μg/L	1.0	03/22/16 5:53 PM	Container-01 of
Carbon tetrachloride	< 1.0	M+	1	μg/L	1.0	03/22/16 5:53 PM	Container-01 of
Chlorobenzene	< 1.0		1	µg/L	1.0	03/22/16 5:53 PM	Container-01 of
Chloroethane	< 1.0		1	μg/L	1.0	03/22/16 5:53 PM	Container-01 of
Chloroform	< 1.0		1	µg/L	1.0	03/22/16 5:53 PM	Container-01 of
Chloromethane	< 1.0		1	µg/L	1.0	03/22/16 5:53 PM	Container-01 of
cis-1,2-Dichloroethene	< 1.0		1	µg/L	1.0	03/22/16 5:53 PM	Container-01 of
cis-1,3-Dichloropropene	< 1.0		1	μg/L	1.0	03/22/16 5:53 PM	Container-01 of
Dibromochloromethane	< 1.0		1	µg/L	1.0	03/22/16 5:53 PM	Container-01 of
Dichlorodifluoromethane	< 1.0		1	µg/L	1.0	03/22/16 5:53 PM	Container-01 of
Ethylbenzene	< 1.0		1	μg/L	1.0	03/22/16 5:53 PM	Container-01 of
Methylene chlorida	< 1.0		1	μg/L	1.0	03/22/16 5:53 PM	Container-01 of
Tetrachloroethene	< 1.0	M+	1	µg/L	1.0	03/22/16 5:53 PM	Container-01 o
Toluene	< 1.0	M+	1	μg/L	1.0	03/22/16 5:53 PM	Container-01 o
trans-1,2-Dichloroethene	< 1.0		1	μg/L	1.0	03/22/16 5:53 PM	Container-01 o
trans-1,3-Dichloropropene	< 1.0		1	μg/L	1.0	03/22/16 5:53 PM	Container-01 o
Trichloroethene	< 1.0		1	μg/L	1.0	03/22/16 5:53 PM	Container-01 o
Trichlorofluoromethane	< 1.0		1	µg/L	1.0	03/22/16 5:53 PM	Container-01 o
Vinyl chloride	< 1.0		1	µg/L	1.0	03/22/16 5:53 PM	Container-01 c

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limits

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

3/28/2016

Project Manager : Caitlin Panzarella

Cathlin Panzarella

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.



575 Broad Hollow Road , Melville, NY 11747 TEL: (631) 694-3040 FAX: (631) 420-8436 NYSDOH ID#10478 www.nacelahs.com

AT06443

Pace Analytical Services Inc.

2190 Technology Drive Schenectady, NY 12308

William A. Kotas Attn To: Collected : 3/21/2016

Received : 3/22/2016 10:30:00 AM

Collected By: CLIENT

LABORATORY RESULTS

Results are only for the samples and analytes requested. The tab is not directly responsible for the integrity of the sample before receipt at the tab and is responsible only for the tests requested.

Lab No. : 1603G89-007

Client Sample ID: TRIP BLANK

Sample Information:

Type: Aqueous

Origin:

Analytical Method: E624:								Analyst: MF
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	PQL		Analyzed:	Container:
Xylene (total)	< 1.0	M+	1	µg/L	1.0		03/22/16 5:53 PM	Container-01 of 02
Surr. 1,2-Dichloroethane-d4	99.2		1	%Rec		Limit 51-156	03/22/16 5:53 PM	Container-01 of 02
Surr: 4-Bromofluorobenzene	100		1	%Rec		Limit 40-150	03/22/16 5:53 PM	Container-01 of 02
Surr. Toluene-d8	98.9		1	%Rec		Limit 61-156	03/22/16 5:53 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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limits

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported

3/28/2016

Cathlin Panzarella

Project Manager: Caitlin Panzarella

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 17 of 54

16030418 - Page 82 of 127

Quality Control Samples (Field)

Pace Analytical Services, Inc. April 01, 2016 16030418 - Page 45 of 127





Quality Control Results Duplicate Sample

Job Number: 16030418

Pace Analytical Services, Inc. 2190 Technology Drive Schenectady, NY 12308 Phone: 518 346 4592

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: CLF QUARTERLY Client Sample ID: MW-2 DUP

Lab Sample ID: 16030418-02D (AT06438D)

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

	Batch ID	Method	Date	Analyst	Init Wt./Vol. Fi	nal Vol.	(Columi	1
Analysis 1:	124	EPA 180.1	03/22/2016 11:20	JS	NA	NA		NA	
Analyte		CAS No.	Result (NTU)	PQL	Dilution Factor	Flags	File	ID	
Turbidity		NA	10	1.0	1.00		124		
			Specific peaks the all the series and a series at				Prec	ision	
Analyte		CAS No.	Dup!	licate (U)		Sample (NTU)	RPD	Q¹	Limits (%)
Turbidity	<u> </u>	NA NA	10			9.88	1.67		20

¹Qualifier column where 'e' 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 Matrix Spike Sample (MS)

Job Number: 16030418

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: CLF QUARTERLY
Client Sample ID: MW-2 MS

Lab Sample ID: 16030418-02M (AT06438M)

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

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	179	SW-846 7196A	03/21/2016 15:47	JS	NA	NA	NA NA
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Fact	or Flags	File ID
Hexavalent (Chromium	18540-29-9	0.221	0.0400	1.06		179

Analyte Spiked	CAS No.	Sample (mg/L)	Added (mg/L)	MS (mg/L)	MS % Rec.	\mathbf{Q}^{1}	Limits (%)	
Hexavalent Chromium	18540-29-9		0.213	0.221	104		85.0-115	

¹Qualifier column where 'e' 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 Matrix Spike Duplicate (MSD)

Job Number: 16030418

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: CLF QUARTERLY Client Sample ID: MW-2 MSD

Lab Sample ID: 16030418-02K (AT06438K)

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

	Batch ID	Method		Dat	te	Analyst	Init	:Wt./V	ol. Fin	al Vol.	(Colum	n
Analysis 1:	179	SW-846 7196A		03/21/2016	5 15:48	JS	_	NA		NA		NA	
Analyte		CAS No.	Re	sult (mg/L	4)	PQL	Dil	ution	Factor	Flags	File	ID	
Hexavalent	Chromium	18540-29-9		0.222		0.0400		1.06			179		
			ta-position		and the same of						Prec	ision	
Analyte S	piked	CAS No.	Sample (mg/L)	Added (mg/L)	MS (mg/l		SD Rec.	Q ¹	Limits (%)	MS % Rec.	RPD	\mathbf{Q}^{1}	Limits (%)
Hexavalent C	•	18540-29-9		0.213	0.222]	.04		85.0-115	104	0.324		20

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 Samples (Lab)

Pace Analytical Services, Inc. April 01, 2016 16030418 - Page 49 of 127



Quality Control Results Method Blank

Job Number: 16030418

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: CLF QUARTERLY

Client Sample ID: Method Blank (AT06071B)

Lab Sample ID: BLANK-01

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

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column	
Analysis 1:	874	SM 5310B	03/25/2016 17:29	JS	NA	NA	NA	
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Facto	r Flags	File ID	a. 76
Total Organ	ic Carbon	OC002	ND	0.500	1.00	U	874	

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





Quality Control Results Lab Control Sample (LCS)

Job Number: 16030418

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: CLF QUARTERLY

Client Sample ID: Lab Control Sample (AT06071L)

Lab Sample ID: LCS-01

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

1	Ba	ch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
l	Analysis 1: 874		SM 5310B	03/25/2016 17:42	JS	NA	NA	NA NA

Analyte Spiked	CAS No.	Added (mg/L)	LCS (mg/L)	LCS % Rec.	\mathbf{Q}^{L}	Limits (%)	
Total Organic Carbon	OC002	10.0	9.66	96.6		80.0-120	

Qualifier column where 'e' 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: 16030418

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: CLF QUARTERLY

Client Sample ID: Method Blank (AT06438B)

Lab Sample ID: BLANK-64

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

	Batch ID	Method	Date	Analyst	Init Wt./Vol. F	inal Vol.	Column
Analysis 1:	179	SW-846 7196A	03/21/2016 15:45	JS	NA	NA	NA
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Factor	Flags	File ID
Hexavalent (Chromium	18540-29-9	ND	0.0400	1.00	U	179

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





Quality Control Results Lab Control Sample (LCS)

Job Number: 16030418

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: CLF QUARTERLY

Client Sample ID: Lab Control Sample (AT06438L)

Lab Sample ID: LCS-64

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

İ		Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Į	Analysis 1:	179	SW-846 7196A	03/21/2016 15:46	JS	NA	NA	NA .

		Added	LCS	LCS	1	Limits	
Analyte Spiked	CAS No.	(mg/L)	(mg/L)	% Rec.	Q ·	(%)	
Hexavalent Chromium	18540-29-9	0.200	0.205	103		90.0-110	

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

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





Quality Control Results Method Blank

Job Number: 16030418

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: CLF QUARTERLY

Client Sample ID: Method Blank (AT06438B)

Lab Sample ID: BLANK-16

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

	Batch ID	Method	Date	Analyst	Init Wt./Vol. F	inal Vol.	Column
Analysis 1:	598	BOD - SM 5210B	03/23/2016 10:59	KM	NA	NA	NA
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Factor	Flags	File ID
	xygen Deman	NA NA	ND	0.200	1.00	U	598

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





Job Number: 16030418

2190 Technology Drive Schenectady, NY 12308 Phone: 518.346.4592

Pace Analytical Services, Inc.

Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: CLF QUARTERLY

Client Sample ID: Lab Control Sample (AT06438L)

Pace Analytical®

Lab Sample ID: LCS-16

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

Percent Solid: N/A

	Batch		Date	Analyst	Init Wt./Vol.	Final Vol.	Column
1	Analysis 1: 598	BOD SM5210B	03/23/2016 11:04	KM	NA	NA	NA NA

Analyte Spiked	CAS No.	Added (mg/L)	LCS (mg/L)	LCS % Rec.	Q¹	Limits (%)	
Biochemical Oxygen Demand	NA	198	182	92.1		84.6-115	

¹Qualifier column where 'a' 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: 16030418

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: CLF QUARTERLY

Client Sample ID: Method Blank (AT06438B)

Lab Sample ID: BLANK-44

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

	Batch ID	Method	Date	Analyst	Init_Wt./Vol. F	inal Vol.	Column
Analysis 1:	450	Nitrate - 353.2	03/22/2016 16:23	JS	NA	NA	NA NA
Analyte	535	CAS No.	Result (mg/L)	PQL	Dilution Factor	Flags	File ID
Nitrate		NA	ND	0,165	1.00	U	450

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





Quality Control Results Lab Control Sample (LCS)

Job Number: 16030418

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

Client: BARTON AND LOGUIDICE

Project: CLF QUARTERLY

Client Sample ID: Lab Control Sample (AT06438L)

Lab Sample ID: LCS-44

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

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	450	Nitrate - 353.2	03/22/2016 16:25	JS	NA	NA	NA

Analyte Spiked	CAS No.	Added (mg/L)	LCS (mg/L)	LCS % Rec.	Limits Q (%)	
Nitrate	NA	4.00	4.13	103	90.0-110	

¹Qualifier column where 'e' 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.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:

Pace Analytical Services - NY

Project: Sample Matrix: 16030418 Water

Sample Name: Lab Code: Method Blank R1602741-MB Service Request: R1602741

Date Collected: NA
Date Received: NA

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor		Date Analyzed	Note
Phenolics, Total Recoverable	420.4	0.0020 U	mg/L	0.0020	1	NA	3/29/16 10:30	

Form 1A

16-0000370130 rev 00

SuperSet Reference:



QC SUMMARY REPORT

O#: 1603G89

28-Mar-16

Client: Project: Pace Analytical Services Inc.

16030418 B&L CLF Q4

BatchID:

55048

Sample ID: MB-55048	SampType: MBLK	TestCode: 200.7_I	ADL Units: ug/L		Prep Date	o: 3/23/20	16	RunNo: 943	198	
Client ID: PBW	Batch ID: 55048	TestNo: E200.7	E200.7		Analysis Dat	e: 3/24/20	16	SeqNo: 204	15570	
Analyte	Result	PQL SPK vale	ue SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	< 200	200	-							
Antimony	< 60.0	60.0								
Arsenic	< 10.0	10.0								
Barium	< 200	200								
Beryllium	< 5.00	5.00								
Cadmium	< 5.00	5.00								
Calcium	< 5,000	5,000								
Chromium	< 10.0	10.0								
Cobalt	< 50.0	50.0								
Copper	< 25.0	25.0								
fron	< 100	100								
Lead	< 3.00	3.00								
Magnesium	< 5,000	5,000								
Manganese	0.700	15.0								J
Nickel	< 40.0	40.0								
Potassium	< 5,000	5,000								
Selenium	< 5.00	5.00								
Silver	< 10.0	10.0								
Sodium	< 5,000	5,000								
Thallium	< 10.0	10.0								
Zinc	< 20.0	20.0								

Qualifiers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSDlimit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response
- P Second column confirmation exceeds
- W Sample container temperature is out of limit as specified at t
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

Page 18 of 54

Pace Analytical Services, Inc.

April 01, 2016

16030418 - Page 83 of 12



QC SUMMARY REPORT

WO#:

1603G89 28-Mar-16

Client: Project: Pace Analytical Services Inc.

16030418 B&L CLF Q4

BatchID:

55048

Sample ID: LCS-55048	SampType: LCS	TestCod	e: 200.7_MDL	Units: ug/L		Preo Dal	a: 3/23/20	16	RunNo: 943	198	
1			o: E200.7	E200.7		Analysis Dat			SeqNo: 204		
Client ID: LCSW	Batch ID: 55048	1 6507	Q. E290.7	2200.7		reiniyan ba			coditor as-		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDUmit	Qual
Aluminum	51,300	200	50,000	0	103	85	115				
Antimony	1,010	60.0	1,000	0	101	85	115				
Arsenic	533	10.0	500.0	0	107	85	115				
Barlum	2,510	200	2,500	0	100	85	115				
Beryllium	2,540	5.00	2,500	0	102	85	115				
Cadmium	2,490	5.00	2,500	0	99.8	85	115				
Calcium	50,800	5,000	50,000	0	102	85	115	-			
Chromium	2,510	10.0	2,500	0	100	85	115				
Cobalt	2,500	50.0	2,500	0	99.9	85	115				
Copper	2,500	25.0	2,500	0	100	85	115				
Iron	49,600	100	50,000	0	99.1	85	115				
Lead	525	3.00	500.0	0	105	85	115				
Magnesium	49,900	5,000	50,000	0	99.8	85	115				
Manganese	2,540	15.0	2,500	0	102	85	115				
Nickel	2,480	40.0	2,500	0	99.2	85	115				
Potassium	83,000	5,000	80,000	0	104	85	115				
Selenium	533	5.00	500.0	0	107	85	115				
Silver	1,060	10.0	1,000	0	106	85	115				
Sodium	82,300	5,000	80,000	0	103	85	115				
Thallium	508	10.0	500.0	0	102	85	115				
Zinc	2,560	20.0	2,500	0	102	85	115				

Qualifiers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSD limit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response
- P Second column confirmation exceeds
- V Sample container temperature is out of limit as specified at t
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

Page 19 of 54

Pace Analytical Services, Inc.

April 01, 2016

16030418 - Page 84 of 127



QC SUMMARY REPORT

WO#:

1603G89

28-Mar-16

Client: Project: Pace Analytical Services Inc.

16030418 B&L CLF Q4

BatchID:

55048

Sample ID: 1603G89-002EDUP	SampType: DUP	TestCoo	de: 200.7_MDL	. Units: ug/L		Prep Da	te: 3/23/20	16	RunNo: 943	398	
Client ID: MW-2	Batch ID: 55048	Testl	lo: E200.7	E200.7		Analysis Da	te: 3/24/20	16	SeqNo: 204	15580	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	104	200			-			120.7	15.1	20	J
Antimony	< 60.0	60.0						0	0	20	
Arsenic	< 10.0	10.0						0	O	20	
Barium	16.2	200						16.80	3.64	20	J
Beryllium	< 5.00	5.00						0	0	20	
Cadmium	< 5.00	5.00						0	0	20	
Calcium	100,000	5,000						104,600	4.10	20	
Chromium	< 10.0	10.0						2.000	200	20	R
Cobalt	< 50.0	50.0						0	0	20	
Copper	< 25.0	25.0						0	0	20	
Iron	193	100						234.1	19.3	20	
Lead	< 3.00	3.00						2.221	200	20	R
Magnesium	13,500	5,000						13,970	3.64	20	
Manganese	20.0	15.0						20.70	3.44	20	
Nickel	< 40.0	40.0						0	0	20	
Potassium	< 5,000	5,000						0	0	20	
Selenium	< 5.00	5.00						0	0	20	
Silver	< 10.0	10.0						0	0	20	
Sodlum	2,480	5,000						2,317	6.72	20	J
Thellium	< 10.0	10.0						0	0	20	
Zinc	1.60	20.0						1.900	17.1	20	J

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSD limit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response
- P Second column confirmation exceeds
- W Sample container temperature is out of limit as specified at t
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

Page 20 of 54

Pace Analytical Services, Inc.

April 01, 2016

16030418 - Page 85 of 127



QC SUMMARY REPORT

O#: 1603G89

28-Mar-16

Client: Project: Pace Analytical Services Inc.

16030418 B&L CLF Q4

BatchID:

55048

Sample ID: 1603G89-002EMS	SampType: MS	TestCod	le: 200.7_MDL	Units: ug/L		Prep Dat	e: 3/23/20	16	RunNo: 943	398	
Client ID: MW-2	Batch ID: 55048	TestN	lo: E200.7	E200.7		Analysis Dat	ie: 3/24/20	16	SeqNc 204	15581	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2,020	200	2,000	120.7	94.8	70	130				
Antimony	489	60.0	500.0	0	97.8	70	130				
Arsenic	91.0	10.0	40,00	0	227	70	130				S
Barlum	2,290	200	2,000	16.80	114	70	130				
Beryllium	46.8	5.00	50.00	0	93.6	70	130				
Cadmium	49.6	5.00	50.00	0	99.2	70	130				
Chromlum	197	10.0	200.0	2.000	97.3	70	130				
Cobalt	488	50.0	500.0	0	97.7	70	130				
Copper	254	25.0	250.0	0	102	70	130				
Iron	19,300	100	1,000	234.1	1,900	70	130				\$
Lead	25.4	3.00	20.00	2.221	116	70	130				
Manganese	532	15.0	500.0	20.70	102	70	130				
Nickel	509	40.0	500.0	0	102	70	130				
Selenium	7.11	5.00	10.00	0	71.1	70	130				
Silver	52.3	10.0	50.00	0	105	70	130				
Thallium	47.B	10.0	50.00	0	95.6	70	130				
Zinc	509	20.0	500.0	1.900	101	70	130				

Sample ID: 1803G89-004EDUP Client ID: MW-5	SampType: DUP Batch ID: \$5648		le: 200.7_MDL lo: E200.7	Units: ug/L E200.7	-	Prep Da Analysis Da	te: 3/23/20 te: 3/24/20		RunNo: 943 SeqNo: 204	-	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	< 200	200						0	0	20	
Antimony	< 60.0	60.0						0	0	20	
Arsenic	52.0	10.0						52.05	0.0769	20	

Qualifiers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSDlimit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response
- P Second column confirmation exceeds
- W Sample container temperature is out of limit as specified at t
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
 R RPD outside accepted recovery limits
 - Page 21 of 54

Pace Analytical Services, Inc.

April 01, 2016

16030418 - Page 86 of 127



QC SUMMARY REPORT

1603G89

28-Mar-16

Client: Project: Pace Analytical Services Inc.

16030418 B&L CLF Q4

BatchID:

55048

Sample ID: 1603G89-004EDUP	SampType: DUP	TestCode: 200.7_MDL	Units: ug/L		Prep Date:	3/23/2016	RunNo: 94	398	
Client ID: MW-5	Batch ID: 55048	TestNo: E200.7	E200.7		Analysis Date:	3/24/2016	SeqNo: 20	45590	
Analyte	Result	PQL SPK value S	PK Ref Val	%REC	LowLimit His	ghLimit RPD Ref	Val %RPD	RPDLimit	Qual
Barlum	361	200				35	2.5 2.24	20	
Beryllium	< 5.00	5.00					0 0	20	
Cadmium	0.900	5.00				1.0	10.5	20	J
Calcium	180,000	5,000				176,7	700 2.02	20	
Chromium	< 10.0	10.0					0 0	20	
Cobalt	5.50	50.0				5.3	300 3.70	20	J
Copper	10.4	25.0				9.7	700 6.97	20	J
Iron	18,700	100				18,3	380 1.51	20	
Lead	4.62	3.00				4.9	339 6.63	20	
Magnesium	104,000	5,000				102,	100 2.23	20	
Manganese	44.9	15.0				44	.30 1.35	20	
Nickel	21.5	40.0				22	.00 0.913	20	J
Potassium	1,530	5,000				1,4	\$80 3.00	20	J
Selenium	< 5.00	5.00					0 0	20	
Silver	< 10.0	10.0				1.9	929 200	20	R
Sodium	78,700	5,000				74,	470 5.49	20	
Thallium	< 10.0	10.0					0 0	20	
Zinc	4.20	20.0				3.	900 7.41	20	J
Sample ID: 1603G89-004EMS	SampType: MS	TestCode: 200.7_MDL	Units: ug/L	==	Prep Date:	3/23/2018	RunNo: 94	1398	
Client ID: MW-5	Batch ID: 55048	TestNo: E200.7	E200.7		Analysis Date:		SagNa: 2	145591	

Client ID:	MW-5	Batch ID: 55048	Testh	io: E200.7	E200.7		Analysis Da	le: 3/24/20	16	SeqNa: 204	15591	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum		2,190	200	2,000	0	109	70	130				
Antimony		482	60.0	500.0	0	96.3	70	130				

Qualifiera:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSDlimit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- Manual Integration used to determine area response M
- Second column confirmation exceeds W Sample container temperature is out of limit as specified at t
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

Page 22 of 54



QC SUMMARY REPORT

VO#:

1603G89

28-Mar-16

Client: Project: Pace Analytical Services Inc.

16030418 B&L CLF Q4

BatchID:

55048

Sample ID: 1603G89-004EMS	SampType: MS		de: 200.7_MDL	_		Prep Dat	e: 3/23/20		RunNo: 943 SeqNo: 204		
Client ID: MW-5	Batch ID: 55048	I estr	No: E200.7	E200.7		Alaysis Do	. 312412V	10	Jedin Pr	10001	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	40.4	10.0	40.00	52.05	•29.0	70	130				s
Barium	2,010	200	2,000	352.5	83.1	70	130				
Beryllium	48.9	5.00	50.00	0	97.8	70	130				
Cadmlum	51.0	5.00	50.00	1.000	100	70	130				
Chromium	204	10.0	200.0	0	102	70	130				
Cobalt	503	50.0	500.0	5.300	99.6	70	130				
Copper	259	25.0	250.0	9.700	99.6	70	130				
Iron	1,160	100	1,000	16,380	-1,720	70	130				S
Lead	24.2	3.00	20.00	4.939	96.4	70	130				
Manganese	532	15.0	500.0	44.30	97.6	70	130				
Nickel	512	40.0	500.0	22.00	97.9	70	130				
Selenium	6.42	5.00	10.00	0	64.2	70	130				S
Silver	51.1	10.0	50.00	1.929	98.2	70	130				
Thalium	53.4	10.0	50.00	0	107	70	130				
Zinc	517	20 0	500.0	3.900	103	70	130				

Qualifiers:

Value exceeds Maximum Contaminant Level

H Holding times for preparation or analysis exceeded

O RSD is greater than RSD limit

S Spike Recovery outside accepted recovery limits

D Dilution was required.

M Manual Integration used to determine area response

P Second column confirmation exceeds

W Sample container temperature is out of limit as specified at t

E Value above quantitation range

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

Page 23 of 54

Pace Analytical Services, Inc.

April 01, 2016

16030418 - Page 88 of 127



QC SUMMARY REPORT

VO#:

1603G89

28-Mar-16

Client: Project: Pace Analytical Services Inc.

16030418 B&L CLF Q4

BatchID:

55084

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Que	Sample ID: MB-55084 Client ID: PBW	SampType: MBLK Batch ID: 55984			500 Units: µg/L N E 8M4500-CN E		Prep Date: Analysis Date:		RunNo: 94: SeqNo: 29-		
	Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit H	lighLimit RPD Ref Val	%RPD	RPDLImit	Qual

Cyanide < 10 10

Sample ID: 1603I83-001AMS Client ID: ZZZZZZ	SampType: MS Balch ID: 55084			500 Units: µg/L N E SM4500-CN E		Prep De Analysis Da	te: 3/24/20		RunNo: 943 SeqNo: 204	-	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	95	10	100.0	0	94.7	75	125				

Sample ID: 1603I83-001ADUP	SampType: DUP	TestCod	ie: cn_w sm4	500 Units: µg/L		Prep Da	te: 3/24/20	16	RunNo: 943	172	
Client ID: ZZZZZZ	Batch ID: 55084	Testi	lo: SM4500-C	NE SM4500-CNE		Analysis Da	te: 3/24/20	16	SeqNo: 204	14624	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanida	< 10	10						0	0	20	

Qualifiers:

Value exceeds Maximum Contaminant Level

H Holding times for preparation or analysis exceeded

O RSD is greater than RSDlimit

S Spike Recovery outside accepted recovery limits

D Dilution was required.

M Manual Integration used to determine area response

P Second column confirmation exceeds

W Sample container temperature is out of limit as specified at t

E Value above quantitation range

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

Page 24 of 54



QC SUMMARY REPORT

VO#:

1603G89

28-Mar-16

Client:

Pace Analytical Services Inc.

16030418 B&L CLF Q4

BatchID:

55092

Project:	16030418 B	&L CLF Q4		BatchiD: 53	5092
	MB-55092 PBW	SampType: MBLK Batch ID: 55092	TestCode: HG_7470A_M Units: ug/L TestNo: SW7470 SW7470	Prep Date: 3/25/2016 Analysis Date: 3/25/2016	RunNo: 94394 SeqNo: 2045246
Analyte		Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Mercury		< 0.200	0.200	01	
Sample ID:	LCS-55092	SampType: LCS	TestCode: HG_7470A_M Units: ug/L	Prep Date: 3/25/2016	RunNo: 94394
Client ID:	LCSW	Batch ID: 55092	TestNo: SW7470 SW7470	Analysis Date: 3/25/2016	SeqNc: 2045247
Analyte		Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Mercury		0.962	0.200 1.000 0	96.2 80 120	
Sample ID:	1603G89-002EDUP	SampType: DUP	TestCode: HG_7470A_M Units: ug/L	Prep Date: 3/25/2018	RunNo: 94394
Client ID:	MW-2	Batch ID: 55092	TestNo: SW7470 SW7470	Analysis Date: 3/25/2016	SeqNa: 2045249
Analyte		Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLImit Qual
Mercury		< 0.200	0.200	0	0 20
Sample ID	: 1603G89-002EMS	SampType: MS	TestCode: HG_7470A_M Units: ug/L	Prep Date: 3/25/2018	RunNo: 94394
Client ID:	MW-2	Batch ID: 55092	TestNo: SW7470 SW7470	Analysis Date: 3/25/2016	SeqNo: 2045250
Analyte		Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual

Qualiflers:

Mercury

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded

1.16

0.200

- O RSD is greater than RSD limit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.

1.000

M Manual Integration used to determine area response

0

116

75

125

- P Second column confirmation exceeds
- / Sample container temperature is out of limit as specified at t
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

Page 25 of 54

Pace Analytical Services, Inc.

April 01, 2016

16030418 - Page 90 of 127



QC SUMMARY REPORT

VO#:

1603G89

28-Mar-16

Chent:
Project

Pace Analytical Services Inc.

16030418 B&L CLF Q4

BatchID:

55096

Sample ID: MS-55098	SampType: MBLK	TestCode: tkn_w	Units: mg/L	RunNo: 94434	
Client ID: PBW	Batch ID: 55096	TestNo: E351.2	E351.2	Analysis Date: 3/25/2016	SeqNo: 2046044
Analyte	Result	PQL SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLImit Qual
Nitrogen, Kjeldahl, Total	< 0.10	0.10			
Sample ID: LCS-55096	SampType: LCS	TestCode: tkn_w	Units: mg/L	Prep Date: 3/25/2016	RunNo: 94434
13.		_	E351.2	,	SeqNo: 2048045
Client ID: LCSW	Batch ID: 55098	TestNo: E351.2	E351.2	Analysis Date: 3/25/2018	364110. 2010013
Analyle	Resuit	PQL SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Nitrogen, Kjeldahi, Total	3.70	0.10 4.00	0	92.4 90 110	
Sample ID: 1803D21-002BDUP	SampType: DUP	TestCode: TKN_W	Units; mg/L	Prep Date: 3/25/2016	RunNo: 94434
Client ID: ZZZZZZ	Batch ID: 55096	TestNo: E351.2	E351.2	Analysis Date: 3/25/2016	SeqNo: 2046049
Analyte	Result	PQL SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual

Sample ID: 1603D21-002BM5	SampType: MS	TestCode: TKN_W	Units: mg/L	Prep Date: 3/25/2016	RunNo: 94434
Client ID: ZZZZZZ	Batch ID: 55096	TestNo: E351.2	E351.2	Analysis Date: 3/25/2016	SeqNo: 2046050
Analyte	Result	PQL SPK valu	e SPK Ref Val	%REC LowLimit HighLimit RPD Ref	Val %RPD RPDLimit Qual
Nitrogen, Kjeldahl, Total	4.47	0.50 4.0	0 1.12	83.8 90 110	DS

Qualiflers:

Nitrogen, Kjeldahl, Total

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded

1.12

0.10

- O RSD is greater than RSDlimit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response
- P Second column confirmation exceeds
- W Sample container temperature is out of limit as specified at t
- E Value above quantitation range ND Not Detected at the Reporting Limit

1.12

0.09

20

R RPD outside accepted recovery limits

Page 26 of 54

Pace Analytical Services, Inc.

April 01, 2016

16030418 - Page 91 of 127



QC SUMMARY REPORT

55096

WO#: 1603G89

28-Mar-16

Client: Project: Pace Analytical Services Inc.

16030418 B&L CLF Q4

BatchID:

Sample ID: 1603D29-002BDUP	SampType: DUP	TestCode: TKN_W		Units: mg/L		Prep Da	te: 3/25/20	16	RunNo: 944		
Client ID: ZZZZZZ	Batch ID: 55096	TestN	stNo: E351.2 E351.2 Analysis Date: 3/25/2016		16	SeqNo: 2046066					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLImit	Qual
Nitrogen, Kjeldahl, Total	36.0	1.00						36.80	2.25	20	D

Sample ID: 1603D29-002BMS	SampType: MS	TestCode: TKN_W		Units: mg/L	Prep Date: 3/25/2016			16	RunNo: 94434		
Client ID: ZZZZZZ	Batch ID: 55096	TestN	a: E351.2	E351.2	Analysis Date: 3/25/2016			SeqNo: 2048067			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLImit	Qual
Nitrogen, Kjeldahl, Total	42.0	1.00	4.00	36.60	129	90	110				DS

Sample ID: MB-55096	SampType: MBLK	TestCode: tkn_w TestNo: E351.2	Units: mg/L	Prep Date: 3/25/2016	RunNo: 94434
Client ID: PBW	Batch ID: 55096		E351.2	Analysis Date: 3/25/2016	SeqNo: 2946074
Analyte	Result	PQL SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual

Nitrogen, Kjeldahl, Total < 0.10 0.10

Sample ID: LCS-55096 Client ID: LCSW	SampType: LCS Batch ID: 55096	TestCode: tkn_w TestNo: E351.2		Units: mg/L E351.2		Prep Date: 3/25/2016 Analysis Date: 3/25/2016			RunNo: 94434 SeqNo: 2046075		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	4.20	0.10	4.00	0	105	90	110				

Qualifiers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSDlimit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response
- P Second column confirmation exceeds
- W Sample container temperature is out of limit as specified at t
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

Page 27 of 54

Pace Analytical Services, Inc.

April 01, 2016

16030418 - Page 92 of 127



QC SUMMARY REPORT

WO#:

1603G89

28-Mar-16

Client: Project: Pace Analytical Services Inc.

16030418 B&L CLF Q4

BatchID:

55096

Sample (D: 1503C65-001BDUP Client ID: ZZZZZZ	SampType: DUP Batch ID: 55096	TestCode: TKN_V TestNo: E351.2	_	Prep Date: 3/25/2016 Analysis Date: 3/25/2016			RunNo: 944 SeqNo: 204			
Analyte	Result	PQL SPK val	ue SPK Ref Val	%REC LowUm	t HighLimit R	PD Ref Val	%RPD	RPDUmit	Qual	
Nitrogen, Kjaldahl, Total	< 0.10	0.10				0	0	20		
Sample ID: 1603C86-001BMS	SampType: MS	TestCode: TKN_V	/ Units: mg/L	Prep (Prep Date: 3/25/2016			RunNo: 94434		
Client ID: ZZZZZZ	Batch ID: 55096	TestNo: E351.2	E351.2	Analysis	Date: 3/25/2016		SeqNo: 2046082			
				week to the		PD Ref Val	%RPD	RPDLImit	Qual	
Analyte	Result	PQL SPK val	ue SPK Ref Val	%REC LowLim	t HighLimit R	CPD Rei Vai	ARED	IXI DERIIK	200	
Analyte Nitrogen, Kjeldahl, Total	Result 3.75		ue SPK Ref Val	93.9 9		CP Rai Vai	MARIE	Kr Deank	Đ	

Sample ID: 1603D40-002CDUP	SampType: DUP	TestCode: TKN_W		Units: mg/L		Prep Dat	ia: 3/25/20	16	RunNo: 944		
Client ID: ZZZZZZ	Batch ID: 55096	TestN	estNo. E351.2 E351.2		Analysis Date: 3/25/2016			SeqNo: 2046091			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	384	0.50						382.9	0.29	20	E

Sample ID: 1803D40-002CMS Client ID: ZZZZZZ	SampType: MS Batch ID: 55096			Units: mg/L E351.2	Prep Date: 3/25/2016 Analysis Date: 3/25/2016			RunNo: 94434 SeqNo: 2046094			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLlmit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahi, Total	667	2.50	20.00	382.9	1,420	90	110				DES

Qualifiers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSDlimit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response
- P Second column confirmation exceeds
- $W = \mbox{Sample container temperature is out of limit as specified at <math display="inline">t$
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

Page 28 of 54

Pace Analytical Services, Inc.

April 01, 2016

16030418 - Page 93 of 12



QC SUMMARY REPORT

WO#:

1603G89

28-Mar-16

Client: Project: Pace Analytical Services Inc.

16030418 B&L CLF Q4

BatchID:

55096

Sample ID: 1603D40-002CDUP Client ID: ZZZZZZ	SampType: DUP Batch ID: 55096	TestCode: TKN_W Units: mg/L TestNo: E351.2 E351.2			Prep Date: 3/25/2016 Analysis Date: 3/25/2016				RunNo: 94434 SeqNo: 2046110		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLImit	Qual
Nitrogen, Kjeldahi, Total	421	50.0				Na.	•	382.9	9.54	20	D

				- 1	-						
Sample ID: 1603D40-002CMS	SampType: MS	TestCode: TKN_W		Units: mg/L	Prep Date: 3/25/2016			16	RunNo: 94434		
Client ID: ZZZZZZ	Batch 1D: 55096	TestNo: E351.2 E351.2		Analysis Date: 3/25/2016			SeqNo: 204	8111			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLImit	Qual
Nitrogen, Kleidahl, Total	454	50.0	20.00	382.9	357	90	110				DS

Qualifiers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSDlimit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response
- P Second column confirmation exceeds
- W Sample container temperature is out of limit as specified at t

E Value above quantitation range

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

Page 29 of 54

Pace Analytical Services, Inc.

April 01, 2016

16030418 - Page 94 of 127



QC SUMMARY REPORT

WO#:

1603G89

28-Mar-16

Client: Project: Pace Analytical Services Inc.

16030418 B&L CLF Q4

BatchID:

R94228

Sample ID: VBLK032216	SampType: MBLK	TestCod	e: 624_W	Units: µg/L	• •				RunNo: 942	20	
Client ID: PBW	Batch ID: R94228	TestN	o: E624			Analysis Da	te: 3/22/20	16	SeqNa: 204	11091	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloromethane	< 1.0	1,0									
Vinyl chloride	< 1.0	1.0									
Bromomethane	< 1.0	1.0									
Chloroethane	< 1.0	1.0									
Dichlorodifluoromethane	< 1.0	1.0									
Trichlorofluoromethane	< 1.0	1.0									
1,1-Dichloroethene	< 1.0	1.0									
cis-1,2-Dichloroethene	< 1.0	1.0									
Methylene chloride	< 1.0	1.0									
trans-1,2-Dichloroethene	< 1.0	1.0									
1,1-Dichlorosthane	< 1.0	1.0									
Chloroform	< 1.0	1.0									
1,1,1-Trichloroethane	< 1.0	1.0									
1,2-Dichloroethane	< 1.0	1.0									
Carbon tetrachloride	< 1.0	1.0									
Benzene	< 1.0	1.0									
Trichloroethene	< 1.0	1.0									
1,2-Dichloropropane	< 1.0	1.0									
Bromodichloromethane	< 1.0	1.0									
2-Chioroethylvinyl ether	< 1.0	1.0									
cls-1,3-Dichloropropene	< 1.0	1.0									
Toluene	< 1.0	1.0									
trans-1,3-Dichioropropene	< 1.0	1.0									
1,1,2-Trichioroethane	< 1.0	1.0									
Tetrachloroethene	< 1.0	1.0									
Dibromochloromethane	< 1.0	1.0									

Qualifiers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded.
- O RSD is greater than RSD limit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response
- P Second column confirmation exceeds
- W Sample container temperature is out of limit as specified at t
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

Page 30 of 54

Pace Analytical Services, Inc.

April 01, 2016

16030418 - Page 95 of 12



QC SUMMARY REPORT

VO#:

1603G89

28-Mar-16

Client: Project: Pace Analytical Services Inc. 16030418 B&L CLF Q4

BatchID:

R94228

Sample ID: VBLK032216	SampType: MBLK	14. "		Units: µg/L	Prep Date:				RunNo: 94	228	
Client ID: PBW	Batch ID: R94228	TestN	o: E624			Analysis Da	te: 3/22/20	16	SeqNo: 204	11091	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	< 1.0	1.0									
Ethylbenzene	< 1.0	1.0									
Bromoform	< 1.0	1.0									
1,1,2,2-Tetrachloroethane	< 1.0	1.0									
1,3-Dichlorobenzene	< 1.0	1.0									
1,4-Dichlorobenzene	< 1.0	1.0									
1,2-Dichlorobenzene	< 1.0	1.0									
Xylene (total)	< 1.0	1.0									
Surr: 1,2-Dichloroethane-d4	52		50.00		104	51	156				
Surr: 4-Bromofluorobenzene	48		50.00		96.9	40	150				
Surr; Toluene-d8	48		50.00		96.4	61	156				

Sample ID: LFB032216 Client ID: ZZZZZZ	SampType: LFB Batch ID: R94228		de: 624_W do: E624	Units: µg/L	Analysis Date: 3/22/2016					tunNo: 94228 SeqNo: 2041092	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloromethane	19	1.0	20.00	0	94.4	10	273				
Vinyl chloride	21	1.0	20.00	0	105	10	251				
Bromomethane	19	1.0	20.00	0	94.7	10	242				
Chloroethane	20	1.0	20.00	0	100	14	230				
Dichlorodifluoromethane	15	1.0	20.00	0	79.2	50	150				
Trichlorofluoromethane	23	1.0	20.00	0	114	17	181				
1.1-Dichloroethene	20	1.0	20.00	0	97.9	10	234				
cis-1,2-Dichloroethene	23	1.0	20.00	0	117	28	173				
Methylene chloride	22	1.0	20.00	0	109	10	221				

Qualifiers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSD limit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response
- P Second column confirmation exceeds
- W Sample container temperature is out of limit as specified at t
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

Page 31 of 54



QC SUMMARY REPORT

1603G89

28-Mar-16

Client: Project: Pace Analytical Services Inc. 16030418 B&L CLF Q4

BatchID:

R94228

Sample ID: LFB032215	SampType: LFB	TestCod	le: 624_W	Units: µg/L					RunNo: 942	28	29
Client ID: ZZZZZZ	Batch ID: R94228	Testi	lo: E624			Analysis Da	te: 3/22/20	16	SeqNo: 204	1092	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,2-Dichloroethene	22	1.0	20.00	0	109	54	156				
1,1-Dichloroethane	23	1.0	20.00	0	115	49	155				
Chloroform	23	1.0	20.00	0	115	51	138				
1,1,1-Trichloroethane	23	1.0	20.00	0	115	52	162				
1,2-Dichloroethane	24	1.0	20.00	0	120	49	155				
Carbon tetrachloride	22	1.0	20.00	O O	108	70	140				
Benzene	24	1.0	20.00	0	122	37	151				
Trichloroethene	22	1.0	20.00	0	112	71	157			41	
1,2-Dichloropropane	25	1.0	20.00	0	125	10	210				
Bromodichloromethane	23	1.0	20.00	0	115	33	155				
2-Chloroethylvinyl ether	25	1.0	20.00	0	126	10	305				
cis-1,3-Dichloropropene	23	1.0	20.00	0	115	10	227				
Toluene	22	1.0	20.00	0	108	47	150				
trans-1,3-Dichloropropene	24	1.0	20.00	0	121	17	183				
1,1,2-Trichloroethane	23	1.0	20.00	0	114	52	150				
Tetrachloroethene	19	1.0	20.00	0	95.4	64	148				
Dibromochloromethane	23	1.0	20.00	C	113	53	149				
Chlorobenzene	21	1.0	20.00	0	105	37	160				
Ethylbenzene	20	1.0	20.00	0	98.8	37	162				
Bromoform	22	1.0	20.00	0	109	45	169				
1,1,2,2-Tetrachloroethane	23	1.0	20.00	0	113	60	138				
1,3-Dichlorobenzene	20	1.0	20.00	0	102	59	158				
1,4-Dichlorobenzene	20	1.0	20.00	0	102	18	190				
1,2-Dichlorobenzene	20	1.0	20.00	0	102	18	190				
Xylene (total)	64	1.0	60.00	0	107	56	147			211	
Surr: 1,2-Dichloroethane-d4	51		50.00		102	51	156				

Qualiflers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSDlimit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- Manual Integration used to determine area response
- P Second column confirmation exceeds
- W Sample container temperature is out of limit as specified at t
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

Page 32 of 54

16030418 - Page 97 of 12



QC SUMMARY REPORT

WO#:

1603G89

28-Mar-16

Client: Project: Pace Analytical Services Inc.

16030418 B&L CLF Q4

BatchID:

R94228

Sample ID: LFB032218 Client ID: ZZZZZZ	SampType: LFB Batch ID: R94228		le: 624_W lo: E624	Units: µg/L	Prep Date: Aralysis Date: 3/22/2016			RunNa: 94228 SeqNa: 2041092			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLImit	Qual
Surr: 4-Bromofluorobenzena Surr: Toluene-d8	49 48		50.00 50.00		97.7 95.7	40 61	150 156				

Sample ID: LFB032216	SampType: LFB	TestCod	le: 624_W	Units: µg/L		Prep Dat	e:	- -	RunNo: 94	228	
Client IO: ZZZZZZ	Batch ID: R94228	Testi	lo: E624			Analysis Da	le: 3/22/20	16	SeqNa: 204	11093	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloromethane	16	1.0	20.00	0	80.9	10	273				
Vinyl chloride	20	1.0	20.00	0	98.6	10	251				
Bromomethane	18	1.0	20.00	0	90.2	10	242				
Chloroethane	18	1.0	20.00	0	87.8	14	230				
Dichlorodifluoromethane	14	1.0	20.00	0	68.0	50	150				
Trichlorofluoromethane	22	1.0	20.00	0	108	17	181				
1,1-Dichloroethene	20	1.0	20.00	0	101	10	234				
cis-1,2-Dichloroethene	20	1.0	20.00	0	101	28	173				
Methylene chloride	19	1.0	20.00	0	95.6	10	221				
trans-1,2-Dichloroethane	21	1.0	20.00	0	107	54	156				
1.1-Dichloroethane	20	1.0	20.00	0	102	49	155				
Chloroform	21	1.0	20.00	0	107	51	138				
1,1,1-Trichloroethane	20	1.0	20.00	0	102	52	162				
1.2-Dichloroethane	22	1.0	20.00	0	111	49	155				
Carbon tetrachloride	20	1.0	20.00	0	102	70	140				
Benzene	21	1.0	20.00	0	107	37	151				
Trichloroethene	20	1.0	20.00	0	101	71	157				
1,2-Dichloropropane	22	1.0	20.00	0	112	10	210				

Qualifiers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSD limit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response
- P Second column confirmation exceeds
- W Sample container temperature is out of limit as specified at t
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

Page 33 of 54

Pace Analytical Services, Inc.

April 01, 2016

16030418 - Page 98 of 127



QC SUMMARY REPORT

1603G89

28-Mar-16

Client: Project: Pace Analytical Services Inc. 16030418 B&L CLF Q4

BatchID:

R94228

Sample ID: LFB032216	SampType: LFB	TestCod	le: 624_W	Units: µg/L					RunNo: 942	28	
Client ID: ZZZZZZ	Batch ID: R94228	TestN	lo: E624			Analysis Da	te: 3/22/201	6	SeqNc 204	11093	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromodichioromethane	20	1.0	20.00	C	98.3	33	155				
2-Chloroethylvinyl ether	< 1.0	1.0	20.00	0	0	10	305				S
cis-1,3-Dichloropropene	20	1.0	20.00	0	102	10	227				
Taluene	20	1.0	20.00	0	99.1	47	150				
trans-1,3-Dichloropropene	20	1.0	20.00	0	102	17	183				
1,1,2-Trichloroethane	20	1.0	20.00	0	101	52	150				
Tetrachloroethene	17	1.0	20.00	0	86.9	64	148				
Dibromochloromethane	21	1.0	20.00	O O	105	53	149				
Chlorobenzana	20	1.0	20.00	0	97.9	37	160				
Ethylbenzene	18	1.0	20.00	0	92.3	37	162				
Bromoform	20	1.0	20.00	0	98.6	45	169				
1,1,2,2-Tetrachioroethane	19	1.0	20.00	0	93.0	60	138				
1,3-Dichlorobenzene	16	1.0	20.00	0	92.0	59	156				
1,4-Dichlorobenzene	17	1.0	20.00	0	84.9	18	190				
1,2-Dichlorobenzene	17	1.0	20.00	0	86.7	18	190				
Xylene (total)	58	1.0	60.00	0	96.3	56	147				
Surr: 1,2-Dichloroethane-d4	52		50.00		104	51	156				
Surr: 4-Bromofluorobenzene	50		50.00		99.7	40	150				
Surr: Toluene-d8	49		50.00		97.2	61	156				
Sample ID: 1603G89-007AMS	SampType: MS	TestCo	de: 624_W	Units: µg/L	g/L Prep Date:				RunNo: 94228		
Client ID: TRIP BLANK	Batch ID: R94228	Test	No: E624		Analysis Date: 3/22/2016			16	SeqNa: 2041102		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloromethene Qualiflers:

- Value exceeds Maximum Contaminant Level
- Н Holding times for preparation or analysis exceeded

25

- RSD is greater than RSD limit 0
- Spike Recovery outside accepted recovery limits
- D Dilution was required.

20.00

1.0

Manual Integration used to determine area response

0

- Second column confirmation exceeds
- Sample container temperature is out of limit as specified at t W

127

20

273

E Value above quantitation range

ND Not Detected at the Reporting Limit

RPD outside accepted recovery limits

Page 34 of 54

Pace Analytical Services, Inc.

April 01, 2016

16030418 - Page 99 of



QC SUMMARY REPORT

1603G89

28-Mar-16

Client: Project: Pace Analytical Services Inc. 16030418 B&L CLF Q4

BatchID:

R94228

Sample ID: 1603G89-007AMS	SampType: MS	TestCod	de: 624_W	Units: µg/L	- · · · · · · · · · · · · · · · · · · ·				RunNo: 942	28	
Client ID: TRIP BLANK	Batch ID: R94228	Testh	lo: E824			Analysis Da	te: 3/22/20	16	SeqNo: 204	1102	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	28	1.0	20.00	0	141	20	251				
Bromomethane	29	1.0	20.00	0	146	20	242				
Chioroethane	26	1.0	20.00	0	128	14	230				
Dichlorodiffuoromethane	19	1.0	20.00	0	95.7	50	150				
Trichlorofluoromethane	32	1.0	20.00	0	158	17	181				
1,1-Dichloroethene	26	1.0	20.00	0	131	50	234				
cis-1,2-Dichloroethene	26	1.0	20.00	0	132	28	173				
Methylene chloride	23	1.0	20.00	0	116	50	221				
trans-1,2-Dichloroethene	28	1.0	20.00	0	142	54	156				
1,1-Dichloroethane	26	1.0	20.00	0	129	49	155				
Chloroform	27	1.0	20.00	0	133	51	138				
1,1,1-Trichloroethane	32	1.0	20.00	0	158	52	162				
1,2-Dichloroethane	26	1.0	20.00	0	132	49	155				
Carbon tetrachloride	30	1.0	20.00	0	152	70	140				S
Benzana	30	1.0	20.00	0	150	37	151				
Trichloroethene	31	1.0	20.00	0	153	71	157				
1,2-Dichloropropane	30	1.0	20.00	0	149	50	210				
Bromodichioromethane	27	1,0	20.00	0	136	33	155				
2-Chloroethylvinyl ether	28	1.0	20.00	0	142	10	305				
cis-1,3-Dichloropropene	28	1.0	20.00	0	140	20	227				
Toluene	30	1.0	20.00	0	152	47	150				5
trans-1,3-Dichioropropene	28	1.0	20.00	0	141	17	183				
1,1,2-Trichloroethane	27	1.0	20.00	0	133	52	150				
Tetrachloroethene	31	1.0	20.00	0	155	64	148				5
Dibromochloromethane	28	1.0	20.00	0	140	53	149				
Chiorobenzene	30	1.0	20.00	0	152	37	150				

Qualifiers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSD limit
- Spike Recovery outside accepted recovery limits
- D Dilution was required.
- Manual Integration used to determine area response M
- Second column confirmation exceeds
- W Sample container temperature is out of limit as specified at t
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- RPD outside accepted recovery limits

Page 35 of 54



QC SUMMARY REPORT

1603G89

28-Mar-16

Client: Project: Pace Analytical Services Inc.

16030418 B&L CLF Q4

BatchID:

R94228

Sample ID: 1603G89-007AMS Client ID: TRIP BLANK	SampType: MS Batch ID: R94228	_		Units: µg/L	Prep Date: Analysis Date: 3/22/2016			116	RunNo: 942 SeqNo: 204		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethylbenzene	26	1.0	20.00	0	141	37	182				
Bromoform	27	1.0	20.00	0	134	45	169				
1,1,2,2-Tetrachloroethane	28	1.0	20.00	0	142	60	138				S
1,3-Dichlorobenzene	30	1.0	20.00	0	151	59	156				
1,4-Dichlorobenzene	27	1.0	20.00	0	134	18	190				
1,2-Dichlorobenzene	28	1.0	20.00	0	138	18	190				
Xylene (total)	91	1.0	60.00	0	152	56	147				S
Surr: 1,2-Dichloroethane-d4	49		50.00		98.9	51	156				
Surr: 4-Bromofluorobenzene	52		50.00		104	40	150				
Surr: Toluene-d8	51		50.00		102	61	156				

Sample ID: 1603G56-002DDUP	SampType: DUP	TestCod	TestCode: 624_W Units: µg/L Prep Date:					RunNo: 94228				
Client ID: ZZZZZZ	Batch ID: R94228	TestN	o: E624			Analysis Da	te: 3/22/20	16	SeqNo: 204	11103		
Analyle	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Chloromethane	< 1.0	1.0						0	0	0		
Vinyl chloride	< 1.0	1.0						0	0	0		
Bromomethane	< 1.0	1.0						0	0	0		
Chloroethane	< 1.0	1.0						0	0	0		
Dichlorodifluoromethene	< 1.0	1.0						0	0	0		
Trichlorofluoromethane	< 1.0	1.0						0	0	0		
1,1-Dichloroethene	< 1.0	1.0						C	0	0		
cis-1,2-Dichloroethene	< 1.0	1.0						0	0	0		
Methylene chloride	< 1.0	1.0						Ð	0	0		
trans-1,2-Dichloroethene	< 1.0	1.0						0	0	0		

Qualiflers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSD limit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- Manual Integration used to determine area response
- Second column confirmation exceeds
- W Sample container temperature is out of limit as specified at t
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
 - RPD outside accepted recovery limits

Page 36 of 54



QC SUMMARY REPORT

1603G89

28-Mar-16

Client: Project: Pace Analytical Services Inc.

16030418 B&L CLF Q4

BatchID:

R94228

Sample ID: 1603G56-002DDUP	SampType: DUP	TestCode	: 624_W	Units: µg/L	rg/L Prep Date:			RunNo: 942	20		
Client ID: ZZZZZZ	Batch ID: R94228	TestNo	: E624			Analysis Da	te: 3/22/20	16	SeqNo: 204	1103	
Analyte	Result	PQL	SPK value	SPK Ref Vai	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethane	< 1.0	1.0						0	0	0	
Chloroform	30	1.0						29.27	3.36	0	
1.1.1-Trichloroethane	< 1.0	1.0						0	0	0	
1,2-Dichloroethane	< 1.0	1.0						0	0	0	
Carbon tetrachioride	< 1.0	1.0						0	0	0	
Benzene	3.4	1.0						3.540	4.03	0	
Trichloroethene	< 1.0	1.0						0	0	0	
1,2-Dichloropropane	< 1.0	1.0						0	0	0	
Bromodichloromethane	< 1.0	1.0						3.110	200	0	
2-Chloroethylvinyl ether	< 1.0	1.0						0	0	0	
cis-1,3-Dichloropropene	< 1.0	1.0						0	0	0	
Toluene	< 1.0	1.0						0	0	0	
trans-1,3-Dichloropropene	< 1.0	1.0						0	0	C	
1,1,2-Trichloroethane	< 1.0	1.0						0	0	0	
Tetrachloroethene	< 1.0	1.0						0	0	0	
Dibromochloromethane	< 1.0	1.0						0	0	0	
Chiorobenzene	< 1.0	1.0						0	0	0	
Ethylbenzene	< 1.0	1.0						C C	0	0	
Bromoform	< 1.0	1.0						0	0	0	
1,1,2,2-Tetrachloroethane	< 1.0	1.0						0	0	0	
1,3-Dichlorobenzene	< 1.0	1.0						0	0	0	
1,4-Dichlorobenzene	< 1.0	1.0						0	0	0	
1,2-Dichlorobenzene	< 1.0	1.0						0	0	0	
Xylene (total)	< 1.0	1.0						0	0	0	
Surr. 1,2-Dichloroethane-d4	51		50.00		101	51	156	1	0	0	
Surr: 4-Bromofluorobenzene	50		50.00		99.4	40	150		0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSD limit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- Manual Integration used to determine area response M
- Second column confirmation exceeds
- W Sample container temperature is out of limit as specified at t
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

Page 37 of 54



QC SUMMARY REPORT

WO#:

1603G89

28-Mar-16

Client: Project: Pace Analytical Services Inc.

16030418 B&L CLF Q4

BatchID:

R94228

Sample ID: 1603G56-002DDUP	SampType: DUP	TestCode: 824_W		Units: pg/L		Prep Da	te:		RunNo: 942	228	
Client ID: ZZZZZZ	Balch ID: R94228	TestN	o: E624		Analysis Date: 3/22/2016				SeqNo: 204	1103	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLImit	Qual
Surr: Toluene-d8	52		50.00		103	61	156	•	0	0	

Qualifiers:

Value exceeds Maximum Contaminant Level

H Holding times for preparation or analysis exceeded

RSD is greater than RSD limit 0

Spike Recovery outside accepted recovery limits

D Dilution was required.

Manual Integration used to determine area response

Second column confirmation exceeds

 $W = Sample container temperature is out of limit as specified at <math display="inline">t \ \,$

E Value above quantitation range

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

Page 38 of 54

Pace Analytical Services, Inc.

April 01, 2016

16030418 - Page 103 of 12



QC SUMMARY REPORT

WO#:

1603G89

28-Mar-16

Client: Project: Pace Analytical Services Inc.

16030418 B&L CLF Q4

BatchID:

R94265

Sample ID: MB-R94265 Client ID: PSW	SampType: MBLK Batch ID: R94265	TestCode: COLOR_W_S Units: unit: TestNo: SM21208	Prep Date: Analysis Date: 3/23/2016	RunNo: 94265 SeqNo: 2042262
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Color	< 5.00 < 0	5.00		
Color pH				
Sample ID: LCS-R94255	SampType: LCS	TestCode: COLOR_W_S Units: unit	Prep Date:	RunNo: 94265
Client ID: LCSW	Batch ID: R94265	TestNo: SM2120B	Analysis Date: 3/23/2016	SeqNo: 2042263
Analyte	Result	POL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Color	40.0	5.00 40.00 0	100 85 115	

Sample ID: 1603H44-602ADL Client ID: ZZZZZZ	JP SampType: DUP Batch ID: R94265		le: COLOR_W	/_S Units: units		Prep Date: Analysis Date: 3/23/2016				RunNo: 94265 SeqNo: 2042270		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPOLimit	Qual	
Color	< 5.00	5.00		•				0	0	20		
Color pH	6.00	0						6.000	0	0		

Qualiflers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSD limit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response
- P Second column confirmation exceeds
- W Sample container temperature is out of limit as specified at t
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

Page 39 of 54

Pace Analytical Services, Inc.

April 01, 2016

16030418 - Page 104 of 127



OC SUMMARY REPORT

WO#: 1603G89

28-Mar-16

Client: Project: Pace Analytical Services Inc. 16030418 B&L CLF Q4

BatchID:

R94334

110304101	our our da			
Sample ID: LCS-032316	SampType: LCS	TestCode: TDS_W_SM Units: mg/L	Prep Date:	RunNo: 94334
Client ID: LCSW	Batch ID: R94334	TestNo: SM2540C	Analysis Date: 3/23/2016	SeqNo: 2043589
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLImit Qua
Total Dissolved Solids	476	10 500 0	95 85 115	
Sample ID: MB-032316	SampType: MBLK	TestCode: TDS_W_SM Units: mg/L	Prep Date:	RunNo: 94334
Client ID: PBW	Batch (D: R94334	TestNo: SM2540C	Analysis Date: 3/23/2016	SeqNo: 2043590
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPO Ref Val	%RPD RPDLImit Que
Total Dissolved Solids	< 10	10		
Sample ID: 1603G14-001ADup	SampType: Dup	TestCode: TDS_W_SM Units: mg/L	Prep Date:	RunNo: 94334
Client ID: ZZZZZZ	Batch ID: R94334	TestNo: SM2540C	Analysis Date: 3/23/2016	SeqNo: 2043598
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDUmit Qui
Total Dissolved Solids	79	10	74	7 20
Sample ID: 1603G14-001AMS	SampType: MS	TestCode: TDS_W_SM Units: mg/L	Prep Date:	RunNo: 94334
Client ID: ZZZZZZ	Batch ID: R94334	TestNo: SM2540C	Analysis Date: 3/23/2016	SeqNo: 2043599
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLImit Qu
Total Dissolved Solids	377	10 300 74	101 75 125	

Qualiflers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSD limit
- Spike Recovery outside accepted recovery limits S
- D Dilution was required.
- M Manual Integration used to determine area response
 - Second column confirmation exceeds
- W Sample container temperature is out of limit as specified at t
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- RPD outside accepted recovery limits

Page 40 of 54

Pace Analytical Services, Inc.

April 01, 2016

16030418 - Page 105 of 12



QC SUMMARY REPORT

WO#:

1603G89

28-Mar-16

Client: Project: Pace Analytical Services Inc.

16030418 B&L CLF Q4

BatchID:

R94334

Sample ID: CCV_032316-10 Client ID: LCSW	SampType: LCS Batch ID: R94334	TestCode: TDS_W_SM Units: mg/L TestNo: SM2540C			Prep Date: Analysis Date: 3/23/2016			15	RunNo: 94334 SeqNo: 2043601		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids	272	10	300	0	91	85	115				

Sample ID: CCV_032316-20	SampType: LCS	TestCoo	le: TDS_W_S	M Units: mg/L		Prep Dat	te:		RunNo: 943		
Client ID: LCSW	Batch ID: R94334	Testh	lo: SM2540C			Analysis Da	te: 3/23/20	16	SeqNa: 204	13629	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Quat
Total Dissolved Solids	287	10	300	0	96	85	115				

Sample ID: 1603H46-001DDup Client ID: ZZZZZZ	SampType: Dup Batch ID: R94334		de: TDS_W_S do: SM2540C	_		Prep Da Analysis Da		16	RunNo: 943 SeqNo: 204		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids	234	10						227	3	20	

Sample ID: 1603H46-001DMS Client ID: ZZZZZZ	SampType: M5 Batch ID: R94334		e: TD\$_W_Si o: SM2540C	M Units: mg/L		Prep Date: Analysis Date: 3/23/2016			RunNo: 943 SeqNo: 204		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids	512	10	300	227	95	75	125				

Qualiflers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSDlimit
- Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response
- Second column confirmation exceeds P
- W Sample container temperature is out of limit as specified at t
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

Page 41 of 54

Pace Analytical Services, Inc.

April 01, 2016



OC SUMMARY REPORT

WO#: 1603G89

28-Mar-16

Client: Project: Pace Analytical Services Inc. 16030418 B&L CLF Q4

BatchID:

R94334

Sample ID: CCV-032316 Client ID: LCSW	SampType: LCS Batch ID: R94334	TestCode: TDS_W_SM Units: mg/L TestNo: SM2540C			Prep Date: Analysis Date: 3/23/2016				RunNo: 94334 SeqNo: 2043633		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids	289	10	300	0	96	85	115				
	<u></u>						_ .				

Sample ID: CCB-032316	SampType: MBLK	TestCode: TDS_W_SM Units: mg/L	Prep Date:	RunNo: 94334
Client ID: PBW	Batch ID: R94334	TestNo: SM2540C	Analysis Date: 3/23/2016	SeqNo: 2943634
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLImit Qual

Total Dissolved Solids < 10 1

Qualifiers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSDlimit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response
 - Second column confirmation exceeds
- W Sample container temperature is out of limit as specified at t
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

Page 42 of 54

Pace Analytical Services, Inc.

April 01, 2016

16030418 - Page 107 of 127



QC SUMMARY REPORT

WO#: 1603G89

28-Mar-16

Client: Project: Pace Analytical Services Inc.

16030418 B&L CLF Q4

BatchID:

R94351

Sample ID: M8-032316 Client ID: PBW	SampType: MBLK Batch ID: R94351		e: COD_W a: E410.4	Units: mg/L	 '-	Prep Dat Analysis Dat		16	RunNo: 943 SeqNo: 204		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Quai
Chemical Oxygen Demand	< 10.0	10.0									

Sample ID: LCS-032316	SampType: LCS	TestCoo	le: COD_W	Units: mg/L		Prep Dat	e:		RunNo: 943	151	
Client ID: LCSW	Batch ID: R94351	Testh	lo: E410.4			Analysis Dal	e: 3/23/20	16	SeqNo: 204	14107	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	95.5	10.0	100.0	0	95.5	90	110				

Sample ID: 1603B78-013BDUP	SampType: DUP	TestCoo	ie: COD_W	Units: mg/L		Prep Da	te:		RunNo: 943	51	
Client ID: ZZZZZZ	Batch ID: R94351	Testh	io: E410.4			Analysis Da	te: 3/23/20	16	SeqNo: 204	4124	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLlmit	RPD Ref Val	%RPD	RPDLImit	Qual
Chemical Oxygen Demand	< 10.0	10.0						0	0	20	

Sample ID: 1603B76-013BMS Client ID: ZZZZZZ	SampType: MS Batch ID; R94351		le: COD_W	Units: mg/L		Prep Da Analysis Da		16	RunNo: 943 SeqNo: 204		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	83.4	20.0	100.0	0	83.4	90	110				DS

Quallflers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSD limit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response
- Second column confirmation exceeds
- W Sample container temperature is out of limit as specified at t
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

Page 43 of 54

Pace Analytical Services, Inc.

April 01, 2016

16030418 - Page 108 of 121



OC SUMMARY REPORT

WO#:

1603G89

28-Mar-16

Client: Project: Pace Analytical Services Inc.

16030418 B&L CLF Q4

BatchID:

R94368

Sample ID: 1603B69-001BMS Client ID: ZZZZZZ	SampType: MS Batch ID: R94368		le: NH3_W_Si la: SM4500-N	_		Prep Dat Analysis Dat		16	RunNo: 943 SeqNo: 264		
Analyle	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia (As N)	26.6	1.00	5.00	22.38	89.3	75	125				D

Sample ID: 1603869-0018DUP	SampType: DUP	TestCoo	le: NH3_W_Si	M Units: mg/L		Prep Dat	te:		RunNo: 943	68	
Client ID: ZZZZZZ	Batch ID: R94368	Testh	la: SM4500-N	Н3		Analysis Dal	te: 3/24/20	18	SeqNo: 204	4401	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia (As N)	21.9	1.00						22.38	2.06	20	D

Qualifiers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSD limit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response
- P Second column confirmation exceeds
- W Sample container temperature is out of limit as specified at t
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

Page 44 of 54

Pace Analytical Services, Inc.

April 01, 2016

16030418 - Page 109 of 127



QC SUMMARY REPORT

WO#:

1603G89

28-Mar-16

Client: Project: Pace Analytical Services Inc. 16030418 B&L CLF Q4

BatchID: R94368

Liniscr: 10020410 F				
Sample ID: 1603F57-001AMS Client ID: 222222	SampType: MS Batch ID: R94368	TestCode: NH3_DW_SM Units: mg/L TestNo: SM4500-NH3	Prep Date: Analysis Date: 3/24/2016	RunNo: 94368 SeqNo: 2044331
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Nitrogen, Ammonia (As N)	0.45	0.10 0.50 0	89.9 75 125	
Sample ID: 1603F57-001ADUP	SampType: DUP	TestCode: NH3_DW_SM Units; mg/L	Prep Date:	RunNo: 94368
Client ID: ZZZZZZ	Batch ID: R94368	TestNo: SM4500-NH3	Analysis Date: 3/24/2016	SeqNo: 2044332
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Nitrogen, Ammonia (As N)	< 0.10	0.10	0	0 20
Sample ID: 1603173-001AMS	SampType: MS	TestCode: NH3_DW_SM Units; mg/L	Prep Date:	RunNo: 94368
Client ID: 2222ZZ	Batch ID: R94368	TestNo: SM4500-NH3	Analysis Date: 3/24/2016	SeqNo: 2044339
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qua
Nitrogen, Ammonia (As N)	0.45	0.10 0.50 0	89.4 75 125	
Sample ID: 1603173-001ADUP	SampType: DUP	TestCode: NH3_DW_SM Units: mg/L	Prep Date:	RunNa: 94368
Client ID: ZZZZZZ	Batch ID: R94368	TestNo: SM4500-NH3	Analysis Date: 3/24/2016	SeqNo: 2044342
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qua
Nitrogen, Ammonia (As N)	< 0.10	0.10	0	0 20

Qualifiers:

Nitrogen, Ammonia (As N)

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded

- O RSD is greater than RSD limit
- Spike Recovery outside accepted recovery limits 5
- D Dilution was required.
- Manual integration used to determine area response M
 - Second column confirmation exceeds
- Sample container temperature is out of limit as specified at t
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

Page 45 of 54

Pace Analytical Services, Inc.

April 01, 2016

16030418 - Page 110 of 12



PACE ANALYTICAL 575 Broad Hollow Road Melville, NY 11747 TEL: (631) 694-3040 FAX: (631) 420-8436 Hebsite: www.pacelabs.com

QC SUMMARY REPORT

1603G89

28-Mar-16

Client: Project: Pace Analytical Services Inc.

16030418 B&L CLF Q4

BatchID: R94436

Sample IU:	LCS-032416	SampType:	LCS	TestCod	e: ANION300	W Units: mg/L		Prep Da	te:		RunNo: 944	36	
	LCSW	Batch ID:	R94436	TestN	o: E300.0			Analysis Da	te: 3/24/20	16	SeqNo: 204	6127	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPO Ref Val	%RPD	RPDLimit	Qual
Chloride			9.73	2.00	10.00	0	97.3	90	110	-			
Sulfate			9.99	5.00	10.00	0	99.9	90	110				
Sample ID:	lfb-032416	SampType:	tfb	TestCod	e: ANION300	_W Units: mg/L		Prep Da	te:		RunNo: 944	36	
Client ID:	227722	Batch ID:	R94436	TestN	o: E300.0			Analysis Da	te: 3/24/20	16	SeqNo: 204	8129	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride			10.5	2.00	10.00	0	106	90	110				
Sulfate			10.6	5.00	10.00	0	106	90	110				
Sample ID:	MB-032416	SampType:	MBLK	TestCoo	le: ANION300	_W Units: mg/L		Prep Da	ıte:		RunNo: 944	136	
Client ID:	PBW	Batch ID:	R94436	Testh	lo: E300.0			Analysis Da	nte: 3/24/20	16	SeqNo: 204	6130	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLlmit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride			< 2.00	2.00									
Sulfate			< 5.00	5.00									
	1503G89-008ADUP	SampType:	DUP	TestCo	de: ANION300)_W Units: mg/L		Prep Da	ite:	- :	RunNo: 94	136	
Sample ID:			B-4400	Testh	lo: E300.0			Analysis Da	ate: 3/25/20	116	SeqNo: 204	18156	
Sample ID: Client ID:	MW-6	Batch ID:	1034438										
. 7		Batch ID:	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

- O RSD is greater than RSD limit
- S Spike Recovery outside accepted recovery limits
- P Second column confirmation exceeds
- W Sample container temperature is out of limit as specified at t
- R RPD outside accepted recovery limits

Page 46 of 54

Pace Analytical Services, Inc.

April 01, 2016

16030418 - Page 111 of 12



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

QC SUMMARY REPORT

WO#:

1603G89

28-Mar-16

Client: Project: Pace Analytical Services Inc. 16030418 B&L CLF Q4

BatchID: R94436

100001102			<u> </u>	
Sample ID: 1603G89-006ADUP	SampType: DUP	TestCode: ANION300_W Units: mg/L	Prep Date:	RunNo: 94436
Client ID: MW-6	Batch ID: R94436	TestNo: E300.0	Analysis Date: 3/25/2016	SeqNo: 2846156
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Sulfate	19.3	5.00	19.09	1.05 20
Sample ID: 1603C86-001AMS	SampType: MS	TestCode: ANION300_W Units: mg/L	Prep Date:	RunNo: 94436
Client ID: ZZZZZZ	Batch ID: R94436	TestNo: E300.0	Analysis Date: 3/25/2016	SeqNo: 2046164
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Chloride	25.5	2.00 10.00 15.96	95.1 80 120	
Sulfate	17.1	5.00 10.00 7.00	101 80 120	
Sample ID: 1603C86-001ADUP	SampType: DUP	TestCode: ANION300_W Units: mg/L	. Prep Date:	RunNo: 94436
Client ID: ZZZZZZ	Batch ID: R94436	TestNo: E360.0	Analysis Date: 3/25/2016	SeqNo: 2046165
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Chloride	15.8	2.00	15.96	0.69 20
Sulfate	6.98	5.00	7.00	
	0.30	5.00	7.00	0.37 20
Sample ID: 1603D40-002EMS	SampType: MS	TestCode: ANION380_W Units: mg/t		RunNo: 94436
Sample ID: 1603D40-002EMS Client ID: ZZZZZZ	<u> </u>			
	SampType: MS	TestCode: ANION300_W Units: mg/l	- Prep Date:	RunNo: 94436

Qualiflers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- 0 RSD is greater than RSD limit
- Spike Recovery outside accepted recovery limits S
- D Dilution was required.
- M Manual Integration used to determine area response

Sample container temperature is out of limit as specified at t

Second column confirmation exceeds

- E Value above quantitation range ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

Page 47 of 54

Pace Analytical Services, Inc.

April 01, 2016

16030418 - Page 112 of 12



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

QC SUMMARY REPORT

WO#:

1603G89

28-Mar-16

Client: Project: Pace Analytical Services Inc.

16030418 B&L CLF Q4

BatchID: R94436

Sample ID: 1803D40-002EDUP Client ID: ZZZZZZ	SampType: DUP Batch ID: R94436		ie: ANION300 ic: E300.0		Prep Da Analysis Da		RunNo: 944 SeqNo: 204				
Analyte	Result	PQL	SPK value	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Sulfate	114	25.0	·					132.1	14.7	20	D

Sample ID: 1603D40-002EMS	SampType: MS	TestCod	te: ANION300	W Units: mg/L		Prep Da	to:		RunNo: 944	136	
Client ID: ZZZZZZ	Batch ID: R94436	Testh	la: E300.0			Analysis Da	te: 3/25/20	16	SeqNa: 204	l6179	
Analyte	Result	PQL SPK value SPK Ref Val				LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chioride	2,860	200 1,000 1,792				80	120				D

Sample ID: 1603D40-002EDUP Client ID: ZZZZZZ	SampType: DUP Batch ID: R94436		ie: ANION300 lo: E300.0		Prep Da Analysis Da	ite; ite; 3/25/20	16	RunNo: 944 SeqNo: 204			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	1,860	200						1,792	3.75	20	D

Sample ID: 1603G89-006AMS Client ID: MW-6	SampType: MS Batch ID: R94436		e: ANION300 o: E300.0	_W Units: mg/L		Prep Da Analysis Da	te: 3/25/20	16	RunNo: 94436 SeqNo: 2046199					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual			
Chloride Sulfate	15.3 29.6	2.00 5.00	10.00 10.00	4.53 19.09	108 105	80 80	120 120							

Qualiflers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSD limit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response
- P Second column confirmation exceeds
- $W = \mbox{Sample container temperature}$ is out of limit as specified at t
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

Page 48 of 54

Pace Analytical Services, Inc.

April 01, 2016

16030418 - Page 113 of 127



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

QC SUMMARY REPORT

WO#:

1603G89

28-Mar-16

Client: Project: Pace Analytical Services Inc. 16030418 B&L CLF Q4

BatchID:

R94436

ient ID: ZZZZZZ	Batch ID: R94436	TestNo	: ANION300, :: E300.0	_D Units: mg/l.		Prep Da Analysis Da	te: 3/24/2 01	16	RunNo: 94436 SeqNo: 2846133				
nalyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLImit	Qual		
hloride	20.9	2.00	10.00	9.76	112	80	120						
uifate	15.8	5.00	10.00	6.01	97.6	80	120						
ample ID: 1603F57-001ADUP	SampType: DUP	TestCode	: ANION300	_D Units: mg/L		Prep Da	de:		RunNo: 944	136			
lient ID: ZZZZZZ	Batch ID: R94436	TestNo	: E300.0			Analysis Da	te: 3/24/20	16	SeqNo: 204	16134			
nalyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
hloride	9.69	2.00			-			9.76 6.01	0.73 0.16	20 20			
ulfate	6.00	5.00						0.01	0.10				
ample ID: 1603I73-001AMS	SampType: MS	TestCod	e: ANION300	_D Units: mg/L		Prep Da	rte:		RunNo: 94	436			
lient ID: ZZZZZZ	Batch ID: R94436	TestN	o: E300.0			Analysis Da	ete: 3/24/20	16	SeqNo: 20	46147			
nalyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Vel	%RPD	RPDLimit	Qual		
hloride	14.9	2.00	10.00	4.45	104	80	120						
ulfate	13.9	5.00	10.00	3.07	108	80 :	120			55			
ample ID: 1603I73-001ADUP	SampType: DUP	TestCod	e: ANION30)_D Units: mg/L		Prep D	ete:		RunNa: 94	436	==		
Client ID: ZZZZZZ	Batch ID: R94436	TestN	la: E300.0			Analysis D	ate: 3/24/20	116	SeqNo: 20	48148			
unalyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDUmit	Qual		
Chloride	4.38	2.00						4.45	1.50	20			
Oualiflers: * Value exceed	ls Maximum Contaminant Leve	1	D Dilut	ion was required.			E	Value above quan	titation range				

- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSDlimit
- S Spike Recovery outside accepted recovery limits
- P Second column confirmation exceeds
- W Sample container temperature is out of limit as specified at t
- R RPD outside accepted recovery limits

Page 49 of 54

Pace Analytical Services, Inc.

April 01, 2016

16030418 - Page 114 of 12



PACE ANALYTICAL 575 Broad Hollow Road Metville, NY 11747 TEL: (631) 694-3040 FAX: (631) 420-8436 Website: <u>www.pacelabs.com</u>

QC SUMMARY REPORT

O#: 1603G89

28-Mar-16

Client: Project: Pace Analytical Services Inc.

16030418 B&L CLF Q4

BatchID:

R94436

Sample ID: 1603173-001ADUP	SampType: DUP	TestCod	ia: ANION300	_D Units: mg/L		Prep Da	te:	-"	RunNo: 944	136	
Client ID: ZZZZZZ	Batch ID: R94436	Testi	lo: E300.0			Analysis Da	te: 3/24/20	16	SeqNo: 204	l 614 8	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLImit	Qual
Sulfate	< 5.00	5.00						3.07	200	20	R

Qualifiers:

Value exceeds Maximum Contaminant Level

H Holding times for preparation or analysis exceeded

O RSD is greater than RSDlimit

S Spike Recovery outside accepted recovery limits

D Dilution was required.

M Manual Integration used to determine area response

Second column confirmation exceeds

W Sample container temperature is out of limit as specified at t

E Value above quantitation range

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

Page 50 of 54

Pace Analytical Services, Inc.

April 01, 2016

16030418 - Page 115 of 127



PACE ANALYTICAL 575 Broad Hollow Road Melville, NY 11747 TEL: (631) 694-3040 FAX: (611) 420-8436 Website: www.pacelabs.com

QC SUMMARY REPORT

WO#:

1603G89

28-Mar-16

Client: Project: Pace Analytical Services Inc.

16030418 B&L CLF Q4

BatchID: R94499

100004182					
Sample ID: LCS-032816 Client ID: LCSW	SampType: LCS Batch ID: R94499	TestCode: ALK_DW TestNo: SM2320B	Units: mg/L	Prep Date: Analysis Date: 3/28/2015	RunNo: 84499 SeqNo: 2048344
Analyte	Result	PQL SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref V	al MRPD RPDLimit Qual
Alkalinity, Total (As CaCO3)	24.4	1.0 25.0	0	97.4 80 120	
Sample ID: MB-032816	SampType: MBLK	TestCode: ALK_DW	Units: mg/L	Prep Date:	RunNo: 94499
Client IDi: PBW	Batch ID: R94499	TestNo: SM2320B		Analysis Date: 3/28/2016	SeqNo: 2048345
Analyte	Result	PQL SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref \	/al %RPD RPDLimit Qual
Atkalinity, Total (As CaCO3)	< 1.0	1.0	0	0 0 0	
Sample ID: 1603E70-003AMS	SampType: MS	TestCode: ALK_DW	Units: mg/L	Prep Date:	RunNo: 94499
Client ID: ZZZZZZ	Batch ID: R94499	TestNo: SM2320B		Analysis Date: 3/28/2016	SeqNc. 2048355
Analyte	Result	PQL SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref \	/al %RPD RPDLimit Qual
Alkalinity, Total (As CaCO3)	24.6	1.0 25.0	0	98.2 75 125	
Sample ID: 1603E70-003ADUP	SampType: DUP	TestCode: ALK_DW	Units: mg/L	Prep Date:	RunNo: 94499
Client ID: ZZZZZZ	Batch ID: R94499	TestNo: SM2320B		Analysis Date: 3/28/2016	SeqNo: 2048356
Analyte	Result	PGL SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref	Val %RPD RPDLImit Qual
Alkalinity, Total (As CaCO3)	< 1.0	1.0	0	0 0	0 0 20

Qualiflers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- 0 RSD is greater than RSDlimit
- Spike Recovery outside accepted recovery limits S
- D Dilution was required.
- M Manual Integration used to determine area response
- Second column confirmation exceeds W Sample container temperature is out of limit as specified at t
- E Value above quantitation range ND Not Detected at the Reporting Limit
- RPD outside accepted recovery limits

Page 51 of 54

Pace Analytical Services, Inc.

April 01, 2016

16030418 - Page 116 of 121



PACE ANALYTICAL 575 Broad Hollow Road Melville, NY 11747 TEL: (631) 694-3040 FAX: (631) 420-8436 Rebsite. www.pacelabs.com

OC SUMMARY REPORT

R94523

1603G89

28-Mar-16

Qual

Qual

Cllent: Project: Pace Analytical Services Inc.

16030418 B&L CLF Q4

TestCode: COD_W SampType: MBLK

POL

10.0

PQL

10.0

PQL

10.0

Prec Date: Units: mg/L

BatchID:

RunNo: 94523

Client ID: PSW

Sample ID: MB-032616

Batch ID; R94523

TestNo: E410.4

Analysis Date: 3/28/2016

SegNo: 2048924

Analyte

Result

< 10.0

Result

SPK value SPK Ref Val

%REC LowLimit HighLimit RPD Ref Val

%RPD RPDLimit

Chemical Oxygen Demand

SampType: LCS TestCode: COD_W

Units: mg/L

Prep Date:

RunNo: 94523

Client ID: LCSW

Analyte

Batch ID: R94523

TestNo: E410.4

SPK value

Analysis Date: 3/28/2016

SeqNa: 2048925

LowLimit HighLimit RPD Ref Val

%RPD RPDLimit Qual

Chemical Oxygen Demand

Sample ID: LCS-032816

93.3

100.0

%REC 93.3

RunNo: 94523

Client ID: ZZZZZZ

Sample ID: 1603E57-004BDUP SampType: DUP Batch ID: R94523 TestCode: COD_W TestNo: E410.4

Units: mg/L

SPK Ref Val

Prep Date: Analysis Date: 3/28/2016

SeqNo: 2048932

Analyte Chemical Oxygen Demand

< 10.0

SPK value SPK Ref Val

LowLimit HighLimit RPD Ref Val %REC

%RPD **RPDLimit**

٥ 20

Sample ID: 1603E57-004BMS SampType: MS Client ID: ZZZZZZ

Batch ID: R94523

TestCode: COD_W TestNo: E410.4

Units: mg/L

Prep Date: Analysis Date: 3/28/2016 RunNo: 94523

SeqNa: 2048933

%RPD RPDLimit

SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val POL Analyte Result 110 100.0 0 87.8 90 Chemical Oxygen Demand 67.8 20.0

W

Qualiflers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- RSD is greater than RSD limit 0 S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- М Manual Integration used to determine area response

Sample container temperature is out of limit as specified at t

- Value above quantitation range
- ND Not Detected at the Reporting Limit
- RPD outside accepted recovery limits

Page 52 of 54

DS

Pace Analytical Services, Inc.

April 01, 2016

Second column confirmation exceeds

16030418 - Page 117 of 12





PACE ANALYTICAL 575 Broad Hollow Road Melville, NY 11747 TEL: (631) 694-3040 FAX: (631) 420-8436

Sample Receipt Checklist

•	Website:	иши.расе	labs.com		
Client Name: PACE-NY		di,	Date and Ti	me Received:	3/22/2016 10:30:00 AM
Work Order Number: 1603G89 Rcptl	No: 1		Received by	y: John Stanto	on
Completed by: ReverSiliD	٧	Review	ed by: Ca	thlinT	Panzarella
Completed Date: 3/23/2016 11:22;29.AM		Review	ed Date:	3/23/2010	6 11:23:32 AM
Carrier name: FedEx					
Chain of custody present?	Yes	\checkmark	No 🖳		
Chain of custody signed when relinquished and received	1? Yes	Y	No 🖳		
Chain of custody agrees with sample labels?	Yes	$ \mathbf{Z} $	No 🖳		
Are matrices correctly identified on Chain of custody?	Yes	\mathbf{Z}	No 🖳		
Is it clear what analyses were requested?	Yes		No 🗔		e=1
Custody seals intact on sample bottles?	Yes		No 🗀	Not Present	☑
Samples in proper container/bottle?	Yes	\mathbf{V}	No 🗔		
Were correct preservatives used and noted?	Yes	\checkmark	No 🔲	NA	
Preservative added to bottles:					
Sample Condition?	Intact	V	Broken 🔲	Leaking	
Sufficient sample volume for Indicated test?	Yes	$\overline{\mathbf{Z}}$	No 🗀		
Were container labels complete (ID, Pres, Date)?	Yes	✓	No 🗔		
All samples received within holding time?	Yes	\checkmark	No 🗔		
Was an attempt made to cool the samples?	Yes	\mathbf{V}	No 🗀	NA	
All samples received at a temp. of > 0° C to 6.0° C?	Yes	_	No 🗔	NA	
Response when temperature is outside of range:	100		.,_	*	
Sample Temp. taken and recorded upon receipt?	Yes	\mathbf{Z}	No 🗆	То	0.8 °
Water - Were bubbles absent in VOC vials?	Yes	1120	No 🗆	No Vials	
Water - Was there Chlorine Present?	Yes		No 🗆	NA	☑
******	Yes		No 🗆	No Water	
Water - pH acceptable upon receipt?	Yes		No 🗆	110 // 410.	
Are Samples considered acceptable?					
Custody Seals present?	Yes		No U	41.45	. —
Airbill or Sticker?	Air Bi		Sticker 🗔	Not Presen	π 🗀
Airbill No:	66615	9134201	l		
Case Number: SDG:		S	AS:		
Any No response should be detailed in the comments	section below if applic	able.			
Tily 110 (capolido allocido de detendo il 110 calillorido		===			
Client Contacted?	NA Person Cor	tacted:			
Contact Mode: Phone: Fax	c 🗍 Email:		n Person:		
Client Instructions:	Contacted Bis				
Date Contacted:	Contacted By:				
Regarding:					
Comments:					
Corrective Action					





WorkOrder: 1603G89

Certifications

STATE	CERTIFICATION#
NEW YORK	10478
NEW JERS EY	NY158
CONNECTICUT	PH-0435
MARYLAND	208
MAS S ACHUS ETTS	MNY026
NEW HAMPS HIRE	2987
RHODE IS LAND	LAO00340
PENNS YLVANIA	68-00350

Page 54 of 54

PACE-L1

1603989

8 - Other (Na2SO3) OTHER NOTES: Analytical Report (LEVEL-2) EDD: Excel Standar PRESERVATIVE KEY 5 - Zn. Acetate 6 - MeOH 7 - NaHSO4 2 - HN03 4 - NaOH 0 - ICE 1 - HCL DISPOSAL REQUIREMENTS: (To be filled in by Client) REMARKS ENTER ANALYSIS AND METHOD NUMBER REQUESTED Additional charges incurred for disposal (if hazardous) or archival. RINTED NAME ARCHIVAL BY RECEIVING LAB DISPOSAL BY RECEIVING LAB DATE/THE 40705 COMPANY CLYWIDE RETURN TO CLIENT × × × ESZNORAH VOH RELINQUISHED BY × × SELECT METALS FROM IN × × × RINTED NAME WATEHWIDOS DATECTME × × Call for details. SQL/POS/70/A/TA × × × John Stenton 10:30 PRESERVATIVE CODE: RECVD W/ HOLDING TIMES: × × × RECEIVED BY PROPERLY PRESERVED: BOTTLE TYPE: BOTTLE SIZE: × **PAG** (LAB USE ONLY) S илмвек оғ соитаінеяз 'n 1O 2 3/28/2016 LRF# 16030418 (LAB USE ONLY) PAGE 1 OF 1 SAMPLE ID RELINQUISHED BY AT06438 AT06439 AT06440 AT06443 AT06442 AT06437 GRAB | AT06441 OCATION (CITY/STATE) ADDRESS REQUIRED TURN AROUND TIME METALS:ALSB,AS,BA,BE,B,CD,CA,CR,CO,CU,FE,PB,MG,MN,M,K,SÈ, NAME OF COURIER (IF USED): AĞ,NA,TL,ZM, SAMPLE PRESERVATION NOT VERIFIED AT SCHENECTADY LAB. GRAB GRAB GRAB GRAB GRAB GRAB RINTED NAME GRAB/ COMP PROJECT#PROJECT NAME GNATURE DATE/TIME Fax (518) 381-6055 CAMPANY 2190 Technology Drive, Schenectady, NY 12308 Telephone (518) 346-4592 Fax (518) 381-6055 Pace Analytical Services, Inc. > COC DISCREPANCIES: 16030418 CHAIN OF CUSTODY RECORD MATRIX COC TAPE: 1 ž Chelsea Fermer@pacelabs.com 10:48 12:10 10:15 11:45 RECEIVED BY 9:41 11:30 Vicole, Johnson@pacelabs, con TIME TINTED NAM 3/21/16 3/21/16 3/21/16 3/21/16 3/21/16 3/21/16 3/21/16 MATENTIME COMPANY DATE TEMP: CLIENT (REPORTS TO BE SENT TO): www.pacelabs.com 00 :91 RECEIVED BROKEN OR LEAKING: BAR-ROC: CLF Q1 RELINGUISHED BY ELECTRONIC RESULTS SAMPLE ID Chelsea Farmer MBJENT OR CHILLED: ROJECT MANAGER: TRIP BLANK PACE **MW-2** MW-2 MW-5 MW-5 MW-6 MW-6

6661 5913 430

16030418 - Page 120 of 127

e-File(ALLQ020rov.4.29Mar06)22.hrn2nn5

	NATE OF 1	PECH ATORY AGENCY	GROUND WATER IT DRINKING WATER		7. T T T		36 - 45		SWN expects SWN ex				C 2 5 7 C L 3		×	×	×	× ×	×			DATE SAMPLE CONDITIONS	3/31/16 13:30 1.5 3 5	NVA.	N/A	N/A N/A	o in o C ived on sloody Tooler Tooler	maī eseR luO lae2
CHAIN-OF-CUSTODY / Analytical Request Document The Chain-ol-Custody is a LEGAL DOCUMENT. All relevant fields must be completed <16030418P1>	160		T NPDES	L.	SITE	OH CO	Fithered (Y/N)		_	Partie Marita Ma		*		×××××××××××××××××××××××××××××××××××××××		×××××××××××××××××××××××××××××××××××××××		× × × × × × × × × × × × × × × × × × ×				ACCEPTED BY / AFFILIATION DA	16/20 (P.C.C.) 3/31)			DATE Signed 3/21/16
CHAIN-OF-CUSTODY / The Chain-of-Custody is a LEGAL DOCUME	Section C Invoice Information:	Attention: Barton & Loguidice	Сотралу Name:	Address:	Pace Quote Reference: 7266	Pace Project Manager: Chelsea Farmer	Pace Profile #:	┝	A THE TEMP A COLLECTION OF CONTRINE!	HIO? HI'20 Nubus	*	* * *	×	x x x x 6 giZ		× × ×	3/2 1/2 3 x	3/21/6 113 ^C 9 × × × ×	3/2/16 ~ 2 ×			DATE TIME	3/21/16 130 J.	0	Y		ER NAME AND SICHATURE Name of SAMPLER: Matt Broker PAAZ	I , I
New York Office 2190 Technology Dr. Schenectady, NY 12308 (518) 346-4592		99	Copy To:		Purchase Order No.:	CLF Quarter 1 2016	Project Number.	CO		DATE TIME	B- #5	GW - G	GW G	GW G	GW G	GW G	GW G	GW G	wr G			PELINGUISHED BY / AFFILIATION	MIND PACE			-	SAMPLER PRINT Nam	SIGNATUR
New Y ACC Analytical 21801 Schem Schem (518)	* ·		Addraes:		:o:	Phone:	Requested Standard Due Dete/TAT:	O Valla Matrix Sodas Ilent Momeston MATRIX	SAMPLE ID STATE IN ST		HINDE BY I MANUEL	2 AWK-1	O pril	MW-2	WW-5	6 MW-5	7 MW-6	B MW-B	1) TRIP BLANK	ş :	d1	ADDITIONAL COMMENTS	NYS Part 360 1988 Baselines NON ASP				3 - Page	121 - 6



Sample Condition Upon Receipt

CLIENT NAME: BAR - ROC PROJECT: OLF

None X 7 å Temp should be above freezing to 6°C Non Blue 🗅 Log In (includes notifying PM of any discrepacies and documenting in LIMS) **3** 公 Lot # of added preservative: Line-Out (Includes Copying Shipping Documents and verifying sample pH): きさ 15. Trip blanks created by sample INTACT: Yes ておられ ICE USED: Wet 26 COOLER TEMPERATURE (°C): Temperature is Acceptable? <u>ارد</u> ا No. Initial when N/A completed: Other CUSTÓDY SEAL PRESENT: Yes 6.NO 10. 1112 14. ဌ Other a m, 4 None F #122087967 🗆 Z KA ¥NAÇA ÇA N N Š N N § ND Pace文 N/A-C <u>چ</u> ŝ NO. SNO. ŝ No S S S N ŝ ž 2 NO D 2 0 2 Ž Bubble Bags Exceptions that are not checked: TOC, VOA, Subcontract Analyses IR Gun 03 😅 Non ZYes. Oyes Z MYes. N K Se Se Client a Yes Filtered volume received for Dissolved tests: Dvas Oyes All containers needing preservation have been All containers needing preservation are in compliance with EPA recommendation; Includes date/time/ID/Analysis PACKING MATERIAL: Bubble Wrap BIOLOGICAL TISSUE IS FROZEN: Yes I Rush Turn Around Time Requested: Sampler Name / Signature on COC: Samples Arrived within Hold Time: Short Hold Time Analysis (<72hr): Pace Trip Blank Lot #: _03\3\6 -UPS D Trip Blank Custody Seals Present: Headspace in VOA Vials (>6mm): Chain of Custody Relinquished: Sample Receipt form filled in: 🙏 THERMOMETER USED: #164X Chain of Custody Filled Out: Pace Containers Used: Chain of Custody Present: Sample-Labels-match-COC: Correct Containers Used: checked: COURIER: FedEx Sufficient Volume: **Frip Blank Present:** Containers Intact: COMMENTS:

abeling (Includes Scanning Bottles and entering LAB IDs into pH logbook):

Document Control# F-NY-C-034-rev.D0 (15July2015)

16030418 - Page 122 of 127

Appendix C

MONTGOMERY COUNTY CENTRAL LANDFILL

PAGE INDEX

SAMPLING LOCATION	FIELD/INORGANIC PARAMETERS	TOTAL METALS	DISSOLVED METALS	ORGANIC COMPOUNDS (DETECTED)
MW-1	2-3	4-5	6-7	8
MW-2	10-11	12-13	14-15	16
MW-5	18-19	20-21	22-23	24
MW-6	26-27	28-29	30-31	32

	<u> </u>	FIEL	D PARAMET	ERS			INC	ORGANIC I	PARAME	TERS	
OVERBURDEN				SP.			ALK.	HARD.			
UNIT	TEMP.	Eh	рН	COND.	TURB.	COLO		(mg/l	TDS	CI	SO4
6NYCRR Part 703	(deg. F)	(mV)	(Std Units)	(uS/cm)	(NTU)	(Units)	CaCO3)	CaCO3)	(mg/l)	(mg/l)	(mg/l)
GROUNDWATER STANDARD	-	•	6.5-8.5	-	5	15	•	-	500	250	250
Monitoring Wells MW-1						111111111111111111111111111111111111111					
09-Jun-04	53	121	8.4	550	1500	300	200	1300	205	2.0	8.6
27-Sep-05 02-May-06	WELL DRY	r - -61	- 7.9	- 531	1100	44	270	- 210	- 277	2.0	10.2
10-Sep-07	WELL DRY		-	-			-	-	-	-	-
24-Nov-08	WELL DRY		-	-		-	-	-	-	-	-
14-Apr-09	49	11	8.9	257	450	15	170	280	180	1.4	12.4
19-Jul-10	56	21	8.2	544	> 1000	60	180	4800	460	1.7	7.6
24-Oct-11	59	-94	7.7	543	0	19	200	180	200	2.5	7.8
16-Mar-12	49	150	8.2	372	46	7	210	30	250	< 1.0	< 5.0
17-May-13	54	131	8.0	380	132	10	436	242	242	1.1	5.6
08-Jul-14	70	106	8.3	360	11	< 5	185	191	132	< 0.5	4.3
08-Oct-15	WELL DRY		-	•		-	-	-	-	-	-
21-Mar-16	WELL DRY	' -	-	•	•	-	-	-	-	•	•
1											
1											
											'
İ											
	7										
						,					

					INORGA	ANIC PAI	RAMETE	RS			
							HTTE Let				
OVERBURDEN										TOTAL	TOTAL
UNIT	Br	BORON		NO3-N		TKN	COD				S CYANIDE
CNN/ODD D-+ 700	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)
6NYCRR Part 703	10.01	1.00	0.05	10	2.0					0.004	0.20
GROUNDWATER STANDARD	[2.0]	1.00	0.05	10	2.0	-	-	-	-	0.001	0.20
Monitoring Wells	 										
MW-1											
09-Jun-04	1 -	< 0.5	< 0.010	0.2	< 0.5	3.2	40	< 4.0	27	< 0.005	< 0.010
27-Sep-05	WELL DI	RY -	-	-	-	-	-	-	-	-	-
02-May-06	-	< 0.5	< 0.010	< 0.2	< 0.5	< 0.5	< 20	< 4.0	33	< 0.005	< 0.010
10-Sep-07	WELL DI		-	-	-	-	-	-	-	-	-
24-Nov-08	WELL DI		-	-	-	-	-	•	•	•	•
14-Apr-09	-	< 0.5	< 0.010		< 0.5	< 0.8	< 20	< 4.0	< 3		< 0.010
19-Jul-10	-	0.9	< 0.010	0.2	< 0.5	19.6	140	< 4.0	81		< 0.010
24-Oct-11 16-Mar-12		< 0.5 < 0.5	< 0.010 < 0.010	0.1 0.1	< 0.5 < 0.5	0.8 < 0.5	< 20 < 20	< 4.0 < 4.0	< 3 < 3		< 0.010 < 0.010
17-May-13	< 1.0	< 0.5	< 0.010		0.2	3.8	568	< 2.0	4		< 0.010
08-Jul-14	1.0	< 0.1	< 0.040		< 0.1	< 0.5	11	< 2.0	1		< 0.020
08-Oct-15	WELL D		-	-		-	•	-		-	-
21-Mar-16	WELL D		-		-		-	-		-	-
1											
	1										
	1										

					٦	OTAL MET	ALS				
OVERBURDEN		· · · · · · · · · · · · · · · · · · ·									
UNIT	Al (ug/l)	Sb (ug/l) _	As (ug/l)	Ba (ug/l)	Be (ug/l)	Cd (ug/l)	Ca (ug/l)	Cr (ug/l)	Co (ug/l)	Cu (ug/l)	Fe (ug/l)
NYCRR Part 703	(=3/						(-5-1)		1-3-7		
SROUNDWATER STANDARD	-	[3]	25	1000	[3]	5	•	50	-	200	300
Monitoring Wells MW-1											
09-Jun-04	9400	< 3.0	12	330	< 5.0	6.0	450000	54	-	110	4100
27-Sep-05	WELL D		-	-	-		-	-	-	-	-
02-May-06	< 50	< 3.0	< 500	< 300	< 5.0	< 5.0	63000	< 50	-	< 20	170
10-Sep-07	WELL DI		-	•	-	-	-	-	-	-	-
24-Nov-08	WELL D		-	•	•	-	-	-	-	•	
14-Apr-09	290	< 3.0	< 10	< 300	< 5.0	< 5.0	87000	< 50	te i	< 20	930
19-Jul-10	58	< 3.0	< 10	1	6.0	17.0	2000000	130	-	430	220
24-Oct-11	16	< 3.0	< 10	< 300	< 5.0	< 5.0	52000	< 50	-	< 20	360
16-Mar-12	3900	< 15.0	< 50	< 300	< 5.0	< 5.0	9600	< 50	-	920	1500
17-May-13	1870	< 5.0	< 5	104	< 4.0	< 4.0	74400	< 5	< 5	5	2810
08-Jul-14	185	< 5.0	< 5	85	< 4.0	< 4.0	54800	< 5	< 5	< 5	207
08-Oct-15	WELL D	RY -	-	-	-	-	-	-	•	-	-
21-Mar-16	WELL D	RY -	-	-	-	-	_	-	-	-	-

						TOTAL	METALS					
OVERBURDEN												
UNIT	Pb	Mg	Mn	Hg	Ni	K	Na	Se	Ag	TI	V	Zn
21111	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
6NYCRR Part 703												
GROUNDWATER STANDARD	25	[35000]	300	0.7	-	-	20000	10	50	[0.5]	-	[200
Monitoring Wells MW-1												
09-Jun-04	-	28000	1400	< 0.4	150	5000	3600	25	< 50.0	< 3.0	-	200
27-Sep-05	WELL D		•	•	•	-	-	-	-		-	•
02-May-06	< 1.0	14000	< 20	< 0.4	< 30	530	< 500	< 5	< 50.0	3.0	-	< 10
10-Sep-07	WELL D		-	•	-	-	-	-	-	-	-	-
24-Nov-08	WELL D		-	•	•	•	•	-	× -	-	-	-
14-Apr-09	< 3.0	16000	100	< 0.4	< 30	790	770	< 5	< 50.0	< 3.0	•	< 10
19-Jul-10	< 1.0	71000	5700	< 0.4	330	23000		< 5	< 50.0	< 3.0	-	840
24-Oct-11	< 1.0	12000	< 20	< 0.4	< 30	800	850	< 5	< 50.0	< 3.0	-	< 10
16-Mar-12	< 5.0	1500	35	< 0.4	< 30	4700		< 25	< 50.0	< 15.0	-	140
17-May-13	< 5.0	13800	68	< 0.2	5	1460	1060	< 10	< 7.0	< 10.0	-	22
08-Jul-14	< 5.0	13100	< 5	< 0.2	< 5	1020	1830	< 10	< 7.0	< 10.0	-	< 5
08-Oct-15	WELL D	RY -	•	-	-	-	-	-	-	-	-	-
21-Mar-16	WELL D	RY -	•	•	-	-	-	-	-	-	-	-

					DIS	SOLVED N	METALS				
OVERBURDEN											
UNIT	Al (ug/l)	Sb (ug/l)	As (ug/l)	Ba (ug/l)	Be (ug/l)	Cd (ug/l)	Ca (ug/l)	Cr (ug/l)	Co (ug/l)	Cu (ug/l)	Fe (ug/l)
6NYCRR Part 703	(ug/i)	(ug/i)	(ug/i)	(ug/i)	(09/1)	(ogn)	(ugn)	(ug/i)	(09/1)	(ugri)	(09//)_
GROUNDWATER STANDARD	-	[3]	25	1000	[3]	5	•	50	-	200	300
Monitoring Wells MW-1											
09-Jun-04	-	-	-	-	-	•	•	-	-	-	-
27-Sep-05	WELL D	RY -	-	-	•	•	-	-	-	•	-
02-May-06	-	•	•	-	-	•	-	-	-	-	-
10-Sep-07	WELL D		-	-	-	•	-	-	-	-	-
24-Nov-08	WELL D		•	-	-	•	•	•	-	-	
14-Apr-09	63	< 3.0	< 10	< 300	< 5.0	< 5.0	50000		•	< 20	150
19-Jul-10	< 50	< 3.0	< 10	< 300	< 5.0	< 5.0	53000		•	< 20	34
24-Oct-11	-	-	-	•	-	-	-	-	•	•	-
16-Mar-12	-	-	-	•	-	-	-	-	•	•	-
17-May-13	58	< 5.0	< 5	88	< 4.0	< 4.0	59000	< 5	< 5	< 5	< 50
08-Jul-14	-	-	-	-	-	•	-	-	-	•	-
08-Oct-15	WELL D	RY -	-	-	-	-	-	-	-	-	-
21-Mar-16	WELLD	RY -	-	-	-	•	-	-	-	-	-
*											

						ISSOLVI	ED METAL	.S				
OVERBURDEN UNIT	Pb	Mg	Mn	Hg	Ni	К	Na	Se	Ag	TI	V	Zn
CIVIT	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
6NYCRR Part 703	<u> </u>	(-3)	1-57			, , ,	•					
GROUNDWATER STANDARD	25	[35000]	300	0.7	-	•	20000	10	50	[0.5]	-	[2000
Monitoring Wells MW-1												
09-Jun-04	-	-	-	-	-	-	-	-	-	-	-	-
27-Sep-05	WELL DRY		-	-	-	-	-	-	•	•	-	•
02-May-06	-	,	-	-	-	-	-	•	-	-	-	-
10-Sep-07 24-Nov-08	WELL DRY		-	-		•	-	-	-	-	-	•
14-Apr-09	< 100.0	14000	< 20	< 0.4	< 30	840	2700	< 5	< 50.0	< 3.0	-	< 10
19-Jul-10	< 1.0	12000	24	< 0.4	< 30	570	1100	< 5	< 50.0	< 3.0	-	< 10
24-Oct-11	-	-	-	- 0.4	- 00	-	-		-	•	-	
16-Mar-12	_		-	-	-	_	_	-	•	•	-	-
17-May-13	< 5.0	13700	< 5	< 0.2	< 5	734	1100	< 10	< 7.0	< 10.0	-	< 5
08-Jul-14	-	-	-	-	•	-	-	-	-	•	-	-
08-Oct-15	WELL DRY	/ _	•	•	-	-	-	-	•	-	-	•
21-Mar-16	WELL DRY	<i>(</i> -	-	•	•	-	-	-	-	-	-	-
											-81	
	ž.											

		ORGANIC PARAMETERS (DETEC	CTED)	
OVERBURDEN UNIT		ONUNIO I AIMINETERO (DETER		SUM OF ORGANIC COMPOUNDS (DETECTED)
6NYCRR Part 703 GROUNDWATER STANDARD				
	ANALYSIS METHOD EPA 8260 WELL DRY EPA 624 WELL DRY EPA 624 EPA 624 EPA 624 EPA 624 EPA 624 EPA 624 EPA 624 EPA MELL DRY WELL DRY WELL DRY			0 - 0 - 0 0 0 0 0

1183			
		gr	
			-

	-	FII	ELD PARAME	TERS			INC	DRGANIC	PARAMET	TERS	
OVERBUIED							ALIZ	HARR			
OVERBURDEN UNIT	TEMP.	Eh	рН	SP. COND.	TURB.	COLO	ALK. R (mg/l	HARD.	TDS	CI	SO4
UNIT	1		•				CaCO3)_	(mg/l CaCO3)			
6NYCRR Part 703	(deg. F)	(mV)	(Std Units)	(u\$/cm)	(NTU)	(Units)	CaCO3)	Caccosj	(mg/l)	(mg/l)	(mg/l)
GROUNDWATER		•	6.5-8.5	•	5	15		•	500	250	250
STANDARD		-	0.5-0.5	•	3	'3			500	200	250
Monitoring Wells	 								•	•	
MW-2	1										
09-Jun-04	53	160	7.6	311	1100	200	240	1100	280	2.0	24.0
27-Sep-05	WELL D		-	-	, Soole james (1999)	•		•	-	-	
02-May-06	52	-38	7.5	485	176	24	22	200	338	2.2	27.8
10-Sep-07	WELL D		-	•			_	-	•	•	_
24-Nov-08	48	4	8.0	420	> 1000	15	290	460	340	2.7	< 100.0
14-Apr-09	46	55	8.1	288	18	8	210	240	180	2.2	25.6
19-Jul-10	WELL D		-	-	Town of Section (199)			•	-	•	- 194
25-Oct-11	58	-20	6.9	733	0	16	290	260	280	3.1	14,8
16-Mar-12	45	156	7.4	510	10	12	280	210	310	2.6	39.4
17-May-13	50	172	7.4	544	39	< 5	320	316	319	2.5	26.4
08-Jul-14	68	110	7.8	528	44	< 5	315	319	297	1.4	24.9
08-Oct-15	WELL D		-				-	-	•		• 35
21-Mar-16	44	118	7.6	501	3	< 5	315	261	311	3.2	25.6
	1										
]					
	1										
						1					
											i
	1										
	1										
											*
						1					
						'					
1											
						1					
	1										
	1					1					

		FIEL	D PARAMET	ERS	-		INC	RGANIC F	PARAMETE	RS	
OVERBURDEN UNIT	TEMP.	Eh	pН	SP. COND.	TURB.	COLOF	ALK.	HARD. (mg/i	TDS	CI	SO4
0.411	(deg.F)	(mV)	(Std Units)	(uS/cm)	(NTU)	(Units)	CaCO3)	CaCO3)	(mg/l)	(mg/l)	(mg/l)
6NYCRR Part 703 GROUNDWATER STANDARD	-	•	6.5-8.5	•	5	15	-	•	500	250	250
Monitoring Wells MW-2									-		
09-Jun-04	53	160	7.6	311	1100	200	240	1100	280	2.0	24.0
27-Sep-05 02-May-06	WELL DR	.Y -38	- 7.5	- 485	176	24	22	200	- 338	- 2.2	- 27.8
10-Sep-07	WELL DR		-	-	-170			-	-	-	-
24-Nov-08	48	4	8.0	420	> 1000	15	290	460	340	2.7	< 100.0
14-Apr-09	46	55	8.1	288	18	8	210	240	180	2.2	25.6
19-Jul-10	WELL DR		-		_			-	-	-	-
25-Oct-11	58	-20	6.9	733	0	16	290	260	280	3.1	14.8
16-Mar-12	45	156	7.4	510	10	12	280	210	310	2.6	39.4
17-May-13	50	172	7.4	544	39	< 5	320	316	319	2.5	26.4
08-Jul-14	68	110	7.8	528	44	< 5	315	319	297	1.4	24.9
08-Oct-15	WELL DR		-	•	•	-	-	-	-	-	•
21-Mar-16	44	118	7.6	501	3	< 5	315	261000	311	3.2	25.6

		7.0		<u></u> .	INORGA	ANIC PAR	RAMETER	RS			
OVERBURDEN										TOTAL	TOTAL
UNIT	Br	BORON	Cr+6	NO3-N			COD	BOD-5			S CYANIDE
CNIVODD Ded 702	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)
6NYCRR Part 703 GROUNDWATER STANDARD	[2.0]	1.00	0.05	10	2.0	•	-	-	-	0.001	0.20
Monitoring Wells MW-2											
09-Jun-04	-		< 0.010	< 0.2	< 0.5	< 0.5	49	< 4.0	18	< 0.005	< 0.010
27-Sep-05	WELL		-	-	-	- 0.5	- 00	- 40	- 0	0.000	- 0.040
02-May-06	-		< 0.010		< 0.5	< 0.5	< 20		< 3	0.006	< 0.010
10-Sep-07 24-Nov-08	WELL		- < 0.010	- 02	< 0.5	- < 0.5	- 27	- < 4.0	4	< 0.005	< 0.010
14-Apr-09			< 0.010		< 0.5	< 0.5	< 20		< 3	< 0.005	< 0.010
19-Jul-10	WELL		-	-	- 0.0	-	-	-	-	-	-
25-Oct-11	-		< 0.010	< 0.1	< 0.5	< 0.5	< 20		< 3	< 0.005	< 0.010
16-Mar-12	-		< 0.010		< 0.5	< 0.5	< 20		< 3	< 0.005	< 0.010
17-May-13	< 1.0		< 0.040		< 0.1	< 1.0	90	< 2.0	1	< 0.002	< 0.020
08-Jul-14	-	< 0.1	< 0.040	< 0.1	< 0.2	1.0	72	< 2.0	1	< 0.002	< 0.020
08-Oct-15	WELL		-	•	-	•	-	-	-	-	-
21-Mar-16	-	< 0.01	< 0.040	< 0.1	< 0.1	0.1	< 10	< 2.0	1	< 0.002	< 0.020

						TOTAL META	11.5				
			1			TOTAL WETA	1LO				
OVERBURDEN								_	_	_	_
UNIT	Al	Sb	As	Ва	Be	Çd	Ca	Cr	Co	Cu	Fe
ALIVORD D. 1 700	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
6NYCRR Part 703 GROUNDWATER STANDARD	-	[3]	25	1000	[3]	5	•	50	-	200	300
Monitoring Wells MW-2											
09-Jun-04	28000 WELL DI	< 3.0	20	330	< 5.0	12.0	260000	97	-	150	71000
27-Sep-05 02-May-06	160	< 3.0	< 500	< 300	< 5.0	< 5.0		< 50	-	< 20	710
10-Sep-07	WELL DI		-		-	-	-	-	-	•	-
24-Nov-08	28000	< 3.0	19	340	< 5.0	7.0	120000	51	_	87	65000
14-Apr-09	59	< 3.0	< 10	< 300	< 5.0	< 5.0		< 50	-	< 20	53
19-Jul-10	WELL DI		-	-	-	-	-		_	-	-
25-Oct-11	540	< 3.0	< 10	< 300	< 5.0	< 5.0		< 50	-	< 20	940
16-Mar-12	570	< 15.0	< 50	< 300	< 5.0	< 5.0		< 50	-	< 20	790
17-May-13	403	< 5.0	< 5	18	< 4.0	< 4.0		< 5	< 5	< 5	647
08-Jul-14	1290	< 5.0	< 5	25	< 4.0	< 4.0		< 5	< 5	< 5	2040
08-Oct-15	WELL D		- 3	-	- 4.0	- 4.0	-	-	-	-	-
21-Mar-16	121	< 60.0	< 10	17	< 5.0	< 5.0	105000	2	< 50	< 25	234
2111101110	'-'	00.0						_			

						TOTAL	METALS					
OVERBURDEN												
UNIT	РЬ	Mg	Mn	Hg	Ni	K	Na	Se	Ag	TI	V	Zn
51111	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l
NYCRR Part 703	(03.7)	(- <u>3</u> /	(-3)	(-5/	(-2-)	(-2-7	(-9-7	1-0-7		1-5-7	(-5.7	(-5:
ROUNDWATER	25	[35000]	300	0.7	-	-	20000	10	50	[0.5]	-	[20
STANDARD												
Monitoring Wells MW-2												
09-Jun-04	-	110000	5400	< 0.4	210	6000	5900	39	< 50.0	< 3.0	-	250
27-Sep-05	WELL DRY		•	-	-	•	-	-	•	-	-	-
02-May-06	< 1.0	9200	74	< 0.4	< 30	< 500	660	< 5	< 50.0	4.0	-	< 10
10-Sep-07	WELL DRY			-	-	-	-	-		-	-	-
24-Nov-08	48.0	36000	6000	< 0.4	94	6700	4000	8	< 50.0	< 3.0	•	190
14-Apr-09	< 3.0		< 20	< 0.4	< 30	< 500		< 5	< 50.0	< 3.0	•	< 10
19-Jul-10	WELL DRY		-	•	-	-	-	-	-	- 0.0	-	- 40
25-Oct-11	< 1.0	12000	48	< 0.4	< 30	< 500		< 5	< 50.0	< 3.0	-	< 10
16-Mar-12	< 5.0	14000	26	< 0.4	< 30	780		< 25	< 50.0	< 15.0	-	< 10
17-May-13	< 5.0	16500	25	< 0.2	< 5	< 500		< 10	< 7.0	< 10.0	-	< 5
08-Jul-14	< 5.0	18400	53	< 0.2	< 5	657		< 10	< 7.0	< 10.0	-	6
08-Oct-15	WELL DRY		-	-	- 45	- 5000		-	- 40.0	- 40.0	-	-
21-Mar-16	2.2	14000	21	< 0.2	< 40	< 5000	2320	< 5	< 10.0	< 10.0	-	2
				*								

					DIS	SOLVED M	IETALS				
OVERBURDEN											
UNIT	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe
	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
6NYCRR Part 703 GROUNDWATER STANDARD	-	[3]	25	1000	[3]	5	-	50	•	200	300
Monitoring Wells MW-2				<u>-</u> .							
09-Jun-04	-	-	-	-	-	-	-	•	-	-	-
27-Sep-05	WELL DRY	-	-	•	-	-	•	-	-	•	•
02-May-06	-	-	-	-	-	•	-	-	-	-	-
10-Sep-07	WELL DRY	•	-	-	•	•	-	-	-	-	-
24-Nov-08	-	-	-	-	-	-	•	-	•	-	-
14-Apr-09	-	-	•	•	-	-	•	-	-	-	-
19-Jul-10	WELL DRY	•	-	-	-	-	-	-	•	-	-
25-Oct-11	-	-	-	•	-	-	•	•	-	-	-
16-Mar-12	-	-	-	•	-	-	-	-	-	-	-
17-May-13	-	•	-	•	-	-	-	•	-	•	•
08-Jul-14	-	-	-	-	•	-	-	•	-	-	-
08-Oct-15	WELL DRY	-	-	•	-	-	•	•	-	-	•
21-Mar-16	-	•	•	-	-	-	-	-	•	-	-

					D	ISSOLVE	ED METALS	3		· · · <u>-</u>		
OVERBURDEN												
UNIT		Mg	Mn	Hg	Ni	K	Na	Se	Ag	T!	V	Zn
6NYCRR Part 703	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/i)	(ug/l)
GROUNDWATER STANDARD	25	[35000]	300	0.7	•	•	20000	10	50	[0.5]	-	[2000]
Monitoring Wells MW-2												
09-Jun-04	•	-	•	•	-	-	-	-	-	-	-	-
	WELL DRY	-	-	-	-	-	-	-	-	-	-	•
02-May-06	-	-	•	•	-	-	•	•	•	-	-	-
	WELL DRY		•	-	•	-	-	-	-	-	-	-
24-Nov-08	-	-	-	-	•	•	-	-	•	-	-	-
14-Apr-09	- WELL DRY	-	-	-	-	-	-	-	-	-	-	•
19-Jul-10 25-Oct-11	-	-	-	-	-	-	-	-	-	-	-	-
16-Mar-12		-	-	_		-	-	-	-	-	-	
17-May-13	•		•	-	_	-	_	-	_	_	-	_
08-Jul-14					-	_	_	_	_	_	_	
08-Oct-15	WELL DRY		_	_	_ =	_	_	-	_	_	-	
21-Mar-16	-		-	-	-	-	•	_	-	-	-	_

	ORGANIC PARAMETERS (DETECTED)	
OVERBURDEN UNIT	ORGANIC PARAMETERS (DETECTED)	SUM OF ORGANIC COMPOUNDS (DETECTED)
6NYCRR Part 703 GROUNDWATER STANDARD		
Monitoring Wells MW-2 09-Jun-04 27-Sep-05 02-May-06 10-Sep-07 24-Nov-08 14-Apr-09 19-Jul-10 25-Oct-11 16-Mar-12 17-May-13 08-Jul-14 08-Oct-15 21-Mar-16	ANALYSIS METHOD EPA 8260 WELL DRY EPA 624 WELL DRY EPA 624 EPA 624 WELL DRY EPA 624 EPA 624 EPA 624 EPA 624 EPA 624 EPA 624 EPA 624 EPA 624 EPA 624 EPA 624 WELL DRY EPA 624	
×4.3		

		SET:
	36	

		FIE	LD PARAMET	TERS			INC	RGANIC I	PARAMET	ERS	
OVERBURDEN				SP.			ALK.	HARD.			
UNIT	TEMP.	Eh	pН	COND.	TURB.	COLO	-	(mg/l	TDS	CI	SO4
	(deg. F)	(mV)	(Std Units)	(uS/cm)	(NTU)	(Units)	CaCO3)	CaCO3)	(mg/l)	(mg/l)	(mg/l)
6NYCRR Part 703			0505		-	45			F00	050	050
GROUNDWATER	-	-	6.5-8.5	-	5	15	•	•	500	250	250
STANDARD Monitoring Wells	 					 					
MW-5											
09-Jun-04	56	-75	6.9	2320	450	250	990	1000	1410	70.0	< 5
27-Sep-05	60	35	7.2	1880	70	10	1900	820	1250	68.9	< 5
02-May-06	51	-18	7.1	2590	316	230	1400	1400	1800	87.7	< 5
10-Sep-07		< -300	7.1	760	224	150	610	830	845	93.4	< 20
24-Nov-08	44	-57	7.3	275	92	56	830	930	1060	128.0	
14-Apr-09	43	-63	7.8	970	148	12	3000	1200	230	137.0	
20-Jul-10	63	-74	7.2	275	94	70	960	1200	1200	130.0	
25-Oct-11	58	-103	6.9	231	15	260	780	760	840	128.0	
16-Mar-12	43	3	7.2	1591	8	11	460	780	930	116.0	
17-May-13	52	-63	7.0	1871	10	< 5	1040	930	1080	106.0	
08-Jul-14	70	-119	7.3	2710	49	< 5	1350	1650	1940	109.0	
09-Oct-15	56	137	7.2	1640	43	10	781	428	939	109.0	0.1
21-Mar-16	41	-48	7.0	1616	28	5	B31	441	934	141.0	0.6

					INORG/	NIC PAR	RAMETER	RS			
OVERBURDEN UNIT	Br	BORON	Cr+6	NO3-N	NH3-N	TKN	COD	BOD-5	тос	TOTAL PHENOLS	TOTAL S CYANII
0.111	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)
6NYCRR Part 703		, j ,	, , ,	, , , , , , , , , , , , , , , , , , , ,	((***)	(***		1	<u> </u>	1
GROUNDWATER STANDARD	[2.0]	1.00	0.05	10	2.0	-	-	•	•	0.001	0.20
Monitoring Wells MW-5											
09-Jun-04	-	< 0.5	< 0.010		< 0.5	1.7	640	310.0			< 0.010
27-Sep-05	-	< 0.5	< 0.010		< 0.5	2.8	464	> 39.6	175	and the second second second second	< 0.010
02-May-06	-	< 0.5	< 0.010		< 0.5	< 0.5	328	230.0	400	And the second s	< 0.010
10-Sep-07	-	< 0.5	< 0.040		< 0.5	1.0	25		< 3		< 0.010
24-Nov-08	-	< 0.5	< 0.010		0.5	0.9	24	26.0	9		< 0.010
14-Apr-09	-	< 0.5	< 0.010		0.5	< 0.5	75	34.0	30		< 0.010
20-Jul-10	•	< 0.5	< 0.010	0.1	0.5	0.9	86	34.0	33		< 0.010
25-Oct-11	-	< 0.5	< 0.010	0.1	0.5	0.8	< 20		< 3		< 0.010
16-Mar-12	1.40	< 0.5	< 0.010	0.1	< 0.5	< 0.5	< 20	42.0	12		< 0.010
17-May-13	< 1.0	< 0.5	< 0.040		< 0.2	< 1.0	78	78.2	36		< 0.020
08-Jul-14	-	0.5	< 0.040		< 0.1	0.7	816	665.0	347	The state of the s	< 0.020
09-Oct-15] -	0.7	< 0.040		0.3	0.8	< 10	5.0	3	Control of the Contro	< 0.010
21-Mar-16	-	0.5	< 0.040	< 0.1	0.3	0.6	32	26.0	16	0.004	< 0.010
	1										

	1					MILK W					
					•	TOTAL MET	ALS				
OVERBURDEN UNIT	Al	Sb	As	Ва	Ве	Cd	Ca	Cr	Со	Cu	Fe
	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
SNYCRR Part 703 SROUNDWATER STANDARD	-	[3]	25	1000	[3]	5	•	50	-	200	300
Monitoring Wells MW-5											
09-Jun-04	220	< 3.0	< 10	390	< 5.0	6.0	270000	< 50		71	340
27-Sep-05	84	7.0	14	340	< 5.0	< 5.0	200000		-	84	140
02-May-06	< 50	< 3.0	< 500	480	< 5.0	< 5.0	350000	< 50	-	< 20	290
10-Sep-07	< 50	< 3.0	< 10	330	< 5.0	< 5.0	210000			< 20	160
24-Nov-08	53	4.0	35	360	< 5.0	< 5.0	210000			< 20	190
14-Apr-09	62	< 3.0	< 10	470	< 5.0	< 5.0	270000		_	< 20	230
20-Jul-10	59	3.0	11	460	< 5.0	< 5.0	290000		_	< 20	270
25-Oct-11	< 50	< 3.0	43	410	< 5.0	< 5.0	170000		-	< 20	370
16-Mar-12	< 50	< 15.0	50	390	< 5.0	< 5.0	170000		-	< 20	210
17-May-13	< 50	< 5.0	7	393	< 4.0	< 4.0	190000		< 5	< 5	22
08-Jul-14	< 50	< 5.0	19	594	< 4.0	< 4.0	322000		14	< 5	382
09-Oct-15	17	< 60.0	8	359	< 5.0	1.5	172000		6	< 25	20
21-Mar-16	< 200	< 60.0	52	353	< 5.0	1.0	177000		5	10	184

	<u> </u>					TOTAL	METALS					
OVERBURDEN												
UNIT	Pb	Mg	Mn	Hg	Ni	K	Na	Se	Ag	TI	V	Zn
5,111	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
6NYCRR Part 703	\	(03.7)	(-9-)	(-3-7	(-3-)	(-3-)	(-3-)	1-3-7		(-2-)	(-2-7	\- <u>-</u>
GROUNDWATER	25	[35000]	300	0.7	-	-	20000	10	50	[0.5]	-	[200
STANDARD		L2										•
Monitoring Wells										•••		
MW-5												
09-Jun-04	-	86000	150	< 0.4	70	1900	24000	29	< 50	< 3	-	41
27-Sep-05	< 1.0	80000	27	< 0.4	41	2700	18000	5	< 50	8	-	49
02-May-06	< 1.0	130000	62	< 0.4	< 30	2000	35000	< 5	< 50	< 3	•	< 10
10-Sep-07	< 3.0	75000	42	< 0.4	< 30	2100	22000		< 50	16	•	14
24-Nov-08	< 3.0	100000	43	< 0.4	< 30	2400	36000	14	< 50	< 3	-	< 10
14-Apr-09	< 3.0	120000	45	< 0.4	< 30	1700	37000		< 50	< 3	-	< 10
20-Jul-10	< 1.0	120000	47	< 0.4	< 30	2700	58000		< 50	< 3	•	45
25-Oct-11	< 1.0	81000	52	< 0.4	< 30	2600	63000		< 50	< 3	-	< 10
16-Mar-12	< 5.0	85000	47	< 0.4	< 30	2600	64000		< 50	< 15	-	< 11
17-May-13	< 5.0	111000	41	0.5	17	2100	79100		< 7	< 10	-	36
08-Jul-14	< 5.0	205000	44	< 0.2	29	2190	92900	< 10	< 7	< 10	•	< 5
09-Oct-15	21.0	103000	37	0.03	25	1680	84400	2	< 10	< 10	< 50	6
21-Mar-16	4.9	102000	44	< 0.02	22	1480	74500	< 5	2	< 10	-	4

					DIS	SOLVED M	METALS				
OVERBURDEN	١.,.	CL.		0-	Da	04	0-	C-	C-	C	r-
UNIT	Al	Sb	As	Ва	Be	Cd	Ca	Cr	Co	Cu	Fe
6NYCRR Part 703	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
GROUNDWATER	.	[3]	25	1000	[3]	5		50	_	200	300
STANDARD		[o]		1000	[0]	•		-		200	-
Monitoring Wells			_							-	
MW-5							_				
09-Jun-04 27-Sep-05	•	-	-	-	-	-	-		•	-	-
02-May-06	:	-	-	-	-			-	-	-	
10-Sep-07]	-	-				_	_		•	•
24-Nov-08	.				_	-	_				_
14-Apr-09	55	< 3.0	< 10	< 300	< 5.0	< 5.0	210000			< 20	340
20-Jul-10	< 50	< 3.0	< 10	< 300	< 5.0	< 5.0	230000		_	< 20	33
25-Oct-11	- 50	- 5.0	- 10	- 500	- 0.0	- 0.0	-	-			-
16-Mar-12	.		-	_	-	_	-	-	-	•	_
17-May-13	.		-	-	-	-			•	-	-
08-Jul-14	.	_	-	•	•			-	-	-	-
09-Oct-15	-	-	-	•	-		-	-	-		-
21-Mar-16	.		-	-	-	-	-		•	-	-

	DISSOLVED METALS											
OVERBURDEN												
UNIT	Pb	Mg	Mn	Hg	Ni	ĸ	Na	Se	Ag	TI	V	Żπ
51111	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
6NYCRR Part 703	(Ogri)	(Ogri)	(agri)	(891)	(09/1)	(ugri)	(ugri)	(091)	(091)	(09.)	(44)	(ugi)
GROUNDWATER	25	[35000]	300	0.7		•	20000	10	50	[0.5]	-	[2000
STANDARD		[00000]		-7.5						(=)		
Monitoring Wells MW-5												
09-Jun-04	٠	-	-	-	•	•	•	•	-	-	•	-
27-Sep-05	-	-	-	-	•	-	•	-	-	•	•	-
02-May-06	-	•	-	•	•	-	-	-	•	•	-	-
10-Sep-07	•	•	-	-	-	-	•	•	•	-	-	-
24-Nov-08	•	-	-	-	•	•	•	•	-	-	•	-
14-Apr-09	< 100.0	120000	37	< 0.4	< 30	1800		< 5	< 50	< 3	•	< 10
20-Jul-10	< 1.0	100000	40	< 0.4	< 30	2100	51000	6	< 50	< 3	-	< 10
25-Oct-11	-		-	-	-	-		•		-	-	-
16-Mar-12		-	-	-	•	•	•	•	-	-	-	-
17-May-13	-	-	-	-	-	-	-	-	-	•	-	-
08-Jul-14	-	•	-	-	-	-	-	-	•	•	-	-
09-Oct-15	.	•	-	-	-	-	•	-		-	-	-
21-Mar-16	.	-	-	-		•	•		-	-	-	-

	ODCANIO PARAMETERS (DETECTED	
	ORGANIC PARAMETERS (DETECTED	SUM OF
OVERBURDEN		ORGANIC
UNIT	Toluene	COMPOUNDS
J	(ug/l)	(DETECTED)
6NYCRR Part 703	. (091)	(02120120)
GROUNDWATER	5	
STANDARD	•	
Monitoring Wells		
MW-5	ANALYSIS METHOD	
09-Jun-04	EPA 8260 1	1
27-Sep-05	EPA 8260 < 1	0
02-May-06	EPA 624 2	2
10-Sep-07	EPA 624 < 1	0
24-Nov-08	EPA 624 < 1	0
14-Apr-09	EPA 624 < 1	0
20-Jul-10	EPA 624 < 1	0
25-Oct-11	EPA 624 < 1	0
16-Mar-12	EPA 624 < 1	0
17-May-13	EPA 624 < 1	0
08-Jul-14	EPA 624 < 1	0
09-Oct-15	EPA 624 < 1	0
21-Mar-16	EPA 624 < 1	U
× ×		
	į	
1		

		ŧ		
	*			

		FIE	LD PARAMET	TERS		INORGANIC PARAMETERS						
OVEDBURDEN												
OVERBURDEN UNIT	TEMP.	Eh	pН	SP. COND.	TURB.	COLO	ALK.	HARD. (mg/l	TDS	CI	SO4	
ONIT	(deg. F)	(mV)	рп (Std Units)	(uS/cm)	(NTU)	(Units)	CaCO3)	CaCO3)	(mg/l)	(mg/l)	(mg/l)	
6NYCRR Part 703	(deg. r)	(1114)	(Sid Office)	(63/611)	(1410)	(Onits)	08000)	Odocoj	(ing/i/	(mgn)	(mg/i)	
GROUNDWATER	-	_	6,5-8.5	_	5	15	- 1		500	250	250	
STANDARD												
Monitoring Wells												
MW-6					-10000000	122						
09-Jun-04	56	160	7.5	866	690	75	94	560	338	3.0	16.2	
27-Sep-05	60	61	7.5	773	31.7	7	390	340	492	12.6	18.4	
02-May-06	53	-47	7.6	773	328	21	490	360	455	3.9	23.1	
11-Sep-07	59	110	7.4	719	462	350	380	400	345	5.3	26.9	
24-Nov-08	46	34	7.9	406	66	20	360	370	400	3.0	< 50.0	
14-Apr-09	45	75	8.6	389	28	8	340	420	290	2.8	23.3	
20-Jul-10	64	183	7.6	951	115	35	320	430	360	4.2	23.2	
25-Oct-11	57	-40	7.5	963	3	19	410	370	400	3.5	21.2	
16-Mar-12	48	103	7.7	669	9	9	400	270	410	3.0	19.7	
17-May-13	50	283	7.2	639	10	< 5 < 5	367 374	343	350 376	3.0	13.2	
08-Jul-14	71 56	91	7.9	610	7	1		364	276 386	1.7 3.1	14.5 13.3	
09-Oct-15 21-Mar-16	38	159 240	7.6 7.3	697 606	28 14	5 10	345 361	259 241	356	4.5	19.1	
21-Wai-10	30	240	7.3	000	149	10	301	241	330	4.5	19.1	
											1	
2												
						!						
						121						
1												
	1											
	1											
	1					İ						
						1						
						-						

		INORGANIC PARAMETERS										
OVERBURDEN UNIT	Вг	BORON	Cr+6	NO3-N		TKN	COD	BOD-5	TOC	TOTAL PHENOLS	TOTAL CYANIDE	
	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	
6NYCRR Part 703												
GROUNDWATER STANDARD	[2.0]	1.00	0.05	10	2.0	-	-	-	-	0.001	0.20	
Monitoring Wells MW-6												
09-Jun-04	-	< 0.5	< 0.010		< 0.5	1.4	55	16.0	54		0.010	
27-Sep-05	-	< 0.5	< 0.010		< 0.5	< 0.5	< 20	< 4.0	3		0.010	
02-May-06	-	< 0.5	< 0.010		< 0.5	< 0.5	< 20	7.0	4		0.010	
11-Sep-07	-	< 0.5	< 0.100		< 0.5	< 0.5	< 20		< 3		0.010	
24-Nov-08	-	< 0.5	< 0.010	< 0.2	< 0.5	< 0.5	< 20		< 3		0.010	
14-Apr-09	-	< 0.5	< 0.010	< 0.2	< 0.5	< 0.5	< 20		< 3		0.010	
20-Jนโ-10	-	< 0.5	< 0.010	0.1	< 0.5	1.6	< 20		< 3		0.010	
25-Oct-11	-	< 0.5	< 0.010	0.1	< 0.5	0.6	< 20		< 3		0.010	
16-Mar-12	-	< 0.5	< 0.010	< 0.1	< 0.5	< 0.5	< 20	< 4.0	< 3		0.010	
17-May-13	< 1.0	< 0.5	< 0.040	< 0.1	< 0.1	< 1.0	39	< 2.0	1	< 0.002 <	0.020	
08-Jul-14	-	< 0.1	< 0.040	< 0.1	< 0.1	< 0.5	40	< 2.0	1	< 0.002 <	0.020	
09-Oct-15	-	0.02	< 0.040	< 0.1	< 0.1	< 0.5	< 10	1.0	1	< 0.002 <	0.010	
21-Mar-16	-	0.01	< 0.040	< 0.2	< 0.1	< 0.1	< 10	< 2.0	1	< 0.002 <	0.010	

			Ti		1	OTAL MET	ΓALS				
OVERBURDEN											
UNIT	Al	Sb	As	Ва	Ве	Cd	Ca	Сг	Co	Си	Fe
	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
NYCRR Part 703											
GROUNDWATER	-	[3]	25	1000	[3]	5	-	50	-	200	300
STANDARD											
Monitoring Wells MW-6				•11				1900			
09-Jun-04	9200	< 3.0	18	300	< 5.0	7.0	160000	54		48	2200
27-Sep-05	200	11	< 10	< 300	< 5.0	14	89000	< 50	-	89	660
02-May-06	180	< 3.0	< 500	< 300	< 5.0	< 5.0	90000	< 50	-	< 20	1600
11-Sep-07	4200	< 3.0	13	< 300	< 5.0	< 5.0	100000	< 50	-	< 20	8800
24-Nov-08	870	< 3.0	< 10	< 300	< 5.0	< 5.0	92000	< 50	-	< 20	1400
14-Apr-09	240	< 3.0	< 10	< 300	< 5.0	< 5.0	100000	< 50	-	< 20	530
20-Jul-10	1000	< 3.0	< 10	< 300	< 5.0	< 5.0	110000	< 50	-	< 20	1800
25-Oct-11	2400	< 3.0	< 10	< 300	< 5.0	< 5.0	89000	< 50	-	< 20	8000
16-Mar-12	< 50	< 15.0	< 50	< 300	< 5.0	< 5.0	90000	< 50	-	< 20	67
17-May-13	116	< 5.0	< 5	84	< 4.0	< 4.0	86700	< 5	< 5	< 5	216
08-Jul-14	251	< 5.0	< 5	98	< 4.0	< 4.0	89900	< 5	< 5	< 5	704
09-Oct-15	357	< 60.0	< 10	130	< 5.0	< 5.0	104000	< 10	< 50	< 25	839
21-Mar-16	186	< 60.0	< 10	90	< 5.0	< 5.0	96400	< 10	< 50	< 25	586
							100				

					= 1	TOTAL	METALS					
OVERBURDEN	:											
UNIT	Pb	Mg	Mn	Hg	Ni	K	Na	Se	Ag	TI	V	Zn
	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
6NYCRR Part 703							<u> </u>	, ,		<u> </u>		
GROUNDWATER	25	[35000]	300	0.7	-	-	20000	10	50	[0.5]	•	[2000]
STANDARD												
Monitoring Wells MW-6												
09-Jun-04		43000	470	< 0.4	67	4000	6100	22	< 50	8	i -	100
27-Sep-05	< 1.0	29000	83	< 0.4	36	1900	2800	13	< 50	11		64
02-May-06	2.0	34000	57	< 0.4	< 30	750		< 5	< 50	4		< 10
11-Sep-07	10.0	35000	100	< 0.4	< 30	2100		< 5	< 50	14		50
24-Nov-08	< 3.0	34000	86	< 0.4	< 30	1400	2700	17	< 50	< 3		< 10
14-Apr-09	< 3.0	40000	54	< 0.4	< 30	970		< 5	< 50	< 3		< 10
20-Jul-10	< 1.0	41000	60	< 0.4	< 30	1500		< 5	< 50	< 3		15
25-Oct-11	6.0	35000	110	< 0.4	< 30	1400		< 5	< 50	< 3	_	20
16-Mar-12	< 5.0	12000	< 20	< 0.4	< 30	< 500		< 25	< 50	< 15	_	< 10
17-May-13	< 5.0	30800	86	0.3	< 5	989		< 10	< 7	< 10	_	5
08-Jul-14	< 5.0	33800	66	< 0.2	< 5	1190		< 10	< 7	< 10	-	< 5
09-Oct-15	17.1	37100	81	0.1	2	1420		< 5	< 10	< 10	_	8
21-Mar-16	3.5	34000	89	< 0.2	< 40	346		< 5	< 10	< 10	-	2

					DIS	SOLVED N	METALS				
OVERBURDEN											
UNIT	Al	Sb	As	Ва	Ве	Cd	Ca	Cr	Co	Cu	Fe
	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
6NYCRR Part 703											
GROUNDWATER	-	[3]	25	1000	[3]	5	-	50	•	200	300
STANDARD											
Monitoring Wells MW-6											
09-Jun-04	•	•	•	-	-	-	-	-	•	-	-
27-Sep-05	1 -	-	-	-	-	-	-	-	•	-	-
02-May-06	-	-	-	-	•	-	-	-	-	•	-
11-Sep-07	-	-	-	•	•	•	-	-	•	•	-
24-Nov-08	-	-	-	•	•	•	•	-	-	-	-
14-Apr-09	-	- 0.0	- 40		. 50	. 50		- 50	-	- 00	-
20-Jul-10	< 50	< 3.0	< 10	< 300	< 5.0	< 5.0	81000		-	< 20	56
25-Oct-11	-	-	-	-	-	•	-	•	-	-	
16-Mar-12 17-May-13		•	-	-	-	-	-	•	-	-	-
17-may-13 08-Jul-14	:	-	-	-	-	-	-	-	-	-	-
09-Oct-15	-	-	-	-	-	-	-	-	-	-	_
21-Mar-16				-		_	-		•	-	-
											74

	DISSOLVED METALS											
OVERBURDEN												
UNIT	Pb	Mg	Mn	Hg	Ni	K	Na	Se	Ag	TI	V	Zn
	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
6NYCRR Part 703												
GROUNDWATER	25	[35000]	300	0.7	-	-	20000	10	50	[0.5]	-	[2000
STANDARD												
Monitoring Wells												
MW-6 09-Jun-04											-	-
27-Sep-05		•	-	-	-	-	-	-		-	-	
02-May-06	[•	_	_	_	-	•		_	_	_
11-Sep-07	1 -	•	-	-	_	_	_	•	•		-	_
24-Nov-08	-	_	-	-	_	_	_	_	-		_	-
14-Apr-09	_	_	_	-		_	_	_	-		_	-
20-Jul-10	< 1.0	32000	32	< 0.4	< 30	970	3900	< 5	< 50	< 3	-	17
25-Oct-11	-	-	-	-		-		-	-		-	_
16-Mar-12	-	_	-	_	•	-		-	-	-	-	-
17-May-13		-	-	-	•	•	-	•	-	-	-	-
08-Jul-14	-	-	-	-	-	•	-	•	-	-	-	-
09-Oct-15	-	-	-	-	-	-	-	-	-	-	-	-
21-Mar-16	-	-	-	-	-	-	-	•	-	-	-	•

	ORGANIC PARAMETERS (DETECTED)	01114.05
OVERBURDEN UNIT		SUM OF ORGANIC COMPOUNDS (DETECTED)
6NYCRR Part 703		(DETECTED)
GROUNDWATER		
STANDARD		
Monitoring Wells		
MW-6	ANALYSIS METHOD	_
09-Jun-04	EPA 8260	0
27-Sep-05	EPA 8260 EPA 624	0 0
02-May-06 11-Sep-07	PA 624	0
24-Nov-08	EPA 624	0
14-Apr-09	EPA 624	Ö
20-Jul-10	EPA 624	Ō
25-Oct-11	EPA 624	0
16-Mar-12	EPA 624	0
17-May-13	EPA 624	0
08-Jul-14	EPA 624	0
09-Oct-15	EPA 624	0
21-Mar-16	EPA 624	0
<u> </u>		
		100

·			



May 4, 2016

Mr. Ken Bray
Amsterdam Wastewater Treatment Plant
61 Church Street
Amsterdam, New York 12010

Re: Montgomery County Central and Eastern Landfills (Closed)

2016 Second Quarter Semi-Annual Leachate Compliance Report

File: 666.006.002

Dear Mr. Bray:

Enclosed is one copy of the 2016 second quarter semi-annual Leachate Compliance Report for the above referenced facilities. The report summarizes the results of the most recent April sampling event. There were no parameters which exceeded the wastewater discharge limits set forth in the Industrial Wastewater Discharge Permit during this monitoring event.

Please feel free to contact me should you have any questions or concerns regarding the enclosed Leachate Compliance Report.

Very truly yours,

BARTON & LOGUIDICE, D.P.C.

Darik M. Jordan

Senior Project Environmental Scientist

DMJ/akg Enclosure

cc:

Paul Clayburn - Commissioner of Public Works, Montgomery County

Jerry Ward - Village of Canajoharie Wastewater Treatment Plant

Robert Holmes - Cornerstone Environmental



SEMI-ANNUAL COMPLIANCE MONITORING REPORT (Page 1 of 2)

Permittee	Montgom	ery County						_				
Address:	6 Park St	ark Street , Fonda, New York 12068-1500										
Sampling Point Location:	Eastern L	andfill										
Contact Person:	Paul Clay	bum, Commissio	ner									
This report for the period ending (circle			(June		Dec. 1	, 2016					
<u>Parameter</u>		Max Daily Concentration			nple Type rcle one)	Month/Day of Sample	Result					
pH (SU)		**		grab	composite	4/12/2016	6.45					
Biochemical Oxygen Demand, E	BOD (mg/l)	_		grab	composite	4/12/2016	9.3					
Chemical Oxygen Demand, CO	D (mg/l)	-		grab	composite	4/12/2016	14.2					
Total Suspended Solids, TSS (r	mg/l)	200 mg/l		grab	composite	4/12/2016	14.8					
Oil & Grease (mg/l)		_		grab	composite	4/12/2016	< 5.0					
Chromium, total (mg/l)		10 mg/l		grab	composite	4/12/2016	< 0.010	0				
Copper, total (mg/l)		1.2 mg/l		grab	composite	4/12/2016	0.00220)				
Lead, total (mg/l)		1.0 mg/l		grab	composite	4/12/2016	0.00392	2				
Nickel, total (mg/l)		5.0 mg/l		grab	composite	4/12/2016	0.00610	0				
Zinc, total (mg/l)		1,0 mg/l		grab	composite	4/12/2016	0.0090	0				
Cyanide, total (mg/l)		1.0 mg/l		grab	composite	4/12/2016	< 0.010)				
				orab	composite							

I,	Paul Clayburn, Commissioner of Montgomery County Public Works	certify	that	the	information	contained
	(print name & title)					

herein is accurate.

Signature:

Date:

04/29/16

SEMI-ANNUAL COMPLIANCE MONITORING REPORT Page 2 of 2

Permittee:	Montgomery County					
Address:	6 Park Street , Fonda,	New York	12068-1500			
Sampling Point Location:	Eastern Landfill					
Contact Person:	Paul Clayburn, Comm	issioner				
This report for the period endi		June		Dec. 1	í	2016
Parameter	Max Daily Concentration		nple Type rcle one)	Month/Day of Sample		Result
Arsenic, total (mg/l)	0.5 mg/l	grab	composite	4/12/2016	040	< 0.0100
Cadmium, total (mg/l)	5.0 mg/l	grab	composite	4/12/2016	9e4	<0.00500
Hexavalent Chromium, total (mg/l) 5 mg/l	grab	composite	4/12/2016		< 0.0800
Mercury, total (mg/L)	0.10 mg/i	grab	composite	4/12/2016	_	< 0.000200
Silver, free (mg/l)	0.5 mg/l	grab	composite	4/12/2016	-	< 0.0100
Phenolics, total (mg/l)		grab	composite	4/12/2016	-	0 0109
bis (2-Ethylhexyl) phthalate (ıg/l)	grab	composite	4/12/2016		2.9

I, Paul Clayburn, Commissioner of Montgomery County Public Works , certify under penalty of law (print name & title)

that this document and all attachments were prepared under my direction or supervision in accordance with a system desgined to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significate penalties and imprisonment for knowing violations.

Signature:

Date:

SEMI-ANNUAL COMPLIANCE MONITORING REPORT (Page 1 of 2)

Permittee:	Montgom	ery County				
Address:	6 Park S	reel , Fonda, Ne	w York 120	68-1500		
Sampling Point Location	Central L	andfill				
Contact Person	Paul Cla	ybum, Commissio	oner		<u> </u>	
This report for the period endin	g: e one)		June		Dec. 1	, 2016
Parameter		Max Daily Concentration		nple Type rcle one)	Month/Day of Samole	Result
pH (SU)		**	grab	composite	4/12/2016	7,27
Biochemical Oxygen Demand,	BOD (mg/l)	-	grab	composite	4/12/2016	42
Chemical Oxygen Demand, Co	OD (mg/i)		grab	composite	4/12/2016	33.9
Total Suspended Solids, TSS	(mg/l)	200 mg/l	grab	composite	4/12/2016	15.4
Oil & Grease (mg/l)			grab	composite	4/12/2016	< 5.0
Chromium, total (mg/l)		10 mg/l	grab	composite	4/12/2016	< 0.0100
Copper, total (mg/l)		1.2 mg/l	grab	composite	4/12/2016	0 00300
Lead, total (mg/l)		1.0 mg/l	grab	composite	4/12/2016	0.00419
Nickel, total (mg/l)		5.0 mg/l	grab	composite	4/12/2016	0.00780
Zinc, total (mg/l)		1.0 mg/l	grab	composite	4/12/2016	0.00730
Cyanide, total (mg/l)		1.0 mg/l	grab	composite	4/12/2016	< 0.010
			arab	composite		

l,	Paul Clayburn, Commissioner of Montgomery County Public Works	certify	that	the	information	contained
	(neight name P side)					

herein is accurate.

Signature:

Date: _____09

SEMI-ANNUAL COMPLIANCE MONITORING REPORT Page 2 of 2

Permittee:	Montgomery Cour	nty			
Address:	6 Park Street , Fo	nda, New Yor	k 12068-1500		
Sampling Point Location:	Central Landfill			()	
Contact Person:	Paul Clayburn, Co	mmissioner			
This report for the period end (circle		Jun	e i	Dec. 1	2016
<u>Parameter</u>	Max D		mple Type ircle one)	Month/Day of Sample	Result
Arsenic, total (mg/l)	0.5 m	g/I grab	composite	4/12/2016	< 0.0100
Cadmium, total (mg/l)	5.0 m	g/l grab	composite	4/12/2016	< 0.00500
Hexavalent Chromium, total	(mg/l) 5 mg	/l grab	composite	4/12/2016	< 0.0800
Mercury, total (mg/L)	0.10 п	ng/l grab	composite	4/12/2016	< 0.000200
Silver, free (mg/l)	0.5 m	g/l grab	composite	4/12/2016	< 0.0100
Phenolics, total (mg/l)	••	grab	composite	4/12/2016	0 0274
bis (2-Ethylhexyl) phthalate (ug/l) -	grab	composite	4/12/2016	1.4

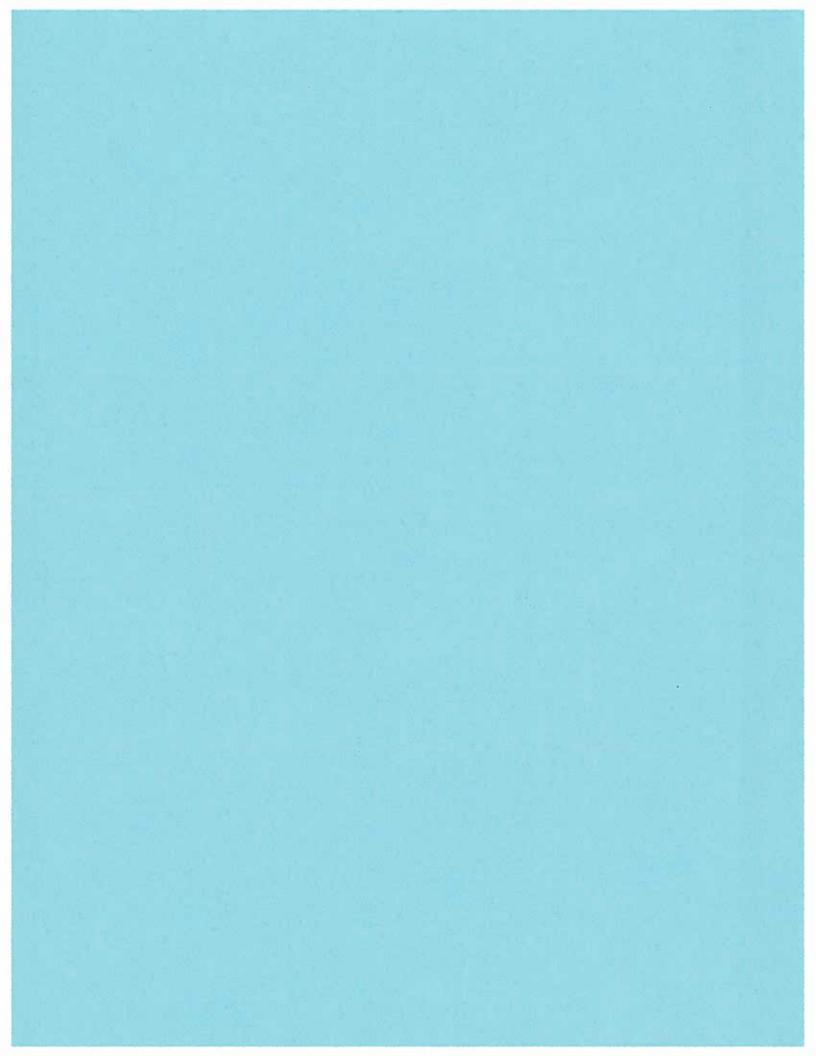
1, Paul Clayburn, Commissioner of Montgomery County Public Works , certify under penalty of law (print name & title)

that this document and all attachments were prepared under my direction or supervision in accordance with a system desgined to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete, I am aware that there are significate penalties and imprisonment for knowing violations.

Signature:

Date:

04/29/16







Pace Analytical e-Report

Report prepared for: BARTON AND LOGUIDICE 11 CENTRE PARK SUITE 203 ROCHESTER, NY 14614 CONTACT:

Project ID: ELF SEMI ANNUAL LEACHATE

Sampling Date(s): April 12, 2016 Lab Report ID: 16040222

Client Service Contact: Chelsea Farmer (518) 346-4592 ext. 3843

Analysis Included:

Total Phenolics E420.4 - Sub ALS Environmental Misc Field Analysis
SVOCs E8270D - Sub Pace LI
COD by 410.4 - Sub Pace-LI
Total Cyanide SM4500-CN-E - Sub Pace LI
Mercury E7470A - Sub Pace LI
Metals E200.7 - Sub Pace LI
Oil and Grease E1664B - Sub Pace LI
BOD SM5210B
Hexavalent Chromium (7196A)
Total Suspended Solids SM2540D

Test results meet all National Environmental Laboratory Accreditation Conference (NELAC) requirements unless noted in the case narrative. The results contained within this 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 Smith Technical Director

Koy Smo,



Certifications: New York (EPA: NY00906, ELAP: 11078), New Jersey (NY026), Connecticut (PH-0337), Massachusetts (M-NY906), Virginia (460241)

Pace Analytical Services, Inc. 2190 Technology Drive | Schenectady, NY 12308 Phone: 518.346.4592 | internet: www.pacelabs.com This page intentionally left blank.

Table of Contents

Section 1: CASE NARRATIVE	4
Section 2: QUALIFIERS	7
Section 3: SAMPLE CHAIN OF CUSTODY	9
Section 4: SAMPLE RECEIPT	14
Section 5: Wet Chemistry - TSS	16
Section 6: Wet Chemistry - Hexavalent Chromium	18
Section 7: Wet Chemistry - BOD	20
Section 8: Field Analysis	22
Section 9: Quality Control Samples (Field)	24
Section 10: Quality Control Samples (Lab)	27
Section 11: Subcentract Analyzin	2/

q

CASE NARRATIVE

CASE NARRATIVE

This data package (SDG ID: 16040222) consists of 2 water samples received on 04/12/2016. The samples are from Project Name: ELF SEMI ANNUAL LEACHATE.

This sample delivery group consists of the following samples:

Lab Sample ID	Client ID	Collection Date
AT08451	LEACHATE	04/12/2016 12:30
AT08452	LEACHATE	04/12/2016 12:35

Sample Delivery and Receipt Conditions

- (1.) Lab provided sample pickup service on 04/12/2016.
- (2.) All samples were received at the laboratory intact and within holding times.
- (3.) All samples were received at the laboratory properly preserved, if applicable.

Subcontract Analysis

Please see the ALS Environmental laboratory report for method and quality assurance details pertaining to Phenolics analysis. The following technical and administrative items were noted for the analysis:

(1.) All quality assurance parameters were met for this analysis, unless otherwise noted.

Field Parameters Analysis

Analysis for pH was performed in the field. The following technical and administrative items were noted for the analysis:

(1.) All quality assurance parameters were met for this analysis, unless otherwise noted.

Subcontract Analysis

Please see the Pace Analytical Services Long Island laboratory report for method and quality assurance details pertaining to Semi Volatile Organic Compound analysis. The following technical and administrative items were noted for the analysis:

(1.) All quality assurance parameters were met for this analysis, unless otherwise noted.

Subcontract Analysis

Please see the Pace Analytical Services Long Island laboratory report for method and quality assurance details pertaining to Chemical Oxygen Demand analysis. The following technical and administrative items were noted for the analysis:

(1.) All quality assurance parameters were met for this analysis, unless otherwise noted.

Subcontract Analysis

Please see the Pace Analytical Services Long Island laboratory report for method and quality assurance details pertaining to Total Cyanide analysis. The following technical and administrative items were noted for the analysis:

(1.) All quality assurance parameters were met for this analysis, unless otherwise noted.

Subcontract Analysis

Please see the Pace Analytical Services Long Island laboratory report for method and quality assurance details pertaining to Mercury analysis. The following technical and administrative items were noted for the analysis:

(1.) All quality assurance parameters were met for this analysis, unless otherwise noted.

Subcontract Analysis

Please see the Pace Analytical Services Long Island laboratory report for method and quality assurance details pertaining to Metals analysis. The following technical and administrative items were noted for the analysis:

(1.) All quality assurance parameters were met for this analysis, unless otherwise noted.

Subcontract Analysis

Please see the Pace Analytical Services Long Island laboratory report for method and quality assurance details pertaining to Oil & Grease analysis. The following technical and administrative items were noted for the analysis:

(1.) All quality assurance parameters were met for this analysis, unless otherwise noted.

Biological Oxygen Demand

Biological Oxygen Demand was performed by SM 5210B. The following technical and administrative items were noted for the analysis:

(1.) Biochemical Oxygen Demand was observed in the Method Blank sample. All associated positive sample concentration results have been flagged (B) to denote the observed contamination.

Hexavalent Chromium Analysis

Analysis for hexavalent chromium was performed by method SW-846 7196A. The following technical and administrative items were noted for the analysis:

(1.) The percent recovery for the matrix spike and matrix spike duplicate samples (LAB ID: AT08451M and AT08451K) was below quality control limits.

Total Suspended Solids

Analysis for Total Suspended Solids (TSS) was performed by SM 2540D. The following technical and administrative items were noted for the analysis:

(1.) All quality assurance parameters were met for this analysis, unless otherwise noted.

Respectfully submitted,

Chelsea L. Farmer Project Manager

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

CONDITIONS

₩W WA

N/A N/λ 16040222 - Page 10 of 71

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT, All relevant fields must be completed < 16040222P1>

2190 Technology Dr. Schenectady, NY 12308

Pace Analytical

Section A

Address:

Email To: Phone:

New York Office

DATE OF THE 7 I SC I M I OTHER F GROUND WATER F DRINKING WATER z L REGULATORY AGENCY TOTHER = L 동 8 T RCRA LOCATION SITE T NPDES ∏ UST Chelsea Farmer Barton & Loguidice 7267 ace Quote Reference: Pace Project Manager: invoice Information: Company Name: Section C Attention: Address Purchase Order No.: Project Name; ELF Semi Amnas Leachale Section B Required Project Information: Report To: Barton & Loguidice Copy To: (518) 346-4592 Company: Barton & Loguidice Required Client Information:

			. 1												٦						İ	ŀ	-		-	ŀ			T
ž	lequested Standard		Project Number:	یا			Pace	Pace Profile #:								Filte	Filtered (Y/N)	Ê						/		\exists]		
3	Section D	Valid Maire Codes	3003	<u> </u>	dy	TOO	LLECTED	٥		SH		er d	Preservatives	ives		Req	Requested												
	SAMPLE ID		11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3000 XIRI 39YT 3J9N	AB C=CO	COMPOSITE		COMPOSITE	PLE TEMP	CONTAINE	pev					ž	90	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	\$0.00 \$1.00	PO NO WY	28 WA 0	AND AN	80.			(AULU RACOR!	(AVI) PLAN		· · · · · · · · · · · · · · · · · · ·
# WBJ	(A-Z, 0-9 / ,·) Sample IDs MUST BE UN		115¢	IAS	ศอ₌อ เ	DATE TIME	E DATE	TIME	IMAS DO	30 #	POS*	FONE	190H 1C!	102St81	lonarialv veriiC			MOST .	(O.5)			MD J Ply				PASSON		Pace Project No. Leb LD.	ject No. Leb 1.D.
1		Leachale		¥	0	133	-3			80	×	×	×	×			×	×	×	×	×	×					51,301	151	П
		Leachate		Į.	ဗ		발	25		-			×							×	×	7			-		A702452	3	
				\vdash	H	L		-			_					_	_	_		_				_					

3

L				열					
				SAMPLE CONDITIO	為 愛 N	NVA	N/A	ΝΆ	ooler ody
				MPLE	N)	N/A	N/Y	N/Y	ио ре
				Š	163				J. V
L					5			L	
L			L		اما	1			
L				ш	2	l	1		
╄				TIME	()	ŀ			9
╀	_		<u> </u>		7		ı	1	
╀	\dashv	_	-		⊢	 	-	-	
╀	-				م ا		1		
╀	\dashv	-	-	Е	11/	L	ı	1	
╁	_		⊢	DATE	13	1	ı	l	
┿	_	_	⊢		2	1	ı	ĺ	
╁		_	\vdash	_		├──			·
+	_	_	 	1					
╈			_						
Ť		_	1	7		1	ı		
┪		\vdash		õ		ł	1		
+	_		\vdash	F			l		
1		\vdash			l	ı	1		
1			\vdash	ACCEPTED BY / AFFILIATION			ļ	1	
+		-	-	<			1		
Ļ		_	 _ 	'n		ı	1	1	
ı			1			1	l		
Т			T] 💾		1	1	1	
+		1		.	10		1	1	
┿		1	!	- 8	1/	1	į .	1	
1				. ⋖	9/4/1	4	ı	1	
1			393				1		
十							T	Т	
╬	_	\vdash	+-	ш			1	1	
ļ		┞		TIME	3	1	1	1	111
1		l			2	j	1	1	E
1		ļ	<u> </u>			1	 	╄	- Ĭ
							1	1	20
+	_	1	1	DATE	Sapl Mas	2		1	ŝ
1		1	1	ğ	7	3	1	L	5
1		1				7			Ψ.
十			1					T	4
				AFFILIATION			1	1	SAMPLER NAME AND SIGNATURE
								1	EE .
T				¥					ᅙ
1			1	Ē	١.	.l			Ak
4		-	-	- AF	Ł	צ			ß

RELINQUISHED BY / AFFILIAT

ADDITIONAL COMMENTS

PACE

e-Fite(ALLQ020rev.4,29Mar06)22Jun2005

Samples Inlact

Cusiody Sealed Coole

子の

Matt Broker

PRINT-Name of SAMPLER:

SIGNATURE of SAMPLER:

Pace Analytical Services, Inc.

Sample Condition Upon Receipt

None N/AB Temp should be above freezing to 6°С CLIENT NAME: BAR- ROC PROJECT: ELF SEMI-KINDUAL No O Blue 🗅 **7** ICE USED: Wet $3 \le 0$ INTACT: Yes Temperature is Acceptable? No X Othera CUSTODY SEAL PRESENT: Yes a Other Bubble Bags} #122087967 □ None Pace pr IR Gun 03 ∕s No ⊡ Client a PACKING MATERIAL: Bubble Wrap BIOLOGICAL TISSUE IS FROZEN: Yes UPSa THERMOMETER USED: #164 12 COURIER: FedEx TRACKING # COMMENTS:

Chain of Custody Present:	20		1.
Chain of Custody Filled Out:			2.
Chain of Custody Relinquished:	s ONo		3,
Sampler Name / Signature on COC: Ydves	. O.		4,
Samples Arrived within Hold Time:	•N□		5.
Short Hold Time Analysis (<72hr): -gíyes	%\		6. 100), (1x+6
Rush Turn Around Time Requested:	oNB)		7. 11,00,1k
Sufficient Volume: Dayes			8.
Correct Containers Used:	oW.		9.
ed:			
Containers Intact:	. DNo.		10.
Filtered volume received for Dissolved tests: □ves	oNO 3	(BRAM	11.
Sample Labels match COC:			12.
- Includes date/time/ID/Analysis			
All containers needing preservation have been Oves checked:	%0	ADNA	13.
All containers needing preservation are in	800	ZIMA	
compliance with EPA recommendation:			Initial when
- Exceptions that are not checked: TOC, VOA, Subcontract Analyses	alyses		completed: N/L- Lot # of added preservative: M H
Headspace in VOA Vials (>6mm):	oN⊡.	ANE	14.
Trip Blank Present:	ŝ.	AND.	15.
Trip Blank Custody Seals Present: Oves	₩0	¥ 2003	
Pace Trip Blank Lot #:			
Sample Receipt form filled in: 7AV 1/13/16	Line-Ou	ıt (Includes Cop	Line-Out (Includes Copying Shipping Documents and verifying sample pH):
-) ul BoT	Includes notify	Log in (includes notifying PM of any discrepacies and documenting in LIMS): AJB/BBN , 4/13/

tabeling (includes Scanning Bottles and entering LAB 10s into pH logbook):

April 28, 2016

16040222 - Page 11 of 71

		<u> </u>				
PACE	Analy	tical Ser	vices, Inc.			
Tap Wa	ter / Sui	face Water	/ Wastewater F	ield Lo		Matt Broker Matt Droker
Client:	Barton	and Loguidice		_	Sampler (print):	Matt Broker
Project	ELF Se	mi Annual Lea	chate		Signature:	<u>M#0</u> = 3
Date:	Į.	4/12/1	6			
Locatio	n	Leachate			AMPLED 1235	PACE ID. NO.
Flow		n/a	gallons	WEAT	HER CONDITION:	6°C dovdy
TEMPER	ATURE	n/a	c			
PH		6,45	STD.UNITS	APPE	RANCE / OBSERVATION	ONS sample clear who oder
SPEC. C	OND.	n/a	us			
TURBIDI	TY	n/a	NTU			IF TESTING FOR PHENOLICS:
EH		n/a	mv		TING FOR CYANIDE:	· ·
SULFITE		n/a	MG/L		NE RES.	CHLORINE RES.
DIS.OXY	GEN	n/a	MG/L	SULFID		BACK ID NO
Location	on				SAMPLED	PACE ID. NO.
FLOW	1 .00		gallons	WEAT	HER CONDITION:	
TEMPE	ATURE		c			
PH .	1	<u> </u>	STD.UNITS	APPE	ARANCE / OBSERVATI	
SPEC. C	OND.		uS			
TURBID	TY		NTU			TESTING FOR PHENOLICS:
EH		31	mv		STING FOR CYANIDE:	IF TESTING FOR PHENOLICS:
SULFIT	Ė		мдл	CHLO	INE RES.	CHLORINE RES.
DIS.OX	YGEN_		MG/L	SULFII		SACE ID NO
Locati	ion				SAMPLED	PACE ID. NO.
FLOW			gallons	WEA	THER CONDITION:	
TEMPE	RATURE		c			
PH			STD UNITS	APPE	ARANCE / OBSERVAT	IONS
SPEC.	COND.		uS			
TURBI	ITY		NTU			TESTING FOR PHENOLICS:
EH	j		mv	IF TE	STING FOR CYANIDE:	
SULFIT	rE		MG/L		RINE RES.	CHLORINE RES.
DIS.OX	YGEN		MG/L	SULF		PAGE ID NO
Locat	ion				SAMPLED	PACE ID. NO.
FLOW			gallons	WEA	THER CONDITION:	
TEMPE	RATURE	<u> </u>	c			
PH			STD.UNITS	APP	EARANCE / OBSERVAT	HONS
SPEC.	COND.	<u> </u>	uS			
TURBI	фіту		NTU			
EH			mv	IF T	STING FOR CYANIDE	
SULFI	πE		MG/L	CHLC	RINE RES.	CHLORINE RES.
DIS.O	YGEN	R.	MG/L	SULF	IDE	Page 20
						raye 20

16040222 - Page 13 of 7

PACE ANALYICAL INC. FIELD CALIBRATION SHEET

DATE:	4/12/16	SITE:	ELF
TECHNICIAN:	Matt Broker	WEATHER:	410F cloudy

INSTRUMENT:

PH

Myron Ultrameter II 6PFCe

CONDUCTIVITY

Myron Ultrameter II 6PFCe

TEMPERATURE

Myron Ultrameter II 6PFCe

DISSOLVED OXYGEN

Sper Scient fic 850041

TURBIDITY

Hanna HI 98703

			ļ.		
NSTRUMENT ANALYTE	STANDARD	INTIAL READING	ADJUSTED READING	TIME	NOTES
Ph Ph	4.00	4.04	4.00	927	
	7.00	7.02	7.00	926	
	10.00		10.00		
Conductivity					
Turbidity					

NOTES:

SAMPLE RECEIPT





SAMPLE RECEIPT REPORT 16040222

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

CLIENT: BARTON AND LOGUIDICE PROJECT: ELF SEMI ANNUAL LEACHATE

LRF: 16040222

REPORT: ANALYTICAL REPORT

EDD: YES LRF TAT: 2 WEEK RECEIVED DATE: 04/12/2016 14:05

SAMPLE SEALS INTACT: NA

SHIPPED VIA: PICK UP 1-SAMPLES PRESERVED PER METHOD GUIDANCE: YES

SHIPPING ID: 3 SAMPLES REC'D IN HOLDTIME: YES NUMBER OF COOLERS: 1 DISPOSAL: BY LAB (45 DAYS)

CUSTODY SEAL INTACT: NA COC DISCREPANCY: NO COOLER STATUS: CHILLED TEMPERATURE(S): 5.9 (IR) °C

COMMENTS:

SAMPLE PRESERVATION OF SUBCONTRACT ANALYSES NOT VERIFIED AT SCHENECTADY LAB.

CLIENT ID (LAB ID)	TAT-DUE Date	DATE-TIME SAMPLED	MATRIX	METHOD	TEST DESCRIPTION	QC REQUEST
LEACHATE (ATDI451)	2 WEEK 04-26-16	04/12/2016 12:30	Water		COD by 410.4 - Sub Pace-LI	
	2 WEEK 04-26-16	04/12/2016 12:30	Water	EPA 7196A	Hexavalent Chromium (7196A)	
	2 WEEK 04-26-16	04/12/2016 12:30	Water	Mercury E7470A	Mercury E7470A - Sub Pace LI	
	2 WEEK 04-26-16	04/12/2016 12:30	Water	Metals E200.7	Metals E200.7 - Sub Pace L1	
	2 WEEK 04-26-16	04/12/2016 12:30	Water	SM 2540 D-97,-11	Total Suspended Solids SM2540D	
	2 WEEK 04-26-16	04/12/2016 12:30	Water	SM 5210B-01,-11	BOD SM5210B	
	2 WEEK 04-26-16	04/12/2016 12:30	Water	SVOCs E8270D	SVOCs E8270D - Sub Pace LI	
	2 WEEK 04-26-16	04/12/2016 12:30	Water	Total CN SM4500-CN-E	Total CN SM4500-CN-E - Sub Pace LI	
	2 WEEK 04-26-16	04/12/2016 12:30	Water	Total Phenolics E420.4	Total Phenolics E420.4 - Sub ALS Environr	
LEACHATE (ATOMS2)	2 WEEK 04-26-16	04/12/2016 12:35	Water	Misc Field Analysis	Misc Field Analysis	
	2 WEEK 04-26-16	04/12/2016 12:35	Water	Oil and Grease E1664B	Oil and Grease E1664B - Sub Pace LI	

The 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.

Reporting Parameters and Lists

EPA 7196A - Hexavalent Chromium (7196A) - (mg/L)

Hexavalent Chromium

Misc Field Analysis - Misc Field Analysis - (mg/L)

Dissolved Oxygen (\$) Flow (\$) pH(\$) Reduction Potential (\$) Specific Conductance (\$) Static Water Level (\$) Sulfite (\$) Temperature (\$) Total Residual Chlorine (\$) Turbidity (\$)

SM 2540 D-97,-11 - Total Suspended Solids SM2540D - (mg/L)

Total Suspended Solids

SM 5210B-01,-11 - BOD SM5210B - (mg/L)

Biochemical Oxygen Demand

This report may not be reproduced except in full, without the written approval of Pace Analytical Services, Inc.

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.

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 ait 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.

Samples 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.

Wet Chemistry - TSS





Analytical Sample Results

Job Number: 16040222

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

Client: BARTON AND LOGUIDICE Project: ELF SEMI ANNUAL LEACHATE

Client Sample ID: LEACHATE

Lab Sample ID: 16040222-01 (AT08451)

Collection Date: 04/12/2016 12:30

Sample Matrix: WATER

Received Date: 04/12/2016 14:05

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	2420	SM 2540D	04/15/2016 11:43	KM	NA	NA	NA
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Facto	r Flags	File ID
Total Suspend	ted Solids	WQ001	14.8	5.58	1.92		2420

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

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

Wet Chemistry - Hexavalent Chromium





Analytical Sample Results

Job Number: 16040222

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

Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF SEMI ANNUAL LEACHATE

Client Sample ID: LEACHATE

Lab Sample ID: 16040222-01 (AT08451)

Collection Date: 04/12/2016 12:30

Sample Matrix: WATER

Received Date: 04/12/2016 14:05

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	182	SW-846 7196A	04/13/2016 11:56	JS	NA	NA	NA
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Facto	or Flags	File ID
Hexavalent (Chromium	18540-29-9	ND	0.0800	1.00	U	182

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

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

Wet Chemistry - BOD





Analytical Sample Results

Job Number: 16040222

Pace Analytical Services, Inc. 2190 Technology Drive Schenectady, NY 12308 Phone: 518,346.4592

Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF SEMI ANNUAL LEACHATE

Client Sample ID: LEACHATE

Lab Sample ID: 16040222-01 (AT08451)

Collection Date: 04/12/2016 12:30

Sample Matrix: WATER

Received Date: 04/12/2016 14:05

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	608	BOD SM5210B	04/13/2016 16:32	КМ	NA	NA	NA
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Facto	r Flags	File ID
Biochemical	Oxygen Dema	ind NA	9.3	2.0	3.00	В	608

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

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

B - Denotes analyte observed in associated method blank at a concentration exceeding the PQL.

Field Analysis





Analytical Sample Results

Job Number: 16040222

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF SEMI ANNUAL LEACHATE

Client Sample ID: LEACHATE

Lab Sample ID: 16040222-02 (AT08452)

Collection Date: 04/12/2016 12:35

Sample Matrix: WATER

Received Date: 04/12/2016 14:05

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	Field Test	Field Analysis	04/12/2016 12:35	MEB	NA	NA	NA
Analyte		CAS No.	Result	PQL	Dilution Facto	r Flags	File ID
pH (\$)		NA	6.45 (pH)	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 (Field)





Quality Control Results Matrix Spike Sample (MS)

Job Number: 16040222

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

Fax: 518.381.6055

Client: BARTON AND LOGUIDICE Project: ELF SEMI ANNUAL LEACHATE Client Sample ID: LEACHATE MS

Lab Sample ID: 16040222-01M (AT08451M)

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

	Batch ID	Method		Date	·	Analyst	Init \	Wt./Vol.	Fir	ial Vol.	Column
Analysis 1:	182	SW-846 7196A		04/13/2016 1	1:57	JS	1	NA		NA	NA NA
Analyte		CAS No.	Re	sult (mg/L)]	PQL	Dilu	tion Fac	ctor	Flags	File ID
Hexavalent	Chromium	18540-29-9		0.225		0.0800		1.00			182
			Sample	Added	MS	М	S	1 -	imit	S	
Analyte Sp	oiked	CAS No.	(mg/L)	(mg/L)	(mg/L)	% 1	Rec.	Q ·	(%)		
Hexavalent C	heomium	18540-29-9	0.00316	0.400	0.225	50	5.3	* Q	5.0-11	5	

Qualifier 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 Matrix Spike Duplicate (MSD)

Job Number: 16040222

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE
Project: ELF SEMI ANNUAL LEACHATE
Client Sample ID: LEACHATE MSD

Lab Sample ID: 16040222-01K (AT08451K)

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

	Batch ID	Method		Dat	e An	alyst	Init Wt./\	/ol. Fina	al Vol.	ı	Colum	n
Analysis 1:	182	SW-846 7196A		04/13/2016	11:57 JS		NA		NA		NA	
Analyte		CAS No.	Re	sult (mg/L) P()L	Dilution	Factor	Flags	File	ID	
Hexavalent Ch	romium	18540-29-9		0.213	0.0	800	1.00			182		
				41111						Prec	ision	
Analyte Spik	ed	CAS No.	Sample (mg/L)	Added (mg/L)	MSD (mg/L)	MSD % Re		Limits (%)	MS % Rec.	RPD	\mathbf{Q}^{1}	Limits (%)
Hexavalent Chro	mium	18540-29-9	0.00316	0.400	0.213	52.4	*	85.0-115	55.3	5.44		20

¹Qualifier column where 'e' 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 Samples (Lab)

Pace Analytical Services, Inc. April 28, 2016 16040222 - Page 27 of 71





Quality Control Results Method Blank

Job Number: 16040222

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

Fax: 518.381.6055

Client: BARTON AND LOGUIDICE Project: ELF SEMI ANNUAL LEACHATE Client Sample ID: Method Blank (AT08451B) Lab Sample ID: BLANK-90 Collection Date: N/A
Sample Matrix: WATER
Received Date: N/A
Percent Solid: N/A

Init Wt./Vol. Column Batch ID Method Final Vol. SM 2540D 04/15/2016 11:43 Analysis 1: 2420 KM NA NA NA Analyte CAS No. Result (mg/L) PQL **Dilution Factor** Flags File ID WQ001 Total Suspended Solids ND 2.90 1.00 U 2420

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: 16040222

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE Project: ELF SEMI ANNUAL LEACHATE Client Sample ID: Lab Control Sample (AT08451L)

Lab Sample ID: LCS-90

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

(
	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	2420	SM 2540D	04/15/2016 11:43	KM	NA	NA	NA

Analyte Spiked	CAS No.	Added (mg/L)	LCS (mg/L)	LCS % Rec.		Limits (%)	
Analyte Spikeu	CAB No.	(mg/L)	(mg/L)	/6 IXCC.	<u> </u>	(70)	
Total Suspended Solids	WQ001	100	93.6	93.6	8	85.0-115	

Qualifier 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: 16040222

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

Phone: 518,346,4592 Fax: 518,381,6055

Client: BARTON AND LOGUIDICE Project: ELF SEMI ANNUAL LEACHATE Client Sample ID: Method Blank (AT08451B)

Lab Sample ID: BLANK-66

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

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	182	SW-846 7196A	04/13/2016 11:44	JS	NA	NA	NA
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Fact	or Flags	File ID
Hexavalent	Chromium	18540-29-9	ND	0.0400	1.00	Ų	182

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: 16040222

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE Project: ELF SEMI ANNUAL LEACHATE Client Sample ID: Lab Control Sample (AT08451L)

Lab Sample ID: LCS-66

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

1							
1	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
l	Analysis 1: 182	SW-846 7196A	04/13/2016 11:45	JS	NA	NA	NA .

		Added	LCS	LCS	1	Limits	
Analyte Spiked	CAS No.	(mg/L)	(mg/L)	% Rec.	Q'	(%)	
Hexavalent Chromium	18540-29-9	0.200	0.210	105		90.0-110	

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: 16040222

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE Project: ELF SEMI ANNUAL LEACHATE Client Sample ID: Method Blank (AT08451B)

Lab Sample ID: BLANK-26

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

	Batch ID	Method	Date	Analyst	Init Wt./Vol. F	inal Vol.	Column
Analysis 1:	608	BOD - SM 5210B	04/13/2016 16:22	KM	NA	NA	NA
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Factor	Flags	File ID
Biological C	xygen Demand	NA NA	0.220	0.200	1.00		608

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: 16040222

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

Fax: 518.381.6055

Client: BARTON AND LOGUIDICE
Project: ELF SEMI ANNUAL LEACHATE
Client Sample ID: Lab Control Sample (AT09)

Client Sample ID: Lab Control Sample (AT08451L)

Lab Sample ID: LCS-26

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

ı	184	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
U	Analysis 1:	608	BOD SM5210B	04/13/2016 16:30	KM	NA	NA	NA .

	GAGN:	Added	LCS	LCS	0,1	Limits	
Analyte Spiked	CAS No.	(mg/L)	(mg/L)	% Rec.	Q	(%)	
Biochemical Oxygen Demand	NA	198	183	92.6		84.6-115	

Qualifier 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



Ms. Chelsea Farmer
Pace Analytical Services - NY
2190 Technology Drive
Schenectady, NY 12308

Laboratory Results for: 16040222

Dear Ms.Farmer,

Enclosed are the results of the sample(s) submitted to our laboratory April 14, 2016 For your reference, these analyses have been assigned our service request number R1603634.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7475. You may also contact me via email at Lisa.Reyes@alsglobal.com.

Respectfully submitted,

Akeges

ALS Group USA, Corp. dba ALS Environmental

Lisa Reves

Project Manager

ADDRESS 1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

PHONE +1 585 288 5380 FAX +1 585 288 8475

ALS Group USA, Corp.

dba ALS Environmental

111

CASE NARRATIVE

This report contains analytical results for the following samples:

Service Request Number: R1603634

SAMPLE# CLIENT SAMPLE ID DATE TIME

R1603634-001 LEACHATE 4/12/2016 1230

All samples were received in good condition unless otherwise noted on the cooler receipt and preservation check form located at the end of this report.

All samples were preserved in accordance with approved analytical methods.

All samples have been analyzed by the approved methods cited on the analytical results pages.

All holding times and associated QC were within limits.

No analytical or QC problems were encountered.

All sampling activities performed by ALS personnel have been in accordance with "ALS Field Procedures and Measurements Manual" or by client specifications.



REPORT QUALIFIERS AND DEFINITIONS

- Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
- J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).
- Analyte was also detected in the associated В method blank at a concentration that may have contributed to the sample result.
- E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
- Ε Organics- Concentration has exceeded the calibration range for that specific analysis.
- D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
- Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
- Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
- # Spike was diluted out.

- Correlation coefficient for MSA is <0.995.
- N Inorganics- Matrix spike recovery was outside laboratory limits.
- N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
- S Concentration has been determined using Method of Standard Additions (MSA).
- W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
- P Concentration >40% (25% for CLP) difference between the two GC columns.
- C Confirmed by GC/MS
- 0 DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).
- X See Case Narrative for discussion.
- MRL Method Reporting Limit. Also known as:
- LOQ Limit of Quantitation (LOO) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
- MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
- LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.
- Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.



Rochester Lab ID # for State Certifications1

Connecticut ID # PH0556	Maine ID #NY0032	New Hampshire ID #
Delaware Accredited	Nebraska Accredited	294100 A/B
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047	North Carolina #676	Virginia #460167

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:

Pace Analytical Services - NY

Project:

16040222

Sample Matrix:

Water

Analysis Method:

Water 420.4

Analytical Repo

Service Request: R1603634

Date Collected: 04/12/16

Date Received: 04/14/16

Units: mg/L Basis: NA

Phenolics, Total Recoverable

Sample Name	Lab Code	Result	MRL	Dil.	Date Analyzed	Q
LEACHATE	R1603634-001	0.0109	0.0020	1	04/19/16 10:40	
Method Blank	R1603634-MB	0.0020 U	0.0020	1	04/19/16 10:40	

Superset Reference:16-0000372876 rev 00

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:

Pace Analytical Services - NY

Project:

16040222

Sample Matrix:

Water

Service Request: R1603634

Date Analyzed: 04/19/16

Lab Control Sample Summary General Chemistry Parameters

Units

Units:mg/L Basis:NA

Lab Control Sample R1603634-LCS

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Phenolics, Total Recoverable	420.4	0.0376	0.0400	94	90-110

Printed 4/21/2016 11:43:13 AM

Superset Reference:16-0000372876 rev 00

VCS

CHAIN OF	CHAIN OF CUSTODY RECORD	RECOR	Q -	PAGE 1 OF 1		DISPOSAL REQUI	DISPOSAL REQUIREMENTS: (To be filled in by Client) RETURN TO CLIENT	
Pace Analytical Services, Inc. 2190 Technology Drive. Schenectady, NY 12308	Tical Serv Irive, Schenect	VICES, lady. NY	IIIC. 12308	LRF # 16040222		OISP ARC	DISPOSAL BY RECEIVING LAB ARCHIVAL BY RECEIVING LAB	
Telephone (518) 346-4592 Fax (518) 381-6055 www pacelabs.com	16-4592 Fax	(5/8) 38	1-6055		(LAB USE ONLY)	Additional charges incurrer Call for details.	Additional charges incurred for disposal (if hazandous) or archivat. Call for details.	
CLIENT (REPORTS TO BE SENT TO):		PROJECTA	PROJECTMPROJECT NAME:		EN	ER ANALYSIS AND I	ENTER ANALYSIS AND METHOD NUMBER REQUESTED	
PACE		16040222	22		PRESERVATIVE CODE:		PRESERVATIVE KEY	>
		LOCATION	LOCATION (CITY/STATE) ADDRESS	RESS:	BOTTLE TYPE.		0 - ICE	
PROJECT MANAGER:					BOTTLE SIZE:		1 - HCL	_
Chelsea Farmer		<u>\</u>			SH	\ \ \	/ / / 2 · HNO3	 -
Project:		REQUIRED	REQUIRED TURN AROUND TO	TIME: 86 411912016	ENIATIVE (P.OS)	\ \ \	4 - NaOH	
Notes:		1		A Yush		\ \ \	HO9W-9 / / /	-
SAMPLE PRESERVATION NOT VERIFIED AT SCHENECTADY LAB.	RIFIED AT	NAME OF C	NAME OF COURIER (IF USED):		B OE	_	7 - NaHSO4 8 - Other (Na2SO3)	ଚ
ELECTRONIC RESULTS	Chelsea Farmer@oacelabs.com	E CO		IAB	_	\ \ \		1
	Nicole Johnson (Dpacelabs. com	E CO	GRAB/	SAMPLE ID	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	\ \ \		1
SAMPLE ID	DATE TIME	MATRIX	COMP	(LAB USE ONLY)	_ / /		/ / REMARKS:	T
LEACHATE	4/12/16 12:30	30 L	COMP	AT08451	×			
LEACHATE	4/12/16 12:35	35 L	GRAB	AT08452	0			Т
								1
								Т
								T
								T
								Т
		1						Т
			-					Т
AMBIENT OR CHILLED:	TEMP	COC TAPE:	×		PROPERLY PRESERVED:	z	OTHER NOTES. Analytical Report (LEVEL-2) EDD: Excel Standard	g
RECEIVED BROKEN OR LEAKING	2	COC DISCREPANCIES	-3	2	RECVID W/I HOLDING TIMES:	N A		. [
RELINQUISHED BY	RECEIVED BY	ED BY		RELEVOUSHED BY	/ RECEIVED BY		RELINDURSHED BY RECEIVED BY	
SIGNATURE ADD	SIGNATURE HILLALY	UNINGTONE	SYGNATURE		SICHATUS	SIGNATURE	SKONATURE	-
RINTED HADE 1. KITTHE	PROPERTY NAME	Macha, NI	PRINTED MAME		PRINTED HAVE OF ICH	PRINTED NAME		-
DWOMY PACE	Sylvinos		COMPANY		COMPART	COMPANY	Pece Amaryleas Services - NY	
DATEITIME 9/14/16	9//Ht//H	950) DATE/TIME		DATE THE 1	1628 DATE/TIME		
				6 of 7	, , ,			Ž,



Cooler Receipt and Preservation Check Form

R1603634 Pace Analytical Services - Ninorganics Analysis Project	

Project/Clies	nt Per					Folde	r N	umber	14	60-	634	_			-	9.)
Cooler receive	d on <i>4//</i>	4/16		by:_	@		CC	URIE	R: (ALS	UPS	FE	DEX	VEI	LOCIT	Y CLI	ENT		
1 Were Cus	tody seals on	outside	of co	oler?	<u> </u>	N	58	Per	chlo	orate s	samples	hav	e requ	ired h	eadspac	ce?	Y	N (NA	
2 Custody	apers proper	ly com	pleted	(ink, si	gned)?	N	51	Did	VC	A via	ls, Alk,	or Su	lfide	nave s	ig* bul	bles?	Y	N_NA	آو
3 Did all bo	tles arrive in	good co	nditio	n (unb	roken)? Y	N	6	Wh	ere	did the	bottles	orig	inate'	?	ALS	/ROC	CI	IENT	
4 Circle:	Vet Ice Dry	Ice G	el pac	ks p	resent?	N	7	Soi	IVC)A rec	cived a	s:	Bull	k I	ncore	503	Set	Ø₽-	
8. Temperature	Readings	Dat	:_4	bylke	Time:/	1615	-	Ι	D: ((F)	1R#5			From	Temp	Blank	≥ €	nple Bo	11
Observed Ter	np (°C)		0	4	10				\top										
Correction Fa	ctor (°C)		<u> </u>		′-	\neg													
Corrected Te	np (°C)		0-4	10	1.00														
Within 0-6°C	?		(1)	N	Y) N		Y	N	\top	Y	N	•	<u>Y</u> 1	1	Y	N		Y N	_
If <0°C, were	samples froz	en?	Y	N	ΥN		Y	N	\perp	Y	N		Yì	1	Y	N		<u>Y N</u>	
If out of To	emperature,	note p	eking	/ice co	ndition: _			_lce m	elte	d	Poor	ly P	acked		Sa	me Day	y Rule	3	
	pproval to R								ent s	aware	at drop	-off	Clie	nt no	tified b	у:			
All samples	neld in storag	e locat	ion:		R-002	by		Æ)	-	on	Hic	ilis	. 8	t /	621				
5035 sample				:		by			_ (on _	7		8	t					
				7_								161			7.1				
	ary Review:		V								man I del successo	a. Avasta	N COMPLE	reera : r. es	203 - 101 C W. T. T.	Live trail Till 27	2/347040	tavieni and	27 AV
Cooler Bre	akdown: Da	. 4	-15-1	0	Time:			THE PERSON	by:		1	C-1 -4 - 1							
I. W	ere all bottle	labels	omple	te (i.e.				etc.)?	,		O	ŦS.	>	NO	_				
	id all bottle la						;?				2	ES.	3	NO					
	ere correct co						• .	_			Q	ES		NO	.aa.		Z IA	$\overline{}$	
	ir Samples: C y discrepanci		s/Tub	es Inta	ct	C	anist	ers Pres	ssuri	zed		1 601	arw E	sags 11	nflated		CIV/A		
pH	Reagent	Yes	No	Lot R	eceived	Éx	р	Sample	: ID		Vol.	L	ot Ad	ded		inal		=All	
727							_	1			Added	_				H	san	iples Ok	2
≥12	NaOH				 	-	4										- N.	=Sample	
<u>\$2</u>	HNO ₃			C I / m. s.h	A 444 A	-	-					┿					Wa		22
<i>S</i> 2 <4	H₂SO₄ NaHSO₄	X		CHON	Bottle	+	-			-		╫	_					served a	t
Residual	For CN			Ĭf+ ο	ontact PM to		\dashv					+					'	lab as	
Chlorine	Phenol	人		add N	a2S2O3 (CN)												list		
(-)	and 522	ľ			oic (phenol).										20				
12.4	Na ₂ S ₂ O ₃	-	-						ij									OK to	
	ZnAcctate	-	-			77					d befor					and	Ad	just:	
	HCl	**	**		8 3			recorde	ed b	y VO	As on a	sepa	arate v	works	heet				
	numbers:	(put	Anl	ملا															
Bottle lot i			וטט	1/0															
Onici Cou	GIG.																		

PC Secondary Review:

*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter

9/24/15





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: Willia Collected :4/12/201

William A. Kotas :4/12/2016 12:30:00 PM

AT08451

Received :4/14/2016 10:30:00 AM

Collected By CLIENT

LABORATORY RESULTS

Results are only for the samples and analytes requested.

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

Lab No. : 1604D12-001

Client Sample ID: LEACHATE

Sample Information:

Type: Leachate

Origin:

Analytical Method: E200.7:	Prep Method:	E200.7			Prep	Date: 04/16/16	Analyst: JA
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
Arsenic	< 10.0		1	ug/L	10.0	04/22/16 8:12 PM	Container-01 of 0
Cadmium	< 5.00		1	ug/L	5.00	04/22/16 8:12 PM	Container-01 of 0
Chromium	< 10.0		1	ug/L	10.0	04/22/16 8:12 PM	Container-01 of 0
Copper	2.20	J	1	ug/L	25.0	04/22/16 8:12 PM	Container-01 of 0
Lead	3.92		1	ug/L	3.00	04/22/16 8:12 PM	Container-01 of 0
Nickel	6.10	J	1	ug/L	40.0	04/22/16 8:12 PM	Container-01 of 0
Silver	< 10.0		1	ug/L	10.0	04/22/16 8:12 PM	Container-01 of 0
Zinc	9.00	J	1	ug/L	20.0	04/22/16 8:12 PM	Container-01 of 0

Analytical Method: SW8270D:	Prep Method:	SW3510C				Prep Date: 04/14/16	Analyst: SH
Parameter(s)	<u>Results</u>	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
2,4-Dinitrotoluene	< 10		1	μg/L	10	04/17/16 6:10 AM	Container-01 of 01
2,6-Dinitrotoluene	< 10		1	μg/L	10	04/17/16 6:10 AM	Container-01 of 01
2-Chloronaphthalene	< 10		1	μg/L	10	04/17/16 6:10 AM	Container-01 of 01
2-Methylnaphthalene	< 5.0		1	μg/L	5.0	04/17/16 6:10 AM	Container-01 of 01
2-Nitroaniline	< 10		1	μg/L	10	04/17/16 6:10 AM	Container-01 of 01
3,3'-Dichlorobenzidine	< 10		1	μg/L	10	04/17/16 6:10 AM	Container-01 of 01
3-Nitroaniline	< 10		1	μg/L	10	04/17/16 6:10 AM	Container-01 of 01
4-Bromophenyl-phenylether	< 10		1	μg/L	10	04/17/16 6:10 AM	Container-01 of 01
4-Chloroaniline	< 10		1	μg/L	10	04/17/16 6:10 AM	Container-01 of 01
4-Chlorophenyl-phenylether	< 10		1	μg/L	10	04/17/16 6:10 AM	Container-01 of 01
4-Nitroaniline	< 10		1	μ g/L	10	04/17/16 6:10 AM	Container-01 of 01
Acenaphthene	< 5.0		1	μg/L	5.0	04/17/16 6:10 AM	Container-01 of 01
Acenaphthylene	< 5.0		1	μg/L	5.0	04/17/16 6:10 AM	Container-01 of 01
Anthracene	< 5.0		1	µg/L	5.0	04/17/16 6:10 AM	Container-01 of 0
Benzo(a)anthracene	< 5.0		1	μg/L	5.0	04/17/16 6:10 AM	Container-01 of 01
Benzo(a)pyrene	< 5.0		1	µg/L	5.0	04/17/16 5:10 AM	Container-01 of 01
Benzo(b)fluoranthene	< 5.0		1	μg/L	5.0	04/17/16 6:10 AM	Container-01 of 01
Benzo(g,h,i)perylene	< 5.0		1	μg/L	5.0	04/17/16 6:10 AM	Container-01 of 01
Benzo(k)fluoranthene	< 5.0		1	µg/L	5.0	04/17/16 6:10 AM	Container-01 of 0
Bis(2-chloroethoxy)methane	< 10		1	μg/L	10	04/17/16 6:10 AM	Container-01 of 01

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

4/25/2016

Cathlin Panzarella

Project Manager : Caitlin Panzarella

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 25



TEL: (631) 694-3040 FAX: (631) 420-8436 NYSDOH ID#10478 www.pacelabs.com

AT08451

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

William A. Kotas Attn To:

Collected :4/12/2016 12:30:00 PM :4/14/2016 10:30:00 AM Received

Collected By CLIENT

LABORATORY RESULTS

Results are only 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 tests requested.

Lab No. : 1604D12-001

Client Sample ID: LEACHATE

Sample Information:

Type: Leachate

Origin:

Analytical Method: SW8270D:	Prep Method:	SW3510C				Prep Date: 04/1-	4/16	Analyst: SH
Parameter(s)	<u>Results</u>	Qualifier	<u>D.F.</u>	Units	<u>PQL</u>		Analyzed:	<u>Container:</u>
Bis(2-chloroethyl)ether	< 10		1	μg/L	10		04/17/16 6:10 AM	Container-01 of 0
Bis(2-ethylhexyl)phthalate	2.9	J	1	μg/L	10		04/17/16 6:10 AM	Container-01 of 0
Butyl benzyl phthalate	< 10		1	μg/L	10		04/17/16 6:10 AM	Container-01 of 0
Carbazole	< 5.0		1	μg/L	5.0		04/17/16 6:10 AM	Container-01 of 0
Chrysene	< 5.0		1	μ g/ L	5.0		04/17/16 6:10 AM	Container-01 of 01
Dibenzo(a,h)anthracene	< 5.0		1	μg/L	5.0		04/17/16 6:10 AM	Container-01 of 01
Dibenzofuran	< 5.0		1	μg/L	5.0		04/17/16 6:10 AM	Container-01 of 0
Diethylphthalate	< 10		1	µg/L	10		04/17/16 6:10 AM	Container-01 of 0
Dimethylphthalate	< 10		1	µg/L	10		04/17/16 6:10 AM	Container-01 of 0
Di-n-butyl phthalate	< 10		1	µg/L	10		04/17/16 6:10 AM	Container-01 of 0
Di-n-octyl phthalate	< 10		1	μg/L	10		04/17/16 6:10 AM	Container-01 of 0
Fluoranthene	< 5.0		1	μg/L	5.0		04/17/16 6:10 AM	Container-01 of 0
Fluorene	< 5.0		1	μg/L	5.0		04/17/16 6:10 AM	Container-01 of 0
Hexachlorobenzene	< 10		1	µg/L	10		04/17/16 6:10 AM	Container-01 of 0
Hexachlorobutadiene	< 10		1	µg/L	10		04/17/16 6:10 AM	Container-01 of 0
Hexachlorocyclopentadiene	< 10	С	1	μg/L	10		04/17/16 6:10 AM	Container-01 of 0
Hexachloroethane	< 10		1	μg/L	10		04/17/16 6:10 AM	Container-01 of 0
Indeno(1,2,3-cd)pyrene	< 5.0		1	µg/L	5.0		04/17/16 6:10 AM	Container-01 of 0
Isophorone	< 10		1	μg/L	10		04/17/16 6:10 AM	Container-01 of 0
Naphthalene	< 5.0		1	μg/L	5.0		04/17/16 6:10 AM	Container-01 of 0
Nitrobenzene	< 10		1	μg/L	10		04/17/16 6:10 AM	Container-01 of 0
N-Nitroso-di-n-propylamine	< 10		1	μg/L	10		04/17/16 6:10 AM	Container-01 of 0
N-Nitrosodiphenylamine	< 10		1	μg/L	10		04/17/16 6:10 AM	Container-01 of 0
Phenanthrene	< 5.0		1	μg/L	5.0		04/17/16 6:10 AM	Container-01 of 0
Pyrene	< 5.0		1	μg/L	5.0		04/17/16 6:10 AM	Container-01 of 0
Surr: 1,2-Dichlorobenzene-d4	57.9		1	%Rec		Limit 16-110	04/17/16 6:10 AM	Container-01 of 0
Surr: 2-Fluorobiphenyl	69.5		1	%Rec		Limit 43-116	04/17/16 6:10 AM	Container-01 of 0
Surr: 4-Terphenyl-d14	39.8		1	%Rec		Limit 33-141	04/17/16 6:10 AM	Container-01 of 0
Surr: Nitrobenzene-d5	74.1		1	%Rec		Limit 35-114	04/17/16 6:10 AM	Container-01 of 0

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

4/25/2016

Cathlin Panzarella Project Manager: Caitlin Panzarella

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 2 of 25





TEL: (631) 694-3040 FAX: (631) 420-8436 NYSDOH ID#10478 www.bacelebs.com

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

William A. Kotas :4/12/2016 12:30:00 PM

AT08451 :4/14/2016 10:30:00 AM Received

Collected By CLIENT

Attn To:

Collected

LABORATORY RESULTS

Results are only 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 tests requested.

Lab No. : 1604D12-001

Client Sample ID: LEACHATE

Sample Information:

Type: Leachate

Origin:

Analytical Method: SM22 4500-CN E:	Prep Method:	SM4500-CN	E		Prep Di	ate: 04/18/16	Analyst: JDLR
Parameter(s)	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
Cyanide	< 10		1	µg/L	10	04/18/16 2:28 PM	Container-01 of 01
Analytical Method: E410.4:							Analyst; VaS
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
Chemical Oxygen Demand	14.2		1	mg/L	10.0	04/19/16	Container-01 of 01
Analytical Method: SW7470A:	Prep Method;	SW7470			Prep D	ate: 04/16/16	Analyst: BC
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	<u>Container</u>
Mercury	< 0.200		1	ug/L	0.200	04/18/16 10:40 AM	Container-01 of 01

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

4/25/2016

Cathlin Panzarella

Project Manager: Caitlin Panzarella

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 3 of 25





TEL: (631) 694-3040 FAX: (631) 420-8436 NYSDOH ID#10478 www.pacelabs.com

AT08452

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

Attn To: William A. Kotas

Collected :4/12/2016 12:35:00 PM Received : 4/14/2016 10:30:00 AM

Collected By CLIENT

LABORATORY RESULTS

Results are only 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 tests requested.

Lab No. : 1604D12-002

Client Sample ID: LEACHATE

Sample Information:

Type: Leachate

Origin:

Analytical Method: E1664A:	<u></u>		-				Analyst: RL
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
Hexane Extractable Material (O&G	< 5.0	_	1	mg/L	5.0	04/19/16 8:20 AM	Container-01 of 01

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

4/25/2016

Cathlin Pangarella

Project Manager: Caitlin Panzarella

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 25



575 Broad Hollow Road

Melville, NY 11747 TEL: (631) 694-3040 FAX: (631) 420-8436

Website: www.pacelabs.com

QC SUMMARY REPORT

1604D12 WO#:

25-Apr-16

55427

BatchID:

Pace Analytical Services Inc. Project: Client:

16040222 - BAR-ROC: ELF SEMI ANNUAL L

Qual %RPD RPDLimit SeqNo: 2089242 RunNo: 95878 %REC LowLimit HighLimit RPD Ref Val Prep Date: 4/14/2016 Analysis Date: 4/16/2016 TestCode: ASPB5-8270_ Units: µg/L SW3520C SPK value SPK Ref Val TestNo: SW8270 百 Result SampType: MBLK Batch ID: 55427 Sample ID: MB-55427 Client ID: PBW

Analyte	Result	PQ	SPK value	SPK Ref Val	%REC		HighLimit	LowLimit HighLimit RPD Ref Val	%RPD	RPDLimit	Qual
2-Methylnaphthalene	< 10	10									
Acenaphthene	< 10	2									
Acenaphthylene	< 10	9									
Anthracene	< 10	10									
Benzo(a)anthracene	< 10	10									
Benzo(a)pyrene	< 10	9									
Benzo(b)fluoranthene	< 10	9									
Benzo(g,h,i)perylene	< 10	10									
Benzo(k)fluoranthene	< 10	10									
Chrysene	< 10	10									
Dibenzo(a,h)anthracene	< 10	10									
Finoranthene	< 10	10									
Fluorene	< 10	10									
Indeno(1,2,3-cd)pyrene	< 10	10									
Naphthalene	< 10	10									
Phenanthrene	< 10	10									
Pyrene	< 10	10									
Surr: 1,2-Dichlorobenzene-d4	19		20.00		37.2	16	110				
Surr: 2-Fluombiphenyl	24		50.00		49.0	43	116				
Surr: 4-Terphenyl-d14	42		50.00		84.4	33	141				
Surr: Nitrobenzene-d5	27		20.00		54.8	35	114				

Qualifiers:	•	Value exceeds Maximum Contaminant Level	Д	Dilution was required.
	H	Holding times for preparation or analysis exceeded	Σ	Manual Integration used to dete

Spike Recovery outside accepted recovery limits RSD is greater than RSDlimit 0 %

RPD outside accepted recovery limits Not Detected at the Reporting Limit

Value above quantitation range

田田田

Sample container temperature is out of limit as specified termine area response Second column confirmation exceeds ≼ ۵



575 Broad Hollow Road

Melville, NY 11747 TEL: (631) 694-3040 FAX; (631) 420-8436 Website: www.pacelabs.com

QC SUMMARY REPORT

1604D12 WO#:

25-Apr-16

Pace Analytical Services Inc. Client:

16040222 - BAR-ROC: ELF SEMI ANNUAL L

Project:

55427 BatchID:

Sample ID: LFB-55427	SampType: LFB	TestCod	e: ASPB5-82	TestCode: ASPB5-8270_ Units: µg/L		Prep Da	Prep Date: 4/14/2016	KunNo: 95878	
Client ID: ZZZZZZ	Batch ID: 55427	TestN	TestNo: SW8270	SW3520C		Analysis Date:	le: 4/16/2016	SeqNo: 2089243	
Analyte	Result	Pal	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit RPD Ref Val	al %RPD RPDLimit	Qual
2-Methylnaphthalene	37	9	20.00	0	73.2	31	123		
Acenaphthene	36	10	50,00	0	72.6	20	116		
Acenaphthylene	33	0	20,00	0	0.99	20	109		
Anthracene	51	9	20.00	0	102	22	117		
Benzo(a)anthracene	22	10	50.00	0	107	સ	128		
Benzo(a)pyrene	25	5	50.00	0	<u>\$</u>	93	146		
Benzo(b)/Iluoranthene	90	9	50.00	0	100	43	147		
Benzo(g,h,i)penylene	55	9	50.00	0	110	25	153		
Benzo(k)fluoranthene	09	9	50.00	0	120	28	148		
Chrysene	53	10	50.00	0	105	42	140		
Dibenzo(a,h)anthracene	53	9	50.00	0	105	23	147		
Fluoranthene	28	9	50.00	0	127	20	123		(C)
Fluorene	41	10	50.00	0	81.5	51	118		
Indeno(1,2,3-cd)pyrene	51	10	50.00	0	103	26	156		
Naphthalene	37	10	20.00	0	73.8	39	107		
Phenanthrene	49	9	50.00	0	97.9	25	126		
Pyrene	48	10	50.00	0	95.1	4	137		
Surr: 1,2-Dichlorobenzene-d4	26		50,00		52.8	16	110		
Surr: 2-Fluorobiphenyl	32		50.00		63.2	43	116		
Surr: 4-Temhenyl-d14	40		20.00		79.9	33	141		
Surr: Nitrobenzene-d5	31		20.00		61.7	35	114		

Qualifiers:	*	Value exceeds Maximum Contaminant Level	۵	Dilution was required.
	Ξ	Holding times for preparation or analysis exceeded	Σ	Manual Integration used to de
	0	O RSD is greater than RSDlimit	۵	Second column confirmation

Spike Recovery outside accepted recovery limits 0

Sample container temperature is out of limit as specified etermine area response Second column confirmation exceeds ≼ ۵

RPD outside accepted recovery limits Not Detected at the Reporting Limit ы **8** ≂

Value above quantitation range

Page 6 of 25



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

Website: www.pacelabs.com

Melville, NY 11747 575 Broad Hollow Road

QC SUMMARY REPORT

1604D12 WO#:

25-Apr-16

Pace Analytical Services Inc. Project: Client:

16040222 - BAR-ROC; ELF SEMI ANNUAL L

55427 BatchID:

Sample ID: MB-55427	SampType: MBLK	TestCod	TestCode: 8270 W 4-2	F-2 Units: µg/L		Prep Da	Prep Date: 4/14/2016	016	RunNo: 96032	032	
Client ID: PBW	Batch ID: 55427	TestN	TestNo: SW8270			Analysis Date: 4/16/2016	ite: 4/16/2	016	SeqNo: 2089475	89475	
Analyte	Result	PQL	SPK value S	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bis(2-chloroethyl)ether	< 10	10									
N-Nitroso-di-n-propylamine	< 10	10									
Hexachloroethane	< 10	10									
Nitrobenzene	< 10	10									
Isophorone	< 10	10									
Bis(2-chloroethoxy)methane	< 10	10									
Naphthalene	< 5.0	5.0									
4-Chloroaniiine	< 10 10	Q									
Hexachlorobutadiene	< 10	9									
2-Methylnaphthalene	< 5.0	5.0									
Hexachlorocyclopentadiene	< 10	1									
2-Chloronaphthalene	< 10 4 10	10									
2-Nitroaniline	< 10	9									
Dimethylphthalate	< 10	10									
2,6-Dinitrotoluene	< 10	9									
Acenaphthylene	< 5.0	2.0									
3-Nitroaniline	< 10	9									
Acenaphthene	< 5.0	5.0									
Dibenzofuran	< 5.0	2.0									
2,4-Dinitrotoluene	< 10	9									
Diethylphthalate	< 10	10									
Fluorene	< 5.0	2.0									
4-Chlorophenyl-phenylether	< 10	10									
4-Nitroaniline	< 10	10					i.				
N-Nitrosodiphenylamine	< 10	9									
4-Bromophenyl-phenylether	< 10	10									

Holding times for preparation or analysis exceeded Value exceeds Maximum Contaminant Level Ξ Qualifiers:

Spike Recovery outside accepted recovery limits RSD is greater than RSDlimit 0 S

Sample container temperature is out of limit as specified Manual Integration used to determine area response Second column confirmation exceeds

Dilution was required.

RPD outside accepted recovery limits Not Detected at the Reporting Limit Value above quantitation range 田田氏

Page 7 of 25



575 Broad Hollow Road Melville, NY 11747 TEL: (631) 694-3040 FAX: (631) 420-8436

Website: www.pacelabs.com

QC SUMMARY REPORT

1604D12 WO#:

25-Apr-16

Pace Analytical Services Inc. Project: Client:

16040222 - BAR-ROC: ELF SEMI ANNUAL L

55427 BatchID:

				:								
Sample ID: MB-55427	1427	SampType: MBLK	TestCod	TestCode: 8270_W_4-2	-2 Units: pg/L		Prep Date	Prep Date: 4/14/2016	16	KunNo: 96032		
Client ID: PBW		Batch ID: 55427	TestN	TestNo: SW8270	SW3520C	-	Analysis Date:	3: 4/16/2016	16	SeqNo: 2089475	ıc.	
Analyte		Result	Pal	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RF	RPDLimit Q	Qual
Hexachlorobenzene	0	× 10	10									
Phenanthrene		< 5.0	5.0									
Anthracene		< 5.0	5.0									
Carbazole		< 5.0	5.0									
Di-n-butyl phthalate	e	< 10	9									
Fluoranthene		< 5.0	5.0									
Pyrene		< 5.0	5.0									
Butyl benzyl phthalate	late	< 10	10									
3,3'-Dichlorobenzidine	dine	× 10	10									
Benzo(a)anthracene	91	< 5.0	5.0									
Chrysene		< 5.0	9.0									
Bis(2-ethylhexyl)phthalate	nthalate	< 10	10									
Di-n-octyl phthalate	gn	< 10	10									
Benzo(b)fluoranthene	ane	< 5.0	5.0									
Benzo(k)fluoranthene	ans.	< 5.0	5.0									
Benzo(a)pyrene		< 5.0	9.0									
Indeno(1,2,3-cd)pyrene	rene	< 5.0	5.0									
Dibenzo(a,h)anthracene	acene	< 5.0	5.0									
Benzo(g,h,i)perylene	16	< 5.0	5.0									
Surr: 2-Fluorophenol	tenol	37		75.00		49.9	21	110				
Surr: Nitrobenzene-d5	me-d5	27		50.00		54.9	35	114				
Surr: Phenol-d5		38		75.00		51.3	10	110				
Surr: 2,4,6-Tribromophenol	omophenol	52		75.00		72.9	10	123				
Surr: 2-Fluorobiphenyl	ohenyl	56		50.00		52.3	43	116				
Surr: 4-Terphenyl-d14	yl-d14	45		50.00		89.9	33	141				
Sur: 2-Chlorophenol-d4	henol-d4	40		75.00		53.3	33	110				
Onalifiers: *	Value exceed	Value exceeds Maximum Contaminant Level		D Dilutio	Dilution was required.			ш	Value above quantitation range	tation range		
H	Holding time	Holding times for preparation or analysis exceeded	eded		Manual Integration used to determine area response	etermine arc	2 response	S	Not Detected at the Reporting Limit	Reporting Limit		
: c	DSD is great	RSD is orester than RSDfimit			Second column confirmation exceeds	exceeds	•		RPD outside accepted recovery limits	ted recovery limits		
>	State of the state	a unda formula						_		•	Page	Page 8 of 25

Pace Analytical Services, Inc.

W Sample container temperature is out of limit as specified

Pace Analytical

PACE ANALYTICAL

575 Broad Hollow Road Melville, NY 11747 TEL: (631) 694-3040 FAX: (631) 420-8436

Website: www.pacelabs.com

QC SUMMARY REPORT

1604D12 WO#:

25-Apr-16

Pace Analytical Services Inc. Client:

16040222 - BAR-ROC: ELF SEMI ANNUAL L

Project:

55427 BatchID:

Sample ID: MB-55427	SampType: MBLK	TestCoc	TestCode: 8270_W_4-2 Units: µg/L	Units: µg/L		Prep Date	Prep Date: 4/14/2016	16	RunNo: 96032	32	
Client ID: PBW	Batch ID: 55427	Testh	TestNo: SW8270	SW3520C		Analysis Date: 4/16/2016	: 4/16/20	16	SeqNo: 2089475	9475	
Analyte	Result	POL	SPK value SPK Ref Val	3PK Ref Val	%REC	LowLimit	-lighLimit	%REC LowLimit HighLimit RPD Ref Val	%RPD	%RPD RPDLimit Qual	Qual
Surr: 1,2-Dichlorobenzene-d4	17		50.00		34.1	91	110				

Sample ID: LFB-55427	55427	SampType: LFB	TestCod	TestCode: 8270_W_4-2	2 Units: µg/L		Prep Date:	4/14/2016		RunNo: 96032	7	10
Client ID: ZZZZZZ	22	Batch ID: 55427	TestN	estNo: SWB270	SW3520C		Analysis Date:	4/16/2016		SeqNo: 2089476	1476	
Analyte		Result	Pal	SPK value	SPK Ref Val	%REC	LowLimit H	HighLimit RPI	RPD Ref Val	%RPD	RPDLimit	Qual
Bis(2-chloroethyl)ether	ether	37	10	50.00	0	73.8	39	111				
N-Nitroso-di-n-propyfamine	pytamine	43	10	50.00	0	82.8	40	124				
Hexachloroethane		21	4	50.00	0	42.6	41	119				
Nitrobenzene		38	10	50.00	0	75.6	41	122				
Isophorone		30	10	50,00	0	8.09	46	118				
Bis(2-chloroethoxy)methane	y)methane	42	10	50.00	0	84.9	47	102				
Naphthalene		32	5,0	50.00	0	69.5	39	107				
4-Chloroaniline		32	9	50.00	0	64.6	25	133				
Hexachlorobutadiene	ene	26	10	50.00	0	51.6	18	06				
2-Methylnaphthalene	ene	36	5.0	50.00	0	72.4	31	123				
Hexachlorocyclopentadiene	entadiene	8.7	10	50.00	0	17.3	13	119				7
2-Chloronaphthalene	ene	33	4	50.00	0	65.8	41	122				
2-Nitroaniline		39	10	50.00	0	78.9	48	124				
Dimethytphthalate	60	46	10	50.00	0	91.6	26	121				
2,6-Dinitrotoluene	•	44	10	50.00	0	88.0	26	121				
Acenaphthylene		35	5.0	20.00	0	69.7	20	109				
3-Nitroaniline		43	10	20.00	0	85.3	46	112				
Acenaphthene		36	5.0	20,00	0	71.8	50	116				
Dibenzofuran		40	2.0	20.00	0	90.6	53	117				
Oualiffers: *	Value exce	Value exceeds Maximum Contaminant Level	-5	D Dilution	Dilution was required.			E Value	Value above quantitation range	ation range		
A	Holding tin	Holding times for preparation or analysis exceeded	ceeded	M Manual	Manual Integration used to determine area response	letermine ar	ea response	ND Not D	Detected at the	Not Detected at the Reporting Limit		
O) RSD is gre	RSD is greater than RSD limit		P Second	Second column confirmation exceeds	n exceeds		R RPD	outside accept	RPD outside accepted recovery limits		,
S		Spike Recovery outside accepted recovery limits	imits	W Sample	Sample container temperature is out of limit as specified	re is out of l	imit as specified				Pa	Page 9 of 25



575 Broad Hollow Road Melville, NY 11747

TEL: (631) 694-3040 FAX: (631) 420-8436 Website: www.pacelabs.com

QC SUMMARY REPORT

1604D12 WO#: 25-Apr-16

55427

BatchID:

Pace Analytical Services Inc. **Project:** Client:

16040222 - BAR-ROC: ELF SEMI ANNUAL L

Quat က က **RPDLimit** SeqNo: 2089476 RunNo: 96032 %RPD Value above quantitation range RPD Ref Val Analysis Date: 4/16/2016 Prep Date: 4/14/2016 HighLimit 35 132 128 140 138 148 148 146 156 133 117 127 128 123 95 128 126 137 147 147 153 2 E E LowLimit 51 51 51 95.8 119 74.3 90 112 129 123 116 114 46.5 113 138 102 113 98.0 90.4 103 14 Units: µg/L SW3520C Dilution was required. SPK Ref Val FestCode: 8270 W 4-2 50.00 50,00 50.00 50.00 50.00 50.00 50.00 50.00 50.00 50.00 50.00 50.00 50.00 50.00 50.00 50.00 50.00 SPK value 50.00 50.00 50.00 50.00 50.00 50.00 50.00 TestNo: SW8270 5.0 5.0 5.0 절 **ㅎㅎㅎㅎㅎ** 5.0 10 5.0 2 2 우 9 Value exceeds Maximum Contaminant Level Result 23 49 50 50 57 Batch ID: 55427 SampType: LFB 4-Chlorophenyl-phenylether 4-Bromophenyl-phenylether Bis(2-ethylhexyl)phthalate N-Nitrosodiphenylamine Dibenzo(a,h)anthracene Indeno(1,2,3-cd)pyrene Sample ID: LFB-55427 3,3'-Dichlorobanzidine **Butyl benzyl phthalate** Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(a)anthracene Benzo(g,h,i)perylene Di-n-octyl phthalate 11111 **-lexachlorobenzene** Di-n-butyl phthalate 2,4-Dinitrotoluene Benzo(a)pyrene Diethylphthalate Phenanthrene 4-Nitroanline Fluoranthene Anthracene Qualiffers: Client ID: Carbazole Chrysene Fluorene Pyrene Analyte

Holding times for preparation or analysis exceeded RSD is greater than RSDlimit 0

Spike Recovery outside accepted recovery limits

Sample container temperature is out of limit as specified Manual Integration used to determine area response Second column confirmation exceeds

RPD outside accepted recovery limits Not Detected at the Reporting Limit ~

Page 10 of 25

16040222 - Page 51 of 71



575 Broad Hollow Road Melville, NY 11747 TEL. (631) 694-3040 FAX: (631) 420-8436 Website: www.pacelabs.com

QC SUMMARY REPORT

1604D12 WO#:

25-Apr-16

Pace Analytical Services Inc.

16040222 - BAR-ROC; ELF SEMI ANNUAL L

Project: Client:

55427 BatchID:

Sample ID: LFB-55427	SampType: LFB	TestCoc	le: 8270_W_4-2	TestCode: 8270_W_4-2 Units: µg/L		Prep Dat	Prep Date: 4/14/2016	16	RunNo: 96032	132	
Client ID: ZZZZZZ	Batch ID: 55427	Testh	TestNo: SW8270	SW3520C		Analysis Date: 4/16/2016	e: 4/16/20	16	SeqNo: 2089476	19476	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%REC LowLimit HighLimit RPD Ref Val	%RPD	%RPD RPDLimit Qual	Qual
Surr: 2-Fluorophenol	44		75.00		58.6	21	110				
Sur: Nitrobenzene-d5	31		50.00		61.8	35	114				
Surr: Phenol-d5	47		75.00		62.1	10	110				2
Sur: 2,4,6-Tribromophenol	25		75.00		85.5	9	123				
Sur. 2-Fluorobiphenyl	34		50.00		67.5	43	116				
Surr: 4-Terphenyl-d14	43		20.00		85.2	33	141				
Surr. 2-Chlorophenol-d4	49		75.00		65.1	33	110				
Surr. 1,2-Dichlorobenzene-d4	24	9	20.00		48.3	16	110				

Qualifiers:	•	Value exceeds Maximum Contaminant Level	А	Dilution was required.
	Ξ	Holding times for preparation or analysis exceeded	×	Manual Integration used to determine area respi

Spike Recovery outside accepted recovery limits RSD is greater than RSDlimit 0 v

Sample container temperature is out of limit as specified Second column confirmation exceeds ۾ ≽

RPD outside accepted recovery limits Not Detected at the Reporting Limit 田田民 ponse

Value above quantitation range

Page 11 of 25

16040222 - Page 52 of 71



Melville, NY 11747 TEL: (631) 694-3040 FAX: (631) 420-8436 575 Broad Hollow Road

Website: www.pacelabs.com

QC SUMMARY REPORT

1604D12 WO#:

25-Apr-16

55427

BatchID:

Pace Analytical Services Inc. Client:

16040222 - BAR-ROC: ELF SEMI ANNUAL L Project:

SeqNo: 2083944 RunNo: 95880 Prep Date: 4/14/2016 Analysis Date: 4/16/2016 Units: µg/L SW3520C TestCode: 8270_W_4-2 TestNo: SW8270 SampType: MBLK Batch ID: 55427 Sample ID: MB-55427 Client ID: PBW

Analyte	Result PC	QL SPK value	- 1	SPK Ref Val %	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bis(2-chloroethyl)ether	< 10	10									
N-Nitroso-di-n-propytamine	< 10	10									
Hexachloroethane	< 10	10									
Nitrobenzene	< 10	10									
Isophorone	< 10	10									
Bis(2-chloroethoxy)methane	× 10										
Naphthalene	< 5.0 5	5.0									
4-Chloroaniilne	< 10	10									
Hexachlorobutadiene	· 10	10									
2-Methylnaphthalene	< 5.0 5	5.0									
Hexachlorocyclopentadiene	< 10	10									
2-Chloronaphthalene	< 10	10									
2-Nitroaniline	< 10	10									
Dimethylphthalate	< 10	10									
2,6-Dinitrotoluene	× 10	10									
Acenaphthylene	< 5.0 5	5.0									
3-Nitroaniline	< 10	10									
Acenaphthene	< 5.0 5	5.0									
Dibenzofuran	< 5.0	5.0									
2,4-Dinitrotoluene	< 10	10									
Diethylphthalate	< 10	10									
Fluorene	< 5.0	5.0									
4-Chlorophenyl-phenylether	< 10	10									
4-Nitroaniline	< 10	10									
N-Nitrosodiphenylamine	< 10	0									
4-Bromophenyl-phenylether	< 10	10									

Qualiffers:	*	Value exceeds Maximum Contaminant Level	Ω	_
	Ξ	Holding times for preparation or analysis exceeded	Σ	-
	0	RSD is greater than RSDlimit	Д	01
	S	Spike Recovery outside accepted recovery limits	≱	01

Spike Recovery outside accepted recovery limits RSD is greater than RSDlimit 0 %

Dilution was required.

Not Detected at the Reporting Limit

Value above quantitation range

16040222 - Page 53 of 71

ы **В** ≈ Sample container temperature is out of limit as specified Manual Integration used to determine area response Second column confirmation exceeds

114 116 141 110

35 43 33 16

54.9 52.3 89.9 34.1

50.00 50.00 50.00

27

Surr: Nitrobenzene-d5 Surr: 2-Fluorobiphenyl Surr: 4-Terphenyl-d14

26 45 17

Surr: 1,2-Dichlorobenzene-d4

Page 13 of 25



PACE ANALYTICAL

575 Broad Hollow Road Melville, NY 11747 TEL: (631) 694-3040 FAX: (631) 420-8436

Website: www.pacelabs.com

QC SUMMARY REPORT

25-Apr-16 WO#:

1604D12

Pace Analytical Services Inc. Client:

Project:

16040222 - BAR-ROC; ELF SEMI ANNUAL L

55427 BatchID:

Sample ID: MB-55427	SampType: MBLK	TestCo	TestCode: 8270_W_4-2	2 Units: µg/L		Prep Date	Prep Date: 4/14/2016	116	RunNo: 95880	80	
Client ID: PBW	Batch ID: 55427	Test	TestNo: SW8270	SW3520C		Analysis Date: 4/16/2016	в: 4/16/2	916	SeqNo: 2083944	3944	
Analyte	Result	POL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%REC LowLimit HighLimit RPD Ref Val	%RPD	RPDLimit	Qual
Hexachlorobenzene	< 10	10									
Phenanthrene	< 5.0	5.0									
Anthracene	< 5.0	5.0									
Carbazole	< 5.0	5.0									
Di-n-butyl phthalate	< 10	10									
Fluoranthene	< 5.0	5.0									
Pyrene	< 5.0	5.0									
Butyl benzyl phthafate	< 10	10									
3,3'-Dichlorobenzidine	< 10	우									
Benzo(a)anthracene	< 5.0	2.0									
Chrysene	< 5.0	5.0									
Bis(2-ethylhexyi)phthalate	< 10	10									
Di-n-octyl phthalate	< 10	9									
Benzo(b)fluoranthene	< 5.0	5,0									
Benzo(k)fluoranthene	< 5.0	5.0									
Benzo(a)pyrene	< 5.0	5.0									
Indeno(1,2,3-cd)pyrene	< 5.0	5.0									
Dibenzo(a,h)anthracene	< 5.0	5.0									
Benzo(g,h,i)perylene	< 5.0	5.0									

Qualifiers:	٠	Value exceeds Maximum Contaminant Level	Q	Dilution was required.	E Value above quantitation range
ı	Ξ	Holding times for preparation or analysis exceeded	Σ	M Manual Integration used to determine area response	ND Not Detected at the Reporting Limit
	0	RSD is greater than RSDlimit	۵.	Second column confirmation exceeds	R RPD outside accepted recovery limits
	C/3	Spike Recovery outside accepted recovery limits	≱	W Sample container temperature is out of limit as specified	

Spike Recovery outside accepted recovery limits



575 Broad Hollow Road TEL: (631) 694-3040 FAX: (631) 420-8436

Website: www.pacelabs.com

Melville, NY 11747

QC SUMMARY REPORT

1604D12 W0#:

25-Apr-16

55427

BatchID:

Pace Analytical Services Inc.

16040222 - BAR-ROC: ELF SEMI ANNUAL L

Project: Client:

4/14/2016

Sample ID: LFB-55427	SampType: LFB	TestCode	TestCode: 8270_W_4-2	Units: pg/L		Prep Date:	4/14/2016	RunNo: 95880	95880	
Client ID: ZZZZZZ	Batch ID: 55427	TestNo	TestNo: SW8270	SW3520C		Analysis Date:	4/16/2016	SeqNo:	SeqNo: 2083945	
Analyte	Result	Po	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit RPD F	RPD Ref Val	PD RPDLimit	Qual
Bis(2-chloroethyf)ether	37	5	20:00	0	73.8	39	111	!		
N-Nitroso-di-n-propylamine	43	10	50.00	0	82.8	40	124			
Hexachloroethane	21	10	20.00	0	42.6	41	119			
Nitrobenzene	38	9	50.00	0	75.6	41	122			
Isophorone	30	10	50.00	0	8.09	46	118			
Bis(2-chloroethoxy)methane	42	10	50.00	0	84.9	47	102			
Naphthalene	35	5.0	50.00	0	69.5	39	107			
4-Chloroaniline	32	9	50.00	0	64.6	25	133			
Hexachlorobutadiene	26	9	50.00	0	51.6	18	90			
2-Methylnaphthalene	36	5.0	50.00	0	72.4	31	123			
Hexachlorocyclopentadiene	8.7	10	50.00	0	17.3	13	119			7
2-Chloronaphthalene	33	10	50.00	0	65.8	41	122			
2-Nitroaniline	39	10	50.00	0	78.9	48	124			
Dimethylphthalate	46	10	20.00	0	91.6	56	121			
2,6-Dinitrotoluene	44	10	20.00	0	98.0	56	121			
Acenaphthylene	35	5.0	50.00	0	69.7	20	109			
3-Nitroaniline	43	10	50.00	0	85.3	46	112			
Acenaphthene	36	5.0	50.00	0	71.8	20	116			
Dibenzofuran	40	5.0	20.00	0	90'0	53	117			
2,4-Dinitrotoluene	20	10	50.00	0	10	55	122			
Diethylphthalate	20	10	50.00	0	100	<u>%</u>	124			
Fluorene	43	5.0	50.00	0	85.7	51	118			
4-Chlorophenyl-phenylether	43	Q	20.00	0	86.1	53	116			
4-Nitroaniline	45	10	50.00	0	90.4	51	113			
N-Nitrosodiphenylamine	37	10	50.00	0	74.3	41	35			
4-Bromophenyl-phenylether	25	10	20.00	0	103	53	121			
Onelifere: * Value over	Value exceeds Maximum Centaminant Level		D Dihrtion	Dilution was required			E Value ab	Value above ougnitiation range	9	
:								the Boundary		
H Holding tire	Holding times for preparation or analysis exceeded	eded	M Manual I	Manual Integration used to determine area response	etermine an	sa response		Not Detected at the Reporting Limit		

Maximum Contaminant	2	Dillution was required.
CACCOLS Washings Contiguing Laws	1	
e seconde Blavimini i Salaminant I Avei	_	
and the second s	4	Tributan and an artist of
ium Contaminant	Ω	Dilution was required.
	ļ	
	***	A. S
ing times for prenamion of analysis exceeded	2	Manual Integration use
and the second s		,b
ing t	s Maximum Contaminant for preparation or analys	s Maximum Contaminant Level I for preparation or analysis exceeded M

Spike Recovery outside accepted recovery limits RSD is greater than RSDlimit o s

Sample container temperature is out of limit as specified Second column confirmation exceeds چ ہے

RPD outside accepted recovery limits ~

Page 14 of 25



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

Website: www.pacelabs.com

575 Broad Hollow Road Melville, NY 11747

QC SUMMARY REPORT

1604D12 WO#:

25-Apr-16

Pace Analytical Services Inc. Client:

16040222 - BAR-ROC: ELF SEMI ANNUAL L

Project:

55427 BatchID:

Sample ID: LFB-55427	SampType: LFB	TestCod	TestCode: 8270_W_4-2	2 Units: µg/L		Prep Date	Prep Date: 4/14/2016	9	RunNo: 95880	.08	
Client ID: ZZZZZZ	Batch ID: 55427	TestN	TestNo: SW8270	SW3520C	•	Analysis Date:	: 4/16/2016	9	SeqNo: 2083945	3945	
Analyte	Result	Pa	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexachlorobenzene	57	5	50.00	0	114	52	128				
Phenanthrene	48	5.0	50.00	0	95.8	52	126				
Anthracene	53	5.0	50.00	0	106	Ŗ	117				
Carbazole	26	5.0	20.00	0	112	69	127				
Di-n-butyl phthalate	65	9	50.00	0	129	25	128				S
Fluoranthene	62	9.0	20.00	0	123	20	123				S
Pyrene	28	5.0	50.00	0	116	41	137				
Butyl benzyl phthalate	22	9	50.00	0	114	38	135				
3,3'-Dichlorobenzidine	23	9	50.00	0	46.5	20	132				
Benzo(a)anthracene	99	5.0	20.00	0	113	3	128				
Chrysene	09	5.0	50.00	0	119	42	140				
Bis(2-ethylhexyl)phthalate	59	10	50.00	0	118	37	138				
Di-n-octyl phthalate	51	10	50.00	0	102	32	148				
Benzo(b)fluoranthene	49	5.0	50.00	0	97.2	43	147				
Benzo(k)fluoranthene	22	5.0	50.00	0	113	28	148				
Benzo(a)pyrene	49	5.0	50.00	0	98.0	30	146				
Indeno(1,2,3-cd)pyrane	20	5.0	50.00	0	99.1	56	156				
Dibenzo(a,h)anthracene	51	5.0	50.00	0	103	22	147				
Benzo(g,h,i)perylene	20	5.0	50.00	0	99.3	25	153				
Surr: Nitrobenzane-d5	31		20.00		61.8	32	114				
Surr: 2-Fluorobiphenyl	34		20.00		67.5	43	116				
Surr: 4-Terphenyi-d14	43		20.00		85.2	33	141				
Surr: 1,2-Dichlorobenzene-d4	24		20.00		48.3	16	110				

ualifiers:	*	Value exceeds Maximum Contaminant Level
	Ξ	Holding times for preparation or analysis exceeded

RSD is greater than RSDlimit 0

Ω № ≥ ≥

16040222 - Page 56 of 71

Spike Recovery outside accepted recovery limits S

Manual Integration used to determine area response Second column confirmation exceeds Dilution was required.

RPD outside accepted recovery limits Sample container temperature is out of limit as specified

Not Detected at the Reporting Limit Value above quantitation range ы 8 ж



Melville, NY 11747 575 Broad Hollow Road TEL: (631) 694-3040 FAX: (631) 420-8436

Website: www.pacelabs.com

QC SUMMARY REPORT

1604D12 WO#:

25-Apr-16

Pace Analytical Services Inc. Client:

16040222 - BAR-ROC: ELF SEMI ANNUAL L

Project:

55461 BatchID:

Sample ID: MB-55461	SampType: MBLK	TestCox	Je: HG_7470A	TestCode: HG_7470A_W Units: ug/L		Prep Date: 4/16/2016	4/16/20	116	RunNo: 95775	775	
Client ID: PBW	Batch ID: 55461	Testh	TestNo: SW7470	SW7470	*	Analysis Date: 4/16/2016	: 4/16/20	116	SeqNo: 2082199	92199	
Analyte	Result	Pal	SPK value	SPK value SPK Ref Val	%REC	LowLimit 1	HighLimit	%REC LowLimit HighLimit RPD Ref Val	%RPD	%RPD RPDLimit	Qual
Mercury	0	0.2									7

Sample ID: LCS-55461	SampType: LCS	TestCod	e: HG_7470A	TestCode: HG_7470A_W Units: ug/L		Prep Date	Prep Date: 4/16/2016	9	RunNo: 95775	75	
Client ID: LCSW	Batch ID: 55461	TestN	TestNo: SW7470	SW7470	•	Analysis Date: 4/16/2016	3: 4/16/201	9	SeqNo: 2082200	12200	
Analyte	Result	PaL	SPK value	SPK value SPK Ref Val	%REC	LowLimit	HighLimit	%REC LowLimit HighLimit RPD Ref Val	%RPD	%RPD RPDLImit Qual	Qual
Mercury	1.1	0.2	1.0	0	106	80	120				

Sample ID:	Sample ID: 1604E56-003GDUP	SampType: DUP	TestCod	e: HG_74704	TestCode: HG_7470A_W Units: ug/L		Prep Date: 4/16/2016	4/16/201	9	RunNo: 95775	75	
Client ID: ZZZZZZ	777777	Batch ID: 55461	TestN	TestNo: SW7470	SW7470	1	Analysis Date: 4/16/2016	4/16/201	9	SeqNo: 2082216	2216	
Analyte		Result	Pal	SPK value	SPK value SPK Ref Val	%REC	%REC LowLimit HighLimit RPD Ref Val	lighLimit	RPD Ref Val	%RPD	%RPD RPDLimit Qual	Oual
Mercury		0	0.2						0	13.3	20	7

Sample ID:	Sample ID: 1604E56-003GMS	SampType: MS	TestCod	e: HG_7470A	TestCode: HG_7470A_W Units: ug/L		Prep Date	Prep Date: 4/16/2016	16	RunNo: 95775	75	
Client ID: ZZZZZZ	727777	Batch ID: 55461	TestN	FestNo: SW7470	SW7470	`	Analysis Date: 4/16/2016	e: 4/16/20	16	SeqNo: 2082217	2217	
Analyte		Result	Pat	SPK value	SPK value SPK Ref Val	%REC	LowLimit	HighLimit	%REC LowLimit HighLimit RPD Ref Vai	%RPD	%RPD RPDLimit Qual	Qual
Mercury		1.2	0.2	1.0	0	117	75	125				

Value exceeds Maximum Contaminant Level	Holding times for preparation or analysis exceeded
•	Η
Qualifiers:	

I 0 %

Sample container temperature is out of limit as specified

Spike Recovery outside accepted recovery limits

RSD is greater than RSDlimit

Page 16 of 25

16040222 - Page 57 of 71

Dilution was required.

Manual Integration used to determine area response Second column confirmation exceeds

RPD outside accepted recovery limits Not Detected at the Reporting Limit Value above quantitation range n 8 x



575 Broad Hollow Road Melville, NY 11747 TEL: (631) 694-3040 FAX: (631) 420-8436

Website: www.pacelabs.com

QC SUMMARY REPORT

1604D12 WO#:

25-Apr-16

Pace Analytical Services Inc. Client: 16040222 - BAR-ROC: ELF SEMI ANNUAL L

Project:

55462 BatchID:

Sample ID: MB-55462	SampType: MBLK	TestCoc	TestCode: 200.7_MDL	Units: ug/L		Prep Da	Prep Date: 4/16/2016	116	RunNo: 96029	29	
Client ID: PBW	Batch ID: 55462	Testh	estNo: E200.7	E200.7		Analysis Date: 4/20/2016	te: 4/20/2	916	SeqNo: 2089366	9366	
Analyte	Result	Pal	SPK value SPK Ref Val	SPK Ref Val	%REC	LowLimit	HighLimit	%REC LowLimit HighLimit RPD Ref Val	%RPD	%RPD RPDLimit Qual	Qual
Arsenic	< 10,0	10.0					110	1			
Cadmium	< 5.00	9.00									
Chromium	< 10.0	10.0									
Copper	1.20	25,0									7
Lead	< 3.00	3.00									
Nickel	< 40.0	40.0									
Silver	< 10.0	10,0									
Zinc	< 20.0	20.0									

Sample ID: LCS-55462 Client ID: LCSW	SampType: LCS Batch ID: 55462	TestCoc	TestCode: 200.7_MDL TestNo: E200.7	Units: ug/L E200.7		Prep Date: 4/16/2016 Analysis Date: 4/20/2016	Prep Date: 4/16/2016 alysis Date: 4/20/2016	16 16	RunNo: 96029 SeqNo: 2089367	129 19367	
Analyte	Result	Pal	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	LowLimit HighLimit RPD Ref Val	%RPD	RPDLimit Qual	Qual
Arsenic	490	10.0	200.0	0	98.0	85	115				
Cadmium	2,550	5.00	2,500	0	102	82	115				
Chomium	2,620	10.0	2,500	0	105	82	115				
Copper	2,500	25.0	2,500	0	6.66	85	115				
Lead	476	3.00	500.0	0	95.1	82	115				
Nickel	2,530	40.0	2,500	0	101	82	115				
Silver	1,030	10.0	1,000	0	103	82	115				
Zinc	2,530	20.0	2,500	0	101	92	115				

Value exceeds Maximum Contaminant Level	Holding times for preparation or analysis exceeded	RSD is greater than RSDlimit
٠	I	0
Qualifiers:		

S Spike Recovery outside accepted recovery limits

A Manual Integration used to determine area response	Second column confirmation exceeds	V Sample container temperature is out of limit as specifie
Σ	_	=

D Dilution was required.

RPD outside accepted recovery limits Not Detected at the Reporting Limit m € ≈

Value above quantitation range

Page 17 of 25

Pace Analytical

PACE ANALYTICAL

Melville, NY 11747 TEL: (631) 694-3040 FAX: (631) 420-8436 575 Broad Hollow Road Website: www.pacelabs.com

QC SUMMARY REPORT

1604D12 WO#:

25-Apr-16

Pace Analytical Services Inc. Client: 16040222 - BAR-ROC: ELF SEMI ANNUAL L

Project:

55462 BatchID:

Sample ID: 1604D22-001CDUP SampType: DUP	SampType: DUP	TestCoc	TestCode: 200.7_MDL	Units: ug/L		Prep Dat	Prep Date: 4/16/2016	116	RunNo: 96029	029	
Client ID: ZZZZZZ	Batch ID: 55462	Testh	TestNo: E200.7	E200.7		Analysis Date: 4/20/2016	e: 4/20/20	116	SeqNo: 2089369	89369	
Analyte	Result	PQL	SPK value SPK Ref Val	SPK Ref Val	%REC	LowLimit	HighLimit	%REC LowLimit HighLimit RPD Ref Val	%RPD	%RPD RPDLImit Qual	ð
Arsenic	3.81	10.0						6.564	53.1	20	뜻
Cadmium	< 5.00	9.00						0	0	20	
Chromium	< 10.0	10.0						0	0	20	
Copper	< 25.0	25.0						3.700	200	20	œ
Lead	15.3	3.00						10.70	35.1	20	œ
Nickel	< 40.0	40.0						0	0	20	
Silver	< 10.0	10.0						0	0	20	
Zinc	1.50	20.0						1.400	6.90	20	•

Sample ID: 1604D22-001CMS	SampType: MS	TestCod	TestCode: 200.7_MDL	Units: ug/L		Prep Date	Prep Date: 4/16/2016	16	RunNo: 96029	129	
Client ID: ZZZZZ	Batch ID: 55462	N 1891	lestino: Ezuu.7	E200./		Analysis Date: 4/20/2016	4/20/20	9	Sequino: 20093/0	0/05	
Analyte	Result	Pal	SPK value SPK Ref Val	SPK Ref Val	%REC	LowLimit	HighLimit	%REC LowLimit HighLimit RPD Ref Val	%RPD	RPDLimit Qual	Qual
Arsenic	48.0	10.0	40.00	6.564	104	70	130				
Cadmium	48.8	2.00	20.00	0	97.6	20	130				
Chromium	198	10.0	200.0	0	99.0	70	130				
Copper	243	25.0	250.0	3.700	95.8	20	130				
Lead	25.3	3.00	20.00	10.70	72.9	20	130				
Nickel	492	40.0	500.0	0	98.3	20	130				
Silver	45.4	10.0	50.00	0	90.8	70	130				
Zinc	498	20.0	500.0	1.400	99.4	70	130				

Value exceeds Maximum Contaminant Level	Holding times for preparation or analysis exceeded	RSD is greater than RSDlimit	Spike Recovery outside accepted recovery limits
•	Ξ	0	S
Qualifiers:			

Manual Integration used to determine area response Dilution was required.

Second column confirmation exceeds

Sample container temperature is out of limit as specified

Value above quantitation range

16040222 - Page 59 of 71

RPD outside accepted recovery limits Not Detected at the Reporting Limit m **2** ≈

Page 18 of 25



575 Broad Hollow Road Melville, NY 11747 TEL: (631) 694-3040 FAX: (631) 420-8436

Website: www.pacelabs.com

QC SUMMARY REPORT

25-Apr-16 1604D12 WO#:

Pace Analytical Services Inc.

16040222 - BAR-ROC: ELF SEMI ANNUAL L

Project:

Client:

55476 BatchID:

Sample ID: 1604679-001DMS	SampType: MS	TestCode	estCode: CN-DW	Units: µg/L		Prep Date: 4/18/2016	4/18/201	9	RunNo: 95842	42	
Client ID: ZZZZZZ	Batch ID: 55476	TestNc	o: SM4500-CI	TestNo: SM4500-CN E SM4500-CN E	*	Analysis Date: 4/18/2016	4/18/201	9	SeqNo: 2083266	3266	
Analyte	Result	Pal	SPK value	SPK value SPK Ref Val	%REC	%REC LowLimit HighLimit RPD Ref Val	lighLimit	RPD Ref Val	%RPD	%RPD RPDLimit Qual	Qual
Cyanide	63	10	100.0	0	92.7	75	125				

Sample ID: 1604679-001DDUP	SampType: DUP	TestCode: CN-DW	Units: µg/L		Prep Date	Prep Date: 4/18/2016	w	RunNo: 95842	42	
Client ID: ZZZZZZ	Batch ID: 55476	TestNo: SM4500-CN E SM4500-CN E	NE SM4500-CNE	₹	nalysis Date	Analysis Date: 4/18/2016	හු	SeqNo: 2083267	13267	
Analyte	Result	PQL SPK value	SPK value SPK Ref Val %	REC	LowLimit	HighLimit	%REC LowLimit HighLimit RPD Ref Val	%RPD	%RPD RPDLImit Qual	Qual
Cyanide	× 10	10					0	0	20	

Manual Integration used to determine area response Dilution was required. Q № A ≥ Holding times for preparation or analysis exceeded Value exceeds Maximum Contaminant Level 王 Qualifiers:

Spike Recovery outside accepted recovery limits RSD is greater than RSDlimit 0 8

Sample container temperature is out of limit as specified Second column confirmation exceeds

Not Detected at the Reporting Limit Value above quantitation range m € ~

RPD outside accepted recovery limits

Page 19 of 25



575 Broad Hollow Road

Melville, NY 11747 TEL: (631) 694-3040 FAX: (631) 420-8436 Website: www.pacelabs.com

QC SUMMARY REPORT

1604D12 WO#: 25-Apr-16

Pace Analytical Services Inc. Project: Client:

16040222 - BAR-ROC; ELF SEMI ANNUAL L

55476 BatchID:

Sample ID: MB-55476	SampType: MBLK	TestCode: cn w sm4500 Units: ug/L Prep Date: 4/18/2016	016 RunNo: 95842
Client ID: PBW	Batch ID: 55476	E &	016 SeqNo: 2083264
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val	RPD Ref Val %RPD RPDLimit Qual
Cyanide	< 10	10	

Holding times for preparation or analysis exceeded Value exceeds Maximum Contaminant Level 王 Qualifiers:

Spike Recovery outside accepted recovery limits

RSD is greater than RSD limit

0 %

Manual Integration used to determine area response Dilution was required.

Sample container temperature is out of limit as specified Second column confirmation exceeds

Not Detected at the Reporting Limit Value above quantitation range ш **В** ж

RPD outside accepted recovery limits

Page 20 of 25



Melville, NY 11747 TEL: (631) 694-3040 FAX: (631) 420-8436 575 Broad Hollow Road

Website: www.pacelabs.com

QC SUMMARY REPORT

1604D12 25-Apr-16

WO#:

Pace Analytical Services Inc. Client: 16040222 - BAR-ROC: ELF SEMI ANNUAL L

Project:

R95941 BatchID:

Sample ID: MB-R95941	SampType: MBLK	TestCo	le: OG1664_M	TestCode: OG1664_W Units: mg/L		Prep Date:			RunNo: 95941	941	
Client ID: PBW	Batch ID: R95941	Test	TestNo: E1664A		Q.	Analysis Date: 4/19/2016	4/19/2016		SeqNo: 2085262	85262	
Analyte	Result	POL	PQL SPK value SPK Ref Val	SPK Ref Vat	%REC	LowLimit Hi	%REC LowLimit HighLimit RPD Ref Val	Ref Val	%RPD	%RPD RPDLImit Qual	Qual
Hexane Extractable Material (O&G)	3) < 5.0	5.0									

Sample ID: LCS-R95941	SampType: LCS	TestCoc	le: OG1664_V	TestCode: OG1664_W Units: mg/L		Prep Date:	.e.	İ	RunNo: 95941	41	
Client ID: LCSW	Batch ID: R95941	Testh	TestNo: E1664A		•	Analysis Date: 4/19/2016	te: 4/19/20	16	SeqNo: 2085263	5263	
Analyte	Result	Pal	SPK value	SPK value SPK Ref Val	%REC	LowLimit	HighLimit	%REC LowLimit HighLimit RPD Ref Val	%RPD	%RPD RPDLimit Qual	Qual
Hexane Extractable Material (O&G)	36.7	5.0	40.0	0	91.8	7.8	114				

Sample ID: R95941LFB	SampType: LFB	TestCod	le: OG1664_W	sstCode: OG1664_W Units: mg/L		Prep Date:	ë		RunNo: 95941	141	
Client ID: ZZZZZZ	Batch ID: R95941	TestN	TestNo: E1664A		•	Analysis Date: 4/19/2016	e: 4/19/20	16	SeqNo: 2085264	35264	
Analyte	Result	Pal	SPK value	SPK value SPK Ref Val	%REC	LowLimit	HighLimit	%REC LowLimit HighLimit RPD Ref Val	%RPD	%RPD RPDLimit Qual	Qual
Hexane Extractable Material (O&G)	40,6	2.0	40.0	0	102	78	114				

Sample ID: MB-R95941	SampType: MBLK	TestCod	e: 0G1664_\	TestCode: OG1664_W Units: mg/L		Prep Date:	**		RunNo: 95941	141	
Client ID: PBW	Batch ID: R95941	Testiv	Festino: E1664A		*	Analysis Date: 4/19/2016	3: 4/19/20	16	SeqNo: 2085279	15279	
Analyte	Result	POL	SPK value	SPK value SPK Ref Val	%REC	LowLimit	HighLimit	%REC LowLimit HighLimit RPD Ref Val	%RPD	KRPD RPDLimit Qual	Qual
Hexane Extractable Material (O&G)	3) < 5.0	5.0				•					

Value exceeds Maximum Contaminant Level Qualifiers: Spike Recovery outside accepted recovery limits

RSD is greater than RSDlimit

Ξ 0 %

Dilution was required. **□ ≥ □ ≥** Holding times for preparation or analysis exceeded

Manual Integration used to determine area response Second column confirmation exceeds

Sample container temperature is out of limit as specified

Not Detected at the Reporting Limit Value above quantitation range E S R

RPD outside accepted recovery limits

Page 21 of 25



575 Broad Hollow Road Melville, NY 11747 TEL: (631) 694-3040 FAX: (631) 420-8436

Website: www.pacelabs.com

QC SUMMARY REPORT

1604D12 WO#:

25-Apr-16

Pace Analytical Services Inc. Project: Client:

16040222 - BAR-ROC; ELF SEMI ANNUAL L

R95941 BatchID:

Sample ID: LCS-R95941 Client ID: LCSW	SampType: LCS Batch ID: R95941	TestCo	TestCode: OG1664_W TestNo: E1664A	/ Units: mg/L	*	Prep Date: Analysis Date:	Prep Date: Analysis Date: 4/19/2016		RunNo: 95941 SeqNo: 2085280	141 15280	
Analyte	Result	Pal	SPK value	SPK Ref Val	%REC	LowLimit	%REC LowLimit HighLimit RPD Ref Val	tef Val	%RPD	%RPD RPDLimit Qual	Qual
Hexane Extractable Material (O&G)	3) 37.1	5.0	40.0	0	92.8	78	114				!

Value above quantitation range 田田民 Manual Integration used to determine area response Second column confirmation exceeds Dilution was required. Holding times for preparation or analysis exceeded Value exceeds Maximum Contaminant Level RSD is greater than RSDlimit 王 0 0 Qualifiers:

RPD outside accepted recovery limits Not Detected at the Reporting Limit

Page 22 of 25

Sample container temperature is out of limit as specified

Spike Recovery outside accepted recovery limits



Melville, NY 11747 TEL: (631) 694-3040 FAX: (631) 420-8436 575 Broad Hollow Road

Website: www.pacelabs.com

QC SUMMARY REPORT

1604D12 W0#:

25-Apr-16

Pace Analytical Services Inc. Client:

16040222 - BAR-ROC: ELF SEMI ANNUAL L

Project:

R96054 BatchID:

Sample ID: MB-041916	SampType: MBLK	TestCod	TestCode: COD_W	Units: mg/L		Prep Date:	isi		RunNo: 96054	154	i
Client ID: PBW	Batch ID: R96054	Test	TestNo: E410.4		*	Analysis Date: 4/19/2016	a: 4/19/20	16	SeqNo: 2089976	9266	
Analyte	Result	Pal		SPK value SPK Ref Val	%REC	LowLimit	HighLimit	%REC LowLimit HighLimit RPD Ref Val	%RPD	%RPD RPDLimit Qual	Qual
Chemical Oxygen Demand	< 10.0	10.0									

Sample ID: LCS-041916	SampType: LCS	TestCod	TestCode: COD_W	Units: mg/L		Prep Date:	.e		RunNo: 96054	22	
Client ID: LCSW	Batch ID: R96054	TestN	TestNo: E410.4		•	Analysis Dat	Analysis Date: 4/19/2016	16	SeqNo: 2089979	9979	
Analyte	Result	Pal	SPK value	SPK value SPK Ref Val	%REC	LowLimit	HighLimit	%REC LowLimit HighLimit RPD Ref Val	%RPD	%RPD RPDLImit Qual	Qual
Chemical Oxygen Demand	99,4	10.0	100.0	0	99.4	06	110				

Sample ID: 1604589-002DDUP SampType: DUP	SampType: DUP	TestCod	TestCode: COD_W	Units: mg/L		Prep Date:	<u></u>		RunNo: 96054	54	
Client ID: ZZZZZZ	Batch ID: R96054	TestN	TestNo: E410.4		•	Analysis Date: 4/19/2016	3: 4/19/20	16	SeqNo: 2089984	19984	
Analyte	Result	POL	SPK value	SPK value SPK Ref Val	%REC	LowLimit	HighLimit	%REC LowLimit HighLimit RPD Ref Val	%RPD	%RPD RPDLimit Qual	Qual
Chemical Oxygen Demand	< 10.0	10.0						0	0	20	

Sample ID: 16	Sample ID: 1604589-002DMS	SampType: MS	TestCod	stCode: COD_W	Units: mg/L		Prep Date:	ài		RunNo: 96054	25	
Client ID: ZZZZZZ	2222	Batch ID: R96054	TestN	TestNo: E410.4		*	Analysis Date: 4/19/2016	a: 4/19/201	9	SeqNo: 2089985	9985	
Analyte		Result	Pol	SPK value	SPK value SPK Ref Val	%REC	LowLimit	HighLimit	%REC LowLimit HighLimit RPD Ref Val	%RPD	%RPD RPDLimit Qual	Qual
Chemical Oxygen Demand	yen Demand	104	20.0	100.0	0	104	06	110				0

Holding times for preparation or analysis exceeded Value exceeds Maximum Contaminant Level Ξ Qualifiers:

Dilution was required.

Manual Integration used to determine area response Second column confirmation exceeds

Sample container temperature is out of limit as specified

Spike Recovery outside accepted recovery limits

RSD is greater than RSDlimit

0 %

Not Detected at the Reporting Limit Value above quantitation range 田田民

RPD outside accepted recovery limits

Page 23 of 25





PACE ANALYTICAL 575 Broad Hollow Road Melville, NY 11747 TEL: (631) 694-3040 FAX: (631) 420-8436

Website: www.pacelabs.com

Sample Receipt Checklist

Client Name: PACE-NY			Date a	nd Time Received:	4/14/2016 10:30:00 AM
Work Order Number: 1604D12 RcptNo: 1			Receiv	ed by: Paige Dohe	rty
Completed by: Parge Dokarta	=	Rev	iewed by: (Cathlin	Panzarella
Completed Date: 4/14/2016 11:23:34 AM		Rev	iewed Date:	<u>4/15/201</u>	<u>6 1:38:19 PM</u>
Carrier name: FedEx					
Chain of custody present?	Yes		No 🔲		
Chain of custody signed when relinquished and received?		=	No 🖳		
Chain of custody agrees with sample labels?	Yes		No 📙		
Are matrices correctly identified on Chain of custody?		V	No 🗆 No 🗔		
Is it clear what analyses were requested?	Yes Yes		No 🗆	Not Present	⊘
Custody seals intact on sample bottles?	Yes		No 🗆	NOTFIGSON	
Samples in proper container/bottle?	Yes Yes		No 🗆	NA	
Were correct preservatives used and noted? Preservative added to bottles:	105		140 🗀	170	
Sample Condition?	Intact	V	Broken 🗆	Leaking	
Sufficient sample volume for indicated test?	Yes	promp.	No 🗆	2009	
Were container labels complete (ID, Pres, Date)?	Yes	V	No 🗌		
All samples received within holding time?	Yes	V	No 🗌		
Was an attempt made to cool the samples?	Yes	V	No 🗌	NA	
All samples received at a temp. of > 0° C to 6.0° C?	Yes	1	No 🗔	NA	
Response when temperature is outside of range:					
Sample Temp. taken and recorded upon receipt?	Yes	V	No 🔲		0.9 °
Water - Were bubbles absent in VOC vials?	Yes		No 🗆		
Water - Was there Chlorine Present?	Yes	Ш	No 🗔		
Water - pH acceptable upon receipt?	Yes		No 🗆		
Are Samples considered acceptable?	Yes	V	No 🗆		
Custody Seals present?	Yes		No 🗔		
Airbill or Sticker?	Air Bill	\checkmark	Sticker 🗀	Not Present	t 🗆
Airbill No:	6661 5	i913 !	5697		
Case Number: SDG:			SAS:		
Any No response should be detailed in the comments section	on below, if app	licabl	e.		
Client Contacted? ☐ Yes ☐ No 🗸 NA					
	Person Cont	acted	1222		
Contact Mode: Phone; Fax:	Email:		In Perso	en:	
Client Instructions:					
	acted By:				
Regarding:					
Comments:					
CorrectiveAction:					





WorkOrder: 1604D12

Certifications

STATE	CERTIFICATION #
NEW YORK	10478
NEWJERSEY	NY158
CONNECTICUT	PH-0435
MARYLAND	208
MAS S ACHUS ETTS	MNY026
NEW HAMPS HIRE	2987
RHODE IS LAND	LAO00340
PENINS YLVANIA	68-00350

Page 25 of 25

PACE-61

									}				
CHAIN OF CUSTODY RECORD	CUSTOD	Y RE(CORD		PAGE 1 OF 1			DISPOSA	L REQUIR	EQUIREMENTS: (TO RETURN TO CLIENT	(To be	DISPOSAL REQUIREMENTS: (To be filled in by Client)	ent
Pace Analytical Services, Inc.	tical Se	FVIC ectady	es, In NY 123		LRF # 16040222) U U	DISPO	DISPOSAL BY RECEIVING LAB	CEIVING	LAB LAB	
Telephone (518) 346-4592 Fax (518) 381-6055	6-4592 F	ax (51	8) 381-6			(LAB USE ONLY)		Additional char Call for details.	Additional charges incurred for disposal (if hazardous) or archival. Cali for details.	or disposal (if	hazardous)	or archival.	
CUENT (REPORTS TO BE SENT TO):			PROJECTWPROJECT NAME:	ECT NAME:			EN	ENTER ANALYSIS AND METHOD NUMBER REQUESTED	SIS AND ME	THOD NU	MBER R	ь г	
PACE		- 1	16040222			PRESERVA	PRESERVATIVE CODE:		+		\dagger		PRESERVATIVE KEY
		<u> </u>	SCATION (CITY	STATE) ADD!	ESS:	BOTTE	BOTILE IYPE:				\dagger		2 2 2
PROJECT MANAGER:							BOTTLE SIZE:	+		\uparrow	\downarrow	1	
Chelsea Farmer			×			รษ		\	<u></u>	\	\	<u>\</u>	2-HND3 3-HZSO4
Project:			REQUIRED TURN AROUND TIME:	AROUND TH			\	\	\	400	_	\	4 - NaOH
BAR-ROC: ELF SEMI ANNUAL LEACHATE	JAL LEACHAT	'n			4/18/2016		^*s	(50	, w	W 8 7V	(1884)	\	5 - Zr. Alzeuste 6 - MeOH
NO465: METALSJAS,CDJAG,CR,CU,PB,NI,ZN, SAMPLE PRESERVATION NOT! NERPIEGO AT SCHENECTADY LAB.	MPLE PRESERVATIO	MOT	NAME OF COURSER (IF USED)	ER (IF USED):	XYANI	S OF CC	SIDO VENDO	1000 (41)	Means of Calassi	THE STREET	3 Con 180	_	7 - NaHSO4 8 - Other (Na2SO3)
C. FOTOGNIO DECLIETE	Physics Commentation (1989)	Contraction of the Contraction o			LAB	381	\	\			\		
ELECTRONIC RESOLUS	Nicole Introduced and Control	ataba com		GRAB	SAMPLE ID	NUV	\	\	\	_	\		
CAMPIED	DATE	TIME	MATRIX	COMP	(LAB USE ONLY)	_	\		$\left \right $			REW	REMARKS.
I FACHATE	100	12:30		COMP	AT08451	4	×	×	×		+	49W/1	7
LEACHATE	4/12/16	12:35	_	GRAB	AT08452	-	1		$\frac{1}{2}$	×	\dagger	1 000 /	3
							+		+				
							_		+		1		
							-		+		+		
									-		1		
									-		+		
		— 			3		+		-		+		
							+		+	1	+		
				- 1				- - - -		OTHER NOT	TES. Analytic	cal Report LEVEL	OTHER NOTES. Analytical Report [LEVEL-2] EDD: Excel Standard
AMBGENT OR CHILLED.	TEMP , Q		COC TAPE: (Y)	<u>-</u>	4.7	PRUPERLY PRESERVED.	TESERVED.						
RECEIVED BROKEN OR LEAKING:	رس اهر	S	OC DISCREPA	CIES:		RECVO WAN	RECVO WA HOLDING TAKES.		I	DET BACKERSEN BY	-	MECH	RECEIVED BY
NELMQUENED BY	-	RECEIVED BY	1	TOWN	AFLINGUSHED BY	* Juliumore)//	Ť	MOMATURE		35	HONA TURE	
ACCOUNTING A ACCOUNT	VIA COL	ঠ	7	r		10001	TOWN	7	POINTED MANS		<u> </u>	PRINCIED MAME	
HILLIAM LANGE	PRINTED MAME			PRINTED NAME		110/10	JOHNA					200	
D. HILL W. WHATOS	COMPANY			COMPANY		/ www.	146-17		COMPANY		3	100	
DATERINE U/13 /// //LIFE	DATE/FIME			DATE/TIME		DATE/THEE /	H/h	9	DATE/TIME		8	DATE/TOME	
201 201		9						16.91					S-LOGINMOLCOCS
7	6/66 5913	13	2697	_				10.30					

	1 04 1		ALC: NO.	<u> </u>		ZY L N.C	отнея			ANU RADA	Pace Project No. Labito.	151,301	ATORYSA										SAMPLE CONDITIONS	\$ \$\frac{1}{2}\$	N/A	N/Y	N/A	yed on Se Soles Sect	in) Select
	Page:		ò	ING WAT		ا ح	_ MI _				SATE OF	/	1		_	††	\dashv			#			SAM	749 S				D. U	
	ŧ	1	REGULATORY AGE! ICY	C DRINKING WATER	TUTHER	T & T	L sc																1475	14.05					
The Chain-of-Custody is a LEGAL DOCUMENT. At relevant fields must be completed <1004(16222P) >	77		SULATOR	WATER		۳.	동	777		Page 1	PRI I	×											DATE	1 94/1/					9
	160402		P.E.	C GROUND WATER	T RCRA			///		## ## ## ## ## ## ## ## ## ## ## ## ##	200	×	×					#	#				á	1/16		L			THE
e complet					Ē,	SITE	LOCATION	// 6		200		×											1	l					DATE SIGNAL APP 16
ids must b			3	I NPDES	T UST		77	Filtered (Y/N)	Requested	ri V		×××									+		ED DV / AFFLIATION						36
relevant fie		[_					-	Œ		lonartish. vertic	E			4								A / A G						
JENT. Ağı									sevalves		HOH HOH	×	ж								+	+	ACC.	1					3
AL DOCUS			guidice				Chelsea Farmer		Pres		100°	+												1	-	H	H	100	1
/is a LEG			Barton & Loguidice			7267	Chelse			BNIATNO		* ×	-										TIME	lub5	L	L	L	ATURE	Matt Broker
of-Custody		mellon:		: : :		Johnston:	Manager.	3		Fig. 75 PER P. C. C. C. C. C. C. C. C. C. C. C. C. C.		8	12.57			\parallel			\dashv	-			DATE	Shills	1			OLD SICH	MPLER:
The Chain	Section C	Invoice Information:	Attention:	Company Name:	Address:	Pace Quote Reference:	Pace Project Manager.	Pace Profile 4:	CTED	COMPOSITE	. 1	+									\dagger	1	1.0	3		T		SAMPLER DAME AND SIGNATURE PRINT NAME AS SAMPLER.	SIGNATURE of SAMPLER:
-	•	8		Ĭ			_		COLLECTED	COMPOSITE	JA.	330											BY ALT ATOM	ų	4			SATIPLE	SIGNAT
		omation:	Report To: Barton & Loguidice				ELF Sens Armail Leachafe				_ 2	149		_								-	100	Coor	9				
. 88		Required Project Information:	: Barton					Der.		PIX CODE		3	_									#	PEL MOUISH	CAM					
2190 Technology Dr. Schenectady, NY 12308 (518) 346-4592	Section B	Required	Report To	Copy To:		Purchase Order No.:	Project Name:	Project Number:	3000	151.40	:1152		,										E.	1	1	_		-	
2190 Te Schenec (518) 3-									ž	premary methy watth watty safth watty:																	1		
tical i			82				Fax:		Vakal Okan LANTREX	11101	Nigue 11	alectrole	Leachale										SUMMAND MADDINGS						
Analytical		mation:	& Loguid					Standard	8	SAMPLEID	.0-97.) UST BE U!												TIC 11 C						
Pace Analytical	⋖	Required Clent Information:	Company: Barton & Loguidice						Section D	SAM	(A-2, 0-9 /) Sample IDs MUST BE UNIQUE												don.						
()	Section A	equired	cmpany	Address:		Email To:	Phone:	Requested Due Sets (TAT:	Š		₩EM#	J ·		e.	-:	rt)	ω	1	i i	rp	9	E	Ça						



Sample Condition Upon Receipt

	1		CLIENT NAME: PAR- ROC PROJECT: ELF Sen-Limbal Cerclote	9.46
COURIER: FedEx □ UPS □ TRACKING # N IF	Client a	Pace of	1	,
PACKING MATERIAL: Bubble Wrap	Bubble Bagsyd	agsyd None	TO ICE USED: Weby: Blue D	N/A/S
THERMOMETER USED: #164	IR Gun 03.≱	122087	COOLER TEMPERATURE (*C): 5 - 9)
BIOLOGICAL TISSUE IS FROZEN: Yes a	No	N/AZS		
COMMENTS:		Ā	Temperature is Acceptable? Nortes	
Chain of Custody Present:	-C)Yes	300	8	
Chain of Custody Filled Out:	E Ves	940	2.	Ī
Chain of Custody Relinquished:	ŪYes	% 0	3,	
Sampler Name / Signature on COC:	∑d'res	80	4.	
Samples Arrived within Hold Time:	YOPes	820	5.	
Short Hold Time Analysis (<72hr):	- KVes	2	6. Killy, C 44	
Rush Turn Around Time Requested:	Ü'Yesi	1	7. 11.20	
Sufficient Volume:	Myes	2	co	
Correct Containers Used:	300	8NC)	9.	
- Pace Containers Used:	A Yes	8		
Containers Intact:	ρ.Ωγea	9\U	10.	
Filtered volume received for Dissolved tests: Dves	tests: Over	AND OND	11.	
Sample Labels match COC: - Includes date/time/ID/Analysis	夏		12.	
All containers needing preservation have been checked:	een Ores	OND ADIVA	13.	
All containers needing preservation are in	in Oves	OND MAN		
compliance with EPA recommendation:			Initial when	
- Exceptions that are not checked: TOC, VOA, S	Subcontract Analyses		completed: N - Lot # of added preservative:	
Headspace In VOA Vials (>6mm):	o,	AWG.	14.	
Trip Blank Present:	Č			
Trip Blank Custody Seals Present: Pace Trip Blank Lot #:),es	**************************************		
Sample Receipt form filled in:		Une-Out (Incluc Log in (Includes	Une-Out (Includes Copying Shipping Documents and verifying sample pH): 1/10/12/12/12/13/13/13/13/13/13/13/13/13/13/13/13/13/	11/3/16 1/13/16
		Labeling (Includ	Labeling (Includes Scanning Bottles and entering LAB IDs into pH logbook): ************************************	91/1

Document Controls F-NY-C-034-rev.00 (15)ub/2015)

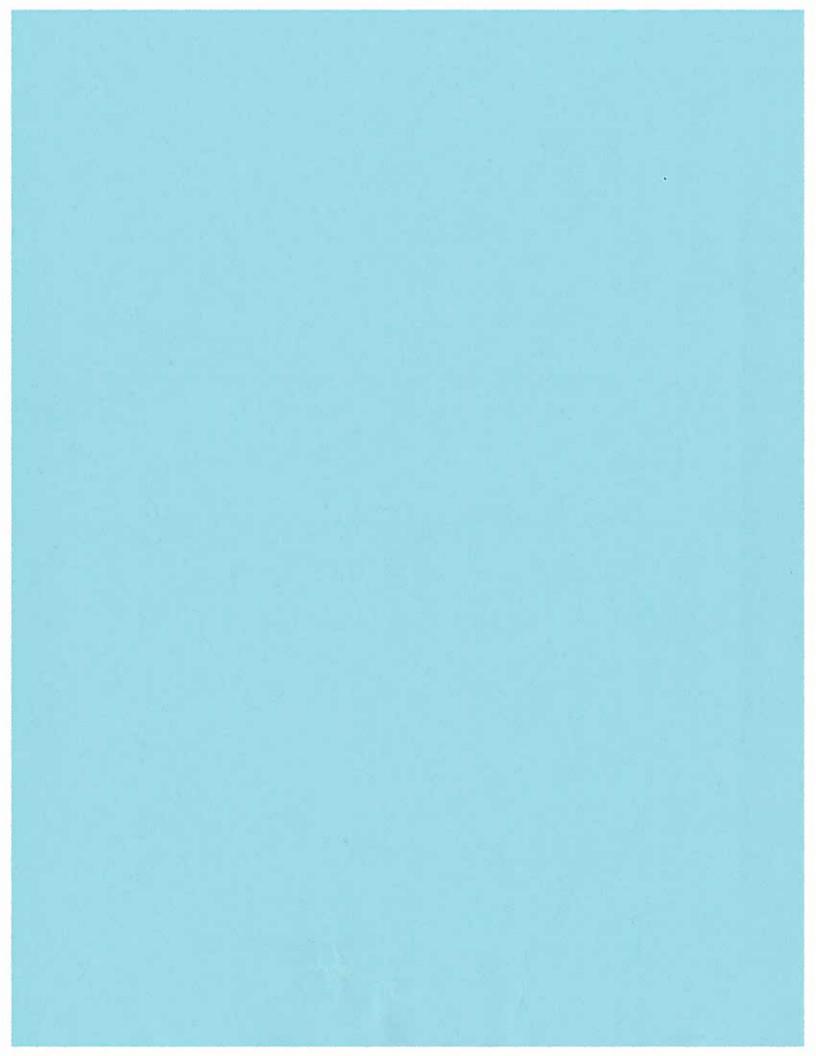
PACE Anal	vtical Se	rvices, Inc.				8	1505	∄ ≙
Tap Water / Su				9				1.6040ZZZP3>
Client: Barton	and Loguidice			Sampler (Matt Broker		
Project: ELF S	emi Annual Le	achate		Signature	:	11/14/0		
Date:	4/12/	16						- IV
Location	Leachate		TIME	SAMPLED 1	235	PACE ID. NO.		¥3
Flow	n/a	gallons	WEAT	HER CONDITION	N:	6°C dovdy		
TEMPERATURE	n/a	с						
PH	6,45	STD:UNITS	APPE	ARANCE / OBSE	RVATIO	NS <u>≾∩</u> ∞n	ple clear who oc	boc
SPEC. COND.	п/а	uS				- 6	<u> </u>	_
TURBIDITY	n/a	NTU						
EH	n/a	m∨	IF TE	STING FOR CYAI	NIDE:	IF TESTING FO	OR PHENOLICS:	
SULFITE	n/a	MG/L	CHLOR	INE R <u>ES.</u>		CHLORINE RES.		_
DIS.OXYGEN	n/a	MG/L	SULFI	DE				70.00
Location			TIME	SAMPLED _		PACE ID. NO.		
FLOW		galions	WEA	THER CONDITION	N:			_
TEMPERATURE		c						
PH		STD.UNITS	APPE	ARANCE / OBSE	RVATIO	ons		_
SPEC. COND.		uS						_
TURBIDITY		шти						
EH		mv	IF TE	STING FOR CYA	NIDE:	IF TESTING F	OR PHENOLICS:	- 1
SULFITE		MG/L	CHŁO	RINE RES.		CHLORINE RES.		
DIS.OXYGEN		MG/L	SULFI	DE				
Location			TIME	SAMPLED		PACE ID. NO.	e grandheim ex	2.5
FLOW		gallons	WEA	THER CONDITIO	N:			_
TEMPERATURE		c	270					— ∣
PH		STD UNITS	APP	EARANCE / OBSE	ERVATK	ONS		_
SPEC. COND.		u5						
TURBIDITY		ити						—
EH		mV	IF TE	STING FOR CYA	NIDE:	IF TESTING F	OR PHENOLICS:	l
SULFITE		MG/L		RINE RES.		_CHLORINE RES.		\dashv
DIS.OXYGEN		MG/L	SULF					
Location			TIME	SAMPLED		_PACE ID. NO.		= · (c)
FLOW		gaillons	WEA	THER CONDITIO	DN:			
TEMPERATURE		c						
PH		STOLUNITS	APP	EARANCE / OBSI	ERVATI	ons		_
SPEC. COND.		uS	-					
TURBIDITY		NTU			700			_
EH		mV	IF T	ESTING FOR CY	ANIDE:	IF TESTING F	OR PHENOLICS:	
SULFITE		MG/L	CHLC	RINE RES.	_	CHLORINE RES.		
DIS.OXYGEN	200	MG/L	SULF	DE		10)	ge	20

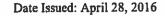
m

PACE ANALYICAL INC. FIELD CALIBRATION SHEET

DATE:	4/12/16			SITE:	<u>EL</u>			
TECHNICIAN:	Matt Broke	r		WEATH	IER: <u>41</u> 4	F cloudy		
						11.		
INSTRUMENT:						74		
	PH		Myron Ultr					
	CONDUCTIV		Myron Ultra				-	
	TEMPERAT		Myron Ultra					
	DISSOLVED	OXYGEN	Sper Scient		<u> </u>			
	TURBIDITY		Hanna HI 9	3703				
			1		1	410		
INSTRUMENT	STANDARD	INTIAL	ADJUSTED		1E	NO	IF2	
ANALYTE		READING	READING	-				
Ph	4.00	4.04	4.00	92		v		_
	7.00	7.02	7.00	926	.	·		
	10.00		10.00				D	
Conductivity					ja			×
Turbidity								
		_						
	.13							
NOTES:	1		<u> </u>	· · ·				









Pace Analytical e-Report

Report prepared for:
BARTON AND LOGUIDICE
11 CENTRE PARK
SUITE 203
ROCHESTER, NY 14614
CONTACT: DARIK JORDAN

Project ID: CLF SEMI ANNUAL LEACHATE

Sampling Date(s): April 12, 2016 Lab Report ID: 16040239

Client Service Contact: Chelsea Farmer (518) 346-4592 ext. 3843

Analysis Included:

Total Phenolics E420.4 - Sub ALS Environmental Misc Field Analysis SVOCs E8270D - Sub Pace LI COD by 410.4 - Sub Pace-LI Total Cyanide SM4500-CN-E - Sub Pace LI Mercury E7470A - Sub Pace LI Metals E200.7 - Sub Pace LI Oil and Grease E1664B - Sub Pace LI BOD SM5210B

Hexavalent Chromium (7196A) Total Suspended Solids SM2540D

Test results meet all National Environmental Laboratory Accreditation Conference (NELAC) requirements unless noted in the case narrative. The results contained within this 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 Smith Technical Director

Koy bomo,



Certifications: New York (EPA: NY00906, ELAP: 11078), New Jersey (NY026), Connecticut (PH-0337), Massachusetts (M-NY906), Virginia (460241)

Pace Analytical Services, Inc. | 2190 Technology Drive | Schenectady, NY 12308 Phone: 518.346.4592 | internet: www.pacelabs.com This page intentionally left blank.

Table of Contents

Section 1: CASE NARRATIVE	. 4
Section 2: QUALIFIERS	. 7
Section 3: SAMPLE CHAIN OF CUSTODY	. 9
Section 4: SAMPLE RECEIPT	.14
Section 5: Wet Chemistry - TSS	.16
Section 6: Wet Chemistry - Hexavalent Chromium	18
Section 7: Wet Chemistry - BOD	20
Section 8: Field Analysis	22
Section 9: Quality Control Samples (Lab)	24
Section 10: Subcontract Analysis	31

1

2

3

כ

6

7

Ō

9

16

CASE NARRATIVE

CASE NARRATIVE

This data package (SDG ID: 16040239) consists of 2 water samples received on 04/12/2016. The samples are from Project Name: CLF SEMI ANNUAL LEACHATE.

This sample delivery group consists of the following samples:

Lab Sample ID	Client ID	Collection Date
AT08484	LEACHATE	04/12/2016 13:10
AT08485	LEACHATE	04/12/2016 13:15

Sample Delivery and Receipt Conditions

- (1.) Lab provided sample pickup service on 04/12/2016.
- (2.) All samples were received at the laboratory intact and within holding times.
- (3.) All samples were received at the laboratory properly preserved, if applicable.

Subcontract Analysis

Please see the ALS Environmental laboratory report for method and quality assurance details pertaining to Phenolics analysis. The following technical and administrative items were noted for the analysis:

(1.) All quality assurance parameters were met for this analysis, unless otherwise noted.

Field Parameters Analysis

Analysis for pH was performed in the field. The following technical and administrative items were noted for the analysis:

(1.) All quality assurance parameters were met for this analysis, unless otherwise noted.

Subcontract Analysis

Please see the Pace Analytical Services Long Island laboratory report for method and quality assurance details pertaining to Semi Volatile Organic Compound analysis. The following technical and administrative items were noted for the analysis:

(1.) All quality assurance parameters were met for this analysis, unless otherwise noted.

Subcontract Analysis

Please see the Pace Analytical Services Long Island laboratory report for method and quality assurance details pertaining to Chemical Oxygen Demand analysis. The following technical and administrative items were noted for the analysis:

(1.) All quality assurance parameters were met for this analysis, unless otherwise noted.

Subcontract Analysis

Please see the Pace Analytical Services Long Island laboratory report for method and quality assurance details pertaining to Total Cyanide analysis. The following technical and administrative items were noted for the analysis:

(1.) All quality assurance parameters were met for this analysis, unless otherwise noted.

Subcontract Analysis

Please see the Pace Analytical Services Long Island laboratory report for method and quality assurance details pertaining to Mercury analysis. The following technical and administrative items were noted for the analysis:

(1.) All quality assurance parameters were met for this analysis, unless otherwise noted.

Subcontract Analysis

Please see the Pace Analytical Services Long Island laboratory report for method and quality assurance details pertaining to Metals analysis. The following technical and administrative items were noted for the analysis:

(1.) All quality assurance parameters were met for this analysis, unless otherwise noted.

Subcontract Analysis

Please see the Pace Analytical Services Long Island laboratory report for method and quality assurance details pertaining to Oil & Grease analysis. The following technical and administrative items were noted for the analysis:

(1.) All quality assurance parameters were met for this analysis, unless otherwise noted.

Biological Oxygen Demand

Biological Oxygen Demand was performed by SM 5210B. The following technical and administrative items were noted for the analysis:

(1.) Biochemical Oxygen Demand was observed in the Method Blank sample. All associated positive sample concentration results have been flagged (B) to denote the observed contamination.

Hexavalent Chromium Analysis

Analysis for hexavalent chromium was performed by method SW-846 7196A. The following technical and administrative items were noted for the analysis:

(1.) All quality assurance parameters were met for this analysis, unless otherwise noted.

Total Suspended Solids

Analysis for Total Suspended Solids (TSS) was performed by SM 2540D. The following technical and administrative items were noted for the analysis:

(1.) All quality assurance parameters were met for this analysis, unless otherwise noted.

Respectfully submitted,

Chelsea L. Farmer Project Manager

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

Pace Analytical

2190 Technology Dr. Schenectady, NY 12308

New York Office

CHAIN-OF-CUSTODY / Analytical Request Document

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

	ø	
4		
	8	L
	7	=
	ā	1
	3	Э
	à	Ū
	4	-
	4	=
	4	Ŧ
2		=
9	3	ē
商	Ξ	
⋾	7	7
u	١	J
໘	1	•
봈		
ž		
뽓		
9		
늘		
ዎ		
끄		
ዎ		
_		
πī		

Pace Project No. Lab I.D. NA BAN N/A N/A SAMPLE CONDITIONS S248CIV 4848cT3 Š Custody Sealed Coole C OTHER N/A N/λ ₹ Received on N/A N/A T DRINKING WATER ₹ L Of higme? z REGULATORY AGENCY TOTHER. SC <u>ب</u> ك 14:05 TIME P Š GROUND WATER Ļ 4/2/6 DATE T RCRA LOCATION SITE ××× ACCEPTED BY / AFFILIATION Filtered (Y/N) T NPDES Requested ⊓ ust ş Jenic lonaritely CO'S'BN 11/11/21 HODN IOH Chelsea Farmer Barton & Loguidice CONF '05' TIME lyos SAMPLER NAME AND SIGNATURE 7267 ■ OF CONTAINERS СОГГЕСТІОИ ग्रामान ade Ouote Reference: ace Project Manager. DATE Invoice Information: Company Name: TIME ाटा अधिक राधा श्रीया Pace Profile #: COMPOSITE END/GRAB Section C Attention: Address: DATE COLLECTED RELINQUISHED BY / AFFILIATION PACE DATE TIME ulalic liqte COUPOSITE CLF Semi Annual Leachale Report To: Barton & Loguidice Required Project Information: SAMPLE TYPE PARDED EARDED ပ O Mates ¥ ¥ Purchase Order No.: Project Name: MATRIX CODE roject Number: Section B Copy To: (518) 346-4592 100 Eriardison Vako Haera HATRIX ADDITIONAL COMMENTS Leachate Leachate (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE Company: Barton & Loguidice Fax SAMPLE ID Standard Required Client Information: Section D Required Chert Information Section A Email To: Address: Phone:

ILEM #

e-File(ALLQ020rev.4,29Mar06)22Jun2005

(MATESONAL HILL)

PACE

Matt Broker

PHINT Name of SAMPLEH: SIGNATURE of SAMPLER: 16040239 - Page 10 of 68

Sample Condition Upon Receipt

CLIENT NAME: BAR- ROC PROJECT: CLF SE, A, Manual Ceach afe N/Ay Temp should be above freezing to 6°C ŝ ₽ | | | Blue 🗅 COOLER TEMPERATURE (*C): 3.3 INTACT: Yes Temperature is Acceptable? No P Other CUSTODY SEAL PRESENT: Yes a Other None #122087967 🗅 Pace of Bubble Bagsಇ No No IR Gun 038 Client 🗆 PACKING MATERIAL: Bubble Wrap or BIOLOGICAL TISSUE IS FROZEN: Yes a UPSO THERMOMETER USED: #164 COURIER: FedEx□ TRACKING # COMMENTS:

Chain of Custody Present:	WYes	80		1.				
Chain of Custody Filled Out:	Wyes	oNO		2.				_
Chain of Custody Relinquished:	Wres	°N□		m				
Sampler Name / Signature on COC:	ØYes	o _N D		4.				_
Samples Arrived within Hold Time:	Wes			ιų				
Short Hold Time Analysis (<72hr):	-QYes	\$ 0		6. AND (1+	٤			
Rush Turn Around Time Requested:	Oyes	oy Cy		7. 1 1. K				
Sufficient Volume:	dyes	Š		8.				
Correct-Containers Used:	- Oves	SNO		9.				L
- Pace Containers Used:	Zd Yes	e S	1					
Containers Intact:	Ą	ŝ		10.				
Filtered volume received for Dissolved tests: Oves	S: Oyes	ONO.	MINNA.	11.				
Sample Labels match COC:	Lafves	°NO		12.				
- Includes date/time/ID/Analysis	200							
All containers needing preservation have been checked:	D'ves	° N	Вина	13.				0.=
All containers needing preservation are in	Oyes	ŝ	¥Ž(N/A			A 12 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		
compliance with EPA recommendation:			<u> </u>	Initial when	_		-	
- Exceptions that are not checked: TOC, VOA, Subcontract Analys	ract Analyses			completed: N	Lot	Lot # of added preservative:	入屏	
Headspace in VOA Vials (>6mm):	Oves	ONO	AMA	14.				
Trip Blank Present:	Oyes	oNC)	ANG	15.				
Trip Blank Custody Seals Present:	OYes	Š	DA!					- S
Pace Trip Blank Lot #: WH							, ,,	
Sample Receipt form filled in: 9th 4113/	٦	Line-Out	(Includes Co)	ying Shipping Do	cuments a	Line-Out (Includes Copying Shipping Documents and verifying sample pH):	1111/2/15/16	-

Log in (Includes notifying PM of any discrepacies and documenting in LIMS): Labeling (Includes Scanning Bottles and entering LAB IDs into pH logbook):

PACE Anal Tap Water / Su	•				
Client: Barton	and Loguidic	9		Sampler (print):	Matt Broker
Project: CLF S	emi Annual Le	achate		Signature:	<i>flatio</i>
Date:	4/12/	16			
Location	Leachate		TIME S	AMPLED 1315	PACE ID. NO.
Flow	n/a	gallons	WEAT	HER CONDITION:	7° (cloudy
TEMPERATURE	n/a	c			,
PH	7.27	STD.UNITS	APPEA	RANCE / OBSERVATI	abo thous slight ador
SPEC. COND.	n/a	us			
TURBIDITY	n/a	NTU			
EH	n/a	m∨	IF TES	TING FOR CYANIDE:	IF TESTING FOR PHENOLICS:
SULFITE	n/a	MG/L	CHLORII	NE RES.	CHLORINE RES.
DIS.OXYGEN	п/а	MG/L	SULFIDE		
Location			TIME S	AMPLED	PACE ID. NO.
FLOW		gallons	WEAT	HER CONDITION:	
TEMPERATURE		с			
РН		STD.UNITS	APPEA	RANCE / OBSERVAT	IONS .
SPEC. COND.		uS			
TURBIDITY		NTU			
EH		mV	IF TES	TING FOR CYANIDE:	IF TESTING FOR PHENOLICS:
SULFITE		MG/L	CHLORI	NE RES.	CHLORINE RES.
DIS.OXYGEN		мдл.	SULFIDE		
Location			TIMES	AMPLED	PACE ID. NO.
FLOW		gallons	WEAT	HER CONDITION:	
TEMPERATURE		c			
PH		STD.UNITS	APPE	RANCE / OBSERVAT	ions
SPEC. COND.		uS			
TURBIDITY		NTU		<u> </u>	
EH		mV	IF TES	TING FOR CYANIDE:	IF TESTING FOR PHENOLICS:
SULFITE		MG/L	CHLORI	NE RES.	CHLORINE RES.
DIS.OXYGEN		MG/L	SULFID	E	
Location			TIME	AMPLED	PACE ID. NO.
FLOW		gallons	WEAT	HER CONDITION:	
TEMPERATURE		c			
PH		STD.UNITS	APPE	RANCE / OBSERVAT	TONS
SPEC. COND.		us			
TURBIDITY		NTU			
EH		mV	IF TES	TING FOR CYANIDE:	IF TESTING FOR PHENOLICS:
SULFITE	+	MG/L	CHLOR	INE RES.	CHLORINE RES.
DIS.OXYGEN		MG/L	SULFID		
17			·		Page 2

16040239 - Page 13 of 68

PACE ANALYICAL INC. FIELD CALIBRATION SHEET

<16040239P4>

			FIELD	CALIBRATIC	N SHE	<u>. 1</u>	
DAT	E:	4/12/16			SITE	-	CLF
TECH	HNICIAN:	Matt Broke	r		WEA	THER:	41°F cloudy
INST	RUMENT:			•			
		PH		Myron Ultra	meter	II 6PFC	<u> </u>
		CONDUCTIV	VITY	Myron Ultra	meter	II 6PFCe	<u> </u>
Ì		TEMPERAT	URE	Myron Ultra	meter	II 6PFC	•
		DISSOLVED	OXYGEN	Sper Scienti	fic 8500)41	
		TURBIDITY		Hanna HI 98	703		
INS	TRUMENT	STANDARD	INTIAL	ADJUSTED	-	TIME	NOTES
4	NALYTE		READING	READING			
_							

	400					
	TRUMENT NALYTE	STANDARD	INTIAL READING	ADJUSTED READING	I .	NOTES
	Ph	4.00	4.04	4.00	927	
		7.00	7.02	7.00	q26	
		10.00		10.00		
Cor	ductivity					, la
	Turbidity					

NOTES:

SAMPLE RECEIPT





SAMPLE RECEIPT REPORT 16040239

CLIENT: BARTON AND LOGUIDICE PROJECT: CLF SEMI ANNUAL LEACHATE

LRF: 16040239

REPORT: ANALYTICAL REPORT

EDD: YES LRF TAT: 2 WEEK RECEIVED DATE: 04/12/2016 14:05

SAMPLE SEALS INTACT: NA

SHIPPED VIA: PICK UP 1. SAMPLES PRESERVED PER METHOD GUIDANCE: YES

SHIPPING ID:

3 SAMPLES REC'D IN HOLDTIME: YES

NUMBER OF COOLERS: 1 DISPOSAL: BY LAB (45 DAYS)

CUSTODY SEAL INTACT: NA COOLER STATUS: CHILLED

TEMPERATURE(S): 5.3 (IR) °C

COC DISCREPANCY: NO

COMMENTS:

SAMPLE PRESERVATION OF SUBCONTRACT ANALYSES NOT VERIFIED AT SCHENECTADY LAB.

CLIENT ID (LAB ID)	TAT-DUE Date	DATE-TIME SAMPLED	MATRIX	METHOD	TEST DESCRIPTION	QC REQUEST
LEACHATE (AT08484)	2 WEEK 04-26-16	04/12/2016 13:10	Water		COD by 410.4 - Sub Pace-LI	
	2 WEEK 04-26-16	04/12/2016 13:10	Water	EPA 7196A	Hexavalent Chromium (7196A)	
	2 WEEK 04-26-16	04/12/2016 13:10	Water	Mercury E7470A	Mercury E7470A - Sub Pace LI	
	2 WEEK 04-26-16	04/12/2016 13:10	Water	Metals E200.7	Metals E200.7 - Sub Pace LI	
	2 WEEK 04-26-16	04/12/2016 13:10	Water	SM 2540 D-97,-11	Total Suspended Solids SM2540D	
	2 WEEK 04-26-16	04/12/2016 13:10	Water	SM 5210B-01,-11	BOD SM5210B	
	2 WEEK 04-26-16	04/12/2016 13:10	Water	SVOCs E8270D	SVOCs E8270D - Sub Pace LI	
#	2 WEEK 04-26-16	04/12/2016 13:10	Water	Total CN SM4500-CN-E	Total CN SM4500-CN-E - Sub Pace LI	
	2 WEEK 04-26-16	04/12/2016 13:10	Water	Total Phenolics E420.4	Total Phenolics E420.4 - Sub ALS Environr	
LEACHATE (ATOMAS)	2 WEEK 04-26-16	04/12/2016 13:15	Water	Misc Field Analysis	Misc Field Analysis	
	2 WEEK 04-26-16	04/12/2016 13:15	Water	Oil and Grease E1664B	Oil and Grease E1664B - Sub Pace LI	

The 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.

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.

Reporting Parameters and Lists

EPA 7196A - Hexavalent Chromium (7196A) - (mg/L)

Hexavalent Chromium

Misc Field Analysis - Misc Field Analysis - (mg/L)

Dissolved Oxygen (\$)

Flow (\$)

pH (\$)

Reduction Potential (\$)

Specific Conductance (\$)

Static Water Level (\$)

Sulfite (\$)

Temperature (\$)

Total Residual Chlorine (\$)

Turbidity (\$)

SM 2540 D-97,-11 - Total Suspended Solids SM2540D - (mg/L)

Total Suspended Solids

SM 5210B-01,-11 - BOD SM5210B - (mg/L)

Biochemical Oxygen Demand

This report may not be reproduced except in full, without the written approval of Pace Analytical Services, Inc.

Page 1 of 1

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.

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 ait 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.

All 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.

Wet Chemistry - TSS





Analytical Sample Results

Job Number: 16040239

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

Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: CLF SEMI ANNUAL LEACHATE

Client Sample ID: LEACHATE

Lab Sample ID: 16040239-01 (AT08484)

Collection Date: 04/12/2016 13:10

Sample Matrix: WATER

Received Date: 04/12/2016 14:05

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	2420	SM 2540D	04/15/2016 11:43	KM	NA	NA	NA NA
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Fact	or Flags	File ID
Total Susper	nded Solids	WQ001	15.4	6.04	2.08		2420

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

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

Wet Chemistry - Hexavalent Chromium





Analytical Sample Results

Job Number: 16040239

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

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: CLF SEMI ANNUAL LEACHATE

Client Sample ID: LEACHATE

Lab Sample ID: 16040239-01 (AT08484)

Collection Date: 04/12/2016 13:10

Sample Matrix: WATER

Received Date: 04/12/2016 14:05

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	182	SW-846 7196A	04/13/2016 11:57	JS	NA	NA	NA .
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Facto	or Flags	File ID
Hexavalent	Chromium	18540-29-9	ND	0.0800	1.00	U	182

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

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

Wet Chemistry - BOD





Analytical Sample Results

Job Number: 16040239

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

Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: CLF SEMI ANNUAL LEACHATE

Client Sample ID: LEACHATE

Lab Sample ID: 16040239-01 (AT08484)

Collection Date: 04/12/2016 13:10

Sample Matrix: WATER

Received Date: 04/12/2016 14:05

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol. 1	Final Vol.	Column
Analysis I:	608	BOD SM5210B	04/13/2016 16:44	KM	NA	NA	NA NA
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Facto	r Flags	File ID
Biochemica	Oxygen Dema	ınd NA	4.2	2.0	1.00	В	608

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

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

B - Denotes analyte observed in associated method blank at a concentration exceeding the PQL.

Field Analysis





Analytical Sample Results

Job Number: 16040239

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

Client: BARTON AND LOGUIDICE

Project: CLF SEMI ANNUAL LEACHATE Client Sample ID: LEACHATE

Lab Sample ID: 16040239-02 (AT08485)

Collection Date: 04/12/2016 13:15

Sample Matrix: WATER

Received Date: 04/12/2016 14:05

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol. Fi	nal Vol.	Column
Analysis 1:	Field Test	Field Analysis	04/12/2016 13:15	CLF	NA	NA	NA
Analyte		CAS No.	Result	PQL	Dilution Factor	Flags	File ID
H (\$)		NA	7.27 (pH)	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: 16040239

Pace Analytical Services, Inc. 2190 Technology Drive Schenectady, NY 12308 Phone: 518,346.4592

Fax: 518.381.6055

Client: BARTON AND LOGUIDICE Project: CLF SEMI ANNUAL LEACHATE Client Sample ID: Method Blank (AT08451B)

Lab Sample ID: BLANK-90

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

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	2420	SM 2540D	04/15/2016 11:43	KM	NA	NA	NA
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Facto	r Flags	File ID
Total Suspen	ded Solids	WQ001	ND	2.90	1.00	U	2420

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: 16040239

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

Client: BARTON AND LOGUIDICE Project: CLF SEMI ANNUAL LEACHATE Client Sample ID: Lab Control Sample (AT08451L)

Lab Sample ID: LCS-90

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

1							
ı	Batch I	D Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
ı	Analysis 1: 2420	SM 2540D	04/15/2016 1	1:43 KM	NA	NA	NA .

Analyte Spiked	CAS No.	Added (mg/L)	LCS (mg/L)	LCS % Rec. Q	Limits (%)	
Total Suspended Solids	WQ001	100	93.6	93.6	85.0-115	

Qualifier column where 'e' 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: 16040239

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

Client: BARTON AND LOGUIDICE Project: CLF SEMI ANNUAL LEACHATE Client Sample ID: Method Blank (AT08451B)

Lab Sample ID: BLANK-66

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

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	182	SW-846 7196A	04/13/2016 11:44	JS	NA	NA	NA .
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Facto	or Flags_	File ID
Hexavalent	Chromium	18540-29-9	ND	0.0400	1.00	Ū	182

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: 16040239

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

Fax: 518.381.6055

Client: BARTON AND LOGUIDICE
Project: CLF SEMI ANNUAL LEACHATE
Client Sample ID: Lab Control Sample (AT08451L)

Lab Sample ID: LCS-66

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

1									
١		Batch ID	Method		Date	Analyst	Init Wt./Vol.	Final Vol.	Column
1	Analysis 1:	182	SW-846 7196A	0,50	04/13/2016 11:45	JS	NA	NA	NA .

Analyte Spiked	CAS No.	Added (mg/L)	LCS (mg/L)	LCS % Rec.	\mathbf{Q}^{1}	Limits (%)	
Hexavalent Chromium	18540-29-9	0.200	0.210	105		90.0-110	19

Qualifier column where 'e' 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: 16040239

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

Fax: 518.381.6055

Client: BARTON AND LOGUIDICE Project: CLF SEMI ANNUAL LEACHATE Client Sample ID: Method Blank (AT08451B)

Lab Sample ID: BLANK-26

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

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	608	BOD - SM 5210B	04/13/2016 16:22	KM	NA	NA	NA NA
Analyte	- Mary Langue	CAS No.	Result (mg/L)	PQL	Dilution Facto	r Flags	File ID
Biological C	xygen Demand	NA NA	0.220	0.200	1.00		608

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: 16040239

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

Client: BARTON AND LOGUIDICE
Project: CLF SEMI ANNUAL LEACHATE
Client Sample ID: Lab Control Sample (AT08451L)

Lab Sample ID: LCS-26

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

1									
		Batch ID	Method		Date	Analyst	Init Wt./Vol.	Final Vol.	Column
	Analysis 1:	608	BOD SM5210B	7.700	04/13/2016 16:30	KM	NA	NA	NA .

Analyte Spiked	CAS No.	Added (mg/L)	LCS (mg/L)	LCS % Rec.	Q۱	Limits (%)		
Biochemical Oxygen Demand	NA	198	183	92.6		84.6-115		

Qualifier column where 'a' 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



Ms. Chelsea Farmer
Pace Analytical Services - NY
2190 Technology Drive
Schenectady, NY 12308

Laboratory Results for: 16040239

Dear Ms.Farmer,

Enclosed are the results of the sample(s) submitted to our laboratory April 14, 2016 For your reference, these analyses have been assigned our service request number **R1603632**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7475. You may also contact me via email at Lisa.Reyes@alsglobal.com.

Respectfully submitted,

1 Rege

ALS Group USA, Corp. dba ALS Environmental

Lisa Reyes

Project Manager

ADDRESS 1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

PHONE +1 585 288 5380 FAX +1 585 288 8475

ALS Group USA, Corp.

dba ALS Environmental

ιΛ

CASE NARRATIVE

This report contains analytical results for the following samples:

Service Request Number: R1603632

SAMPLE# CLIENT SAMPLE ID DATE TIME

R1603632-001 LEACHATE 4/12/2016 1310

All samples were received in good condition unless otherwise noted on the cooler receipt and preservation check form located at the end of this report.

All samples were preserved in accordance with approved analytical methods.

All samples have been analyzed by the approved methods cited on the analytical results pages.

All holding times and associated QC were within limits.

No analytical or QC problems were encountered.

All sampling activities performed by ALS personnel have been in accordance with "ALS Field Procedures and Measurements Manual" or by client specifications.



REPORT QUALIFIERS AND DEFINITIONS

- Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
- Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).
- Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
- Inorganics- Concentration is estimated due to E the serial dilution was outside control limits.
- E Organics- Concentration has exceeded the calibration range for that specific analysis.
- Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
- Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
- Analysis was performed out of hold time for н tests that have an "immediate" hold time criteria.
- Spike was diluted out.

- Correlation coefficient for MSA is <0.995.
- N Inorganics- Matrix spike recovery was outside laboratory limits.
- N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
- S Concentration has been determined using Method of Standard Additions (MSA).
- Post-Digestion Spike recovery is outside control W limits and the sample absorbance is <50% of the spike absorbance.
- Concentration >40% (25% for CLP) difference P between the two GC columns.
- C Confirmed by GC/MS
- DoD reports: indicates a pesticide/Aroclor is not 0 confirmed (≥00% Difference between two GC columns).
- See Case Narrative for discussion. X
- MRL Method Reporting Limit. Also known as:
- LOQ Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
- MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
- LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.
- Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.



Rochester Lab ID # for State Certifications1

Connecticut ID # PH0556	Maine ID #NY0032	New Hampshire ID #
Delaware Accredited	Nebraska Accredited	294100 A/B
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047	North Carolina #676	Virginia #460167

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

5/14/15

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:

Pace Analytical Services - NY

Project:

16040239

Sample Matrix:

Analysis Method:

Water

420.4

Service Request: R1603632

Date Collected: 04/12/16

Date Received: 04/14/16

Units: mg/L

Basis: NA

Phenolics, Total Recoverable

Sample Name	Lab Code	Result	MRL	Dil.	Date Analyzed	Q
LEACHATE Method Blank	R1603632-001 R1603632-MB	0.0274 0.0020 U	0.0020 0.0020	1 1	04/19/16 10:40 04/19/16 10:40	

Superset Reference:16-0000372875 rev 00

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:

Pace Analytical Services - NY

Project:

16040239

Sample Matrix:

Water

Service Request: R1603632

Date Analyzed: 04/19/16

Lab Control Sample Summary General Chemistry Parameters

> Units:mg/L Basis:NA

Lab Control Sample R1603632-LCS

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Phenolics, Total Recoverable	420.4	0.0376	0.0400	94	90-110

10

Printed 4/21/2016 11:41:34 AM

Superset Reference:16-0000372875 rev 00

57V

Pace Analytical Services Pace P	DISPOSAL BY RECEIVING LAB ARCHIVAL BY RECEIVING LAB Additional charges incurred for disposal (if hazardous) or archival. Call for details.
TEMPOLECT INFO. TEMPOLE TABLE TEMPOLE	Additional charges incurred for disposal (if hazardous) or archival. Call for details.
16040239 PRESERVATIVE CONTINE	
16040239 PRESERVATIVE CODE: ROTTLE SIZE	ITER ANALYSIS AND METHOD NUMBER REQUESTED
NY RECEIVED TURN AROUND TIME: A126/2016 A	CODE: PRESERVATIVE KEY
NY REGULIED TURN AROUND TIME: 4/26/2016	
NY REQUIRED TURN AROUND TIME: 4/26/2016 NAME OF COURIER (IF USED): LAB SAMPLE 1D NAME OF COURIER (IF USED): LAB SAMPLE 1D NAME OF COURIER (IF USED): LAB USE ONLY) NAME OF COURIER (IF USED): LAB USE ONLY) NAME OF COURIER (IF USED): NAME OF COURIER	
REQUIRED TURN AROUND THRE: 4/26/2016 The Required to Tourism (if used); Considerates com	2 - HN03 3 - H2SO4
NAME OF COURIER (IF USED): CO COURIER (IF USED): CO COURIER (IF USED): CO COURIER (IF USED): CO COURIER (IF USED): CO COURIER (IF USED): CO COURIER (IF USED): CO CO CO CO CO CO CO C	4 - NaOH 5 - Zn. Acetate
MAME OF COURIER (IF USED):	
Chelsae Famine@pacelabs com CRAB SAMPLE ID SAM	7 - NaHSO4
Nicole Johnson Graceladas com GRAB SAMPLE ID 2	
4/12/16 13:10 L COMP AT08484 1 X 4/12/16 13:10 L COMP AT08485 0	
4/12/16 13:15 L GRAB AT08484 1 X 4/12/16 13:15 L GRAB AT08485 0 0 4/12/16 13:15 L GRAB AT08485 0 0 FEMP COC TAPE Y N RECENDER: Y N RECENDING TIMES: Y N RECENDED IN RECENDE	REMARKS:
4/12/16 13:15 L GRAB AT08485 0	
TEMP COC TAPE. Y N PROPERLY PRESERVET: Y N PRECOVO WAI HOLDING TIMES: Y N RECEVED BY	
TEMP: COC TAPE: Y N PROPERLY PRESERVE(F: Y N RECEVED WITHOLDING TIMES: Y N RECEVED WITHOLDING TIMES: Y N RECEVED BY RECEV	
TEMP: COC TAPE: Y N PROPERLY PRESERVET: Y N PROPERLY PRESERVET: Y N RECEVID WAT HOLDING TIMES: Y N RECEVID WAT HOLDING TIMES: Y N RECEVID WAT HOLDING TIMES: Y N RECEVID BY	
TEMP: COC TAPE: Y N PROPERLY PRESERVE(I: Y N	
TEMP COC TAPE: Y N PROPERLY PRESERVEIT: Y N RECVD WITHOLDING TIMES: Y N RECEVED WITHOLDING TIMES: Y N RECEVED BY RECEVED	
TEMP:	
TEMP: COC TAPE: Y N PROPERLY PRESERVET: Y N RECEVID WAI HOLDING TIMES: Y N RECEVID WAI HOLDING TIMES: Y N RECEVID BY RECE	
TEMP: COC TAPE: Y N PROPERLY PRESERVET: Y N RECVD WITHOLDING THMES: Y N RECEVED WITHOLDING THMES: Y N RECEVED BY RECEVED	
Y N RECEIVED BY RELEADUISHED BY RECEIVED WIT HOLDING THMES: Y N RECEIVED BY RECEIVED BY SHOWATURE SHOWATURE	 ,
RECEIVED BY RECEIVED BY RECEIVED BY SHOWATURE SHOWATURE	2 >
SACHATINE SHONATURE	
LACTION CENTRAL	
DA BALLALL, M. P. PRINTED NAME	AME
COMPANY	COMPANY COMPANY
11/11 DATE OF STATE DATE DATE DATE DATE DATE DATE DATE	DATESTRATE PAGE ANSWERS Services NY Incremiter Analysis Project
6 of 7	A STATE OF THE PROPERTY OF THE



Cooler Receipt and Preservation Check Fori

R1603632 Pace Analytical Services - NY Inorganics Analysis Project I ISBAIR ISBA NESS	5
May Project	

Project/Clier	it Par	,			Fo	lder 1	Vun	nber_	S160	363d		- •				. a 1121 (1	183
Cooler receive	d on <i>4//:</i>	1/10		by:_	(A)	C	OU	RIER:						Y CLII	ENT		
1 Were Cus	tody seals on	outside	of co	oler?	PN	1 [5a	Perch	lorate	samples h	ave re	quired h	eadspa	ce?	Y	N (NA)
1					gned)? Y N	╗	5b	Did V	OA via	ls, Alk,or	Sulfic	le have s	ig * bu	bbles?	Y	NC	NA
3 Did all bo	ttles arrive in g	good co	nditio	n (unb	roken)? Y) N	ग ि	6	When	e did th	e bottles (rigina	te?	AL	ree	CI	IEN'	D
	Vet Ice Dry				present? Y 1		7	Soil \	OA rec	ceived as:	В	ulk l	ncore	503	5set	KIN,	>
8. Temperature	Readings	Date	e: <u> //</u>	bylu	Time:/6	15		ID:	(RID)	IR#5		From	(Tem	p Blank	>€	mple	Bofft
Observed Ter	np (°C)		Ď,	ý	1,0										_		
Correction Fa	actor (°C)		-		'-												
Corrected Te	mp (°C)		0.4	10	1.00	\top							L				
Within 0-6°C	?		(1)	N	Y) N	1	Y	N	Y	N	Y	N	Y		_		N_
If <0°C, were	samples froz	en?	Y	N	YN	1	Y	N	Y	N	Y	N	<u>Y</u>	N	<u> </u>	Y	N
If out of T	emperature.	note pa	acking	/ice co	ndition:			Ice mel	ted	Poori	y Pack	ed	S	ame Da	y Rui	e	
&Client A	pproval to R	un San	nples:	,	Standing	Appro	val	Clien	t aware	at drop-o	ff C	lient no	tified b	ру:			
						by		<i>a</i> :	លា	di	7.						
Ali samples	held in storag s placed in sto				K-002	-, by	_	<u>v </u>	on –	7/14	<u>"'o</u>	at _/	<u> </u>				
Sample CCOC	s piaced in su	наве п	ocatio	T.		<u> </u>			. 011 _		1419						
PC Second	ary Review: _		5	V									- 10				
and the same of the	en er geret beginner felt i	CHENT PLA	il englyggan	with the contract of the contr	न् क्षेत्रके अनुस्तर सम्बद्धी स्थापना है। स्थापना सम्बद्धी स्थापना स्थापना स्थापना स्थापना स्थापना स्थापना स्थापना स्थापना स्थापना स्थापना स्थापना स्थापन	PATTESS.	P4 . F			no atomassa	652 - 120	egraphical straight	%/ 5 1929/5	to construe the	1982	JUN / Jei	iner of a
Cooler Bre	akdown: Dat	e: <u>4</u>	-15-1	6	Time:(){				y: <i>!</i> *	2	20./	\ \ <u>\</u>					
					analysis, prese		ı, et	c.)?		- CA	*	NO NO					
					with custody pa e tests indicated					7	\sim	NO					
	vere correct ct ir Samples: C						ister	s Pressu	rized	C - 2		Bags I	nflated	l	N.	A)	
	ıy discrepanci		3/140	/63 111th	ia	ÇWLI		J							$\overline{}$		
pН	Reagent	Yes	No	Lot R	Received	Ехр	Sa	ample I	D	Vol. Added	Lot A	Added		Final pH		s=Al mple:	-
≥12	NaOH														┨,,		1
≤2	HNO ₃						<u> </u>								-		nples
≤2	H₂SO ₄	7	1	Clien	1 Bet 14'		╄									escrv	ed at
<4	NaHSO ₄				70.4		├									ie lab	
Residual	For CN	١,	i		contact PM to Va ₂ S ₂ O ₃ (CN),		1								1	ted	44-1
Chlorine	Phenol	1			bic (phenol).										""		
(-)	and 522 Na ₂ S ₂ O ₃		-		· G · · · · · · · · · · · ·	-	+		_						ے Pl	и ок	to
	ZnAcctate	-	-				┪.	*Not to	be test	ed before	analy	sis – pF	I tested	l and		djust:	
	HCI	**	**							As on a					_	-	_
		<u> </u>	ا	11			٦ - ٦				•						
Bottle lot	numbers: C	lient	r bo	tHe													
Other Cor	nments:																

PC Secondary Review:

*siggrificant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter

9/24/15



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 : 4/12/2016 1:10:00 PM

AT08484 Received :4/14/2016 10:30:00 AM

Collected By CLIENT

LABORATORY RESULTS

Results are only 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 tests requested.

Lab No. : 1604D11-001

Client Sample ID: LEACHATE

Sample Information:

Type: Leachate

Origin:

Analytical Method: E200.7:	Prep Method:	E200.7			Prep	Date: 04/16/16	Analyst: JA
Parameter(s)	<u>Results</u>	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
Arsenic	< 10.0		1	ug/L	10.0	04/22/16 8:06 PM	Container-01 of 01
Cadmium	< 5.00		1	ug/L	5.00	04/22/16 8:06 PM	Container-01 of 01
Chromium	< 10.0		1	ug/L	10.0	04/22/16 8:06 PM	Container-01 of 01
Copper	3.00	J	1	ug/L	25.0	04/22/16 8:06 PM	Container-01 of 01
Lead	4.19		1	ug/L	3.00	04/22/16 8:06 PM	Container-01 of 01
Nickel	7.80	J	1	ug/L	40.0	04/22/16 8:06 PM	Container-01 of 01
Silver	< 10.0		1	ug/L	10.0	04/22/16 B:06 PM	Container-01 of 01
Zinc	7.30	J	1	ug/L	20.0	04/22/16 B:06 PM	Container-01 of 01

Analytical Method: SW8270D:	Prep Method:	SW3510C			1	Prep Date: 04/14/16	Analyst: SH
Parameter(s)	<u>Results</u>	Qualifier	D.F.	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
2,4-Dinitrotoluene	< 10		1	µg/L	10	04/17/16 5:44 AM	Container-01 of 01
2,6-Dinitrotoluene	< 10		1	µg/L	10	04/17/16 5:44 AM	Container-01 of 01
2-Chloronaphthalene	< 10		1	µg/L	10	04/17/16 5:44 AM	Container-01 of 01
2-Methylnaphthalene	< 5.0		1	μg/L	5.0	04/17/16 5:44 AM	Container-01 of 01
2-Nitroaniline	< 10		1	μg/L	10	04/17/16 5:44 AM	Container-01 of 01
3,3'-Dichlorobenzidine	< 10		1	μg/L	10	04/17/16 5:44 AM	Container-01 of 01
3-Nitroaniline	< 10		1	μg/L	10	04/17/16 5:44 AM	Container-01 of 01
4-Bromophenyl-phenylether	< 10		1	µg/L	10	04/17/16 5:44 AM	Container-01 of 01
4-Chloroaniline	< 10		1	μg/L	10	04/17/16 5:44 AM	Container-01 of 01
4-Chlorophenyl-phenylether	< 10		1	μg/L	10	04/17/16 5;44 AM	Container-01 of 01
4-Nitroaniline	< 10		1	μg/L	10	04/17/16 5:44 AM	Container-01 of 01
Acenaphthene	< 5.0		1	μg/L	5.0	04/17/16 5:44 AM	Container-01 of 01
Acenaphthylene	< 5.0		1	μg/L	5.0	04/17/16 5:44 AM	Container-01 of 01
Anthracene	< 5.0		1	μg/L	5.0	04/17/16 5:44 AM	Container-01 of 01
Benzo(a)anthracene	< 5.0		1	μg/L	5.0	04/17/16 5:44 AM	Container-01 of 01
Benzo(a)pyrene	< 5.0		1	µg/L	5.0	04/17/16 5:44 AM	Container-01 of 01
Benzo(b)fluoranthene	< 5.0		1	µg/L	5.0	04/17/16 5:44 AM	Container-01 of 01
Benzo(g,h,i)perylene	< 5.0		1	μg/L	5.0	04/17/16 5:44 AM	Container-01 of 01
Benzo(k)fluoranthene	< 5.0		1	μg/L	5.0	04/17/16 5:44 AM	Container-01 of 01
Bis(2-chloroethoxy)methane	< 10		1	μg/L	10	04/17/16 5:44 AM	Container-01 of 01

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

4/25/2016

Cathlin Panzarella Project Manager: Caitlin Panzarella

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 25



Pace Analytical

575 Broad Hollow Road , Meiville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelebs.com

AT08484

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

Attn To: William A. Kotas
Collected: 4/12/2016 1:10:00 PM

Received :4/14/2016 10:30:00 AM

Collected By CLIENT

LABORATORY RESULTS

Results are only 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 tests requested.

Lab No. : 1604D11-001

Client Sample ID: LEACHATE

Sample Information:

Type: Leachate

Origin:

Analytical Method: SW8270D:	Prep Method:	SW3510C				Prep Date: 04/14	4/16	Analyst: SH
Parameter(s)	<u>Results</u>	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>		Analyzed:	Container:
Bis(2-chloroethyl)ether	< 10		1	μg/L	10		04/17/16 5:44 AM	Container-01 of 01
Bis(2-ethylhexyl)phthalate	1.4	J	1	μg/L	10		04/17/16 5:44 AM	Container-01 of 01
Butyl benzyl phthalate	< 10		1	µg/L	10		04/17/16 5:44 AM	Container-01 of 01
Carbazole	< 5.0		1	μg/L	5.0		04/17/16 5:44 AM	Container-01 of 01
Chrysene	< 5.0		1	μg/L	5.0		04/17/16 5:44 AM	Container-01 of 01
Dibenzo(a,h)anthracene	< 5.0		1	μg/L	5.0		04/17/16 5:44 AM	Container-01 of 01
Dibenzofuran	< 5.0		1	µg/L	5.0		04/17/16 5:44 AM	Container-01 of 01
Diethylphthalate	< 10		1	µg/L	10		04/17/16 5:44 AM	Container-01 of 01
Dimethylphthalate	< 10		1	µg/L	10		04/17/16 5:44 AM	Container-01 of 01
Di-n-butyl phthalate	< 10		1	µg/L	10		04/17/16 5:44 AM	Container-01 of 01
Di-n-octyl phthalate	< 10		1	µg/L	10		04/17/16 5:44 AM	Container-01 of 0
Fluoranthene	< 5.0		1	μg/L	5.0		04/17/16 5:44 AM	Container-01 of 01
Fluoren e	< 5.0		1	μg/L	5.0		04/17/16 5:44 AM	Container-01 of 0
Hexachlorobenzene	< 10		1 h	µg/L	10		04/17/16 5:44 AM	Container-01 of 0
Hexachlorobutadiene	< 10		1	μg/L	10		04/17/16 5:44 AM	Container-01 of 0
Hexachlorocyclopentadiene	< 10	С	1	μg/L	10		04/17/16 5:44 AM	Container-01 of 0
Hexachloroethane	< 10		1	µg/L	10		04/17/16 5:44 AM	Container-01 of 0
Indeno(1,2,3-cd)pyrene	< 5.0		1	μg/L	5.0		04/17/16 5:44 AM	Container-01 of 0
Isophorone	< 10		1	μg/L	10		04/17/16 5:44 AM	Container-01 of 0
Naphthalene	< 5.0		1	μg/L	5.0		04/17/16 5:44 AM	Container-01 of 0
Nitrobenzene	< 10		1	μg/L	10		04/17/18 5:44 AM	Container-01 of 0
N-Nitroso-di-n-propylamine	< 10		1	μg/L	10		04/17/18 5:44 AM	Container-01 of 0
N-Nitrosodiphenylamine	< 10		1	µg/L	10		04/17/16 5:44 AM	Container-01 of 0
Phenanthrene	< 5.0		1	μg/L	5.0		04/17/16 5:44 AM	Container-01 of 0
Pyrene	< 5.0		1	μg/L	5.0		04/17/16 5:44 AM	Container-01 of 0
Surr: 1,2-Dichlorobenzene-d4	50.1		1	%Rec		Limit 16-110	04/17/16 5:44 AM	Container-01 of 0
Surr: 2-Fluorobiphenyl	60.6		1	%Rec		Limit 43-116	04/17/16 5:44 AM	Container-01 of 0
Surr: 4-Terphenyl-d14	37.3		1	%Rec		Limit 33-141	04/17/16 5:44 AM	Container-01 of 0
Surr: Nitrobenzene-d5	65.1		1	%Rec		Limit 35-114	04/17/16 5:44 AM	Container-01 of 0

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

4/25/2016

Cathlin Pangarella
Project Manager: Caitlin Panzarella

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 2 of 25





TEL: (631) 694-3040 FAX: (631) 420-8436 NYSDOH ID#10478 www.pacelebs.com

Pace Analytical Services Inc. 2190 Technology Drive

Schenectady, NY 12308

Attn To: William A. Kotas Collected :4/12/2016 1:10:00 PM

AT08484 Received : 4/14/2016 10:30:00 AM

Collected By CLIENT

LABORATORY RESULTS

Results are only 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 tests requested.

Lab No. : 1604D11-001 Client Sample ID: LEACHATE

Sample Information: Type: Leachate

Origin:

Analytical Method: SM22 4500-CN E:	Prep Method:	SM4500-CN	E		<u>Prep Da</u>	ite: 04/18/16	Analyst: JDLR
Parameter(s)	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
Cyanide	< 10		1	μg/L	10	04/18/16 2:27 PM	Container-01 of 01
Analytical Method: E410.4:							Analyst: VaS
Parameter(s)	<u>Results</u>	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
Chemical Oxygen Demand	33.9		1	mg/L	10.0	04/19/16	Container-01 of 0
Analytical Method: SW7470A:	Prep Method:	SW7470			Prep Da	nte: 04/16/16	Analyst: BC
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container.
Mercury	< 0.200		1	ug/L	0.200	04/16/16 10:38 AM	Container-01 of 0

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range, Value estimated,

S = Recovery outside of control limits for this analyte

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

Date Reported:

4/25/2016

Cathlin Panzarella Project Manager: Caitlin Panzarella

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 3 of 25





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 : 4/12/2016 1:10:00 PM :4/14/2016 10:30:00 AM Received

AT08485 Collected By CLIENT

LABORATORY RESULTS

Results are only 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 tests requested.

Lab No. : 1604D11-002

Client Sample ID: LEACHATE

Sample Information:

Type: Leachate

Origin:

Analytical Method: E1664A:							Analyst: RL
Parameter(s)	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>PQL</u>	Analyzed:	Container:
Hexane Extractable Material (O&G)	< 5.0	S	1	mg/L	5.0	04/18/16 9:35 AM	Container-01 of 01

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

B = Found in Blank

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

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

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

Date Reported:

4/25/2016

Cathlin Panzarella

Project Manager: Caitlin Panzarella

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 25

575 Broad Hollow Road Melville, NY 11747 TEL: (631) 694-3040 FAX: (631) 420-8436

Website: www.pacelabs.com

QC SUMMARY REPORT

1604D11 WO#:

25-Apr-16

Pace Analytical Services Inc. Client:

Project:

16040239 - BAR-ROC: CLF SEMI ANNUAL L

55427 BatchID:

Samula ID: MB-65427	SampTone: MBI K	Test	Code: ASPB5-8	TestCode: ASPR5-8270 Units: unft		Prep Da	Prep Date: 4/14/2016	016	RunNo: 95878	80	
Client ID: PBW	Batch ID: 55427	1	TestNo: SW8270	SW3520C		Analysis Date: 4/16/2016	te: 4/16/2	016	SeqNo: 2089242	1242	
Analyte	Result	Pal	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	LowLimit HighLimit RPD Ref Val	%RPD	RPDLimit	Qual
2-Methylnaphthalene	< 10	10									
Acenaphthene	< 10	10	0								
Acenaphthylene	< 10	5	0								
Anthracene	< 10	9	0								
Benzo(a)anthracene	< 10	5									
Benzo(a)pyrene	< 10	5	0								
Benzo(b)fluoranthene	< 10	9	0								
Benzo(g,h,i)perylene	< 10	9	0								
Benzo(k)fluoranthene	< 10	9	0								
Chrysene	< 10	9	0								
Dibenzo(a,h)anthracene	< 10	9	0								
Fluoranthene	< 10	10									
Fluorene	< 10	10									
Indeno(1,2,3-cd)pyrane	< 10	P	٥								
Naphthalene	< 10	5	0								
Phenanthrene	< 10	5	0								
Pyrene	< 10	6	0								
Surr: 1,2-Dichlorobenzene-d4	19		50.00		37.2	16	110				
Surr: 2-Fluorobiphenyl	24		50.00		49.0	43	116				
Surr: 4-Terphenyl-d14	42		50.00		84.4	33	141				
Surr: Nitrobenzene-d5	27		50.00		54.8	35	114				

Maxir
exceeds
Value
•
Qualifiers:

mum Contaminant Level

Holding times for preparation or analysis exceeded RSD is greater than RSDlimit Ξ

Spike Recovery outside accepted recovery limits 0 %

Manual Integration used to determine area response Dilution was required.

Sample container temperature is out of limit as specified Second column confirmation exceeds

Not Detected at the Reporting Limit 田田田

Value above quantitation range

RPD outside accepted recovery limits

Page 5 of 25

Pace Analytical

PACE ANALYTICAL

575 Broad Hollow Road Melville, NY 11747 TEL: (631) 694-3040 FAX: (631) 420-8436

Website: www.pacelabs.com

QC SUMMARY REPORT

1604D11 WO#:

25-Apr-16

Pace Analytical Services Inc. Client: 16040239 - BAR-ROC: CLF SEMI ANNUAL L

Project:

55427 BatchID:

Sample ID: LFB-55427	SampType: LFB	TestCod	e: ASPB5-827	TestCode: ASPB5-8270_ Units: µg/L		Prep Da	Prep Date: 4/14/2016		RunNo: 95878	B21	
Client ID: ZZZZZZ	Batch ID: 55427	TestN	TestNo: SW8270	SW3520C		Analysis Dai	Analysis Date: 4/16/2016	65	SeqNo: 2089243	9243	
Analyte	Result	PQ	SPK value	SPK Ref Vai	%REC	LowLimit	HighLimit F	RPD Ref Val	%RPD	RPDLimit	Qual
2-Methylnaphthalene	37	5	20.00	0	73.2	31	123	i			
Acenaphthene	36	10	50.00	0	72.6	20	116				
Acenaphthylene	33	10	50.00	0	0.99	20	109				
Anthracene	51	10	50.00	0	102	\$	117				
Benzo(a)anthracene	23	10	20.00	0	107	31	128				
Benzo(a)pyrene	52	10	50.00	0	104	30	146				
Benzo(b)fluoranthene	20	10	50.00	0	100	43	147				
Benzo(g,h,i)perylene	52	9	50.00	0	110	25	153				
Benzo(k)fluoranthene	09	10	50.00	0	120	28	148				
Chrysene	53	10	50.00	0	105	42	140				
Dibenzo(a,h)anthracene	53	10	50.00	0	105	22	147				
Fluoranthene	25	9	50.00	0	127	20	123				တ
Fluorene	41	10	50.00	0	81.5	51	118				
Indeno(1,2,3-cd)pyrene	51	10	50,00	0	103	56	156				
Naphthalene	37	9	50.00	0	73.8	39	107				
Phenanthrene	49	10	50.00	0	97.9	25	126				
Pyrene	48	10	50.00	0	95.1	41	137				
Surr: 1,2-Dichlorobenzene-d4	26		20.00		52.8	16	110				
Surr: 2-Fluorobiphenyl	32		50.00		63.2	43	116				
Surr: 4-Terphenyl-d14	40		20.00		79.9	33	141				
Surr: Nitrobenzene-d5	31		50.00		61.7	35	114				

	7
Value exceeds Maximum Contaminant Level	Holding times for preparation of analysis exceeded
•	=
Qualifiers:	

Spike Recovery outside accepted recovery limits Holding times for preparation or ana RSD is greater than RSDlimit 2 O 2

Dilution was required.

16040239 - Page 44 of 68

Sample container temperature is out of limit as specified Manual Integration used to determine area response Second column confirmation exceeds

RPD outside accepted recovery limits E Value above quantitation range

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits



575 Broad Hollow Road Melville, NY 11747 TEL. (631) 694-3040 FAX. (631) 420-8436 Website: www.pacelabs.com

QC SUMMARY REPORT

1604D11 WO#:

25-Apr-16

55427

BatchID:

Pace Analytical Services Inc.

Client:

16040239 - BAR-ROC: CLF SEMI ANNUAL L Project:

Qual %RPD RPDLimit SeqNo: 2089475 RunNo: 96032 LowLimit HighLimit RPD Ref Val Prep Date: 4/14/2016 Analysis Date: 4/16/2016 %REC Units: µg/L SW3520C SPK Ref Val TestCode: 8270_W_4-2 SPK value TestNo: SW8270 5.0 ם 10 5.0 5.0 10 10 10 10 10 5.0 5.0 **5 5 5** 는 다 2 Result × 10 ۰ ۱0 × 10 × 10 < 5.0 ۰ 10 ۰ 10 < 5.0 ۰ ۱ ۰ ۱ × 10 **6** 10 ot > < 5.0 ۰ ۱۵ < 5.0 < 5,0 × 10 × 10 < 5.0 ۰ ۱ < 10 SampType: MBLK Batch ID: 55427 Bis(2-chloroethoxy)methane Hexachlorocyclopentadiene N-Nitroso-di-n-propylamine 4-Chlorophenyl-phenylether 4-Bromophenyi-phenylether N-Nitrosodiphenylamine Bis(2-chloroethyl)ether Sample ID: MB-55427 Hexachlorobutadiene 2-Methylnaphthalene 2-Chloronaphthalene Hexachloroethane Dimethylphthalate 2,6-Dinitrotoluene Client ID: PBW 2,4-Dinitrotoluene Acenaphthylene Diethylphthalate 4-Chloroaniline Acenaphthene 2-Nitroaniline Nitrobenzene Dibenzofuran 3-Nitroaniline 4-Nitroaniline Naphthalene Isophorone Fluorene Analyte

Qualifiers:	•	Value exceeds Maximum Contaminant Level	Ω	Dilution was required.
	Η	Holding times for preparation or analysis exceeded	Σ	Manual Integration used to de
	0	RSD is greater than RSD limit	4	Second column confirmation

Spike Recovery outside accepted recovery limits

S

Value above quantitation range ш × Sample container temperature is out of limit as specified letermine area response ≱

RPD outside accepted recovery limits Not Detected at the Reporting Limit

Page 7 of 25

16040239 - Page 45 of 68



575 Broad Hollow Road Melville, NY 11747

TEL: (631) 694-3040 FAX: (631) 420-8436 Website: www.pacelabs.com

QC SUMMARY REPORT

1604D11 WO#:

25-Apr-16

Pace Analytical Services Inc. Project: Client:

16040239 - BAR-ROC: CLF SEMI ANNUAL L

55427 BatchID:

Sample ID: MB-55427	SampType: MBLK	MBLK	TestCode	TestCode: 8270_W_4-2	Units: µg/L		Prep Dat	Prep Date: 4/14/2016	116	RunNo: 96032	32	
Client ID: PBW	Batch ID: 55427	55427	TestNo	TestNo: SW8270	SW3520C	•	Analysis Date: 4/16/2016	e: 4/16/20	916	SeqNo: 2089475	19475	
Analyte		Result	Pol	SPK value S	SPK Ref Val	%REC	LowLimit	HighLimit	LowLimit HighLimit RPD Ref Val	%RPD	RPOLimit	Qual
Hexachlorobenzene		< 10	10									:
Phenanthrene		< 5.0	5.0									
Anthracene		< 5,0	5.0									
Carbazole		< 5.0	5.0									
Di-n-butyl phthalate		< 10	10									
Fluoranthene		< 5.0	5.0									
Pyrene		< 5.0	5.0									
Butyl benzyl phthalate		× 10	10									
3,3'-Dichlorobenzidine		× 10	9									
Benzo(a)anthracene		< 5.0	5.0									
Chrysene		< 5.0	5.0									
Bis(2-ethylhexyl)phthalate		× 10	10									
Di-n-octyl phthalate		< 10	10									
Benzo(b)fluoranthene		< 5,0	5.0									
Benzo(k)fluoranthens		< 5.0	5.0									
Benzo(a)pyrene		< 5.0	5.0									
Indeno(1,2,3-cd)pyrene		< 5.0	5.0									
Dibenzo(a,h)anthracene		< 5.0	5.0									
Benzo(g,h,i)perylene		< 5.0	5.0									
Surr: 2-Fluorophenol		37		75.00		49.9	21	110				
Surr: Nitrobenzene-d5		27		50.00		54.9	35	114				
Surr: Phenol-d5		38		75.00		51.3	10	110				
Sur: 2,4,6-Tribromophenol		55		75.00		72.9	10	123				
Surr: 2-Fluorobiphenyl		56		50.00		52.3	43	116				
Surr: 4-Terphenyl-d14		45		50.00		89.9	33	141				
Surr: 2-Chlorophenol-d4		40		75.00		53.3	33	110				
Oualifiers: * Value exceeds	Maximum Co	Value exceeds Maximum Contaminant Level		D Dilution v	Dilution was required.			ш	Value above quantitation range	tation range		
Ξ	for nemaration	Holding times for perpendion of analysis exceeded	yded		Manual Integration used to determine area response	termine are	a response	Q	Not Detected at the Reporting Limit	Reporting Lim	-	
	DCD is amater than DCDlimit	or energy as every	3		Connections confirmation exceeds	everande			RPD outside accented recovery limits	ed recovery lin	3	
	יייייטעטיי יישוווי ו	_			Julius commissioners	-	:		Janes animan of the			Dog 9 of 75

S Spike Recovery outside accepted recovery limits

W Sample container temperature is out of limit as specified

Page 8 of 25



575 Broad Hollow Road Melville, NY 11747 TEL: (631) 694-3040 FAX: (631) 420-8436

Website: www.pacelabs.com

QC SUMMARY REPORT

1604D11 WO#:

25-Apr-16

55427

BatchID:

Pace Analytical Services Inc. Client:

16040239 - BAR-ROC: CLF SEMI ANNUAL L

Project:

Qual **RPDLimit** SeqNo: 2089475 RunNo: 96032 %RPD LowLimit HighLimit RPD Ref Val Prep Date: 4/14/2016 Analysis Date: 4/16/2016 110 16 %REC æ.⊤ Units: µg/L SW3520C SPK value SPK Ref Val TestCode: 8270_W_4-2 50.00 TestNo: SW8270 ם Result 4 SampType: MBLK Batch ID: 55427 Surr: 1,2-Dichlorobenzene-d4 Sample ID: MB-55427 Client ID: PBW Analyte

Client ID: Z22222 Batch ID: S54.27 TestNot: SWR270 SPK Red Val Amalysis Data Attributed in the control of the cont	Sample ID: LFB-55427	5427	SampType: LFB	TestCod	TestCode: 8270_W_4-2	-2 Units: µg/L		Prep Date:	e: 4/14/2016	016	RunNo: 96032	23	
Polity P		Ŋ	Batch ID: 55427	TestN	o: SW8270	SW3520C		Analysis Dat		916	SeqNo: 2089	1476	
37 10 50.00 0 73.8 39 111 4.3 10 50.00 0 65.8 40 124 21 10 50.00 0 42.6 41 119 38 10 50.00 0 60.8 47 102 42 10 50.00 0 64.6 25 39 107 35 50 50.00 0 69.5 39 107 102 36 10 50.00 0 69.5 39 107 102 36 10 50.00 0 69.5 39 107 102 36 10 50.00 0 69.5 39 107 102 36 50 60.00 0 69.5 39 107 102 4 10 50.00 0 69.5 39 107 102 4 10 50.00 0	Analyte		Result	Pal	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit			RPDLimit	Qual
43 10 50.00 0 85.8 40 124 21 10 50.00 0 42.6 41 119 38 10 50.00 0 75.6 41 122 42 10 50.00 0 64.9 47 102 35 50 50.00 0 64.6 25 133 26 10 50.00 0 64.6 25 133 32 10 50.00 0 64.6 25 133 8.7 10 50.00 0 64.6 25 133 8.7 10 50.00 0 65.8 41 123 8.7 10 50.00 0 72.4 31 123 8.7 10 50.00 0 78.9 48 124 4 10 50.00 0 78.9 48 124 4 10 50.00	Bis(2-chloroethyl)et	ther	37	10	50.00	0	73.8	39	111				
21 10 50.00 0 42.6 41 119 38 10 50.00 0 75.6 41 122 42 10 50.00 0 84.9 46 118 35 5.0 50.00 0 84.9 47 102 26 10 50.00 0 64.6 25 133 26 10 50.00 0 64.6 25 133 36 10 50.00 0 64.6 25 133 8.7 10 50.00 0 72.4 31 123 8.7 10 50.00 0 65.8 48 124 44 10 50.00 0 65.8 48 124 45 10 50.00 0 69.7 56 124 46 10 50.00 0 69.7 56 124 40 50.00 0	N-Nitroso-di-n-prop	yłamine	43	10	50.00	0	85.8	40	124				
38 10 50.00 0 75.6 41 122 30 10 50.00 0 60.8 46 118 42 1 50.00 0 69.5 39 107 35 1 50.00 0 69.5 39 107 26 1 50.00 0 64.6 25 13 26 1 50.00 0 72.4 31 123 8.7 1 50.00 0 72.4 31 123 8.7 1 50.00 0 72.4 31 123 8.7 1 50.00 0 72.4 31 123 39 1 50.00 0 78.9 48 124 4 1 50.00 0 78.9 48 124 4 1 50.00 0 78.9 48 124 4 1 50.00 0 <td>Hexachloroethane</td> <td>,</td> <td>21</td> <td>10</td> <td>50.00</td> <td>0</td> <td>42.6</td> <td>41</td> <td>119</td> <td></td> <td></td> <td></td> <td></td>	Hexachloroethane	,	21	10	50.00	0	42.6	41	119				
30 10 50.00 0 60.8 46 118 42 10 50.00 0 64.9 47 102 35 5 60.00 0 64.9 47 102 26 10 50.00 0 64.6 25 133 26 10 50.00 0 72.4 31 123 8.7 10 50.00 0 72.4 31 123 33 10 50.00 0 78.9 41 122 46 10 50.00 0 78.9 48 124 44 10 50.00 0 80.6 56 121 44 10 50.00 0 66.7 50 122 45 10 50.00 0 80.6 50 124 45 10 50.00 0 66.7 50 124 40 5.0 0	Nitrobenzene		38	10	50.00	0	75.6	41	122				
42 10 50.00 0 64.9 47 102 35 5.0 50.00 0 69.5 39 107 22 10 50.00 0 64.6 25 133 26 10 50.00 0 61.6 18 90 8.7 10 50.00 0 72.4 31 119 8.7 10 50.00 0 65.8 41 122 8.7 10 50.00 0 78.9 48 124 44 10 50.00 0 78.9 48 124 44 10 50.00 0 78.9 48 124 44 10 50.00 0 78.9 46 124 43 10 50.00 0 69.7 50 108 36 5.0 50.00 0 69.7 50 116 40 5.0 50.00	Isophorone		30	10	20.00	0	8.09	46	118				
35 5.0 50.00 0 69.5 39 107 32 10 50.00 0 64.6 25 133 26 10 50.00 0 51.6 18 90 36 5.0 50.00 0 72.4 31 113 adlene 8.7 10 50.00 0 72.4 31 113 4 10 50.00 0 72.4 31 12 44 142 143 143 143 143 143 143 143 143 143 143 143 144 142 144 <td>Bis(2-chloroethoxy)</td> <td>methane)</td> <td>42</td> <td>10</td> <td>50.00</td> <td>0</td> <td>84.9</td> <td>47</td> <td>102</td> <td></td> <td></td> <td></td> <td></td>	Bis(2-chloroethoxy)	methane)	42	10	50.00	0	84.9	47	102				
32 10 50.00 0 64.6 25 133 26 10 50.00 0 51.6 18 90 36 5.0 50.00 0 72.4 31 123 33 10 50.00 0 72.4 31 119 39 10 50.00 0 78.9 48 124 46 10 50.00 0 91.6 56 121 44 10 50.00 0 88.0 56 121 43 10 50.00 0 86.0 56 121 43 10 50.00 0 88.0 56 121 40 5.0 50.00 0 86.3 46 112 40 5.0 50.00 0 71.8 50 116 40 5.0 50.00 0 80.6 53 117 40 5.0 50.00	Naphthalene		35	5.0	50.00	0	69.5	39	107				
26 10 50.00 0 51.6 18 90 adiene 8.7 10 50.00 0 72.4 31 123 adiene 8.7 10 50.00 0 17.3 13 119 46 10 50.00 0 65.8 41 122 44 10 50.00 0 78.9 48 124 44 10 50.00 0 91.6 56 121 44 10 50.00 0 88.0 56 121 43 10 50.00 0 69.7 50 108 43 10 50.00 0 85.3 46 17 40 5.0 50.00 0 71.8 50 14 40 5.0 50.00 0 71.8 50 14 40 5.0 50.00 0 71.8 50 14 40	4-Chloroaniline		32	10	50.00	0	64.6	22	133				
36 50.00 0 72.4 31 123 adiene 8.7 10 50.00 0 17.3 13 119 33 10 50.00 0 78.9 48 124 46 10 50.00 0 91.6 56 121 44 10 50.00 0 88.0 56 121 43 10 50.00 0 88.0 56 121 43 10 50.00 0 88.0 56 121 Adue exceeds Maximum Contaminant Level 50.00 0 71.8 50 112 Value exceeds Maximum Contaminant Level D 50.00 0 71.8 50 112 Adue or preparation or analysis exceeded M Manual Integration used to determine area response N Alue above quantitation range RSD is greater than RSD limit P Second column confirmation exceeds R R RD outside accepted recovery limits P Second contan	Hexachlorobutadier	90	26	10	50.00	0	51.6	4	8				
addiente 8.7 10 50.00 0 17.3 13 119 33 10 50.00 0 65.8 41 122 46 10 50.00 0 78.9 48 124 44 10 50.00 0 91.6 56 121 43 10 50.00 0 88.0 56 121 43 10 50.00 0 85.3 46 112 Adue exceeds Maximum Contaminant Level 50 0 71.8 50 116 Value exceeds Maximum Contaminant Level 5 50.00 0 85.3 46 17 Value exceeded Manual Integration used to determine area response ND Not Detected at the Reporting Limit RSD is greater than RSDImit P Second column confirmation exceeds R RPD outside accepted recovery limits Wample container temperature is out of limit as specified R RPD outside accepted recovery limits	2-Methylnaphthalen	9	36	5.0	50.00	0	72.4	31	123				
33 10 50.00 0 65.8 41 122 39 10 50.00 0 78.9 48 124 46 10 50.00 0 91.6 56 121 44 10 50.00 0 69.7 50 103 43 10 50.00 0 69.7 50 102 36 5.0 50.00 0 71.8 50 115 40 5.0 50.00 0 71.8 50 116 Value exceeds Maximum Contaminant Level Dilution was required. 80.6 53 117 RSD is greater than RSDlimit Dilution was required. Bo.6 53 117 RSD is greater than RSDlimit Poscond column confirmation exceeds R RD outside accepted recovery limits Spike Recovery outside accepted recovery limits Vample container temperature is out of limit as specified R RD outside accepted recovery limits	Hexachlorocyclope	ntadiene	8.7	10	20.00	0	17.3	13	119				7
39 10 50.00 0 78.9 48 124 46 10 50.00 0 91.6 56 121 44 10 50.00 0 69.7 50 109 43 10 50.00 0 69.7 50 109 43 10 50.00 0 85.3 46 112 50 50 50.00 0 71.8 50 116 Value exceeds Maximum Contaminant Level 50 50.00 0 80.6 53 117 Rolding times for preparation or analysis exceeded M Manual Integration used to determine area response ND Not Detected at the Reporting Limit RSD is greater than RSDImit P Second column confirmation exceeds R R PD outside accepted recovery limits Splike Recovery outside accepted recovery limits V Sample container temperature is out of limit as specified R R PD outside accepted recovery limits	2-Chloronaphthaler	9	33	10	50.00	0	65.8	41	122				
46 10 50.00 0 91.6 56 121 44 10 50.00 0 88.0 56 121 35 5.0 50.00 0 69.7 50 109 43 10 50.00 0 85.3 46 112 36 5.0 50.00 0 71.8 50 116 Value exceeds Maximum Contaminant Level 5.0 50.00 0 80.6 53 117 Holding times for preparation or analysis exceeded M Manual Integration used to determine area response ND Not Detected at the Reporting Limit RSD is greater than RSDlimit P Second column confirmation exceeds R R RPD outside accepted recovery limits W Sample container temperature is out of limit as specified R R RPD outside accepted recovery limits	2-Nitroaniline		39	10	50.00	0	78.9	48	124				
44 10 50.00 0 88.0 56 121 35 5.0 50.00 0 69.7 50 109 43 10 50.00 0 85.3 46 112 36 5.0 50.00 0 71.8 50 146 Value exceeds Maximum Contaminant Level 5.0 50.00 0 80.6 53 117 Holding times for preparation or analysis exceeded M. Manual Integration used to determine area response B. Value above quantitation range RSD is greater than RSDlimit P. Second column confirmation exceeds R. RPD outside accepted recovery limits Wample container temperature is out of limit as specified R. RPD outside accepted recovery limits	Dimethylphthalate		46	10	50.00	0	91.6	99	121				
ylene 35 5.0 50.00 0 69.7 50 109 ne 43 10 50.00 0 85.3 46 112 an 36 5.0 50.00 0 71.8 50 116 an 40 5.0 50.00 0 71.8 50 116 an 40 5.0 50.00 0 80.6 53 117 Aluc exceeds Maximum Contaminant Level Dilution was required. Amanual Integration used to determine area response E Value above quantitation range Holding times for preparation or analysis exceeded Manual Integration used to determine area response ND Abrected at the Reporting Limit N RSD is greater than RSD limit Paccond column confirmation exceeds R R RPD outside accepted recovery limits Spike Recovery outside accepted recovery limits Wample container temperature is out of limit as specified R RPD outside accepted recovery limits	2,6-Dinitrotoluene		44	10	20.00	0	88.0	99	121				
10 11 12 10 10 10 10 11 12 10 10	Acenaphthylene		35	5.0	50.00	0	69.7	20	109				
an 40 5.0 50.00 0 71.8 50 118 * Value exceeds Maximum Contaminant Level M Manual Integration used to determine area response ND Rot Detected at the Reporting Limit Holding times for preparation or analysis exceeded M Manual Integration used to determine area response ND Not Detected at the Reporting Limit D Second column confirmation exceeds R RPD outside accepted recovery limits W Sample container temperature is out of limit as specified R	3-Nitroaniline		43	10	50.00	0	85.3	46	112				
* Value exceeds Maximum Contaminant Level D Dilution was required. * Value exceeds Maximum Contaminant Level D Dilution was required. * Holding times for preparation or analysis exceeded M Manual Integration used to determine area response ND Not Detected at the Reporting Limit D Second column confirmation exceeds R RPD outside accepted recovery limits Spike Recovery outside accepted recovery limits W Sample container temperature is out of limit as specified	Acenaphthene		36	5.0	50.00	0	71.8	20	116				
 Value exceeds Maximum Contaminant Level Holding times for preparation or analysis exceeded Manual Integration used to determine area response RSD is greater than RSDlimit Spike Recovery outside accepted recovery limits Value above quantitation range Manual Integration used to determine area response ND Not Detected at the Reporting Limit RPD outside accepted recovery limits Sample container temperature is out of limit as specified 	Dibenzofuran		40	5.0	20.00	0	90.6	53	117				
Holding times for preparation or analysis exceeded M Manual Integration used to determine area response ND Not Detected at the Reporting Limit RSD is greater than RSDlimit P Second column confirmation exceeds R RPD outside accepted recovery limits W Sample container temperature is out of limit as specified	Qualiffers: *	Value exce	eds Maximum Contaminant Leve			n was required.			四	Value above quanti	itation range	1	
RSD is greater than RSDlimit P Second column confirmation exceeds RPD outside accepted recovery limits W Sample container temperature is out of limit as specified	H	Holding tin	nes for preparation or analysis ex	pepea		I Integration used to d	letermine an	sa response		Not Detected at the	Reporting Limit		
Spike Recovery outside accepted recovery limits W Sample container temperature is out of limit as specified	0	RSD is grea	ster than RSDlimit			l column confirmation	speace 1		ĸ	RPD outside accep	ted recovery limi		
	S	Spike Reco	wery outside accepted recovery li	mits		e container temperatur	e is out of li	mit as specifi	5			Pag	ge 9 of 2

128 40 38 148 147 48

113 119 118 102

50.00

50.00

50.00 50.00 50.00 50.00

Bis(2-ethylhexyl)phthalate

Benzo(a)anthracene

Chrysene

Benzo(b)fluoranthene Benzo(k)fluoranthene

Di-n-octyl phthalate

42

32 43

/ Pace Analytical

PACE ANALYTICAL

575 Broad Hollow Road TEL. (631) 694-3040 FAX: (631) 420-8436 Website: www.pacelabs.com

Melville, NY 11747

QC SUMMARY REPORT

1604D11 WO#:

25-Apr-16

55427

BatchID:

Pace Analytical Services Inc.

16040239 - BAR-ROC: CLF SEMI ANNUAL L

Project:

Client:

Qual တ တ **RPDLimit** SeqNo: 2089476 RunNo: 96032 %RPD RPD Ref Val Analysis Date: 4/16/2016 Prep Date: 4/14/2016 HighLimit 95 121 128 126 117 127 128 23 137 35 132 LowLimit 5 4 95.8 46.5 116 98.1 90.4 74.3 103 114 106 112 129 123 114 Units: µg/L SW3520C SPK Ref Val TestCode: 8270_W_4-2 50.00 SPK value 50.00 50.00 50.00 50.00 50.00 50.00 50.00 50.00 50,00 50.00 50.00 50.00 TestNo: SW8270 **ㅎ ㅎ ㅎ ㅎ** ם Result \$ € Batch ID: 55427 SampType: LFB 4-Chlorophenyl-phenylether 4-Bromophenyl-phenylether N-Nitrosodiphenylamine Sample ID: LFB-55427 3,3'-Dichlorobenzidine Butyl benzyl phthalale Client ID: ZZZZZZ Hexachlorobenzene Di-n-butyl phthalate 2,4-Dinitrotoluene Diethylphthalate Phenanthrene Fluoranthene 4-Nitroaniline Anthracene Carbazole Fluorene Analyte Pyrene

50.00 0 88.0 30 146	50 5.0 50.00 0 99.1 26	51 5.0 50.00 0 103 22	50 5.0 50.00 0 99.3 25 153	Value exceeds Maximum Contaminant Level D Dilution was required. E Value above quantitation range Holding times for preparation or analysis exceeded M Manual Integration used to determine area response ND Not Detected at the Reporting Limit RSD is greater than RSDlimit P Second column confirmation exceeds R RPD outside accepted recovery limits	Spike Recovery outside accepted recovery limits W Sample container temperature is out of limit as specified
Benzo(k)fluoranthene	Benzo(a)pyrene Indeno(1,2,3-cd)pyrene	Sibenzo(a,h)anthracene	Benzo(g,h,i)perylene	Qualifiers: • Value exceeds Maximum H Holding times for prepara O RSD is greater than RSD	S Spike Recovery outside a



575 Broad Hollow Road PACE ANALYTICAL

Melville, NY 11747 TEL. (631) 694-3040 FAX: (631) 420-8436

Website: www.pacelabs.com

QC SUMMARY REPORT

1604D11 WO#: 25-Apr-16

Pace Analytical Services Inc. Client:

16040239 - BAR-ROC: CLF SEMI ANNUAL L

Project:

55427 BatchID:

Sample ID: LFB-55427	SampType: LFB	TestCod	stCode: 8270_W_4-2 Units: µg/l.	Units: µg/L		Prep Date:	le: 4/14/2016	16	RunNo: 96032	132	
Client ID: ZZZZZZ	Batch ID: 55427	Testh	estNo: SW8270	SW3520C	•	Analysis Date: 4/16/2016	te: 4/16/20	16	SeqNo: 2089476	9476	
Analyte	Result	Pal	SPK value SPK Ref Val	PK Ref Val	%REC	LowLimit	HighLimit	WREC LowLimit HighLimit RPD Ref Val	%RPD	%RPD RPDLimit Qual	Qual
Surr: 2-Fluorophenol	44		75.00		58.6	21	110				
Surr: Nitrobenzene-d5	31		50.00		61.8	35	114				
Surr: Phenol-d5	47		75.00		62.1	10	110				
Surr: 2,4,6-Tribromophenol	25		75.00		85.5	10	123				
Sur: 2-Fluorobiphenyl	**		20.00		67.5	43	116				
Surr: 4-Terphenyl-d14	43		20.00		85.2	33	141				
Surr: 2-Chlorophenol-d4	49		75.00		65.1	33	110				
Surr: 1,2-Dichlorobenzene-d4	24		50.00		48.3	16	110				

Qualifiers:	•	Value exceeds Maximum Contaminant Level	D	Dilution was required.
	H	H Holding times for preparation or analysis exceeded	Σ	M Manual Integration used to determine area response
	0	RSD is greater than RSDlimit	4	Second column confirmation exceeds
	S	Spike Recovery outside accepted recovery limits	₹	W Sample container temperature is out of limit as specified

RPD outside accepted recovery limits Not Detected at the Reporting Limit Value above quantitation range E S R

Sample container temperature is out of limit as specified

Page 11 of 25

16040239 - Page 49 of 68

575 Broad Hollow Road Melville, NY 11747 TEL: (631) 694-3040 FAX: (631) 420-8436

Website: www.pacelabs.com

QC SUMMARY REPORT

1604D11 WO#:

25-Apr-16

Pace Analytical Services Inc. Client:

Project:

16040239 - BAR-ROC: CLF SEMI ANNUAL L

55427 BatchID:

Qual %RPD RPDLimit SeqNo: 2083944 RunNo: 95880 LowLimit HighLimit RPD Ref Val Analysis Date: 4/16/2016 Prep Date: 4/14/2016 %REC Units: µg/L SW3520C SPK value SPK Ref Val TestCode: 8270 W 4-2 TestNo: SW8270 절 × 10 ۰ 10 × 10 4 10 × 10 ۰ 10 < 5.0 ۰ 10 < 10 × 10 × 10 ۰ 10 Result < 5.0 SampType: MBLK Batch ID: 55427 Bis(2-chloroethoxy)methane Hexachlorocyclopentadiene N-Nitroso-di-n-propylamine Bis(2-chloroethyl)ether Sample ID: MB-55427 Hexachlorobutadiene 2-Methylnaphthalene 2-Chloronaphthalene Dimethyiphthalate PBW Hexachloroethane 2,6-Dinitrotoluene 4-Chloroaniline Nitrobenzene 2-Nitroaniline Naphthalene Isophorone Client ID: Analyte

Holding times for preparation or analysis exceeded Value exceeds Maximum Contaminant Level Qualifiers:

< 5.0 < 10 < < 5.0

Acenaphthylene

Acenaphthene

Dibenzofuran

3-Nitroaniline

× 10

2,4-Dinitrotoluene

Diethylphthalate

Fluorene

۰ ۱ < 5.0

< 5.0

۰ ۱ م

4-Chlorophenyl-phenylether

4-Nitroaniline

4-Bromophenyl-phenylether

N-Nitrosodiphenylamine

۰ ۱

Spike Recovery outside accepted recovery limits RSD is greater than RSDlimit 0

H

Sample container temperature is out of limit as specified Manual Integration used to determine area response Second column confirmation exceeds 2 4 3

Dilution was required.

RPD outside accepted recovery limits Not Detected at the Reporting Limit Value above quantitation range 田田民

Page 12 of 25

16040239 - Page 50 of 68

Pace Analytical"

PACE ANALYTICAL

575 Broad Hollow Road Melville, NY 11747 TEL: (631) 694-3040 FAX: (631) 420-8436

Website: www.pacelabs.com

1604D11 W0#:

QC SUMMARY REPORT

25-Apr-16

Pace Analytical Services Inc. Client:

Project:

16040239 - BAR-ROC: CLF SEMI ANNUAL L

55427 BatchID:

Sample ID: MB-55427	SampType: MBLK	TestCod	TestCode: 8270_W_4-2	tCode: 8270_W_4-2 Units: µg/L		Prep Dai	Prep Date: 4/14/2016	916	RunNo: 95880	980	
Client ID: PBW	Batch ID: 55427	TestN	TestNo: SW8270	SW3520C		Analysis Date: 4/16/2016	e: 4/16/2	016	SeqNo: 2083944	33944	
Analyte	Resutt	Pa	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	LowLimit HighLimit RPD Ref Val	%RPD	RPDLimit	Qual
Hexachlorobenzene	< 10	10						-			
Phenanthrene	< 5.0	5.0									
Anthracene	< 5.0	5.0									
Carbazole	< 5.0	5.0									
Di-n-butyl phthalate	< 10	10									
Fluoranthene	< 5.0	5.0									
Pyrene	< 5.0	5.0									
Butyl benzyl phthalate	< 10	10									
3,3'-Dichlorobenzidine	< 10	9									
Benzo(a)anthracene	< 5.0	5.0									
Chrysene	< 5.0	2.0									
Bis(2-ethylhexyl)phthalate	< 10	10									
Di-n-octyl phthalate	< 10	10									
Benzo(b)fluoranthene	< 5.0	5.0									
Benzo(k)fluoranthene	< 5.0	2.0									
Benzo(a)pyrene	< 5.0	5.0									
Indeno(1,2,3-cd)pyrene	< 5.0	5.0									
Dibenzo(a,h)anthracene	< 5.0	5.0									
Benzo(g,h,i)perylene	< 5.0	5.0									
Surr: Nitrobanzene-d5	27		20.00		54.9	35	114				
Surr. 2-Fluorobiphenyl	26		20.00		52.3	43	116				
Surr: 4-Terphenyl-d14	45		50.00		89.9	33	141				
Surr. 1,2-Dichlorobenzene-d4	17		20.00		34.1	16	110				

Value exceeds Maximum Contaminant Level	Holding times for preparation or analysis exceeded
*	I
Qualifiers:	

Ξ 0 %

Sample container temperature is out of limit as specified

Spike Recovery outside accepted recovery limits

RSD is greater than RSDlimit

Manual Integration used to determine area response Second column confirmation exceeds Dilution was required.

RPD outside accepted recovery limits Not Detected at the Reporting Limit Value above quantitation range m € ~

Page 13 of 25

Pace Analytical

PACE ANALYTICAL

575 Broad Hollow Road

Melville, NY 11747 TEL: (631) 694-3040 FAX: (631) 420-8436 Website: www.pacelabs.com

QC SUMMARY REPORT

1604D11 :#OM

25-Apr-16

Pace Analytical Services Inc. Project: Client:

16040239 - BAR-ROC: CLF SEMI ANNUAL L

55427 BatchID:

Sample ID: LFB-55427	5427	SampType: LFB	TestCode:	TestCode: 8270_W_4-2	Units: µg/L		Prep Date:	4/14/2016	9	RunNo: 95880	90	
Client ID: 222222	Ņ	Batch ID: 55427	TestNo:	TestNo: SW8270	SW3520C		Analysis Date:	4/16/2016	9	SeqNo: 2083945	3945	
Analyte		Result	Pals	SPK value S	SPK Ref Val	%REC	LowLimit H	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bis(2-chloroethyl)ether	ther	37	10	50.00	0	73.8	39	111				
N-Nitroso-di-n-propylamine	ylamine	43	10	50.00	0	82.8	40	124				
Hexachloroethane	,	21	10	50.00	0	42.6	4	119				
Nitrobenzene		38	10	50.00	0	75.6	41	122				
Isophorone		30	10	50.00	0	8.09	46	118				
Bis(2-chloroethoxy)methane	methane)	42	10	50.00	0	84.9	47	102				
Naphthalene		35	5.0	50.00	0	69.5	39	107				
4-Chloroaniline		32	10	50.00	0	64.6	25	133				
Hexachlorobutadiene	10	26	10	20.00	0	51.6	18	8				
2-Methylnaphthalene	90	36	5.0	20.00	0	72.4	31	123				
Hexachlorocyclopentadiene	Intadiene	8.7	10	20.00	0	17.3	13	119				7
2-Chloronaphthalene	91	33	0	50.00	0	65.8	4	122				
2-Nitroaniline		39	10	20.00	0	78.9	48	124				
Dimethylphthalate		46	10	20.00	0	91.6	56	121				
2,6-Dinitrotoluene		44	10	20.00	0	88.0	56	121				
Acenaphthylene		35	5.0	20.00	0	69.7	20	109				
3-Nitroaniline		43	10	50.00	0	85.3	46	112				
Acenaphthene		36	5.0	50.00	0	71.8	20	116				
Dibenzofuran		40	5.0	20.00	0	90.6	53	117				
2,4-Dinitrotoluene		90	10	20.00	0	101	52	122				
Diethylphthalate		90	10	20.00	0	100	54	124				
Fluorene		43	5.0	20.00	0	85.7	51	118				
4-Chlorophenyl-phenylether	enylether	43	10	20.00	0	86.1	53	116				
4-Nitroaniline		45	10	20.00	0	90.4	51	113				
N-Nitrosodiphenyfamine	ımine	37	9	50.00	0	74.3	41	92				
4-Bromophenyl-phenylether	enylether	52	10	20.00	0	103	53	121				
Qualifiers: *	Value excee	Value exceeds Maximum Contaminant Level		D Dilution	Dilution was required.			E V2	Value above quantitation range	ation range		
=	Holding time	Holding times for preparation or analysis exceeded		M Manual I	Manual Integration used to determine area response	termine are	a response	NO NO	Not Detected at the Reporting Limit	Reporting Limit	-	
0	RSD is great	RSD is greater than RSDlimit		P Second c	Second column confirmation exceeds	exceeds		R RI	RPD outside accepted recovery limits	ed recovery lim	its	

RSD is greater than RSDlimit Spike Recovery outside accepted recovery limits o s

Sample container temperature is out of limit as specified 4 ≱

Page 14 of 25



575 Broad Hollow Road Melville, NY 11747 TEL: (631) 694-3040 FAX: (631) 420-8436 Website: www.pacelabs.com

QC SUMMARY REPORT

1604D11 :#OM

25-Apr-16

55427

BatchID:

Pace Analytical Services Inc. Client:

16040239 - BAR-ROC: CLF SEMI ANNUAL L

Project:

Qual %RPD RPDLimit SeqNo: 2083945 RunNo: 95880 %REC LowLimit HighLimit RPD Ref Val Prep Date: 4/14/2016 Analysis Date: 4/16/2016 Units: µg/L SW3520C SPK value SPK Ref Val TestCode: 8270_W_4-2 TestNo: SW8270 百 Result Batch ID: 55427 SampType: LFB Sample ID: LFB-55427 Client ID: ZZZZZZ Analyte

•								
Hexachlorobenzene	57	10	50.00	0	114	52	128	i
Phenanthrene	48	5.0	50.00	0	95.8	25	126	
Anthracene	53	5.0	50.00	0	106	54	117	
Carbazole	26	5.0	50.00	0	112	69	127	
Di-n-butyl phthalate	65	10	50.00	0	129	20	128	υ
Fluoranthene	62	5.0	50.00	0	123	20	123	ω
Pyrene	58	5.0	50.00	0	116	41	137	
Butyl benzyl phthalate	22	10	50.00	0	114	38	135	
3,3'-Dichlorobenzidine	23	9	50.00	0	46.5	20	132	
Benzo(a)anthracene	56	5.0	50.00	0	113	31	128	
Chrysene	90	5.0	50.00	0	119	42	140	
Bis(2-ethylhexyl)phthalate	59	10	50.00	0	118	37	138	
Di-n-octyl phthalate	51	10	50.00	0	102	32	148	
Benzo(b)fluoranthene	49	5.0	50.00	0	97.2	43	147	
Benzo(k)fluoranthene	22	5.0	50.00	0	113	28	148	
Benzo(a)pyrene	49	5.0	50.00	0	98.0	30	146	
Indeno(1,2,3-cd)pyrene	20	5.0	20.00	0	99.1	26	156	
Dibenzo(a,h)anthracene	51	5.0	50.00	0	103	22	147	
Benzo(g,h,i)perylene	20	5.0	50.00	0	69.3	22	153	
Surr: Nitrobenzene-d5	31		50.00		61.8	32	114	
Surr: 2-Fluorobiphenyi	स्र		50.00		67.5	43	116	
Surr. 4-Terphenyl-d14	43		50.00		85.2	33	141	
Surr: 1,2-Dichlorobenzene-d4	24		50.00		48.3	16	110	

					l	
Qualifiers:	•	Value exceeds Maximum Contaminant Level	Δ	Dilution was required.	凹	E Value above quantitation range
	H	Holding times for preparation or analysis exceeded	Z	M Manual Integration used to determine area response	2	ND Not Detected at the Reporting Lin
	0	RSD is greater than RSDlimit	ط	Second column confirmation exceeds	~	R RPD outside accepted recovery lir
	S	Spike Recovery outside accepted recovery limits	≱	W Sample container temperature is out of limit as specified		

Spike Recovery outside accepted recovery limits

Page 15 of 25

Pace Analytical

PACE ANALYTICAL

Melville, NY 11747 575 Broad Hollow Road TEL: (631) 694-3040 FAX: (631) 420-8436

Website: www.pacelabs.com

QC SUMMARY REPORT

1604D11 WO#:

25-Apr-16

Pace Analytical Services Inc. Client:

Project:

16040239 - BAR-ROC: CLF SEMI ANNUAL L

55461 BatchID:

Sample ID: MB-55461	SampType: MBLK	TestCode	B: HG_7470A	TestCode: HG_7470A_W Units: ug/L		Prep Date	Prep Date: 4/16/2016		RunNo: 95775	75	
Clent ID: PBW	Batch ID: 55461	TestN	FestNo: SW7470	SW7470	•	nalysis Dat	Analysis Date: 4/16/2016		SeqNo: 2082199	12199	
Analyte	Result	Pal	SPK value	SPK value SPK Ref Val	%REC	LowLimit	%REC LowLimit HighLimit RPD Ref Val	Ref Val	%RPD	%RPD RPDLimit Qual	Qual
Mercury	0	0.2									7

Sample ID: LCS-55461	SampType: LCS	TestCod	le: HG_7470A	stCode: HG_7470A_W Units: ug/L		Prep Date	Prep Date: 4/16/2016	16	RunNo: 95775	75	
Client ID: LCSW	Batch ID: 55461	TestN	TestNo: SW7470	SW7470		Analysis Date: 4/16/2016	3: 4/16/20	16	SeqNo: 2082200	12200	
Analyte	Result	POL	SPK value	SPK value SPK Ref Val	%REC	LowLimit	HighLimit	%REC LowLimit HighLimit RPD Ref Val	%RPD	%RPD RPDLimit Qual	Qual
Mercury	11	0.2	1.0	0	106	80	120				

Sample ID: 160	4E56-003GDUP	Sample ID: 1604E56-003GDUP SampType: DUP	TestCod	e: HG_7470A	TestCode: HG_7470A_W Units: ug/L		Prep Dat	Prep Date: 4/16/2016	16	RunNo: 95775	75	
Client ID: ZZZZZZ	7777	Batch ID: 55461	TestN	FestNo: SW7470	SW7470		Analysis Date: 4/16/2016	e: 4/16/20	16	SeqNo: 2082216	12216	
Analyte		Result	Pal	SPK value	SPK value SPK Ref Val	%REC	LowLimit	HighLimit	%REC LowLimit HighLimit RPD Ref Val	%RPD	%RPD RPDLimit Qual	Qual
Mercury		0	0.2					¦ 	0	13.3	20	7

Sample ID:	Sample ID: 1604E56-003GMS	SampType: MS	TestCod	B: HG_7470A	festCode: HG_7470A_W Units: ug/L		Prep Date	Prep Date: 4/16/2016	91	RunNo: 95775	75	
Client ID: ZZZZZZ	777777	Batch ID: 55461	TestN	TestNo: SW7470	SW7470		Analysis Date: 4/16/2016	a: 4/16/20°	91	SeqNo: 2082217	12217	
Analyte		Result	POL	SPK value	SPK value SPK Ref Val	%REC	LowLimit	HighLimit	%REC LowLimit HighLimit RPD Ref Val	%RPD	%RPD RPDLimit Qual	Qual
Mercury		1.2	0.2	1.0	0	117	75	125				

Value exceeds Maximum Contaminant Level Qualifiers:

Holding times for preparation or analysis exceeded RSD is greater than RSDlimit Ξ 0 %

Spike Recovery outside accepted recovery limits

Manual Integration used to determine area response Dilution was required.

Sample container temperature is out of limit as specified

Second column confirmation exceeds

0 Z 4 3

Not Detected at the Reporting Limit

RPD outside accepted recovery limits

Value above quantitation range

Page 16 of 25

575 Broad Hollow Road Melville, NY 11747 TEL: (631) 694-3040 FAX: (631) 420-8436

Website: www.pacelabs.com

QC SUMMARY REPORT

25-Apr-16 1604D11

WO#:

Pace Analytical Services Inc. Client:

16040239 - BAR-ROC: CLF SEMI ANNUAL L

Project:

55462 BatchID:

Sample ID: MB-55462	SampType: MBLK	TestCoc	le: 200.7_MDL	TestCode; 200.7_MDL Units: ug/L		Prep Dat	Prep Date: 4/16/2016	16	RunNo: 96029	129	
Client ID: PBW	Batch ID: 55462	Testh	estNo: E200.7	E200.7		Analysis Date: 4/20/2016	e: 4/20/20	16	SeqNo: 2089366	39366	
Analyte	Result	PaL	SPK value SPK Ref Val	SPK Ref Val	%REC	LowLimit	HighLimit	%REC LowLimit HighLimit RPD Ref Val	%RPD	%RPD RPDLimit Qual	Qual
Arsenic	> 10,0	10.0									
Cadmium	< 5,00	2.00									
Chromlum	< 10,0	10.0									
Copper	1.20	25.0									7
Lead	< 3.00	3,00									
Nickel	< 40.0	40.0									
Silver	< 10.0	10.0									
Zinc	< 20.0	20.0									

Sample ID: LCS-55462 Client ID: LCSW	SampType: LCS Batch ID: 55462	TestCod	TestCode: 200.7_MDL TestNo: E200.7	Units: ug/L E200.7		Prep Dat Analysis Dat	Prep Date: 4/16/2016 Analysis Date: 4/20/2016		RunNo: 96029 SeqNo: 2089367	129 19367	
Analyte	Result	Pal	SPK value SPK Ref Val	SPK Ref Val	%REC	LowLimit	**REC LowLimit HighLimit RPD Ref Val	D Ref Val	%RPD	%RPD RPDLimit Qual	Qual
Arsenic	490	10.0	500.0	0	98.0	85	115	:			
Cadmium	2,550	5.00	2,500	0	102	82	115				
Chromium	2,620	10.0	2,500	0	105	82	115				
Copper	2,500	25.0	2,500	0	6'66	82	115				
Lead	476	3.00	500.0	0	95.1	82	115				
Nickel	2,530	40.0	2,500	0	101	82	115				
Silver	1,030	10.0	1,000	0	103	88	115				
Zinc	2,530	20.0	2,500	0	101	82	115				

Z
exceeds
Value
*
Qualifiers:

- ximum Contaminant Level
- Holding times for preparation or analysis exceeded RSD is greater than RSDlimit E O S
- Spike Recovery outside accepted recovery limits
- Manual Integration used to determine area response Dilution was required.
- Sample container temperature is out of limit as specified Second column confirmation exceeds
- RPD outside accepted recovery limits Not Detected at the Reporting Limit Value above quantitation range Q ≈

Page 17 of 25

Pace Analytical"

PACE ANALYTICAL

Melville, NY 11747 TEL: (631) 694-3040 FAX: (631) 420-8436 575 Broad Hollow Road

Website: www.pacelabs.com

QC SUMMARY REPORT

1604D11 WO#:

25-Apr-16

Pace Analytical Services Inc. Client: 16040239 - BAR-ROC: CLF SEMI ANNUAL L

Project:

55462 BatchID:

Sample ID: 1604D22-001CDUP SampType: DUP	SampType: DUP	TestCode: 200.7_MDL	0.7_MDL	Units: ug/lL		Prep Date	Prep Date: 4/16/2016	16	RunNo: 96029	129	
Cilent ID: ZZZZZZ	Batch ID: 55462	TestNo: E200.7	100.7	E200.7	*	Analysis Date: 4/20/2016	4/20/20	16	SeqNo: 2089369	19369	
Analyte	Result	PQL SPI		SPK value SPK Ref Val	%REC	LowLimit	HighLimit	%REC LowLimit HighLimit RPD Ref Val	%RPD	%RPD RPDLimit Qual	Qual
Arsenic	3.81	10.0						6.564	53.1	20	뭐
Cadmium	< 5.00	5.00						0	0	20	
Chromium	< 10.0	10.0						0	0	20	
Copper	< 25.0	25.0						3.700	200	20	œ
Lead	15.3	3.00						10.70	35.1	20	œ
Nickel	< 40.0	40.0						0	0	20	
Silver	< 10.0	10.0						0	0	20	
Zinc	1.50	20.0						1.400	6.90	20	7

Sample ID: 1604D22-001CMS	SampType: MS	TestCod	TestCode: 200.7_MDL	Units: ug/L		Prep Dat	Prep Date: 4/16/2016	9	RunNo: 96029	129	
Client ID: ZZZZZZ	Batch ID: 55462	TestN	TestNo: E200.7	E200.7		Analysis Date: 4/20/2016	e: 4/20/201	9	SeqNo: 2089370	19370	
Analyte	Result	POL	SPK value SPK Ref Val	SPK Ref Val	%REC	LowLimit	HighLimit	%REC LowLimit HighLimit RPD Ref Val	%RPD	%RPD RPDLImit Qual	Qual
Arsenic	48.0	10,0	40.00	6.564	104	70	130				
Cadmium	48.8	5.00	50.00	0	97.6	20	130				
Chromium	198	10.0	200.0	0	99.0	20	130				
Copper	243	25.0	250.0	3.700	95.8	20	130				
Lead	25.3	3.00	20.00	10.70	72.9	70	130				
Nickel	492	40.0	500.0	0	98.3	20	130				
Silver	45.4	10.0	50.00	0	90.8	20	130				
Zinc	498	20.0	500.0	1.400	99.4	70	130				

Contami
Maximum
/alue exceeds
*
Qualifiers:

I 0 8

Value above quantitation range

Sample container temperature is out of limit as specified

Spike Recovery outside accepted recovery limits

RSD is greater than RSDlimit

Second column confirmation exceeds

Manual Integration used to determine area response Dilution was required. Holding times for preparation or analysis exceeded inant Level

RPD outside accepted recovery limits Not Detected at the Reporting Limit 田園氏

Page 18 of 25

Pace Analytical

PACE ANALYTICAL

575 Broad Hollow Road Melville, NY 11747 TEL: (631) 694-3040 FAX: (631) 420-8436

Website: www.pacelabs.com

QC SUMMARY REPORT

1604D11 W0#: 25-Apr-16

Pace Analytical Services Inc. **Project:** Client:

16040239 - BAR-ROC: CLF SEMI ANNUAL L

55476 BatchID:

Sample ID: 1604679-001DMS	SampType: MS	TestCode: CN-DW	MG-N	Units: µg/L		Prep Date:	Prep Date: 4/18/2016		RunNo: 95842	842	
Client ID: ZZZZZZ	Batch ID: 55476	TestNo: SA	4500-CN E	TestNo: SM4500-CN E SM4500-CN E	∢	Analysis Date: 4/18/2016	4/18/2016		SeqNo: 2083266	83266	
Analyte	Result	PQL SPI	SPK value SPK Ref Val	K Ref Val	%REC	LowLimit H	%REC LowLimit HighLimit RPD Ref Val	D Ref Val	%RPD	%RPD RPDLimit Qual	Qual
Cyanide	93	10	100.0	0	92.7	75	125				

Sample ID: 1604679-001DDUP	SampType: DUP	TestCode: CN-DW	Units: µg/L		Prep Date:	Prep Date: 4/18/2016		RunNo: 95842	42	
Client ID: ZZZZZZ	Batch ID: 55476	TestNo: SM4500-CN E SM4500-CN E	NE SM4500-CNE	∢	nalysis Date:	Analysis Date: 4/18/2016		SeqNo: 2083267	13267	
Analyte	Result	PQL SPK value	SPK value SPK Ref Val	%REC	LowLimit F	%REC LowLimit HighLimit RPD Ref Val	D Ref Val	%RPD	%RPD RPDLimit Qual	Qual
Cyanide	< 10	10					0	0	20	

ы <mark>5</mark> ж Manual Integration used to determine area response Dilution was required. Holding times for preparation or analysis exceeded Value exceeds Maximum Contaminant Level 王

Spike Recovery outside accepted recovery limits RSD is greater than RSDlimit 0 %

Qualifiers:

Sample container temperature is out of limit as specified Second column confirmation exceeds

Not Detected at the Reporting Limit Value above quantitation range

RPD outside accepted recovery limits

Page 19 of 25



PACE ANALYTICAL

575 Broad Hollow Road Melville, NY 11747 TEL: (631) 694-3040 FAX: (631) 420-8436 Website: www.pacelabs.com

QC SUMMARY REPORT

1604D11 WO#: 25-Apr-16

Pace Analytical Services Inc. Project: Client:

16040239 - BAR-ROC: CLF SEMI ANNUAL L

SampType: MBLK Batch ID: 55476

Sample ID: MB-55476

Client ID: PBW

55476 BatchID: RunNo: 95842 Prep Date: 4/18/2016

Analysis Date: 4/18/2016

TestNo: SM4500-CN E SM4500-CN E FestCode: cn_w sm4500 Units: µg/L

%REC

SPK value SPK Ref Val

Pol 9

SeqNo: 2083264

%RPD RPDLimit LowLimit HighLimit RPD Ref Val

Qual

Result ۰ ۱0 Analyte Cyanide

Holding times for preparation or analysis exceeded Value exceeds Maximum Contaminant Level Ξ Qualifiers:

RSD is greater than RSDlimit 0 %

Spike Recovery outside accepted recovery limits

Sample container temperature is out of limit as specified Second column confirmation exceeds

Manual Integration used to determine area response

Dilution was required.

Value above quantitation range

Not Detected at the Reporting Limit 田田民

RPD outside accepted recovery limits

Page 20 of 25

16040239 - Page 58 of 68



PACE ANALYTICAL

575 Broad Hollow Road Melville, NY 11747 TEL: (631) 694-3040 FAX: (631) 420-8436

Website: www.pacelabs.com

QC SUMMARY REPORT

1604D11 25-Apr-16

R95858

BatchID:

WO#:

Pace Analytical Services Inc. Client: 16040239 - BAR-ROC: CLF SEMI ANNUAL L

Project:

Qual **RPDLimit** SeqNo: 2083601 RunNo: 95858 %RPD LowLimit HighLimit RPD Ref Val Analysis Date: 4/18/2016 Prep Date: %REC Units: mg/L SPK value SPK Ref Val TestCode: OG1664_W TestNo: E1664A ם Result Batch ID: R95858 SampType: MBLK Sample ID: MB-R95858 Client ID: PBW Analyte

< 5.0 Hexane Extractable Material (O&G)

5.0

Sample ID: LCS-90 Sai	SampType: LCS	TestCod	e: OG1664_W	tCode: OG1664_W Units: mg/L		Prep Date:	÷		RunNo: 95858	58	
Client ID: LCSW B	Batch ID: R95858	TestN	estNo: E1664A			ınalysis Dat	Analysis Date: 4/18/2016	9	SeqNo: 2083602	3602	
Analyte	Result	POL	SPK value SPK Ref Val	SPK Ref Val	%REC	LowLimit	HighLimit	%REC LowLimit HighLimit RPD Ref Val	%RPD	%RPD RPDLimit Qual	Qual
Hexane Extractable Material (O&G)	33.9	5.0	40.0	0	84.8	78	114				

Sample ID: LCS-R95858	SampType: LCS	TestCod	B: OG1664_W	stCode: OG1664_W Units: mg/L		Prep Date:	.		RunNo: 95858	58	
Client ID: LCSW	Batch ID: R95858	TestN	lestNo: E1664A		•	Analysis Date: 4/18/2016	e: 4/18/20	116	SeqNo: 2083603	3603	
Analyte	Result	Pal	SPK value SPK Ref Val	SPK Ref Val	%REC	LowLimit	HighLimit	%REC LowLimit HighLimit RPD Ref Val	%RPD	%RPD RPDLimit Qual	Qual
Hexane Extractable Material (0&G)	15.7	2.0	40.0	0	39.3	78	114				ဟ

Sample ID: 55476-LFB	SampType: LFB	TestCo	de: OG1664_W	TestCode: OG1664_W Units: mg/L		Prep Date:	iti		KUNNO: 95858	22		
Client ID: ZZZZZZ	Batch ID: R95858	Test	FestNo: E1664A			Analysis Date: 4/18/2016	8: 4/18/20	16	SeqNo: 2083604	13604		
Analyte	Result	PQL	SPK value	SPK value SPK Ref Val	%REC	LowLimit	HighLimit	%REC LowLimit HighLimit RPD Ref Val	%RPD	%RPD RPDLimit Qual	Qual	
Hexane Extractable Material (O&G)	34.1	5.0	40.0	0	85.3	78	114					

Value exceeds Maximum Contaminant Level Qualifiers: Holding times for preparation or analysis exceeded

RSD is greater than RSDlimit

0 %

Spike Recovery outside accepted recovery limits

Manual Integration used to determine area response Dilution was required. × ≥ × Ω

Sample container temperature is out of limit as specified Second column confirmation exceeds

RPD outside accepted recovery limits Not Detected at the Reporting Limit ₽ ~

Value above quantitation range

ш

Page 21 of 25



PACE ANALYTICAL

575 Broad Hollow Road Melville, NY 11747

TEL: (631) 694-3040 FAX: (631) 420-8436 Website: www.pacelabs.com

QC SUMMARY REPORT

1604D11 WO#:

25-Apr-16

Pace Analytical Services Inc. Client:

Project:

16040239 - BAR-ROC: CLF SEMI ANNUAL L

R95858 BatchID:

		it Qual
928	83623	%RPD RPDLimit
RunNo: 95858	SeqNo: 2083623	%RPD
	40	RPD Ref Val
20	3: 4/18/201	HighLimit F
Prep Date:	Analysis Date: 4/18/2016	%REC LowLimit HighLimit RPD Ref Val
		%REC
TestCode: OG1664_W Units: mg/L		SPK Ref Val
de: OG1664_W	FestNo: E1664A	SPK value
TestCo	Test	Pal
SampType: MBLK	Batch ID: R95858	Result
Sample ID: MB-90	Client ID: PBW	Analyte

< 5.0 Hexane Extractable Material (O&G)

5.0

Value above quantitation range ដា

Not Detected at the Reporting Limit Q ≈

RPD outside accepted recovery limits

Page 22 of 25

Sample container temperature is out of limit as specified

Manual Integration used to determine area response

Dilution was required.

Second column confirmation exceeds

Q № 4 ≥

Holding times for preparation or analysis exceeded

RSD is greater than RSDlimit

0 8

Value exceeds Maximum Contaminant Level

Qualifiers:

Spike Recovery outside accepted recovery limits

۵

90

2

o

0



PACE ANALYTICAL

575 Broad Hollow Road Melville, NY 11747 TEL: (631) 694-3040 FAX: (631) 420-8436 Website: www.pacelabs.com

QC SUMMARY REPORT

1604D11 W0#: 25-Apr-16

Pace Analytical Services Inc. Project: Client:

16040239 - BAR-ROC; CLF SEMI ANNUAL L

R96054 BatchID:

Qual **RPDLImit** SeqNo: 2089976 RunNo: 96054 %RPD LowLimit HighLimit RPD Ref Val Analysis Date: 4/19/2016 Prep Date: %REC Units: mg/L SPK value SPK Ref Val TestCode: COD_W TestNo: E410.4 10.0 ם < 10.0 Batch ID: R96054 Result SampType: MBLK Chemical Oxygen Demand Sample ID: MB-041916 PBW Client ID: Analyte

Qual %RPD RPDLimit SeqNo: 2089979 RunNo: 96054 LowLimit HighLimit RPD Ref Val Analysis Date: 4/19/2016 Prep Date: 8 %REC 99.4 Units: mg/L SPK value SPK Ref Val 100.0 FestCode: COD W TestNo: E410.4 10.0 ם Result Batch ID: R96054 99.4 SampType: LCS Chemical Oxygen Demand Sample 1D: LCS-041916 Client ID: LCSW Analyte

Qual %RPD RPDLimit SeqNo: 2089984 RunNo: 96054 LowLimit HighLimit RPD Ref Val Analysis Date: 4/19/2016 Prep Date: %REC Units: mg/L SPK Ref Val SPK value TestCode: COD_W TestNo: E410.4 집 Result Batch ID: R96054 SampType: DUP Sample ID: 1604589-002DDUP Client ID: ZZZZZZ

10.0 < 10.0 Chemical Oxygen Demand

Analyte

Qua **RPDLimit** SeqNo: 2089985 RunNo: 96054 %RPD %REC LowLimit HighLimit RPD Ref Val Analysis Date: 4/19/2016 Prep Date: Units: mg/L SPK value SPK Ref Val FestCode: COD_W TestNo: **E410.4** ם Result Batch ID: R96054 SampType: MS Sample ID: 1604589-002DMS Client ID: ZZZZZZ Analyte

\$ 100.0 20.0 \$ Chemical Oxygen Demand

Manual Integration used to determine area response Dilution was required. Holding times for preparation or analysis exceeded Value exceeds Maximum Contaminant Level

Spike Recovery outside accepted recovery limits

Pace Analytical Services, Inc.

RSD is greater than RSDlimit

Ξ 0 8

Qualifiers:

Sample container temperature is out of limit as specified Second column confirmation exceeds

RPD outside accepted recovery limits Not Detected at the Reporting Limit 2 ~

Value above quantitation range

[1]

Page 23 of 25

16040239 - Page 61 of 68 April 28, 2016



PACE ANALYTICAL 575 Broad Hollow Road Melville, NY 11747

TEL: (631) 694-3040 FAX: (631) 420-8436 Website: www.pacelabs.com

Sample Receipt Checklist

Client Name: PACE	-NY				Date and	Time Received:	4/14/2016 10:30:00 AM
Work Order Number:	1604D11	RcptNo: 1			Received	by: Palge Dohe	rty
Completed by:	Paige Do	rorts	<u>-</u>	Revi	ewed by: C	attlinT	Panzarella
Completed Date:	4/14/2016_11:21:49	AM		Revi	ewed Date:	4/15/201	6 1:20:59 PM
Carrier name: FedE	×						
Chain of custody pres	ent?		Yes	V	No 🗆		
Chain of custody sign	ed when relinquished a	nd received?	Yes	V	No 🔲		
Chain of custody agre	es with sample labels?		Yes	V	No 🛄		
Are matrices correctly	identified on Chain of d	custody?	Yes	V	No 🗔		
Is it clear what analys	es were requested?		Yes	~	No 🖳		
Custody seals intact of	on sample bottles?		Yes		No 🗀	Not Present	✓
Samples in proper con	ntainer/bottle?		Yes		No 🗔		
Were correct preserva	atives used and noted?		Yes	V	No 🗔	NA	
Preservative added to	bottles:			-	_		
Sample Condition?			Intact	~	Broken 🖳	Leaking	
'	me for indicated test?		Yes	=	No 📙		
	complete (ID, Pres, Da	ate)?	Yes		No 📙		
All samples received	within holding time?		Yes		No 🗀		
Was an attempt made	e to cool the samples?		Yes		No 🔲	NA	
All samples received	at a temp. of > 0" C to 6	5.0° C?	Yes	V	No 🗔	NA	
	erature is outside of rar	_		prima			
Sample Temp, taken	and recorded upon rece	eipt?	Yes	V	No 📙	To 0).9°
Water - Were bubbles	s absent in VOC vials?		Yes		No 🖳	No Vials	
Water - Was there Ch	niorine Present?		Yes	Ц	No 📙	NA	
Water - pH acceptable	e upon receipt?		Yes		No 🗔	No Water	
Are Samples conside	red acceptable?		Yes	V	No 🗌		
Custody Seals preser	nt?		Yes	V	No 🗔		
Airbill or Sticker?			Air Bill	V	Sticker 🗆	Not Present	
Airbill No:			6661 5	913 5	697		
Case Number:	SDG	:		;	SAS:		
Any No response sho	ould be detailed in the c	omments section	below, if app	licable			
Client Contacted?	Yes No	✓ NA	Person Cont	acted	0.679		
Contact Mode:	Phone:	Fax:	Email:		In Person:		
Client Instructions:							
Date Contacted:		Contac	ted By:				
Regarding:							
Comments:							
CorrectiveAction:							





WorkOrder: 1604D11

Certifications

S TATE	CERTIFICATION#
NEW YORK	10478
NEWJERSEY	NY158
CONNECTICUT	PH-0435
MARYLAND	208
MAS S ACHUS ETTS	MNY026
NEW HAMPS HIRE	2987
RHODE IS LAND	LAO00340
PENNS YLVANIA	68-00350

Page 25 of 25

PACE-LI

2 90 Technology Drive Scheneclasy, NY 12308 I.RF # 1604029 Technology Drive Scheneclasy, NY 12308 I.RF # 1604029 Technology Drive Scheneclasy, NY 12308 Technology Drive Scheneclasy, NY 12308 Technology Drive Scheneclasy, NY 12308 Technology Drive Scheneclasy, NY 12308 Technology Drive Scheneclasy, NY 12308 Technology Drive Scheneclasy, NY 12308 Technology Drive Scheneclast Control Technology Drive Scheneclast Cont	CHAIN OF CUSTODY REC	SUSTO	DY RE Jervio	CORD Ses, Ir		PAGE 1 OF 1		DisPo	SAL REQU	EQUIREMENTS: (To be filled RETURN TO CLIENT DISPOSAL BY RECEIVING LAB	S: (To be the second	DISPOSAL REQUIREMENTS: (To be filled in by Cilent) RETURN TO CLIENT DISPOSAL BY RECEIVING LAB	ent)
Total Control Total Contro	schnology Drine (518) 346	ive, Sche 3-4592	enectady Fax (5	, NY 12 18) 381-(308 3055	LRF # 16040239 (LAB US		Additional Call for de	charges Incum	HIVAL BY F	(ECEIVING	LAB or archival.	
16640239 16640239	S TO BE SENT TO:			ROJECTIMPRO	JECT NAME:			ENTER ANA	LYSIS AND	METHOD N	UMBER RE	ľ	
10 - 10 - 10 - 10 - 10 - 10 - 10 - 10				16040239			PRESERVATIVE COL	ij				\neg	ESERVATIVE KEY
First Annual Leachate				OCATION (CIT)	(/STATE) ADD	RESS:	BOTTLE TYPE.						NCE.
EMI ANNUAL LEACHATE	NGER:						BOTTLE SIZE:		+	1	1	<u></u>	<u> </u>
EMI ANNUAL LEACHATE	Farmer			<u>۲</u>			ERS	<u> </u>	\	<u></u>	\	,	HNO3
Consistent of the presentation with the pr	C: CLF SEMI AN	NUAL LE	ACHATE	RECURRED TURI	N AROUND TI				600	(2 000) ET	(sea)	4 10 (- NaOH - Zn. Acetate
Compared Presservation Not Name Of Columers IF USED: Column								1000	SOJA	V. Br.	0	,	- MeOH
Challese Farme@pacabaticon	D,AG,CR,CU,PB,NLZN. SAI SCHENECTADY LAB.	APLE PRESERV	1	AME OF COUR	IEA (IF USED)	•	_	(4 ₀₀₀	C MOS C	LOJIJS	۵،۵	. 8	Other (Na2503)
House Januaring precided com GRAB SAMPLE ID 2		Chelsea Famer	Spacelabs com			LAB	<u> </u>	\	\	0	\		
DATE TIME MATRIX COMP (LAB USE ONLY)		Nicole Johnson	pacelabs com		GRAB/	SAMPLE ID	/ / / / / / / / / / / / / / / / / / /	\	\	\	<u> </u>	200	1
4/12/16 13:15 L GRAB AT08485 1	SAMPLE ID	DATE	TIME	MATRIX	COMP	(LAB USE ONLY)	+	+	+	1	+	11(1/1/9/1	W.
4/12/16 13:15 L GRAB AT08485 1	hi	4/12/16	13:10	٦	COMP	AT08484	×	+	+	+	1	11/1/2/11	
TEMP- 1 COC TAPE		4/12/16	13:15	7	GRAB	AT08485	-	1		×			
TEMP 1 COC TAPE (**) N PROPERLY PRESERVED: (**) N OTHER NOTES. Analysis Report (LEVEL-2) EDG TEMP 1 COC DISCREPANCIES: (**) N RELABORATIVE SIGNATURE SI					İ					1			
TEMP: 1 COC TAPE. (Y) N TEMP: 1 COC DISCREPANCIES: Y N TEMP:													
TEMP 1 COC TAPE. (**) N RECOVO WITHOUTHING TIMES: (**) N RELINOUSHEED BY RECOVORS RECOVED BY RECEIVED										-			
TEMP 6 COC TAPE. (**) N RECYD WITHOUTH THESE (**) N RELINOUSHEES. (**) N RECEIVED BY N													
TEMP 1 COC TAPE. (Y) N RECEIVED: (Y) N RECEIVED THATES. (Y) N RECEIVED BY RECE													
TEMP 6 COC TAPE. (**) N RECOVER TO NOTIFIE WITHOUTHING TABLES. (**) N RELINOLISHED BY RECOVER TO NOTIFIE WAS RECOVED BY A RECOVER TO NOTIFIE WAS RECOVED BY RECOVED BY A RECOVED BY RECOVED BY A RECOVED BY RECOV													
TEMP 6 COC TAPE. (**) N PROPERLY PRESERVED: (**) N RELMOLASHED BY RECEIVED BY N RELMOLASHED BY RECEIVE								(
THE COURT OF THE COLOUR CONTROL OF THE CONTROL OF T		- 1		COC TAPE:	1		PROPERLY PRESERVED	9	-	OTHER N	OTES: Analytic	38 Report (LEVEL-2)	EDO: Excel Standard
SECUNDE TO SECUNDE TO SECUNDED BY RECEIVED	L			COC DISCREPA	MCIES:	×	RECVD WA HOLDING TIS	\				8	
AND STREET COMPANY CONFIDENCE PROMETER STREET CONFIDENCE PROMETER	ACREM OR LEWING.)				NELEWOURHED BY	RECEIVED	٠,		LINGUISHED BY	1		FD 844
PRINTED NAME PRINT	SAM	SIGNATURE	١.	1	SUGMATURE		Think I	net	SIGNATURE				
$\frac{1}{1}$ company company company $\frac{1}{1}$	" in it	V I A.	1		PRINTED NAME		10 12111	uthy	PRINTED NAME			WITED NAME	
OATETIME DATETIME DATETIME DATETIME	Didi/A	COMPANY			COMPANY		DOU A MANAGED	17	COMPANY		8	ALPANIT.	
	>	DATEJTIME			DATEMBE		12	111	DATE/TIME		ă	TETTIME	
	' ''	•						2					

New York Office	Office	CHAIN-OF-CUSTODY / An	CHAIN-OF-CUSTODY / Analytical Request Document
,	2190 Technology Dr. Scheneciady, NY 12308	The Chain-of-Custody is a LEGAL DOCUMENT,	The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.
/ ways paceses com (518) 346-4592	1592		
	Section B	Section C	160402391 (41) W Pege: 1 of 1
Required Caesti Internation: Company: Barton & Loguidice	Report To: Barton & Loguidice	Attention: Barton & Loguidice	REGULATORY AGENOV
Address:	Copy To:	Company Name:	L' NPDES L' GROUND WATER L' DRINKING WATER
		Address:	LUST FACRA COTHER
Email To:	Purchase Order No.	Pace Quote Reference: 7267	STE T GA TH THE THE THE
Phone: Fac:	Project Name: CLF Semi Avnual Leather	Pace Project Manager. Chalsea Farmer	LOCATION T OH I SC I MI COTHER
Standard	Project Number:	Pace Profile \$:	Fithered (VPA)
Section 1 SALTER Codes Section 1 SALTER CODE	dř	⊢	papantaly sav
SAMPLE ID WATER IN WA	ATTRIX CODE MARIE TYPE SAR STAN STAN STAN STAN STAN STAN STAN STAN	E S SOUTSINGS SOUTSINGS SOUTSINGS	9/3/8/8/ 8/8/8/
UNIQUE	m	DATE TIME	
Leachide		4 13 3 x x x	7848cta
	9	1 512	2343c14
٠	—		
77			
5			
ti di			
6.			
STEENED BUDIEDS	RELINGUISHED BY AFF LIAT ON	DATE TILE	ACCEPTED BY /AFFL'ATION DATE TIME SAMPLE CONDITIONS
	May Call	2-01/ SOU 11-1.	\$ 3/2/16 14:05 325 E
) V A
			NVA NVA NVA
	!		NV
	GAAG MERI		o fin °C ved on
	SIGNA	SIGNATURE OF SAMPLER:	DATE Speed Tearling IVE U/17 //L. Sealed Sea
			a. Elle/Al COOhen 4 2984ar08/22 len/2005

<16040239P2>

Sample Condition Upon Receipt

CLIENT NAME:

KAN Ameria Cockets None Temp should be above freezing to 6"C 름 BAR-ROC No 0 Blue 🗆 Z. Lot # of added preservative: Line-Out (Includes Copying Shipping Documents and verifying sample pH): INTACT: Yes D PROJECT: CLF ICE USED: Wet对 COOLER TEMPERATURE ("C): Temperature is Acceptable? No P ₹ Other o Initial when completed: CUSTODY SEAL PRESENT: Yes 10. 1 12. Ë Ä 5. Other None #122087967 □ YMO] ¥¥ Kar NW. **₹ ₹** Pace of å 흽 ş 8 흥 Š 學場 3 100 ŝ å 를 Š å Bubble Bags ශූ Exceptions that are not checked: TOC, VOA, Subcontract Analyses IR Gun 03/80 No 🗅 Yes D ØYes. N. - A SYes. Zi Xi Client a Ż, 4 DYes O Yes Filtered volume received for Dissolved tests: Dves 7 28 C) All containers needing preservation have been All containers needing preservation are in compliance with EPA recommendation: Includes date/time/ID/Analysis PACKING MATERIAL: Bubble Wrap o BIOLOGICAL TISSUE IS FROZEN: Yes a Sampler Name / Signature on COC: Samples Arrived within Hold Time: Rush Turn Around Time Requested UPSa Short Hold Time Analysis (<72hr): rip Blank Custody Seals Present: Headspace in VOA Vials (>6mm): Chain of Custody Relinquished: THERMOMETER USED: #164 Chain of Custody Filled Out: - Pace Containers Used: Sample Receipt form filled in: Chain of Custody Present: Sample Labels match COC: Correct Containers Used: COURIER: FedEx □ N Pace Trip Blank Lot #: Sufficient Volume: **Frip Blank Present:** Containers Intact: **COMMENTS:**

Document Controls F-NY-C-034-rev.D0 (15July2015)

Log In (Includes notifying PM of any discrepacies and documenting in LIMS) Labeling (Includes Scanning Bottles and entering LAB IDs into pH logbook):

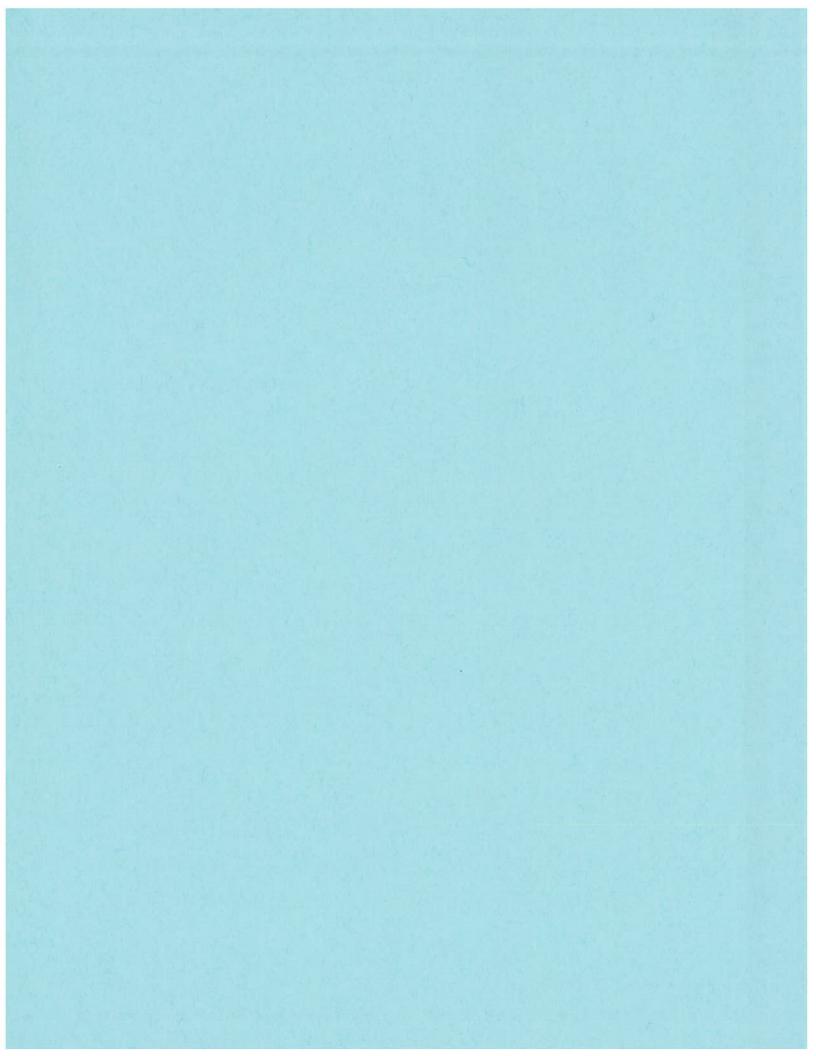
16040239 - Page 66 of 68

				<u>ş</u>
Tap Water / Surface W	ater / Wastewate	r Field Log		
Client: Barton and Logu			Sampler (print):	Matt Broker MATO
Project: CLF Semi Annua	al Leachate		Signature:	14FO = 2
Date: 4	/12/16			
Location Leachate	·	TIME \$	AMPLED 1년5	PACE ID. NO.
Flow <u>n/a</u>	gallons	WEATH	ER CONDITION:	7° (cloudy
TEMPERATURE n/a	c			
PH <u>7,27</u>	STD.UNITS	APPEAF	RANCE / OBSERVATI	ons chart usa slight oder
SPEC. COND. n/a	us			, ,
TURBIDITY n/a	NTU			
EH <u>n/a</u>	mV	IF TEST	ING FOR CYANIDE:	IF TESTING FOR PHENOLICS:
SULFITE <u>n/a</u>	MG/L	CHLORIN	E R <u>ES.</u>	CHLORINE RES.
DIS.OXYGEN n/a	MG/L	SULFIDE		
Location		TIME S	AMPLED	PACE ID. NO.
FLOW	gellons	WEATH	ER CONDITION:	
TEMPERATURE	с			
PH	STD.UNITS	APPEAF	RANCE / OBSERVATI	ONS
SPEC. COND.	uSuS			
TURBIDITY	NTU			
EH	mV	IF TEST	ING FOR CYANIDE:	IF TESTING FOR PHENOLICS:
SULFITE	MG/L	CHLORIN	E RES.	CHLORINE RES.
DIS.OXYGEN	MG/L	SULFIDE	15	
Location		TIME SA	MPLED	PACE ID. NO.
FLOW	gallons	WEATH	ER CONDITION:	
TEMPERATURE	с			
PH	STD UNITS	APPEAF	RANCE / OBSERVATION	ONS
SPEC. COND.	uS			
TURBIDITY	NTU NTU			
EH	mV	IF TEST	ING FOR CYANIDE:	IF TESTING FOR PHENOLICS:
SULFITE	MG/L	CHLORINI	E RES.	CHLORINE RES.
DIS.OXYGEN	MG/L	SULFIDE		
Location		TIME SA	MPLED	PACE ID. NO.
FLOW	gations	WEATH	ER CONDITION:	
TEMPERATURE	с			
PH	STD.UNITS	APPEAF	ANCE / OBSERVATION	ONS
SPEC. COND.	uS			
TURBIDITY	<u></u> NTU			
EH	mv	IF TEST	ING FOR CYANIDE:	IF TESTING FOR PHENOLICS:
SULFITE	MGAL	CHLORIN	RES.	CHLORINE RES.
DIS.OXYGEN	MG/L	SULFIDE	<u> </u>	

PACE ANALYICAL INC. FIELD CALIBRATION SHEET

DATE:	4/12/16			SITE:	CLF	
TECHNICIAN:		r		WEATHER:	CLF 41°F clovely	
		30			,	
INSTRUMENT:						
	PH			meter II 6PFC		_
	CONDUCTIV	/ITY		meter II 6PFC		_
	TEMPERAT			meter II 6PFC	Ce Commonwealth	
	DISSOLVED	OXYGEN	Sper Scienti			
	TURBIDITY		Hanna HI 98	703		_
INSTRUMENT	STANDARD	INTIAL	ADJUSTED		NOTES	
ANALYTE		READING	READING			
Ph	4.00	4.04	4.00	927		
	7.00	7.02	7.00	926		-
	10.00		10.00			
						72
Conductivity						
Conductivity	7.7		1			
		2				
			ļ <u></u>		<u> </u>	
Turbidity						
					K) X	
					84	
					ě	
NOTES:			-			
						





SEMI-ANNUAL COMPLIANCE MONITORING REPORT (Page 1 of 2)

Permittee:	Montgome	ery County		·			
Address	6 Park Str	reet , Fonda, Nev	v York 1206	8-1500			
Sampling Point Location	Eastern L	andfill					
Contact Person:	Paul Clay	bum, Commissio	ner				
This report for the period ending: (circle	one)		June	: 1	Dec. 1	,	2016
<u>Parameter</u>		Max Daily Concentration		nple Type (cle one)	Month/Day of Sample		Result
pH (SU)		-	grab	composite	10/7/2016	100	7.22
Biochemical Oxygen Demand, B	OD (mg/l)		grab	composite	10/7/2016		13
Chemical Oxygen Demand, COD) (mg/l)	-	grab	composite	10/7/2016		161
Total Suspended Solids, TSS (m	g/l)	200 mg/l	grab	composite	10/7/2016	-	38-3
Oil & Grease (mg/l)		••	grab	composite	10/7/2016		< 50
Chromium, total (mg/l)		10 mg/l	grab	composite	10/7/2016		< 0.010
Copper, total (mg/l)		1.2 mg/l	grab	composite	10/7/2016	-	< 0.025
Lead, total (mg/l)		1.0 mg/l	grab	composite	10/7/2016		< 0.005
Nickel, total (mg/l)		5.0 mg/l	grab	composite	10/7/2016	D 4400	0.0497
Zinc, total (mg/l)		1.0 mg/i	grab	composite	10/7/2016		< 0 020
Cyanide, total (mg/l)		1.0 mg/l	grab	composite	10/7/2016		< 0.010
			arah	composite			

l, Paul Clayburn, Commissioner of Montgomery County Public Works, certify that the information contained (print name & little)

herein is accurate.

Signature:

Date: ____

SEMI-ANNUAL COMPLIANCE MONITORING REPORT Page 2 of 2

Permittee:	Montgomery County		<u></u>		
Address	6 Park Street , Fonda, N	New York	c 12068-1500		
Sampling Point Location:	Eastern Landfill				
Contact Person:	Paul Claybum, Commis	sioner			
This report for the period endi		June	÷1 (Dec. 1	2016
<u>Parameter</u>	Max Daily Concentration		nple Type rcle one)	Month/Day of Sample	Result
Arsenic, lotal (mg/l)	0.5 mg/l	grab	composite	10/7/2016	0 0137
Cadmium, total (mg/l)	5.0 mg/l	grab	composite	10/7/2016	< 0.0025
Hexavalent Chromium, total (mg/l) 5 mg/l	grab	composite	10/7/2016	< 0.0400
Mercury, total (mg/L)	0.10 mg/l	grab	composite	10/7/2016	< 0 00020
Silver, free (mg/l)	0.5 mg/l	grab	composite	10/7/2016	< 0.010
Phenolics, total (mg/l)	**	grab	composite	10/7/2016	0 0319
bis (2-Ethylhexyl) phthalate (ug/l)	grab	composite	10/7/2016	< 5.0

I, Paul Clayburn, Commissioner of Montgomery County Public Works , certify under penalty of law (print name & title)

that this document and all attachments were prepared under my direction or supervision in accordance with a system desgined to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significate penalties and imprisonment for knowing violations.

Signature

Date:

11/13/16



Pace Analytical e-Report

Report prepared for: BARTON AND LOGUIDICE 11 CENTRE PARK SUITE 203 ROCHESTER, NY 14614 CONTACT:

Project ID: ELF SEMI ANNUAL LEACHATE

Sampling Date(s): October 07, 2016

Lab Report ID: 16100130

Client Service Contact: Nick Nicholas (518) 346-4592

Analysis Included:

Total Phenolics E420.4 - Sub ALS Misc Field Analysis SVOCs (B/N) E8270D - Sub Pace LI COD E410.4 - Sub Pace LI Total Cyanide SM4500-CN-E - Sub Pace LI

Mercury E7470A - Sub Pace LI Metals E200.7 - Sub Pace LI

Oil and Grease E1664B - Sub Pace LI BOD SM5210B Hexavalent Chromium (7196A)

Total Suspended Solids SM2540D

Test results meet all National Environmental Laboratory Accreditation Conference (NELAC) requirements unless noted in the case narrative. The results contained within this 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 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 | Schencetady, NY 12308 Phone: 518.346.4592 | internet: www.pacelabs.com

01 2016

(100100 B 1 5

This page intentionally left blank.

C100120 B 3 C95

Table of Contents

Section 1: CASE NARRATIVE	. 4
Section 2: QUALIFIERS	6
Section 3: SAMPLE CHAIN OF CUSTODY	8
Section 4: SAMPLE RECEIPT	12
Section 5: Wet Chemistry - TSS	14
Section 6: Wet Chemistry - Hexavalent Chromium	16
Section 7: Wet Chemistry - BOD	18
Section 8: Field Analysis	20
Section 9: Quality Control Samples (Field)	22
Section 10: Quality Control Samples (Lab)	25
Section 11: Subcontract Analysis	32

CASE NARRATIVE

CASE NARRATIVE

This data package (SDG ID: 16100130) consists of 2 water samples received on 10/07/2016. The samples are from Project Name: ELF SEMI ANNUAL LEACHATE.

This sample delivery group consists of the following samples:

Lab Sample ID	Client ID	Collection Date
AT27128	LEACHATE	10/07/2016 11:00
AT27129	LEACHATE	10/07/2016 11:05

Sample Delivery and Receipt Conditions

- (1.) Lab provided sample pickup service on 10/07/2016.
- (2.) All samples were received at the laboratory intact and within holding times.
- (3.) All samples were received at the laboratory properly preserved, if applicable.

Subcontract Analysis

Please see the ALS Environmental laboratory report for method and quality assurance details pertaining to Phenolics analysis.

Field Parameters Analysis

Analysis for pH were performed in the field.

Subcontract Analysis

Please see the Pace Analytical Services Long Island laboratory report for method and quality assurance details pertaining to submitted analysis.

Biological Oxygen Demand

Biological Oxygen Demand was performed by SM 5210B.

Hexavalent Chromium Analysis

Analysis for hexavalent chromium was performed by method SW-846 7196A.

Total Suspended Solids

Analysis for Total Suspended Solids (TSS) was performed by SM 2540D.

Respectfully submitted,

Nick Nicholas

Project Manager

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.

FNYQ033-rev.00 (10July2015)

.

SAMPLE CHAIN OF CUSTODY

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

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT, All relevant lields must be completed

<16100130P1>

5

Page:

Pace Project No. Lab I.D. intact N\Ø N\Y N/A N/ SaldmaS SAMPLE CONDITIONS ATATIAG آ در ATJ7128 Sealed Coole ØY N/A N/A N Custody OTHER 92| ₹ N/A N/ NØ. N/A Heceived on T DRINKING WATER O° ni qmaT ₹ REGULATORY AGENCY T)THER SC TIME 4511 ☐ GROUND WATER Š ᅙ DATE L. 41/4161 **RCRA** LOCATION × l.. SHE × ACCEPTED BY / AFFILIATION Filtered (Y/N) NPDES Requested UST × C FASS Åñ longriek CO.S.ai **35***k* HOPN 101 CON Barton & Loguidice Matt Broker *QS4 TIME pevieseidul 1155 SAMPLER NAME AND SIGNATURE 7267 8 **♦ OF CONTAINERS** SAMPLE TEMP AT COLLECTION PRINT Name of SAMPLER: DATE ace Quote Reference: 3017106 Pace Project Manager. Invoice Information: TIME ာသ 50[Сотрапу Nате: Pace Profile #: COMPOSITE END/GRAB Section C Attention: Address: COLLECTED DATE Ha K 되 RELINQUISHED BY / AFFILIATION ००2। भागवा TIME भू COMPOSITE ELF Semi Annual Leachale Report To: Barton & Loguidice DATE Required Project Information: GaGRAB CaCOMP ပ ø SAMPLE TYPE ¥ ¥ Purchase Order No.: Project Name: MATRIX CODE Project Number Section B Copy To: COOE · 表質量。2月20日有四日 Care howeres match match match match second houseld of ADDITIONAL COMMENTS Leachate Leachate (A-Z, 0-9 / .-) Sample IDs MUST BE UNIQUE Company: Barton & Loguidice SAMPLE ID Standard Required Client Information: Required Chent Information Section D Due Date/TAT: Requested Address: Email To: Phone: 12 വ ന ITEM #

e-File(ALLC020rev.4,29Mar06)22Jun2005

DATE Signed 10 1/16

U-10017

.... ...

SIGNATURE of SAMPLER:



Sample Condition Upon Receipt

87 - 87 - 84 - 84 - 84 - 84 - 84 - 84 -	 	و مے
Poly Herscham	10. 12. 13. completed: NA Lot # of added preservative: NR 14. 15.	Line-Out (Includes Copying Snipping Documents and documenting in LIMS): Log In (Includes notifying PM of any discrepacies and documenting in LIMS): Labeling (Includes Scanning Bottles and entering LAB IDs into pH logbook):
	Sauna Sauna	Includes Cop Iudes notify ncludes Sca
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		Line-Out (Log In (Inc Labeling (I
Myes Myes Myes Myes Myes Myes	Tables Values Values Cores Cores Cores Cores Cores Cores	5/16
Chain of Custody Present: Chain of Custody Filled Out: Chain of Custody Filled Out: Sampler Name / Signature on COC: Samples Arrived within Hold Time: Short Hold Time Analysis (<72hr): Rush Turn Around Time Requested: Sufficient Volume:	- Pace Containers Used: Containers Intact: Filtered volume received for Dissolved tessample Labels match COC: - Includes date/time/ID/Analysis All containers needing preservation have been checked: All containers needing preservation are in compliance with EPA recommendation: - Exceptions that are not checked: TOC, VOA, Subcotting Blank Present: Trip Blank Present: Trip Blank Custody Seals Present:	Sample Receipt form filled in: AA 10/10
	tt: (gives □No 1. shed: (gives □No 2. shed: (gives □No 4. on COC: (gives □No 4. old Time: (gives □No 6. №) c-72hr): (gives □No 6. №) equested: □ves (givo 7. equested: □ves (givo 8. equested: □ves (givo 9.	1.

rms u+ R 04100171

Tap Water/	bullace wat	<u>er / Wastewat</u>	ter Hield L	.og				
Client: Bard	on and Loguidie	ce		Sample	er (print):	Matt Bro	oker	
Project: ELF	Semi Annual L	eachate		Signat		MATO		
Date:	10/7	7/16		_		TOTAL S		
Location	Leachate		TIM	SAMPLED	llos	PACE II	D. NO.	104310
Flow	n/a	gallons	WE	THER CONDIT		16 ⁶ 5	(1) The second s	10 PSP 4.7% [6/2]
TEMPERATUR	п/а	c				10.1.5	27119	
PH	7.22	STD.UNITS	APP	EARANCE / OB	SERVATI	ONS	clarity orange	
SPEC. COND.	n/a	u\$					TIESTY EVENIN	
TURBIDITY	n/a	NTU						
≣H	n/a	mV	IF TE	STING FOR C	YANIDE:	IF TEST	ING FOR PHENOLI	CS+
SULFITE	n/a	MG/L		RINE RES.		CHLORIN		00.2
DIS.OXYGEN	n/a	MG/L	SULF				L 11 <u>C3.</u>	
Location				SAMPLED		PACE I) NO	
FLOW		gallons	WEA	THER CONDIT	ION:	_	O PERSON NAMED IN COLUMN NAMED	Established (25 Tal)
TEMPERATURE		C						
PH	<u> </u>	STD.UNITS	APP	ARANCE / OB	SERVATION	ONS		
SPEC. COND.		 uS			OL/W/W	5110	 	
TURBIDITY		NTU			· · · · · · · · · · · · · · · · · · ·			
EH		mV	IF TE	STING FOR C	VANIDE:	IE TEST	ING FOR PHENOLIC	
SULFITE		MG/L		INE RES.	TANDE.			5:
DIS.OXYGEN		MG/L	SULFII			_CHLORINI	- n <u>co.</u>	- 67
ocation				SAMPLED		PACE ID	NO	
LOW		gallons		HER CONDIT	ION:			63 New 1855
EMPERATURE		c						
°H		STD.UNITS	APPE	ARANCE / OBS	SERVATION			
PEC. COND.		uS				3110		
URBIDITY		—— NTU						
H		mV	IF TES	TING FOR CY	ANIDE:	JE TEST	NG FOR PHENOLIC	<u> </u>
ULFITE		MG/L		NE RES.	ANTOL.			P:
IS.OXYGEN		MG/L	SULFID			_CHLORINE	: HES.	
ocation				SAMPLED		PACE ID	NO	
LOW		gallons		HER CONDITI	ON:			
EMPERATURE		c	,					-
Н		STD.UNITS	APPE	RANCE / OBS	FRVATIC			\vdash
PEC. COND.		<u></u>					 	╂━━┫
JRBIDITY		— » NTU						
Н		mV	IF TES	TING FOR CY	ΔΝΙΩΕ	IE TEOT!	NO FOR PURSUE:	
JLFITE		MG/L		NE RES.	ANIDE:		NG FOR PHENOLIC	\$:
IS.OXYGEN		MG/L	SULFID			_CHLORINE	HES.	
				 			Page	20

SAMPLE RECEIPT

01 001¢ 1/100100 P 10 Cm



SAMPLE RECEIPT REPORT 16100130

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

CLIENT: BARTON AND LOGUIDICE

PROJECT: ELF SEMI ANNUAL LEACHATE

LRF: 16100130

REPORT: ANALYTICAL REPORT

EDD: YES LRF TAT: 1 WEEK RECEIVED DATE: 10/07/2016 11:55

SAMPLE SEALS INTACT: NA

SHIPPED VIA: PICK UP 1. 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: NA COOLER STATUS: CHILLED TEMPERATURE(S): 5.5 °C

COC DISCREPANCY: YES

COMMENTS:

SAMPLE PRESERVATION OF SUBCONTRACT ANALYSES NOT VERIFIED AT SCHENECTADY LAB

NO TAT WRITTEN ON COC.

CLIENT ID (LAB ID)	TAT-DUE Date	DATE-TIME SAMPLED	MATRIX	METHOD	TEST DESCRIPTION	QC REQUES
LEACHATE (AT27128)	1 WEEK 10-14-16	10/07/2016 11:00	Water	COD E410.4	COD E410.4 - Sub Pace LI	
	1 WEEK 10-14-16	10/07/2016 11:00	Water	EPA 7196A	Hexavalent Chromium (7196A)	
	1 WEEK 10-14-16	10/07/2016 11:00	Water	Mercury E7470A	Mercury E7470A - Sub Pace LI	
	1 WEEK 10-14-16	10/07/2016 11:00	Water	Metals E200.7	Metals E200.7 - Sub Pace LI	
	1 WEEK 10-14-16	10/07/2016 11:00	Water	SM 2540 D-97,-11	Total Suspended Solids SM2540D	
	1 WEEK 10-14-16	10/07/2016 11:00	Water	SM 5210B-01,-11	BOD SM5210B	
	1 WEEK 10-14-16	10/07/2016 11:00	Water	SVOCs (B/N) E8270D	SVOCs (B/N) E8270D - Sub Pace LI	
	1 WEEK 10-14-16	10/07/2016 11:00	Water	Total CN SM4500-CN-E	Total Cyanide SM4500-CN-E - Sub Pace L1	
	I WEEK 10-14-16	10/07/2016 11:00	Water	Total Phenolics E420.4	Total Phenolics E420.4 - Sub ALS	
LEACHATE (AT27129)	1 WEEK 10-14-16	10/07/2016 11:05	Water	Misc Field Analysis	Misc Field Analysis	
	1 WEEK 10-14-16	10/07/2016 11:05		Oil and Grease E1664B	Oil and Grease E1664B - Sub Pace LI	

¹ The 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.

Reporting Parameters and Lists

EPA 7196A - Hexavalent Chromium (7196A) - (mg/L)

Hexavalent Chromium

Misc Field Analysis - Misc Field Analysis - (mg/L)

Dissolved Oxygen (\$)

Flow (\$)

pH (\$)

Reduction Potential (\$)

Specific Conductance (\$)

Static Water Level (\$)

Sulfite (\$)

Temperature (\$)

Total Residual Chlorine (\$)

Turbidity (\$)

SM 2540 D-97,-11 - Total Suspended Solids SM2540D - (mg/L)

Total Suspended Solids

SM 5210B-01,-11 - BOD SM5210B - (mg/L)

Biochemical Oxygen Demand

01 2017

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.

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 4 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.

Wet Chemistry - TSS



Analytical Sample Results

Job Number: 16100130

Pace Analytical Services 2190 Technology Drive Schenectady, NY 12308 Phone: 518.346.4592

Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF SEMI ANNUAL LEACHATE

Client Sample ID: LEACHATE

Lab Sample ID: 16100130-01 (AT27128)

Collection Date: 10/07/2016 11:00

Sample Matrix: WATER

Received Date: 10/07/2016 11:55

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol. I	Final Vol.	Column	
Analysis 1:	2525	SM 2540D	10/12/2016 18:36	KM	NA	NA	NA NA	
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Facto	г Flags	File ID	
Total Susper	ided Solids	WQ001	38.3	12.1	4-17		2525	

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

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

Wet Chemistry - Hexavalent Chromium



Analytical Sample Results

Job Number: 16100130

Pace Analytical Services 2190 Technology Drive Schenectady, NY 12308 Phone: 518.346.4592

Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF SEMI ANNUAL LEACHATE

Client Sample ID: LEACHATE

Lab Sample ID: 16100130-01 (AT27128)

Collection Date: 10/07/2016 11:00

Sample Matrix: WATER

Received Date: 10/07/2016 11:55

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	199	SW-846 7196A	10/07/2016 17:27	JS	ΝA	NA	NA NA
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Facto	r Flags	File ID
Hexavalent C	Chromium	18540-29-9	ND	0.0400	1.02	U	199

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

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

Wet Chemistry - BOD



Analytical Sample Results

Job Number: 16100130

Pace Analytical Services 2190 Technology Drive Schenectady, NY 12308 Phone: 518.346.4592

17100130 0

Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF SEMI ANNUAL LEACHATE

Client Sample ID: LEACHATE

Lab Sample ID: 16100130-01 (AT27128)

Collection Date: 10/07/2016 11:00

Sample Matrix: WATER

Received Date: 10/07/2016 11:55

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol. F	Final Vol.	Column
Analysis 1:	699	BOD SM5210B	10/07/2016 15:59	KM	NA	NA	NA .
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Factor	r Flags	File ID
Biochemical Oxygen Demand NA			13	2.0	3.00		699

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



Analytical Sample Results

Job Number: 16100130

Pace Analytical Services 2190 Technology Drive Schenectady, NY 12308 Phone: 518 346 4593

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: ELF SEMI ANNUAL LEACHATE

Client Sample ID: LEACHATE

Lab Sample ID: 16100130-02 (AT27129)

Collection Date: 10/07/2016 11:05

Sample Matrix: WATER

Received Date: 10/07/2016 11:55

Percent Solid: N/A

F. 635	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	Field Test	Field Analysis	10/07/2016 11:05	TE	NA	NA	NA
Analyte		CAS No.	Result	PQL	Dilution Facto	r Flags	File ID
pH (\$)		NA	7.22 (pH)	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 (Field)



Quality Control Results Matrix Spike Sample (MS)

Job Number: 16100130

Pace Analytical Services 2190 Technology Drive Schenectady, NY 12308

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE Project: ELF SEMI ANNUAL LEACHATE

Client Sample ID: LEACHATE MS

Lab Sample ID: 16100130-01M (AT27128M)

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

Batch	ID Method		Date	Analyst	Init Wt./V	ol. Fina	ıl Vol.	Column	1
Analysis 1: 199	SW-846 7196A		10/07/2016 17:2	8 JS	NA		NA	NA	
Analyte	CAS No.	Re	esult (mg/L)	PQL	Dilution	Factor	Flags	File ID	
Hexavalent Chromium	18540-29-9		0.185	0.0400	1.06			199	
		Sample	Added :		is i	Limits			2.
Analyte Spiked	CAS No.	(mg/L)	(mg/L) (t	ng/L) %	Rec. Q	(%)			
Hexavalent Chromium	18540-29-9	0.00404	0.213 0.1	.85 8	5.2	85.0-115			

¹Qualifier column where 'e' 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 Matrix Spike Duplicate (MSD)

Job Number: 16100130

Pace Analytical Services 2190 Technology Drive Schenectady, NY 12308 Phone: 518.346.4592

Fax: 518.381.6055

Client: BARTON AND LOGUIDICE Project: ELF SEMI ANNUAL LEACHATE Client Sample ID: LEACHATE MSD

Lab Sample ID: 16100130-01K (AT27128K)

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

	Batch ID	Method		Dat	е	Analyst	Init V	Vt./Vc	l. Fin	al Vol.			Colum	1
Analysis 1:	199	SW-846 7196A		10/07/2016	17:28	JS	N	ΙA		NA			NA	
Analyte		CAS No.	Re	sult (mg/L	,)	PQL	Dilut	tion F	actor	Flags	*	File	ID _	
Hexavalent	Chromium	18540-29-9	f i	0.184		0.0400	1	1.06				199		
			-									Prec	ision	
A Inda Co		CAS No.	Sample	Added	MS		SD Rec.	\mathbf{o}^{1}	Limits (%)	M % F		RPD	O 1	Limits (%)
Analyte Sp	рікеа		(mg/L)	(mg/L)	(mg/			<u>v</u>					_	
Hexavalent C	hromium	18540-29-9	0.00404	0.213	0.184	84	1.6	*	85.0-115	85.	2	0.724		20

Qualifier column where 'e' 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 Samples (Lab)



Quality Control Results Method Blank

Job Number: 16100130

Pace Analytical Services 2190 Technology Drive Schenectady, NY 12308 Phone: 518.346.4592

Fax: 518.381.6055

Client: BARTON AND LOGUIDICE Project: ELF SEMI ANNUAL LEACHATE Client Sample ID: Method Blank (AT27001B)

Lab Sample ID: BLANK-96

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

	Batch ID	Method	Date	Analyst	Init Wt./Vol. F	inal Vol.	Column
Analysis 1:	2525	SM 2540D	10/12/2016 18:36	KM	NA	NA	NA
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Factor	r Flags	File ID
Total Suspen	ided Solids	WQ001	ND	2.90	1.00	U	2525

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: 16100130

Pace Analytical Services 2190 Technology Drive Schenectady, NY 12308 Phone: 518.346.4592

Fax: 518.381.6055

Client: BARTON AND LOGUIDICE Project: ELF SEMI ANNUAL LEACHATE

Client Sample ID: Lab Control Sample (AT27001L)

Lab Sample ID: LCS-96

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

ĺ								
١		Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
ı	Analysis 1:	2525	SM 2540D	10/12/2016 18:36	KM	NA	NA	NA

Analyte Spiked	CAS No.	Added (mg/L)	LCS (mg/L)	LCS % Rec.	\mathbf{Q}^{1}	Limits (%)	_	
Total Suspended Solids	WQ001	100	97.6	97.6		85.0-115		

Qualifier 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: 16100130

Pace Analytical Services 2190 Technology Drive Schenectady, NY 12308 Phone: 518.346.4592

Fax: 518.381.6055

Client: BARTON AND LOGUIDICE Project: ELF SEMI ANNUAL LEACHATE Client Sample ID: Method Blank (AT27128B)

Lab Sample ID: BLANK-58

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

60	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Colun	ın
Analysis 1:	199	SW-846 7196A	10/07/2016 17:26	JS	NA	NA	NA	
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Facto	r Flags	File ID	19
Hexavalent C	hromium	18540-29-9	ND	0.0400	1.00	Ŭ	199	

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: 16100130

Pace Analytical Services 2190 Technology Drive Schenectady, NY 12308 Phone: 518.346.4592

Fax: 518.381.6055

Client: BARTON AND LOGUIDICE Project: ELF SEMI ANNUAL LEACHATE

Client Sample ID: Lab Control Sample (AT27128L)

Lab Sample ID: LCS-58

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

1		2000	100					
		Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
ı	Analysis 1:	199	SW-846 7196A	10/07/2016 17:27	JS	NA	NA	NA.

Analyte Spiked	CAS No.	Added (mg/L)	LCS (mg/L)	LCS % Rec.	Limits Q' (%)	
Hexavalent Chromium	18540-29-9	0.200	0.206	103	90.0-110	

Qualifier column where 'e' 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: 16100130

Pace Analytical Services 2190 Technology Drive Schenectady, NY 12308 Phone: 518.346.4592

Fax: 518.381.6055

Client: BARTON AND LOGUIDICE Project: ELF SEMI ANNUAL LEACHATE Client Sample ID: Method Blank (AT27005B)

Lab Sample ID: BLANK-18

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

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	699	BOD - SM 5210B	10/07/2016 15:05	KM	NA	NA	NA NA
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Facto	r Flags	File ID
Biological C	xygen Demand	l NA	ND	0.200	1.00	U	699

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: 16100130

Pace Analytical Services 2190 Technology Drive Schenectady, NY 12308 Phone: 518.346.4592

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE Project: ELF SEMI ANNUAL LEACHATE

Client Sample ID: Lab Control Sample (AT27005L)

Lab Sample ID: LCS-18

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

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1	699	BOD SM5210B	10/07/2016 15:25	KM	NA	NA	NA .

Analyte Spiked	CAS No.	Added (mg/L)	LCS (mg/L)	LCS % Rec.	\mathbf{Q}^{1}	Limits (%)		
Biochemical Oxygen Demand	NA	198	212	107		84.6-115		

¹ Qualifier column where 'e' 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



Service Request No:R1610686

Mr. Nick Nicholas Pace Analytical Services - NY 2190 Technology Drive Schenectady, NY 12308

Laboratory Results for: 16100130

Dear Mr.Nicholas,

Enclosed are the results of the sample(s) submitted to our laboratory October 08, 2016 For your reference, these analyses have been assigned our service request number R1610686.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7475. You may also contact me via email at Lisa.Reyes@alsglobal.com.

Respectfully submitted,

Akeye

ALS Group USA, Corp. dba ALS Environmental

Lisa Reyes

Project Manager

ADDRESS 1565 Jefferson

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

PHONE +1 585 288 5380 FAX +1 585 288 8475

ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Rochester Laboratory 1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623 Phone (585) 288-5380 Fax (585) 288-8475 www.alsglobal.com



Client:

Pace Analytical Services - NY

Project:

16100130

Sample Matrix: Water

Service Request:R1610686

Date Received: 10/8/16

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II data deliverables, including results of QC samples analyzed from this delivery group. Analytical procedures performed by the lab are validated in accordance with NELAC standards. Any parameters that are not included in the lab's NELAC accreditation are identified on a "Non-Certified Analytes" report in the Miscellaneous Forms Section of this report. Individual analytical results requiring further explanation are flagged with qualifiers and/or discussed below. The flags are explained in the Report Qualifiers and Definitions page in the Miscellaneous Forms section of this report.

Sample Receipt

One water samples were received for analysis at ALS Environmental on 10/8/16. Any discrepancies noted upon initial sample inspection are noted on the cooler receipt and preservation form included in this data package. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at ≤6°C upon receipt at the lab except for aqueous samples designated for metals analyses, which are stored at room temperature.

General Chemistry Analyses:

No significant anomalies were noted with this analysis.

Approved by

Date 10/12/2016



SAMPLE DETECTION SUMMARY

CLIENT ID: LEACHATE	Lab ID: R1	610686	-001			
Analyte	Results	Flag	MDL	PQL	Units	Method
Phenolics, Total Recoverable	0.0319		0.0010	0.0020	mg/L	420.4



Sample Receipt Information

ALS Environmental—Rochester Laboratory 1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623 Phone (585) 288-5380 Fax (585) 288-8475 www.alsglobal.com

5 of 20

C100130 B 37

Client:

Pace Analytical Services - NY

Project:

16100130

Service Request:R1610686

SAMPLE CROSS-REFERENCE

SAMPLE#

CLIENT SAMPLE ID

R1610686-001

LEACHATE

DATE

TIME

10/7/2016

1100

6 of 20

Printed 10/12/2016 8:33:41 AM

Sample Summary



8 - Other (Na2SO3) OTHER NOTES: Analytical Report (LEVEL-2) 600: Excel Standard PRESERVATIVE KEY 5 - Zn. Acetate 7 - NaHSO4 3 - H2SO4 6 - MeOH 4 - NaOH 2 - HN03 0 - KCE 1 - HCL DISPOSAL REQUIREMENTS: (To be filled in by Client) REMARKS: RECEIVED BY R1610686 ENTER ANALYSIS AND METHOD NUMBER REQUESTED Additional charges incurred for disposal (if hazardous) or archival. DISPOSAL BY RECEIVING LAB ARCHIVAL BY RECEIVING LAB SICKATURE RETURN TO CLIENT RELIMOUNSHED BY RINTED NAME DATE/TIME COMPANY Call for details. I OLD PROPOSES (420,4) PRESERVATIVE CODE: RECVD WII HOLDING TIMES: PROPERLY PRESERVED: RECEIVED BY BOTTLE TYPE: BOTTLE SIZE (LAB USE ONLY) иливек об соитыиекз 10/14/2016 LRF # 16100130 (LAB USE ONLY) PAGE 10F 1 SAMPLE ID RELINQUISHED BY COMP | AT27128 GRAB AT27129 CCATION (CITY/STATE) ADDRESS REQUIRED TURN AROUND TIME: NAME OF COURIER (IF USED) NICHOLAS.NICHOLAS@PACELABS. PROJECTÄ/PROJECT NAME: RWIED NAME GRAB/ COMP Fax (518) 381-6055 NATESTIME 2190 Technology Ďrive, Schenectady, NÝ 12308 Telephone (518) 346-4592 Fax (518) 381-6055 Pace Analytical Services, Inc. COC DISCREPANCIES: 16100130 CHAIN OF CUSTODY RECORD MATRIX COC TAPE È CONTINGE (FC) CS > 11:00 11:05 MECENED BY Nicole Johnson@pacelabs com TIME 10/7/16 10/7/16 DATE DMPANY DATE/TIME SAMPLE PRESERVATION NOT VERIFIED AT TEMP SCHENECTADY LAB. RL= <5 PPB. B>1/ 91/4 CLIENT (REPORTS TO BE SENT TO): www.pacelabs.com RECEIVED BROKEN OR LEAKING ELECTRONIC RESULTS NICK NICHOLAS SAMPLE ID MBIENT OR CHILLED: ROJECT MANAGER: EACHATE EACHATE 9 GHATURE WITED AV Project: EF

Cooler Receipt and Preservation Check Form

R1610686	
Pace Analytical Services - NY	
16100130	
- 1 CHILIANA (II.) ITALA PILAL MALLANIA ARIBA	

Project/Clien	7.	ø			Fo	older 1	Num	ber_								IAKAA ABKIN BIIN I
-		1 1		_	_							X VE	LOCITY	Y CLIE	NT	
	,	/					5a	Percl	lorate	samples	have re	quired h	eadspac	ee?		N NA
2 Custody p	apers proper	y comp	leted	(ink, signe			5b	Did \	OA vi	als, Alk,c	r Sulfic	le have	sig* bul	obles?	Y	N (NA)
1							6	Wher	e did th	e bottles	origina	ite?	ALS	/ROC	C	ENT
4 Circle W	et Ice Dry	Ice G	el pac	ks pres	ent?	N	7	Soil \	OA re	ceived as	: E	lulk	Encore	5035	set (NA
3. Temperature	Readings	Date		7.7.	Time:	207	-	ID:	(R#7) IR#8		From	Temp	Blank	San	Tible Bottle
			49	7												
			-1/0	.6		-										
		_			V N		7	NT.	v	N		N	V	N	١,	y N
						-										
			_										Sa		Rule	
&Client A	nnroval to R	un San	nnles:	yice cond	Standing	Appro	—_· val	Clier					tified by	y:		
						_				4. k	1.					
All samples t	ield in storag s placed in sto	e locati orage k	ion: ocatio	_ <i>_/<-C</i> n:	XIL	by —	4	-	on -	10/5	<u>//C</u>					
•	•					_			aborn are 1447	101747165731	/ETTENIS	acera mess	- THE OF THE SERVICE	er Term	ot The	
Cooler Bre	akdown Dat	e · 1/	1)-6	-16	Time: 1	25/1		b	v: <i>Г</i>	.5						
1. W	ere all bottle	iabels c	omple	de (i.e. ana	alysis, prese	cryation	ı, etc.			G	ES					
2. D	id all bottle la	bels an	d tags	agree with	custody p	apers?				Ø	<u> </u>					
										6	ES				(iii)	
					abels, not le			_		Y	ES				UNIA.	7
			s / Tub	es Intact		Cani	isters	Press	urized	·	l'edlar(Bags I	nflated		O/A	1
			1 2 2	T -		F	1 c	11	<u> </u>	l Val	Lot	A dded	I E	inal	Ves	=A11
pН	Reagent	Yes	No	Lot Rec	eived	Exp	Sai	mpie i	ט		Lot	Auucu	1 1			
≥12	NaOH															n vester
≤2	HNO ₃					ļ					-					
≤2	H₂SQ4	X		(11 to b	- ICT		1				<u> </u>					
<4					7004	ļ	-			 					•	
	1									ĺ						
1	1	7					1						}			_
(-)		-	-		4 /	-	+-						• •		PM	OK to
		-	\ -		-	-	**	Not to	be tes	ted befor	e analy	sis – pł	I tested	and	Ađj	ust:
		**	**												_	
	-	EGD .		2 (2000)		•	•									
		his	× 1	1718												
Other Con	nments:													CLR	E 6	BUUK
														1		-
If out of Temperature, note packing/ice condition: & Client Approval to Run Samples: Standing Approval Client aware at drop-off Client notified by: All samples held in storage location: **P-CUZ** by On Approval On Approval Client aware at drop-off Client notified by: **All samples held in storage location: **P-CUZ** by On Approval On Approval On Approval On Approval At 1970 at 1970 at 1970 at 1970 The Policy of Approval On																
														⊢ —		
														ALS		REV
				()												
				11	ر إ											
PC Seco	ndary Revi	iew:					*sign	ifican	t air bu	ibbles: V	OA > :	5-6 mm	: WC >	1 in. dia	mete	r

8 of 20

P\INTRANET\QAQC\Forms Controlled\Cooler Receipt r12 doc

8/11/16



Miscellaneous Forms

ALS Environmental—Rochester Laboratory 1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623 Phone (585) 288-5380 Fax (585) 288-8475 www.alsglobal.com

9 of 20

C100120 B



REPORT QUALIFIERS AND DEFINITIONS

- U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
- J Estimated value due to either being a
 Tentatively Identified Compound (TIC) or
 that the concentration is between the MRL
 and the MDL. Concentrations are not verified
 within the linear range of the calibration. For
 DoD: concentration >40% difference between
 two GC columns (pesticides/Arclors).
- B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
- E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
- E Organics- Concentration has exceeded the calibration range for that specific analysis.
- D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
- * Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
- H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
- # Spike was diluted out.

- + Correlation coefficient for MSA is <0.995.
- N Inorganics- Matrix spike recovery was outside laboratory limits.
- N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
- S Concentration has been determined using Method of Standard Additions (MSA).
- W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
- P Concentration >40% (25% for CLP) difference between the two GC columns.
- C Confirmed by GC/MS
- Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).
- X See Case Narrative for discussion.
- MRL Method Reporting Limit. Also known as:
- LOQ Limit of Quantitation (LOQ)

 The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
- MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
- LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.
- ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.



Rochester Lab ID # for State Certifications1

Connecticut ID # PH0556	Maine ID #NY0032	New Hampshire ID #
Delaware Accredited	Nebraska Accredited	294100 A/B
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047	North Carolina #676	Virginia #460167

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to http://www.alsglobal.com/cn/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

ALS Laboratory Group

Acronyms

ASTM American Society for Testing and Materials

A2LA American Association for Laboratory Accreditation

CARB California Air Resources Board

CAS Number Chemical Abstract Service registry Number

CFC Chlorofluorocarbon CFU Colony-Forming Unit

DEC Department of Environmental Conservation

DEO Department of Environmental Quality

DHS Department of Health Services

DOE Department of Ecology
DOH Department of Health

EPA U. S. Environmental Protection Agency

ELAP Environmental Laboratory Accreditation Program

GC Gas Chromatography

GC/MS Gas Chromatography/Mass Spectrometry

LUFT Leaking Underground Fuel Tank

M Modified

MCL Maximum Contaminant Level is the highest permissible concentration of a

substance allowed in drinking water as established by the USEPA.

MDL Method Detection Limit
MPN Most Probable Number
MRL Method Reporting Limit

NA Not Applicable NC Not Calculated

NCASI National Council of the Paper Industry for Air and Stream Improvement

ND Not Detected

1 1 2 18 1

NIOSH National Institute for Occupational Safety and Health

POL Practical Quantitation Limit

RCRA Resource Conservation and Recovery Act

SIM Selected Ion Monitoring

TPH Total Petroleum Hydrocarbons

tr Trace level is the concentration of an analyte that is less than the PQL but

greater than or equal to the MDL.

ICIONISM B

ALS Group USA, Corp. dba ALS Environmental

Analyst Summary report

Client:

Pace Analytical Services - NY

Project:

16100130

Service Request: R1610686

Sample Name:

LEACHATE

Lab Code:

R1610686-001

Sample Matrix:

Water

Date Collected: 10/7/16

Date Received: 10/8/16

Analysis Method

Extracted/Digested By

Analyzed By

BBOWE

420.4

Printed 10/12/2016 8:34:09 AM

B 4 12 10 1 1

12 of 20

1 01 2017

Superset Reference:16-0000395847 rev 00

17100170 8 44 577



INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid	9030B
Soluble	£1
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual	SM 4500-CN-G
Cyanide	
SM 4500-CN-E WAD	SM 4500-CN-I
Cyanide	

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311)	3005A/3010A
extract	
6010 SPLP (1312) extract	3005A/3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/	DI extraction
353.2/ SM 2320B/ SM	
5210B/ 9056A Anions	

For analytical methods not listed, the preparation method is the same as the analytical method reference.



Sample Results

ALS Environmental—Rochester Laboratory 1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623 Phone (585) 288-5380 Fax (585) 288-8475 www.alsglobal.com

14 of 20

......



General Chemistry

ALS Environmental—Rochester Laboratory 1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623 Phone (585) 288-5380 Fax (585) 288-8475 www.alsglobal.com

15 of 20

1 01 2016

C100130 B ## ##

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:

Pace Analytical Services - NY

Project:

16100130

Sample Matrix:

Sample Name:

Water

LEACHATE

Lab Code:

R1610686-001

Service Request: R1610686

Date Collected: 10/07/16 11:00

Date Received: 10/08/16 09:05

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Phenolics, Total Recoverable	420.4	0.0319	mg/L	0.0020	1	10/11/16 09:30	



QC Summary Forms

ALS Environmental—Rochester Laboratory 1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623 Phone (585) 288-5380 Fax (585) 288-8475 www.alsglobal.com



General Chemistry

ALS Environmental—Rochester Laboratory 1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623 Phone (585) 288-5380 Fax (585) 288-8475 www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:

Pace Analytical Services - NY

Project:

16100130

Sample Matrix:

Sample Name:

Water

Method Blank

Lab Code:

R1610686-MB

. .

Service Request: R1610686

Date Collected: NA

Date Received: NA

Basis: NA

Inorganic Parameters

Analyte Name Method Result Units MRL Dil. Date Analyzed Q
Phenolics, Total Recoverable 420.4 0.0020 U mg/L 0.0020 1 10/11/16 09:30

Superset Reference: 16-0000395847 rev 00

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:

Pace Analytical Services - NY

Project:

16100130

Sample Matrix:

Water

Service Request: R1610686

Date Analyzed: 10/11/16

Lab Control Sample Summary General Chemistry Parameters

> Units:mg/L Basis:NA

Lab Control Sample R1610686-LCS

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Phenolics, Total Recoverable	420.4	0.0390	0.0400	97	90-110

Superset Reference: 16-0000395847 rev 00

1/100120 8 62 622





November 01, 2016

Nick Nicholas

2190 Technology Drive Schenectady, NY 12308

RE: Project: 16100130 B&L

Pace Project No.: 701593

Dear Nick Nicholas:

Enclosed are the analytical results for sample(s) received by the laboratory on October 08, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Cartlin Panyarella

Caitlin Panzarella caitlin.panzarella@pacelabs.com Project Manager

Enclosures

cc: Nicole Johnson



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.





CERTIFICATIONS

Project:

16100130 B&L

Pace Project No.:

701593

Long Island Cartification IDs

575 Broad Hollow Rd, Melville, NY 11747

New York Certification #: 10478 Primary Accrediting Body

New Jersey Certification #: NY158 Pennsylvania Certification #: 68-00350 Connecticut Certification #: PH-0435 Maryland Certification #: 208

Rhode Island Certification #: LAO00340 Massachusetts Certification #: M-NY026 New Hampshire Certification #: 2987

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.

Page 2 of 20

1 AT 501

n () o (n)



ANALYTICAL RESULTS

Project:

16100130 B&L

Pace Project No.: 701593

Date: 11/01/2016 01:32 PM

Sample: LEACHATE	Lab ID: 701	593001	Collected:	10/07/1	6 11:00	Received: 1	0/08/16 10:05	Matrix: Water	
Parameters	Results	Units	Repor	t Limit	DF	Prepared	Analyzed	CAS No.	Qua
200.7 Metals, Total	Analytical Meth	nod: EPA 20	00.7 Prepara	tion Met	hod: EP	A 200.7			
Arsenic	13.7	ug/L		10.0	1	10/14/16 10:30	10/18/16 03:2	1 7440-38-2	
Cadmium	<2.5	ug/L		2.5	1	10/14/16 10:30	10/18/16 03:2	1 7440-43-9	
Chromium	<10.0	ug/L		10.0	1	10/14/16 10:30	10/18/16 03:2	1 7440-47-3	
Соррег	<25.0	ug/L		25.0	1	10/14/16 10:30	10/18/16 03:2	1 7440-50-8	
Lead	<5.0	ug/L		5.0	1	10/14/16 10:30	10/18/16 03:2	1 7439-92-1	
Nickel	49.7	ug/L		40.0	1	10/14/16 10:30	10/18/16 03:2	1 7440-02-0	
Silver	<10.0	ug/L		10.0	1	10/14/16 10:30	10/18/16 03:2	1 7440-22-4	
Zinc	<20.0	ug/L		20.0	1	10/14/16 10:30	10/18/16 03:2	1 7440-66-6	
7470 Mercury	Analytical Meti	nod: EPA 74	470A Prepar	ation Me	thod: EF	PA 7470A			
Mercury	<0.20	ug/L		0.20	1	10/19/16 15:30	10/20/16 13:5	2 7439-97-6	
8270 MSSV	Analytical Meti	nod: EPA 8	270D Prepar	ration Me	thod: El	PA 3510C			
2,4-Dinitrotoluene	<5.0	ug/L		5.0	1	10/13/16 10:46	10/18/16 03:4	8 121-14-2	
2,6-Dinitrotoluene	<5.0	ug/L		5.0	1	10/13/16 10:46	5 10/18/16 03:4	8 606-20-2	
2-Chloronaphthalene	<5.0	ug/L		5.0	1	10/13/16 10:46	6 10/18/16 03:4	8 91-58-7	
2-Methylnaphthalene	<5.0	ug/L		5.0	1	10/13/16 10:46	6 10/18/16 03:4	8 91-57-6	
2-Nitroaniline	<5.0	ug/L		5.0	1	10/13/16 10:46	5 10/18/16 03:4	8 88-74-4	
3,3'-Dichlorobenzidine	<5.0	ug/L		5.0	1	10/13/16 10:46	5 10/18/16 03:4	8 91-94-1	
3-Nitroaniline	<5.0	ug/L		5.0	1	10/13/16 10:46	6 10/18/16 03:4	8 99-09-2	
4-Bromophenylphenyl ether	<5.0	ug/L		5.0	1	10/13/16 10:46	6 10/18/16 03:4	8 101-55-3	
4-Chloroaniline	<5.0	ug/L		5.0	1	10/13/16 10:40	3 10/18/16 03:4	8 106-47-8	
4-Chlorophenylphenyl ether	<5.0	ug/L		5.0	1	10/13/16 10:40	5 10/18/16 03:4	8 7005-72-3	
4-Nitroaniline	<5.0	ug/L		5.0	1		5 10/18/16 03:4		
Acenaphthene	<5.0	ug/L		5.0	1		5 10/18/16 03:4		
Acenaphthylene	<5.0	ug/L		5.0	1		5 10/18/16 03:4		
Anthracene	<5.0	ug/L		5.0	1		5 10/18/16 03:4		
Benzo(a)anthracene	<5.0	ug/L		5.0	1		5 10/18/16 03:4		
Benzo(a)pyrene	<5.0	ug/L		5.0	1		5 10/18/16 03:4		
Benzo(b)fluoranthene	<5.0	ug/L		5.0	1		5 10/18/16 03:4		
Benzo(g,h,i)perylene	<5.0	ug/L		5.0	1		5 10/18/16 03:4		
Benzo(k)fluoranthene	<5.0	ug/L		5.0	1		5 10/18/16 03:4		
Butylbenzylphthalate	<5.0	ug/L		5.0	1		5 10/18/16 03:4		
Carbazole	<5.0	ug/L		5.0	1		6 10/18/16 03:4		
Chrysene	<5.0	ug/L		5.0	1		6 10/18/16 03:4		
Di-n-butylphthalate	<5.0	ug/L		5.0	1		6 10/18/16 03:4		
Di-n-octylphthalate	<5.0	ug/L ug/L		5.0	1		6 10/18/16 03:4		
Di-n-octylphinalate Dibenz(a,h)anthracene	<5.0 <5.0	ug/L		5.0	1		6 10/18/16 03:4		
Dibenz(a,n)anunacene Dibenzofuran	<5.0 <5.0	ug/L ug/L	1	5.0	1		6 10/18/16 03:4		
Diethylphthalate	<5.0	ug/L		5.0	1		6 10/18/16 03:4		
7 1	<5.0 <5.0	ug/L		5.0	1		6 10/18/16 03:4		
Dimethylphthalate	<5.0 <5.0	ug/L ug/L		5.0	1		6 10/18/16 03:4		
Fluoranthene	<5.0 <5.0	_		5.0	1		6 10/18/16 03:4		
Fluorene		ug/L					6 10/18/16 03:4		
Hexachloro-1,3-butadiene	<5.0	ug/L		5.0	1				
Hexachlorobenzene	<5.0	ug/L 		5.0	1		6 10/18/16 03:4		
Hexachlorocyclopentadiene	<5.0	ug/L		5.0	1	10/13/16 10:4	6 10/18/16 03:4	10 //-4/-4	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.

1 01 2017



ANALYTICAL RESULTS

Project:

16100130 B&L

Pace Project No.: 701593

Sample: LEACHATE	Lab ID: 701	5 93001 Co	llected: 10/07/1	6 11:00	Received: 10	/08/16 10:05 M	latrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
8270 MSSV	Analytical Metr	od: EPA 8270D	Preparation Me	thod: El	PA 3510C			
Hexachloroethane	<5.0	ug/L	5.0	1	10/13/16 10:46	10/18/16 03:48	67-72-1	L2
Indeno(1,2,3-cd)pyrene	<5.0	ug/L	5.0	1	10/13/16 10:46	10/18/16 03:48	193-39-5	
Isophorone	<5.0	ug/L	5.0	1	10/13/16 10:46	10/18/16 03:48	78-59-1	
N-Nitroso-di-n-propylamine	<5.0	ug/L	5.0	1	10/13/16 10:46	10/18/16 03:48	621-64-7	
N-Nitrosodiphenylamine	<5.0	ug/L	5.0	1	10/13/16 10:46	10/18/16 03:48	86-30-6	
Naphthalene	<5.0	ug/L	5.0	1	10/13/16 10:46	10/18/16 03:48	91-20-3	
Nitrobenzene	<5.0	ug/L	5.0	1	10/13/16 10:46	10/18/16 03:48	98-95-3	
Phenanthrene	<5.0	ug/L	5.0	1	10/13/16 10:46	10/18/16 03:48	85-01-8	
Pyrene	<5.0	ug/L	5.0	1	10/13/16 10:46	10/18/16 03:48	129-00-0	
bis(2-Chloroethoxy)methane	<5.0	ug/L	5.0	1	10/13/16 10:46	10/18/16 03:48	111-91-1	
bis(2-Chloroethyl) ether	<5.0	ug/L	5.0	1	10/13/16 10:46	10/18/16 03:48	111-44-4	
bis(2-Ethylhexyl)phthalate	<5.0	ug/L	5.0	1	10/13/16 10:46	10/18/16 03:48	117-81-7	
Surrogates		•						
Nitrobenzene-d5 (S)	70	%.	35-114	1	10/13/16 10:46	10/18/16 03:48	4165-60-0	
2-Fluorobiphenyl (S)	71	%.	43-116	1	10/13/16 10:46	10/18/16 03:48	321-60-8	
p-Terphenyl-d14 (S)	46	%.	33-141	1	10/13/16 10:46	10/18/16 03:48	1718-51-0	
Phenol-d5 (S)	26	%.	10-110	1	10/13/16 10:46	10/18/16 03:48	4165-62-2	
2-Fluorophenol (S)	41	%.	21-110	1	10/13/16 10:46	10/18/16 03:48	367-12-4	
2-Chlorophenol-d4 (S)	70	%.	33-110	1	10/13/16 10:46	10/18/16 03:48	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	52	%.	16-110	1	10/13/16 10:46	10/18/16 03:48	2199-69-1	
410.4 COD	Analytical Met	nod: EPA 410.4	Preparation Me	thod: EF	A 410.4			
Chemical Oxygen Demand	161	mg/L	10.0	1	10/25/16 11:30	10/25/16 15:36		
SM 4500 CNE Cyanide, Total	Analytical Met	nod: SM22 4500	-CN-E Prepara	tion Met	hod: SM20/22 45	00-CN-C		
Cyanide	<10.0	ug/L	10.0	1	10/13/16 12:26	10/13/16 17:05	57-12-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.





ANALYTICAL RESULTS

Project:

16100130 B&L

Pace Project No.:

701593

Sample: LEACHATE

Lab ID: 701593002

Results

Collected: 10/07/16 11:05

Report Limit

Received: 10/08/16 10:05 Matrix: Water

Prepared

CAS No.

Qual

HEM, Oil and Grease

Parameters

Analytical Method: EPA 1664A

Units

Oil and Grease

<5.0 mg/L 5.0

1

10/19/16 16:29

Analyzed

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.

Page 5 of 20



Project:

16100130 B&L

Pace Project No.:

701593

QC Batch:

1296

QC Batch Method: **EPA 7470A** Analysis Method:

EPA 7470A

Analysis Description:

7470 Mercury

Associated Lab Samples:

701593001

Matrix: Water

METHOD BLANK: 8019 Associated Lab Samples:

701593001

Parameter

Units

Reporting Limit

Analyzed

Mercury

ug/L

< 0.20

Blank

Result

0.20 10/20/16 13:12

LABORATORY CONTROL SAMPLE:

Parameter

Spike Conc.

LCS Result

LCS % Rec % Rec Limits

Qualifiers

Mercury

Units ug/L

1

1.1

108

80-120

Qualifiers

75-125

MATRIX SPIKE SAMPLE:

Parameter

8021 Units

ug/L

701788001 Result

Spike Conc.

MS Result

0.89

MS % Rec % Rec Limits

Qualifiers

Mercury

SAMPLE DUPLICATE: 8022

Parameter

701788001 Result

Dup Result

RPD

Qualifiers

79

Mercury

Units ug/L

< 0.20

<0.20

< 0.20

1

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.

Page 6 of 20

Date: 11/01/2016 01:32 PM

1 01 3017



Project:

16100130 B&L

Pace Project No.:

701593

QC Batch:

738

EPA 200.7

Analysis Method:

EPA 200.7

QC Batch Method:

Analysis Description:

200,7 Metals, Total

Associated Lab Samples:

METHOD BLANK: 5329

Associated Lab Samples:

701593001

701593001

Matrix: Water

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Arsenic	ug/L	<10.0	10.0	10/18/16 01:55	
Cadmium	ug/L	<2.5	2.5	10/18/16 01:55	
Chromium	ug/L	<10,0	10.0	10/18/16 01:55	
Copper	ug/L	<25.0	25.0	10/18/16 01:55	
Lead	ug/L	<5.0	5.0	10/18/16 01:55	
Nickel	ug/L	<40.0	40.0	10/18/16 01:55	
Silver	ug/L	<10.0	10.0	10/18/16 01:55	
Zinc	ug/L	<20.0	20.0	10/18/16 01:55	

LABORATORY CONTROL SAMPLE:	5330					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Arsenic	ug/L	500	452	90	85-115	
Cadmium	ug/L	50	46.2	92	85-115	
Chromium	ug/L	250	230	92	85-115	
Copper	ug/L	250	236	94	85-115	
ead	ug/L	500	463	93	85-115	
lickel	ug/L	250	233	93	85-115	
Silver	ug/L	250	224	90	85-115	
line	ug/L	1000	933	93	85-115	

MATRIX SPIKE SAMPLE:	5332						
		701431001	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Arsenic	ug/L	10.0	500	468	92	70-130	
Cadmium	ug/L	4.6	50	50.2	91	70-130	
Chromium	ug/L	<10.0	250	233	93	70-130	
Copper	ug/L	506	250	732	90	70-130	
Lead	ug/L	14.2	500	473	92	70-130	
Nickel	ug/L	91.9	250	321	92	70-130	
Silver	ug/L	<10.0	250	231	93	70-130	
Zinc	ug/L	411	1000	1340	93	70-130	

SAMPLE DUPLICATE: 5331		701431001	Dup		
Parameter	Units	Result	Result	RPD	Qualifiers
Arsenic	ug/L	10.0	<10.0		

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.





Project:

16100130 B&L

Pace Project No.: 701593

SAMPLE DUPLICATE: 5331					
Parameter	Units	701431001 Result	Dup Result	RPD	Qualifiers
Cadmium	ug/L	4.6	4.2	9	
Chromium	ug/L	<10.0	<10.0		
Copper	ug/L	506	488	4	
Lead	ug/L	14.2	15.1	6	
Nickel	ug/L	91.9	87. 9	4	
Silver	ug/L	<10.0	<10.0		
Zinc	ug/L	411	394	4	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.

Date: 11/01/2016 01:32 PM

Page 8 of 20

12100130 8 20 233

1 01 0017



Project:

16100130 B&L

Pace Project No.: 701593

QC Batch:

596

EPA 3510C

Analysis Method:

EPA 8270D

QC Batch Method:

Analysis Description:

8270 Water MSSV

Associated Lab Samples:

Date: 11/01/2016 01:32 PM

701593001

METHOD BLANK: 4603

Matrix: Water

Associated Lab Samples: 701593001

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
2,4-Dinitrotoluene	ug/L	<5.0	5.0	10/18/16 02:26	
2,6-Dinitrotoluene	ug/L	<5.0	5.0	10/18/16 02:26	
2-Çhloronaphthalene	ug/L	<5.0	5.0	10/18/16 02:26	
2-Methylnaphthalene	ug/L	<5.0	5.0	10/18/16 02:26	
2-Nitroaniline	ug/L	<5.0	5.0	10/18/16 02:26	
3,3'-Dichlorobenzidine	ug/L	<5.0	5.0	10/18/16 02:26	
3-Nitroaniline	ug/L	<5.0	5.0	10/18/16 02:26	
4-Bromophenylphenyl ether	ug/L	<5.0	5.0	10/18/16 02:26	
4-Chloroaniline	ug/L	<5.0	5.0	10/18/16 02:26	
4-Chlorophenylphenyl ether	ug/L	<5.0	5.0	10/18/16 02:26	
4-Nitroaniline	ug/L	<5.0	5.0	10/18/16 02:26	
Acenaphthene	ug/L	<5.0	5.0	10/18/16 02:26	
Acenaphthylene	ug/L	<5.0	5.0	10/18/16 02:26	
Anthracene	ug/L	<5.0	5.0	10/18/16 02:26	
Benzo(a)anthracene	ug/L	<5.0	5.0	10/18/16 02:26	
Benzo(a)pyrene	ug/L	<5.0	5.0	10/18/16 02:26	
Benzo(b)fluoranthene	ug/L	<5.0	5.0	10/18/16 02:26	
Benzo(g,h,i)perylene	ug/L	<5.0	5.0	10/18/16 02:26	
Benzo(k)fluoranthene	ug/L	<5.0	5.0	10/18/16 02:26	
bis(2-Chloroethoxy)methane	ug/L	<5.0	5.0	10/18/16 02:26	
bis(2-Chloroethyl) ether	ug/L	<5.0	5.0	10/18/16 02:26	
bis(2-Ethylhexyl)phthalate	ug/L	<5.0	5.0	10/18/16 02:26	
Butylbenzylphthalate	ug/L	<5.0	5.0	10/18/16 02:26	
Carbazole	ug/L	<5.0	5.0	10/18/16 02:26	
Chrysene	ug/L	<5.0	5.0	10/18/16 02:26	
Di-n-butylphthalate	ug/L	<5.0	5.0	10/18/16 02:26	
Di-n-octylphthalate	ug/L	<5.0	5.0	10/18/16 02:26	
Dibenz(a,h)anthracene	ug/L	<5.0	5.0	10/18/16 02:26	
Dibenzofuran	ug/L	<5.0	5.0	10/18/16 02:26	
Diethylphthalate	ug/L	<5.0	5.0	10/18/16 02:26	
Dimethylphthalate	ug/L	<5.0	5.0	10/18/16 02:26	
Fluoranthene	ug/L	<5.0	5.0	10/18/16 02:26	
Fluorene	ug/L	<5.0	5.0	10/18/16 02:26	
Hexachloro-1,3-butadiene	ug/L	<5.0	5.0	10/18/16 02:26	
Hexachlorobenzene	ug/L	<5.0	5.0	10/18/16 02:26	
Hexachlorocyclopentadiene	ug/L	<5.0	5.0	10/18/16 02:26	
Hexachloroethane	ug/L	<5.0	5.0	10/18/16 02:26	
Indeno(1,2,3-cd)pyrene	ug/L	<5.0	5.0	10/18/16 02:26	
Isophorone	ug/L	<5.0	5.0	10/18/16 02:26	
N-Nitroso-di-n-propylamine	ug/L	<5.0	5.0	10/18/16 02:26	
N-Nitrosodiphenylamine	ug/L	<5.0	5.0	10/18/16 02:26	
14 THE COORDINATION OF THE PROPERTY OF THE PRO	ng.r	-0.0	5.0	TOTTOTIO VELEV	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.

17100120 B



Project:

Pyrene

p-Terphenyl-d14 (S)

Phenol-d5 (S)

16100130 B&L

Pace Project No.:

701593

METHOD BLANK: 4603 Associated Lab Samples:

701593001

Matrix: Water

Reporting Blank Qualifiers Result Limit Analyzed Parameter Units 5.0 10/18/16 02:26 <5.0 ug/L Naphthalene <5.0 5.0 10/18/16 02:26 ug/L Nitrobenzene <5.0 5.0 10/18/16 02:26 Phenanthrene ug/L ug/L <5.0 5.0 10/18/16 02:26 1,2-Dichlorobenzene-d4 (S) %. 49 16-110 10/18/16 02:26 %. 87 10-123 10/18/16 02:26 2,4,6-Tribromophenol (S) 69 33-110 10/18/16 02:26 2-Chlorophenol-d4 (S) %. 43-116 10/18/16 02:26 %. 69 2-Fluorobiphenyl (S) %. 45 21-110 10/18/16 02:26 2-Fluorophenol (\$) 72 35-114 10/18/16 02:26 Nitrobenzene-d5 (S) %. 33-141 10/18/16 02:26 %. 81

%.

32

10-110 10/18/16 02:26

LABORATORY CONTROL SAMPLE:	4604					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
2,4-Dinitrotoluene	ug/L	50	46.4	93	55-122	
2,6-Dinitrotoluene	ug/L	50	49.9	100	56-12 1	
2-Chloronaphthalene	ug/L	50	39.3	79	41-122	
2-Methylnaphthalene	ug/L	50	32.8	66	31-123	
2-Nitroaniline	ug/L	50	36.7	73	48-124	
3,3'-Dichlorobenzidine	ug/L	50	44.3	89	20-132	
3-Nitroaniline	ug/L	50	46.4	93	46-112	
4-Bromophenylphenyl ether	ug/L	50	43.0	86	53-121	
4-Chloroaniline	ug/L	50	36.2	72	25-133	
4-Chlorophenylphenyl ether	ug/L	50	40.2	80	53-116	
4-Nitroaniline	ug/L	50	52.6	105	51-113	
Acenaphthene	ug/L	50	40.8	82	50-116	
Acenaphthylene	ug/L	50	40.0	80	50-109	
Anthracene	ug/L	50	45.9	92	54-117	
Benzo(a)anthracene	ug/L	50	47.3	95	31-128	
Benzo(a)pyrene	ug/L	50	46.1	92	30-146	
Benzo(b)fluoranthene	ug/L	50	45.7	91	43-147	
Benzo(g,h,i)perylene	ug/L	50	62.4	125	25-153	
Benzo(k)fluoranthene	ug/L	50	44.7	89	28-148	
bis(2-Chloroethoxy)methane	ug/L	50	34.1	68	47-102	
bis(2-Chloroethyl) ether	ug/L	50	31.9	64	39-111	
bis(2-Ethylhexyl)phthalate	ug/L	50	46.7	93	37-138	
Butylbenzylphthalate	ug/L	50	45.2	90	38-135	
Carbazole	ug/L	50	47.0	94	69-127	
Chrysene	ug/L	50	47.6	95	42-140	
Di-n-butylphthalate	ug/L	50	47.0	94	50-128	
Di-n-octylphthalate	ug/L	50	44.8	90	32-148	
Dibenz(a,h)anthracene	ug/L	50	58.7	117	22-147	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.

1 01 5015

Page 10 of 20



Project:

16100130 B&L

Pace Project No.: 701593

LABORATORY CONTROL SAMPLE:	4604					
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dibenzofuran	ug/L	50	42.7	85	53-117	
Diethylphthalate	ug/L	50	45.5	91	54-124	
Dimethylphthalate	ug/L	50	44.8	90	56-121	
Fluoranthene	ug/L	50	48.2	96	50-123	
Fluorene	ug/L	50	41.7	83	51-118	
Hexachloro-1,3-butadiene	ug/L	50	21.5	43	18-90	
Hexachlorobenzene	ug/L	50	47.5	95	52-128	
Hexachlorocyclopentadiene	ug/L	50	8.1	16	13-119	
Hexachloroethane	ug/L	50	18.1	36	41-119 L	.0
Indeno(1,2,3-cd)pyrene	ug/L	50	66.7	133	26-156	
Isophorone	ug/L	50	35.1	70	46-118	
N-Nitroso-di-n-propylamine	ug/L	50	33.5	67	40-124	
N-Nitrosodiphenylamine	ug/L	50	43.9	88	41-95	
Naphthalene	ug/L	50	33.7	67	39-107	
Nitrobenzene	ug/L	50	35.7	71	41-122	
Phenanthrene	ug/L	50	47.0	94	52-126	
Pyrene	ug/L	50	49.3	99	41-137	
1,2-Dichlorobenzene-d4 (S)	%.			55	16-110	
2-Chlorophenol-d4 (S)	%.			72	33-110	
2-Fluorobiphenyl (S)	%.			81	43-116	
2-Fluorophenol (S)	%.			46	21-110	
Nitrobenzene-d5 (S)	%.			77	35-114	
p-Terphenyl-d14 (S)	%.			82	33-141	
Phenol-d5 (S)	%.			30	10-110	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.



Project:

16100130 B&L

Pace Project No.:

QC Batch Method:

701593

QC Batch:

1160

EPA 1664A

Analysis Method:

EPA 1664A

Analysis Description:

1664 HEM, Oil and Grease

Associated Lab Samples:

701593002

METHOD BLANK: 7380

Matrix: Water

Associated Lab Samples:

701593002

Blank Result

Reporting

Limit

Analyzed

Qualifiers

Oil and Grease

Units mg/L

<5.0

5.0 10/19/16 16:29

LABORATORY CONTROL SAMPLE: 7381

Parameter

Spike Conc.

LCS Result

LCS % Rec % Rec Limits

Qualifiers

Parameter Oil and Grease

Units mg/L

40

35.8

78-114

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.



Project:

16100130 B&L

Pace Project No.:

701593

QC Batch:

2344

QC Batch Method:

EPA 410.4

Analysis Method:

EPA 410.4

701593001

Analysis Description:

410.4 COD

METHOD BLANK: 12420

Associated Lab Samples:

Matrix: Water

Associated Lab Samples:

701593001

Parameter

Blank Result

Reporting

Limit

Analyzed

Qualifiers

Chemical Oxygen Demand

mg/L

<10.0

10.0 10/25/16 15:33

LABORATORY CONTROL SAMPLE:

Parameter

Parameter

Units

Units

mg/L

Spike

LCS

LCS

% Rec Limits

Qualifiers

Chemical Oxygen Demand

Conc. 500 Result

% Rec

90-110

MATRIX SPIKE SAMPLE:

12422

701274005

Spike Conc.

496

MS Result MS

% Rec Limits

Qualifiers

Chemical Oxygen Demand

Units mg/L Result <10.0

500

494

RPD

% Rec 99

90-110

SAMPLE DUPLICATE: 12423

Units

701274005 Result

Dup Result

Qualifiers

Parameter Chemical Oxygen Demand

mg/L

<10.0

<10.0

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.



Project:

16100130 B&L

Pace Project No.:

QC Batch Method:

701593

QC Batch:

592

SM20/22 4500-CN-C

Analysis Method:

SM22 4500-CN-E

Analysis Description:

4500 CNE Cyanide, Total

Associated Lab Samples:

701593001

Matrix: Water

METHOD BLANK: 4576 Associated Lab Samples:

701593001

Units

Units

Units

Reporting Result

Limit

Qualifiers Analyzed

Parameter ug/L <10.0 10.0 10/13/16 17:03 Cyanide

LABORATORY CONTROL SAMPLE:

Parameter

Parameter

Spike Conc.

Blank

LCS Result

LCS % Rec % Rec Limits

Qualifiers

87 85-115 Cyanide ug/L 75 65.2

MATRIX SPIKE SAMPLE:

4578

701413001

Spike Conc.

MS Result

RPD

MS % Rec % Rec Limits

Qualifiers

Result ND 100 94.8 94 75-125 ug/L Cyanide

SAMPLE DUPLICATE: 4579

701413001 Result

Dup

Result

Qualifiers

Units Parameter ND <10.0 ug/L Cyanide

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.



QUALIFIERS

Project:

16100130 B&L

Pace Project No.:

701593

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

LO Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

L2 Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.

REPORT OF LABORATORY ANALYSIS

PA C WO#:701593

PAGE 1 OF 1 **CHAIN OF CUSTODY RECORD**

Pace Analytical Services, Inc.
2190 Technology Drive, Schenectady, NY 12308
Telephone (518) 346-4592 Fax (518) 381-6055
www.pacelabs.com

PROJECTAPROJECT NAME

LRF # 16100130

DISPOSAL REQUIREMENT TO 1503 RET TO 1503 DISPOSAL BY RECEIVING LAB Additional charges incurred for disposal (if hazardous) or archival. Call for details.	0 B USE ONLY)
Additional charges incurred for disposal (if hazardous) or archival. Call for details.	3 USE ONLY)
ARCHIVAL BY RECEIVING LAB	7)
DISPOSAL BY RECEIVING LAB	
O RETI_ZO1503	
DISPOSAL REQU	

CLENI (KEPUKIS IO DE SENT IO).												
BACE		16100130	0		PRESERV	PRESERVATIVE CODE:	0	6	4	2	-	PRESERVATIVE KEY
104		LOCATION (CI	LOCATION (CITY/STATE) ADDRESS:	RESS:	BOTT	BOTTLE TYPE:	AMBER	HDPE	HDPE	HDPE	AMBER	0 · ICE
PROJECT MANAGER:		T			BOTT	BOTTLE SIZE:	1	250ML	250ML	250ML	11	1-HGL
NICK NICHOLAS		ž			\$H:			\	\	_	\	2 - HNO3 3 - H2SO4
1		REQUIRED TU	REQUIRED TURN AROUND TIME:	WE	3NI	\	\	\	\	\ \ \ \ \ \ \	\	/ 4 - NaOH
FLF				10/14/2016		NB	(Þ)	(005,	(Q.	13 POS. 2.1	<u></u>	5 - Zn. Acetate
Notes:					၀၁	(OZZ(010,	D) N.	(24)	NETA Nese	\ \	6 · MeOH
SAMPLE PRESERVATION NOT VERIFIED AT SCHENECTADY LAB. MCALS: AS, CO, CO, CO, Pb, N 1, Zn.	1 PD AT J, A3, C1, Cv, Pb	NAME OF COU	NAME OF COURIER (IF USED):		FO P	S) DONS	2000	O lelo,	Novel V	SELECT.	\	7 - NaHSO4 8 - Other (Na2SO3)
ELECTRONIC RESULTS N	NICHOLAS.NICHOLAS@PACELABS.	HOLAS@PA	CELABS.	LAB	38N	<u></u>	\	\	\	<u></u>	/	
	Nicole, Johnson@pacelabs.com	moo	GRAB/	SAMPLE ID	IUN	\	\	_	`	\		
SAMPLEID	DATE TIME	MATRIX	COMP	(LAB USE ONLY)	7 -				`			REMARKS:
	-)0 	COMP	AT27128	4	×	×	×	×			
	10/7/16 11:05	1 20	GRAB	AT27129	+					×		
										-		
		:										
AAADIENT OR CHILLED.	TEMP (.O.	COC TAPE:	2		PROPERLY PRESERVED:	RESERVED:	Y		٥	THER NOTES: An	alytical Report [OTHER NOTES. Analytical Report [LEVEL-2] EDD: Excel Standard
LEAKING	(2)	COC DISCREPANCIES	.	Z	RECVD W/I H	RECVD WII HOLDING TIMES.	>	z				
RELINGUISHED BY) RECEIVED BY	D BY		RELINGUISHED BY	_	RECEIVED BY			RELIMOUISHED BY	IED BY		RECEIVED BY
SIGNATURE	SIGNATURE	187	SIGNATURE		SIGNATURE	1		SKGNATURE			SIGNATURE	
PRINTED NAME (1-77)	3		PRINTED NAME		PRINTED MANE	2	3000	PRINTED NAME	## T		PRINTED NAME	
CONTRACT IN AND AND AND AND AND AND AND AND AND AN	COMPANY		COMPANY		COMPANY			COMPANY			COMPANY	
DATE 10/11/1/16/00	DATE/TWE		DATE/TIME		DATEMBINE	DATERTIME 1075	,	DATE/TIME			DATE/TIME	
					1							SALOGINADICOCS

7062 9875 2432

ファイクト New York Office

Schenectady, NY 12308 2190 Technology Dr. (518) 346-4592 ace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed <16100130P1>

Pace Project No. Lab LD. Intact W(C N/A SAMPLE CONDITIONS SeldmeS ATD7128 4227129 <u> </u> Sealed Coole Q1 N/A ☐ OTHER Cnatody ₹ L Received on GROUND WATER T DRINKING WATER NØ. N/X N٨ ¥ L O' ni qmeT 5. NLHL REGULATORY AGENCY TOTHER. ევ |__ TIME 1155 ð F DATE 41/4161 T RCRA LOCATION SITE ACCEPTED BY / AFFILIATION Rered (Y/N) T NPDES Requested ₽ UST lonartiel Otgtel/ 400 HOS Matt Broker Pack Ю Barton & Loguidice FONH '05' Devieserdni 1155 SAMPLER NAME AND SIGNATURE 7267 8 # OF CONTAINERS PRINT Name of SAMPLER: SIGNATURE of SAMPLER: ace Quote Reference: DATE 20 - 12 Invoice Information: ace Project Manager Company Name: TIME 1,05 2H/4 1159 Pace Profile #: COMPOSITE Section C Attention: Address: 마니막 DATE COLLECTED RELINGUISHED BY / AFFILIATION ₂₀2(भाषश DATE TIME COMPOSITE 137 ELF Servis Armusal Leachs Report To: Barton & Loguidice Required Project Information: G-GRAB C-COMP O ø ¥ ₹ **BOOD XIBTAM** Project Name: Project Number Section B. Copy To: Purchase Order No.: COOE Valid Mainte Code Leachate Leachate (A-Z, 0-9/..) Sample IDs MUST BE UNIQUE Company: Barton & Loguidice Far SAMPLE ID Standard Required Client Information: equined Client Information Section D Section A Email To: Address: Phone: çi. ITEM # age 18 of 20

e-File(ALLQ020rev.4,29Mar06)22Jun2005



Sample Condition Upon Receipt

CLIENT NAME: 8+LPROJECT: ELE Sen Anna L' Losethate

														0									_			╝	=	و ع		
													0	= 1			3		iii.		110							1 2 1	-	
N/A &	40	□No	77										85								7						**************************************	AUD 85	£3	
No 🗆 Blue 🗅		Barres					175			13						11		100				η .					mple pH):	ing in LIMS):	- Ingagai	
No by INTACT: Yes a ICE USED: Wet of	COOLER TEMPERATURE (°C): 7.5	Temperature is Acceptable?					<i>⊕</i>											534	CS		L M	_				=*	Startinger Convine Shipping Documents and verifying sample pHJ	Log in (Includes notifying PM of any discrepacies and documenting in LIMS):	Labeling (Includes Scanning Bottles and entering LAB IDS into pringbook).	5
<u></u>		Te		i	7 (, n	÷ _	9	0. DOV 463-1-6-7	. 0	o a	'n	33 C. S. C.	10.	-	1 5		13	·	+	Initial when	completed:	14.	15.			noving Shippir	ying PM of ar	anning Bottle	
Pace & Other D CUSTODY SEAL PRESENT: Yes D None & Othe	#160239773 \tau #160239773-PRB \tau				ě											AMA			ES94A	SCBN/A	- 1		× 20	A S	4	VAIGT	(Jachidae)	ncludes notif	(Includes Sc	
Pace & CUSTODY S	73 🗆 #1607	N/AZ		9N	<u>\$</u>	<u>\$</u>	8 10	8 D	<u></u>	ON SA	ŝ	Пме	°N □	S. C.		eN□	Š.	*	ŝ	ć	2	es	2			8 -		Log In (i	Labeling	
Client a	_	0 0 0		N Ves	ØYes	GYes	∭Yes	Alves	Nyes	□Yes	S C	D.	\$ S	1	A Las	Sts Oves	Š		n Oves		Sa\	contract Analys	900					1	in U	
UPS	PACKING MATERIAL: Bubble Wrap THERMOMETER USED: #164 K/ IR Gun 03 TO	BIOLOGICAL TISSUE IS FROZEN: Yes	==	ody Present:	Chain of Custody Filled Out:	Chain of Custody Relinquished:	Sampler Name / Signature on COC:	Samples Arrived within Hold Time:	Short Hold Time Analysis (<72hr):	Rush Turn Around Time Requested:	ume:			- pace Containers Oscu.	itact:	Filtered volume received for Dissolved tests Dves	Sample Labels match COC:	Includes date/time/ID/Analysis	All containers needing preservation have been	checked:	All containers needing preservation are in	Compliance with Erra recommendations Compliance Analyses	that are not criecked. Too, Too,	Headspace in VOA Vials (>bmm):	resent:	Trip Blank Custody Seals Present: , A.	ank Lot #:	Sample Receipt form filled in:		
COURIER: FedEx O	PACKING MATE	BIOLOGICAL TI	COMMENTS:	Chain of Custody Present:	Chain of Custo	Chain of Cust	Sampler Nam	Samples Arriv	Short Hold Til	Rush Turn Ar	Sufficient Volume:	301100	of reading of the second	- Pace Co	Containers Intact:	Filtered volu	Sample Labe	- Include	All containe		All contai	compilar	- Exceptions	Headspace i	Trip Blank Present:	Trip Blank C	Pace Trip Blank Lot #:	Sample Rece	ii ii	
	ì	e:						**			^.					£3												Page	19 0	ſ 20

Pace Analytical

Sample Condition Upon Receipt

<u> WO#:701593</u>

Client Name: PACE-NY

M: CNP Due Date: 10/17/16

CLIENT: PACE-NY

Courier: X Fed Ex UPS USPS Clien Tracking #: <u>7062 9875 24</u> 32	t TC	omme	rcial	Pace Ot	her _			
Custody Seal on Cooler/Box Present: Xiyes	□ no	٥	Seals i	ntact: 🚿	yes	no		
Packing Material: X Bubble Wrap Bubble Thermometer Used 150160211	Туре о		Wet	Gther Blue Non			on ice, cooling pro	xess has begun
Cooler Temperature 1.0°C Temp should be above freezing to 6°C	Biolog	ical T		s Frozen: Ye Comments:	es No	con	tents: 10/8/10	MPG
Chain of Custody Present:	™ Yes	□Nc	□N/A	1,				
Chain of Custody Filled Out:	⊠Yes	□No	□n/A	2.				
Chain of Custody Relinquished:	©Yes	□No	□N/A	3.				
Sampler Name & Signature on COC:	⊠Yes	□No	□N/A	4.		121	e c	±31
Samples Arrived within Hold Time:	PdYes .	□№	□N/A	5.				
Short Hold Time Analysis (<72hr):	□Yes	□No	□n/A	6.				all as
Rush Turn Around Time Requested:	□Yes	□No	□N/A	7.				
Sufficient Volume:	⊠Yes	□но	□n/a	8.				
Correct Containers Used:	I Z Yes		□N/A	9.				
-Pace Containers Used:	Yes	□No	□ĸ⁄A					
Containers Intact:	Ç X es	□No	□n/a	10.				
Filtered volume received for Dissolved tests	□Yes	□No	□n/A	112				
Sample Labels match COC:		~	□n/A	12.				
-Includes date/time/ID/Analysis Matrix: 50	- AG	<u>,) o</u>	11_	==				
All containers needing preservation have been checked.	TES	□No	□n/A	13.				
Afficontainers needing preservation are found to be in compliance with EPA recommendation.	□Yes	□No	AWA			10		
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	□Yes	□No		Initial when completed		Lot # of preserva		
Samples checked for dechlorination:	□Yes	□No	ANA	14.				
Headspace in VOA Vials (>6mm):	□Yes	□No	NIA	15.				
Trip Blank Present:			TA N/A					
Trip Blank Custody Seals Present	□Yes	□No	ZNIA	\				
Pace Trip Blank Lot # (if purchased):								
Client Notification/ Resolution: Person Contacted:				/Time:		Field Di	eta Required?	Y / N
Project Manager Review:	- Ein	. F	an	man	elli	2_	Date: 10	118/16
Floject Manager Review.		. /.	U- 11					118

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)



ADD, UPDATE OR DELETE **VENDOR ADDRESS**

Important Notes:

- This form must be used by the primary contact to (1) update the default address on the vendor record or (2) make changes to non-default addresses if not registered to use the Vendor Self-Service System. The Vendor Self-Service System allows you to make changes to non-default addresses without submitting this form, enabling faster processing. Changes requested with this form will not be effective until they are verified.

- Information must be	typed or printed neatly. Please refer to instructions on page 2 of this form for more information	on.
PART I: VENDOR INFO	DRMATION	
Vendor ID Number: (Required)	1100048562	
Legal Business Name: (Required)	SWANA NYS CHAPTER	
PART II: TO ADD, UPD	ATE OR DELETE AN ADDRESS	
Requested Action:	DBA Name (if applicable)	7
(Required) Update Default Address*		
Update Non-Default Address*	Address Line 1-Number, Street, Apertment, Bulte Number or Rural Route LORI DEMARIA NYS FEDERATION REGISTER CAD BARTON & LOGUI DICE DPC	j
Add a Non-Default Address	Address Line 2 - Number, Street, Apartment, Suite Number or Rural Route	ו
Delete Non-Default Address	LII CENTRE PARK SUITE 203	
	City or Town RUCH ESTER State or Province NY 14614	
	Country (if not USA)	1
* Existing Address (Required if I	ipdating an address):	
	LA Schmidt VIEW averue Moriches, NY 1/934	
Courter	10116162, 49 11194	
	•	
PART III: INDIVIDUAL S	IRMITTING THE DECUEST	
Requestor's Name Printed (Required)	UBMITTING THE REQUEST (Must be the current primary contact on the Vendor's record)	_
5	Date (Required)	
Requestor's Signature (Required)	E-mail (Required if available)	
SIRMIT COD	M TO NVS OFFICE OF THE CENT OF	

OF THE STATE COMPTROLLER – VENDOR MANAGEMENT UNIT Fax: (518) 473-9533 Email: VENDUPDATE@OSC.STATE.NY.US Mail: 110 State Street Mail Drop 10-4, Albany, NY 12236-0001

Control of the Contro	

SEMI-ANNUAL COMPLIANCE MONITORING REPORT (Page 1 of 2)

Permittee:	Montgon	nery County								
Address:	6 Park S	Park Street , Fonda, New York 12068-1500								
Sampling Point Location:	andfill									
Contact Person:	Paul Cla	yburn, Commission	er							
This report for the period ending: (circle or	ne)	June 1			Dec. 1	, 2016				
Parameter		Max Daily Concentration		nple Type cle one)	Month/Day of Sample	Result				
pH (SU)		- (grab	composite	10/7/2016	7.13				
Biochemical Oxygen Demand, BOD (mg/l)		**	grab	composite	10/7/2016	< 2.0				
Chemical Oxygen Demand, COD	(mg/l)	-	grab	composite	10/7/2016	< 10.0				
Total Suspended Solids, TSS (mg	A)	200 mg/l	grab	composite	10/7/2016	< 2 82				
Oil & Grease (mg/l)		- (grab	composite	10/7/2016	< 50				
Chromium, total (mg/l)		10 mg/l	grab	composite	10/7/2016	< 0.010				
Copper, total (mg/l)		1.2 mg/l	grab	composite	10/7/2016	< 0 025				
Lead, total (mg/l)		1,0 mg/l	grab	composite	10/7/2016	< 0 005				
Nickel, total (mg/l)		5.0 mg/l	grab	composite	10/7/2016	< 0.040				
Zinc, total (mg/l)		1.0 mg/l	grab	composite	10/7/2016	0 0295				
Cyanide, total (mg/l)		1.0 mg/l	grab	composite	10/7/2016	< 0.010				
			orah	composite						

Į	Paul Clayburn, Commissioner of Montgomery County Public Works	certify	that	the	information	contained
	(orint name & title)					

herein is accurate.

Signature:

Date: 11/63/10

SEMI-ANNUAL COMPLIANCE MONITORING REPORT Page 2 of 2

Permittee	Montgomery County				
i ciliattee.	Mortgomery County				
Address:	6 Park Street , Fonda, f	New York	k 12068-1500		
Sampling Point Location:	Central Landfill				
Contact Person:	Paul Claybum, Commis	sioner			
This report for the period endi		June	:1 (Dec. 1	2016
Parameter	Max Daily Concentration		nple Type rcle one)	Month/Day of Sample	Result
Arsenic, total (mg/l)	0.5 mg/l	grab	composite	10/7/2016	<0.010
Cadmium, total (mg/l)	5.0 mg/l	grab	composite	10/7/2016	<0.0025
Hexavalent Chromium, total (mg/l) 5 mg/l	grab	composite	10/7/2016	< 0.0400
Mercury, total (mg/L)	0.10 mg/l	grab	composite	10/7/2016	< 0 00020
Silver, free (mg/i)	0.5 mg/l	grab	composite	10/7/2016	< 0.010
Phenolics, total (mg/l)	ea	grab	composite	10/7/2016	< 0 0020
bis (2-Ethylhexyl) phthalate (u	ıg/i)	grab	composite	10/7/2016	< 5.0

I, Paul Clayburn, Commissioner of Montgomery County Public Works, certify under penalty of law (print name & title)

that this document and all attachments were prepared under my direction or supervision in accordance with a system desgined to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significate penalties and imprisonment for knowing violations.

Signature:

Date:

11/03/16





Pace Analytical e-Report

Report prepared for: **BARTON AND LOGUIDICE** 11 CENTRE PARK **SUITE 203** ROCHESTER, NY 14614 **CONTACT: DARIK JORDAN**

Project ID: CLF SEMI ANNUAL LEACHATE

Sampling Date(s): October 07, 2016

Lab Report ID: 16100128

Client Service Contact: Nick Nicholas (518) 346-4592

Analysis Included:

Total Phenolics E420.4 - Sub ALS Misc Field Analysis SVOCs E8270D - Sub Pace LI COD E410.4 - Sub Pace LI Total Cyanide SM4500-CN-E - Sub Pace LI Mercury E7470A - Sub Pace LI Metals E200.7 - Sub Pace LI Oil and Grease E1664B - Sub Pace LI **BOD SM5210B** Hexavalent Chromium (7196A)

Total Suspended Solids SM2540D

Test results meet all National Environmental Laboratory Accreditation Conference (NELAC) requirements unless noted in the case narrative. The results contained within this 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 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

This page intentionally left blank.

ALTER TO SEE TO ACCOUNT

Table of Contents

Section 1: CASE NARRATIVE	4
Section 2: QUALIFIERS	6
Section 3: SAMPLE CHAIN OF CUSTODY	8
Section 4: SAMPLE RECEIPT	12
Section 5: Wet Chemistry - TSS	14
Section 6: Wet Chemistry - Hexavalent Chromium	16
Section 7: Wet Chemistry - BOD	18
Section 8: Field Analysis	20
Section 9: Quality Control Samples (Lab)	22
Section 10: Subcontract Analysis	29

CASE NARRATIVE

1 01 2016

cionian b. i co

CASE NARRATIVE

This data package (SDG ID: 16100128) consists of 2 water samples received on 10/07/2016. The samples are from Project Name: CLF SEMI ANNUAL LEACHATE.

This sample delivery group consists of the following samples:

 Lab Sample ID
 Client ID
 Collection Date

 AT27124
 LEACHATE
 10/07/2016 10:15

 AT27125
 LEACHATE
 10/07/2016 10:20

Sample Delivery and Receipt Conditions

- (1.) Lab provided sample pickup service on 10/07/2016.
- (2.) All samples were received at the laboratory intact and within holding times.
- (3.) All samples were received at the laboratory properly preserved, if applicable.

Subcontract Analysis

Please see the ALS Environmental laboratory report for method and quality assurance details pertaining to Phenolics analysis.

Field Parameters Analysis

Analysis for pH were performed in the field.

Subcontract Analysis

Please see the Pace Analytical Services Long Island laboratory report for method and quality assurance details pertaining to all analysis.

Biological Oxygen Demand

Biological Oxygen Demand was performed by SM 5210B.

Hexavalent Chromium Analysis

Analysis for hexavalent chromium was performed by method SW-846 7196A.

Total Suspended Solids

Analysis for Total Suspended Solids (TSS) was performed by SM 2540D.

Respectfully submitted,

Nick Nicholas

Project Manager

QUALIFIERS

The Auditoration of the Assessment (1997)

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

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

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed < 16100128P1>

Pace Project No. N/C) N/A SAMPLE CONDITIONS N/J N/A Samples Ş 1727125 A Tania4 OTHER Sealed Coole N۸ N/A 3 Custody □ DRINKING WATER N/A N/A N/A Received on ₹ z REGULATORY AGENCY 7.5 O" ni qmaT သွ <u>ب</u> TIME 1155 8 ᆼ ☐ GROUND WATER L, DATE 11/1/10 ☐ BCRA LOCATION SITE I NPDES Filtered (Y/N) ACCEPTED BY / AFFILIATION × TSU T Requested Ą CO.25,01 Preservatives HOSP 101 Barton & Loguidice "ONI 'os'ı Matt Broker peweseidur TIME 1/85 7267 SAMPLER NAME AND SIGNATURE # OF CONTAINERS COLLECTION ace Quote Reference: invoice information: PRINT Name of SAMPLER: Pace Project Manager DATE Company Name: िर्मात गिर्टि 15 | 1015 TIME Pace Profile #: Section C COMPOSITE Attention: Address: COLLECTED DATE RELINQUISHED BY / AFFILIATION TIME COMPOSITE SHI CLF Semi Annual Leachate Report To: Barton & Loguidice DATE nc/uht SAMPLE TYPE 9MOD=D 8ARD=D O WT ₹ Purchase Order No.: Project Name: MATRIX CODE Project Number: Section B Copy To: Characterity mater ADDITIONAL COMMENTS Leachate Leachate (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE Company: Barton & Loguidice SAMPLE ID Standard Required Clent Information: Required Clant Information Section D Section A Address: Email To: Phone: # MBTI 9 ~

89 6

9

e-File(ALLQ020rev.4,29Mar06)22Jun2005

ε

00100101

Intacl

BOI

1 n1 4016

200

MATO

SIGNATURE of SAMPLER:



CLIENT NAME: 8, 1/L	PROJECT: ELF SLM. Annes & Localizates	Pace 医 Other O No B INTACT: Yes O No O N/A S	None & Other O ICE USED: Wet & Blue None None #160239773-PRB COOLER TEMPERATURE (°C): 7.5	Temperature is Acceptable? SVes ONo	1.	
			8ubble Bags □ N #160239773 □ #1602 NO □ N/A★		ss Ono	
		UPS Client a	Wrap Bubble Bubble Mrap #160		B €Yes	
		COURIER: FedEx a UP	PACKING MATERIAL: Bubble Wrap a Bubble Bags a None された THERMOMETER USED: #164 女 IR Gun 03 a #160239773 a #160239773-PRB a BIOLOGICAL TISSUE IS EROZEN: Yes a No a NA 本	COMMENTS:	Chain of Custody Present:	

COMMENTS:		Temperature is Acceptable? BYes DNo	
Chain of Custody Present: Byes □№		1.	
Chain of Custody Filled Out:		2.	
ed: Dres		3.	
OC: SYves		4.	
Samples Arrived within Hold Time: Alves		5.	
Short Hold Time Analysis (<72hr): Syres 🗆 🗠		6. BOD HARELON	
Rush Turn Around Time Requested:	574	7.	
Sufficient Volume: 1996 DNA		8'	
- Pace Containers Used:			l
Containers Intact:		10.	
Filtered volume received for Dissolved tests DYes DNo	CHUA	11.	
Sample Labels match COC: AEPes DNo	ı	12.	
- Includes date/time/ID/Analysis			
All containers needing preservation have been Oves	N. S. S. S. S. S. S. S. S. S. S. S. S. S.	13.	
checked:			
All containers needing preservation are in Oves One	AND THE		
compliance with EPA recommendation:	•		
- Exceptions that are not checked: TOC, VOA, Subcantract Analyses		completed: N // Lot # of added preservative: N / A.	
Headspace in VOA Vials (>6mm):	EPU/A	14.	
Trip Blank Present:	Š.	15.	
Trip Blank Custody Spals Present; Uves UNe	(SENIA		
- N / V			
Color institution is a second		7/12/11	

Log In (Includes notifying PM of any discrepacies and documenting in LIMS): Line-Out (includes Copying Shipping Documents and verifying sample pH): Labeling (Includes Scanning Bottles and entering LAB IDs into pH logbook):

1 01 1017

5

... ...

T 00100171

Sample Receipt form filled in: AA

. . .

PACE Ana							6.
Tap Water / S Client: Barto			er Field Lpg				01263
ı 	n and Loguidi		I	Sampler (p	•	Matt Broker	
Project: CLF	· · · · · · · · · · · · · · · · · · ·			Signature	•	Mary	
Date: Location	Leachate	7/16	TIMES	AMPLED 1	020	PACE ID. NO.	N L COST
Flow	n/a					THE CALL STREET, SALES AND ADDRESS OF THE PARTY.	446
TEMPERATURE		gallons	WEAL	ER CONDITION	V:	14°C Sunny	
PH		с	45554	DANIOS VODOS			
	7.13	STD.UNITS	АРРНА	RANCE / OBSEF	HVATIC	ons <u>closy</u>	
SPEC. COND.	n/a	uS					
TURBIDITY	n/a	NTU					
EH	n/a	mV	IF TEBT	TING FOR CYAN	IIDE:	IF TESTING FOR PHENOLIC	S:
SULFITE	n/a	MG/L	CHLOFIN			CHLORINE RES.	
DIS.OXYGEN	n/a	MG/L	SULFILE		<u></u>		
Location			TIME S.	AMPLED _		PACE ID. NO.	
FLOW		gallons	WEATH	IER CONDITION	l:		
TEMPERATURE		c					
PH		STO.UNITS	APPEA	RANCE / OBSEF	OITAVE	NS	
SPEC, COND.		<u>u</u> 5					
TURBIDITY		NTU			·		
EH		mV	IF TEST	TING FOR CYAN	IIDE:	IF TESTING FOR PHENOLIC	S:
SULFITE		MG/L	CHLOFIN			CHLORINE RES.	
DIS.OXYGEN		MG/L	SULFICE		· - ·		
Location			TIME 5	AMPLED	<u>.</u>	PACE ID. NO.	
FLOW		gallons	1	— IER CONDITION	·		Henry 61975.1
TEMPERATURE		s			•		
PH	-	STD.UNITS	APPEN	RANCE / OBSER	RVATIO	NS	
SPEC. COND.		uS	, , , <u>-</u>	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	WATIO		
TURBIDITY		NTU					
EH .		mV	IF TEQT	ING FOR CYAN	IDE:	IE TESTINO EOD DUENOUS	
SULFITE			CHLORIN			IF TESTING FOR PHENOLIC	p:
DIS.OXYGEN		MG/L	SULFIDE	E 11 <u>E3.</u>		CHLORINE RES.	
Location		***************************************		AMPLED		PACE ID. NO.	100.000
LOW				-		FACE ID. NO.	NAMES OF
EMPERATURE		gallons	WEATH	ER CONDITION	•		
PH		c	ADDE	DANGE / COCTO			
SPEC. COND.		STD.UNITS	APPEAR	RANCE / OBSER	IVA (10	<u> </u>	
		uS					<u> </u>
TURBIDITY		NTU					
EH		mV		ING FOR CYAN	IDE:	IF TESTING FOR PHENOLIC	\$:
SULFITE		MG/L	CHLORIN	E RES.		CHLORINE RES.	<u> </u>
DIS.OXYGEN		MG/L	SULFIDE				
						Page	2

SAMPLE RECEIPT



SAMPLE RECEIPT REPORT 16100128

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

CLIENT: BARTON AND LOGUIDICE

PROJECT: CLF SEMI ANNUAL LEACHATE

LRF: 16100128

REPORT: ANALYTICAL REPORT

EDD: YES LRF TAT: 1 WEEK RECEIVED DATE: 10/07/2016 11:55

SAMPLE SEALS INTACT: NA

SHIPPED VIA: PICK UP SAMPLES PRESERVED PER METHOD GUIDANCE: YES

SHIPPING ID:

3 SAMPLES REC'D IN HOLDTIME: YES

DISPOSAL: BY LAB (45 DAYS)

COC DISCREPANCY: NO

CUSTODY SEAL INTACT: NA **COOLER STATUS: CHILLED** TEMPERATURE(S): 5.5 °C

NUMBER OF COOLERS: 1

COMMENTS:

SAMPLE PRESERVATION OF SUBCONTRACT ANALYSES NOT VERIFIED AT SCHENECTADY LAB.

CLIENT ID (LAB ID)	TAT-DUE Date	DATE-TIME SAMPLED	MATRIX	METHOD	TEST DESCRIPTION R	QC EQUES
LEACHATE (AT27124)	1 WEEK 10-14-16	10/07/2016 10:15	Water	COD E410.4	COD E410.4 - Sub Pace LI	
	I WEEK 10-14-16	10/07/2016 10:15	Water	EPA 7196A	Hexavalent Chromium (7196A)	
	1 WEEK 10-14-16	10/07/2016 10:15	Water	Mercury E7470A	Mercury E7470A - Sub Pace LI	
	1 WEEK 10-14-16	10/07/2016 10:15	Water	Metals E200.7	Metals E200.7 - Sub Pace L1	
	1 WEEK 10-14-16	10/07/2016 10:15	Water	SM 2540 D-97,-11	Total Suspended Solids SM2540D	
	1 WEEK 10-14-16	10/07/2016 10:15	Water	SM 5210B-01,-11	BOD SM5210B	
	1 WEEK 10-14-16	10/07/2016 10:15	Water	SVOCs E8270D	SVOCs E8270D - Sub Pace LI	
	1 WEEK 10-14-16	10/07/2016 10:15	Water	Total CN SM4500-CN-E	Total Cyanide SM4500-CN-E - Sub Pace LI	
	1 WEEK 10-14-16	10/07/2016 10:15	Water	Total Phenolics E420.4	Total Phenolics E420.4 - Sub ALS	
LEACHATE (ATZ7125)	1 WEEK 10-14-16	10/07/2016 10:20	Water	Misc Field Analysis	Misc Field Analysis	
	1 WEEK 10-14-16	10/07/2016 10:20	Water	Oil and Grease E1664B	Oil and Grease E1664B - Sub Pace LI	

¹ The 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,

Reporting Parameters and Lists

EPA 7196A - Hexavalent Chromium (7196A) - (mg/L)

Hexavalent Chromium

Misc Field Analysis - Misc Field Analysis - (mg/L)

Dissolved Oxygen (\$)

Flow (\$)

pH (\$)

Reduction Potential (\$)

Specific Conductance (\$)

Static Water Level (\$)

Sulfite (\$)

Temperature (\$)

Total Residual Chlorine (\$)

Turbidity (\$)

SM 2540 D-97,-11 - Total Suspended Solids SM2540D - (mg/L)

Total Suspended Solids

SM 5210B-01,-11 - BOD SM5210B + (mg/L)

Biochemical Oxygen Demand

1 01 2016

ICIANISA B

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 4is 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.

Wet Chemistry - TSS



Analytical Sample Results

Job Number: 16100128

Pace Analytical Services 2190 Technology Drive Schenectady, NY 12308 Phone: 518.346.4592

Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: CLF SEMI ANNUAL LEACHATE

Client Sample ID: LEACHATE

Lab Sample ID: 16100128-01 (AT27124)

Collection Date: 10/07/2016 10:15

Sample Matrix: WATER

Received Date: 10/07/2016 11:55

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	2525	SM 2540D	10/12/2016 18:36	KM	NA	NA	NA
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Fact	or Flags	File ID
Total Susper	nded Solids	WQ001	ND	2.82	0.97	U	2525

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

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

Wet Chemistry - Hexavalent Chromium



Analytical Sample Results

Job Number: 16100128

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

Client: BARTON AND LOGUIDICE

Project: CLF SEMI ANNUAL LEACHATE

Client Sample ID: LEACHATE

Lab Sample ID: 16100128-01 (AT27124)

Collection Date: 10/07/2016 10:15

Sample Matrix: WATER

Received Date: 10/07/2016 11:55

Percent Solid: N/A

		27/01 (4	A STATE OF S					
l	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column	
Analysis 1:	199	SW-846 7196A	10/07/2016 17:27	JS	NA	NA	NA NA	
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Fact	or Flags	File ID	
Hexavalent C	hromium	18540-29-9	ND	0.0400	1.02	U	199	

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

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

Wet Chemistry - BOD



Analytical Sample Results

Job Number: 16100128

Pace Analytical Services 2190 Technology Drive Schenectady, NY 12308 Phone: 518.346.4592

1/100130 B

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: CLF SEMI ANNUAL LEACHATE

Client Sample ID: LEACHATE

Lab Sample ID: 16100128-01 (AT27124)

Collection Date: 10/07/2016 10:15

Sample Matrix: WATER

Received Date: 10/07/2016 11:55

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column	1
Analysis 1:	699	BOD SM5210B	10/07/2016 15 57	KM	NA	NA	NA NA	
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Fact	or Flags	File ID	
Biochemical	Oxygen Dema	ınd NA	ND	2.0	1.00	U	699	

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



Analytical Sample Results

Job Number: 16100128

Pace Analytical Services 2190 Technology Drive Schenectady, NY 12308 Phone: 518.346.4592

Fax: 518.381.6055

Client: BARTON AND LOGUIDICE

Project: CLF SEMI ANNUAL LEACHATE

Client Sample ID: LEACHATE

Lab Sample ID: 16100128-02 (AT27125)

Collection Date: 10/07/2016 10:20

Sample Matrix: WATER

Received Date: 10/07/2016 11:55

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	Field Test	Field Analysis	10/07/2016 10:20	TE	NA	NA	NA
Analyte		CAS No.	Result	PQL	Dilution Facto	r Flags	File ID
pH (\$)		NA	7.13 (pH)	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: 16100128

Pace Analytical Services 2190 Technology Drive Schenectady, NY 12308 Phone: 518.346.4592

Fax: 518.381.6055

Client: BARTON AND LOGUIDICE Project: CLF SEMI ANNUAL LEACHATE

Client Sample ID: Method Blank (AT27001B)

Lab Sample ID: BLANK-96

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

	W						
	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	2525	SM 2540D	10/12/2016 18:36	KM	NA	NA	NA
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Facto	r Flags	File ID
Total Suspend	ed Solids	WQ001	ND	2.90	1.00	ប	2525

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: 16100128

Pace Analytical Services 2190 Technology Drive Schenectady, NY 12308 Phone: 518.346.4592

Fax: 518.381.6055

Client: BARTON AND LOGUIDICE Project: CLF SEMI ANNUAL LEACHATE

Client Sample ID: Lab Control Sample (AT27001L)

Lab Sample ID: LCS-96

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

Committee of the Commit						
Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1: 2525	SM 2540D	10/12/2016 18:36	KM	NA	NA	NA NA

		Added	LCS	LCS	_1	Limits	
Analyte Spiked	CAS No.	(mg/L)	(mg/L)	% Rec.	Q	(%)	
Total Suspended Solids	WQ001	100	97.6	97.6		85.0-115	

Qualifier 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: 16100128

Pace Analytical Services 2190 Technology Drive Schenectady, NY 12308 Phone: 518.346.4592

TELONION D

Fax: 518.381.6055

Client: BARTON AND LOGUIDICE Project: CLF SEMI ANNUAL LEACHATE Client Sample ID: Method Blank (AT27128B)

Lab Sample ID: BLANK-58

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

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	199	SW-846 7196A	10/07/2016 17:26	JS	NA	NA	NA
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Fact	or Flags	File ID
Hexavalent	Chromium	18540-29-9	ND	0.0400	1.00	Ŭ	199

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: 16100128

Pace Analytical Services 2190 Technology Drive Schenectady, NY 12308

Phone: 518,346,4592 Fax: 518,381,6055

Client: BARTON AND LOGUIDICE Project: CLF SEMI ANNUAL LEACHATE

Client Sample ID: Lab Control Sample (AT27128L)

Lab Sample ID: LCS-58

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

1								
١	Bato	ch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
4	Analysis 1: 199		SW-846 7196A	10/07/2016 17:27	JS	NA	NA	NA.

		Added	LCS	LCS	1	Limits	
Analyte Spiked	CAS No.	(mg/L)	(mg/L)	% Rec.	Q'	(%)	
Hexavalent Chromium	18540-29-9	0.200	0.206	103		90.0-110	

¹ Qualifier column where 'e' 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: 16100128

Pace Analytical Services 2190 Technology Drive Schenectady, NY 12308 Phone: 518, 346, 4592

Phone: 518,346.4592 Fax: 518,381.6055

Client: BARTON AND LOGUIDICE Project: CLF SEMI ANNUAL LEACHATE Client Sample ID: Method Blank (AT27005B)

Lab Sample ID: BLANK-18

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

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	699	BOD - SM 5210B	10/07/2016 15:05	KM	NA	NA	NA
Analyte		CAS No.	Result (mg/L)	PQL	Dilution Fact	or Flags	File ID
Biological C	xygen Demand	i NA	ND	0.200	1.00	Ū	699

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: 16100128

Pace Analytical Services 2190 Technology Drive Schenectady, NY 12308 Phone: 518 346 4592

Phone: 518.346.4592 Fax: 518.381.6055

Client: BARTON AND LOGUIDICE
Project: CLF SEMI ANNUAL LEACHATE

Client Sample ID: Lab Control Sample (AT27005L)

Lab Sample ID: LCS-18

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

		Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
1	Analysis 1:	699	BOD SM5210B	10/07/2016 15:25	КМ	NA	NA	NA NA

		Added	LCS	LCS	-x - 1	Limits	
Analyte Spiked	CAS No.	(mg/L)	(mg/L)	% Rec.	Q [°]	(%)	
Biochemical Oxygen Demand	NA	198	212	107	8	84.6-115	

¹ Qualifier column where 'e' 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



Service Request No:R1610685

Mr. Nick Nicholas
Pace Analytical Services - NY
2190 Technology Drive
Schenectady, NY 12308

Laboratory Results for: 16100128

Dear Mr. Nicholas,

Enclosed are the results of the sample(s) submitted to our laboratory October 08, 2016 For your reference, these analyses have been assigned our service request number R1610685.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7475. You may also contact me via email at Lisa.Reyes@alsglobal.com.

Respectfully submitted,

Akege

ALS Group USA, Corp. dba ALS Environmental

Lisa Reyes

to the time of the

Project Manager

ADDRESS

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

PHONE +1 585 288 5380 | FAX +1 585 288 8475

ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Rochester Laboratory 1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623 Phone (585) 288-5380 Fax (585) 288-8475 www.alsglobal.com

2 of 19

350 1 01 3017



Client:

Pace Analytical Services - NY

Project:

16100128

Sample Matrix: Water

Service Request:R1610685

Date Received: 10/8/16

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II data deliverables, including results of QC samples analyzed from this delivery group. Analytical procedures performed by the lab are validated in accordance with NELAC standards. Any parameters that are not included in the lab's NELAC accreditation are identified on a "Non-Certified Analytes" report in the Miscellaneous Forms Section of this report. Individual analytical results requiring further explanation are flagged with qualifiers and/or discussed below. The flags are explained in the Report Qualifiers and Definitions page in the Miscellaneous Forms section of this report.

Sample Receipt

One water sample was received for analysis at ALS Environmental on 10/8/16. Any discrepancies noted upon initial sample inspection are noted on the cooler receipt and preservation form included in this data package. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at ≤6°C upon receipt at the lab except for aqueous samples designated for metals analyses, which are stored at room temperature.

General Chemistry Analyses:

No significant anomalies were noted with this analysis.

Approved by

Date 10/12/2016

3 of 19

1/100120 P 32



Sample Receipt Information

ALS Environmental—Rochester Laboratory 1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623 Phone (585) 288-5380 Fax (585) 288-8475 www.alsglobal.com Client:

Pace Analytical Services - NY

Project:

16100128

Service Request:R1610685

SAMPLE CROSS-REFERENCE

SAMPLE#

CLIENT SAMPLE ID

R1610685-001

LEACHATE

DATE

TIME

10/7/2016

1015

DISPOSAL REQUIREMENTS: (To be filled in by Client) RETURN TO CLIENT	DISPOSAL BY RECEIVING LAB Additional charges incurred for disposal (if hazardous) or archival.	ENTER ANALYSIS AND METH-JD NUMBER REQUESTED		0 · ICE	1 - HCL	3 - H2SO4	4 · NaOH	5 - Zn Acetate	7 - NBHSO4	8 · Other (Na2SO3)		/ CENTADRE	ACIMPANA							OTHER NOTES Anayetal Report EVEL 2 EDD Excel Standard		RELINCUISH TO BY	STONE	S S S S S S S S S S S S S S S S S S S	121610000 W	6:00:22	
DISPOSAL REQUIF	Additional charges incurred	TER ANALYSIS AND N				\ \ \	-		\ \ \	\ \ \	\ \ \	\ \ '			+		,			Z	N F	13	SICHATURE	PRINTED NAME	COMPANY	da - Baterian	
	128 LAB USE ONLY)	Na Car	PRESERVATIVE CODE.	BOTTLE TYPE	BOTTLE SIZE:	SB				I I I I I I I I I I I I I I I I I I I	WBI			*	0					FROPERLY PRESERVED	PECVD WALHOLDING TIVES	/ECEIVE 3 BY	SIGNATURE	PRINTEDMAYE	COMPANY /	DATESTIME /1/1/C G	19
PAGE 1 OF 1	LRF # 1610C128			RESS.				10/14/2016			LAB	SAMPLE ID	(LAB USE O'ILY)	AT27124	AT27125						2	RELINOUISHED BY					6 of 19
		JECT NAME:		Y/STATE) ADDI			N AROUND TIM		NEW RE 11SEDI		CELABS	GRAB/	COMP	COMP	GRAB					2			SIGNATURE	PRINTED NAME	COMPANY	DATE/TIME	
CORD	es, Ir y, NY 12 18) 381-	PROJECT**PROJECT NAME	16100128	LOCATION (CITY/STATE) ADDRESS		Ž	REQUIRED TURN AROUND TIME:		(CEST EN BEIGNOT SO SUNIS		NICHOLAS NICHOLAS@PACELABS		MATRIX	١	_					COC TAPE	COC DISCREPANCIES		1				
DY RE	Servic enectady Fax: (5			,							S NICHO	(Epacelars com	TIME	10:15	10.20	23						RECE.VED BY	4-1	WE			
SUSTO	tical S ive, Scho 3-4592								ı	NFIED AT	NICHOLA	Nicola Johnson@pacelads	DATE	10/7/16	10/7/16					TEMP	>	-	SIGNATURE	PRINTED NAWE	COMPANY	DATE TIVE	
CHAIN OF CUSTODY RECORD	Pace Analytical Services, Inc. 2190 Technology Drive, Schenectady, NY 12308 Telephone (518) 346-4592 Fax: (518) 381-6055	www pacelabs com	CLIENT (REPORTS TO DE JENT 107:	FACE	PROJECT MANAGER	NICK NICHOLAS	Province:	CLF	Notes.	SAMPLE PRESERVATION NOT VERIFIED AT SCHENECTADY LAB.	ELECTRONIC RESULTS		SAMPLE ID	LEACHATE	LEACHATE					Call this of the state of the	AMBIENT ON LINELED	AECTIVEL BROKEN ON CENTRAL	SIGNATURE.	PHINTED NAME	COMPANY	DATE TIME	

Cooler Receipt and Preservation Check Form

R1610685 Pace Analytical Services - NY 16100128	5

Project/Clien	1 Pac			Fc	older l	Number_		_	·			
Cooler received		, ,	t	oy: (a)	C	OURIER:	ALS	UPS (EDEX VE	LOCITY	CLIENT	
1 Were Cust	ody seals on	outside	of cooler	?	V [5a Perci	hlorate	samples l	nave required h	eadspace?	Y	N (NA)
2 Custody p	apers properl	y com	pleted (ink	k, signed)?	4	5b Did \	VOA vi	als, Alk,o	r Sulfide have s	ig* bubbl	es? Y	N (NA)
3 Did all bot	tles arrive in g	good co	ondition (unbroken)? (Y)	기	6 Wher	re did th	e bottles	originate?	ALS/RC	oc C	LIEN
4 Circle W	et Ice Dry	lce G	el packs	present?	<u> </u>	7 Soil	VOA re	ceived as:	Bulk	Encore	5035set	(NA)
8. Temperature	Readings	Dat	e: 10/8/	Time:	907	ID	: (IR#7) 1R#8	From	: Temp B	lank 5	ample Bottle
Observed Ten			49									
Correction Fa			-									
Corrected Ter			4.96	- ,	-	., .,	37		V N	Y	1	YN
Within 0-6°C			N N	Y N		Y N	Y		Y N Y N		1	YN
If <0°C, were				YN		<u>Y N</u>					Day Ru	
If out of Te	emperature,	note p	acking/ice	condition:	A	lce me	ntea	Poori	off Client no	Jame tified by:	-	
				Standing								
All samples h	teld in storage	e locat	ion:	R-COZ	bу _	0	on	NE	ic at D			
Susamples	s placed in sto	orage i	ocation:		υ _ν —		- " -		at			
VENE STREET	क्रमस्यका ध ्य	n Avitante		A PERSONAL PROPERTY OF THE PARTY OF	napres	ural revenue			त्मन शुक्रमा व्यक्त स्ट्रा	THE PERSON NAMED IN	STEEDING!	Town de la delle
Cooler Brea	akdown: Dat	e : <u></u>	2.5-16	Time: <u></u>	250	b	y: <u>†</u>	- v	NO NO			
1. W 2. D	ere an boute i id all hottle la	hels an	d tags agr	ee with custody p	apers?	11, 010.):		€	NO.			
3. W	ere correct co	ntaine	rs used for	the tests indicate	d?				S NO			
3. W 4. W	ere correct co ere 5035 vials	ntaine s acc e p	rs used for stable (no	the tests indicated extra labels, not le	d? :aking)	?			ES NO	g !	Ø	9
3. W 4. W 5. A	ere correct co ere 5035 vials ir Samples: C	ntaines s acc e p assette	rs used for stable (no	the tests indicated extra labels, not le	d? :aking)		urized		S NO	nflated	1	() ()
3. W 4. W 5. A Explain an	'ere correct co 'ere 5035 vials ir Samples: C y discrepanci	ntaine s accep assette es:	rs used for stable (no e s / Tubes l	the tests indicate extra labels, not le intact	d? :aking) Can	? isters Press			ES NO	nflated Fina	16 16 17 11 Y	A A es=All
3. W 4. W 5. A	ere correct co ere 5035 vials ir Samples: C	ntaines s acc e p assette	rs used for stable (no e s / Tubes l	the tests indicated extra labels, not le	d? :aking)	? isters Press		1	ES NO ES NO Tedlar® Bags I		1 -	es=All emples OK
3. W 4. W 5. A Explain an pH ≥12	ere correct co ere 5035 vials ir Samples: C y discrepanci Reagent	ntaine s accep assette es:	rs used for stable (no e s / Tubes l	the tests indicate extra labels, not le intact	d? :aking) Can	? isters Press		Vol.	ES NO ES NO Tedlar® Bags I	Fina	52	mples OK
3. W 4. W 5. A Explain an pH ≥12 ≤2	/ere correct co /ere 5035 vials ir Samples: C y discrepanci Reagent NaOH HNO ₃	ntaine s accep assette es: Yes	rs used for stable (no e s / Tubes I	the tests indicate extra labels, not le intact ot Received	d? :aking) Can	? isters Press		Vol.	ES NO ES NO Tedlar® Bags I	Fina	5a	mples OK o=Samples
3. W 4. W 5. A Explain an pH ≥12 ≤2 ≤2	ere correct co ere 5035 vials ir Samples: C y discrepanci Reagent NaOH HNO ₃	ntaine s accep assette es:	rs used for stable (no e s / Tubes I	the tests indicate extra labels, not le intact	d? :aking) Can	? isters Press		Vol.	ES NO ES NO Tedlar® Bags I	Fina	sa N W	mples OK
3. W 4. W 5. A Explain an pH ≥12 ≤2 ≤2 <4	/ere correct co /ere 5035 vials ir Samples: C y discrepanci Reagent NaOH HNO ₃	ntaine s accep assette es: Yes	rs used for stable (no o s / Tubes I	the tests indicate extra labels, not le intact ot Received	d? :aking) Can	? isters Press		Vol.	ES NO ES NO Tedlar® Bags I	Fina	sa N W pi	o=Samples ere ereserved at the lab as
3. W 4. W 5. A Explain an pH ≥12 ≤2 ≤2	ere correct co ere 5035 vials ir Samples: C y discrepanci Reagent NaOH HNO ₃ 11 ₂ SO ₄ NaHSO ₄	ntaine s accep assette es: Yes	rs used for stable (no cas / Tubes I	the tests indicates extra labels, not le intact of Received +, contact PM to Id Na ₂ S ₂ O ₃ (CN),	d? :aking) Can	? isters Press		Vol.	ES NO ES NO Tedlar® Bags I	Fina	sa N W pi	o=Samples ere reserved at
3. W 4. W 5. A Explain an pH ≥12 ≤2 ≤2 <4 Residual	rere correct co rere 5035 vials ir Samples: C y discrepanci Reagent NaOH HNO ₃ II ₂ SO ₄ NaHSO ₄ For CN Phenol and 522	ntaines accepassette es: Yes	rs used for stable (no es / Tubes I	the tests indicate extra labels, not le intact of Received	d? :aking) Can	? isters Press		Vol.	ES NO ES NO Tedlar® Bags I	Fina	sa N W pr	o=Samples ere reserved at the lab as sted
3. W 4. W 5. A Explain an pH ≥12 ≤2 ≤2 <4 Residual Chlorine	rere correct co rere 5035 vials ir Samples: C y discrepanci Reagent NaOH HNO ₃ II ₂ SO ₄ NaHSO ₄ For CN Phenol and 522 Na ₂ S ₂ O ₃	ntaines accepassente es: Yes	rs used for stable (no cas / Tubes I	the tests indicates extra labels, not le intact of Received +, contact PM to Id Na ₂ S ₂ O ₃ (CN),	d? :aking) Can	? isters Press	ID	Vol. Added	ES NO ES NO Tedlar® Bags I	Fina pH	sa N W pr Ti lis	o=Samples ere reserved at the lab as sted M OK to
3. W 4. W 5. A Explain an pH ≥12 ≤2 ≤2 <4 Residual Chlorine	rere correct co rere 5035 vials ir Samples: C y discrepanci Reagent NaOH HNO ₃ II ₂ SO ₄ NaHSO ₄ For CN Phenol and 522 Na ₂ S ₂ O ₃ ZnAcetate	ntaines accepassette es: Yes	rs used for stable (no es / Tubes I	the tests indicates extra labels, not le intact of Received +, contact PM to Id Na ₂ S ₂ O ₃ (CN),	d? :aking) Can	? isters Press	iD be test	Vol. Added	ES NO ES NO Tedlar® Bags I	Fina pH	sa N W pr Ti lis	o=Samples ere reserved at the lab as sted
3. W 4. W 5. A Explain an pH ≥12 ≤2 ≤2 <4 Residual Chlorine (-)	rere correct co rere 5035 vials ir Samples: C y discrepanci Reagent NaOH HNO ₃ Il ₂ SO ₄ NaHSO ₄ For CN Phenol and 522 Na ₂ S ₂ O ₃ ZnAcetate HCl	ntaines accepassette es: Yes	rs used for stable (no es / Tubes I	the tests indicated extra labels, not les intact of Received if the property of the property	d? :aking) Can	? isters Press	iD be test	Vol. Added	ES NO ES NO Tedlar® Bags I Lot Added	Fina pH	sa N W pr Ti lis	o=Samples ere reserved at the lab as sted M OK to
3. W 4. W 5. A Explain an pH ≥12 ≤2 ≤2 <4 Residual Chlorine (-)	rere correct co rere 5035 vials ir Samples: C y discrepanci Reagent NaOH HNO ₃ H ₂ SO ₄ NaHSO ₄ For CN Phenol and 522 Na ₂ S ₂ O ₃ ZnAcetate HCl	ntaines accepassette es: Yes	rs used for stable (no es / Tubes I	the tests indicated extra labels, not les intact of Received if the property of the property	d? :aking) Can	? isters Press	iD be test	Vol. Added	ES NO ES NO Tedlar® Bags I Lot Added	Fina pH	sa N W pr Ti lis	o=Samples ere reserved at the lab as sted M OK to
3. W 4. W 5. A Explain an pH ≥12 ≤2 ≤2 <4 Residual Chlorine (-)	rere correct co rere 5035 vials ir Samples: C y discrepanci Reagent NaOH HNO ₃ H ₂ SO ₄ NaHSO ₄ For CN Phenol and 522 Na ₂ S ₂ O ₃ ZnAcetate HCl	ntaines accepassette es: Yes	rs used for stable (no es / Tubes I	the tests indicated extra labels, not les intact of Received if the property of the property	d? :aking) Can	? isters Press	iD be test	Vol. Added	ES NO ES NO Tedlar® Bags I Lot Added	Fina pH	sa sa N w pri lii lii A A	mples OK o=Samples ere reserved at the lab as sted M OK to djust:
3. W 4. W 5. A Explain an pH ≥12 ≤2 ≤2 <4 Residual Chlorine (-)	rere correct co rere 5035 vials ir Samples: C y discrepanci Reagent NaOH HNO ₃ H ₂ SO ₄ NaHSO ₄ For CN Phenol and 522 Na ₂ S ₂ O ₃ ZnAcetate HCl	ntaines accepassette es: Yes	rs used for stable (no es / Tubes I	the tests indicated extra labels, not les intact of Received if the property of the property	d? :aking) Can	? isters Press	iD be test	Vol. Added	ES NO ES NO Tedlar® Bags I Lot Added	Fina pH	Sa Sa N W W PI Ti liii A A CLRES	mples OK o=Samples ere reserved at the lab as sted M OK to djust:
3. W 4. W 5. A Explain an pH ≥12 ≤2 ≤2 <4 Residual Chlorine (-)	rere correct co rere 5035 vials ir Samples: C y discrepanci Reagent NaOH HNO ₃ H ₂ SO ₄ NaHSO ₄ For CN Phenol and 522 Na ₂ S ₂ O ₃ ZnAcetate HCl	ntaines accepassette es: Yes	rs used for stable (no es / Tubes I	the tests indicated extra labels, not les intact of Received if the property of the property	d? :aking) Can	? isters Press	iD be test	Vol. Added	ES NO ES NO Tedlar® Bags I Lot Added	Fina pH	Sa Sa N N W W PI Lii Si Si Si Si Si Si Si Si Si Si Si Si S	mples OK o=Samples ere reserved at the lab as sted M OK to djust: BULK FLDT
3. W 4. W 5. A Explain an pH ≥12 ≤2 ≤2 <4 Residual Chlorine (-)	rere correct co rere 5035 vials ir Samples: C y discrepanci Reagent NaOH HNO ₃ H ₂ SO ₄ NaHSO ₄ For CN Phenol and 522 Na ₂ S ₂ O ₃ ZnAcetate HCl	ntaines accepassette es: Yes	rs used for stable (no es / Tubes I	the tests indicated extra labels, not les intact of Received if the property of the property	d? :aking) Can	? isters Press	iD be test	Vol. Added	ES NO ES NO Tedlar® Bags I Lot Added	Fina pH	Sa Sa N N W PIT I I I I I I I I I I I I I I I I I I	mples OK o=Samples ere reserved at the lab as sted M OK to djust: BULK FLDT HGFB
3. W 4. W 5. A Explain an pH ≥12 ≤2 ≤2 <4 Residual Chlorine (-)	rere correct co rere 5035 vials ir Samples: C y discrepanci Reagent NaOH HNO ₃ H ₂ SO ₄ NaHSO ₄ For CN Phenol and 522 Na ₂ S ₂ O ₃ ZnAcetate HCl	ntaines accepassette es: Yes	rs used for stable (no es / Tubes I	the tests indicated extra labels, not les intact of Received if the property of the property	d? :aking) Can	? isters Press	iD be test	Vol. Added	ES NO ES NO Tedlar® Bags I Lot Added	Fina pH	Sa Sa N N W PI TI List I A A CLRES DO HTROD	mples OK o=Samples ere reserved at the lab as sted M OK to djust: BULK FLDT HGFB LL3541
3. W 4. W 5. A Explain an pH ≥12 ≤2 ≤2 <4 Residual Chlorine (-)	rere correct co rere 5035 vials ir Samples: C y discrepanci Reagent NaOH HNO ₃ H ₂ SO ₄ NaHSO ₄ For CN Phenol and 522 Na ₂ S ₂ O ₃ ZnAcetate HCl	ntaines accepassette es: Yes	rs used for stable (no es / Tubes I	the tests indicated extra labels, not les intact of Received if the property of the property	d? :aking) Can	? isters Press	iD be test	Vol. Added	ES NO ES NO Tedlar® Bags I Lot Added	Fina pH	Sa Sa N N W W PI Liting Pi	mples OK o=Samples ere reserved at the lab as sted M OK to djust: BULK FLDT HGFB LL3541 SUB
3. W 4. W 5. A Explain an pH ≥12 ≤2 ≤2 <4 Residual Chlorine (-)	rere correct co rere 5035 vials ir Samples: C y discrepanci Reagent NaOH HNO ₃ H ₂ SO ₄ NaHSO ₄ For CN Phenol and 522 Na ₂ S ₂ O ₃ ZnAcetate HCl	ntaines accepassette es: Yes	rs used for stable (no es / Tubes I	the tests indicated extra labels, not les intact of Received if the property of the property	d? :aking) Can	? isters Press	iD be test	Vol. Added	ES NO ES NO Tedlar® Bags I Lot Added	Fina pH	Sa Sa N N W PI TI List I A A CLRES DO HTROD	mples OK o=Samples ere reserved at the lab as sted M OK to djust: BULK FLDT HGFB LL3541

PAINTRANET QAQC\Forms Controlled\Cooler Receipt r12.doc

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

7 of 19

8/11/16



Miscellaneous Forms

ALS Environmental—Rochester Laboratory 1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623 Phone (585) 288-5380 Fax (585) 288-8475 www.alsglobal.com



REPORT QUALIFIERS AND DEFINITIONS

- U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
- J Estimated value due to either being a
 Tentatively Identified Compound (TIC) or
 that the concentration is between the MRL
 and the MDL. Concentrations are not verified
 within the linear range of the calibration. For
 DoD: concentration >40% difference between
 two GC columns (pesticides/Arclors).
- B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
- E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
- E Organics- Concentration has exceeded the calibration range for that specific analysis.
- D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
- * Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
- H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
- # Spike was diluted out.

- + Correlation coefficient for MSA is <0.995.
- N Inorganics- Matrix spike recovery was outside laboratory limits.
- N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
- S Concentration has been determined using Method of Standard Additions (MSA).
- W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
- P Concentration >40% (25% for CLP) difference between the two GC columns.
- C Confirmed by GC/MS
- Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).
- X See Case Narrative for discussion.
- MRL Method Reporting Limit. Also known as:
- LOQ Limit of Quantitation (LOQ)

 The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
- MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
- LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.
- ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

Rochester Lab ID # for State Certifications1

Connecticut ID # PH0556	Maine ID #NY0032	New Hampshire ID #							
Delaware Accredited	Nebraska Accredited	294100 A/B							
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786							
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158							
Illinois ID #200047	North Carolina #676	Virginia #460167							

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to http://www.alsglobal.com/cn/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

ALS Laboratory Group

Acronyms

ASTM American Society for Testing and Materials

A2LA American Association for Laboratory Accreditation

CARB California Air Resources Board

CAS Number Chemical Abstract Service registry Number

CFC Chlorofluorocarbon
CFU Colony-Forming Unit

DEC Department of Environmental Conservation

DEQ Department of Environmental Quality

DHS Department of Health Services

DOE Department of Ecology
DOH Department of Health

EPA U. S. Environmental Protection Agency

ELAP Environmental Laboratory Accreditation Program

GC Gas Chromatography

GC/MS Gas Chromatography/Mass Spectrometry

LUFT Leaking Underground Fuel Tank

M Modified

MCL Maximum Contaminant Level is the highest permissible concentration of a

substance allowed in drinking water as established by the USEPA.

MDL Method Detection Limit
MPN Most Probable Number
MRL Method Reporting Limit

NA Not Applicable NC Not Calculated

NCASI National Council of the Paper Industry for Air and Stream Improvement

ND Not Detected

.

NIOSH National Institute for Occupational Safety and Health

PQL Practical Quantitation Limit

RCRA Resource Conservation and Recovery Act

SIM Selected Ion Monitoring

TPH Total Petroleum Hydrocarbons

tr Trace level is the concentration of an analyte that is less than the PQL but

greater than or equal to the MDL.

ALS Group USA, Corp. dba ALS Environmental

Analyst Summary report

Client:

Pace Analytical Services - NY

Project:

16100128

Service Request: R1610685

Sample Name:

LEACHATE R1610685-001

Lab Code: Sample Matrix:

Water

Date Collected: 10/7/16

Date Received: 10/8/16

Analysis Method

420.4

Extracted/Digested By

Analyzed By

BBOWE

n + 1 / 10 1 1

Superset Reference:16-0000395846 rev 00

17100130 B 40 570



INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid	9030B
Soluble	<u></u>
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual	SM 4500-CN-G
Cyanide	
SM 4500-CN-E WAD	SM 4500-CN-I
Cyanide	

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation
	Method
6010C	3050B
6020A	3050B
6010C TCLP (1311)	3005A/3010A
extract	
6010 SPLP (1312) extract	3005A/3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/	DI extraction
353.2/ SM 2320B/ SM	
5210B/ 9056A Anions	

For analytical methods not listed, the preparation method is the same as the analytical method reference.

for 6 FT SECULIST FORMS OF REGULAR PARTING R



Sample Results

ALS Environmental—Rochester Laboratory 1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623 Phone (585) 288-5380 Fax (585) 288-8475 www.alsglobal.com

13 of 19

1.C100100 B 40



General Chemistry

ALS Environmental—Rochester Laboratory 1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623 Phone (585) 288-5380 Fax (585) 288-8475 www.alsglobal.com

14 of 19

1 01 201

100100 B 40 CC

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:

Pace Analytical Services - NY

Project:

16100128

Sample Matrix:

Sample Name:

Water

LEACHATE

Lab Code:

R1610685-001

Service Request: R1610685

Date Collected: 10/07/16 10:15

Date Received: 10/08/16 09:05

Basis: NA

Inorganic Parameters

Analysis

Analyte Name Method Result Units **MRL** Dil. Date Analyzed Q 10/11/16 09:30 0.0020 Phenolics, Total Recoverable 420.4 0.0020 U mg/L

Superset Reference: 16-0000395846 rev 00



QC Summary Forms

ALS Environmental—Rochester Laboratory 1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623 Phone (585) 288-5380 Fax (585) 288-8475 www.alsglobal.com

16 of 19

37 1 01 301

CIANIDO B. 15 CC



General Chemistry

ALS Environmental—Rochester Laboratory 1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623 Phone (585) 288-5380 Fax (585) 288-8475 www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:

Pace Analytical Services - NY

Project:

16100128

Sample Matrix:

Analyte Name

Phenolics, Total Recoverable

Water

Sample Name:

Method Blank

Lab Code:

R1610685-MB

Service Request: R1610685

Date Collected: NA

Date Received: NA

Basis: NA

Inorganic Parameters

Analysis

Method

420.4

Result 0.0020 U Units mg/L

MRL 0.0020 Dil.

Date Analyzed

10/11/16 09:30

Superset Reference: 16-0000395846 rev 00

Printed 10/12/2016 8:30:45 AM

A 10 10 1 F

18 of 19

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:

Pace Analytical Services - NY

Project:

16100128

Sample Matrix:

Water

Service Request: R1610685

Date Analyzed: 10/11/16

Lab Control Sample Summary General Chemistry Parameters

> Units:mg/L Basis:NA

Lab Control Sample R1610685-LCS

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Phenolics, Total Recoverable	420.4	0.0390	0.0400	97	90-110

10100100 B 10 000



November 01, 2016

Nick Nicholas

2190 Technology Drive Schenectady, NY 12308

RE: Project: 16100128 B&L

Pace Project No.: 701578

Dear Nick Nicholas:

Enclosed are the analytical results for sample(s) received by the laboratory on October 08, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Cathlin Panyarella

Caitlin Panzarella caitlin.panzarella@pacelabs.com **Project Manager**

Enclosures

cc: Nicole Johnson



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.





CERTIFICATIONS

Project:

16100128 B&L

Pace Project No.:

701578

Long Island Certification IDs

575 Broad Hollow Rd, Melville, NY 11747

New York Certification #: 10478 Primary Accrediting Body

New Jersey Certification #: NY158 Pennsylvania Certification #: 68-00350 Connecticut Certification #: PH-0435 Maryland Certification #: 208

Rhode Island Certification #: LAO00340 Massachusetts Certification #: M-NY026 New Hampshire Certification #: 2987

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.

Page 2 of 21

N 1 01 0017



ANALYTICAL RESULTS

Project: 16100128 B&L

Sample: LEACHATE	Lab ID: 701	578001	Collected: 10/07/1	6 10:15	Received: 10	/08/16 10:05 N	fatrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
200.7 Metals, Total	Analytical Meth	nod: EPA 20	00.7 Preparation Met	hod: EP	A 200.7			
Arsenic	<10.0	ug/L	10.0	1	10/14/16 10:30	10/18/16 03:16	7440-38-2	
Cadmium	<2.5	ug/L	2.5	1	10/14/16 10:30	10/18/16 03:16	7440-43-9	
Chromium	<10.0	ug/L	10.0	1	10/14/16 10:30	10/18/16 03:16	7440-47-3	
Copper	<25.0	ug/L	25.0	1	10/14/16 10:30	10/18/16 03:16	7440-50-8	
Lead	<5.0	ug/L	5.0	1	10/14/16 10:30	10/18/16 03:16	7439-92-1	
Nickel	<40.0	ug/L	40.0	1	10/14/16 10:30	10/18/16 03:16	7440-02-0	
Silver	<10.0	ug/L	10.0	1	10/14/16 10:30	10/18/16 03:16	7440-22-4	
Zinc	29.5	ug/L	20.0	1	10/14/16 10:30	10/18/16 03:16	7440-66-6	
7470 Mercury	Analytical Met	hod: EPA 7	470A Preparation Me	thod: El	PA 7470A			
Mercury	<0.20	ug/L	0.20	1	10/19/16 15:30	10/20/16 13:51	7439-97-6	
8270 MSSV	Analytical Met	hod: EPA 8	270D Preparation Mo	ethod: E	PA 3510C			
2,4-Dinitrotoluene	<5.0	ug/L	5.0	1	10/13/16 10:46	10/18/16 03:21	121-14-2	
2.6-Dinitratoluene	<5.0	ug/L	5.0	1		10/18/16 03:21		
2-Chloronaphthalene	<5.0	ug/L	5.0	1		10/18/16 03:21		
2-Methylnaphthalene	<5.0	ug/L	5.0	1		10/18/16 03:21		
2-Nitroaniline	<5.0	ug/L	5.0	1		10/18/16 03:21		
3,3'-Dichlorobenzidine	<5.0	ug/L	5.0	1		10/18/16 03:21		
3-Nitroaniline	<5.0	ug/L	5.0	1		10/18/16 03:21		
I-Bromophenylphenyl ether	<5.0	ug/L	5.0	1		10/18/16 03:21		
1-Chloroaniline	<5.0	ug/L	5.0	1		10/18/16 03:21		
1-Chlorophenylphenyl ether	<5.0	ug/L	5.0	1		10/18/16 03:21		
4-Nitroaniline	<5.0	ug/L	5.0	1		10/18/16 03:21		
Acenaphthene	<5.0	ug/L	5.0	1		10/18/16 03:21		
Acenaphthylene	<5.0	ug/L	5.0	1		10/18/16 03:21		
Anthracene	<5.0	ug/L	5.0	1		10/18/16 03:21		
Benzo(a)anthracene	<5.0	ug/L	5.0	1		10/18/16 03:21		
Benzo(a)pyrene	<5.0	ug/L	5.0	1		10/18/16 03:21		
Benzo(b)fluoranthene	<5.0	ug/L	5.0	1		10/18/16 03:21		
Benzo(g,h,i)perylene	<5.0	ug/L	5.0	1		10/18/16 03:2		
Benzo(k)fluoranthene	<5.0	ug/L	5.0	1		10/18/16 03:2		
Butylbenzylphthalate	<5.0	ug/L	5.0	1		10/18/16 03:2		
Carbazole	<5.0	ug/L	5.0	1		10/18/16 03:2		
Chrysene	<5.0	ug/L	5.0	1		10/18/16 03:2		
Di-n-butylphthalate	<5.0	ug/L	5.0			10/18/16 03:2		
Di-n-octylphthalate	<5.0	ug/L	5.0			10/18/16 03:2		
Dibenz(a,h)anthracene	<5.0	ug/L	5.0			10/18/16 03:2		
Dibenzofuran	<5.0	ug/L	5.0			10/18/16 03:2		
Diethylphthalate	<5.0	ug/L	5.0			10/18/16 03:2		
Dimethylphthalate	<5.0	ug/L	5.0			10/18/16 03:2		
Dimethylphinalate Fluoranthene	<5.0 <5.0	ug/L	5.0			10/18/16 03:2		
Fluoraninene	<5.0	ug/L	5.0			10/18/16 03:2		
Hexachloro-1,3-butadiene	<5.0	ug/L ug/L	5.0			10/18/16 03:2		
Hexachloro-1,3-buladiene Hexachlorobenzene	<5.0 <5.0	ug/L	5.0			10/18/16 03:2		
Mexacillotopetizette	~5.0	ugric	5.0		10/13/16 10:46			

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.



ANALYTICAL RESULTS

Project:

16100128 B&L

Pace Project No.: 701578

Sample: LEACHATE	Lab ID: 701	578001	Collected: 10/07/1	6 10:15	Received: 10	/08/16 10:05 M	fatrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
8270 MSSV	Analytical Meth	nod: EPA 8270	D Preparation Me	thod: El	PA 3510C			
Hexachloroethane	<5.0	ug/L	5.0	1	10/13/16 10:46	10/18/16 03:21	67-72-1	L2
Indeno(1,2,3-cd)pyrene	<5.0	ug/L	5.0	1	10/13/16 10:46	10/18/16 03:21	193-39-5	
Isophorone	<5.0	ug/L	5.0	1	10/13/16 10:46	10/18/16 03:21	78-59-1	
N-Nitroso-di-n-propylamine	<5.0	ug/L	5.0	1	10/13/16 10:46	10/18/16 03:21	621-64-7	
N-Nitrosodiphenylamine	<5.0	ug/L	5.0	1	10/13/16 10:46	10/18/16 03:21	86-30-6	
Naphthalene	<5.0	ug/L	5.0	1	10/13/16 10:46	10/18/16 03:21	91-20-3	
Nitrobenzene	<5.0	ug/L	5.0	1	10/13/16 10:46	10/18/16 03:21	98-95-3	
Phenanthrene	<5.0	ug/L	5.0	1	10/13/16 10:46	10/18/16 03:21	85-01-8	
Pyrene	<5.0	ug/L	5.0	1	10/13/16 10:46	10/18/16 03:21	129-00-0	
bis(2-Chloroethoxy)methane	<5.0	ug/L	5.0	1	10/13/16 10:46	10/18/16 03:21	111-91-1	
bis(2-Chloroethyl) ether	<5.0	ug/L	5.0	1	10/13/16 10:46	10/18/16 03:21	111-44-4	
bis(2-Ethylhexyl)phthalate	<5.0	ug/L	5.0	1	10/13/16 10:46	10/18/16 03:21	117-81-7	
Surrogates		_						
Nitrobenzene-d5 (S)	59	%.	35-114	1	10/13/16 10:46	10/18/16 03:21	4165-60-0	
2-Fluorobiphenyl (S)	60	%.	43-116	1	10/13/16 10:46	10/18/16 03:21	321-60-8	
p-Terphenyl-d14 (S)	64	%.	33-141	1	10/13/16 10:46	10/18/16 03:21	1718-51-0	
Phenol-d5 (S)	23	%.	10-110	1	10/13/16 10:46	10/18/16 03:21	4165-62-2	
2-Fluorophenol (S)	34	%.	21-110	1	10/13/16 10:46	10/18/16 03:21	367-12-4	
2,4,6-Tribromophenol (S)	91	%.	10-123	1	10/13/16 10:46	10/18/16 03:21	118-79-6	
2-Chlorophenol-d4 (S)	58	%.	33-110	1	10/13/16 10:46	10/18/16 03:21	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	45	%.	16-110	1	10/13/16 10:46	10/18/16 03:21	2199-69-1	
410.4 COD	Analytical Met	hod: EPA 410	.4 Preparation Me	thod: EF	PA 410.4			
Chemical Oxygen Demand	<10.0	mg/L	10.0	1	10/25/16 11:30	10/25/16 15:36	i	
SM 4500 CNE Cyanide, Total	Analytical Met	hod: SM22 45	600-CN-E Prepara	tion Met	hod: SM20/22 45	00-CN-C		
Cyanide	<10.0	ug/L	10.0	1	10/13/16 12:26	10/13/16 17:05	57-12-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.

Date: 11/01/2016 01:37 PM

Page 4 of 21





ANALYTICAL RESULTS

Project:

16100128 B&L

Pace Project No.: 701578

Pace Project No.: 101576								
Sample: LEACHATE	Lab ID: 7015	78002	Collected: 10/07/1	16 10:20	Received:	10/08/16 10:05	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
HEM, Oil and Grease	Analytical Metho	od: EPA 1664	4A					
Oil and Grease	<5.0	mg/L	5.0	1		10/19/16 16:	29	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.

Date: 11/01/2016 01:37 PM



Project:

16100128 B&L

Pace Project No.:

701578

QC Batch:

1296

QC Batch Method:

EPA 7470A

Analysis Method:

EPA 7470A

Analysis Description:

7470 Mercury

Associated Lab Samples:

701578001

Matrix: Water

METHOD BLANK: 8019 Associated Lab Samples:

701578001

Blank Result

Reporting

Limit

Analyzed

108

Qualifiers

Mercury

Units ug/L

Units

< 0.20

0.20 10/20/16 13:12

LABORATORY CONTROL SAMPLE:

Parameter

Parameter

Spike Conc.

LCS Result

LCS % Rec % Rec Limits

Mercury

ug/L

80-120

Qualifiers

MATRIX SPIKE SAMPLE:

8021

Parameter

Parameter

701788001 Units Result

Spike Conc.

1.1

MS Result

MS % Rec % Rec

Qualifiers

Mercury

< 0.20

0.89

79

Limits 75-125

SAMPLE DUPLICATE: 8022

Units

701788001 Result

< 0.20

Dup Result

RPD

Qualifiers

Mercury

ug/L

ug/L

< 0.20

1

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC,

Page 6 of 21



Project:

16100128 B&L

Pace Project No.:

701578

QC Batch:

738

Analysis Method:

EPA 200.7

QC Batch Method:

EPA 200.7

Analysis Description:

200.7 Metals, Total

Associated Lab Samples:

701578001

.

METHOD BLANK: 5329

701578001

Matrix: Water

Associated Lab Samples: 7015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	 ug/L	<10.0	10.0	10/18/16 01:55	
Cadmium	ug/L	<2.5	2.5	10/18/16 01:55	
Chromium	ug/L	<10.0	10.0	10/18/16 01:55	
Copper	ug/L	<25.0	25.0	10/18/16 01:55	
Lead	ug/L	<5.0	5.0	10/18/16 01:55	
Nickel	ug/L	<40.0	40.0	10/18/16 01:55	
Silver	ug/L	<10.0	10.0	10/18/16 01:55	
Zinc	ug/L	<20.0	20.0	10/18/16 01:55	

LABORATORY CONTROL SAMPL	.E: 5330					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Arsenic	ug/L	500	452	90	85-115	
Cadmium	ug/L	50	46,2	92	85-115	
Chromium	ug/L	250	230	92	85-115	
opper	ug/L	250	236	94	85-115	
ad	ug/L	500	463	93	85-115	
ickel	ug/L	250	233	93	85-115	
lver	ug/L	250	224	90	85-115	
nc	ug/L	1000	933	93	85-115	

MATRIX SPIKE SAMPLE:	5332						
		701431001	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Arsenic	ug/L	10.0	500	468	92	70-130	
Cadmium	ug/L	4,6	50	50.2	91	70-130	
Chromium	ug/L	<10.0	250	233	93	70-130	
Copper	ug/L	506	250	732	90	70-130	
Lead	ug/L	14,2	500	473	92	70-130	
Nickel	ug/L	91.9	250	321	92	70-130	
Silver	ug/L	<10.0	250	231	93	70-130	
Zinc	ug/L	411	1000	1340	93	70-130	

Arsenic	ug/L	10.0	<10.0		
Parameter	Units	Result	Result	RPD	Qualifiers
SAMPLE DUPLICATE: 5331		701431001	Dup		

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.







Project:

16100128 B&L

Pace Project No.: 701578

SAMPLE DUPLICATE: 5331					
Parameter	Units	701431001 Result	Dup Result	RPD	Qualifiers
Cadmium	ug/L	4.6	4.2	9	
Chromium	ug/L	<10.0	<10.0		
Copper	ug/L	506	488	4	
Lead	ug/L	14.2	15.1	6	
Nickel	ug/L	91.9	87. 9	4	
Silver	ug/L	<10.0	<10.0		
Zinc	ug/L	411	394	4	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.



Project:

16100128 B&L

Pace Project No.:

QC Batch Method:

701578

QC Batch:

596

EPA 3510C

Analysis Method:

EPA 8270D

Analysis Description:

8270 Water MSSV

Associated Lab Samples:

701578001

Matrix: Water

METHOD BLANK: 4603 **Associated Lab Samples:**

N-Nitrosodiphenylamine

Date: 11/01/2016 01:37 PM

701578001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
2,4-Dinitrotoluene	ug/L	<5.0	5,0	10/18/16 02:26	
2,6-Dinitrotoluene	ug/L	<5.0	5.0	10/18/16 02:26	
2-Chloronaphthalene	ug/L	<5.0	5,0	10/18/16 02:26	
2-Methylnaphthalene	ug/L	<5.0	5.0	10/18/16 02:26	
2-Nitroaniline	ug/L	<5.0	5.0	10/18/16 02:26	
3,3'-Dichlorobenzidine	ug/L	<5.0	5.0	10/18/16 02:26	
3-Nitroaniline	ug/L	<5.0	5.0	10/18/16 02:26	
4-Bromophenylphenyl ether	ug/L	<5.0	5.0	10/18/16 02:26	
4-Chloroaniline	ug/L	<5.0	5.0	10/18/16 02:26	
4-Chlorophenylphenyl ether	ug/L	<5.0	5.0	10/18/16 02:26	
4-Nitroaniline	ug/L	<5.0	5.0	10/18/16 02:26	
Acenaphthene	ug/L	<5.0	5.0	10/18/16 02:26	
Acenaphthylene	ug/L	<5.0	5.0	10/18/16 02:26	
Anthracene	ug/L	<5.0	5.0	10/18/16 02:26	
Benzo(a)anthracene	ug/L	<5.0	5.0	10/18/16 02:26	
Benzo(a)pyrene	ug/L	<5.0	5.0	10/18/16 02:26	
Benzo(b)fluoranthene	ug/L	<5.0	5.0	10/18/16 02:26	
Benzo(g,h,i)perylene	ug/L	<5.0	5.0	10/18/16 02:26	
Benzo(k)fluoranthene	i ug/L	<5.0	5.0	10/18/16 02:26	
bis(2-Chloroethoxy)methane	ug/L	<5.0	5.0	10/18/16 02:26	
bis(2-Chloroethyl) ether	ug/L	<5.0	5.0	10/18/16 02:26	
bis(2-Ethylhexyl)phthalate	ug/L	<5.0	5.0	10/18/16 02:26	
Butylbenzylphthalate	ug/L	<5.0	5.0	10/18/16 02:26	
Carbazole	ug/L ::	<5.0	5.0	10/18/16 02:26	
Chrysene	ug/L	<5.0	5.0	10/18/16 02:26	
Di-n-butylphthalate	ug/L	<5.0	5.0	10/18/16 02:26	
Di-n-octylphthalate	ug/L	<5.0	5.0	10/18/16 02:26	
Dibenz(a,h)anthracene	ug/L	<5.0	5.0	10/18/16 02:26	
Dibenzofuran	ug/L	<5.0	5.0	10/18/16 02:26	
Diethylphthalate	ug/L	<5.0	5.0	10/18/16 02:26	
Dimethylphthalate	ug/L	<5.0	5.0	10/18/16 02:26	
Fluoranthene	ug/L	<5.0	5.0	10/18/16 02:26	
Fluorene	ug/L	<5.0	5.0	10/18/16 02:26	
Hexachloro-1,3-butadiene	ug/L	<5.0	5.0	10/18/16 02:26	
Hexachlorobenzene	ug/L	<5.0	5.0	10/18/16 02:26	
Hexachlorocyclopentadiene	ug/L	<5.0	5.0	10/18/16 02:26	
Hexachloroethane	ug/L	<5.0	5.0	10/18/16 02:26	
Indeno(1,2,3-cd)pyrene	ug/L	<5.0	5.0		
Isophorone	ug/L	<5.0	5.0	10/18/16 02:26	
N-Nitroso-di-n-propylamine	ug/L	<5.0	5.0	10/18/16 02:26	

ug/L

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

5.0 10/18/16 02:26

<5.0

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.



Project:

16100128 B&L

Pace Project No.: 701578

METHOD BLANK: 4603

Matrix: Water

Associated Lab Samples: 701578001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Naphthalene	ug/L	<5.0	5.0	10/18/16 02:26	
Nitrobenzene	ug/L	<5.0	5.0	10/18/16 02:26	
Phenanthrene	ug/L	<5.0	5.0	10/18/16 02:26	
Pyrene	ug/L	<5.0	5.0	10/18/16 02:26	
1,2-Dichlorobenzene-d4 (S)	%-	49	16-110	10/18/16 02:26	
2,4,6-Tribromophenol (S)	%.	87	10-123	10/18/16 02:26	
2-Chlorophenol-d4 (S)	%.	69	33-110	10/18/16 02:26	
2-Fluorobiphenyl (S)	%.	69	43-116	10/18/16 02:26	
2-Fluoraphenol (S)	%.	45	21-110	10/18/16 02:26	
Nitrobenzene-d5 (S)	%.	72	35-114	10/18/16 02:26	
p-Terphenyl-d14 (S)	%.	81	33-141	10/18/16 02:26	
Phenol-d5 (S)	%.	32	10-110	10/18/16 02:26	

LABORATORY CONTROL SAMPLE:	4604					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
2,4-Dinitrotoluene	ug/L	50	46.4	93	55-122	
2,6-Dinitrotoluene	ug/L	50	49.9	100	56-121	
2-Chloronaphthalene	ug/L	50	39.3	79	41-122	
2-Methylnaphthalene	ug/L	50	32.8	66	31-123	
2-Nitroaniline	ug/L	50	36.7	73	48-124	
3,3'-Dichlorobenzidine	ug/L	50	44.3	89	20-132	
3-Nitroaniline	ug/L	50	46.4	93	46-112	
4-Bromophenylphenyl ether	ug/L	50	43.0	86	53-121	
4-Chloroaniline	ug/L	50	36.2	72	25-133	
4-Chlorophenylphenyl ether	ug/L	50	40.2	80	53-116	
4-Nitroaniline	ug/L	50	52.6	105	51-113	
Acenaphthene	ug/L	50	40.8	82	50-116	
Acenaphthylene	ug/L	50	40.0	80	50-109	
Anthracene	ug/L	50	45.9	92	54-117	
Benzo(a)anthracene	ug/L	50	47.3	95	31-128	
Benzo(a)pyrene	ug/L	50	46.1	92	30-146	
Benzo(b)fluoranthene	ug/L	50	45.7	91	43-147	
Benzo(g,h,i)perylene	ug/L	50	62.4	125	25-153	
Benzo(k)fluoranthene	ug/L	50	44.7	89	28-148	
bis(2-Chloroethoxy)methane	ug/L	50	34.1	68	47-102	
bis(2-Chloroethyl) ether	ug/L	50	31.9	64	39-111	
bis(2-Ethylhexyl)phthalate	ug/L	50	46.7	93	37-138	
Butylbenzylphthalate	ug/L	50	45.2	90	38-135	
Carbazole	ug/L	50	47,0	94	69-127	
Chrysene	ug/L	50	47.6	95	42-140	
Di-n-butylphthalate	ug/L	50	47.0	94	50-128	
Di-n-octylphthalate	ug/L	50	44.8	90	32-148	
Dibenz(a,h)anthracene	ug/L	50	58.7	117	22-147	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC

9 12 in 2 1



Project:

16100128 B&L

Pace Project No.: 701578

Date: 11/01/2016 01:37 PM

n . 1 . 10 . . .

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dibenzofuran	ug/L	50	42.7	85	53-117	-
Diethylphthalate	ug/L	50	45.5	91	54-124	
Dimethylphthalate	ug/L	50	44.8	90	56-121	
Fluoranthene	ug/L	50	48.2	96	50-123	
Fluorene	ug/L	50	41.7	83	51-118	
Hexachloro-1,3-butadiene	ug/L	50	21.5	43	18-90	
Hexachlorobenzene	ug/L	50	47.5	95	52-128	
Hexachlorocyclopentadiene	ug/L	50	8.1	16	13-119	
Hexachloroethane	ug/L	50	18.1	36	41-119 l	.0
Indeno(1,2,3-cd)pyrene	ug/L	50	66.7	133	26-156	
Isophorone	ug/L	50	35.1	70	46-118	
N-Nitroso-di-n-propylamine	ug/L	50	33.5	67	40-124	
N-Nitrosodiphenylamine	ug/L	50	43.9	88	41-95	
Naphthalene	ug/L	50	33.7	67	39-107	
Nitrobenzene	ug/L	50	35.7	71	41-122	
Phenanthrene	ug/L	50	47.0	94	52-126	
Pyrene	ug/L	50	49.3	99	41-137	
1,2-Dichlorobenzene-d4 (S)	%-			55	16-110	
2-Chlorophenol-d4 (S)	%.			72	33-110	
2-Fluorobiphenyl (S)	%.			81	43-116	
2-Fluorophenol (S)	%.			46	21-110	
Nitrobenzene-d5 (S)	%.			77	35-114	
p-Terphenyl-d14 (S)	%.			82	33-141	
Phenol-d5 (S)	%.			30	10-110	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.

M 1 01 2015



Project:

16100128 B&L

Pace Project No.:

701578

QC Batch:

1160

QC Batch Method:

EPA 1664A

Analysis Method:

EPA 1664A

Analysis Description:

1664 HEM, Oil and Grease

Associated Lab Samples:

701578002

Matrix: Water

METHOD BLANK: 7380 Associated Lab Samples:

701578002

Blank Result

Reporting

Limit

Analyzed

Qualifiers

Oil and Grease

Units mg/L

<5.0

5.0 10/19/16 16:29

LABORATORY CONTROL SAMPLE:

Parameter

Spike Conc.

LCS Result

LCS % Rec % Rec Limits

Parameter Oil and Grease

Units mg/L

40

35.8

78-114 90

Qualifiers

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.

Page 12 of 21



Project:

16100128 B&L

Pace Project No.:

701578

QC Batch:

2344

QC Batch Method: EPA 410.4 Analysis Method:

EPA 410.4

Analysis Description:

410,4 COD

Associated Lab Samples:

701578001

Matrix: Water

METHOD BLANK: 12420 Associated Lab Samples:

701578001

Blank Result

Reporting

Parameter

Units

Limit

Analyzed

Qualifiers

Chemical Oxygen Demand

mg/L

<10.0

10.0 10/25/16 15:33

LABORATORY CONTROL SAMPLE:

Parameter

Parameter

Spike

LCS

LCS % Rec % Rec Limits

Chemical Oxygen Demand

Units mg/L

Units

mg/L

Conc. 500 Result 496

90-110

Qualifiers

MATRIX SPIKE SAMPLE:

Chemical Oxygen Demand

12422

701274005 Result

Spike Conc.

MS Result

99

494

MS % Rec % Rec Limits

90-110

Qualifiers

SAMPLE DUPLICATE: 12423

Units

701274005 Result

Dup Result

500

<10.0

RPD

Qualifiers

99

Parameter Chemical Oxygen Demand

mg/L

<10.0

<10.0

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.

.

Page 13 of 21



Project:

16100128 B&L

Pace Project No.:

QC Batch Method:

701578

QC Batch:

592

SM20/22 4500-CN-C

Analysis Method:

SM22 4500-CN-E

Analysis Description:

4500 CNE Cyanide, Total

Associated Lab Samples:

701578001

Matrix: Water

METHOD BLANK: 4576 Associated Lab Samples:

701578001

Blank Result Reporting

Parameter

Units

Limit

Analyzed

Qualifiers

Cyanide

ug/L

<10.0

10.0 10/13/16 17:03

LABORATORY CONTROL SAMPLE:

Parameter

Parameter

Spike Conc.

LCS

LÇŞ

% Rec Limits

Cyanide

Units ug/L

Result 65.2 % Rec

85-115

Qualifiers

MATRIX SPIKE SAMPLE:

4578

701413001

Spike

100

<10.0

MS

MS

% Rec

Cyanide

Cyanide

Units

ug/L

ug/L

Result

Conc. ND

Result 94.8

87

% Rec

94

Limits

75-125

Qualifiers

SAMPLE DUPLICATE: 4579

Parameter

Units

701413001 Result

ND

Dup Result

RPD

Qualifiers

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.



QUALIFIERS

Project:

16100128 B&L

Pace Project No.:

701578

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

LO Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

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

REPORT OF LABORATORY ANALYSIS





QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project:

16100128 B&L

Pace Project No.: 701578

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
701578001	LEACHATE	EPA 200.7	738	EPA 200.7	814
701578001	LEACHATE	EPA 7470A	1296	EPA 7470A	1339
701578001	LEACHATE	EPA 3510C	596	EPA 8270D	685
701578002	LEACHATE	EPA 1664A	1160		
701578001	LEACHATE	EPA 410.4	2344	EPA 410.4	2369
701578001	LEACHATE	SM20/22 4500-CN-C	592	SM22 4500-CN-E	669

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.

Page 16 of 21

Date: 11/01/2016 01:37 PM

1 01 0015

PAC WO#:701578

CHAIN OF CUSTODY RECORD

Pace Analytical Services, Inc. 2190 Technology Drive, Schenectady, NY 12308 Telephone (518) 346-4592 Fax (518) 381-6055 www.pacelabs.com

PROJECTION NAME:

PAGE 10F 1

(LAB USE ONLY) LRF # 16100128

ENTER ANALYSIS AND METHOD NUMBER REQUESTED additional charges incurred for disposal (if hazardous) or archival. DISPOSAL BY RECEIVING LAB ARCHIVAL BY RECEIVING LAB DISPOSAL REGIONAL PAGENITATION OF THE PROPERTY OF THE PAGENITATION

							L	ENIER ANALTOIS	LTOIDA		HOD NOMBE	AND METHOD NUMBER REQUESTED	7
PACE			16100128			PRESERV	PRESERVATIVE CODE:	0	3	4	2	1	PRESERVATIVE KEY
			LOCATION (CITY/STATE) ADDRESS:	NYSTATE) ADC	RESS:	TTOB	BOTTLE TYPE:	AMBER	HDPE	HDPE	HDPE	AMBER	0 - ICE
PROJECT MANAGER:						ВОТТ	BOTTLE SIZE:	1.	250ML	250ML	250ML	11	1-HCL
NICK NICHOLAS			≽			S.FI					//		2 - HNO3 3 - H2SO4
Project			REQUIRED TURN AROUND TIME:	RN AROUND TI	Ę.	INE	\	,	`	\	\	\	4 - NaOH
CLF	_				10/14/2016		WB ((b	(e)	, (002/5	\ \ !	5 - Zn. Acetate
Notes:						100	OLE6	0/,	050	011	TALI	\ \	6 - MeOH
SAMPLE PRESERVATION NOT VERIFIED AT SCHENECTADY LAB. \mathbb{N} Lab. \mathbb{N}_1 , \mathbb{Z}_n .	RIFIED AT	(,0,16,N	NAME OF COURIER (IF USED):	RIER (IF USEO)		3O A	DONS	7000	NO JENO,	ValoreM AS	SELECT M	\	7 + NaHSO4 8 - Other (NaZSO3)
ELECTRONIC RESULTS	NICHOLAS NICHOLAS@PACELABS.	NICHC	LAS@PA	CELABS.	LAB	381	\	\	\	\	<u></u>		2
	Nicole, Johnson@pacelabs.com	acelabs.con	!	GRAB/	SAMPLE ID	VION	\	\	\	`	\		
SAMPLE ID	DATE	TIME	MATRIX	COMP	(LAB USE ONLY)	_	/	/	/	/	/	/ RE	REMARKS:
LEACHATE	10/7/16	10:15	٦	COMP	AT27124	4	×	×	×	×			
LEACHATE	10/7/16	10:20	7	GRAB	AT27125	1					×		
						_							
AMBIENT OR CHILLED:	TEMP: OLD		COC TAPE:	Y		PROPERLY PRESERVED:	RESERVED:	Y			THER NOTES: Avai	lytical Report LEVE	OTHER NOTES: Analytical Report (LEVEL-2) EDD: Excel Standard
RECEIVED BROKEN OR LEAKING:	2		COC DISCREPANCIES		Y N	RECVD WII HI	RECVD WII HOLDING TIMES:	٨	z				
RELINGUISHED BY		RECEIVED BY			RELINGUISHED BY	_	RECEIVED BY			RELINGUISHED BY	IED BY		RECEIVED BY
вюнуплие —	SHONATURE FELL	83 #	7		00 00 BE	SIGNATURE	A	. \	SKGNATURE	,		SKGNATURE	
PRINTED NAME - FITTER	PRINTED NAME			PRINTED NAME		PRETERINAME /	s Chiston		PRINTED NAME	ē.		PRINTED MAME	
Na ag	COMPANY			COMPANY		COMPANY TASK	'		COMPANY			COMPANY	
DATE/TAME 10/7/16 16:00	DATE/TIME			DATE/TIME		I I	10/8/10	1005	DATE/TIME			DATE/TIME	

New York Office Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section C Invoice Information: Section B Required Project Information: 2190 Technology Dr. Schenectady, NY 12308 (518) 346-4592

The contract Section & Loguidides Page of the region Section & Loguidides Page of the region Section & Loguidides Page of the region Page of	Required Client Information:	Required Project Information.	ormano	VONTO A VIOTA STOTA
Company Name Comp		Report To: Barton & Loguidice		ממסקאומים
Page 1982 Page		Copy To:	Company Name:	☐ GROUND WATER ☐
Standard County Fig. Proposition P			Address:	UST F RCRA
Significant Countries of Countr		Purchase	1	L GA TIL T'N T'48 T
Signature with the properties of the properties	Fax	1	Pace Project Manager:	L OH L SC L WI L
AMPLE ID Substance of the control o		Project Number	Pace Profile #:	Filtered (V/N)
SAMPLE ID Section of the control of	Standard			Documentary (1997)
Sample tide Must ref Lundolf Sample tide Must ref Lundolf	Section D HATRIX Required Client Information SAMPLE ID ROCCT	AMPTRIX CODE THE THE THE THE THE THE THE THE THE THE	PASSONAL TEMPERSONAL COLLECTION OF COLLECTIO	SEL SECOND PROPERTY OF THE PRO
MY G HARDEN WY C HARD I SAMPLER IN X X X X X X X X X X X X X X X X X X	Sample IDs MUST BE UNIQUE CONTROL	DATE	National Nat	-C-7
AND TOTAL MATERIALION ONTE TAKE COMPINION ONTE TAKE SAMPLE SAMPLE COMPINION ONTE TAKE SAMPLE SAM		c relibe	Cl2 8 × ×	X X X X X X X X X X X X X X X X X X X
ANDTHONG COMMENTS ANDTHONG COMM		_	1 220	×
SAMPLE CONDITION. COMMENTS HELMOUSHED SHY AFFILM TON THE CONDITION ONE SAMPLE CONDITION SAMPLETHAND SHALM USE FINE SAMPLE CONDITION SAMPLETHAND SHALM USE FINE SAMPL				
ANDTICAAL COMMENTS ANDTICAAL COMMENTS ANDTICAAL COMMENTS ANDTERNAL SHAPER ANDTICAAL COMMENTS ANDTERNAL SHAPER ANDTICAAL COMMENTS ANDTERNAL SHAPER ANDTICAAL COMMENTS ANDTERNAL SHAPER	*			
AND TOWAR COMMENTS THE WOULSHED BY AFFILIATION DATE THE WOULSHED BY AFFILIATION DATE THE SAMPLE CONDITIONS SAMPLE CONDITION				
AND TENNOUSHED SY AFFELIATION DATE TIME SAMPLE CONDITIONS AND TENNOUSHED SY AFFELIATION DATE TIME SAMPLE CONDITIONS AND TENNOUSHED SY AFFELIATION DATE TIME SAMPLE CONDITIONS SAMPLE	9`			
ANDSTRUMENTS SYMPLETINGUISHED BY AFFILIATION DATE TIME SAMPLE CONDITIONS ANDSTRUMENT OF THE SYMPLETINGUISHED BY AFFILIATION DATE TIME SAMPLE CONDITIONS SAMPLETINGUISHED BY AFFILIATION DATE TIME SAMPLE CONDITIONS SAMPLETINGUISHED SYMPLER MARKE AND SYMPLER MARKE	7			
ANDTHOUGHT ON AFFILIATION DATE TIME ACCEPTED BY AFFILIATION DATE TIME SAMPLE CONDITIONS ANDTHOUGHT ON AFFILIATION DATE SAMPLE CONDITIONS SCALFFE HAAME AND SCHAMER PROVER THE CONDITION TO THE CONDITIONS OF THE	83.			
ADDITIONAL COLLINGLY SHELLATION DATE TIME ACCEPTED BY AFFILIATION DATE TIME SAMPLE CONDITIONS ADDITIONAL COLLINGLY SHELLATION DATE TIME SAMPLE CONDITIONS SAMPLE FINANCIAL SHAWLE AND SHAWLE AND SHAWLERS AND SHAWL	C			
ADDITIONAL COLLEGIS 1 HELINOUISHED SY / AFFILIATION DATE TIME SAMPLE CONDITIONS ADDITIONAL COLLEGIS 1 HELINOUISHED SY / AFFILIATION DATE TIME SAMPLE CONDITIONS ADDITIONAL COLLEGIS 1 HAVE AND SIGNATURE OF SAMPLER MARK BY DESIGNATION OF SAMPLER MARK BY DESIGNATURE OF SAMPLER MARK BY DESIGNATION OF SAMPLER MARK BY DESIGNATION OF SAMPLER MARK BY DESIGNATION OF SAMPLER MARK BY DESIGNATION OF SAMPLER MARK BY DESIGNATION OF SAMPLER MARK BY DESIGNATION OF SAMPLE MARK BY DESIGNATION OF SAMPLE MARK BY DESIGNATION OF SAMPLE MARK BY DESIGNATION OF SAMPLE MARK BY DESIGNATION OF SAMPLE MARK BY DESIGNATION OF SAMPLE MARK BY DESIGNATION OF SAMPLE MARK BY DESIGNATION OF SAMPLE MARK BY DESIGNATION OF SAMPLE MARK BY DESIGNATION OF SAMPLE MARK BY DESIGNATION OF SAMPLE MARK BY DESIGNATION OF SAMPLE MARK BY DESIGNATION OF SAMPLE MARK BY DESIGNATION OF SAMPLE MARK BY DESIGNATION OF SAMPLE MARK BY DESIGNATIO	,			
ADDITIONAL COMMENTS **RELINQUISHED BY AFFILIATION DATE TIME ACCEPTED BY AFFILIATION DATE TIME SAMPLE CONDITIONS **MATCH NAME AND SIGNATURE** **PRINT Name of SAMPLER:** MARK Broker TACC DATE Speed Color of Co				
ADDITIONAL COMMENTS HELINOUISHED BY ARRIERIAN DATE MITCO PACE ID: 17/1/1 1155 7.5 \$7 YY YY YY YY YY YY YY YY YY YY YY YY YY	12.			BY/AFFILIATION DATE TIME SAMPLE
SAMPLER NAME AND SIGNATURE SPRINT Name of SAMPLER: SIGNATURE of SAMPLER: Matt Broker Signature of SAMPLER: Matter Signature of SAMPLER		* HELINQUISHED BY / AFFIL	JA 1.46	2/6
SAMPLER NAME AND SIGNATURE PRINT Name of SAMPLER: Matt Broker Custody Sealed Cooler Cust			4	N/A
SAMPLER NAME AND SIGNATURE PRINT Name of SAMPLER: Matt Broker SIGNATURE OF SAMPLER: Matt Broker SIGNATURE OF SAMPLER: Matt Broker SIGNATURE OF SAMPLER: Matt Broker SIGNATURE OF SAMPLER: Matt Broker SIGNATURE OF SAMPLER: Matt Broker SIGNATURE OF SAMPLER: Matt Broker SIGNATURE OF SAMPLER: Matt Broker SIGNATURE OF SAMPLER: Matt Broker SIGNATURE OF SAMPLER: Matt Broker SIGNATURE OF SAMPLER: Matt Broker SIGNATURE OF SAMPLER: Matt Broker SIGNATURE OF SAMPLER: Matt Broker SIGNATURE OF SAMPLER: Matt Broker SIGNATURE OF SAMPLER: Matt Broker SIGNATURE OF SAMPLER: Matt Broker SIGNATURE OF	-5			-
SAMPLER NAME AND SIGNATURE PRINT Name of SAMPLER: Matt Broker PACC Custody Custody Custody SignaTure of SAMPLER: Matt Broker PACC Custody SignaTure of SAMPLER: Matt Broker PACC				Н
PRINT Name of SAMPLER: Matt Broker PAC. Date Supped SIGNATURE of SAMPLER: Matt Broker PAC.		7740		no t
SIGNATURE of SAMPLER: MAN DO 1 TO 1 TO 1 TO 1 TO 1 TO 1 TO 1 TO 1	²age	NIE	SAMPLER: Matt Broker	ni qme
	18 o	SIGN	SAMPLER: MAYO	10H/1/6



CLIENT NAME: 8 +C-

			11-0
Va-4:	N/A & None		AA 10/7/16
San Anna L Loralizate	No □ Blue □	iservative:	iample pH): Iting in LIMS): 3H logbook):
PROJECT: ELF SEN	No 的 intact: Yes a ice USED: Wet o cooler Temperature ("C): 7.5	Lot # of added preservative:	Line-Out (Includes Copying Shipping Documents and verifying sample pHH: Log In (Includes notifying PM of any discrepacies and documenting in LIMS) Log In (Includes notifying PM of any discrepacies and includes Scanning Bottles and entering LAB IDs into pH logbook):
12	_ %	10. 10. 11. 13. completed: N.M. 14.	ng Shipping Doci y PM of any discr ing Bottles and e
	T: Yes	1. 2. 3. 3. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4.	Copylic
	Pace BS Other CI CUSTODY SEAL PRESENT: Yes CI None B Othe 3 CI #160239773-PRB CI N/AB	THE THE PARTY AND THE PARTY AN	ut (Includes ((Includes no)
	Pace 15 CUSTODY 185 0 773 0 #160 N/A 25		Line-O Log In Labelia
	Client C CL CL Bubble Bags C 3 C #160239773	Myes Myes Myes Myes Gyes Gyes Gyes Hests Oves een Oves n Oves	88
) 0 ur	hain of Custody Present: hain of Custody Filled Out: hain of Custody Filled Out: Custody Relinquished: Chain of Custody Relinquished: Company Filled Out: Containers In Around Time Requested: Containers Intact: Containers needing preservation have been Invested: Checked: Compliance with EPA recommendation: Compliance with EPA recommendatio	dy Seals Present;
	COURIER: FedEx D TRACKING # 1/A PACKING MATERIAL: Bubble Wrap D THERMOMETER USED: #164 g/ IR Gu BIOLOGICAL TISSUE IS FROZEN: Yes D	Chain of Custody Present: Chain of Custody Filled Out: Chain of Custody Filled Out: Chain of Custody Filled Out: Sampler Name / Signature on COC: Sampler Name / Signature on COC: Sampler Name / Signature on COC: Sampler Arrived within Hold Time: Short Hold Time Analysis (<72hr): Rush Turn Around Time Requested: Sufficient Volume: - Pace Containers Used: - Pace Containers Used: - Pace Containers Used: - Includes date/time/ID/Analys All containers needing preservation ha checked: All containers needing preservation has compliance with EPA recommenda compliance with EPA recommenda - Exceptions that are not checked: TOC, V - Exceptions that are not checked: TOC, V - Exceptions that are not decked: TOC, V	Trip Blank Custody Seals Present Pare Trip Blank Lot #: N / / Sample Receipt form filled in:
	0 - 6 - 6		Page 19 of 21

Page 20 of 21

Pace Analytical

Sample Condition Upon Receipt

Client Name: _

WO#:701578

PM: CNP Due Date: 10/17/16

CLIENT: PACE-NY

Courier:	nt Commercial	Pace Other	epiloral Projection (E
Custody Seal on Cooler/Box Present: yes	no Seals l	ntact: Dyes D	no establishment
Packing Material: Bubble Wrap Bubble Thermometer Used 150163311 Cooler Temperature	Bags None Type of Ice: Wet Biological Tissue i	Blue None	Samples on ice, cooling process has begun Date and initials of person examining contents:
Temp should be above freezing to 6°C		Comments:	
Chain of Custody Present:	ŒYes □No □N/A	1	
Chain of Custody Filled Out:	⊠Yes □No □N/A	2.	
Chain of Custody Relinquished:	☑Yes □No □N/A	3.	
Sampler Name & Signature on COC:	⊠Yes □No □N/A	4.	1
Samples Arrived within Hold Time:	EYes OND ONA	5.	N-
Short Hold Time Analysis (<72hr):	- Tres OND ONIA	6	7 K
Rush Turn Around Time Requested:	□Yes □K6 □N/A	7	
Sufficient Volume:	⊠Yes □No □N/A	8.	
Correct Containers Used:	ŒYes □No □N/A	9.	
-Pace Containers Used:	∰Yes □No □N/A		
Containers Intact:	AVOS ONO ONIA	10.	
Filtered volume received for Dissolved tests	DYES DNO DA	11.	
Sample Labels match COC:	No DNIA	12.	
-Includes date/time/iD/Analysis Matrix: 5	L(AQ)OIL		
All containers needing preservation have been checked.	□Yes □No □N/A	. 13.	
All containers needing preservation are found to be in compliance with EPA recommendation.	□Yes □No □NA		
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	□Yes □No	Initial when completed	Lot # of added preservative
Samples checked for dechlorination:	TYES NO DIL	14.	
Headspace in VOA Vials (>6mm):	□үез □нь ү йни	15.	
Trip Blank Present:	□Yes □No ♀N	16.	
Trip Blank Custody Seals Present	DYSS DNO PW	4	
Pace Trip Blank Lot # (if purchased):	 		
Client Notification/ Resolution: Person Contected:	Date	s/Time:	Field Date Required? Y / N
Comments/ Resolution:			
Project Manager Review:	untan	yarella	Date: 10/18/16

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

1 01 2016

Montgomery County Eastern Landfill (Closed)

Environmental Monitoring Report 2017 Second Quarter/Annual Review

Village of Fort Johnson Montgomery County, New York

June 2017

Environmental Monitoring Report 2017 Second Quarter/Annual Review

Eastern Landfill (Closed)

Village of Fort Johnson Montgomery County, New York

NYSDEC Region 4

Prepared for:

Montgomery County
Department of Public Works
County Highway Building
6 Park Street
P.O. Box 1500
Fonda, New York 12068-1500

Prepared by:

Barton & Loguidice, D.P.C. 443 Electronics Parkway Liverpool, New York 13088

June 2017

Project No.: 666.006.002

MONTGOMERY COUNTY EASTERN LANDFILL (CLOSED) GAS SURVEY LOG

			7
Date:	5/31/2016		
Logged By:	MPS		1
Instrument Model:	Vrae	_	Ī
Barometric Pressure (in):	30.00		
Wind Velocity (mph):	14		1
Temperature (F):	79"		
GAS MONITORING POINT LOCATION	GAS READING	COMMENTS	
	(%VOLUME)		-
GP-1	NIR		1
GP-2			
GP-3]
GP-4			
GP-5			1
GP-6		Builty / seeing . 451 by warres?	1
GP-7			1
GP-8		13-3 Penap allery lightet	1
GP-9			1
GP-10		Rismilsometalton, har pt.	المحتد الم
GP-11			RWIND
GP-12		River lage	i
GP-13			1
GP-14		Lacker Street	1
GP-15			
GP-16			ſ
GP-17	J.		1
GP-17R			
GP-18	NR		
GP-18R			
GP-19	NIK		
GP-20			
GP-21			
GP-22	V		

NIR= No Instrument Response



MONTGOMERY COUNTY EASTERN LANDFILL (CLOSED) GAS SURVEY LOG

Date:	12/13/2016	_
Logged By:	DMJ	_
Instrument Model:	Vrae	_
Barometric Pressure (in):	30.01	_
Wind Velocity (mph):	1.5	_
Temperature (F):	32	–
GAS MONITORING	GAS READING	
POINT LOCATION	(%VOLUME)	COMMENTS
GP-1	NIR	3. 8.300
GP-2	NER	P-100-8
GP-3	NTR	
GP-4	NIE	
GP-5	NIR	
GP-6	NIR	
GP-7	NER NER NER NER	
GP-8	NIK	
GP-9	NER	
GP-10	NTR	No Expon location
GP-11	ÚTR	
GP-12	NIR	
GP-13	MIR	
GP-14	NIR	Trustal Mer location
GP-15	NIR	
GP-16	NIR	
GP-17	0.04	
GP-17R	_	
GP-18	NIR	
GP-18R	_	
GP-19	NIK	
GP-20	NIR	
GP-21	NER	
GP-22	NIR	062

NIR= No Instrument Response

	arton
S.	loguidice
	Engineers · Environmental Scientists · Planners · Landscape Architect

MONTGOMERY COUNTY EASTERN LANDFILL (CLOSED) GAS SURVEY LOG

Date: 04/ 05/	11/17	
Logged By: MPS	<u> </u>	
Instrument Model: 1/Rac		
Barometric Pressure (in): 300	2	
Wind Velocity (mph): 5-10		
Temperature (F): 57		
GAS MONITORING POINT LOCATION	GAS READING (%VOLUME)	COMMENTS
<u>GP-1</u>	VIR	
GP-2	NIR	
GP-3	NIR	
GP-4	NIR	
GP-5	MR	
GP-6	MR	
GP-7	NIR	
GP-8	NIR	
GP-9	NIR	
GP-10	NIR	
GP-11	NIR	
GP-12	VIR	
GP-13	NIB	<u></u>
GP-14	NIG	
GP-15	NIR	
<u>GP-16</u>	NIR	
<u>GP-17</u>	NIR	
GP-17R	7)	
GP-18	NIR	
GP-18R		
GP-19	NIK	
GP-20	NIK	
GP-21	NIR	
GP-22	NIR	

NIR= No Instrument Response



Montgomery County Central Landfill (Closed)

Environmental Monitoring Report 2017 Second Quarter/Annual Review

Route 5S, Town of Root Montgomery County, New York

June 2017

Environmental Monitoring Report 2017 Second Quarter/Annual Review

Central Landfill (Closed)

Route 5S, Town of Root Montgomery County, New York

NYSDEC Region 4

Prepared for:

Montgomery County Department of Public Works
County Highway Building
6 Park Street
P.O. Box 1500
Fonda, New York 12068-1500

Prepared by:

Barton & Loguidice, D.P.C. 443 Electronics Parkway Liverpool, New York 13088

June 2017

Project No.: 666.006.002

MONTGOMERY COUNTY CENTRAL LANDFILL (CLOSED) GAS SURVEY LOG

Date:	5/31/2016	
Logged By:	MPS	
Instrument Model:	Vrae	
Barometric Pressure (in):	30,00	
Wind Velocity (mph):	5-10	
Temperature (F):	7.3	
GAS MONITORING	GAS READING	COMMENTS
POINT LOCATION	(%VOLUME)	
GP-1	1/1/2	
GP-2	NIR	
GP-3	NIR	
GP-4	NIR	
GP-5	NIR	
Transfer Station Building	NIA	
Maintenance Building	NIR	
Storage Building	NIR	
Scale House	MR	

Notes:

NIR= No Instrument Response



Engineers • Environmental Scientists • Planners • Landscape Architects

MONTGOMERY COUNTY CENTRAL LANDFILL (CLOSED) GAS SURVEY LOG

Date:	12/13/2016	
Logged By:	DMJ	-
Instrument Model:	Vrae	_
Barometric Pressure (in):	30.02	_
Wind Velocity (mph):	.5	-
Temperature (F):	35	
GAS MONITORING POINT LOCATION	GAS READING (%VOLUME)	COMMENTS
TONT ECOATION	(76 V OEOIVIE)	
GP-1	NIR	
GP-2	NIR	
GP-3	NIC	
GP-4	MIR	
GP-5	NTR	
Transfer Station Building	NIR	
Maintenance Building	NIR	
Storage Building	NIR	
Scale House	NIC	

Notes:

NIR= No Instrument Response



Engineers • Environmental Scientists • Planners • Landscape Architects

MONTGOMERY COUNTY CENTRAL LANDFILL (CLOSED) **GAS SURVEY LOG**

Deter Only 13		
Date: PS///7 Logged By: AP		
		
Wind Velocity (mph): 5-0 Temperature (F): 54	,	
Temperature (17. 34		
GAS MONITORING	GAS READING	COMMENTS
POINT LOCATION	(%VOLUME)	
GP-1	NIR	
GP-2	NIR	
GP-3	NIR	
GP-4	MR	
GP-5	MR	
Transfer Station Building	NR	
Maintenance Building	NIR	
Storage Building	NIR	
Scale House	NIR	

Notes: NIR= No Instrument Response



Enaineers • Environmental Scientists • Planners • Landscape Architects

APPENDIX C COST ESTIMATE SHEETS



Site	Eastern Landfill
Site Acreage	85
Size of Waste Footprint	47
Year Closed	1999

Year Analyzed for	2018
Number of Years in Post-Closure	19
Years Remaining in	11
Post-Closure Period	2029

] .	(3)		ials/Subcont
						Labor ⁽³⁾		ct Costs
Perso	nnel Expenses			, , , , , , , , , , , , , , , , , , ,				
						or Column)		
				Subtotal 1 =	\$	-	\$	-
	ate Disposal							
A.	Hauling (5)							
	a. Gallons per year ⁽¹⁾	2585133						
	b. Gallons per haul (average)	8400						
	c. Total Trips	308						
	d. Trip Time	1.5	hours					
	e. Estimated labor rate	20.60	per hour					
				Subtotal 2A =	\$	9,509.60	\$	-
В.	Treatment	•••••••••••••••••••••••••••••••••••••••						•••••••••••••••••••••••••••••••••••••••
	a. Gallons per year ⁽¹⁾	2585133						
	b. Rate per gallon ⁽⁹⁾	0.035						
				Subtotal 2B =	Ś	-	\$	95,989.
					7	-	<u> </u>	23,303.
				Subtotal 2 =	Ċ	0.500.60	\$	OF 000
Loach	ate System Cleaning			Subtotal 2 =	\$	9,509.60	\$	95,989.
A.	Line flushing by County personnel							
	a. Length of line	2,260	LF					
	b. Events per year	1						
	c. Hours per event	32						
	d. Estimated unit rate	\$ 42.84	per hour					
				Subtotal 3A =	\$	1,370.81		
В.	Tank cleaning							
	a. Number of tanks b. Events per year	0	per tank					
	c. Labor effort		man hours					
			per hour					
				Subtotal 3B =	\$	-	\$	-
C.	Line cleaning and inspection by a contractor							
	a. Length of line	2260						
	b. Events per year	1						
		\$ 8,837.00						
	e. Inflation (3% per year)	\$ 9,102.11		Subtotal 3C =	\$	-	\$	9,102
				Subtotal 3 =	\$	1,370.81	\$	9,102.
Fuel				Subtotal 3 -	Ų	1,370.01	٦	3,102
	a. 2013 Actual Site Costs ⁽²⁾	\$ 11,291.84						
	b. Divided among the 3 sites based on site acreage 0.581							
	-	\$ 7,605.49						
				Subtotal 4=	\$	-	\$	7,605.
	ment Repairs and Maintenance							
Α.	Leachate pump system maintenance/replacement a. Number of pumps	6						
	b. Frequency of pump replacement (per pump)		per year					
	(4)	\$ 4,243.60	pe. yeu.					
		T 1,2 T3.00		Subtotal 5A =	\$	-	\$	2,546.
В.	Leachate manhole maintenance				 		†	
	a. Number of manholes	21					<u></u>	
	b. Events per year	0.1					.	
	c. Cost to repair ⁽⁴⁾	\$ 1,060.90						
				Subtotal 5B =	\$	-	\$	2,227.
				Subtotal 5 =	\$	-	\$	4,774.



	owing (by County staff)							
/ir	owing (by County starr) ncludes tank, road, buildings and slope section. Costs in-line with 20)11 Costs fo	r FI Fl		ļ		.	
(in a.		711 COSIS TO)r elf) 2				.	
а. b.			24					
D. C.	Estimated unit rate (man hours + equipment)	\$	42.84					
C.	Estimated unit rate (man nours + equipment)	Ş	42.84	Subtotal 6A =	<u>.</u>	2,056.21	\$	
Cr	ow Plowing (by County staff)			Subtotal bA –	Ş	2,030.21	Ş	
	emoval of snow from facility roads							
			4,175					
a.	Length of roads Events per year		4,175	LF				
b.	Labor effort			man haure				
c. d.		Ċ		man hours				
u.	Estimated unit rate (man hours + equipment)	\$	42.84	per hour Subtotal 6B =	<u>.</u>	2 570 26	Ċ	
············	Pagairs and Mica Cita Maintenana			Subtotal ob =	\$	2,570.26	\$	
	p Repairs and Misc. Site Maintenance		O.C.	2020				
	ze of facility			acres				
	ze of waste footprint			acres				
	ngth of stormwater conveyance ditches ⁽⁷⁾		3867		<u></u>			
Ar	nnual cost to dredge stormwater pond	\$	-	Site is stabilized - assume po			ļ	
				remaining post closure perio	od peri	iod		
C1							<u> </u>	
	a. Length of site roads		5,950		.		<u> </u>	
	b. Annual cost of road repair/fill	\$	597.29	See Assumption #7	.		<u> </u>	
							<u> </u>	
C2	Cost Summary - Facility Maintenance				<u> </u>		<u> </u>	
	a. Cost to dredge stormwater pond	\$	-					
•••••			F07.30	Assume 75% labor breakdo				
	b. Cost to maintain site roads	\$	597.29	County personnel, assum	ie 25%	materials		
	c. Surface water sampling and testing	\$	-					
	d. Sand blow-out/cap repair	\$	10,000.00	. Assume LS based on estimat	ed cor	ts for 2014]	
				repair work on cap	eu cos	00 101 ZU14		
	e. Cost for Misc Repairs (secondary containment rock,			rehaii Moik ou Cah			L	
	building maint., gas probe repairs, minor cap/swale	\$	10,000.00		lunimum A		łonimonomonomo	
	grading etc.)			Subtotal 6C =	\$	15,447.97	\$	5,14
. Gr	oundwater Monitoring Maintenance				<u> </u>		<u> </u>	
a.	Number of monitoring wells		6		<u> </u>		<u> </u>	
b.	Frequency of well replacement		0.033	per year	<u> </u>		_	
c.	Unit cost for well replacement ⁽⁴⁾	\$	6,350.57				I	
		Ţ	0,550.57	per weii				
			0,330.37	Subtotal 6D =	\$	-	\$	1,25
			0,330.37		\$	-	\$	1,25
			0,550.57		\$	-	\$	1,25
			0,530.37		\$	20,074.44		
ineeri			0,530.37	Subtotal 6D =		20,074.44		
ineeri			0,530.37	Subtotal 6D =		20,074.44		
			6260	Subtotal 6D =		20,074.44		
. AER	ng AER Inspection and Report			Subtotal 6D =		20,074.44		
. AER a.	AER Inspection and Report Update Total Post Closure Cost Estimate		6260	Subtotal 6D =		20,074.44		
. AER a. b.	AER Inspection and Report Update Total Post Closure Cost Estimate Total cost divided among the 3 sites based on site acreage	0.581 \$	6260	Subtotal 6D =		20,074.44		
. AER a. b.	AER Inspection and Report Update Total Post Closure Cost Estimate Total cost divided among the 3 sites based on site acreage		6260 1000	Subtotal 6D =		20,074.44		6,40
AER a. b. c.	AER Inspection and Report Update Total Post Closure Cost Estimate Total cost divided among the 3 sites based on site acreage		6260 1000	Subtotal 6D = Subtotal 6 =	\$	20,074.44	\$	6,40
. AER a. b. c.	AER Inspection and Report Update Total Post Closure Cost Estimate Total cost divided among the 3 sites based on site acreage		6260 1000	Subtotal 6D = Subtotal 6 =	\$	20,074.44	\$	6,40
. AER a. b. c.	AER Inspection and Report Update Total Post Closure Cost Estimate Total cost divided among the 3 sites based on site acreage ng ndwater Monitoring (1 event per year)		6260 1000	Subtotal 6D = Subtotal 6 =	\$	20,074.44	\$	6,40
AER a. b. c. nitori	AER Inspection and Report Update Total Post Closure Cost Estimate Total cost divided among the 3 sites based on site acreage ng ndwater Monitoring (1 event per year) Number of baseline samples		6260 1000 4,218.06	Subtotal 6D = Subtotal 6 = Subtotal 7 =	\$	20,074.44	\$	6,40
AER a. b. c. nitori Grou a. b.	AER Inspection and Report Update Total Post Closure Cost Estimate Total cost divided among the 3 sites based on site acreage ng ndwater Monitoring (1 event per year) Number of baseline samples Collection of baseline sample	0.581 \$	6260 1000 4,218.06 6 566.50	Subtotal 6D = Subtotal 6 = Subtotal 7 =	\$	20,074.44	\$	6,40
AER a. b. c. nitori Grou a. b.	AER Inspection and Report Update Total Post Closure Cost Estimate Total cost divided among the 3 sites based on site acreage ng ndwater Monitoring (1 event per year) Number of baseline samples Collection of baseline sample Analysis of baseline sample	0.581 \$	6260 1000 4,218.06 6 566.50 412.00	Subtotal 6D = Subtotal 6 = Subtotal 7 = Subtotal 7 =	\$	20,074.44	\$	6,40
nitorii Grou a. b. c.	AER Inspection and Report Update Total Post Closure Cost Estimate Total cost divided among the 3 sites based on site acreage ng ndwater Monitoring (1 event per year) Number of baseline samples Collection of baseline sample Analysis of baseline sample Reporting on baseline sample	0.581 \$ \$ \$ \$	6260 1000 4,218.06 6 566.50 412.00 329.60	Subtotal 6D = Subtotal 6 = Subtotal 7 = Subtotal 7 = per sample per sample per sample	\$	20,074.44	\$	6,40
AER a. b. c. nitori Grou a. b.	AER Inspection and Report Update Total Post Closure Cost Estimate Total cost divided among the 3 sites based on site acreage ng ndwater Monitoring (1 event per year) Number of baseline samples Collection of baseline sample Analysis of baseline sample	0.581 \$	6260 1000 4,218.06 6 566.50 412.00 329.60	Subtotal 6D = Subtotal 6 = Subtotal 7 = Subtotal 7 = per sample per sample per sample per sample per sample	\$	20,074.44	\$	4,21
AER a. b. c. nitori Grou a. b. c. d.	AER Inspection and Report Update Total Post Closure Cost Estimate Total cost divided among the 3 sites based on site acreage ng ndwater Monitoring (1 event per year) Number of baseline samples Collection of baseline sample Analysis of baseline sample Reporting on baseline sample Unit cost for baseline sampling, testing and reporting	0.581 \$ \$ \$ \$	6260 1000 4,218.06 6 566.50 412.00 329.60	Subtotal 6D = Subtotal 6 = Subtotal 7 = Subtotal 7 = per sample per sample per sample	\$	- 20,074.44	\$	4,21
AER a. b. c. nitori Grou a. b. c. d. e.	AER Inspection and Report Update Total Post Closure Cost Estimate Total cost divided among the 3 sites based on site acreage ng ndwater Monitoring (1 event per year) Number of baseline samples Collection of baseline sample Analysis of baseline sample Reporting on baseline sample Unit cost for baseline sampling, testing and reporting -Annual Leachate Monitoring (Consultant and Lab)	0.581 \$ \$ \$ \$	6260 1000 4,218.06 6 566.50 412.00 329.60 1,308.10	Subtotal 6D = Subtotal 6 = Subtotal 7 = Per sample per sample per sample per sample Subtotal 8A =	\$	- 20,074.44	\$	4,21
AER a. b. c. nitorii Grou a. b. c. d. e. Semi-	AER Inspection and Report Update Total Post Closure Cost Estimate Total cost divided among the 3 sites based on site acreage ng ndwater Monitoring (1 event per year) Number of baseline samples Collection of baseline sample Analysis of baseline sample Reporting on baseline sample Unit cost for baseline sampling, testing and reporting -Annual Leachate Monitoring (Consultant and Lab) Events per year	0.581 \$ \$ \$ \$	6260 1000 4,218.06 6 566.50 412.00 329.60 1,308.10	Subtotal 6D = Subtotal 6 = Subtotal 7 = Per sample per sample per sample per sample Subtotal 8A =	\$	- 20,074.44	\$	4,21
AER a. b. c. nitorii Grou a. c. d. e. Semi a. b.	AER Inspection and Report Update Total Post Closure Cost Estimate Total cost divided among the 3 sites based on site acreage ng ndwater Monitoring (1 event per year) Number of baseline samples Collection of baseline sample Analysis of baseline sample Reporting on baseline sample Unit cost for baseline sampling, testing and reporting -Annual Leachate Monitoring (Consultant and Lab) Events per year Labor Effort (4)	0.581 \$ \$ \$ \$	6260 1000 4,218.06 6 566.50 412.00 329.60 1,308.10 2 318.27	Subtotal 6D = Subtotal 6 = Subtotal 7 = Per sample per sample per sample per sample Subtotal 8A =	\$	- 20,074.44	\$	4,21
AER a. b. c. nitorii Grou a. b. c. d. e. Semi-	AER Inspection and Report Update Total Post Closure Cost Estimate Total cost divided among the 3 sites based on site acreage ng ndwater Monitoring (1 event per year) Number of baseline samples Collection of baseline sample Analysis of baseline sample Reporting on baseline sample Unit cost for baseline sampling, testing and reporting -Annual Leachate Monitoring (Consultant and Lab) Events per year	0.581 \$ \$ \$ \$	6260 1000 4,218.06 6 566.50 412.00 329.60 1,308.10	Subtotal 6D = Subtotal 6 = Subtotal 7 = Per sample per sample per sample per sample Subtotal 8A =	\$	- 20,074.44	\$	4,21 7,84
AER a. b. c. enitori Grou a. b. c. d. e.	AER Inspection and Report Update Total Post Closure Cost Estimate Total cost divided among the 3 sites based on site acreage ng ndwater Monitoring (1 event per year) Number of baseline samples Collection of baseline sample Analysis of baseline sample Reporting on baseline sample Unit cost for baseline sample Unit cost for baseline sampling, testing and reporting -Annual Leachate Monitoring (Consultant and Lab) Events per year Labor Effort (4) Analytical	0.581 \$ \$ \$ \$	6260 1000 4,218.06 6 566.50 412.00 329.60 1,308.10 2 318.27	Subtotal 6D = Subtotal 6 = Subtotal 7 = Per sample per sample per sample per sample Subtotal 8A =	\$	- 20,074.44	\$	4,21 7,84
. AER a. b. c. enitori . Grou a. b. c. d. e Semi a. b.	AER Inspection and Report Update Total Post Closure Cost Estimate Total cost divided among the 3 sites based on site acreage ng ndwater Monitoring (1 event per year) Number of baseline samples Collection of baseline sample Analysis of baseline sample Reporting on baseline sample Unit cost for baseline sampling, testing and reporting -Annual Leachate Monitoring (Consultant and Lab) Events per year Labor Effort (4)	0.581 \$ \$ \$ \$	6260 1000 4,218.06 6 566.50 412.00 329.60 1,308.10 2 318.27	Subtotal 6D = Subtotal 6 = Subtotal 7 = Per sample per sample per sample per sample Subtotal 8A =	\$		\$	4,21 7,84
. AER a. b. c. onitori . Grou a. b. c. d. e Semi a. b.	AER Inspection and Report Update Total Post Closure Cost Estimate Total cost divided among the 3 sites based on site acreage ng ndwater Monitoring (1 event per year) Number of baseline samples Collection of baseline sample Analysis of baseline sample Reporting on baseline sample Unit cost for baseline sampling, testing and reporting -Annual Leachate Monitoring (Consultant and Lab) Events per year Labor Effort (4) Analytical	0.581 \$ \$ \$ \$	6260 1000 4,218.06 6 566.50 412.00 329.60 1,308.10 2 318.27	Subtotal 6D = Subtotal 6 = Subtotal 7 = Per sample per sample per sample Subtotal 8A = Subtotal 8A =	\$		\$	4,21 7,84
AER a. b. c. niitorii Grou a. b. c. d. e. Semi a. b. c.	AER Inspection and Report Update Total Post Closure Cost Estimate Total cost divided among the 3 sites based on site acreage ng ndwater Monitoring (1 event per year) Number of baseline samples Collection of baseline sample Analysis of baseline sample Reporting on baseline sample Unit cost for baseline sample Unit cost for baseline sampling, testing and reporting -Annual Leachate Monitoring (Consultant and Lab) Events per year Labor Effort (4) Analytical Monitoring Events per year	0.581 \$ \$ \$ \$	6260 1000 4,218.06 6 566.50 412.00 329.60 1,308.10 2 318.27 530.45	Subtotal 6D = Subtotal 6 = Subtotal 7 = per sample per sample per sample Subtotal 8A = Subtotal 8A =	\$		\$	4,21 7,84
. AER a. b. c. onitori . Grou a. b. c. d. e Semi a. b. c.	AER Inspection and Report Update Total Post Closure Cost Estimate Total cost divided among the 3 sites based on site acreage ng ndwater Monitoring (1 event per year) Number of baseline samples Collection of baseline sample Analysis of baseline sample Reporting on baseline sample Unit cost for baseline sample Unit cost for baseline sampling, testing and reporting -Annual Leachate Monitoring (Consultant and Lab) Events per year Labor Effort (4) Analytical Monitoring Events per year	0.581 \$ \$ \$ \$	6260 1000 4,218.06 6 566.50 412.00 329.60 1,308.10 2 318.27 530.45	Subtotal 6D = Subtotal 6 = Subtotal 7 = per sample per sample per sample Subtotal 8A = Subtotal 8A =	\$		\$	4,21 7,84
. AER a. b. c. Onitori . Grou a. b. c. c. d. e Semi a. b. C. Ur	AER Inspection and Report Update Total Post Closure Cost Estimate Total cost divided among the 3 sites based on site acreage ndwater Monitoring (1 event per year) Number of baseline samples Collection of baseline sample Analysis of baseline sample Reporting on baseline sample Unit cost for baseline sample Unit cost for baseline sampling, testing and reporting -Annual Leachate Monitoring (Consultant and Lab) Events per year Labor Effort (4) Analytical Monitoring Events per year Number of probes nit cost for sampling	0.581 \$ \$ \$ \$	6260 1000 4,218.06 6 566.50 412.00 329.60 1,308.10 2 318.27 530.45	Subtotal 6D = Subtotal 6 = Subtotal 7 = Subtotal 7 = per sample per sample per sample Subtotal 8A = Subtotal 8B =	\$		\$	1,25 6,40 4,21 7,84
. AER a. b. c. onitori . Grou a. b. c. d. e Semi a. b. ur	AER Inspection and Report Update Total Post Closure Cost Estimate Total cost divided among the 3 sites based on site acreage ng ndwater Monitoring (1 event per year) Number of baseline samples Collection of baseline sample Analysis of baseline sample Reporting on baseline sample Unit cost for baseline sample Unit cost for baseline sampling, testing and reporting -Annual Leachate Monitoring (Consultant and Lab) Events per year Labor Effort (4) Analytical Monitoring Events per year Number of probes	0.581 \$ \$ \$ \$	6260 1000 4,218.06 6 566.50 412.00 329.60 1,308.10 2 318.27 530.45	Subtotal 6D = Subtotal 6 = Subtotal 7 = Per sample per sample per sample Subtotal 8A = Subtotal 8A =	\$		\$	6,40 4,21



Montgomery County Closed Sites

Summary Estimate of Annual Post-Closure Care Costs

FOR CALENDAR YEAR 2018

D. Surf	face water sampling and testing ⁽¹⁰⁾						***************************************	
a.	Number of sampling points		0					
b.	Collection of annual samples		\$500					
C.	Unit cost for annual sampling		\$400					
d.	Unit cost for quarterly visual sampling events (4 per year)		\$1,000					••••••••••••••••
e.	Unit cost for reporting		\$250					
				Subtotal 8D =	\$	-	\$	-
E. Inspect	tions							•••••••••••••••••••••••••••••••••••••••
Insp	oection of site, flares, manholes, and drainage systems							
a.	Events per year		24					
b.	Labor effort		2 ma	n hours				
C.	Estimated labor rate ⁽²⁾	\$	42.84					
				Subtotal 8E =	\$	2,056.21		
				Subtotal 8 =	\$	2,056.21	\$	11,413.
Naste Tran	nsporter Permits				-	•	•	
a.	2013 Actual Site Costs ⁽²⁾	\$	1,100.00					
b.	Divided among the 3 sites based on site acreage	0.581 \$	639.10					
C.	Inflation (3% per year)	\$	740.89					
				Subtotal 9 =	\$	-	\$	740.
Uniforms								
a.	2010 Actual Site Costs (2)	\$	789.89					
b.	Divided among the 3 sites based on site acreage	0.581 \$	458.93					
С.	Inflation (3% per year)	\$	581.35	Subtotal 10 =	\$	-	\$	581
Utilities								
a.	2016 Actual Site Costs for ELF and CLF Combined (2)	\$	7,189.00					
b.	Divided among the 3 sites based on site acreage	0.581 \$	4,176.81					
υ.	Inflation (3% per year)	\$	4,302.11	Subtotal 11 =	\$	-	\$	4,302
C.	initiation (370 per year)							
C.		Ś	10.062.12					
c. Insurance	2013 Actual Site Costs ⁽²⁾		10,062.12 5.846.09					
c. Insurance a. b.	2013 Actual Site Costs ⁽²⁾ Divided among the 3 sites based on site acreage	0.581 \$	5,846.09	Subtotal 12 =	Ś		Ś	6,777
c. Insurance a.	2013 Actual Site Costs ⁽²⁾			Subtotal 12 = Totals =	\$	- 33,011.05	\$	6,777 151,911



Cost Summary	
1. Personnel Expenses	\$ 33,011.05
2. Leachate Disposal	\$ 95,989.87
3. Leachate System Cleaning	\$ 9,102.11
4. Fuel	\$ 7,605.49
5. Equipment Repairs and Maintenance	\$ 4,774.05
6. Landfill repairs and Maintenance	\$ 6,406.73
7. Engineering	\$ 4,218.06
8. Monitoring	\$ 11,413.22
9. Waste Transporter Permits	\$ 740.89
10. Uniforms	\$ 581.35
11. Utilities	\$ 4,302.11
12. Insurance	\$ 6,777.22
Totals =	\$ 184,922.16
Contingency (10%) =	\$ 18,492.22
Total w/ Contingency =	\$ 203,414.38

References/Notes

- 1 3-year average (2014-2016) of Leachate Disposal Quantities, Eastern Landfill
- 2 Unit cost information based on previsous estimates using historical site information.
- 3 Labor Costs for employees only are broken out. Labor costs that appear under subconsultant cost estimating are rolled up into the 'Material/Subcontract' costs
- 4 Based on Cornerstone historical data or labor effort costing
- 5 Labor only fuel costs accounted for under separate line item
- 6 Reference, "RS Means Heavy Construction Cost Data" 23rd Annual Edition, 2009
- 7 Reference, Correspondence dated February 19, 2010, from Golder Associates to MOSA re: Evaluation of MOSA 2009 Post-Closure Cost Estimate
- 8 Reference, Record Topographic Survey of MOSA Construction and Debris Landfill, Vollmer Associates, Oct 15, 1997
- 9 Based on average per gallon costs (Amsterdam and Canajoharie WWTPs) from 2016
- 10 Implementing MSGP protocols not recommended in 2016.

Assumptions

- 1 Historical unit costs provided by the Post-Closure Manager have historically been rolled up for all three landfills. Where an historical cost has been provided for all three landfills and used as a basis for determining future costs, the costs have been divided among the three landfills based on the size of the waste limits
- 2 When 2009 costs have been used (provided by MOSA or from RS Means) a 3% inflation factor has been added
- 3 Cost to dredge ELF pond assumes 2 acre pond, excavated 2' deep, \$50 ton for disposal
- 4 Contingency costs are 10% of the post-closure maintenance costs
- 5 Leachate collection volumes used are an estimate and will vary depending upon the weather. Therefore, cost estimated based on average historical volumes are assumed to be adequate for predicting future generation rates
- $6\ \ Seeding\ and\ Stabilization\ Costs\ assume\ \$80\ per\ 1000\ sf\ of\ area\ with\ rye\ seed\ spread\ with\ hydroseeder$
- 7 Site road repair consists of spreading 1" of crushed gravel over 12' wide road, with rock @ \$30 ton delivered and 5% of site roads to be repaired per year.
- 8 Site maintenance assumed to be performed primarily by Montgomery County personnel. It is assumed 75% of all maintenance projects will be performed using Montgomery County personnel and equipment. It is assumed the other 25% of maintenance projects costs will be from outside vendors or material costs.
- 9

Personnel expenses for Montgomery County are calculated for each task, but per Montgomery County budgeting set-up, Montgomery County personnel costs are rolled into a separate category. Therefore, there are no estimated Montgomery County personnel costs in any of the categories other than the Personnel Category (Item #1).



Site	Central Landfill
Site Acreage	92
Size of Waste Footprint	32
Year Closed	1994

Year Analyzed for	2018
Number of Years in Post-Closure	24
Years Remaining in	6
Post-Closure Period	2024

					Labor ⁽³⁾	Mate	rials/Subcont ct Costs
Persor	nnel Expenses						
					or Column)		
Leacha	ate Disposal		Subtotal 1 =	\$	-	\$	-
A.	Hauling (5)						
Α.							
	a. Gallons per year (1)	2677533					
	b. Gallons per haul (average)	8400 319					
	c. Total Trips						
	d. Trip Time e. Estimated labor rate	1.25 hou					
	e. Estimated labor rate	17.92 per	Subtotal 2A =	\$	7 1 1 0 0 0	ć	
D	Troatmont		Subtotal ZA =	Ş	7,140.88	À	•
В.	Treatment						
	a. Gallons per year ⁽¹⁾	2677533					
	b. Rate per gallon ⁽⁹⁾	0.028					
			Subtotal 2B =	\$	-	\$	80,492
			Subtotal 2 =	Ġ	7,140.88	\$	80,492
Leacha	ate System Cleaning		Subtotal 2 -	,	7,140.00	7	00,432
A.	Line flushing/maintenance by County personnel						
	a. Length of line	1,440 LF					
	b. Events per year	1					
	c. Hours per event	36					
	d. Estimated unit rate	\$ 42.84 per	hour				
			Subtotal 3A =	\$	1,542.16		
B.	Tank cleaning						
	a. Number of tanks	1					
	b. Events per year		ce per 3 years)				
	c. Labor effort		n hours				
	d. Estimated unit rate (man hours + equipment)	\$ 798.25 per					4 050
C.	Line cleaning and inspection by a contractor		Subtotal 3B =	\$	-	\$	1,053
	a. Length of line	1440 LF					
	b. Events per year	1		•••••			
	c. Cost based on 2017 effort by Kenyon Pipeline Inspection, LLC	\$ 9,187.50		•••••			
	d. Inflation (3% per year)	\$ 9,463.13	Subtotal 3B =	Ś	-	Ś	9,463
	(Tank cleaning costs taken from Eastern LF)	, J, 403.13					J,703
	,		Subtotal 3 =	\$	1,542.16	\$	10,516
Fuel	(2)						
	a. 2013 Actual Site Costs ⁽²⁾	\$ 11,291.84					
	b. Divided among the 3 sites based on site acreage	0.395 \$ 4,460.28					
	c. Inflation (3% per year)	\$ 5,170.68	College				F 470
			Subtotal 4=	\$	-	\$	5,170
Equipr	ment Repairs and Maintenance						
A.	Leachate pump maintenance/replacement a. Number of pumps	1					
	b. Frequency of pump replacement (per pump)	0.2 per	year				
	c. Unit cost for pump repair/replacement ⁽⁴⁾	\$ 4,243.60	C. L L				0.10
			Subtotal 5A =	>	-	\$	848
В.	Leachate manhole maintenance					•	
B.	Leachate manhole maintenance a. Number of manholes	7					
B.	a. Number of manholes b. Events per year	7 0.2					
В.	a. Number of manholes						
В.	a. Number of manholes b. Events per year	0.2	Subtotal 5B =	\$	-	\$	1,485
В.	a. Number of manholes b. Events per year	0.2	Subtotal 5B =	\$	-	\$	1,485



andfill repairs and Maintenance							
A. Mowing (by County Staff)							
(includes tank, road, buildings and slope section. Costs in-line with 2009 C	osts fo	or ELF)					
a. Events per year		2					
b. Labor effort		36					
c. Estimated unit rate (man hours + equipment)	\$	42.84					
c. Estimated unitrate (main nod) - equipment/	Y	72.07	Subtotal 6A =	= \$	3,084.31	\$	
D. Cray Davis / In Caraty staff			Subtotal 0A -	-	3,004.31	ې	
B. Snow Plowing (by County staff)							
Removal of snow from facility roads							
a. Length of roads		2,100	LF				
b. Events per year		20					
c. Labor effort		1.5	man hours				
d. Estimated unit rate (man hours + equipment)	\$	42.84	per hour				
			Subtotal 6B =	= \$	1,285.13	\$	
C. Cap Repairs and Misc. Site Maintenance						i	
Size of facility		Ω2	acres				
							
Size of waste footprint			acres				
Length of stormwater conveyance ditches ⁽⁷⁾		18000	LF				
Annual cost to dredge stormwater pond	\$	-	No pond			<u> </u>	
]	
C1 Annual cost to maintain site roads				<u> </u>			
a. Length of site roads		5,800	LF			 	
b. Annual cost of road repair/fill	Ś		See Assumption #7	+		ł	
						<u> </u>	
C2 Surface water sampling and testing (10)	\$		Assume unit cost for baseling			e (8.)	
C3 Sideslope swale repair	\$		Assume LS based on estima	ted co	osts for 2011		
			repair work with inflation				
C4 Seep Management	\$	25,000.00	Assume LS based on estima	ted co	osts for 2013		
			repair work (Blind Drain Ins	tall)			
C5 Annual cost for Major Repair Event				<u> </u>			
a. Major Repair Event Cost	\$	50.000.00	Assuming Major Repair Eve	nts (\$	7.000 each)		
b. Events per year	¥		occur once during 7-yr post				
b. Evento per year			Based on pump station inst				
CC Cost Customer Fosilit. Maisterness			based on pump station inst	an cos	31 111 2013		
C6 Cost Summary - Facility Maintenance						J	
a. Cost to dredge stormwater pond	\$	-					
b. Cost to maintain site road	\$	582 23	Assume 75% labor breakdo	wn - r	performed by		
			County personnel, assume		•		
c. Sideslope swale repair	\$	57,000.00	County personner, assume .	23/011	ilateriais		
d. Seep Management	\$	25,000.00					
Coct for Major Popair Event	Ś	7,000.00					
e. Cost for Major Repair Event							
f. Cost for Misc. Repairs (painting, accessory building	\$	5,000.00				g	
maint., minor cap/swale grading etc.)			Subtotal 6C =	= \$	70,936.67	\$	23,645
D. Groundwater Monitoring Maintenance]	
a. Number of monitoring wells		6		1			
b. Frequency of well replacement		0.033	per year	1		ļ	
(4)	Ś	6,350.57		+			
c. Unit cost for well replacement (*)	ڔ	0,330.37				Ċ	4 25
			Subtotal 6D =	= \$	-	\$	1,25
				<u></u>			
			Subtotal 6 =	\$	75,306.12	\$	24,902
ngineering							
A. AER							
a. AER Inspection and Report		6260		1]	
b. Update Total Post Closure Cost Estimate		1000		1		ļ	
C.				+			
Total Divided among the 3 sites based on site acreage 0.39	5 ¢	2,867.70					
Total Divided alliong the 5 sites based on site acreage 0.39	ڊ ر	۷,007.70	C. l 1 =			Ċ	2.00
A cutto atom			Subtotal 7 =	\$	-	\$	2,86
Monitoring							
A. Groundwater Monitoring (1 event per year)		4				.	
a. Number of baseline samples						I	
	\$		per sample			1	
a. Number of baseline samples	\$ \$	566.50					
a. Number of baseline samples b. Collection of baseline sample c. Analysis of baseline sample		566.50 412.00	per sample				
a. Number of baseline samples b. Collection of baseline sample c. Analysis of baseline sample		566.50 412.00 329.60					



FOR CALENDAR YEAR 2018

	Events per year Labor Effort (4) \$ Analytical \$	318.27	2				 	
		J10.27		i i	1			
		530.45			I			
	Analytical	330.43		Subtotal 8B =	\$	-	\$	1,697
C. Gas Mo	nitoring			Subtotal ob –	<u> </u>		<u> </u>	1,007
a.	Events per year		2		ļ			
b.	Number of probes		9		ļ			
	cost for sampling		0 per sample		ļ·····			
	cost for analysis		0 per sample					
	cost for reporting		0 per sample			«·····		
	al unit cost for sampling, analysis and reporting \$		per sample		ļ			
				ubtotal 8C =	\$	_	\$	763
D. Surfa	ace water sampling and testing ⁽¹⁰⁾				<u></u>			
	Number of sampling points	2			ļ			
a. b.	Collection of annual samples	\$515			 			
ъ. С.	Unit cost for annual sampling	\$412			·····			
d.	Unit cost for quarterly visual sampling events (4 per year)	\$1,030			·····			
	Unit cost for reporting	\$258			ļ			
e.	Offic cost for reporting	Ş 2 38		Subtotal 8D =				4.420
r rabana	and Crauductor Manitoring/Davious NWF			Subtotal 8D =	\$	-	\$	4,429
	ed Groundwater Monitoring/Review - MW5				ļ			
a.	Number of quarterly samples Collection of sample (expanded parameters) \$	412.00			 		-	
b.			per sample		ļ		ļ	
C.	Analysis of baseline sample \$		per sample					
d.	Reporting on baseline sample \$		per sample		ļ			
e.	Coordination with DEC, historical data review and reporting \$	7,500.00	LS	C. Internal OF	<u> </u>			42.55
Г I.a.a.a.a.a.t.				Subtotal 8E =	\$	-	\$	13,556
E. Inspecti					ļ		ļ	
	ection of site, flares, manholes, and drainage systems	16			ļ			
a.	Events per year Labor effort		2 man hours		<u> </u>			
					 		-	
C.	Estimated labor rate ⁽²⁾ \$	42.84						
				Subtotal 8F =	\$	1,370.81		
				C-1-1-1-10		4 270 04		25.67
/				Subtotal 8 =	\$	1,370.81	\$	25,679
	sporter Permits	1 100 00						
	2013 Actual Site Costs ⁽²⁾ \$	1,100.00						
b.	Divided among the 3 sites based on site acreage 0.395 \$	434.50			ļ			
C.	Inflation (3% per year) \$	503.70						
				Subtotal 9 =	\$	-	\$	503
Uniforms	(2)							
a.	2010 Actual Site Costs ⁽²⁾	789.89						
b.	Divided among the 3 sites based on site acreage 0.395 \$	312.01						
C.	Inflation (3% per year) \$	395.24		Subtotal 10 =	\$	-	\$	395
Utilities								
a.	2016 Actual Site Costs for ELF and CLF Combined (2) \$	7,188.00					<u> </u>	
b.	Divided among the 3 sites based on site acreage 0.395 \$	2,839.26						
C.	Inflation (3% per year) \$	2,924.44		Subtotal 11 =	\$	-	\$	2,924
Insurance								
	2013 Actual Site Costs ⁽²⁾ \$	10,062.12						
a.					l''''''		1	
a. b.	Divided among the 3 sites based on site acreage 0.395 \$	3,974.54		h h	1			
	Divided among the 3 sites based on site acreage 0.395 \$ Inflation (3% per year) \$	3,974.54 4,607.58		Subtotal 12 =	\$	-	\$	4,607



FOR CALENDAR YEAR 2018

Cost Summary	
1. Personnel Expenses	\$ 85,359.97
2. Leachate Disposal	\$ 80,492.14
3. Leachate System Cleaning	\$ 10,516.82
4. Fuel	\$ 5,170.68
5. Equipment Repairs and Maintenance	\$ 2,333.98
6. Landfill repairs and Maintenance	\$ 24,902.97
7. Engineering	\$ 2,867.70
8. Monitoring	\$ 25,679.09
9. Waste Transporter Permits	\$ 503.70
10. Uniforms	\$ 395.24
11. Utilities	\$ 2,924.44
12. Insurance	\$ 4,607.58
Totals =	\$ 245,754.31
Contingency (10%) =	\$ 24,575.43
Total w/ Contingency =	\$ 270,329.74

References/Notes

- 1 3-year average (2014-2016) of Leachate Disposal Quantities, Central Landfill
- 2 Unit cost information based on previous estimates using historical site information.
- ³ Labor Costs for employees only are broken out. Labor costs that appear under subconsultant cost estimating are rolled up into the 'Material/Subcontract' costs
- 4 Based on Cornerstone historical data or labor effort costing
- 5 Labor only fuel costs accounted for under separate line item
- 6 Reference, "RS Means Heavy Construction Cost Data" 23rd Annual Edition, 2009
- 7 Reference, Correspondence dated February 19, 2010, from Golder Associates to MOSA re: Evaluation of MOSA 2009 Post-Closure Cost Estimate
- 8 Reference, Record Topographic Survey of MOSA Construction and Debris Landfill, Vollmer Associates, Oct 15, 1997
- 9 Based on average per gallon costs (Amsterdam and Canajoharie WWTPs) from 2013
- 10 Per recommendations in AER to implement MSGP protocols at 2 sampling points

Assumptions

- 1 Historical unit costs provided by the Post-Closure Manager have historically been rolled up for all three landfills. Where an historical cost has been provided for all three landfills and used as a basis for determining future costs, the costs have been divided among the three landfills based on the size of the waste limits.
- 2 When historical costs have been used (provided by site or from RS Means) a 3% inflation factor has been added.
- 3 Cost to dredge ELF pond assumes 2 acre pond, excavated 2' deep, \$50 ton for disposal.
- 4 Contingency costs are 10% of the post-closure maintenance costs.
- 5 Leachate collection volumes used are an estimate and will vary depending upon the weather. Therefore, cost estimated based on average historical volumes are assumed to be adequate for predicting future generation rates.
- 6 Seeding and Stabilization Costs assume \$80 per 1000 sf of area with rye seed spread with hydroseeder.
- 7 Site road repair consists of spreading 1" of crushed gravel over 12' wide road, with rock @ \$30 ton delivered and 5% of site roads to be repaired per year.
- 8 Site maintenance assumed to be performed primarily by Montgomery County personnel. It is assumed 75% of all maintenance projects will be performed using Montgomery County personnel and equipment. It is assumed the other 25% of maintenance projects costs will be from outside vendors or material costs

Personnel expenses for Montgomery County are calculated for each task, but per Montgomery County budgeting set-up, Montgomery County personnel costs are rolled into a separate category. Therefore, there are no estimated Montgomery County personnel costs in any of the categories other than the Personnel Category (Item #1).



FOR CALENDAR YEAR 2018

Site	C&D Landfill	
Site Acreage	5	
Size of Waste Footprint	1.9	
Year Closed	1997	

Year Analyzed for	2018
Number of Years in Post-Closure	21
Years Remaining in	9
Post-Closure Period	2027

eachate Disposal A. Hauling (5)			Labor ⁽³⁾ al Labor Column)	ct Costs		
eachate Disposal A. Hauling ⁽⁵⁾			al Labor Column)			
A. Hauling ⁽⁵⁾			al Labor Column)	١		
A. Hauling ⁽⁵⁾						
A. Hauling ⁽⁵⁾		Subtotal 1 =	\$ -	\$		
a. Gallons per year ⁽¹⁾						
	0					
b. Gallons per haul (average)	10000					
c. Total Trips	0					
d. Trip Time	0 hours			,,,,,,,		
e. Estimated labor rate	17.40 per hour					
		Subtotal 2A =	\$ -	\$		
B. Treatment						
a. Gallons per year ⁽¹⁾	0					
b. Rate per gallon	N/A	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
		Subtotal 2B =	\$ -	\$		
		Subtotal 2 =	\$ -	\$		
eachate System Cleaning			-			
A. Line cleaning and inspection by a contractor						
a. Length of line	0 LF		,			
b. Events per year	0					
	0 man hours					
d. Estimated unit rate (man hours + equipment)	\$ - per hour					
		Subtotal 3A =	\$ -	\$		
B. Tank cleaning						
a. Number of tanks	0					
b. Events per year	0 per tank					
c. Labor effort	0 man hours					
d. Estimated unit rate (man hours + equipment)	\$ - per hour					
		Subtotal 3B =	\$ -	\$		
				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
		Subtotal 3 =	\$ -	\$		
uel						
a. 2013 Actual Site Costs (2)	\$ 11,291.84					
b. Divided among the 3 sites based on site acreage 0.024	\$ 271.00	,				
c. Inflation (3% per year)	\$ 314.17					
		Subtotal 4=	\$ -	\$ 314		
			· <mark></mark>			
quipment Repairs and Maintenance						
A. Leachate pump maintenance/replacement						
a. Number of pumps	0					
b. Frequency of pump replacement (per pump)	0 per year					
(4)						
c. Unit cost for pump repair/replacement (*′)	\$ 4,635.00	Cubtoto! 5 A				
		Subtotal 5A =	\$ -	\$		
B. Leachate manhole maintenance						
a. Number of manholes	0					
b. Events per year	0					
c. Cost to repair ⁽⁴⁾	\$ 1,000.00					
		Subtotal 5B =	\$ -	\$		
		Subtotal 5 =	\$ -	\$		
				Anna		
andfill repairs and Maintenance						
A. Mowing (by MOSA Staff)						
	ts for ELF)					
(includes tank, road, buildings and slope section. Costs in-line with 2009 Cos			4			
	2					
a. Events per year	2					
a. Events per year						



Montgomery County Closed Sites

Summary Estimate of Annual Post-Closure Care Costs

FOR CALENDAR YEAR 2018

b. Events per year 0.00 occurri C3 Cost Summary - Facility Maintenance	Subtotal 6B =	\$ -	\$
b. Events per year c. Labor effort d. Estimated unit rate (man hours + equipment) C. Cap Repairs and Misc. Site Maintenance Size of facility Size of waste footprint Length of stormwater conveyance ditches (3) Annual cost to dredge stormwater pond C1 Annual cost to dredge stormwater pond C2 Annual cost to maintain site roads a. Length of site roads b. Annual cost for Major Repair Event a. Major Repair Event Cost b. Events per year C3 Cost Summary - Facility Maintenance	Subtotal 6B =	\$ -	\$
c. Labor effort d. Estimated unit rate (man hours + equipment) \$ 42.84 per hou C. Cap Repairs and Misc. Site Maintenance Size of facility 5 acres Size of waste footprint 1.9 acres Length of stormwater conveyance ditches (8) Annual cost to dredge stormwater pond \$ - No por C1 Annual cost to maintain site roads a. Length of site roads - LF b. Annual cost for Major Repair Event a. Major Repair Event a. Major Repair Event Cost b. Events per year C3 Cost Summary - Facility Maintenance	Subtotal 6B =	\$ -	\$
d. Estimated unit rate (man hours + equipment) \$ 42.84 per hour contents of the per hour content	Subtotal 6B =	\$ -	\$
C. Cap Repairs and Misc. Site Maintenance Size of facility 5 acres Size of waste footprint 1.9 acres Length of stormwater conveyance ditches (8) 693 LF Annual cost to dredge stormwater pond \$ - No por C1 Annual cost to maintain site roads a. Length of site roads - LF b. Annual cost of road repair/fill \$ - C2 Annual cost for Major Repair Event a. Major Repair Event Cost \$ - Assum b. Events per year 0.000 occurri C3 Cost Summary - Facility Maintenance	Subtotal 6B =	\$ -	\$
Size of facility Size of waste footprint 1.9 acres Length of stormwater conveyance ditches (8) Annual cost to dredge stormwater pond \$ - No por C1 Annual cost to maintain site roads a. Length of site roads b. Annual cost of road repair/fill a. Major Repair Event b. Events per year C3 Cost Summary - Facility Maintenance 5 acres 693 LF 7 No por \$ - No por \$ - Assuming the point of	ond ond ming 0 total Major Repai		
Size of facility Size of waste footprint 1.9 acres Length of stormwater conveyance ditches (8) Annual cost to dredge stormwater pond \$ - No por C1 Annual cost to maintain site roads a. Length of site roads b. Annual cost of road repair/fill a. Major Repair Event b. Events per year C3 Cost Summary - Facility Maintenance 5 acres 693 LF 7 No por \$ - No por \$ - Assuming the point of	ond ond ond ond ond ond ond ond ond ond		
Size of waste footprint Length of stormwater conveyance ditches (8) Annual cost to dredge stormwater pond C1 Annual cost to maintain site roads a. Length of site roads b. Annual cost of road repair/fill C2 Annual cost for Major Repair Event a. Major Repair Event b. Events per year C3 Cost Summary - Facility Maintenance	ond ond ond ond ond ond ond ond ond ond		
Length of stormwater conveyance ditches (8) Annual cost to dredge stormwater pond \$ - No por C1 Annual cost to maintain site roads a. Length of site roads b. Annual cost of road repair/fill \$ - LF C2 Annual cost for Major Repair Event a. Major Repair Event Cost \$ - Assumi b. Events per year 0.000 occurri C3 Cost Summary - Facility Maintenance	ond 		
Annual cost to dredge stormwater pond \$ - No por C1 Annual cost to maintain site roads a. Length of site roads b. Annual cost of road repair/fill \$ - LF C2 Annual cost for Major Repair Event a. Major Repair Event Cost \$ - Assum b. Events per year 0.00 occurri C3 Cost Summary - Facility Maintenance	ming 0 total Major Repai		
C1 Annual cost to maintain site roads a. Length of site roads b. Annual cost of road repair/fill C2 Annual cost for Major Repair Event a. Major Repair Event Cost b. Events per year C3 Cost Summary - Facility Maintenance	ming 0 total Major Repai		
a. Length of site roads - LF b. Annual cost of road repair/fill \$ - C2 Annual cost for Major Repair Event a. Major Repair Event Cost \$ - Assum b. Events per year 0.00 occurri C3 Cost Summary - Facility Maintenance			
a. Length of site roads - LF b. Annual cost of road repair/fill \$ - C2 Annual cost for Major Repair Event a. Major Repair Event Cost \$ - Assum b. Events per year 0.00 occurri C3 Cost Summary - Facility Maintenance			
b. Annual cost of road repair/fill \$ - C2 Annual cost for Major Repair Event a. Major Repair Event Cost \$ - Assum b. Events per year 0.00 occurri C3 Cost Summary - Facility Maintenance			
C2 Annual cost for Major Repair Event a. Major Repair Event Cost \$ - Assum b. Events per year 0.00 occurri C3 Cost Summary - Facility Maintenance			1
a. Major Repair Event Cost \$ - Assum b. Events per year 0.00 occurri C3 Cost Summary - Facility Maintenance		1	
b. Events per year 0.00 occurri C3 Cost Summary - Facility Maintenance			
C3 Cost Summary - Facility Maintenance			
	ring once every 10 years	5.	
			<u></u>
a. Cost to dredge stormwater pond \$ -			
b. Cost to maintain site road \$ - Assum	me 75% labor breakdowi	n - nerformed by	
733411	ty personnel, assume 25		
	ty personner, assume 25	70 IIIalEIIdiS	,
d. Cost for Misc. Repairs (painting, accessory building \$ 1,500.00			T -
maint., etc.)	Subtotal 6C =	\$ 1,125.00	\$ 37
D. Groundwater Monitoring Maintenance			
a. Number of monitoring wells 0			
b. Frequency of well replacement 0 per yea			
c. Unit cost for well replacement ⁽⁴⁾ \$ 6,000.00 per we			
	Subtotal 6D =	\$ -	\$
	Subtotal 6 =	\$ 2,153.10	\$ 37
ngineering			
A. AER			
a. AER Inspection and Report 6260			
b. Update Total Post Closure Cost Estimate 1000			
C.			
Total Divided among the 3 sites based on site acreage 0.024 \$ 174.24			
	Subtotal 7 =	\$ -	\$ 17-
Nonitoring			
A. Groundwater Monitoring (1 event per year)			
a. Number of baseline samples 0			
b. Collection of baseline sample \$ 550.00 per sar	ample		
c. Analysis of baseline sample \$ 400.00 per sar	ample		
d. Reporting on baseline sample \$ 320.00 per sar			
e. Unit cost for baseline sampling, testing and reporting \$ 1,270.00 per sar			
		\$ -	\$
B. Semi-Annual Leachate Monitoring (Consultant)			
a. Events per year 0			
b. Labor Effort ⁽⁴⁾ \$ 300.00			
c. Analytical \$ 500.00	Subtotal 8B =	\$ -	\$
c. Analytical \$ 500.00	300,000,00		
C. Gas Monitoring			
C. Gas Monitoring a. Events per year 0		······································	
C. Gas Monitoring a. Events per year b. Number of probes 0	3mple		
C. Gas Monitoring a. Events per year b. Number of probes Unit cost for sampling 20 per sar			
C. Gas Monitoring a. Events per year b. Number of probes Unit cost for sampling Unit cost for analysis O per sar	ample		
C. Gas Monitoring a. Events per year b. Number of probes Unit cost for sampling Unit cost for analysis Unit cost for reporting 20 per sar	ample ample		
C. Gas Monitoring a. Events per year b. Number of probes Unit cost for sampling Unit cost for analysis O per sar	ample ample ample		
C. Gas Monitoring a. Events per year b. Number of probes Unit cost for sampling Unit cost for analysis Unit cost for reporting Total unit cost for sampling, analysis and reporting \$\frac{20}{40.00}\$ per sar	ample ample ample	\$ -	\$
C. Gas Monitoring a. Events per year b. Number of probes Unit cost for sampling Unit cost for analysis Unit cost for reporting Total unit cost for sampling, analysis and reporting D. Inspections	ample ample ample	\$ -	\$
C. Gas Monitoring a. Events per year b. Number of probes Unit cost for sampling Unit cost for analysis Unit cost for reporting Total unit cost for sampling, analysis and reporting D. Inspections Inspection of site, flares, manholes, and drainage systems	ample ample ample	\$ -	\$
C. Gas Monitoring a. Events per year b. Number of probes Unit cost for sampling Unit cost for analysis Unit cost for reporting Total unit cost for sampling, analysis and reporting D. Inspections Inspection of site, flares, manholes, and drainage systems a. Events per year O O O O O O O O O O O O O	ample ample Subtotal 8C =	\$ -	\$
C. Gas Monitoring a. Events per year b. Number of probes Unit cost for sampling Unit cost for analysis Unit cost for reporting Total unit cost for sampling, analysis and reporting D. Inspections Inspection of site, flares, manholes, and drainage systems a. Events per year b. Labor effort 1 man ho	ample ample Subtotal 8C =	\$ -	\$
C. Gas Monitoring a. Events per year b. Number of probes Unit cost for sampling Unit cost for analysis Unit cost for reporting Total unit cost for sampling, analysis and reporting D. Inspections Inspection of site, flares, manholes, and drainage systems a. Events per year O O O O O O O O O O O O O	ample ample Subtotal 8C =	\$ -	\$
C. Gas Monitoring a. Events per year b. Number of probes Unit cost for sampling Unit cost for analysis Unit cost for reporting Total unit cost for sampling, analysis and reporting D. Inspections Inspection of site, flares, manholes, and drainage systems a. Events per year b. Labor effort 1 man ho	ample ample Subtotal 8C =	\$ -	\$
C. Gas Monitoring a. Events per year b. Number of probes Unit cost for sampling Unit cost for analysis Unit cost for reporting Total unit cost for sampling, analysis and reporting D. Inspections Inspection of site, flares, manholes, and drainage systems a. Events per year b. Labor effort 1 man ho	ample ample Subtotal 8C =	\$ - 514.05	\$

Montgomery County Closed Sites

Summary Estimate of Annual Post-Closure Care Costs

FOR CALENDAR YEAR 2018

9. Waste Tran	sporter Permits						
a.	2013 Actual Site Costs (2)	\$	1,100.00				
b.	Divided among the 3 sites based on site acreage 0.024	\$	26.40				 ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
C.	Inflation (3% per year)	\$	30.60				
				Subtotal 9 =	\$	-	\$ 30.60
10. Uniforms							
a.	2010 Actual Site Costs ⁽²⁾	\$	789.89				
b.	Divided among the 3 sites based on site acreage 0.024	\$	18.96				
C.	Inflation (3% per year)	\$	24.01	Subtotal 10 =	\$	-	\$ 24.01
11. Utilities							
a.	2016 Actual Site Costs for ELF and CLF Combined (2)	\$	7,188.00				
b.	Divided among the 3 sites based on site acreage 0.024 \$	\$	172.51				
C.	Inflation (3% per year)	\$	199.99	Subtotal 11 =	\$	-	\$ 199.99
12. Insurance							
a.	2013 Actual Site Costs ⁽²⁾	\$	10,062.12				
b.	Divided among the 3 sites based on site acreage 0.024 \$	\$	241.49				
C.	Inflation (3% per year)	\$	279.95	Subtotal 12 =	\$	-	\$ 279.95
				Totals =	\$	2,667.16	\$ 1,397.97
	Combined Labor/Material/Subs =						\$ 4,065.13

Cost Summary	
1. Personnel Expenses	\$ 2,667.16
2. Leachate Disposal	\$ -
3. Leachate System Cleaning	\$ -
4. Fuel	\$ 314.17
5. Equipment Repairs and Maintenance	\$ -
6. Landfill repairs and Maintenance	\$ 375.00
7. Engineering	\$ 174.24
8. Monitoring	\$ -
9. Waste Transporter Permits	\$ 30.60
10. Uniforms	\$ 24.01
11. Utilities	\$ 199.99
12. Insurance	\$ 279.95
Totals =	\$ 4,065.13
Contingency (10%) =	\$ 406.51
Total w/ Contingency =	\$ 4,471.64

References/Notes

- 1 N/A Leachate not produces at C&D landfill
- 2 Unit cost information based on previous estimates using historical site information.
- 3 Labor Costs for employees only are broken out. Labor costs that appear under subconsultant cost estimating are rolled up into the 'Material/Subcontract' costs
- 4 Based on Cornerstone historical data or labor effort costing
- 5 Labor only fuel costs accounted for under separate line item
- 6 Reference, "RS Means Heavy Construction Cost Data" 23rd Annual Edition, 2009
- 7 Reference, Correspondence dated February 19, 2010, from Golder Associates to MOSA re: Evaluation of MOSA 2009 Post-Closure Cost Estimate
- 8 Reference, Record Topographic Survey of MOSA Construction and Debris Landfill, Vollmer Associates, Oct 15, 1997

Assumptions

- 1 Historical unit costs provided by the Post-Closure Manager have historically been rolled up for all three landfills. Where an historical cost has been provided for all three landfills and used as a basis for determining future costs, the costs have been divided among the three landfills based on the size of the waste limits.
- 2 When 2009 costs have been used (provided by MOSA or from RS Means) a 3% inflation factor has been added
- 3 Cost to dredge ELF pond assumes 2 acre pond, excavated 2' deep, \$50 ton for disposal
- $4\,$ Contingency costs are 10% of the post-closure maintenance costs
- 5 Leachate collection volumes used are an estimate and will vary depending upon the weather. Therefore, cost estimated based on average historical volumes are assumed to be adequate for predicting future generation rates
- ${\small 6\ \ Seeding\ and\ Stabilization\ Costs\ assume\ \$80\ per\ 1000\ sf\ of\ area\ with\ rye\ seed\ spread\ with\ hydroseeder}\\$
- 7 Site road repair consists of spreading 1" of crushed gravel over 12' wide road, with rock @ \$30 ton delivered and 5% of site roads to be repaired per year.
- 8 Site maintenance assumed to be performed primarily by Montgomery County personnel. It is assumed 75% of all maintenance projects will be performed using Montgomery County personnel and equipment. It is assumed the other 25% of maintenance projects costs will be from outside vendors or material costs.
- 9 Personnel expenses for Montgomery County are calculated for each task, but per Montgomery County budgeting set-up, Montgomery County personnel costs are rolled into a separate category. Therefore, there are no estimated Montgomery County personnel costs in any of the categories other than the Personnel Category (Item #1).