SCS ENGINEERS

2017 Annual Groundwater Monitoring and Corrective Action Report

Nelson Dewey Station
Cassville, Wisconsin

Prepared for:

Alliant Energy

Prepared by:

SCS ENGINEERS
2830 Dairy Drive
Madison, Wisconsin 53718-6751
(608) 224-2830

January 31, 2018
File No. 25216071.17

Offices Nationwide
www.scsengineers.com

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Appendix A – Analytical Laboratory Reports

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1.0 INTRODUCTION

This 2017 Annual Groundwater Monitoring and Corrective Action Report was prepared to support compliance with the groundwater monitoring requirements of the "Coal Combustion Residuals (CCR) Final Rule" published by the U.S. Environmental Protection Agency (USEPA) in the *Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule*, dated April 17, 2015 (USEPA, 2015). Specifically, this report was prepared to fulfill the requirements of 40 CFR 257.90(e). The applicable sections of the Rule are provided below in *italics*, followed by applicable information relative to the 2017 Annual Groundwater Monitoring and Corrective Action Report for the CCR Unit.

This report covers the period of groundwater monitoring from December 9, 2015 through December 31, 2017. December 9, 2015 is the date of the first background sampling round. All future annual reports will cover the period from January 1 through December 31 of the previous year.

The system is designed to detect monitored constituents at the waste boundary of the Slag Pond (existing CCR surface impoundment) located at Nelson Dewey Generating Station, as required by 40 CFR 257.91(d). The groundwater monitoring system consists of one upgradient and six downgradient monitoring wells.

2.0 §257.90(e) ANNUAL REPORT REQUIREMENTS

Annual groundwater monitoring and corrective action report. *For existing CCR landfills and existing CCR surface impoundments, no later than January 31, 2018, and annually thereafter, the owner or operator must prepare an annual groundwater monitoring and corrective action report. For new CCR landfills, new CCR surface impoundments, and all lateral expansions of CCR units, the owner or operator must prepare the initial annual groundwater monitoring and corrective action report no later than January 31 of the year following the calendar year a groundwater monitoring system has been established for such CCR unit as required by this subpart, and annually thereafter. For the preceding calendar year, the annual report must document the status of the groundwater monitoring and corrective action program for the CCR unit, summarize key actions completed, describe any problems encountered, discuss actions to resolve the problems, and project key activities for the upcoming year. For purposes of this section, the owner or operator has prepared the annual report when the report is placed in the facility's operating record as required by § 257.105(h)(1). At a minimum, the annual groundwater monitoring and corrective action report must contain the following information, to the extent available:*

2.1 §257.90(E)(1) SITE MAP

A map, aerial image, or diagram showing the CCR unit and all background (or upgradient) and downgradient monitoring wells, to include the well identification numbers, that are part of the groundwater monitoring program for the CCR unit;

A map with an aerial image showing the CCR unit and all background (or upgradient) and downgradient monitoring wells with identification numbers for the groundwater monitoring program is provided as **Figure 1**. Other CCR units are also presented on **Figure 1**.

2.2 §257.90(E)(2) MONITORING SYSTEM CHANGES

Identification of any monitoring wells that were installed or decommissioned during the preceding year, along with a narrative description of why those actions were taken;

No new monitoring wells were installed and no wells were decommissioned as part of the groundwater monitoring program for the CCR units in 2017. The upgradient monitoring well, B-26, and downgradient monitoring wells, B-31A, B-31R, B-11A, B-11B, B-11R, and B-7R, were installed prior to October 2015.

2.3 §257.90(E)(3) SUMMARY OF SAMPLING EVENTS

In addition to all the monitoring data obtained under §§ 257.90 through 257.98, a summary including the number of groundwater samples that were collected for analysis for each background and downgradient well, the dates the samples were collected, and whether the sample was required by the detection monitoring or assessment monitoring programs;

Eight groundwater samples were collected from each CCR monitoring well for the establishment of background. Background sampling began in December 2015 and concluded in August 2017. Background samples were analyzed for both Appendix III and Appendix IV constituents. A summary including the number of groundwater samples that were collected for analysis for each background and downgradient well, the dates the samples were collected, and whether the sample was required by the detection monitoring or assessment monitoring programs is included in **Table 1**. The results of the analytical laboratory analyses are provided in the laboratory reports in **Appendices A1** through **A8**.

Detection monitoring was initiated at the site on October 17, 2017. The date of sample collection, field measurements, and the analytical results of the analytical laboratory analyses are provided in **Appendix A9**.

Assessment monitoring has not been initiated for the CCR Unit at the Nelson Dewey Generating Station.

2.4 §257.90(E)(4) MONITORING TRANSITION NARRATIVE

A narrative discussion of any transition between monitoring programs (e.g., the date and circumstances for transitioning from detection monitoring to assessment monitoring in addition to identifying the constituent(s) detected at a statistically significant increase over background levels);

Following completion of eight background groundwater monitoring events, detection monitoring was initiated in October 2017 as stated in **Section 2.3**. There were no transitions between monitoring programs or statistically significant increase (SSI) determinations completed in 2017.

2.5 §257.90(E)(5) OTHER REQUIREMENTS

Other information required to be included in the annual report as specified in §§ 257.90 through 257.98.

Additional potentially applicable requirements for the annual report, and the location of the requirement within the Rule, are provided in the following sections. For each cited section of the Rule, the portion referencing the annual report requirement is provided below in *italics*, followed by applicable information relative to the 2017 Annual Groundwater Monitoring and Corrective Action Report for the CCR Units.

2.5.1 §257.90(e) General Requirements

For the preceding calendar year, the annual report must document the status of the groundwater monitoring and corrective action program for the CCR unit, summarize key actions completed, describe any problems encountered, discuss actions to resolve the problems, and project key activities for the upcoming year.

Status of Groundwater Monitoring and Corrective Action Program. The groundwater monitoring and corrective action program is currently in detection monitoring.

Summary of Key Actions Completed. Collection of background groundwater quality data was completed, and the initial detection monitoring sampling and analysis event was completed.

Description of Any Problems Encountered. For the seventh background sampling event, conducted in June 2017, review of the laboratory data suggested that the samples collected from monitoring wells B-31R and B-31A were mislabeled such that the results from the two wells were switched. Based on the other seven rounds of background monitoring, the groundwater chemistry for these two wells differs notably for several parameters, so the switch was very apparent in the results. Based on a review of the field notes from sampling, SCS determined that these two wells, located adjacent to each other in a well nest, were likely misidentified at the time of sampling, resulting in the samples from B-31A being labeled as being from B-31R, and vice versa.

Discussion of Actions to Resolve the Problems. To correct for the sampling error, SCS requested that the laboratory reissue the report for the June 2017 event with the results for wells B-31A and B-31R switched. The groundwater elevations for the two wells were recalculated based on the switched depth-to-water measurements. To minimize the potential for a similar error in the future, SCS will review the labeling of all of the CCR wells at Nelson Dewey and make improvements as needed during 2018.

Projection of Key Activities for the Upcoming Year (2018):

- Statistical evaluation and determination of any SSIs for October 2017 monitoring event (by 1/15/18)
- If an SSI is determined, then within 90 days either
  - Complete alternative source demonstration (if applicable), or
  - Establish an assessment monitoring program
- Two semi-annual groundwater sampling and analysis events (April and October 2018)

2.5.2 §257.94(d) Alternative Detection Monitoring Frequency

The owner or operator must include the demonstration providing the basis for the alternative monitoring frequency and the certification by a qualified professional engineer in the annual groundwater monitoring and corrective action report required by § 257.90(e).

Not Applicable. No alternative detection monitoring frequency has been proposed.

2.5.3 §257.94(e)(2) Alternative Source Demonstration for Detection Monitoring

The owner or operator must also include the demonstration in the annual groundwater monitoring and corrective action report required by § 257.90(e), in addition to the certification by a qualified professional engineer.

Not Applicable. No alternative source demonstration was completed in 2017.

2.5.4 §257.95(c) Alternative Assessment Monitoring Frequency

The owner or operator must include the demonstration providing the basis for the alternative monitoring frequency and the certification by a qualified professional engineer in the annual groundwater monitoring and corrective action report required by § 257.90(e).

Not Applicable. Assessment monitoring has not been initiated and no alternative assessment monitoring frequency has been proposed.

2.5.5 §257.95(d)(3) Assessment Monitoring Results and Standards

Include the recorded concentrations required by paragraph (d)(1) of this section, identify the background concentrations established under § 257.94(b), and identify the groundwater protection standards established under paragraph (d)(2) of this section in the annual groundwater monitoring and corrective action report required by § 257.90(e).

Not Applicable. Assessment monitoring was not performed in 2017.

2.5.6 §257.95(g)(3)(ii) Alternative Source Demonstration for Assessment Monitoring

The owner or operator must also include the demonstration in the annual groundwater monitoring and corrective action report required by § 257.90(e), in addition to the certification by a qualified professional engineer.

Not Applicable. Assessment monitoring has not been initiated and no alternative source demonstration for assessment monitoring was completed in 2017.

2.5.7 §257.96(a) Extension of Time for Corrective Measures Assessment

The assessment of corrective measures must be completed within 90 days, unless the owner or operator demonstrates the need for additional time to complete the assessment of corrective measure due to site-specific conditions or circumstances. The owner or operator must obtain a certification from a qualified professional engineer attesting that the demonstration is accurate. The 90-day deadline to complete the assessment of corrective measures may be extended for longer than 60 days. The owner or operator must also include the demonstration in the annual groundwater monitoring and corrective action report required by § 257.90(e), in addition to the certification by a qualified professional engineer.

Not Applicable. Corrective measures assessment has not been initiated.

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TABLE 1

CCR Rule Groundwater Samples Summary

Table 1. CCR Rule Groundwater Samples Summary
Nelson Dewey Generating Station /SCS Engineers Project #25216071

Sample Dates	Downgradient Wells						Background Well
	B-7R	B-11R	B-11A	B-11B	B-31R	B-31A	B-26
12/9/2015	B	B	B	B	B	B	B
4/12-13/2016	B	B	B	B	B	B	B
7/18-19/2016	B	B	B	B	B	B	B
10/19-20/2016	B	B	B	B	B	B	B
1/11-12/2017	B	B	B	B	B	B	B
4/17/2017	B	B	B	B	B	B	B
6/7-8/2017	B	B	B	B	B	B	B
8/1-2/2017	B	B	B	B	B	B	B
10/19/2017	D	D	D	D	D	D	D
Total Samples	9	9	9	9	9	9	9

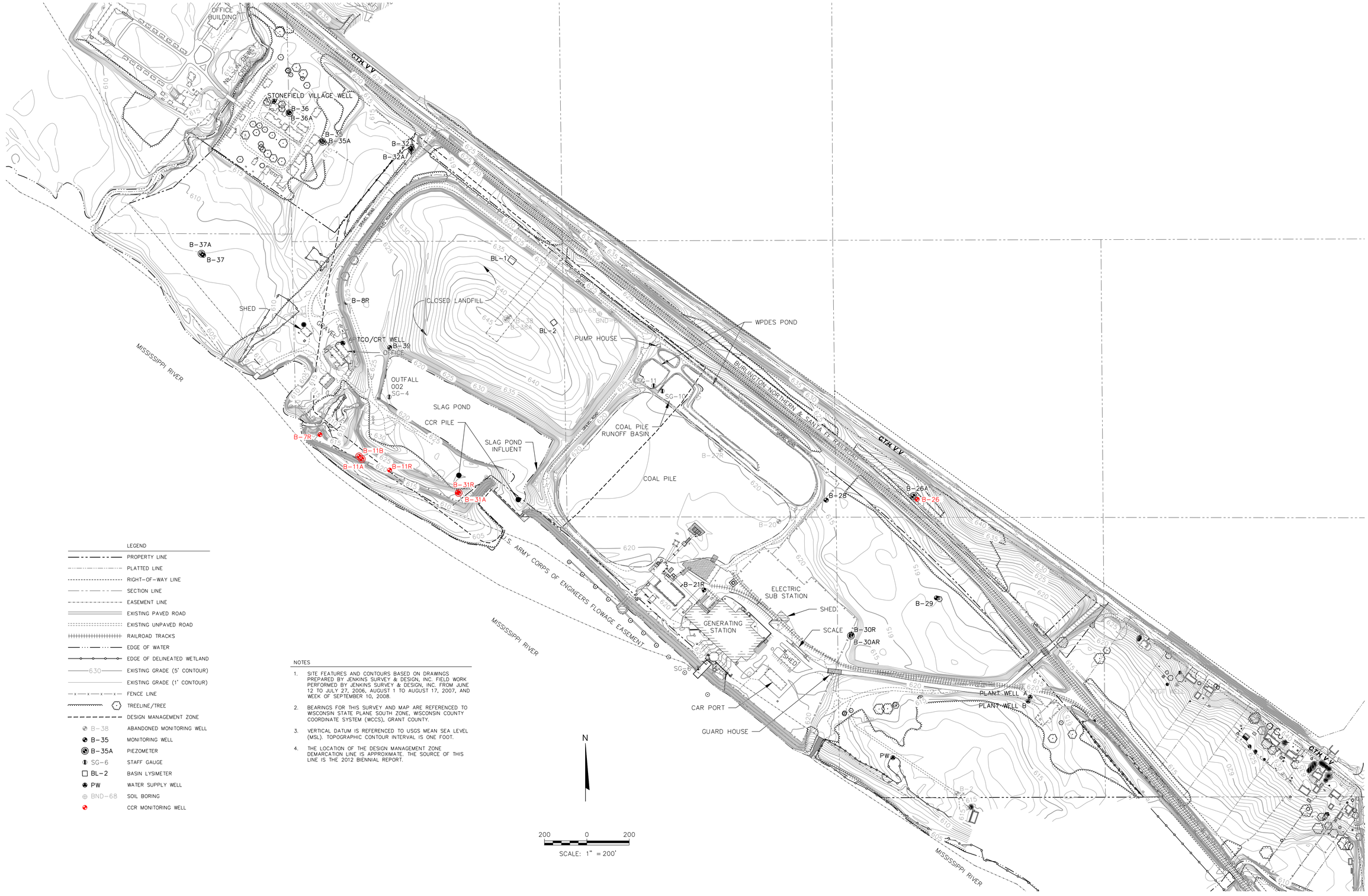
Abbreviations:
B = Background Sample
D = Required by Detection Monitoring Program

Created by: NDK Date: 1/9/2018
Last revision by: NDK Date: 1/9/2018
Checked by: JD Date: 1/9/2018

I:\25216071.00\Reports\2017 Annual Report\[GW_Samples_Summary_Table_ND.xlsx]GW Summary

FIGURE 1

Site Plan and Monitoring Well Locations



LEGEND

- PROPERTY LINE
- PLATTED LINE
- RIGHT-OF-WAY LINE
- SECTION LINE
- EASEMENT LINE
- EXISTING PAVED ROAD
- EXISTING UNPAVED ROAD
- RAILROAD TRACKS
- EDGE OF WATER
- EDGE OF DELINEATED WETLAND
- 630 EXISTING GRADE (5' CONTOUR)
- EXISTING GRADE (1' CONTOUR)
- FENCE LINE
- TREELINE/TREE
- DESIGN MANAGEMENT ZONE
- B-38 ABANDONED MONITORING WELL
- B-35 MONITORING WELL
- B-35A PIEZOMETER
- SG-6 STAFF GAUGE
- BL-2 BASIN LYSIMETER
- PW WATER SUPPLY WELL
- BND-68 SOIL BORING
- CCR MONITORING WELL

NOTES

1. SITE FEATURES AND CONTOURS BASED ON DRAWINGS PREPARED BY JENKINS SURVEY & DESIGN, INC. FIELD WORK PERFORMED BY JENKINS SURVEY & DESIGN, INC. FROM JUNE 12 TO JULY 27, 2006, AUGUST 1 TO AUGUST 17, 2007, AND WEEK OF SEPTEMBER 10, 2008.
2. BEARINGS FOR THIS SURVEY AND MAP ARE REFERENCED TO WISCONSIN STATE PLANE SOUTH ZONE, WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), GRANT COUNTY.
3. VERTICAL DATUM IS REFERENCED TO USGS MEAN SEA LEVEL (MSL). TOPOGRAPHIC CONTOUR INTERVAL IS ONE FOOT.
4. THE LOCATION OF THE DESIGN MANAGEMENT ZONE DEMARCATION LINE IS APPROXIMATE. THE SOURCE OF THIS LINE IS THE 2012 BIENNIAL REPORT.

N

200 0 200

SCALE: 1" = 200'

FIGURE 1

SITE PLAN AND WELL LOCATION MAP

WISCONSIN POWER AND LIGHT
NELSON DEWEY GENERATING STATION
CASSVILLE, WISCONSIN

SITE

CLIENT

WISCONSIN POWER AND LIGHT CO.
NELSON DEWEY GENERATING STATION
ONE QUALITY WAY
CASSVILLE, WI 53806

ENGINEER

SCS ENGINEERS
2830 DAIRY DRIVE MADISON, WI 53718-6751
PHONE: (608) 224-2830

PROJECT NO.	25216071.17	KP
DRAWN:	01/13/14	CHECKED BY: NK
REVISED:	01/18/18	APPROVED BY:

I:\25216071.00\Drawing\Site 2017 Annual Rpt.dwg, 1/18/2018 11:56:05 AM

APPENDIX A

A1 Round 1 Background Sampling, Analytical Laboratory Report
A2 Round 2 Background Sampling, Analytical Laboratory Report
A3 Round 3 Background Sampling, Analytical Laboratory Report
A4 Round 4 Background Sampling, Analytical Laboratory Report
A5 Round 5 Background Sampling, Analytical Laboratory Report
A6 Round 6 Background Sampling, Analytical Laboratory Report
A7 Round 7 Background Sampling, Analytical Laboratory Report
A8 Round 8 Background Sampling, Analytical Laboratory Report
A9 Fall 2017 Detection Sampling, Analytical Laboratory Report

A1 Round 1 Background Sampling, Analytical Laboratory Report

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

January 07, 2016

Meghan Blodgett
SCS ENGINEERS
2830 Dairy Drive
Madison, WI 53718

RE: Project: 25215135.30 NELSON DEWEY
Pace Project No.: 40125877

Dear Meghan Blodgett:
Enclosed are the analytical results for sample(s) received by the laboratory on December 10, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

This report has been reissued on January 7, 2016 to report total radium calculation.

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

Sincerely,

Dan Milewsky
dan.milewsky@pacelabs.com
Project Manager

Enclosures

cc: Tom Karwoski, SCS ENGINEERS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: 25215135.30 NELSON DEWEY
Pace Project No.: 40125877

Pennsylvania Certification IDs

Georgia Certification #: C040
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
Virginia VELAP ID: 460263
North Dakota Certification #: R-150
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
US Dept of Agriculture #: S-76505
Virginia VELAP ID: 460263
Virginia VELAP Certification ID: 460263
Wisconsin Certification #: 405132750

Pace Analytical Services, Inc.
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SAMPLE SUMMARY

Project: 25215135.30 NELSON DEWEY
Pace Project No.: 40125877

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40125877001	**B39**	Water	12/09/15 09:45	12/10/15 07:20
40125877002	**B7R**	Water	12/09/15 11:00	12/10/15 07:20
40125877003	**B11B**	Water	12/09/15 12:25	12/10/15 07:20
40125877004	**B11A**	Water	12/09/15 12:55	12/10/15 07:20
40125877005	**B11R**	Water	12/09/15 13:25	12/10/15 07:20
40125877006	**B31R**	Water	12/09/15 14:10	12/10/15 07:20
40125877007	**B31A**	Water	12/09/15 14:50	12/10/15 07:20
40125877008	**B26**	Water	12/09/15 16:00	12/10/15 07:20
40125877009	**FIELD BLANK**	Water	12/09/15 16:30	12/10/15 07:20

Pace Analytical Services, Inc.
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SAMPLE ANALYTE COUNT

Project: 25215135.30 NELSON DEWEY
Pace Project No.: 40125877

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40125877001	**B39**	EPA 6020	JBR	14	PASI-G
		EPA 7470	AJT	1	PASI-G
		EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	TMK	1	PASI-G
		EPA 9040	ALY	1	PASI-G
		EPA 300.0	HMB	3	PASI-G
40125877002	**B7R**	EPA 6020	JBR	14	PASI-G
		EPA 7470	AJT	1	PASI-G
		EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	TMK	1	PASI-G
		EPA 9040	ALY	1	PASI-G
		EPA 300.0	HMB	3	PASI-G
40125877003	**B11B**	EPA 6020	JBR	14	PASI-G
		EPA 7470	AJT	1	PASI-G
		EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	TMK	1	PASI-G
		EPA 9040	ALY	1	PASI-G
		EPA 300.0	HMB	3	PASI-G
40125877004	**B11A**	EPA 6020	JBR	14	PASI-G
		EPA 7470	AJT	1	PASI-G
		EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	TMK	1	PASI-G
		EPA 9040	ALY	1	PASI-G
		EPA 300.0	HMB	3	PASI-G
40125877005	**B11R**	EPA 6020	JBR	14	PASI-G
		EPA 7470	AJT	1	PASI-G
		EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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SAMPLE ANALYTE COUNT

Project: 25215135.30 NELSON DEWEY
Pace Project No.: 40125877

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 2540C	TMK	1	PASI-G
		EPA 9040	ALY	1	PASI-G
		EPA 300.0	HMB	3	PASI-G
40125877006	**B31R**	EPA 6020	JBR	14	PASI-G
		EPA 7470	AJT	1	PASI-G
		EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	TMK	1	PASI-G
		EPA 9040	ALY	1	PASI-G
		EPA 300.0	HMB	3	PASI-G
40125877007	**B31A**	EPA 6020	JBR	14	PASI-G
		EPA 7470	AJT	1	PASI-G
		EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	TMK	1	PASI-G
		EPA 9040	ALY	1	PASI-G
		EPA 300.0	HMB	3	PASI-G
40125877008	**B26**	EPA 6020	JBR	14	PASI-G
		EPA 7470	AJT	1	PASI-G
		EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	TMK	1	PASI-G
		EPA 9040	ALY	1	PASI-G
		EPA 300.0	HMB	3	PASI-G
40125877009	**FIELD BLANK**	EPA 6020	JBR	14	PASI-G
		EPA 7470	AJT	1	PASI-G
		EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	TMK	1	PASI-G
		EPA 9040	ALY	1	PASI-G
		EPA 300.0	HMB	3	PASI-G

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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ANALYTICAL RESULTS

Project: 25215135.30 NELSON DEWEY
Pace Project No.: 40125877

Sample: B39 **Lab ID: 40125877001** Collected: 12/09/15 09:45 Received: 12/10/15 07:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.34J**	ug/L	1.0	0.073	1	12/17/15 09:24	12/23/15 20:18	7440-36-0	
Arsenic	**19.9**	ug/L	1.0	0.099	1	12/17/15 09:24	12/23/15 20:18	7440-38-2	
Barium	**52.8**	ug/L	1.0	0.062	1	12/17/15 09:24	12/23/15 20:18	7440-39-3	
Beryllium	**<0.13**	ug/L	1.0	0.13	1	12/17/15 09:24	12/23/15 20:18	7440-41-7	
Boron	**235**	ug/L	10.0	2.0	1	12/17/15 09:24	12/23/15 20:18	7440-42-8	
Cadmium	**0.16J**	ug/L	1.0	0.089	1	12/17/15 09:24	12/23/15 20:18	7440-43-9	
Calcium	**48400**	ug/L	250	73.6	1	12/17/15 09:24	12/23/15 20:18	7440-70-2	
Chromium	**0.46J**	ug/L	1.0	0.39	1	12/17/15 09:24	12/23/15 20:18	7440-47-3	
Cobalt	**1.2**	ug/L	1.0	0.036	1	12/17/15 09:24	12/23/15 20:18	7440-48-4	
Lead	**0.26J**	ug/L	1.0	0.040	1	12/17/15 09:24	12/23/15 20:18	7439-92-1	
Lithium	**4.9**	ug/L	1.0	0.11	1	12/17/15 09:24	12/23/15 20:18	7439-93-2	
Molybdenum	**8.4**	ug/L	1.0	0.070	1	12/17/15 09:24	12/23/15 20:18	7439-98-7	
Selenium	**15.5**	ug/L	1.0	0.21	1	12/17/15 09:24	12/23/15 20:18	7782-49-2	
Thallium	**0.51J**	ug/L	1.0	0.14	1	12/17/15 09:24	12/23/15 20:18	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.10**	ug/L	0.20	0.10	1	12/16/15 15:20	12/17/15 10:47	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**268**	mg/L	20.0	8.7	1		12/10/15 16:26		
9040 pH	Analytical Method: EPA 9040								
pH	**6.8**	Std. Units	0.10	0.010	1		12/14/15 10:00		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**40.6**	mg/L	4.0	2.0	1		12/15/15 13:37	16887-00-6	
Fluoride	**0.25J**	mg/L	0.40	0.20	1		12/15/15 13:37	16984-48-8	
Sulfate	**12.2**	mg/L	4.0	2.0	1		12/15/15 13:37	14808-79-8	

Sample: B7R **Lab ID: 40125877002** Collected: 12/09/15 11:00 Received: 12/10/15 07:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.28J**	ug/L	1.0	0.073	1	12/17/15 09:24	12/23/15 20:04	7440-36-0	
Arsenic	**5.0**	ug/L	1.0	0.099	1	12/17/15 09:24	12/23/15 20:04	7440-38-2	
Barium	**77.8**	ug/L	1.0	0.062	1	12/17/15 09:24	12/23/15 20:04	7440-39-3	
Beryllium	**<0.13**	ug/L	1.0	0.13	1	12/17/15 09:24	12/23/15 20:04	7440-41-7	
Boron	**110**	ug/L	10.0	2.0	1	12/17/15 09:24	12/23/15 20:04	7440-42-8	
Cadmium	**0.17J**	ug/L	1.0	0.089	1	12/17/15 09:24	12/23/15 20:04	7440-43-9	
Calcium	**31700**	ug/L	250	73.6	1	12/17/15 09:24	12/23/15 20:04	7440-70-2	
Chromium	**0.50J**	ug/L	1.0	0.39	1	12/17/15 09:24	12/23/15 20:04	7440-47-3	
Cobalt	**1.3**	ug/L	1.0	0.036	1	12/17/15 09:24	12/23/15 20:04	7440-48-4	
Lead	**0.21J**	ug/L	1.0	0.040	1	12/17/15 09:24	12/23/15 20:04	7439-92-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 25215135.30 NELSON DEWEY
Pace Project No.: 40125877

Sample: B7R **Lab ID: 40125877002** Collected: 12/09/15 11:00 Received: 12/10/15 07:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Lithium	**0.45J**	ug/L	1.0	0.11	1	12/17/15 09:24	12/23/15 20:04	7439-93-2	
Molybdenum	**9.6**	ug/L	1.0	0.070	1	12/17/15 09:24	12/23/15 20:04	7439-98-7	
Selenium	**0.44J**	ug/L	1.0	0.21	1	12/17/15 09:24	12/23/15 20:04	7782-49-2	
Thallium	**0.20J**	ug/L	1.0	0.14	1	12/17/15 09:24	12/23/15 20:04	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.10**	ug/L	0.20	0.10	1	12/16/15 15:20	12/17/15 10:54	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**198**	mg/L	20.0	8.7	1		12/14/15 19:37		
9040 pH	Analytical Method: EPA 9040								
pH	**6.3**	Std. Units	0.10	0.010	1		12/14/15 10:00		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**45.2**	mg/L	20.0	10.0	5		12/15/15 13:48	16887-00-6	
Fluoride	**<1.0**	mg/L	2.0	1.0	5		12/15/15 13:48	16984-48-8	D3
Sulfate	**17.0J**	mg/L	20.0	10.0	5		12/15/15 13:48	14808-79-8	D3

Sample: B11B **Lab ID: 40125877003** Collected: 12/09/15 12:25 Received: 12/10/15 07:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.32J**	ug/L	1.0	0.073	1	12/17/15 09:24	12/23/15 21:06	7440-36-0	
Arsenic	**0.67J**	ug/L	1.0	0.099	1	12/17/15 09:24	12/23/15 21:06	7440-38-2	
Barium	**147**	ug/L	1.0	0.062	1	12/17/15 09:24	12/23/15 21:06	7440-39-3	
Beryllium	**<0.13**	ug/L	1.0	0.13	1	12/17/15 09:24	12/23/15 21:06	7440-41-7	
Boron	**1140**	ug/L	10.0	2.0	1	12/17/15 09:24	12/23/15 21:06	7440-42-8	
Cadmium	**0.23J**	ug/L	1.0	0.089	1	12/17/15 09:24	12/23/15 21:06	7440-43-9	
Calcium	**64100**	ug/L	250	73.6	1	12/17/15 09:24	12/23/15 21:06	7440-70-2	
Chromium	**0.70J**	ug/L	1.0	0.39	1	12/17/15 09:24	12/23/15 21:06	7440-47-3	
Cobalt	**0.44J**	ug/L	1.0	0.036	1	12/17/15 09:24	12/23/15 21:06	7440-48-4	
Lead	**0.45J**	ug/L	1.0	0.040	1	12/17/15 09:24	12/23/15 21:06	7439-92-1	
Lithium	**21.7**	ug/L	1.0	0.11	1	12/17/15 09:24	12/23/15 21:06	7439-93-2	
Molybdenum	**46.2**	ug/L	1.0	0.070	1	12/17/15 09:24	12/23/15 21:06	7439-98-7	
Selenium	**0.46J**	ug/L	1.0	0.21	1	12/17/15 09:24	12/23/15 21:06	7782-49-2	
Thallium	**0.35J**	ug/L	1.0	0.14	1	12/17/15 09:24	12/23/15 21:06	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.10**	ug/L	0.20	0.10	1	12/16/15 15:20	12/17/15 10:56	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 25215135.30 NELSON DEWEY
Pace Project No.: 40125877

Sample: B11B **Lab ID: 40125877003** Collected: 12/09/15 12:25 Received: 12/10/15 07:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**494**	mg/L	20.0	8.7	1		12/14/15 19:37		
9040 pH	Analytical Method: EPA 9040								
pH	**7.7**	Std. Units	0.10	0.010	1		12/14/15 10:00		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**31.2**	mg/L	4.0	2.0	1		12/15/15 14:23	16887-00-6	
Fluoride	**0.44**	mg/L	0.40	0.20	1		12/15/15 14:23	16984-48-8	
Sulfate	**134**	mg/L	20.0	10.0	5		12/15/15 19:00	14808-79-8	

Sample: B11A **Lab ID: 40125877004** Collected: 12/09/15 12:55 Received: 12/10/15 07:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.42J**	ug/L	1.0	0.073	1	12/17/15 09:24	12/23/15 21:13	7440-36-0	
Arsenic	**0.27J**	ug/L	1.0	0.099	1	12/17/15 09:24	12/23/15 21:13	7440-38-2	
Barium	**202**	ug/L	1.0	0.062	1	12/17/15 09:24	12/23/15 21:13	7440-39-3	
Beryllium	**<0.13**	ug/L	1.0	0.13	1	12/17/15 09:24	12/23/15 21:13	7440-41-7	
Boron	**124**	ug/L	10.0	2.0	1	12/17/15 09:24	12/23/15 21:13	7440-42-8	
Cadmium	**<0.089**	ug/L	1.0	0.089	1	12/17/15 09:24	12/23/15 21:13	7440-43-9	
Calcium	**58800**	ug/L	250	73.6	1	12/17/15 09:24	12/23/15 21:13	7440-70-2	
Chromium	**<0.39**	ug/L	1.0	0.39	1	12/17/15 09:24	12/23/15 21:13	7440-47-3	
Cobalt	**1.3**	ug/L	1.0	0.036	1	12/17/15 09:24	12/23/15 21:13	7440-48-4	
Lead	**0.083J**	ug/L	1.0	0.040	1	12/17/15 09:24	12/23/15 21:13	7439-92-1	
Lithium	**5.9**	ug/L	1.0	0.11	1	12/17/15 09:24	12/23/15 21:13	7439-93-2	
Molybdenum	**22.7**	ug/L	1.0	0.070	1	12/17/15 09:24	12/23/15 21:13	7439-98-7	
Selenium	**<0.21**	ug/L	1.0	0.21	1	12/17/15 09:24	12/23/15 21:13	7782-49-2	
Thallium	**0.14J**	ug/L	1.0	0.14	1	12/17/15 09:24	12/23/15 21:13	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.10**	ug/L	0.20	0.10	1	12/16/15 15:20	12/17/15 10:58	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**338**	mg/L	20.0	8.7	1		12/14/15 19:37		
9040 pH	Analytical Method: EPA 9040								
pH	**7.4**	Std. Units	0.10	0.010	1		12/14/15 10:00		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**40.4**	mg/L	4.0	2.0	1		12/15/15 14:35	16887-00-6	
Fluoride	**0.30J**	mg/L	0.40	0.20	1		12/15/15 14:35	16984-48-8	
Sulfate	**3.2J**	mg/L	4.0	2.0	1		12/15/15 14:35	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 25215135.30 NELSON DEWEY
Pace Project No.: 40125877

Sample: B11R **Lab ID: 40125877005** Collected: 12/09/15 13:25 Received: 12/10/15 07:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**<0.073**	ug/L	1.0	0.073	1	12/17/15 09:24	12/23/15 21:20	7440-36-0	
Arsenic	**14.8**	ug/L	1.0	0.099	1	12/17/15 09:24	12/23/15 21:20	7440-38-2	
Barium	**204**	ug/L	1.0	0.062	1	12/17/15 09:24	12/23/15 21:20	7440-39-3	
Beryllium	**<0.13**	ug/L	1.0	0.13	1	12/17/15 09:24	12/23/15 21:20	7440-41-7	
Boron	**4170**	ug/L	10.0	2.0	1	12/17/15 09:24	12/23/15 21:20	7440-42-8	
Cadmium	**<0.089**	ug/L	1.0	0.089	1	12/17/15 09:24	12/23/15 21:20	7440-43-9	
Calcium	**126000**	ug/L	250	73.6	1	12/17/15 09:24	12/23/15 21:20	7440-70-2	
Chromium	**<0.39**	ug/L	1.0	0.39	1	12/17/15 09:24	12/23/15 21:20	7440-47-3	
Cobalt	**0.36J**	ug/L	1.0	0.036	1	12/17/15 09:24	12/23/15 21:20	7440-48-4	
Lead	**0.21J**	ug/L	1.0	0.040	1	12/17/15 09:24	12/23/15 21:20	7439-92-1	
Lithium	**2.3**	ug/L	1.0	0.11	1	12/17/15 09:24	12/23/15 21:20	7439-93-2	
Molybdenum	**15.1**	ug/L	1.0	0.070	1	12/17/15 09:24	12/23/15 21:20	7439-98-7	
Selenium	**1.2**	ug/L	1.0	0.21	1	12/17/15 09:24	12/23/15 21:20	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	12/17/15 09:24	12/23/15 21:20	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.10**	ug/L	0.20	0.10	1	12/16/15 15:20	12/17/15 11:01	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**616**	mg/L	20.0	8.7	1		12/14/15 19:37		
9040 pH	Analytical Method: EPA 9040								
pH	**6.9**	Std. Units	0.10	0.010	1		12/14/15 10:00		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**39.2**	mg/L	20.0	10.0	5		12/15/15 14:46	16887-00-6	
Fluoride	**<1.0**	mg/L	2.0	1.0	5		12/15/15 14:46	16984-48-8	D3
Sulfate	**75.4**	mg/L	20.0	10.0	5		12/15/15 14:46	14808-79-8	

Sample: B31R **Lab ID: 40125877006** Collected: 12/09/15 14:10 Received: 12/10/15 07:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.47J**	ug/L	1.0	0.073	1	12/17/15 09:24	12/23/15 21:27	7440-36-0	
Arsenic	**0.47J**	ug/L	1.0	0.099	1	12/17/15 09:24	12/23/15 21:27	7440-38-2	
Barium	**86.2**	ug/L	1.0	0.062	1	12/17/15 09:24	12/23/15 21:27	7440-39-3	
Beryllium	**<0.13**	ug/L	1.0	0.13	1	12/17/15 09:24	12/23/15 21:27	7440-41-7	
Boron	**851**	ug/L	10.0	2.0	1	12/17/15 09:24	12/23/15 21:27	7440-42-8	
Cadmium	**2.5**	ug/L	1.0	0.089	1	12/17/15 09:24	12/23/15 21:27	7440-43-9	
Calcium	**77400**	ug/L	250	73.6	1	12/17/15 09:24	12/23/15 21:27	7440-70-2	
Chromium	**0.43J**	ug/L	1.0	0.39	1	12/17/15 09:24	12/23/15 21:27	7440-47-3	
Cobalt	**3.0**	ug/L	1.0	0.036	1	12/17/15 09:24	12/23/15 21:27	7440-48-4	
Lead	**1.8**	ug/L	1.0	0.040	1	12/17/15 09:24	12/23/15 21:27	7439-92-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 25215135.30 NELSON DEWEY
Pace Project No.: 40125877

Sample: B31R **Lab ID: 40125877006** Collected: 12/09/15 14:10 Received: 12/10/15 07:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Lithium	**18.6**	ug/L	1.0	0.11	1	12/17/15 09:24	12/23/15 21:27	7439-93-2	
Molybdenum	**31.4**	ug/L	1.0	0.070	1	12/17/15 09:24	12/23/15 21:27	7439-98-7	
Selenium	**0.69J**	ug/L	1.0	0.21	1	12/17/15 09:24	12/23/15 21:27	7782-49-2	
Thallium	**2.2**	ug/L	1.0	0.14	1	12/17/15 09:24	12/23/15 21:27	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.10**	ug/L	0.20	0.10	1	12/16/15 15:20	12/17/15 11:03	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**374**	mg/L	20.0	8.7	1		12/14/15 19:38		
9040 pH	Analytical Method: EPA 9040								
pH	**6.7**	Std. Units	0.10	0.010	1		12/14/15 10:00		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**29.9**	mg/L	4.0	2.0	1		12/15/15 14:58	16887-00-6	
Fluoride	**<0.20**	mg/L	0.40	0.20	1		12/15/15 14:58	16984-48-8	
Sulfate	**28.8**	mg/L	4.0	2.0	1		12/15/15 14:58	14808-79-8	

Sample: B31A **Lab ID: 40125877007** Collected: 12/09/15 14:50 Received: 12/10/15 07:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**<0.073**	ug/L	1.0	0.073	1	12/17/15 09:24	12/23/15 21:34	7440-36-0	
Arsenic	**1.6**	ug/L	1.0	0.099	1	12/17/15 09:24	12/23/15 21:34	7440-38-2	
Barium	**132**	ug/L	1.0	0.062	1	12/17/15 09:24	12/23/15 21:34	7440-39-3	
Beryllium	**<0.13**	ug/L	1.0	0.13	1	12/17/15 09:24	12/23/15 21:34	7440-41-7	
Boron	**59.0**	ug/L	10.0	2.0	1	12/17/15 09:24	12/23/15 21:34	7440-42-8	
Cadmium	**<0.089**	ug/L	1.0	0.089	1	12/17/15 09:24	12/23/15 21:34	7440-43-9	
Calcium	**48400**	ug/L	250	73.6	1	12/17/15 09:24	12/23/15 21:34	7440-70-2	
Chromium	**<0.39**	ug/L	1.0	0.39	1	12/17/15 09:24	12/23/15 21:34	7440-47-3	
Cobalt	**2.2**	ug/L	1.0	0.036	1	12/17/15 09:24	12/23/15 21:34	7440-48-4	
Lead	**0.080J**	ug/L	1.0	0.040	1	12/17/15 09:24	12/23/15 21:34	7439-92-1	
Lithium	**0.83J**	ug/L	1.0	0.11	1	12/17/15 09:24	12/23/15 21:34	7439-93-2	
Molybdenum	**25.3**	ug/L	1.0	0.070	1	12/17/15 09:24	12/23/15 21:34	7439-98-7	
Selenium	**<0.21**	ug/L	1.0	0.21	1	12/17/15 09:24	12/23/15 21:34	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	12/17/15 09:24	12/23/15 21:34	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.10**	ug/L	0.20	0.10	1	12/16/15 15:20	12/17/15 11:05	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 25215135.30 NELSON DEWEY
Pace Project No.: 40125877

Sample: B31A **Lab ID: 40125877007** Collected: 12/09/15 14:50 Received: 12/10/15 07:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**274**	mg/L	20.0	8.7	1		12/14/15 19:38		
9040 pH	Analytical Method: EPA 9040								
pH	**7.4**	Std. Units	0.10	0.010	1		12/14/15 10:15		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**35.3**	mg/L	4.0	2.0	1		12/15/15 15:09	16887-00-6	
Fluoride	**<0.20**	mg/L	0.40	0.20	1		12/15/15 15:09	16984-48-8	
Sulfate	**26.2**	mg/L	4.0	2.0	1		12/15/15 15:09	14808-79-8	

Sample: B26 **Lab ID: 40125877008** Collected: 12/09/15 16:00 Received: 12/10/15 07:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.075J**	ug/L	1.0	0.073	1	12/17/15 09:24	12/23/15 21:40	7440-36-0	
Arsenic	**0.49J**	ug/L	1.0	0.099	1	12/17/15 09:24	12/23/15 21:40	7440-38-2	
Barium	**73.7**	ug/L	1.0	0.062	1	12/17/15 09:24	12/23/15 21:40	7440-39-3	
Beryllium	**<0.13**	ug/L	1.0	0.13	1	12/17/15 09:24	12/23/15 21:40	7440-41-7	
Boron	**29.6**	ug/L	10.0	2.0	1	12/17/15 09:24	12/23/15 21:40	7440-42-8	
Cadmium	**<0.089**	ug/L	1.0	0.089	1	12/17/15 09:24	12/23/15 21:40	7440-43-9	
Calcium	**81300**	ug/L	250	73.6	1	12/17/15 09:24	12/23/15 21:40	7440-70-2	
Chromium	**0.94J**	ug/L	1.0	0.39	1	12/17/15 09:24	12/23/15 21:40	7440-47-3	
Cobalt	**0.17J**	ug/L	1.0	0.036	1	12/17/15 09:24	12/23/15 21:40	7440-48-4	
Lead	**0.057J**	ug/L	1.0	0.040	1	12/17/15 09:24	12/23/15 21:40	7439-92-1	
Lithium	**2.1**	ug/L	1.0	0.11	1	12/17/15 09:24	12/23/15 21:40	7439-93-2	
Molybdenum	**0.19J**	ug/L	1.0	0.070	1	12/17/15 09:24	12/23/15 21:40	7439-98-7	
Selenium	**0.69J**	ug/L	1.0	0.21	1	12/17/15 09:24	12/23/15 21:40	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	12/17/15 09:24	12/23/15 21:40	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.10**	ug/L	0.20	0.10	1	12/16/15 15:20	12/17/15 11:08	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**424**	mg/L	20.0	8.7	1		12/14/15 19:39		
9040 pH	Analytical Method: EPA 9040								
pH	**7.2**	Std. Units	0.10	0.010	1		12/14/15 10:15		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**45.5**	mg/L	4.0	2.0	1		12/15/15 15:21	16887-00-6	
Fluoride	**<0.20**	mg/L	0.40	0.20	1		12/15/15 15:21	16984-48-8	
Sulfate	**37.1**	mg/L	4.0	2.0	1		12/15/15 15:21	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
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(920)469-2436

ANALYTICAL RESULTS

Project: 25215135.30 NELSON DEWEY
Pace Project No.: 40125877

Sample: FIELD BLANK **Lab ID: 40125877009** Collected: 12/09/15 16:30 Received: 12/10/15 07:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**<0.073**	ug/L	1.0	0.073	1	12/17/15 09:24	12/23/15 22:01	7440-36-0	
Arsenic	**<0.099**	ug/L	1.0	0.099	1	12/17/15 09:24	12/23/15 22:01	7440-38-2	
Barium	**0.082J**	ug/L	1.0	0.062	1	12/17/15 09:24	12/23/15 22:01	7440-39-3	
Beryllium	**<0.13**	ug/L	1.0	0.13	1	12/17/15 09:24	12/23/15 22:01	7440-41-7	
Boron	**<2.0**	ug/L	10.0	2.0	1	12/17/15 09:24	12/23/15 22:01	7440-42-8	
Cadmium	**<0.089**	ug/L	1.0	0.089	1	12/17/15 09:24	12/23/15 22:01	7440-43-9	
Calcium	**<73.6**	ug/L	250	73.6	1	12/17/15 09:24	12/23/15 22:01	7440-70-2	
Chromium	**<0.39**	ug/L	1.0	0.39	1	12/17/15 09:24	12/23/15 22:01	7440-47-3	
Cobalt	**<0.036**	ug/L	1.0	0.036	1	12/17/15 09:24	12/23/15 22:01	7440-48-4	
Lead	**<0.040**	ug/L	1.0	0.040	1	12/17/15 09:24	12/23/15 22:01	7439-92-1	
Lithium	**<0.11**	ug/L	1.0	0.11	1	12/17/15 09:24	12/23/15 22:01	7439-93-2	
Molybdenum	**<0.070**	ug/L	1.0	0.070	1	12/17/15 09:24	12/23/15 22:01	7439-98-7	
Selenium	**<0.21**	ug/L	1.0	0.21	1	12/17/15 09:24	12/23/15 22:01	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	12/17/15 09:24	12/23/15 22:01	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.10**	ug/L	0.20	0.10	1	12/16/15 15:20	12/17/15 11:10	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**<8.7**	mg/L	20.0	8.7	1		12/14/15 19:39		
9040 pH	Analytical Method: EPA 9040								
pH	**5.7**	Std. Units	0.10	0.010	1		12/14/15 10:15		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**2.5J**	mg/L	4.0	2.0	1		12/15/15 15:32	16887-00-6	
Fluoride	**<0.20**	mg/L	0.40	0.20	1		12/15/15 15:32	16984-48-8	
Sulfate	**<2.0**	mg/L	4.0	2.0	1		12/15/15 15:32	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25215135.30 NELSON DEWEY
Pace Project No.: 40125877

QC Batch: MERP/5442 Analysis Method: EPA 7470
QC Batch Method: EPA 7470 Analysis Description: 7470 Mercury
Associated Lab Samples: 40125877001, 40125877002, 40125877003, 40125877004, 40125877005, 40125877006, 40125877007, 40125877008, 40125877009

METHOD BLANK: 1275024 Matrix: Water
Associated Lab Samples: 40125877001, 40125877002, 40125877003, 40125877004, 40125877005, 40125877006, 40125877007, 40125877008, 40125877009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	<0.10	0.20	12/17/15 10:19	

LABORATORY CONTROL SAMPLE: 1275025

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.4	108	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1275026 1275027

Parameter	Units	40126115001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	<0.10	5	5	5.3	5.5	105	110	85-115	4	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25215135.30 NELSON DEWEY
Pace Project No.: 40125877

QC Batch: MPRP/13071 Analysis Method: EPA 6020
QC Batch Method: EPA 3010 Analysis Description: 6020 MET
Associated Lab Samples: 40125877001, 40125877002, 40125877003, 40125877004, 40125877005, 40125877006, 40125877007, 40125877008, 40125877009

METHOD BLANK: 1275285 Matrix: Water
Associated Lab Samples: 40125877001, 40125877002, 40125877003, 40125877004, 40125877005, 40125877006, 40125877007, 40125877008, 40125877009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	<0.073	1.0	12/23/15 19:16	
Arsenic	ug/L	<0.099	1.0	12/23/15 19:16	
Barium	ug/L	0.13J	1.0	12/23/15 19:16	
Beryllium	ug/L	<0.13	1.0	12/23/15 19:16	
Boron	ug/L	<2.0	10.0	12/23/15 19:16	
Cadmium	ug/L	<0.089	1.0	12/23/15 19:16	
Calcium	ug/L	<73.6	250	12/23/15 19:16	
Chromium	ug/L	<0.39	1.0	12/23/15 19:16	
Cobalt	ug/L	<0.036	1.0	12/23/15 19:16	
Lead	ug/L	<0.040	1.0	12/23/15 19:16	
Lithium	ug/L	<0.11	1.0	12/23/15 19:16	
Molybdenum	ug/L	<0.070	1.0	12/23/15 19:16	
Selenium	ug/L	<0.21	1.0	12/23/15 19:16	
Thallium	ug/L	<0.14	1.0	12/23/15 19:16	

LABORATORY CONTROL SAMPLE: 1275286

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	542	108	80-120	
Arsenic	ug/L	500	524	105	80-120	
Barium	ug/L	500	502	100	80-120	
Beryllium	ug/L	500	539	108	80-120	
Boron	ug/L	500	542	108	80-120	
Cadmium	ug/L	500	535	107	80-120	
Calcium	ug/L	5000	4950	99	80-120	
Chromium	ug/L	500	511	102	80-120	
Cobalt	ug/L	500	501	100	80-120	
Lead	ug/L	500	502	100	80-120	
Lithium	ug/L	500	532	106	80-120	
Molybdenum	ug/L	500	534	107	80-120	
Selenium	ug/L	500	556	111	80-120	
Thallium	ug/L	500	490	98	80-120	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25215135.30 NELSON DEWEY
Pace Project No.: 40125877

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1275287 1275288

Parameter	Units	40125877001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	0.34J	500	500	542	536	108	107	75-125	1	20	
Arsenic	ug/L	19.9	500	500	546	540	105	104	75-125	1	20	
Barium	ug/L	52.8	500	500	570	557	103	101	75-125	2	20	
Beryllium	ug/L	<0.13	500	500	522	511	104	102	75-125	2	20	
Boron	ug/L	235	500	500	760	744	105	102	75-125	2	20	
Cadmium	ug/L	0.16J	500	500	531	524	106	105	75-125	1	20	
Calcium	ug/L	48400	5000	5000	53600	53200	103	96	75-125	1	20	
Chromium	ug/L	0.46J	500	500	511	509	102	102	75-125	0	20	
Cobalt	ug/L	1.2	500	500	504	498	101	99	75-125	1	20	
Lead	ug/L	0.26J	500	500	519	507	104	101	75-125	2	20	
Lithium	ug/L	4.9	500	500	528	512	105	101	75-125	3	20	
Molybdenum	ug/L	8.4	500	500	559	549	110	108	75-125	2	20	
Selenium	ug/L	15.5	500	500	563	552	109	107	75-125	2	20	
Thallium	ug/L	0.51J	500	500	514	497	103	99	75-125	3	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25215135.30 NELSON DEWEY
Pace Project No.: 40125877

QC Batch: WET/24002 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 40125877001

METHOD BLANK: 1271930 Matrix: Water
Associated Lab Samples: 40125877001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<8.7	20.0	12/10/15 16:18	

LABORATORY CONTROL SAMPLE: 1271931

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	562	554	99	80-120	

SAMPLE DUPLICATE: 1271932

Parameter	Units	40125751001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	14000	14500	4	5	

SAMPLE DUPLICATE: 1271933

Parameter	Units	40125753003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	976	1010	3	5	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25215135.30 NELSON DEWEY
Pace Project No.: 40125877

QC Batch: WET/24023 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 40125877002, 40125877003, 40125877004, 40125877005, 40125877006, 40125877007, 40125877008, 40125877009

METHOD BLANK: 1273649 Matrix: Water
Associated Lab Samples: 40125877002, 40125877003, 40125877004, 40125877005, 40125877006, 40125877007, 40125877008, 40125877009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<8.7	20.0	12/14/15 19:36	

LABORATORY CONTROL SAMPLE: 1273650

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	562	568	101	80-120	

SAMPLE DUPLICATE: 1273651

Parameter	Units	40125877007 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	274	274	0	5	

SAMPLE DUPLICATE: 1273652

Parameter	Units	40125994001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	392	384	2	5	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25215135.30 NELSON DEWEY
Pace Project No.: 40125877

QC Batch: WET/24022 Analysis Method: EPA 9040
QC Batch Method: EPA 9040 Analysis Description: 9040 pH
Associated Lab Samples: 40125877001, 40125877002, 40125877003, 40125877004, 40125877005, 40125877006, 40125877007, 40125877008, 40125877009

SAMPLE DUPLICATE: 1273502

Parameter	Units	40125931001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH	Std. Units	8.1	8.2	1	20	

SAMPLE DUPLICATE: 1273503

Parameter	Units	40125911001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH	Std. Units	8.3	8.5	2	20	H6

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25215135.30 NELSON DEWEY
Pace Project No.: 40125877

QC Batch: WETA/31674 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 40125877001, 40125877002, 40125877003, 40125877004, 40125877005, 40125877006, 40125877007, 40125877008, 40125877009

METHOD BLANK: 1273370 Matrix: Water
Associated Lab Samples: 40125877001, 40125877002, 40125877003, 40125877004, 40125877005, 40125877006, 40125877007, 40125877008, 40125877009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<2.0	4.0	12/15/15 09:46	
Fluoride	mg/L	<0.20	0.40	12/15/15 09:46	
Sulfate	mg/L	<2.0	4.0	12/15/15 09:46	

LABORATORY CONTROL SAMPLE: 1273371

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	19.0	95	90-110	
Fluoride	mg/L	2	2.0	99	90-110	
Sulfate	mg/L	20	19.2	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1273372 1273373

Parameter	Units	40125982003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	153	100	100	260	258	107	105	90-110	1	20	
Fluoride	mg/L	<2.0	10	10	10.0	10	97	96	90-110	0	20	
Sulfate	mg/L	104	100	100	207	205	103	102	90-110	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1273374 1273375

Parameter	Units	40125964002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	49.3J	400	400	399	401	87	88	90-110	0	20	M0
Fluoride	mg/L	64.5	40	40	116	99.3	129	87	90-110	15	20	M0
Sulfate	mg/L	<40.0	400	400	394	390	91	90	90-110	1	20	

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REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 25215135.30 NELSON DEWEY
Pace Project No.: 40125877

Sample: B39 **Lab ID: 40125877001** Collected: 12/09/15 09:45 Received: 12/10/15 07:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.516 ± 0.592 (0.350) C:NA T:107%**	pCi/L	01/04/16 12:18	13982-63-3	
Radium-228	EPA 904.0	**0.910 ± 0.501 (0.915) C:85% T:89%**	pCi/L	12/29/15 18:19	15262-20-1	
Total Radium	Total Radium Calculation	**1.43 ± 1.09 (1.27)**	pCi/L	01/07/16 08:42	7440-14-4	

Sample: B7R **Lab ID: 40125877002** Collected: 12/09/15 11:00 Received: 12/10/15 07:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.341 ± 0.583 (0.949) C:NA T:92%**	pCi/L	01/04/16 13:26	13982-63-3	
Radium-228	EPA 904.0	**0.592 ± 0.446 (0.874) C:84% T:86%**	pCi/L	12/29/15 18:19	15262-20-1	
Total Radium	Total Radium Calculation	**0.933 ± 1.03 (1.82)**	pCi/L	01/07/16 08:42	7440-14-4	

Sample: B11B **Lab ID: 40125877003** Collected: 12/09/15 12:25 Received: 12/10/15 07:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.733 ± 0.674 (0.397) C:NA T:96%**	pCi/L	01/04/16 13:36	13982-63-3	
Radium-228	EPA 904.0	**0.129 ± 0.427 (0.963) C:87% T:74%**	pCi/L	12/29/15 18:19	15262-20-1	
Total Radium	Total Radium Calculation	**0.862 ± 1.10 (1.36)**	pCi/L	01/07/16 08:42	7440-14-4	

Sample: B11A **Lab ID: 40125877004** Collected: 12/09/15 12:55 Received: 12/10/15 07:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.579 ± 0.673 (0.987) C:NA T:92%**	pCi/L	01/04/16 13:39	13982-63-3	
Radium-228	EPA 904.0	**0.503 ± 0.443 (0.898) C:86% T:83%**	pCi/L	12/29/15 18:19	15262-20-1	
Total Radium	Total Radium Calculation	**1.08 ± 1.12 (1.89)**	pCi/L	01/07/16 08:42	7440-14-4	

Sample: B11R **Lab ID: 40125877005** Collected: 12/09/15 13:25 Received: 12/10/15 07:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.797 ± 0.732 (0.953) C:NA T:89%**	pCi/L	01/04/16 14:32	13982-63-3	
Radium-228	EPA 904.0	**0.653 ± 0.493 (0.977) C:85% T:84%**	pCi/L	12/29/15 18:19	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 25215135.30 NELSON DEWEY
Pace Project No.: 40125877

Sample: B11R **Lab ID: 40125877005** Collected: 12/09/15 13:25 Received: 12/10/15 07:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Total Radium	Total Radium Calculation	**1.45 ± 1.23 (1.93)**	pCi/L	01/07/16 08:42	7440-14-4	

Sample: B31R **Lab ID: 40125877006** Collected: 12/09/15 14:10 Received: 12/10/15 07:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.575 ± 0.694 (1.06) C:NA T:91%**	pCi/L	01/05/16 10:21	13982-63-3	
Radium-228	EPA 904.0	**0.769 ± 0.470 (0.876) C:85% T:83%**	pCi/L	12/29/15 18:20	15262-20-1	
Total Radium	Total Radium Calculation	**1.34 ± 1.16 (1.94)**	pCi/L	01/07/16 08:42	7440-14-4	

Sample: B31A **Lab ID: 40125877007** Collected: 12/09/15 14:50 Received: 12/10/15 07:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.484 ± 0.609 (0.942) C:NA T:92%**	pCi/L	01/05/16 10:22	13982-63-3	
Radium-228	EPA 904.0	**0.985 ± 0.479 (0.810) C:85% T:82%**	pCi/L	12/29/15 18:20	15262-20-1	
Total Radium	Total Radium Calculation	**1.47 ± 1.09 (1.75)**	pCi/L	01/07/16 08:42	7440-14-4	

Sample: B26 **Lab ID: 40125877008** Collected: 12/09/15 16:00 Received: 12/10/15 07:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.404 ± 0.616 (0.991) C:NA T:95%**	pCi/L	01/05/16 10:20	13982-63-3	
Radium-228	EPA 904.0	**0.820 ± 0.436 (0.762) C:84% T:88%**	pCi/L	12/29/15 18:20	15262-20-1	
Total Radium	Total Radium Calculation	**1.22 ± 1.05 (1.75)**	pCi/L	01/07/16 08:42	7440-14-4	

Sample: FIELD BLANK **Lab ID: 40125877009** Collected: 12/09/15 16:30 Received: 12/10/15 07:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.134 ± 0.610 (0.362) C:NA T:91%**	pCi/L	01/05/16 10:36	13982-63-3	
Radium-228	EPA 904.0	**-0.201 ± 0.406 (0.992) C:85% T:78%**	pCi/L	12/29/15 18:17	15262-20-1	
Total Radium	Total Radium Calculation	**0.000 ± 1.02 (1.35)**	pCi/L	01/07/16 08:42	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL - RADIOCHEMISTRY

Project: 25215135.30 NELSON DEWEY
Pace Project No.: 40125877

QC Batch: RADC/27264 Analysis Method: EPA 904.0
QC Batch Method: EPA 904.0 Analysis Description: 904.0 Radium 228
Associated Lab Samples: 40125877001, 40125877002, 40125877003, 40125877004, 40125877005, 40125877006, 40125877007, 40125877008, 40125877009

METHOD BLANK: 998792 Matrix: Water
Associated Lab Samples:

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.399 ± 0.338 (0.681) C:86% T:82%	pCi/L	12/29/15 18:18	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL - RADIOCHEMISTRY

Project: 25215135.30 NELSON DEWEY
Pace Project No.: 40125877

QC Batch: RADC/27338 Analysis Method: EPA 903.1
QC Batch Method: EPA 903.1 Analysis Description: 903.1 Radium-226
Associated Lab Samples: 40125877001, 40125877002, 40125877003, 40125877004, 40125877005, 40125877006, 40125877007, 40125877008, 40125877009

METHOD BLANK: 1001989 Matrix: Water
Associated Lab Samples:

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.313 ± 0.445 (0.753) C:NA T:95%	pCi/L	01/04/16 13:23	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALIFIERS

Project: 25215135.30 NELSON DEWEY
Pace Project No.: 40125877

DEFINITIONS

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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 LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

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 at or above the adjusted LOD.

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-G	Pace Analytical Services - Green Bay
PASI-PA	Pace Analytical Services - Greensburg

ANALYTE QUALIFIERS

D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
H6	Analysis initiated outside of the 15 minute EPA recommended holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 25215135.30 NELSON DEWEY
Pace Project No.: 40125877

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40125877001	**B39**	EPA 3010	MPRP/13071	EPA 6020	ICPM/6099
40125877002	**B7R**	EPA 3010	MPRP/13071	EPA 6020	ICPM/6099
40125877003	**B11B**	EPA 3010	MPRP/13071	EPA 6020	ICPM/6099
40125877004	**B11A**	EPA 3010	MPRP/13071	EPA 6020	ICPM/6099
40125877005	**B11R**	EPA 3010	MPRP/13071	EPA 6020	ICPM/6099
40125877006	**B31R**	EPA 3010	MPRP/13071	EPA 6020	ICPM/6099
40125877007	**B31A**	EPA 3010	MPRP/13071	EPA 6020	ICPM/6099
40125877008	**B26**	EPA 3010	MPRP/13071	EPA 6020	ICPM/6099
40125877009	**FIELD BLANK**	EPA 3010	MPRP/13071	EPA 6020	ICPM/6099
40125877001	**B39**	EPA 7470	MERP/5442	EPA 7470	MERC/7575
40125877002	**B7R**	EPA 7470	MERP/5442	EPA 7470	MERC/7575
40125877003	**B11B**	EPA 7470	MERP/5442	EPA 7470	MERC/7575
40125877004	**B11A**	EPA 7470	MERP/5442	EPA 7470	MERC/7575
40125877005	**B11R**	EPA 7470	MERP/5442	EPA 7470	MERC/7575
40125877006	**B31R**	EPA 7470	MERP/5442	EPA 7470	MERC/7575
40125877007	**B31A**	EPA 7470	MERP/5442	EPA 7470	MERC/7575
40125877008	**B26**	EPA 7470	MERP/5442	EPA 7470	MERC/7575
40125877009	**FIELD BLANK**	EPA 7470	MERP/5442	EPA 7470	MERC/7575
40125877001	**B39**	EPA 903.1	RADC/27338		
40125877002	**B7R**	EPA 903.1	RADC/27338		
40125877003	**B11B**	EPA 903.1	RADC/27338		
40125877004	**B11A**	EPA 903.1	RADC/27338		
40125877005	**B11R**	EPA 903.1	RADC/27338		
40125877006	**B31R**	EPA 903.1	RADC/27338		
40125877007	**B31A**	EPA 903.1	RADC/27338		
40125877008	**B26**	EPA 903.1	RADC/27338		
40125877009	**FIELD BLANK**	EPA 903.1	RADC/27338		
40125877001	**B39**	EPA 904.0	RADC/27264		
40125877002	**B7R**	EPA 904.0	RADC/27264		
40125877003	**B11B**	EPA 904.0	RADC/27264		
40125877004	**B11A**	EPA 904.0	RADC/27264		
40125877005	**B11R**	EPA 904.0	RADC/27264		
40125877006	**B31R**	EPA 904.0	RADC/27264		
40125877007	**B31A**	EPA 904.0	RADC/27264		
40125877008	**B26**	EPA 904.0	RADC/27264		
40125877009	**FIELD BLANK**	EPA 904.0	RADC/27264		
40125877001	**B39**	Total Radium Calculation	RADC/27513		
40125877002	**B7R**	Total Radium Calculation	RADC/27513		
40125877003	**B11B**	Total Radium Calculation	RADC/27513		
40125877004	**B11A**	Total Radium Calculation	RADC/27513		
40125877005	**B11R**	Total Radium Calculation	RADC/27513		
40125877006	**B31R**	Total Radium Calculation	RADC/27513		
40125877007	**B31A**	Total Radium Calculation	RADC/27513		
40125877008	**B26**	Total Radium Calculation	RADC/27513		
40125877009	**FIELD BLANK**	Total Radium Calculation	RADC/27513		
40125877001	**B39**	SM 2540C	WET/24002		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 25215135.30 NELSON DEWEY
Pace Project No.: 40125877

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40125877002	**B7R**	SM 2540C	WET/24023		
40125877003	**B11B**	SM 2540C	WET/24023		
40125877004	**B11A**	SM 2540C	WET/24023		
40125877005	**B11R**	SM 2540C	WET/24023		
40125877006	**B31R**	SM 2540C	WET/24023		
40125877007	**B31A**	SM 2540C	WET/24023		
40125877008	**B26**	SM 2540C	WET/24023		
40125877009	**FIELD BLANK**	SM 2540C	WET/24023		
40125877001	**B39**	EPA 9040	WET/24022		
40125877002	**B7R**	EPA 9040	WET/24022		
40125877003	**B11B**	EPA 9040	WET/24022		
40125877004	**B11A**	EPA 9040	WET/24022		
40125877005	**B11R**	EPA 9040	WET/24022		
40125877006	**B31R**	EPA 9040	WET/24022		
40125877007	**B31A**	EPA 9040	WET/24022		
40125877008	**B26**	EPA 9040	WET/24022		
40125877009	**FIELD BLANK**	EPA 9040	WET/24022		
40125877001	**B39**	EPA 300.0	WETA/31674		
40125877002	**B7R**	EPA 300.0	WETA/31674		
40125877003	**B11B**	EPA 300.0	WETA/31674		
40125877004	**B11A**	EPA 300.0	WETA/31674		
40125877005	**B11R**	EPA 300.0	WETA/31674		
40125877006	**B31R**	EPA 300.0	WETA/31674		
40125877007	**B31A**	EPA 300.0	WETA/31674		
40125877008	**B26**	EPA 300.0	WETA/31674		
40125877009	**FIELD BLANK**	EPA 300.0	WETA/31674		

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

Pace Analytical®
www.pacelabs.com

CHAIN OF CUSTODY

40125877

(Please Print Clearly)	
Company Name:	SCS
Branch/Location:	Madison
Project Contact:	Meg Blodgett
Phone:	608 216-7362
Project Number:	25215135.30
Project Name:	Nelson Dewey
Project State:	WI
Sampled By (Print):	Paul A. Grover
Sampled By (Sign):	Paul A. Grover
PO #:	Regulatory Program:

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes

A = Air	W = Water
B = Biota	DW = Drinking Water
C = Charcoal	GW = Ground Water
O = Oil	SW = Surface Water
S = Soil	WW = Waste Water
SI = Sludge	WP = Wipe

***Preservation Codes**
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested: pH	TDS, Cl, F, SO4	Mercury	Metals	Radium 226	Radium 228	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)
					N	A		A	D	D	D	D		
001	B 39	12/9/15	9:45	GW			X	X	X	X	X	X	4-250mLpp AF	2-500mLp D
002	B 7R		11:00											
003	B 11B		12:25											
004	B 11A		12:55											
005	B 11R		13:25											
006	B 31R		14:10											
007	B 31A		14:50											
008	B 26		16:00											
009	Field Blank		16:30	Distilled										

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Profile #:

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
Paul A. Grover	12/9/15 20:00		
Dunham	12/10/15 0720	[illegible] Pace	12/10/15 0720

PACE Project No.: 40125877

Receipt Temp = R01 °C

Sample Receipt pH: (OK) Adjusted

Cooler Custody Seal: Present / Not Present

Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

Sample Condition Upon Receipt

Pace Analytical Services, Inc.
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Pace Analytical™

Project #: WO#: 40125877

40125877

Client Name: SCS

Courier: ☐ Fed Ex ☐ UPS ☐ Client ☐ Pace ☑ Other: Dunham

Tracking #: 1098775

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

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

Thermometer Used NA **Type of Ice:** (Wet) Blue Dry None ☑ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: /Corr: R01 **Biological Tissue is Frozen:** ☐ yes ☐ no

Temp Blank Present: ☐ yes ☑ no

Person examining contents:
Date:
Initials:

Temp should be above freezing to 6°C for all sample except Biota.
Frozen Biota Samples should be received ≤ 0°C.

				Comments:
Chain of Custody Present:	☑Yes	☐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.
Samples Arrived within Hold Time:	☑Yes	☐No	☐N/A	5.
- VOA Samples frozen upon receipt	☐Yes	☐No		Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes	☑No	☐N/A	6.
Rush Turn Around Time Requested:	☐Yes	☑No	☐N/A	7.
Sufficient Volume:	☑Yes	☐No	☐N/A	8.
Correct Containers Used:	☑Yes	☐No	☐N/A	9.
-Pace Containers Used:	☐Yes	☑No	☐N/A	
-Pace IR Containers Used:	☐Yes	☐No	☑N/A	
Containers Intact:	☑Yes	☐No	☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes	☐No	☑N/A	11.
Sample Labels match COC:	☑Yes	☐No	☐N/A	12.
-Includes date/time/ID/Analysis Matrix: W				
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	☑Yes	☐No	☐N/A	13. ☑ HNO3 ☐ H2SO4 ☐ NaOH ☐ NaOH +ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	☑Yes	☐No	☐N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	☐Yes	☑No		Initial when completed KA / Lab Std #ID of preservative / Date/ Time:
Headspace in VOA Vials (>6mm):	☐Yes	☐No	☑N/A	14.
Trip Blank Present:	☐Yes	☐No	☑N/A	15.
Trip Blank Custody Seals Present	☐Yes	☐No	☑N/A	
Pace Trip Blank Lot # (if purchased):				

Client Notification/ Resolution: If checked, see attached form for additional comments ☐

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: MH for DM **Date:** 12/10/15

A2 Round 2 Background Sampling, Analytical Laboratory Report

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

January 25, 2018

Meghan Blodgett
SCS ENGINEERS
2830 Dairy Drive
Madison, WI 53718

RE: Project: 25216071 ALLIANT NELSON CCR
Pace Project No.: 40130876

Dear Meghan Blodgett:
Enclosed are the analytical results for sample(s) received by the laboratory on April 15, 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.

Revision 1 - This report replaces the May 13, 2016 report. This report has been reissued on January 25, 2018. In 2017, the process for calculating Total Radium concentration using results from individual Ra-226 and Ra-228 analyses was standardized. At the client's request, this project from 2016 has been revised to include a Total Radium concentration using the standardized method.

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

Sincerely,

Tod Noltemeyer

Tod Noltemeyer for
Dan Milewsky
dan.milewsky@pacelabs.com
(920)469-2436
Project Manager

Enclosures

cc: Tom Karwoski, SCS ENGINEERS
Kyle Kramer, SCS ENGINEERS
Jeff Maxted, ALLIANT ENERGY
Marc Morandi, ALLIANT ENERGY

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: 25216071 ALLIANT NELSON CCR
Pace Project No.: 40130876

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150
Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: 25216071 ALLIANT NELSON CCR
Pace Project No.: 40130876

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40130876001	**FIELD BLANK**	Water	04/13/16 15:40	04/15/16 09:15
40130876002	**B-31R**	Water	04/13/16 11:15	04/15/16 09:15
40130876003	**B-31A**	Water	04/13/16 11:40	04/15/16 09:15
40130876004	**B-11R**	Water	04/13/16 12:35	04/15/16 09:15
40130876005	**B-7R**	Water	04/13/16 13:45	04/15/16 09:15
40130876006	**B-11A**	Water	04/13/16 14:45	04/15/16 09:15
40130876007	**B-11B**	Water	04/13/16 15:15	04/15/16 09:15
40130876008	**B-26**	Water	04/12/16 17:15	04/15/16 09:15
40130876009	**B-39**	Water	04/12/16 19:30	04/15/16 09:15

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(920)469-2436

SAMPLE ANALYTE COUNT

Project: 25216071 ALLIANT NELSON CCR
Pace Project No.: 40130876

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40130876001	**FIELD BLANK**	EPA 6020	DS1	14	PASI-G
		EPA 7470	AJT	1	PASI-G
		EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
		SM 2540C	TMK	1	PASI-G
		EPA 9040	ALY	1	PASI-G
		EPA 300.0	HMB	3	PASI-G
40130876002	**B-31R**	EPA 6020	DS1	14	PASI-G
		EPA 7470	AJT	1	PASI-G
			JLJ	7	PASI-G
		EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
		SM 2540C	TMK	1	PASI-G
		EPA 9040	ALY	1	PASI-G
		EPA 300.0	HMB	3	PASI-G
40130876003	**B-31A**	EPA 6020	DS1	14	PASI-G
		EPA 7470	AJT	1	PASI-G
			JLJ	7	PASI-G
		EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C	TMK	1	PASI-G
		EPA 9040	ALY	1	PASI-G
		EPA 300.0	HMB	3	PASI-G
40130876004	**B-11R**	EPA 6020	DS1	14	PASI-G
		EPA 7470	AJT	1	PASI-G
			JLJ	7	PASI-G
		EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
		SM 2540C	TMK	1	PASI-G
		EPA 9040	ALY	1	PASI-G
		EPA 300.0	HMB	3	PASI-G
40130876005	**B-7R**	EPA 6020	DS1	14	PASI-G
		EPA 7470	AJT	1	PASI-G

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 25216071 ALLIANT NELSON CCR
Pace Project No.: 40130876

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
			JLJ	7	PASI-G
		EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
		SM 2540C	TMK	1	PASI-G
		EPA 9040	ALY	1	PASI-G
		EPA 300.0	HMB	3	PASI-G
40130876006	**B-11A**	EPA 6020	DS1	14	PASI-G
		EPA 7470	AJT	1	PASI-G
			JLJ	7	PASI-G
		EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
		SM 2540C	TMK	1	PASI-G
		EPA 9040	ALY	1	PASI-G
		EPA 300.0	HMB	3	PASI-G
40130876007	**B-11B**	EPA 6020	DS1	14	PASI-G
		EPA 7470	AJT	1	PASI-G
			JLJ	7	PASI-G
		EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
		SM 2540C	TMK	1	PASI-G
		EPA 9040	ALY	1	PASI-G
		EPA 300.0	HMB	3	PASI-G
40130876008	**B-26**	EPA 6020	DS1	14	PASI-G
		EPA 7470	AJT	1	PASI-G
			JLJ	7	PASI-G
		EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2540C	TMK	1	PASI-G
		EPA 9040	ALY	1	PASI-G
		EPA 300.0	HMB	3	PASI-G
40130876009	**B-39**	EPA 6020	DS1	14	PASI-G
		EPA 7470	AJT	1	PASI-G
			JLJ	7	PASI-G

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 25216071 ALLIANT NELSON CCR
Pace Project No.: 40130876

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
		SM 2540C	TMK	1	PASI-G
		EPA 9040	ALY	1	PASI-G
		EPA 300.0	HMB	3	PASI-G

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ANALYTICAL RESULTS

Project: 25216071 ALLIANT NELSON CCR
Pace Project No.: 40130876

Sample: FIELD BLANK **Lab ID: 40130876001** Collected: 04/13/16 15:40 Received: 04/15/16 09:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**<0.073**	ug/L	1.0	0.073	1	04/21/16 10:54	04/26/16 20:19	7440-36-0	
Arsenic	**<0.099**	ug/L	1.0	0.099	1	04/21/16 10:54	04/26/16 20:19	7440-38-2	
Barium	**0.35J**	ug/L	1.0	0.062	1	04/21/16 10:54	04/26/16 20:19	7440-39-3	
Beryllium	**<0.13**	ug/L	1.0	0.13	1	04/21/16 10:54	04/26/16 20:19	7440-41-7	
Boron	**2.4J**	ug/L	10.0	2.0	1	04/21/16 10:54	04/28/16 16:56	7440-42-8	
Cadmium	**<0.089**	ug/L	1.0	0.089	1	04/21/16 10:54	04/26/16 20:19	7440-43-9	
Calcium	**<73.6**	ug/L	250	73.6	1	04/21/16 10:54	04/26/16 20:19	7440-70-2	
Chromium	**0.76J**	ug/L	1.0	0.39	1	04/21/16 10:54	04/26/16 20:19	7440-47-3	
Cobalt	**<0.036**	ug/L	1.0	0.036	1	04/21/16 10:54	04/26/16 20:19	7440-48-4	
Lead	**<0.040**	ug/L	1.0	0.040	1	04/21/16 10:54	04/26/16 20:19	7439-92-1	
Lithium	**<0.11**	ug/L	1.0	0.11	1	04/21/16 10:54	04/28/16 16:56	7439-93-2	
Molybdenum	**<0.070**	ug/L	1.0	0.070	1	04/21/16 10:54	04/26/16 20:19	7439-98-7	
Selenium	**<0.21**	ug/L	1.0	0.21	1	04/21/16 10:54	04/26/16 20:19	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	04/21/16 10:54	04/26/16 20:19	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.18**	ug/L	0.60	0.18	1	04/21/16 12:30	04/22/16 09:37	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**14.0J**	mg/L	20.0	8.7	1		04/19/16 18:37		
9040 pH	Analytical Method: EPA 9040								
pH	**6.9**	Std. Units	0.10	0.010	1		04/19/16 11:20		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**<2.0**	mg/L	4.0	2.0	1		04/29/16 20:15	16887-00-6	
Fluoride	**<0.20**	mg/L	0.40	0.20	1		04/29/16 20:15	16984-48-8	
Sulfate	**<2.0**	mg/L	4.0	2.0	1		04/29/16 20:15	14808-79-8	

Sample: B-31R **Lab ID: 40130876002** Collected: 04/13/16 11:15 Received: 04/15/16 09:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.15J**	ug/L	1.0	0.073	1	04/21/16 10:54	04/26/16 20:26	7440-36-0	
Arsenic	**0.24J**	ug/L	1.0	0.099	1	04/21/16 10:54	04/26/16 20:26	7440-38-2	
Barium	**93.5**	ug/L	1.0	0.062	1	04/21/16 10:54	04/26/16 20:26	7440-39-3	
Beryllium	**<0.13**	ug/L	1.0	0.13	1	04/21/16 10:54	04/26/16 20:26	7440-41-7	
Boron	**838**	ug/L	10.0	2.0	1	04/21/16 10:54	04/28/16 17:01	7440-42-8	
Cadmium	**2.5**	ug/L	1.0	0.089	1	04/21/16 10:54	04/26/16 20:26	7440-43-9	
Calcium	**84900**	ug/L	250	73.6	1	04/21/16 10:54	04/26/16 20:26	7440-70-2	
Chromium	**0.40J**	ug/L	1.0	0.39	1	04/21/16 10:54	04/26/16 20:26	7440-47-3	
Cobalt	**3.5**	ug/L	1.0	0.036	1	04/21/16 10:54	04/26/16 20:26	7440-48-4	
Lead	**0.53J**	ug/L	1.0	0.040	1	04/21/16 10:54	04/26/16 20:26	7439-92-1	B

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 25216071 ALLIANT NELSON CCR
Pace Project No.: 40130876

Sample: B-31R **Lab ID: 40130876002** Collected: 04/13/16 11:15 Received: 04/15/16 09:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Lithium	**18.0**	ug/L	1.0	0.11	1	04/21/16 10:54	04/28/16 17:01	7439-93-2	
Molybdenum	**27.2**	ug/L	1.0	0.070	1	04/21/16 10:54	04/26/16 20:26	7439-98-7	
Selenium	**0.48J**	ug/L	1.0	0.21	1	04/21/16 10:54	04/26/16 20:26	7782-49-2	
Thallium	**1.9**	ug/L	1.0	0.14	1	04/21/16 10:54	04/26/16 20:26	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.18**	ug/L	0.60	0.18	1	04/21/16 12:30	04/22/16 09:30	7439-97-6	
Field Data	Analytical Method:								
Field pH	**6.76**	Std. Units			1		04/13/16 11:15		
Field Specific Conductance	**674**	umhos/cm			1		04/13/16 11:15		
Oxygen, Dissolved	**0.07**	mg/L			1		04/13/16 11:15	7782-44-7	
REDOX	**36.2**	mV			1		04/13/16 11:15		
Turbidity	**1.01**	NTU			1		04/13/16 11:15		
Static Water Level	**609.34**	feet			1		04/13/16 11:15		
Temperature, Water (C)	**15.0**	deg C			1		04/13/16 11:15		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**404**	mg/L	20.0	8.7	1		04/19/16 18:37		
9040 pH	Analytical Method: EPA 9040								
pH	**6.8**	Std. Units	0.10	0.010	1		04/19/16 11:20		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**17.6**	mg/L	4.0	2.0	1		04/29/16 20:26	16887-00-6	
Fluoride	**<0.20**	mg/L	0.40	0.20	1		04/29/16 20:26	16984-48-8	
Sulfate	**34.1**	mg/L	4.0	2.0	1		04/29/16 20:26	14808-79-8	

Sample: B-31A **Lab ID: 40130876003** Collected: 04/13/16 11:40 Received: 04/15/16 09:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**<0.073**	ug/L	1.0	0.073	1	04/21/16 10:54	04/26/16 20:32	7440-36-0	
Arsenic	**1.6**	ug/L	1.0	0.099	1	04/21/16 10:54	04/26/16 20:32	7440-38-2	
Barium	**147**	ug/L	1.0	0.062	1	04/21/16 10:54	04/26/16 20:32	7440-39-3	
Beryllium	**<0.13**	ug/L	1.0	0.13	1	04/21/16 10:54	04/26/16 20:32	7440-41-7	
Boron	**79.2**	ug/L	10.0	2.0	1	04/21/16 10:54	04/28/16 17:07	7440-42-8	
Cadmium	**<0.089**	ug/L	1.0	0.089	1	04/21/16 10:54	04/26/16 20:32	7440-43-9	
Calcium	**51900**	ug/L	250	73.6	1	04/21/16 10:54	04/26/16 20:32	7440-70-2	
Chromium	**<0.39**	ug/L	1.0	0.39	1	04/21/16 10:54	04/26/16 20:32	7440-47-3	
Cobalt	**2.3**	ug/L	1.0	0.036	1	04/21/16 10:54	04/26/16 20:32	7440-48-4	
Lead	**<0.040**	ug/L	1.0	0.040	1	04/21/16 10:54	04/26/16 20:32	7439-92-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 25216071 ALLIANT NELSON CCR
Pace Project No.: 40130876

Sample: B-31A **Lab ID: 40130876003** Collected: 04/13/16 11:40 Received: 04/15/16 09:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Lithium	**0.91J**	ug/L	1.0	0.11	1	04/21/16 10:54	04/28/16 17:07	7439-93-2	
Molybdenum	**29.8**	ug/L	1.0	0.070	1	04/21/16 10:54	04/26/16 20:32	7439-98-7	
Selenium	**<0.21**	ug/L	1.0	0.21	1	04/21/16 10:54	04/26/16 20:32	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	04/21/16 10:54	04/26/16 20:32	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.18**	ug/L	0.60	0.18	1	04/21/16 12:30	04/22/16 09:40	7439-97-6	
Field Data	Analytical Method:								
Field pH	**7.63**	Std. Units			1		04/13/16 11:40		
Field Specific Conductance	**505.8**	umhos/cm			1		04/13/16 11:40		
Oxygen, Dissolved	**0.04**	mg/L			1		04/13/16 11:40	7782-44-7	
REDOX	**-106.2**	mV			1		04/13/16 11:40		
Turbidity	**0.36**	NTU			1		04/13/16 11:40		
Static Water Level	**609.01**	feet			1		04/13/16 11:40		
Temperature, Water (C)	**15.4**	deg C			1		04/13/16 11:40		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**302**	mg/L	20.0	8.7	1		04/19/16 18:37		
9040 pH	Analytical Method: EPA 9040								
pH	**7.3**	Std. Units	0.10	0.010	1		04/19/16 11:35		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**35.8**	mg/L	4.0	2.0	1		04/29/16 21:21	16887-00-6	
Fluoride	**0.22J**	mg/L	0.40	0.20	1		04/29/16 21:21	16984-48-8	
Sulfate	**22.6**	mg/L	4.0	2.0	1		04/29/16 21:21	14808-79-8	

Sample: B-11R **Lab ID: 40130876004** Collected: 04/13/16 12:35 Received: 04/15/16 09:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**<0.073**	ug/L	1.0	0.073	1	04/21/16 10:54	04/26/16 20:39	7440-36-0	
Arsenic	**7.0**	ug/L	1.0	0.099	1	04/21/16 10:54	04/26/16 20:39	7440-38-2	
Barium	**169**	ug/L	1.0	0.062	1	04/21/16 10:54	04/26/16 20:39	7440-39-3	
Beryllium	**<0.13**	ug/L	1.0	0.13	1	04/21/16 10:54	04/26/16 20:39	7440-41-7	
Boron	**3410**	ug/L	100	20.0	10	04/21/16 10:54	04/28/16 17:13	7440-42-8	
Cadmium	**<0.089**	ug/L	1.0	0.089	1	04/21/16 10:54	04/26/16 20:39	7440-43-9	
Calcium	**141000**	ug/L	250	73.6	1	04/21/16 10:54	04/26/16 20:39	7440-70-2	
Chromium	**<0.39**	ug/L	1.0	0.39	1	04/21/16 10:54	04/26/16 20:39	7440-47-3	
Cobalt	**0.54J**	ug/L	1.0	0.036	1	04/21/16 10:54	04/26/16 20:39	7440-48-4	
Lead	**<0.040**	ug/L	1.0	0.040	1	04/21/16 10:54	04/26/16 20:39	7439-92-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 25216071 ALLIANT NELSON CCR
Pace Project No.: 40130876

Sample: B-11R **Lab ID: 40130876004** Collected: 04/13/16 12:35 Received: 04/15/16 09:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Lithium	**1.5**	ug/L	1.0	0.11	1	04/21/16 10:54	04/28/16 00:07	7439-93-2	
Molybdenum	**23.2**	ug/L	1.0	0.070	1	04/21/16 10:54	04/26/16 20:39	7439-98-7	
Selenium	**5.0**	ug/L	1.0	0.21	1	04/21/16 10:54	04/26/16 20:39	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	04/21/16 10:54	04/26/16 20:39	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.18**	ug/L	0.60	0.18	1	04/21/16 12:30	04/22/16 09:46	7439-97-6	
Field Data	Analytical Method:								
Field pH	**6.78**	Std. Units			1		04/13/16 12:35		
Field Specific Conductance	**1172**	umhos/cm			1		04/13/16 12:35		
Oxygen, Dissolved	**0.03**	mg/L			1		04/13/16 12:35	7782-44-7	
REDOX	**-91.0**	mV			1		04/13/16 12:35		
Turbidity	**3.18**	NTU			1		04/13/16 12:35		
Static Water Level	**609.32**	feet			1		04/13/16 12:35		
Temperature, Water (C)	**10.9**	deg C			1		04/13/16 12:35		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**682**	mg/L	20.0	8.7	1		04/19/16 18:38		
9040 pH	Analytical Method: EPA 9040								
pH	**6.8**	Std. Units	0.10	0.010	1		04/19/16 11:35		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**7.0**	mg/L	4.0	2.0	1		04/29/16 21:32	16887-00-6	
Fluoride	**<0.20**	mg/L	0.40	0.20	1		04/29/16 21:32	16984-48-8	
Sulfate	**18.4**	mg/L	4.0	2.0	1		04/29/16 21:32	14808-79-8	

Sample: B-7R **Lab ID: 40130876005** Collected: 04/13/16 13:45 Received: 04/15/16 09:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**<0.073**	ug/L	1.0	0.073	1	04/21/16 10:54	04/26/16 20:46	7440-36-0	
Arsenic	**2.0**	ug/L	1.0	0.099	1	04/21/16 10:54	04/26/16 20:46	7440-38-2	
Barium	**67.8**	ug/L	1.0	0.062	1	04/21/16 10:54	04/26/16 20:46	7440-39-3	
Beryllium	**<0.13**	ug/L	1.0	0.13	1	04/21/16 10:54	04/26/16 20:46	7440-41-7	
Boron	**115**	ug/L	10.0	2.0	1	04/21/16 10:54	04/28/16 17:19	7440-42-8	
Cadmium	**<0.089**	ug/L	1.0	0.089	1	04/21/16 10:54	04/26/16 20:46	7440-43-9	
Calcium	**42300**	ug/L	250	73.6	1	04/21/16 10:54	04/26/16 20:46	7440-70-2	
Chromium	**<0.39**	ug/L	1.0	0.39	1	04/21/16 10:54	04/26/16 20:46	7440-47-3	
Cobalt	**0.88J**	ug/L	1.0	0.036	1	04/21/16 10:54	04/26/16 20:46	7440-48-4	
Lead	**0.16J**	ug/L	1.0	0.040	1	04/21/16 10:54	04/26/16 20:46	7439-92-1	B

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 25216071 ALLIANT NELSON CCR
Pace Project No.: 40130876

Sample: B-7R **Lab ID: 40130876005** Collected: 04/13/16 13:45 Received: 04/15/16 09:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Lithium	**0.14J**	ug/L	1.0	0.11	1	04/21/16 10:54	04/28/16 17:19	7439-93-2	
Molybdenum	**1.4**	ug/L	1.0	0.070	1	04/21/16 10:54	04/26/16 20:46	7439-98-7	
Selenium	**0.24J**	ug/L	1.0	0.21	1	04/21/16 10:54	04/26/16 20:46	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	04/21/16 10:54	04/26/16 20:46	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.18**	ug/L	0.60	0.18	1	04/21/16 12:30	04/22/16 09:49	7439-97-6	
Field Data	Analytical Method:								
Field pH	**6.80**	Std. Units			1		04/13/16 13:45		
Field Specific Conductance	**410.9**	umhos/cm			1		04/13/16 13:45		
Oxygen, Dissolved	**1.29**	mg/L			1		04/13/16 13:45	7782-44-7	
REDOX	**-46.1**	mV			1		04/13/16 13:45		
Turbidity	**4.80**	NTU			1		04/13/16 13:45		
Static Water Level	**609.32**	feet			1		04/13/16 13:45		
Temperature, Water (C)	**11.7**	deg C			1		04/13/16 13:45		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**218**	mg/L	20.0	8.7	1		04/19/16 18:38		
9040 pH	Analytical Method: EPA 9040								
pH	**6.5**	Std. Units	0.10	0.010	1		04/19/16 11:35		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**4.6**	mg/L	4.0	2.0	1		04/29/16 21:43	16887-00-6	
Fluoride	**<0.20**	mg/L	0.40	0.20	1		04/29/16 21:43	16984-48-8	
Sulfate	**2.5J**	mg/L	4.0	2.0	1		04/29/16 21:43	14808-79-8	

Sample: B-11A **Lab ID: 40130876006** Collected: 04/13/16 14:45 Received: 04/15/16 09:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.14J**	ug/L	1.0	0.073	1	04/21/16 10:54	04/26/16 21:06	7440-36-0	
Arsenic	**0.19J**	ug/L	1.0	0.099	1	04/21/16 10:54	04/26/16 21:06	7440-38-2	
Barium	**206**	ug/L	1.0	0.062	1	04/21/16 10:54	04/26/16 21:06	7440-39-3	
Beryllium	**<0.13**	ug/L	1.0	0.13	1	04/21/16 10:54	04/26/16 21:06	7440-41-7	
Boron	**116**	ug/L	10.0	2.0	1	04/21/16 10:54	04/28/16 17:25	7440-42-8	
Cadmium	**<0.089**	ug/L	1.0	0.089	1	04/21/16 10:54	04/26/16 21:06	7440-43-9	
Calcium	**60100**	ug/L	250	73.6	1	04/21/16 10:54	04/26/16 21:06	7440-70-2	
Chromium	**<0.39**	ug/L	1.0	0.39	1	04/21/16 10:54	04/26/16 21:06	7440-47-3	
Cobalt	**1.4**	ug/L	1.0	0.036	1	04/21/16 10:54	04/26/16 21:06	7440-48-4	
Lead	**<0.040**	ug/L	1.0	0.040	1	04/21/16 10:54	04/26/16 21:06	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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(920)469-2436

ANALYTICAL RESULTS

Project: 25216071 ALLIANT NELSON CCR
Pace Project No.: 40130876

Sample: B-11A **Lab ID: 40130876006** Collected: 04/13/16 14:45 Received: 04/15/16 09:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Lithium	**6.1**	ug/L	1.0	0.11	1	04/21/16 10:54	04/28/16 17:25	7439-93-2	
Molybdenum	**24.1**	ug/L	1.0	0.070	1	04/21/16 10:54	04/26/16 21:06	7439-98-7	
Selenium	**<0.21**	ug/L	1.0	0.21	1	04/21/16 10:54	04/26/16 21:06	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	04/21/16 10:54	04/26/16 21:06	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.18**	ug/L	0.60	0.18	1	04/21/16 12:30	04/22/16 09:51	7439-97-6	
Field Data	Analytical Method:								
Field pH	**7.75**	Std. Units			1		04/13/16 14:45		
Field Specific Conductance	**658**	umhos/cm			1		04/13/16 14:45		
Oxygen, Dissolved	**0.03**	mg/L			1		04/13/16 14:45	7782-44-7	
REDOX	**-31.2**	mV			1		04/13/16 14:45		
Turbidity	**0.23**	NTU			1		04/13/16 14:45		
Static Water Level	**608.71**	feet			1		04/13/16 14:45		
Temperature, Water (C)	**14.8**	deg C			1		04/13/16 14:45		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**362**	mg/L	20.0	8.7	1		04/19/16 18:38		
9040 pH	Analytical Method: EPA 9040								
pH	**7.5**	Std. Units	0.10	0.010	1		04/19/16 11:35		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**43.0**	mg/L	4.0	2.0	1		04/29/16 21:54	16887-00-6	
Fluoride	**0.38J**	mg/L	0.40	0.20	1		04/29/16 21:54	16984-48-8	
Sulfate	**3.8J**	mg/L	4.0	2.0	1		04/29/16 21:54	14808-79-8	

Sample: B-11B **Lab ID: 40130876007** Collected: 04/13/16 15:15 Received: 04/15/16 09:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**<0.073**	ug/L	1.0	0.073	1	04/21/16 10:54	04/26/16 21:13	7440-36-0	
Arsenic	**0.38J**	ug/L	1.0	0.099	1	04/21/16 10:54	04/26/16 21:13	7440-38-2	
Barium	**153**	ug/L	1.0	0.062	1	04/21/16 10:54	04/26/16 21:13	7440-39-3	
Beryllium	**<0.13**	ug/L	1.0	0.13	1	04/21/16 10:54	04/26/16 21:13	7440-41-7	
Boron	**1360**	ug/L	100	20.0	10	04/21/16 10:54	04/28/16 17:31	7440-42-8	
Cadmium	**<0.089**	ug/L	1.0	0.089	1	04/21/16 10:54	04/26/16 21:13	7440-43-9	
Calcium	**65400**	ug/L	250	73.6	1	04/21/16 10:54	04/26/16 21:13	7440-70-2	
Chromium	**0.74J**	ug/L	1.0	0.39	1	04/21/16 10:54	04/26/16 21:13	7440-47-3	
Cobalt	**0.23J**	ug/L	1.0	0.036	1	04/21/16 10:54	04/26/16 21:13	7440-48-4	
Lead	**<0.040**	ug/L	1.0	0.040	1	04/21/16 10:54	04/26/16 21:13	7439-92-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 25216071 ALLIANT NELSON CCR
Pace Project No.: 40130876

Sample: B-11B **Lab ID: 40130876007** Collected: 04/13/16 15:15 Received: 04/15/16 09:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Lithium	**21.3**	ug/L	10.0	1.1	10	04/21/16 10:54	04/28/16 17:31	7439-93-2	
Molybdenum	**51.7**	ug/L	1.0	0.070	1	04/21/16 10:54	04/26/16 21:13	7439-98-7	
Selenium	**<0.21**	ug/L	1.0	0.21	1	04/21/16 10:54	04/26/16 21:13	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	04/21/16 10:54	04/26/16 21:13	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.18**	ug/L	0.60	0.18	1	04/21/16 12:30	04/22/16 09:53	7439-97-6	
Field Data	Analytical Method:								
Field pH	**8.14**	Std. Units			1		04/13/16 15:15		
Field Specific Conductance	**808**	umhos/cm			1		04/13/16 15:15		
Oxygen, Dissolved	**0.04**	mg/L			1		04/13/16 15:15	7782-44-7	
REDOX	**-66.9**	mV			1		04/13/16 15:15		
Turbidity	**0.21**	NTU			1		04/13/16 15:15		
Static Water Level	**608.68**	feet			1		04/13/16 15:15		
Temperature, Water (C)	**14.3**	deg C			1		04/13/16 15:15		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**512**	mg/L	20.0	8.7	1		04/19/16 18:39		
9040 pH	Analytical Method: EPA 9040								
pH	**7.8**	Std. Units	0.10	0.010	1		04/19/16 11:35		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**32.7**	mg/L	4.0	2.0	1		05/06/16 17:59	16887-00-6	
Fluoride	**0.49**	mg/L	0.40	0.20	1		05/06/16 17:59	16984-48-8	
Sulfate	**148**	mg/L	20.0	10.0	5		05/09/16 10:15	14808-79-8	

Sample: B-26 **Lab ID: 40130876008** Collected: 04/12/16 17:15 Received: 04/15/16 09:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**<0.073**	ug/L	1.0	0.073	1	04/21/16 10:54	04/26/16 21:20	7440-36-0	
Arsenic	**0.54J**	ug/L	1.0	0.099	1	04/21/16 10:54	04/26/16 21:20	7440-38-2	
Barium	**81.8**	ug/L	1.0	0.062	1	04/21/16 10:54	04/26/16 21:20	7440-39-3	
Beryllium	**<0.13**	ug/L	1.0	0.13	1	04/21/16 10:54	04/26/16 21:20	7440-41-7	
Boron	**33.7**	ug/L	10.0	2.0	1	04/21/16 10:54	04/28/16 17:37	7440-42-8	
Cadmium	**<0.089**	ug/L	1.0	0.089	1	04/21/16 10:54	04/26/16 21:20	7440-43-9	
Calcium	**86200**	ug/L	250	73.6	1	04/21/16 10:54	04/26/16 21:20	7440-70-2	
Chromium	**4.1**	ug/L	1.0	0.39	1	04/21/16 10:54	04/26/16 21:20	7440-47-3	
Cobalt	**0.13J**	ug/L	1.0	0.036	1	04/21/16 10:54	04/26/16 21:20	7440-48-4	
Lead	**<0.040**	ug/L	1.0	0.040	1	04/21/16 10:54	04/26/16 21:20	7439-92-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 25216071 ALLIANT NELSON CCR
Pace Project No.: 40130876

Sample: B-26 **Lab ID: 40130876008** Collected: 04/12/16 17:15 Received: 04/15/16 09:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Lithium	**2.1**	ug/L	1.0	0.11	1	04/21/16 10:54	04/28/16 17:37	7439-93-2	
Molybdenum	**0.50J**	ug/L	1.0	0.070	1	04/21/16 10:54	04/26/16 21:20	7439-98-7	
Selenium	**0.67J**	ug/L	1.0	0.21	1	04/21/16 10:54	04/26/16 21:20	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	04/21/16 10:54	04/26/16 21:20	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.18**	ug/L	0.60	0.18	1	04/21/16 12:30	04/22/16 09:56	7439-97-6	
Field Data	Analytical Method:								
Field pH	**7.43**	Std. Units			1		04/12/16 17:15		
Field Specific Conductance	**783**	umhos/cm			1		04/12/16 17:15		
Oxygen, Dissolved	**5.30**	mg/L			1		04/12/16 17:15	7782-44-7	
REDOX	**130.2**	mV			1		04/12/16 17:15		
Turbidity	**0.27**	NTU			1		04/12/16 17:15		
Static Water Level	**609.81**	feet			1		04/12/16 17:15		
Temperature, Water (C)	**10.9**	deg C			1		04/12/16 17:15		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**456**	mg/L	20.0	8.7	1		04/19/16 18:02		
9040 pH	Analytical Method: EPA 9040								
pH	**7.4**	Std. Units	0.10	0.010	1		04/19/16 11:35		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**51.3**	mg/L	4.0	2.0	1		04/29/16 22:16	16887-00-6	
Fluoride	**<0.20**	mg/L	0.40	0.20	1		04/29/16 22:16	16984-48-8	
Sulfate	**38.0**	mg/L	4.0	2.0	1		04/29/16 22:16	14808-79-8	

Sample: B-39 **Lab ID: 40130876009** Collected: 04/12/16 19:30 Received: 04/15/16 09:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.32J**	ug/L	1.0	0.073	1	04/21/16 10:54	04/26/16 21:27	7440-36-0	
Arsenic	**6.2**	ug/L	1.0	0.099	1	04/21/16 10:54	04/26/16 21:27	7440-38-2	
Barium	**76.4**	ug/L	1.0	0.062	1	04/21/16 10:54	04/26/16 21:27	7440-39-3	
Beryllium	**<0.13**	ug/L	1.0	0.13	1	04/21/16 10:54	04/26/16 21:27	7440-41-7	
Boron	**425**	ug/L	10.0	2.0	1	04/21/16 10:54	04/28/16 17:43	7440-42-8	
Cadmium	**0.091J**	ug/L	1.0	0.089	1	04/21/16 10:54	04/26/16 21:27	7440-43-9	
Calcium	**57000**	ug/L	250	73.6	1	04/21/16 10:54	04/26/16 21:27	7440-70-2	
Chromium	**<0.39**	ug/L	1.0	0.39	1	04/21/16 10:54	04/26/16 21:27	7440-47-3	
Cobalt	**0.71J**	ug/L	1.0	0.036	1	04/21/16 10:54	04/26/16 21:27	7440-48-4	
Lead	**0.091J**	ug/L	1.0	0.040	1	04/21/16 10:54	04/26/16 21:27	7439-92-1	B

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 25216071 ALLIANT NELSON CCR
Pace Project No.: 40130876

Sample: B-39 **Lab ID: 40130876009** Collected: 04/12/16 19:30 Received: 04/15/16 09:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Lithium	**4.1**	ug/L	1.0	0.11	1	04/21/16 10:54	04/28/16 17:43	7439-93-2	
Molybdenum	**25.3**	ug/L	1.0	0.070	1	04/21/16 10:54	04/26/16 21:27	7439-98-7	
Selenium	**12.0**	ug/L	1.0	0.21	1	04/21/16 10:54	04/26/16 21:27	7782-49-2	
Thallium	**0.28J**	ug/L	1.0	0.14	1	04/21/16 10:54	04/26/16 21:27	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.18**	ug/L	0.60	0.18	1	04/21/16 12:30	04/22/16 09:58	7439-97-6	
Field Data	Analytical Method:								
Field pH	**6.94**	Std. Units			1		04/12/16 19:30		
Field Specific Conductance	**539.1**	umhos/cm			1		04/12/16 19:30		
Oxygen, Dissolved	**0.13**	mg/L			1		04/12/16 19:30	7782-44-7	
REDOX	**35.7**	mV			1		04/12/16 19:30		
Turbidity	**4.29**	NTU			1		04/12/16 19:30		
Static Water Level	**610.23**	feet			1		04/12/16 19:30		
Temperature, Water (C)	**14.4**	deg C			1		04/12/16 19:30		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**302**	mg/L	20.0	8.7	1		04/19/16 18:02		
9040 pH	Analytical Method: EPA 9040								
pH	**7.0**	Std. Units	0.10	0.010	1		04/19/16 11:35		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**42.5**	mg/L	4.0	2.0	1		04/29/16 22:27	16887-00-6	
Fluoride	**0.29J**	mg/L	0.40	0.20	1		04/29/16 22:27	16984-48-8	
Sulfate	**18.2**	mg/L	4.0	2.0	1		04/29/16 22:27	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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QUALITY CONTROL DATA

Project: 25216071 ALLIANT NELSON CCR
Pace Project No.: 40130876

QC Batch: 222532 Analysis Method: EPA 7470
QC Batch Method: EPA 7470 Analysis Description: 7470 Mercury
Associated Lab Samples: 40130876001, 40130876002, 40130876003, 40130876004, 40130876005, 40130876006, 40130876007, 40130876008, 40130876009

METHOD BLANK: 1323427 Matrix: Water
Associated Lab Samples: 40130876001, 40130876002, 40130876003, 40130876004, 40130876005, 40130876006, 40130876007, 40130876008, 40130876009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	<0.18	0.60	04/22/16 09:26	

LABORATORY CONTROL SAMPLE: 1323428

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.1	103	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1323429 1323430

Parameter	Units	40130876002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	<0.18	5	5	5.2	5.5	103	109	85-115	5	20	

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25216071 ALLIANT NELSON CCR
Pace Project No.: 40130876

QC Batch: 222553 Analysis Method: EPA 6020
QC Batch Method: EPA 3010 Analysis Description: 6020 MET
Associated Lab Samples: 40130876001, 40130876002, 40130876003, 40130876004, 40130876005, 40130876006, 40130876007, 40130876008, 40130876009

METHOD BLANK: 1323569 Matrix: Water
Associated Lab Samples: 40130876001, 40130876002, 40130876003, 40130876004, 40130876005, 40130876006, 40130876007, 40130876008, 40130876009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	<0.073	1.0	04/26/16 18:24	
Arsenic	ug/L	<0.099	1.0	04/26/16 18:24	
Barium	ug/L	<0.062	1.0	04/26/16 18:24	
Beryllium	ug/L	<0.13	1.0	04/26/16 18:24	
Boron	ug/L	<2.0	10.0	04/28/16 15:38	
Cadmium	ug/L	<0.089	1.0	04/26/16 18:24	
Calcium	ug/L	<73.6	250	04/26/16 18:24	
Chromium	ug/L	<0.39	1.0	04/26/16 18:24	
Cobalt	ug/L	<0.036	1.0	04/26/16 18:24	
Lead	ug/L	0.14J	1.0	04/26/16 18:24	
Lithium	ug/L	<0.11	1.0	04/28/16 15:38	
Molybdenum	ug/L	<0.070	1.0	04/26/16 18:24	
Selenium	ug/L	<0.21	1.0	04/26/16 18:24	
Thallium	ug/L	<0.14	1.0	04/26/16 18:24	

LABORATORY CONTROL SAMPLE: 1323570

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	543	109	80-120	
Arsenic	ug/L	500	528	106	80-120	
Barium	ug/L	500	534	107	80-120	
Beryllium	ug/L	500	502	100	80-120	
Boron	ug/L	500	532	106	80-120	
Cadmium	ug/L	500	538	108	80-120	
Calcium	ug/L	5000	5470	109	80-120	
Chromium	ug/L	500	515	103	80-120	
Cobalt	ug/L	500	515	103	80-120	
Lead	ug/L	500	489	98	80-120	
Lithium	ug/L	500	506	101	80-120	
Molybdenum	ug/L	500	543	109	80-120	
Selenium	ug/L	500	548	110	80-120	
Thallium	ug/L	500	484	97	80-120	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

QUALITY CONTROL DATA

Project: 25216071 ALLIANT NELSON CCR
Pace Project No.: 40130876

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1323571 1323572

Parameter	Units	40130796001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	0.49J	500	500	534	530	107	106	75-125	1	20	
Arsenic	ug/L	4.3	500	500	523	517	104	103	75-125	1	20	
Barium	ug/L	48.7	500	500	565	566	103	103	75-125	0	20	
Beryllium	ug/L	0.18J	500	500	453	455	90	91	75-125	0	20	
Boron	ug/L	8550	500	500	9050	8880	99	65	75-125	2	20	P6
Cadmium	ug/L	0.20J	500	500	510	504	102	101	75-125	1	20	
Calcium	ug/L	88700	5000	5000	93800	91300	103	53	75-125	3	20	P6
Chromium	ug/L	3.5	500	500	493	489	98	97	75-125	1	20	
Cobalt	ug/L	1.2	500	500	469	465	94	93	75-125	1	20	
Lead	ug/L	2.2	500	500	482	479	96	95	75-125	1	20	
Lithium	ug/L	21.4	500	500	506	507	97	97	75-125	0	20	
Molybdenum	ug/L	2200	500	500	2640	2610	87	82	75-125	1	20	
Selenium	ug/L	0.52J	500	500	539	535	108	107	75-125	1	20	
Thallium	ug/L	0.31J	500	500	478	476	95	95	75-125	0	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25216071 ALLIANT NELSON CCR
Pace Project No.: 40130876

QC Batch: 222230 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 40130876008, 40130876009

METHOD BLANK: 1322076 Matrix: Water
Associated Lab Samples: 40130876008, 40130876009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<8.7	20.0	04/19/16 17:58	

LABORATORY CONTROL SAMPLE: 1322077

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	597	622	104	80-120	

SAMPLE DUPLICATE: 1322078

Parameter	Units	40130694003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	348	348	0	5	

SAMPLE DUPLICATE: 1322079

Parameter	Units	40130770003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	6040	6180	2	5	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25216071 ALLIANT NELSON CCR
Pace Project No.: 40130876

QC Batch: 222365 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 40130876001, 40130876002, 40130876003, 40130876004, 40130876005, 40130876006, 40130876007

METHOD BLANK: 1322733 Matrix: Water
Associated Lab Samples: 40130876001, 40130876002, 40130876003, 40130876004, 40130876005, 40130876006, 40130876007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<8.7	20.0	04/19/16 18:32	

LABORATORY CONTROL SAMPLE: 1322734

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	597	576	96	80-120	

SAMPLE DUPLICATE: 1322735

Parameter	Units	40130794008 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	420	426	1	5	

SAMPLE DUPLICATE: 1322736

Parameter	Units	40130923003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	430	442	3	5	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25216071 ALLIANT NELSON CCR
Pace Project No.: 40130876

QC Batch: 223111 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 40130876001, 40130876002, 40130876003, 40130876004, 40130876005, 40130876006, 40130876008, 40130876009

METHOD BLANK: 1326743 Matrix: Water
Associated Lab Samples: 40130876001, 40130876002, 40130876003, 40130876004, 40130876005, 40130876006, 40130876008, 40130876009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<2.0	4.0	04/29/16 18:24	
Fluoride	mg/L	<0.20	0.40	04/29/16 18:24	
Sulfate	mg/L	<2.0	4.0	04/29/16 18:24	

LABORATORY CONTROL SAMPLE: 1326744

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	19.3	96	90-110	
Fluoride	mg/L	2	2.1	107	90-110	
Sulfate	mg/L	20	19.5	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1326745 1326746

Parameter	Units	40130876002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	17.6	20	20	37.7	38.1	101	103	90-110	1	20	
Fluoride	mg/L	<0.20	2	2	2.3	2.4	107	110	90-110	2	20	
Sulfate	mg/L	34.1	20	20	55.7	56.1	108	110	90-110	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1326747 1326748

Parameter	Units	40130922001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	78.1	100	100	178	179	100	100	90-110	0	20	
Fluoride	mg/L	<4.0	40	40	43.5	43.7	109	109	90-110	0	20	
Sulfate	mg/L	1470	2000	2000	3490	3540	101	104	90-110	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25216071 ALLIANT NELSON CCR
Pace Project No.: 40130876

QC Batch: 223505 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 40130876007

METHOD BLANK: 1328995 Matrix: Water
Associated Lab Samples: 40130876007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<2.0	4.0	05/06/16 10:23	
Fluoride	mg/L	<0.20	0.40	05/06/16 10:23	
Sulfate	mg/L	<2.0	4.0	05/06/16 10:23	

LABORATORY CONTROL SAMPLE: 1328996

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	18.7	93	90-110	
Fluoride	mg/L	2	2.0	99	90-110	
Sulfate	mg/L	20	18.6	93	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1328997 1328998

Parameter	Units	40131275003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	483	2000	2000	2310	2360	92	94	90-110	2	20	
Fluoride	mg/L	<20.0	200	200	211	217	105	109	90-110	3	20	
Sulfate	mg/L	<200	2000	2000	2000	2050	90	93	90-110	3	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1328999 1329000

Parameter	Units	40131406004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	73.6	100	100	176	174	102	100	90-110	1	20	
Fluoride	mg/L	<1.0	10	10	10.7	10.7	107	107	90-110	0	20	
Sulfate	mg/L	<10.0	100	100	101	101	92	92	90-110	0	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 25216071 ALLIANT NELSON CCR
Pace Project No.: 40130876

Sample: FIELD BLANK **Lab ID: 40130876001** Collected: 04/13/16 15:40 Received: 04/15/16 09:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.169 ± 0.770 (0.457) C:NA T:86%**	pCi/L	05/13/16 10:04	13982-63-3	
Radium-228	EPA 904.0	**1.00 ± 0.479 (0.818) C:90% T:78%**	pCi/L	05/11/16 19:20	15262-20-1	
Total Radium	Total Radium Calculation	**1.17 ± 1.25 (1.28)**	pCi/L	05/13/16 14:31	7440-14-4	

Sample: B-31R **Lab ID: 40130876002** Collected: 04/13/16 11:15 Received: 04/15/16 09:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.661 ± 0.697 (0.969) C:NA T:89%**	pCi/L	05/13/16 10:04	13982-63-3	
Radium-228	EPA 904.0	**0.559 ± 0.385 (0.743) C:91% T:90%**	pCi/L	05/11/16 19:20	15262-20-1	
Total Radium	Total Radium Calculation	**1.22 ± 1.08 (1.71)**	pCi/L	05/13/16 14:31	7440-14-4	

Sample: B-31A **Lab ID: 40130876003** Collected: 04/13/16 11:40 Received: 04/15/16 09:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**-0.152 ± 0.502 (0.993) C:NA T:89%**	pCi/L	05/13/16 10:19	13982-63-3	
Radium-228	EPA 904.0	**0.387 ± 0.417 (0.870) C:87% T:87%**	pCi/L	05/11/16 19:20	15262-20-1	
Total Radium	Total Radium Calculation	**0.387 ± 0.919 (1.86)**	pCi/L	05/13/16 11:45	7440-14-4	

Sample: B-11R **Lab ID: 40130876004** Collected: 04/13/16 12:35 Received: 04/15/16 09:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.863 ± 0.794 (0.468) C:NA T:87%**	pCi/L	05/13/16 11:16	13982-63-3	
Radium-228	EPA 904.0	**0.757 ± 0.449 (0.836) C:87% T:88%**	pCi/L	05/11/16 19:20	15262-20-1	
Total Radium	Total Radium Calculation	**1.62 ± 1.24 (1.30)**	pCi/L	05/13/16 14:31	7440-14-4	

Sample: B-7R **Lab ID: 40130876005** Collected: 04/13/16 13:45 Received: 04/15/16 09:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.436 ± 0.665 (0.394) C:NA T:93%**	pCi/L	05/13/16 11:16	13982-63-3	
Radium-228	EPA 904.0	**0.746 ± 0.402 (0.719) C:88% T:90%**	pCi/L	05/11/16 23:05	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 25216071 ALLIANT NELSON CCR
Pace Project No.: 40130876

Sample: B-7R **Lab ID: 40130876005** Collected: 04/13/16 13:45 Received: 04/15/16 09:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Total Radium	Total Radium Calculation	**1.18 ± 1.07 (1.11)**	pCi/L	05/13/16 14:31	7440-14-4	

Sample: B-11A **Lab ID: 40130876006** Collected: 04/13/16 14:45 Received: 04/15/16 09:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.148 ± 0.676 (0.401) C:NA T:94%**	pCi/L	05/13/16 10:59	13982-63-3	
Radium-228	EPA 904.0	**1.33 ± 0.529 (0.829) C:88% T:81%**	pCi/L	05/11/16 23:05	15262-20-1	
Total Radium	Total Radium Calculation	**1.48 ± 1.21 (1.23)**	pCi/L	05/13/16 14:31	7440-14-4	

Sample: B-11B **Lab ID: 40130876007** Collected: 04/13/16 15:15 Received: 04/15/16 09:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.0581 ± 0.593 (0.976) C:NA T:79%**	pCi/L	05/13/16 10:58	13982-63-3	
Radium-228	EPA 904.0	**1.63 ± 0.624 (0.950) C:87% T:78%**	pCi/L	05/11/16 23:05	15262-20-1	
Total Radium	Total Radium Calculation	**1.69 ± 1.22 (1.93)**	pCi/L	05/13/16 14:31	7440-14-4	

Sample: B-26 **Lab ID: 40130876008** Collected: 04/12/16 17:15 Received: 04/15/16 09:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**-0.058 ± 0.591 (0.973) C:NA T:82%**	pCi/L	05/13/16 10:58	13982-63-3	
Radium-228	EPA 904.0	**0.773 ± 0.442 (0.815) C:87% T:88%**	pCi/L	05/11/16 23:06	15262-20-1	
Total Radium	Total Radium Calculation	**0.773 ± 1.03 (1.79)**	pCi/L	05/13/16 11:37	7440-14-4	

Sample: B-39 **Lab ID: 40130876009** Collected: 04/12/16 19:30 Received: 04/15/16 09:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.0670 ± 0.558 (0.917) C:NA T:92%**	pCi/L	05/13/16 11:09	13982-63-3	
Radium-228	EPA 904.0	**1.05 ± 0.490 (0.835) C:89% T:87%**	pCi/L	05/11/16 23:06	15262-20-1	
Total Radium	Total Radium Calculation	**1.12 ± 1.05 (1.75)**	pCi/L	05/13/16 14:31	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 25216071 ALLIANT NELSON CCR
Pace Project No.: 40130876

QC Batch: 218080 Analysis Method: EPA 903.1
QC Batch Method: EPA 903.1 Analysis Description: 903.1 Radium-226
Associated Lab Samples: 40130876001, 40130876002, 40130876003, 40130876004, 40130876005, 40130876006, 40130876007, 40130876008, 40130876009

METHOD BLANK: 1066190 Matrix: Water
Associated Lab Samples: 40130876001, 40130876002, 40130876003, 40130876004, 40130876005, 40130876006, 40130876007, 40130876008, 40130876009

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.063 ± 0.289 (0.587) C:NA T:90%	pCi/L	05/13/16 10:04	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 25216071 ALLIANT NELSON CCR
Pace Project No.: 40130876

QC Batch: 218099 Analysis Method: EPA 904.0
QC Batch Method: EPA 904.0 Analysis Description: 904.0 Radium 228
Associated Lab Samples: 40130876001, 40130876002, 40130876003, 40130876004, 40130876005, 40130876006, 40130876007, 40130876008, 40130876009

METHOD BLANK: 1066209 Matrix: Water
Associated Lab Samples: 40130876001, 40130876002, 40130876003, 40130876004, 40130876005, 40130876006, 40130876007, 40130876008, 40130876009

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.00333 ± 0.297 (0.689) C:87% T:82%	pCi/L	05/11/16 15:18	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 25216071 ALLIANT NELSON CCR
Pace Project No.: 40130876

DEFINITIONS

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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 LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

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 at or above the adjusted LOD.

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-G	Pace Analytical Services - Green Bay
PASI-PA	Pace Analytical Services - Greensburg

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
H6	Analysis initiated outside of the 15 minute EPA required holding time.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 25216071 ALLIANT NELSON CCR
Pace Project No.: 40130876

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40130876001	**FIELD BLANK**	EPA 3010	222553	EPA 6020	222651
40130876002	**B-31R**	EPA 3010	222553	EPA 6020	222651
40130876003	**B-31A**	EPA 3010	222553	EPA 6020	222651
40130876004	**B-11R**	EPA 3010	222553	EPA 6020	222651
40130876005	**B-7R**	EPA 3010	222553	EPA 6020	222651
40130876006	**B-11A**	EPA 3010	222553	EPA 6020	222651
40130876007	**B-11B**	EPA 3010	222553	EPA 6020	222651
40130876008	**B-26**	EPA 3010	222553	EPA 6020	222651
40130876009	**B-39**	EPA 3010	222553	EPA 6020	222651
40130876001	**FIELD BLANK**	EPA 7470	222532	EPA 7470	222594
40130876002	**B-31R**	EPA 7470	222532	EPA 7470	222594
40130876003	**B-31A**	EPA 7470	222532	EPA 7470	222594
40130876004	**B-11R**	EPA 7470	222532	EPA 7470	222594
40130876005	**B-7R**	EPA 7470	222532	EPA 7470	222594
40130876006	**B-11A**	EPA 7470	222532	EPA 7470	222594
40130876007	**B-11B**	EPA 7470	222532	EPA 7470	222594
40130876008	**B-26**	EPA 7470	222532	EPA 7470	222594
40130876009	**B-39**	EPA 7470	222532	EPA 7470	222594
40130876002	**B-31R**				
40130876003	**B-31A**				
40130876004	**B-11R**				
40130876005	**B-7R**				
40130876006	**B-11A**				
40130876007	**B-11B**				
40130876008	**B-26**				
40130876009	**B-39**				
40130876001	**FIELD BLANK**	EPA 903.1	218080		
40130876002	**B-31R**	EPA 903.1	218080		
40130876003	**B-31A**	EPA 903.1	218080		
40130876004	**B-11R**	EPA 903.1	218080		
40130876005	**B-7R**	EPA 903.1	218080		
40130876006	**B-11A**	EPA 903.1	218080		
40130876007	**B-11B**	EPA 903.1	218080		
40130876008	**B-26**	EPA 903.1	218080		
40130876009	**B-39**	EPA 903.1	218080		
40130876001	**FIELD BLANK**	EPA 904.0	218099		
40130876002	**B-31R**	EPA 904.0	218099		
40130876003	**B-31A**	EPA 904.0	218099		
40130876004	**B-11R**	EPA 904.0	218099		
40130876005	**B-7R**	EPA 904.0	218099		
40130876006	**B-11A**	EPA 904.0	218099		
40130876007	**B-11B**	EPA 904.0	218099		
40130876008	**B-26**	EPA 904.0	218099		
40130876009	**B-39**	EPA 904.0	218099		
40130876001	**FIELD BLANK**	Total Radium Calculation	219696		
40130876002	**B-31R**	Total Radium Calculation	219696		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 25216071 ALLIANT NELSON CCR
Pace Project No.: 40130876

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40130876003	**B-31A**	Total Radium Calculation	285986		
40130876004	**B-11R**	Total Radium Calculation	219696		
40130876005	**B-7R**	Total Radium Calculation	219696		
40130876006	**B-11A**	Total Radium Calculation	219696		
40130876007	**B-11B**	Total Radium Calculation	219696		
40130876008	**B-26**	Total Radium Calculation	285975		
40130876009	**B-39**	Total Radium Calculation	219696		
40130876001	**FIELD BLANK**	SM 2540C	222365		
40130876002	**B-31R**	SM 2540C	222365		
40130876003	**B-31A**	SM 2540C	222365		
40130876004	**B-11R**	SM 2540C	222365		
40130876005	**B-7R**	SM 2540C	222365		
40130876006	**B-11A**	SM 2540C	222365		
40130876007	**B-11B**	SM 2540C	222365		
40130876008	**B-26**	SM 2540C	222230		
40130876009	**B-39**	SM 2540C	222230		
40130876001	**FIELD BLANK**	EPA 9040	222325		
40130876002	**B-31R**	EPA 9040	222325		
40130876003	**B-31A**	EPA 9040	222325		
40130876004	**B-11R**	EPA 9040	222325		
40130876005	**B-7R**	EPA 9040	222325		
40130876006	**B-11A**	EPA 9040	222325		
40130876007	**B-11B**	EPA 9040	222325		
40130876008	**B-26**	EPA 9040	222325		
40130876009	**B-39**	EPA 9040	222325		
40130876001	**FIELD BLANK**	EPA 300.0	223111		
40130876002	**B-31R**	EPA 300.0	223111		
40130876003	**B-31A**	EPA 300.0	223111		
40130876004	**B-11R**	EPA 300.0	223111		
40130876005	**B-7R**	EPA 300.0	223111		
40130876006	**B-11A**	EPA 300.0	223111		
40130876007	**B-11B**	EPA 300.0	223505		
40130876008	**B-26**	EPA 300.0	223111		
40130876009	**B-39**	EPA 300.0	223111		

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UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

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401308716

CHAIN OF CUSTODY

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

(Please Print Clearly)	
Company Name:	SCS
Branch/Location:	Madison WI
Project Contact:	Meg Blodgett
Phone:	(608) 224-2830
Project Number:	25216071
Project Name:	~~Alliant~~ Alliant NelsonDewey
Project State:	WI
Sampled By (Print):	Paul A. Grover
Sampled By (Sign):	Paul A. Grover
PO #:	Regulatory Program:

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes

A = Air	W = Water
B = Biota	DW = Drinking Water
C = Charcoal	GW = Ground Water
O = Oil	SW = Surface Water
S = Soil	WW = Waste Water
Sl = Sludge	WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO)	PRESERVATION (CODE)*	Analyses Requested	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
					Y/N	Pick Letter	See Attached Sheet			
001	Field Blank	4/13/16	15:40	DI	N	A	X	4-250mlp AA DD	2-500mlp D	
002	B-31R		11:15	GW	N	D	X			
003	B-31A		11:40							
004	B-11R		12:35							
005	B-7R		13:45							
006	B-11A		14:45							
007	B-11B		15:15							
008	B-26	4/12/16	17:15							
009	B-39		19:30							

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
CS Logistics	4/15/16 0915	Tracee Pace	4/15/16 0915

PACE Project No.: 401308716

Receipt Temp = R01 °C

Sample Receipt pH: (OK) / Adjusted

Cooler Custody Seal: (Present) / Not Present
Intact / Not Intact

C019a(27Jun2006)

Version 6.0 06/14/06

Table 2. Sampling Points and Parameters - CCR Rule Sampling Program 40130876
Groundwater Monitoring - Nelson Dewey Generating Station / SCS Engineers Project #25216071

	Parameter	B7R	B11R	B11A	B11B	B26	B31R	B31A	B39	Field Blank	TOTAL
Appendix III Parameters	Boron	x	x	x	x	x	x	x	x	x	9
	Calcium	x	x	x	x	x	x	x	x	x	9
	Chloride	x	x	x	x	x	x	x	x	x	9
	Fluoride	x	x	x	x	x	x	x	x	x	9
	pH	x	x	x	x	x	x	x	x	x	9
	Sulfate	x	x	x	x	x	x	x	x	x	9
	TDS	x	x	x	x	x	x	x	x	x	9
Appendix IV Parameters	Antimony	x	x	x	x	x	x	x	x	x	9
	Arsenic	x	x	x	x	x	x	x	x	x	9
	Barium	x	x	x	x	x	x	x	x	x	9
	Beryllium	x	x	x	x	x	x	x	x	x	9
	Cadmium	x	x	x	x	x	x	x	x	x	9
	Chromium	x	x	x	x	x	x	x	x	x	9
	Cobalt	x	x	x	x	x	x	x	x	x	9
	Fluoride	x	x	x	x	x	x	x	x	x	9
	Lead	x	x	x	x	x	x	x	x	x	9
	Lithium	x	x	x	x	x	x	x	x	x	9
	Mercury	x	x	x	x	x	x	x	x	x	9
	Molybdenum	x	x	x	x	x	x	x	x	x	9
	Selenium	x	x	x	x	x	x	x	x	x	9
	Thallium	x	x	x	x	x	x	x	x	x	9
	Radium	x	x	x	x	x	x	x	x	x	9
Field Parameters	Groundwater Elevation	x	x	x	x	x	x	x	x		8
	Well Depth	x	x	x	x	x	x	x	x		8
	pH (field)	x	x	x	x	x	x	x	x		8
	Specific Conductance	x	x	x	x	x	x	x	x		8
	Dissolved Oxygen	x	x	x	x	x	x	x	x		8
	ORP	x	x	x	x	x	x	x	x		8
	Temperature	x	x	x	x	x	x	x	x		8
	Turbidity	x	x	x	x	x	x	x	x		8
	Color	x	x	x	x	x	x	x	x		8
	Odor	x	x	x	x	x	x	x	x		8

Notes:

I:\25216071.00\Data and Calculations\Field Work Requests\[WPL_ND_CCR_Rule_Sampling.xls]Sheet1

Sample Condition Upon Receipt

Pace Analytical Services, Inc.
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Project # **WO# : 40130876**

40130876

Client Name: SCS

Courier: ☐ Fed Ex ☐ UPS ☐ Client ☐ Pace Other: CS Logistics

Tracking #: 5164. 041416

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☒ None ☐ Other

Thermometer Used N/A **Type of Ice:** (Wet) Blue Dry None ☒ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: RO /Corr: **Biological Tissue is Frozen:** ☐ yes ☐ no

Temp Blank Present: ☐ yes ☒ no

Person examining contents:
Date: 4/15/16
Initials: TL

Temp should be above freezing to 6°C for all sample except Biota.
Frozen Biota Samples should be received ≤ 0°C.

		Comments:
Chain of Custody Present:	☒Yes ☐No ☐N/A	1. original + copy 4/15/16 TL
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.
Samples Arrived within Hold Time:	☒Yes ☐No ☐N/A	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☒Yes ☐No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☒No ☐N/A	7.
Sufficient Volume:	☒Yes ☐No ☐N/A	8.
Correct Containers Used:	☒Yes ☐No ☐N/A	9.
-Pace Containers Used:	☒Yes ☐No ☐N/A	
-Pace IR Containers Used:	☐Yes ☐No ☒N/A	
Containers Intact:	☒Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC:	☒Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: W		
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	☒Yes ☐No ☐N/A	13. ☒HNO3 ☐ H2SO4 ☐ NaOH ☐ NaOH +ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	☒Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	☐Yes ☒No	Initial when completed TL / Lab Std #ID of preservative / Date/ Time:
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☒N/A	14.
Trip Blank Present:	☐Yes ☒No ☐N/A	15.
Trip Blank Custody Seals Present	☐Yes ☐No ☒N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:
If checked, see attached form for additional comments ☐
Person Contacted: Date/Time:
Comments/ Resolution:

Project Manager Review: JH for DM **Date:** 4-15-16

A3 Round 3 Background Sampling, Analytical Laboratory Report

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

August 11, 2016

Meghan Blodgett
SCS ENGINEERS
2830 Dairy Drive
Madison, WI 53718

RE: Project: 25216071 ALLIANT-NELSON DEWEY
Pace Project No.: 40135521

Dear Meghan Blodgett:
Enclosed are the analytical results for sample(s) received by the laboratory on July 20, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI 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,

Dan Milewsky
dan.milewsky@pacelabs.com
Project Manager

Enclosures

cc: Tom Karwoski, SCS ENGINEERS
Jeff Maxted, ALLIANT ENERGY
Marc Morandi, ALLIANT ENERGY

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: 25216071 ALLIANT-NELSON DEWEY
Pace Project No.: 40135521

Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
Virginia VELAP ID: 460263
North Dakota Certification #: R-150
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
US Dept of Agriculture #: S-76505
Virginia VELAP Certification ID: 460263
Virginia VELAP ID: 460263
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: 25216071 ALLIANT-NELSON DEWEY
Pace Project No.: 40135521

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40135521001	**B-39**	Water	07/18/16 17:15	07/20/16 07:30
40135521002	**B-7R**	Water	07/18/16 19:25	07/20/16 07:30
40135521003	**B-26**	Water	07/19/16 13:45	07/20/16 07:30
40135521004	**B-11A**	Water	07/19/16 09:10	07/20/16 07:30
40135521005	**B-11B**	Water	07/19/16 10:05	07/20/16 07:30
40135521006	**B-11R**	Water	07/19/16 11:15	07/20/16 07:30
40135521007	**B-31R**	Water	07/19/16 12:00	07/20/16 07:30
40135521008	**B-31A**	Water	07/19/16 12:35	07/20/16 07:30
40135521009	**FIELD BLANK**	Water	07/19/16 13:10	07/20/16 07:30

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SAMPLE ANALYTE COUNT

Project: 25216071 ALLIANT-NELSON DEWEY
Pace Project No.: 40135521

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40135521001	**B-39**	EPA 6020	DS1	14
		EPA 7470	AJT	1
			AMH	7
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	HMB	3
40135521002	**B-7R**	EPA 6020	DS1	14
		EPA 7470	AJT	1
			AMH	7
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	HMB	3
40135521003	**B-26**	EPA 6020	DS1	14
		EPA 7470	AJT	1
			AMH	7
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	HMB	3
40135521004	**B-11A**	EPA 6020	DS1	14
		EPA 7470	AJT	1
			AMH	7
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	HMB	3
40135521005	**B-11B**	EPA 6020	DS1	14
		EPA 7470	AJT	1
			AMH	7
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	HMB	3
40135521006	**B-11R**	EPA 6020	DS1	14
		EPA 7470	AJT	1
			AMH	7
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	HMB	3
40135521007	**B-31R**	EPA 6020	DS1	14

Pace Analytical Services, Inc.
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SAMPLE ANALYTE COUNT

Project: 25216071 ALLIANT-NELSON DEWEY
Pace Project No.: 40135521

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 7470	AJT	1
			AMH	7
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	HMB	3
40135521008	**B-31A**	EPA 6020	DS1	14
		EPA 7470	AJT	1
			AMH	7
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	HMB	3
40135521009	**FIELD BLANK**	EPA 6020	DS1	14
		EPA 7470	AJT	1
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	HMB	3

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 25216071 ALLIANT-NELSON DEWEY
Pace Project No.: 40135521

Sample: B-39 **Lab ID: 40135521001** Collected: 07/18/16 17:15 Received: 07/20/16 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.28J**	ug/L	1.0	0.073	1	07/25/16 11:00	07/26/16 21:25	7440-36-0	
Arsenic	**15.5**	ug/L	1.0	0.099	1	07/25/16 11:00	07/26/16 21:25	7440-38-2	
Barium	**58.2**	ug/L	1.0	0.062	1	07/25/16 11:00	07/26/16 21:25	7440-39-3	
Beryllium	**<0.13**	ug/L	1.0	0.13	1	07/25/16 11:00	07/26/16 21:25	7440-41-7	
Boron	**302**	ug/L	10.0	2.0	1	07/25/16 11:00	07/26/16 21:25	7440-42-8	
Cadmium	**0.20J**	ug/L	1.0	0.089	1	07/25/16 11:00	07/26/16 21:25	7440-43-9	
Calcium	**60200**	ug/L	2500	736	10	07/25/16 11:00	07/26/16 20:44	7440-70-2	P6
Chromium	**<0.39**	ug/L	1.0	0.39	1	07/25/16 11:00	07/26/16 21:25	7440-47-3	
Cobalt	**2.3**	ug/L	1.0	0.036	1	07/25/16 11:00	07/26/16 21:25	7440-48-4	
Lead	**0.068J**	ug/L	1.0	0.040	1	07/25/16 11:00	07/26/16 21:25	7439-92-1	
Lithium	**3.9**	ug/L	1.0	0.11	1	07/25/16 11:00	07/26/16 21:25	7439-93-2	
Molybdenum	**6.5**	ug/L	1.0	0.070	1	07/25/16 11:00	07/26/16 21:25	7439-98-7	
Selenium	**3.9**	ug/L	1.0	0.21	1	07/25/16 11:00	07/26/16 21:25	7782-49-2	
Thallium	**0.42J**	ug/L	1.0	0.14	1	07/25/16 11:00	07/26/16 21:25	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	07/25/16 13:25	07/26/16 10:32	7439-97-6	
Field Data	Analytical Method:								
Field pH	**6.54**	Std. Units			1		07/18/16 17:15		
Field Specific Conductance	**488.4**	umhos/cm			1		07/18/16 17:15		
Oxygen, Dissolved	**0.06**	mg/L			1		07/18/16 17:15	7782-44-7	
REDOX	**-20.6**	mV			1		07/18/16 17:15		
Turbidity	**0.51**	NTU			1		07/18/16 17:15		
Static Water Level	**606.28**	feet			1		07/18/16 17:15		
Temperature, Water (C)	**14.9**	deg C			1		07/18/16 17:15		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**314**	mg/L	20.0	8.7	1		07/21/16 14:22		R1
9040 pH	Analytical Method: EPA 9040								
pH	**6.6**	Std. Units	0.10	0.010	1		07/21/16 08:50		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**3.5J**	mg/L	4.0	2.0	1		08/01/16 15:07	16887-00-6	
Fluoride	**<0.20**	mg/L	0.40	0.20	1		08/01/16 15:07	16984-48-8	
Sulfate	**4.9**	mg/L	4.0	2.0	1		08/01/16 15:07	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 25216071 ALLIANT-NELSON DEWEY
Pace Project No.: 40135521

Sample: B-7R **Lab ID: 40135521002** Collected: 07/18/16 19:25 Received: 07/20/16 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.25J**	ug/L	1.0	0.073	1	07/25/16 11:00	07/26/16 21:11	7440-36-0	
Arsenic	**1.8**	ug/L	1.0	0.099	1	07/25/16 11:00	07/26/16 21:11	7440-38-2	
Barium	**54.5**	ug/L	1.0	0.062	1	07/25/16 11:00	07/26/16 21:11	7440-39-3	
Beryllium	**<0.13**	ug/L	1.0	0.13	1	07/25/16 11:00	07/26/16 21:11	7440-41-7	
Boron	**164**	ug/L	10.0	2.0	1	07/25/16 11:00	07/26/16 21:11	7440-42-8	
Cadmium	**<0.089**	ug/L	1.0	0.089	1	07/25/16 11:00	07/26/16 21:11	7440-43-9	
Calcium	**44400**	ug/L	250	73.6	1	07/25/16 11:00	07/26/16 21:11	7440-70-2	
Chromium	**<0.39**	ug/L	1.0	0.39	1	07/25/16 11:00	07/26/16 21:11	7440-47-3	
Cobalt	**0.69J**	ug/L	1.0	0.036	1	07/25/16 11:00	07/26/16 21:11	7440-48-4	
Lead	**0.078J**	ug/L	1.0	0.040	1	07/25/16 11:00	07/26/16 21:11	7439-92-1	
Lithium	**0.18J**	ug/L	1.0	0.11	1	07/25/16 11:00	07/26/16 21:11	7439-93-2	
Molybdenum	**1.4**	ug/L	1.0	0.070	1	07/25/16 11:00	07/26/16 21:11	7439-98-7	
Selenium	**0.26J**	ug/L	1.0	0.21	1	07/25/16 11:00	07/26/16 21:11	7782-49-2	1q
Thallium	**<0.14**	ug/L	1.0	0.14	1	07/25/16 11:00	07/26/16 21:11	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	07/25/16 13:25	07/26/16 10:34	7439-97-6	
Field Data	Analytical Method:								
Field pH	**6.29**	Std. Units			1		07/18/16 19:25		
Field Specific Conductance	**422.3**	umhos/cm			1		07/18/16 19:25		
Oxygen, Dissolved	**0.55**	mg/L			1		07/18/16 19:25	7782-44-7	
REDOX	**-26.6**	mV			1		07/18/16 19:25		
Turbidity	**4.30**	NTU			1		07/18/16 19:25		
Static Water Level	**606.54**	feet			1		07/18/16 19:25		
Temperature, Water (C)	**15.1**	deg C			1		07/18/16 19:25		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**220**	mg/L	20.0	8.7	1		07/21/16 14:23		
9040 pH	Analytical Method: EPA 9040								
pH	**6.4**	Std. Units	0.10	0.010	1		07/21/16 08:50		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**7.1**	mg/L	4.0	2.0	1		08/01/16 15:18	16887-00-6	
Fluoride	**<0.20**	mg/L	0.40	0.20	1		08/01/16 15:18	16984-48-8	
Sulfate	**2.4J**	mg/L	4.0	2.0	1		08/01/16 15:18	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 25216071 ALLIANT-NELSON DEWEY
Pace Project No.: 40135521

Sample: B-26 **Lab ID: 40135521003** Collected: 07/19/16 13:45 Received: 07/20/16 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.16J**	ug/L	1.0	0.073	1	07/25/16 11:00	07/26/16 22:12	7440-36-0	
Arsenic	**0.49J**	ug/L	1.0	0.099	1	07/25/16 11:00	07/26/16 22:12	7440-38-2	
Barium	**77.8**	ug/L	1.0	0.062	1	07/25/16 11:00	07/26/16 22:12	7440-39-3	
Beryllium	**<0.13**	ug/L	1.0	0.13	1	07/25/16 11:00	07/26/16 22:12	7440-41-7	
Boron	**28.6**	ug/L	10.0	2.0	1	07/25/16 11:00	07/26/16 22:12	7440-42-8	
Cadmium	**<0.089**	ug/L	1.0	0.089	1	07/25/16 11:00	07/26/16 22:12	7440-43-9	
Calcium	**82400**	ug/L	250	73.6	1	07/25/16 11:00	07/26/16 22:12	7440-70-2	
Chromium	**1.1**	ug/L	1.0	0.39	1	07/25/16 11:00	07/26/16 22:12	7440-47-3	
Cobalt	**0.086J**	ug/L	1.0	0.036	1	07/25/16 11:00	07/26/16 22:12	7440-48-4	
Lead	**<0.040**	ug/L	1.0	0.040	1	07/25/16 11:00	07/26/16 22:12	7439-92-1	
Lithium	**1.9**	ug/L	1.0	0.11	1	07/25/16 11:00	07/26/16 22:12	7439-93-2	
Molybdenum	**0.15J**	ug/L	1.0	0.070	1	07/25/16 11:00	07/26/16 22:12	7439-98-7	
Selenium	**0.98J**	ug/L	1.0	0.21	1	07/25/16 11:00	07/26/16 22:12	7782-49-2	1q
Thallium	**<0.14**	ug/L	1.0	0.14	1	07/25/16 11:00	07/26/16 22:12	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	07/25/16 13:25	07/26/16 10:36	7439-97-6	
Field Data	Analytical Method:								
Field pH	**7.14**	Std. Units			1		07/19/16 13:45		
Field Specific Conductance	**788**	umhos/cm			1		07/19/16 13:45		
Oxygen, Dissolved	**4.41**	mg/L			1		07/19/16 13:45	7782-44-7	
REDOX	**63.2**	mV			1		07/19/16 13:45		
Turbidity	**0.27**	NTU			1		07/19/16 13:45		
Static Water Level	**606.09**	feet			1		07/19/16 13:45		
Temperature, Water (C)	**10.7**	deg C			1		07/19/16 13:45		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**504**	mg/L	20.0	8.7	1		07/21/16 14:25		
9040 pH	Analytical Method: EPA 9040								
pH	**7.2**	Std. Units	0.10	0.010	1		07/21/16 08:50		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**55.6**	mg/L	4.0	2.0	1		08/01/16 15:29	16887-00-6	
Fluoride	**<0.20**	mg/L	0.40	0.20	1		08/01/16 15:29	16984-48-8	
Sulfate	**36.2**	mg/L	4.0	2.0	1		08/01/16 15:29	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 25216071 ALLIANT-NELSON DEWEY
Pace Project No.: 40135521

Sample: B-11A **Lab ID: 40135521004** Collected: 07/19/16 09:10 Received: 07/20/16 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.17J**	ug/L	1.0	0.073	1	07/25/16 11:00	07/26/16 22:19	7440-36-0	
Arsenic	**0.18J**	ug/L	1.0	0.099	1	07/25/16 11:00	07/26/16 22:19	7440-38-2	
Barium	**171**	ug/L	1.0	0.062	1	07/25/16 11:00	07/26/16 22:19	7440-39-3	
Beryllium	**<0.13**	ug/L	1.0	0.13	1	07/25/16 11:00	07/26/16 22:19	7440-41-7	
Boron	**104**	ug/L	10.0	2.0	1	07/25/16 11:00	07/26/16 22:19	7440-42-8	
Cadmium	**<0.089**	ug/L	1.0	0.089	1	07/25/16 11:00	07/26/16 22:19	7440-43-9	
Calcium	**54000**	ug/L	250	73.6	1	07/25/16 11:00	07/26/16 22:19	7440-70-2	
Chromium	**<0.39**	ug/L	1.0	0.39	1	07/25/16 11:00	07/26/16 22:19	7440-47-3	
Cobalt	**0.97J**	ug/L	1.0	0.036	1	07/25/16 11:00	07/26/16 22:19	7440-48-4	
Lead	**<0.040**	ug/L	1.0	0.040	1	07/25/16 11:00	07/26/16 22:19	7439-92-1	
Lithium	**5.8**	ug/L	1.0	0.11	1	07/25/16 11:00	07/26/16 22:19	7439-93-2	
Molybdenum	**22.5**	ug/L	1.0	0.070	1	07/25/16 11:00	07/26/16 22:19	7439-98-7	
Selenium	**<0.21**	ug/L	1.0	0.21	1	07/25/16 11:00	07/26/16 22:19	7782-49-2	1q
Thallium	**<0.14**	ug/L	1.0	0.14	1	07/25/16 11:00	07/26/16 22:19	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	07/25/16 13:25	07/26/16 10:39	7439-97-6	
Field Data	Analytical Method:								
Field pH	**7.42**	Std. Units			1		07/19/16 09:10		
Field Specific Conductance	**598.1**	umhos/cm			1		07/19/16 09:10		
Oxygen, Dissolved	**0.08**	mg/L			1		07/19/16 09:10	7782-44-7	
REDOX	**84.2**	mV			1		07/19/16 09:10		
Turbidity	**0.01**	NTU			1		07/19/16 09:10		
Static Water Level	**606.76**	feet			1		07/19/16 09:10		
Temperature, Water (C)	**14.8**	deg C			1		07/19/16 09:10		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**336**	mg/L	20.0	8.7	1		07/21/16 14:25		
9040 pH	Analytical Method: EPA 9040								
pH	**7.5**	Std. Units	0.10	0.010	1		07/21/16 08:50		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**46.6**	mg/L	4.0	2.0	1		08/01/16 15:40	16887-00-6	
Fluoride	**0.35J**	mg/L	0.40	0.20	1		08/01/16 15:40	16984-48-8	
Sulfate	**2.7J**	mg/L	4.0	2.0	1		08/01/16 15:40	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 25216071 ALLIANT-NELSON DEWEY
Pace Project No.: 40135521

Sample: B-11B **Lab ID: 40135521005** Collected: 07/19/16 10:05 Received: 07/20/16 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.097J**	ug/L	1.0	0.073	1	07/25/16 11:00	07/26/16 22:26	7440-36-0	
Arsenic	**0.36J**	ug/L	1.0	0.099	1	07/25/16 11:00	07/26/16 22:26	7440-38-2	
Barium	**128**	ug/L	1.0	0.062	1	07/25/16 11:00	07/26/16 22:26	7440-39-3	
Beryllium	**<0.13**	ug/L	1.0	0.13	1	07/25/16 11:00	07/26/16 22:26	7440-41-7	
Boron	**1210**	ug/L	10.0	2.0	1	07/25/16 11:00	07/26/16 22:26	7440-42-8	
Cadmium	**<0.089**	ug/L	1.0	0.089	1	07/25/16 11:00	07/26/16 22:26	7440-43-9	
Calcium	**59000**	ug/L	250	73.6	1	07/25/16 11:00	07/26/16 22:26	7440-70-2	
Chromium	**<0.39**	ug/L	1.0	0.39	1	07/25/16 11:00	07/26/16 22:26	7440-47-3	
Cobalt	**0.21J**	ug/L	1.0	0.036	1	07/25/16 11:00	07/26/16 22:26	7440-48-4	
Lead	**<0.040**	ug/L	1.0	0.040	1	07/25/16 11:00	07/26/16 22:26	7439-92-1	
Lithium	**18.4**	ug/L	1.0	0.11	1	07/25/16 11:00	07/26/16 22:26	7439-93-2	
Molybdenum	**48.7**	ug/L	1.0	0.070	1	07/25/16 11:00	07/26/16 22:26	7439-98-7	
Selenium	**<0.21**	ug/L	1.0	0.21	1	07/25/16 11:00	07/26/16 22:26	7782-49-2	1q
Thallium	**<0.14**	ug/L	1.0	0.14	1	07/25/16 11:00	07/26/16 22:26	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	07/25/16 13:25	07/26/16 10:41	7439-97-6	
Field Data	Analytical Method:								
Field pH	**7.77**	Std. Units			1		07/19/16 10:05		
Field Specific Conductance	**785**	umhos/cm			1		07/19/16 10:05		
Oxygen, Dissolved	**0.08**	mg/L			1		07/19/16 10:05	7782-44-7	
REDOX	**-69.0**	mV			1		07/19/16 10:05		
Turbidity	**0.01**	NTU			1		07/19/16 10:05		
Static Water Level	**606.74**	feet			1		07/19/16 10:05		
Temperature, Water (C)	**14.6**	deg C			1		07/19/16 10:05		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**520**	mg/L	20.0	8.7	1		07/21/16 14:26		
9040 pH	Analytical Method: EPA 9040								
pH	**7.8**	Std. Units	0.10	0.010	1		07/21/16 08:50		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**33.6**	mg/L	4.0	2.0	1		08/01/16 15:51	16887-00-6	
Fluoride	**0.45**	mg/L	0.40	0.20	1		08/01/16 15:51	16984-48-8	
Sulfate	**165**	mg/L	20.0	10.0	5		08/01/16 20:34	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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(920)469-2436

ANALYTICAL RESULTS

Project: 25216071 ALLIANT-NELSON DEWEY
Pace Project No.: 40135521

Sample: B-11R **Lab ID: 40135521006** Collected: 07/19/16 11:15 Received: 07/20/16 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**<0.073**	ug/L	1.0	0.073	1	07/25/16 11:00	07/26/16 22:33	7440-36-0	
Arsenic	**10.6**	ug/L	1.0	0.099	1	07/25/16 11:00	07/26/16 22:33	7440-38-2	
Barium	**187**	ug/L	1.0	0.062	1	07/25/16 11:00	07/26/16 22:33	7440-39-3	
Beryllium	**<0.13**	ug/L	1.0	0.13	1	07/25/16 11:00	07/26/16 22:33	7440-41-7	
Boron	**3530**	ug/L	10.0	2.0	1	07/25/16 11:00	07/26/16 22:33	7440-42-8	
Cadmium	**<0.089**	ug/L	1.0	0.089	1	07/25/16 11:00	07/26/16 22:33	7440-43-9	
Calcium	**130000**	ug/L	250	73.6	1	07/25/16 11:00	07/26/16 22:33	7440-70-2	
Chromium	**<0.39**	ug/L	1.0	0.39	1	07/25/16 11:00	07/26/16 22:33	7440-47-3	
Cobalt	**0.68J**	ug/L	1.0	0.036	1	07/25/16 11:00	07/26/16 22:33	7440-48-4	
Lead	**0.13J**	ug/L	1.0	0.040	1	07/25/16 11:00	07/26/16 22:33	7439-92-1	
Lithium	**1.6**	ug/L	1.0	0.11	1	07/25/16 11:00	07/26/16 22:33	7439-93-2	
Molybdenum	**34.9**	ug/L	1.0	0.070	1	07/25/16 11:00	07/26/16 22:33	7439-98-7	
Selenium	**<0.21**	ug/L	1.0	0.21	1	07/25/16 11:00	07/26/16 22:33	7782-49-2	1q
Thallium	**<0.14**	ug/L	1.0	0.14	1	07/25/16 11:00	07/26/16 22:33	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	07/25/16 13:25	07/26/16 10:43	7439-97-6	
Field Data	Analytical Method:								
Field pH	**6.69**	Std. Units			1		07/19/16 11:15		
Field Specific Conductance	**1160**	umhos/cm			1		07/19/16 11:15		
Oxygen, Dissolved	**0.08**	mg/L			1		07/19/16 11:15	7782-44-7	
REDOX	**-94.7**	mV			1		07/19/16 11:15		
Turbidity	**2.11**	NTU			1		07/19/16 11:15		
Static Water Level	**606.14**	feet			1		07/19/16 11:15		
Temperature, Water (C)	**14.0**	deg C			1		07/19/16 11:15		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**698**	mg/L	20.0	8.7	1		07/21/16 14:27		
9040 pH	Analytical Method: EPA 9040								
pH	**6.8**	Std. Units	0.10	0.010	1		07/21/16 08:50		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**38.9**	mg/L	4.0	2.0	1		08/01/16 16:02	16887-00-6	
Fluoride	**0.22J**	mg/L	0.40	0.20	1		08/01/16 16:02	16984-48-8	
Sulfate	**115**	mg/L	20.0	10.0	5		08/01/16 21:18	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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(920)469-2436

ANALYTICAL RESULTS

Project: 25216071 ALLIANT-NELSON DEWEY
Pace Project No.: 40135521

Sample: B-31R **Lab ID: 40135521007** Collected: 07/19/16 12:00 Received: 07/20/16 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.21J**	ug/L	1.0	0.073	1	07/25/16 11:00	07/26/16 22:39	7440-36-0	
Arsenic	**0.37J**	ug/L	1.0	0.099	1	07/25/16 11:00	07/26/16 22:39	7440-38-2	
Barium	**85.3**	ug/L	1.0	0.062	1	07/25/16 11:00	07/26/16 22:39	7440-39-3	
Beryllium	**<0.13**	ug/L	1.0	0.13	1	07/25/16 11:00	07/26/16 22:39	7440-41-7	
Boron	**641**	ug/L	10.0	2.0	1	07/25/16 11:00	07/26/16 22:39	7440-42-8	
Cadmium	**2.0**	ug/L	1.0	0.089	1	07/25/16 11:00	07/26/16 22:39	7440-43-9	
Calcium	**76100**	ug/L	250	73.6	1	07/25/16 11:00	07/26/16 22:39	7440-70-2	
Chromium	**<0.39**	ug/L	1.0	0.39	1	07/25/16 11:00	07/26/16 22:39	7440-47-3	
Cobalt	**5.4**	ug/L	1.0	0.036	1	07/25/16 11:00	07/26/16 22:39	7440-48-4	
Lead	**0.14J**	ug/L	1.0	0.040	1	07/25/16 11:00	07/26/16 22:39	7439-92-1	
Lithium	**18.1**	ug/L	1.0	0.11	1	07/25/16 11:00	07/26/16 22:39	7439-93-2	
Molybdenum	**23.9**	ug/L	1.0	0.070	1	07/25/16 11:00	07/26/16 22:39	7439-98-7	
Selenium	**<0.21**	ug/L	1.0	0.21	1	07/25/16 11:00	07/26/16 22:39	7782-49-2	1q
Thallium	**2.0**	ug/L	1.0	0.14	1	07/25/16 11:00	07/26/16 22:39	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	07/25/16 13:25	07/26/16 10:46	7439-97-6	
Field Data	Analytical Method:								
Field pH	**6.44**	Std. Units			1		07/19/16 12:00		
Field Specific Conductance	**660**	umhos/cm			1		07/19/16 12:00		
Oxygen, Dissolved	**0.09**	mg/L			1		07/19/16 12:00	7782-44-7	
REDOX	**-11.0**	mV			1		07/19/16 12:00		
Turbidity	**1.50**	NTU			1		07/19/16 12:00		
Static Water Level	**606.55**	feet			1		07/19/16 12:00		
Temperature, Water (C)	**15.1**	deg C			1		07/19/16 12:00		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**406**	mg/L	20.0	8.7	1		07/21/16 14:27		
9040 pH	Analytical Method: EPA 9040								
pH	**6.6**	Std. Units	0.10	0.010	1		07/21/16 08:50		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**30.3**	mg/L	4.0	2.0	1		08/01/16 16:13	16887-00-6	
Fluoride	**<0.20**	mg/L	0.40	0.20	1		08/01/16 16:13	16984-48-8	
Sulfate	**38.5**	mg/L	4.0	2.0	1		08/01/16 16:13	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
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ANALYTICAL RESULTS

Project: 25216071 ALLIANT-NELSON DEWEY
Pace Project No.: 40135521

Sample: B-31A **Lab ID: 40135521008** Collected: 07/19/16 12:35 Received: 07/20/16 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.14J**	ug/L	1.0	0.073	1	07/25/16 11:00	07/26/16 22:46	7440-36-0	
Arsenic	**1.4**	ug/L	1.0	0.099	1	07/25/16 11:00	07/26/16 22:46	7440-38-2	
Barium	**130**	ug/L	1.0	0.062	1	07/25/16 11:00	07/26/16 22:46	7440-39-3	
Beryllium	**<0.13**	ug/L	1.0	0.13	1	07/25/16 11:00	07/26/16 22:46	7440-41-7	
Boron	**67.2**	ug/L	10.0	2.0	1	07/25/16 11:00	07/26/16 22:46	7440-42-8	
Cadmium	**<0.089**	ug/L	1.0	0.089	1	07/25/16 11:00	07/26/16 22:46	7440-43-9	
Calcium	**48900**	ug/L	250	73.6	1	07/25/16 11:00	07/26/16 22:46	7440-70-2	
Chromium	**<0.39**	ug/L	1.0	0.39	1	07/25/16 11:00	07/26/16 22:46	7440-47-3	
Cobalt	**1.8**	ug/L	1.0	0.036	1	07/25/16 11:00	07/26/16 22:46	7440-48-4	
Lead	**<0.040**	ug/L	1.0	0.040	1	07/25/16 11:00	07/26/16 22:46	7439-92-1	
Lithium	**0.77J**	ug/L	1.0	0.11	1	07/25/16 11:00	07/26/16 22:46	7439-93-2	
Molybdenum	**23.4**	ug/L	1.0	0.070	1	07/25/16 11:00	07/26/16 22:46	7439-98-7	
Selenium	**<0.21**	ug/L	1.0	0.21	1	07/25/16 11:00	07/26/16 22:46	7782-49-2	1q
Thallium	**<0.14**	ug/L	1.0	0.14	1	07/25/16 11:00	07/26/16 22:46	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	07/25/16 13:25	07/26/16 10:53	7439-97-6	
Field Data	Analytical Method:								
Field pH	**7.25**	Std. Units			1		07/19/16 12:35		
Field Specific Conductance	**487.2**	umhos/cm			1		07/19/16 12:35		
Oxygen, Dissolved	**0.18**	mg/L			1		07/19/16 12:35	7782-44-7	
REDOX	**-71.1**	mV			1		07/19/16 12:35		
Turbidity	**0.63**	NTU			1		07/19/16 12:35		
Static Water Level	**606.73**	feet			1		07/19/16 12:35		
Temperature, Water (C)	**15.3**	deg C			1		07/19/16 12:35		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**280**	mg/L	20.0	8.7	1		07/21/16 14:28		
9040 pH	Analytical Method: EPA 9040								
pH	**7.6**	Std. Units	0.10	0.010	1		07/21/16 08:50		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**36.4**	mg/L	4.0	2.0	1		08/01/16 16:29	16887-00-6	
Fluoride	**<0.20**	mg/L	0.40	0.20	1		08/01/16 16:29	16984-48-8	
Sulfate	**24.2**	mg/L	4.0	2.0	1		08/01/16 16:29	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 25216071 ALLIANT-NELSON DEWEY
Pace Project No.: 40135521

Sample: FIELD BLANK **Lab ID: 40135521009** Collected: 07/19/16 13:10 Received: 07/20/16 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**<0.073**	ug/L	1.0	0.073	1	07/25/16 11:00	07/26/16 20:31	7440-36-0	
Arsenic	**<0.099**	ug/L	1.0	0.099	1	07/25/16 11:00	07/26/16 20:31	7440-38-2	
Barium	**<0.062**	ug/L	1.0	0.062	1	07/25/16 11:00	07/26/16 20:31	7440-39-3	
Beryllium	**<0.13**	ug/L	1.0	0.13	1	07/25/16 11:00	07/26/16 20:31	7440-41-7	
Boron	**<2.0**	ug/L	10.0	2.0	1	07/25/16 11:00	07/26/16 20:31	7440-42-8	
Cadmium	**<0.089**	ug/L	1.0	0.089	1	07/25/16 11:00	07/26/16 20:31	7440-43-9	
Calcium	**<73.6**	ug/L	250	73.6	1	07/25/16 11:00	07/26/16 20:31	7440-70-2	
Chromium	**<0.39**	ug/L	1.0	0.39	1	07/25/16 11:00	07/26/16 20:31	7440-47-3	
Cobalt	**<0.036**	ug/L	1.0	0.036	1	07/25/16 11:00	07/26/16 20:31	7440-48-4	
Lead	**<0.040**	ug/L	1.0	0.040	1	07/25/16 11:00	07/26/16 20:31	7439-92-1	
Lithium	**<0.11**	ug/L	1.0	0.11	1	07/25/16 11:00	07/26/16 20:31	7439-93-2	
Molybdenum	**<0.070**	ug/L	1.0	0.070	1	07/25/16 11:00	07/26/16 20:31	7439-98-7	
Selenium	**<0.21**	ug/L	1.0	0.21	1	07/25/16 11:00	07/26/16 20:31	7782-49-2	1q
Thallium	**<0.14**	ug/L	1.0	0.14	1	07/25/16 11:00	07/26/16 20:31	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	07/25/16 13:25	07/26/16 10:55	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**<8.7**	mg/L	20.0	8.7	1		07/21/16 14:28		
9040 pH	Analytical Method: EPA 9040								
pH	**5.2**	Std. Units	0.10	0.010	1		07/21/16 08:50		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**<2.0**	mg/L	4.0	2.0	1		08/01/16 16:42	16887-00-6	
Fluoride	**<0.20**	mg/L	0.40	0.20	1		08/01/16 16:42	16984-48-8	
Sulfate	**<2.0**	mg/L	4.0	2.0	1		08/01/16 16:42	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25216071 ALLIANT-NELSON DEWEY
Pace Project No.: 40135521

QC Batch: 230712 Analysis Method: EPA 7470
QC Batch Method: EPA 7470 Analysis Description: 7470 Mercury
Associated Lab Samples: 40135521001, 40135521002, 40135521003, 40135521004, 40135521005, 40135521006, 40135521007, 40135521008, 40135521009

METHOD BLANK: 1369227 Matrix: Water
Associated Lab Samples: 40135521001, 40135521002, 40135521003, 40135521004, 40135521005, 40135521006, 40135521007, 40135521008, 40135521009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	<0.13	0.42	07/26/16 09:48	

LABORATORY CONTROL SAMPLE: 1369228

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	4.9	98	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1369229 1369230

Parameter	Units	40135167001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	<0.13	5	5	5.1	5.1	103	103	85-115	0	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25216071 ALLIANT-NELSON DEWEY
Pace Project No.: 40135521

QC Batch: 230684 Analysis Method: EPA 6020
QC Batch Method: EPA 3010 Analysis Description: 6020 MET
Associated Lab Samples: 40135521001, 40135521002, 40135521003, 40135521004, 40135521005, 40135521006, 40135521007, 40135521008, 40135521009

METHOD BLANK: 1369120 Matrix: Water
Associated Lab Samples: 40135521001, 40135521002, 40135521003, 40135521004, 40135521005, 40135521006, 40135521007, 40135521008, 40135521009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	<0.073	1.0	07/26/16 20:24	
Arsenic	ug/L	<0.099	1.0	07/26/16 20:24	
Barium	ug/L	0.088J	1.0	07/26/16 20:24	
Beryllium	ug/L	<0.13	1.0	07/26/16 20:24	
Boron	ug/L	<2.0	10.0	07/26/16 20:24	
Cadmium	ug/L	<0.089	1.0	07/26/16 20:24	
Calcium	ug/L	<73.6	250	07/26/16 20:24	
Chromium	ug/L	<0.39	1.0	07/26/16 20:24	
Cobalt	ug/L	<0.036	1.0	07/26/16 20:24	
Lead	ug/L	<0.040	1.0	07/26/16 20:24	
Lithium	ug/L	<0.11	1.0	07/26/16 20:24	
Molybdenum	ug/L	<0.070	1.0	07/26/16 20:24	
Selenium	ug/L	<0.21	1.0	07/26/16 20:24	
Thallium	ug/L	<0.14	1.0	07/26/16 20:24	

LABORATORY CONTROL SAMPLE: 1369121

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	528	106	80-120	
Arsenic	ug/L	500	477	95	80-120	
Barium	ug/L	500	487	97	80-120	
Beryllium	ug/L	500	490	98	80-120	
Boron	ug/L	500	477	95	80-120	
Cadmium	ug/L	500	520	104	80-120	
Calcium	ug/L	5000	5060	101	80-120	
Chromium	ug/L	500	471	94	80-120	
Cobalt	ug/L	500	446	89	80-120	
Lead	ug/L	500	458	92	80-120	
Lithium	ug/L	500	454	91	80-120	
Molybdenum	ug/L	500	497	99	80-120	
Selenium	ug/L	500	504	101	80-120	
Thallium	ug/L	500	432	86	80-120	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25216071 ALLIANT-NELSON DEWEY
Pace Project No.: 40135521

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1369122 1369123

Parameter	Units	40135521001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	0.28J	500	500	521	536	104	107	75-125	3	20	
Arsenic	ug/L	15.5	500	500	494	504	96	98	75-125	2	20	
Barium	ug/L	58.2	500	500	546	565	98	101	75-125	3	20	
Beryllium	ug/L	<0.13	500	500	485	489	97	98	75-125	1	20	
Boron	ug/L	302	500	500	761	769	92	93	75-125	1	20	
Cadmium	ug/L	0.20J	500	500	516	527	103	105	75-125	2	20	
Calcium	ug/L	60200	5000	5000	62000	66200	37	121	75-125	7	20	P6
Chromium	ug/L	<0.39	500	500	467	476	93	95	75-125	2	20	
Cobalt	ug/L	2.3	500	500	444	458	88	91	75-125	3	20	
Lead	ug/L	0.068J	500	500	451	448	90	90	75-125	1	20	
Lithium	ug/L	3.9	500	500	455	462	90	92	75-125	2	20	
Molybdenum	ug/L	6.5	500	500	506	518	100	102	75-125	2	20	
Selenium	ug/L	3.9	500	500	509	516	101	102	75-125	1	20	
Thallium	ug/L	0.42J	500	500	430	429	86	86	75-125	0	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25216071 ALLIANT-NELSON DEWEY
Pace Project No.: 40135521

QC Batch: 230489 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 40135521001, 40135521002, 40135521003, 40135521004, 40135521005, 40135521006, 40135521007, 40135521008, 40135521009

METHOD BLANK: 1367508 Matrix: Water
Associated Lab Samples: 40135521001, 40135521002, 40135521003, 40135521004, 40135521005, 40135521006, 40135521007, 40135521008, 40135521009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<8.7	20.0	07/21/16 14:18	

LABORATORY CONTROL SAMPLE: 1367509

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	586	606	103	80-120	

SAMPLE DUPLICATE: 1367510

Parameter	Units	40135462007 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	14000	14500	3	5	

SAMPLE DUPLICATE: 1367511

Parameter	Units	40135521001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	314	288	9	5	R1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25216071 ALLIANT-NELSON DEWEY
Pace Project No.: 40135521

QC Batch: 230476 Analysis Method: EPA 9040
QC Batch Method: EPA 9040 Analysis Description: 9040 pH
Associated Lab Samples: 40135521001, 40135521002, 40135521003, 40135521004, 40135521005, 40135521006, 40135521007, 40135521008, 40135521009

SAMPLE DUPLICATE: 1367446

Parameter	Units	40135521001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH	Std. Units	6.6	6.6	1	20	H6

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25216071 ALLIANT-NELSON DEWEY
Pace Project No.: 40135521

QC Batch: 230555 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 40135521001, 40135521002, 40135521003, 40135521004, 40135521005, 40135521006, 40135521007, 40135521008, 40135521009

METHOD BLANK: 1367902 Matrix: Water
Associated Lab Samples: 40135521001, 40135521002, 40135521003, 40135521004, 40135521005, 40135521006, 40135521007, 40135521008, 40135521009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<2.0	4.0	08/01/16 11:48	
Fluoride	mg/L	<0.20	0.40	08/01/16 11:48	
Sulfate	mg/L	<2.0	4.0	08/01/16 11:48	

LABORATORY CONTROL SAMPLE: 1367903

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	18.5	93	90-110	
Fluoride	mg/L	2	1.9	94	90-110	
Sulfate	mg/L	20	18.7	94	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1367906 1367907

Parameter	Units	40135496001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	13.6	20	20	34.5	34.6	104	105	90-110	0	20	
Fluoride	mg/L	<0.20	2	2	2.1	2.1	100	101	90-110	1	20	
Sulfate	mg/L	24.9	20	20	48.0	48.0	116	116	90-110	0	20	M0

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1369904 1369905

Parameter	Units	40135776001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	28.1	20	20	50.2	50.5	110	112	90-110	0	20	M0
Fluoride	mg/L	<0.20	2	2	2.0	2.1	98	99	90-110	1	20	
Sulfate	mg/L	8.1	20	20	28.7	28.9	103	104	90-110	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 25216071 ALLIANT-NELSON DEWEY
Pace Project No.: 40135521

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 LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

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 at or above the adjusted LOD.

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

1q	Analyte was measured in the associated method blank at -0.22 ug/L.
H6	Analysis initiated outside of the 15 minute EPA required holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
R1	RPD value was outside control limits.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 25216071 ALLIANT-NELSON DEWEY
Pace Project No.: 40135521

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40135521001	**B-39**	EPA 3010	230684	EPA 6020	230755
40135521002	**B-7R**	EPA 3010	230684	EPA 6020	230755
40135521003	**B-26**	EPA 3010	230684	EPA 6020	230755
40135521004	**B-11A**	EPA 3010	230684	EPA 6020	230755
40135521005	**B-11B**	EPA 3010	230684	EPA 6020	230755
40135521006	**B-11R**	EPA 3010	230684	EPA 6020	230755
40135521007	**B-31R**	EPA 3010	230684	EPA 6020	230755
40135521008	**B-31A**	EPA 3010	230684	EPA 6020	230755
40135521009	**FIELD BLANK**	EPA 3010	230684	EPA 6020	230755
40135521001	**B-39**	EPA 7470	230712	EPA 7470	230733
40135521002	**B-7R**	EPA 7470	230712	EPA 7470	230733
40135521003	**B-26**	EPA 7470	230712	EPA 7470	230733
40135521004	**B-11A**	EPA 7470	230712	EPA 7470	230733
40135521005	**B-11B**	EPA 7470	230712	EPA 7470	230733
40135521006	**B-11R**	EPA 7470	230712	EPA 7470	230733
40135521007	**B-31R**	EPA 7470	230712	EPA 7470	230733
40135521008	**B-31A**	EPA 7470	230712	EPA 7470	230733
40135521009	**FIELD BLANK**	EPA 7470	230712	EPA 7470	230733
40135521001	**B-39**				
40135521002	**B-7R**				
40135521003	**B-26**				
40135521004	**B-11A**				
40135521005	**B-11B**				
40135521006	**B-11R**				
40135521007	**B-31R**				
40135521008	**B-31A**				
40135521001	**B-39**	SM 2540C	230489		
40135521002	**B-7R**	SM 2540C	230489		
40135521003	**B-26**	SM 2540C	230489		
40135521004	**B-11A**	SM 2540C	230489		
40135521005	**B-11B**	SM 2540C	230489		
40135521006	**B-11R**	SM 2540C	230489		
40135521007	**B-31R**	SM 2540C	230489		
40135521008	**B-31A**	SM 2540C	230489		
40135521009	**FIELD BLANK**	SM 2540C	230489		
40135521001	**B-39**	EPA 9040	230476		
40135521002	**B-7R**	EPA 9040	230476		
40135521003	**B-26**	EPA 9040	230476		
40135521004	**B-11A**	EPA 9040	230476		
40135521005	**B-11B**	EPA 9040	230476		
40135521006	**B-11R**	EPA 9040	230476		
40135521007	**B-31R**	EPA 9040	230476		
40135521008	**B-31A**	EPA 9040	230476		
40135521009	**FIELD BLANK**	EPA 9040	230476		
40135521001	**B-39**	EPA 300.0	230555		
40135521002	**B-7R**	EPA 300.0	230555		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 25216071 ALLIANT-NELSON DEWEY
Pace Project No.: 40135521

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40135521003	**B-26**	EPA 300.0	230555		
40135521004	**B-11A**	EPA 300.0	230555		
40135521005	**B-11B**	EPA 300.0	230555		
40135521006	**B-11R**	EPA 300.0	230555		
40135521007	**B-31R**	EPA 300.0	230555		
40135521008	**B-31A**	EPA 300.0	230555		
40135521009	**FIELD BLANK**	EPA 300.0	230555		

Pace Analytical®
www.pacelabs.com

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

4013552 1

CHAIN OF CUSTODY

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

(Please Print Clearly)	
Company Name:	SCS
Branch/Location:	Madison, WI
Project Contact:	Meg Blodgett
Phone:	608 216-7362
Project Number:	25216071
Project Name:	Alliant - Nelson Dewey
Project State:	WI
Sampled By (Print):	Paul A. Grover
Sampled By (Sign):	Paul A. Grover
PO #:	Regulatory Program:

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes
A = Air, W = Water, B = Biota, DW = Drinking Water, C = Charcoal, GW = Ground Water, O = Oil, SW = Surface Water, S = Soil, WW = Waste Water, Sl = Sludge, WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested: Metals	Hg	pH	SO4, TDS, F, Cl, Ca	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
001	B-39	7/18/16	17:15	GW	N	D	X	X	X	X		4-250mLp AADD	
002	B-7R	↓	19:25										
003	B-26	7/19/16	13:45										
004	B-11A		9:10										
005	B-11B		10:05										
006	B-11R		11:15										
007	B-31R		12:00										
008	B-31A		12:35	↓									
009	Field Blank	↓	13:10	DI			↓	↓	↓	↓		↓	

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):
Email #1:
Email #2:
Telephone:
Fax:

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
Paul A. Grover	7/19/16 20:00		
Dunham	7/20/16 0730	Zach Schramm Pace	7/20/16 0730

PACE Project No. 40135521
Receipt Temp = 2.0 °C
Sample Receipt pH (OK) Adjusted
Cooler Custody Seal Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

Table 2. Sampling Points and Parameters - CCR Rule Sampling Program
Groundwater Monitoring - Nelson Dewey Generating Station / SCS Engineers Project #25216071

	Parameter	B7R	B11R	B11A	B11B	B26	B31R	B31A	B39	Field Blank	TOTAL
Appendix III Parameters	Boron	x	x	x	x	x	x	x	x	x	9
	Calcium	x	x	x	x	x	x	x	x	x	9
	Chloride	x	x	x	x	x	x	x	x	x	9
	Fluoride	x	x	x	x	x	x	x	x	x	9
	pH	x	x	x	x	x	x	x	x	x	9
	Sulfate	x	x	x	x	x	x	x	x	x	9
	TDS	x	x	x	x	x	x	x	x	x	9
Appendix IV Parameters	Antimony	x	x	x	x	x	x	x	x	x	9
	Arsenic	x	x	x	x	x	x	x	x	x	9
	Barium	x	x	x	x	x	x	x	x	x	9
	Beryllium	x	x	x	x	x	x	x	x	x	9
	Cadmium	x	x	x	x	x	x	x	x	x	9
	Chromium	x	x	x	x	x	x	x	x	x	9
	Cobalt	x	x	x	x	x	x	x	x	x	9
	Fluoride	x	x	x	x	x	x	x	x	x	9
	Lead	x	x	x	x	x	x	x	x	x	9
	Lithium	x	x	x	x	x	x	x	x	x	9
	Mercury	x	x	x	x	x	x	x	x	x	9
	Molybdenum	x	x	x	x	x	x	x	x	x	9
	Selenium	x	x	x	x	x	x	x	x	x	9
	Thallium	x	x	x	x	x	x	x	x	x	9
	Radium	x	x	x	x	x	x	x	x	x	9
Field Parameters	Groundwater Elevation	x	x	x	x	x	x	x	x		8
	Well Depth	x	x	x	x	x	x	x	x		8
	pH (field)	x	x	x	x	x	x	x	x		8
	Specific Conductance	x	x	x	x	x	x	x	x		8
	Dissolved Oxygen	x	x	x	x	x	x	x	x		8
	ORP	x	x	x	x	x	x	x	x		8
	Temperature	x	x	x	x	x	x	x	x		8
	Turbidity	x	x	x	x	x	x	x	x		8
	Color	x	x	x	x	x	x	x	x		8
	Odor	x	x	x	x	x	x	x	x		8

Notes:

I:\25216071.00\Data and Calculations\Field Work Requests\[WPL_ND_CCR_Rule_Sampling.xls]Sheet1

Sample Condition Upon Receipt

Pace Analytical Services, Inc.
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Project #: **WO# : 40135521**

40135521

Client Name: SCS

Courier: ☐ Fed Ex ☐ UPS ☐ Client ☐ Pace ☑ Other: Dunham

Tracking #: 11929616

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

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

Thermometer Used NA **Type of Ice:** (Wet) Blue Dry None ☑ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: /Corr: R01 **Biological Tissue is Frozen:** ☐ yes ☐ no

Temp Blank Present: ☐ yes ☑ no

Person examining contents:
Date: 7/20/16
Initials: KB

Temp should be above freezing to 6°C for all sample except Biota.
Frozen Biota Samples should be received ≤ 0°C.

		Comments:
Chain of Custody Present:	☑Yes ☐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.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
-Pace IR Containers Used:	☐Yes ☐No ☑N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12. 006 all samples time 1120
-Includes date/time/ID/Analysis Matrix: W		
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	☑Yes ☐No ☐N/A	13. ☑ HNO3 ☐ H2SO4 ☐ NaOH ☐ NaOH +ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	☑Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	☐Yes ☑No	Initial when completed KB / Lab Std #ID of preservative / Date/ Time:
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	14.
Trip Blank Present:	☐Yes ☐No ☑N/A	15.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: If checked, see attached form for additional comments ☐

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: AMH for DM **Date:** 7/20/16

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

January 25, 2018

Meghan Blodgett
SCS ENGINEERS
2830 Dairy Drive
Madison, WI 53718

RE: Project: 25216071 ALLIANT-NELSON DEWEY
Pace Project No.: 40135523

Dear Meghan Blodgett:
Enclosed are the analytical results for sample(s) received by the laboratory on July 20, 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.

Revised Report: The original did not include data for B-39.

Revision 1 - This report replaces the August 16, 2016 report. This report has been reissued on November 16, 2016. Sample 001 did not report the Ra-226 and Ra-228 due to a system error.

Revision 2 - This report replaces the December 2, 2016 report. This report has been reissued on January 25, 2018. In 2017, the process for calculating Total Radium concentration using results from individual Ra-226 and Ra-228 analyses was standardized. At the client's request, this project from 2016 has been revised to include a Total Radium concentration using the standardized method. Also revised to make the Revision 1 reportable on the cover page.

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

Sincerely,

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

Tod Noltemeyer for
Dan Milewsky
dan.milewsky@pacelabs.com
(920)469-2436
Project Manager

Enclosures

cc: Tom Karwoski, SCS ENGINEERS
Kyle Kramer, SCS ENGINEERS
Jeff Maxted, ALLIANT ENERGY
Marc Morandi, ALLIANT ENERGY

Pace Analytical Services, LLC
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CERTIFICATIONS

Project: 25216071 ALLIANT-NELSON DEWEY
Pace Project No.: 40135523

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: 25216071 ALLIANT-NELSON DEWEY
Pace Project No.: 40135523

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40135523001	**B-39**	Water	07/18/16 17:15	07/20/16 07:30
40135523002	**B-7R**	Water	07/18/16 19:25	07/20/16 07:30
40135523003	**B-26**	Water	07/19/16 13:45	07/20/16 07:30
40135523004	**B-11A**	Water	07/19/16 09:10	07/20/16 07:30
40135523005	**B-11B**	Water	07/19/16 10:05	07/20/16 07:30
40135523006	**B-11R**	Water	07/19/16 11:15	07/20/16 07:30
40135523007	**B-31R**	Water	07/19/16 12:00	07/20/16 07:30
40135523008	**B-31A**	Water	07/19/16 12:35	07/20/16 07:30
40135523009	**FIELD BLANK**	Water	07/19/16 13:10	07/20/16 07:30

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SAMPLE ANALYTE COUNT

Project: 25216071 ALLIANT-NELSON DEWEY
Pace Project No.: 40135523

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40135523001	**B-39**	EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
40135523002	**B-7R**	EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
40135523003	**B-26**	EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
40135523004	**B-11A**	EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
40135523005	**B-11B**	EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
40135523006	**B-11R**	EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
40135523007	**B-31R**	EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
40135523008	**B-31A**	EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
40135523009	**FIELD BLANK**	EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

Pace Analytical Services, LLC
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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 25216071 ALLIANT-NELSON DEWEY
Pace Project No.: 40135523

Sample: B-39 **Lab ID: 40135523001** Collected: 07/18/16 17:15 Received: 07/20/16 07:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.0459 ± 0.575 (0.953) C:NA T:94%**	pCi/L	08/12/16 23:26	13982-63-3	
Radium-228	EPA 904.0	**0.205 ± 0.241 (0.507) C:84% T:94%**	pCi/L	08/11/16 11:47	15262-20-1	
Total Radium	Total Radium Calculation	**0.251 ± 0.816 (1.46)**	pCi/L	08/15/16 10:40	7440-14-4	

Sample: B-7R **Lab ID: 40135523002** Collected: 07/18/16 19:25 Received: 07/20/16 07:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**-0.089 ± 0.722 (1.26) C:NA T:90%**	pCi/L	08/13/16 00:26	13982-63-3	
Radium-228	EPA 904.0	**0.598 ± 0.302 (0.513) C:82% T:94%**	pCi/L	08/11/16 11:47	15262-20-1	
Total Radium	Total Radium Calculation	**0.598 ± 1.02 (1.77)**	pCi/L	12/02/16 11:37	7440-14-4	

Sample: B-26 **Lab ID: 40135523003** Collected: 07/19/16 13:45 Received: 07/20/16 07:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**-0.089 ± 0.499 (0.830) C:NA T:91%**	pCi/L	08/12/16 23:38	13982-63-3	
Radium-228	EPA 904.0	**0.416 ± 0.293 (0.563) C:83% T:91%**	pCi/L	08/11/16 11:47	15262-20-1	
Total Radium	Total Radium Calculation	**0.416 ± 0.792 (1.39)**	pCi/L	12/02/16 11:37	7440-14-4	

Sample: B-11A **Lab ID: 40135523004** Collected: 07/19/16 09:10 Received: 07/20/16 07:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.179 ± 0.500 (0.831) C:NA T:93%**	pCi/L	08/13/16 00:07	13982-63-3	
Radium-228	EPA 904.0	**0.758 ± 0.323 (0.502) C:82% T:94%**	pCi/L	08/11/16 11:48	15262-20-1	
Total Radium	Total Radium Calculation	**0.937 ± 0.823 (1.33)**	pCi/L	08/15/16 10:40	7440-14-4	

Sample: B-11B **Lab ID: 40135523005** Collected: 07/19/16 10:05 Received: 07/20/16 07:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.284 ± 0.557 (0.879) C:NA T:89%**	pCi/L	08/13/16 00:39	13982-63-3	
Radium-228	EPA 904.0	**0.693 ± 0.310 (0.483) C:80% T:90%**	pCi/L	08/11/16 11:48	15262-20-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 25216071 ALLIANT-NELSON DEWEY
Pace Project No.: 40135523

Sample: B-11B **Lab ID: 40135523005** Collected: 07/19/16 10:05 Received: 07/20/16 07:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Total Radium	Total Radium Calculation	**0.977 ± 0.867 (1.36)**	pCi/L	08/15/16 10:40	7440-14-4	

Sample: B-11R **Lab ID: 40135523006** Collected: 07/19/16 11:15 Received: 07/20/16 07:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.190 ± 0.532 (0.884) C:NA T:87%**	pCi/L	08/13/16 00:08	13982-63-3	
Radium-228	EPA 904.0	**0.763 ± 0.327 (0.507) C:84% T:91%**	pCi/L	08/11/16 11:48	15262-20-1	
Total Radium	Total Radium Calculation	**0.953 ± 0.859 (1.39)**	pCi/L	08/15/16 10:40	7440-14-4	

Sample: B-31R **Lab ID: 40135523007** Collected: 07/19/16 12:00 Received: 07/20/16 07:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.513 ± 0.669 (0.952) C:NA T:84%**	pCi/L	08/12/16 23:38	13982-63-3	
Radium-228	EPA 904.0	**0.649 ± 0.326 (0.562) C:82% T:94%**	pCi/L	08/11/16 11:48	15262-20-1	
Total Radium	Total Radium Calculation	**1.16 ± 0.995 (1.51)**	pCi/L	08/15/16 10:40	7440-14-4	

Sample: B-31A **Lab ID: 40135523008** Collected: 07/19/16 12:35 Received: 07/20/16 07:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**-0.097 ± 0.541 (0.899) C:NA T:95%**	pCi/L	08/13/16 00:07	13982-63-3	
Radium-228	EPA 904.0	**0.492 ± 0.290 (0.521) C:80% T:92%**	pCi/L	08/11/16 11:48	15262-20-1	
Total Radium	Total Radium Calculation	**0.492 ± 0.831 (1.42)**	pCi/L	12/02/16 11:37	7440-14-4	

Sample: FIELD BLANK **Lab ID: 40135523009** Collected: 07/19/16 13:10 Received: 07/20/16 07:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.193 ± 0.541 (0.898) C:NA T:90%**	pCi/L	08/13/16 01:03	13982-63-3	
Radium-228	EPA 904.0	**0.467 ± 0.335 (0.652) C:81% T:97%**	pCi/L	08/11/16 11:50	15262-20-1	
Total Radium	Total Radium Calculation	**0.660 ± 0.876 (1.55)**	pCi/L	08/15/16 10:40	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL - RADIOCHEMISTRY

Project: 25216071 ALLIANT-NELSON DEWEY
Pace Project No.: 40135523

QC Batch: 228713 Analysis Method: EPA 903.1
QC Batch Method: EPA 903.1 Analysis Description: 903.1 Radium-226
Associated Lab Samples: 40135523001, 40135523002, 40135523003, 40135523004, 40135523005, 40135523006, 40135523007, 40135523008, 40135523009

METHOD BLANK: 1120536 Matrix: Water
Associated Lab Samples: 40135523001, 40135523002, 40135523003, 40135523004, 40135523005, 40135523006, 40135523007, 40135523008, 40135523009

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.245 ± 0.560 (0.978) C:NA T:90%	pCi/L	08/12/16 12:51	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL - RADIOCHEMISTRY

Project: 25216071 ALLIANT-NELSON DEWEY
Pace Project No.: 40135523

QC Batch: 228725 Analysis Method: EPA 904.0
QC Batch Method: EPA 904.0 Analysis Description: 904.0 Radium 228
Associated Lab Samples: 40135523001, 40135523002, 40135523003, 40135523004, 40135523005, 40135523006, 40135523007, 40135523008, 40135523009

METHOD BLANK: 1120557 Matrix: Water
Associated Lab Samples: 40135523001, 40135523002, 40135523003, 40135523004, 40135523005, 40135523006, 40135523007, 40135523008, 40135523009

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.125 ± 0.226 (0.495) C:85% T:101%	pCi/L	08/11/16 11:47	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALIFIERS

Project: 25216071 ALLIANT-NELSON DEWEY
Pace Project No.: 40135523

DEFINITIONS

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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 LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

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 at or above the adjusted LOD.

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 25216071 ALLIANT-NELSON DEWEY
Pace Project No.: 40135523

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40135523001	**B-39**	EPA 903.1	228713		
40135523002	**B-7R**	EPA 903.1	228713		
40135523003	**B-26**	EPA 903.1	228713		
40135523004	**B-11A**	EPA 903.1	228713		
40135523005	**B-11B**	EPA 903.1	228713		
40135523006	**B-11R**	EPA 903.1	228713		
40135523007	**B-31R**	EPA 903.1	228713		
40135523008	**B-31A**	EPA 903.1	228713		
40135523009	**FIELD BLANK**	EPA 903.1	228713		
40135523001	**B-39**	EPA 904.0	228725		
40135523002	**B-7R**	EPA 904.0	228725		
40135523003	**B-26**	EPA 904.0	228725		
40135523004	**B-11A**	EPA 904.0	228725		
40135523005	**B-11B**	EPA 904.0	228725		
40135523006	**B-11R**	EPA 904.0	228725		
40135523007	**B-31R**	EPA 904.0	228725		
40135523008	**B-31A**	EPA 904.0	228725		
40135523009	**FIELD BLANK**	EPA 904.0	228725		
40135523001	**B-39**	Total Radium Calculation	229674		
40135523002	**B-7R**	Total Radium Calculation	285975		
40135523003	**B-26**	Total Radium Calculation	285975		
40135523004	**B-11A**	Total Radium Calculation	229674		
40135523005	**B-11B**	Total Radium Calculation	229674		
40135523006	**B-11R**	Total Radium Calculation	229674		
40135523007	**B-31R**	Total Radium Calculation	229674		
40135523008	**B-31A**	Total Radium Calculation	285975		
40135523009	**FIELD BLANK**	Total Radium Calculation	229674		

Pace Analytical®
www.pacelabs.com

BH

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

Page 1 of

40135523

Page 1 of 13

CHAIN OF CUSTODY

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

(Please Print Clearly)	
Company Name:	SLS
Branch/Location:	Madison WI
Project Contact:	Meg Blodgett
Phone:	608-216-7362
Project Number:	252160M1
Project Name:	Alliant - Nelson Dewey
Project State:	WI
Sampled By (Print):	Paul A. Grover
Sampled By (Sign):	Paul A. Grover
PO #:	Regulatory Program:

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes

A = Air	W = Water
B = Biota	DW = Drinking Water
C = Charcoal	GW = Ground Water
O = Oil	SW = Surface Water
S = Soil	WW = Waste Water
SI = Sludge	WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested: Radium 226	Analyses Requested: Radium 228	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
001	B-39	7/18/16	17:15	GW	N	D	X	X		2-500ml P	
002	B-7R	↓	19:25								
003	B-26	7/19/16	13:45								
004	B-11A		9:10								
005	B-11B		10:05								
006	B-11R		11:15								
007	B-31R		12:00								
008	B-31A		12:35	↓							
009	Field Blank	↓	13:10	DI	↓	↓	↓	↓			

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
Paul A. Grover	7/19/16 20:00		
Dunham	7/20/16 0730	[illegible] Paul	7/20/16 0730

PACE Project No.: 40135523

Receipt Temp = R01 °C

Sample Receipt pH OK / Adjusted

Cooler Custody Seal Present / ~~Not Present~~ Intact / ~~Not Intact~~

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

Sample Condition Upon Receipt

Pace Analytical Services, Inc.
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Project # **WO# : 40135523**

40135523

Client Name: SCS

Courier: ☐ Fed Ex ☐ UPS ☐ Client ☐ Pace Other: Dunham

Tracking #: 1192916

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☒ None ☐ Other

Thermometer Used N/A **Type of Ice:** Wet Blue Dry None ☒ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: N/A /Corr: **Biological Tissue is Frozen:** ☐ yes ☐ no

Temp Blank Present: ☐ yes ☒ no

Person examining contents:
Date: 7/20/16
Initials: TL

Temp should be above freezing to 6°C for all sample except Biota.
Frozen Biota Samples should be received ≤ 0°C.

		Comments:
Chain of Custody Present:	☒Yes ☐No ☐N/A	1. original + copy 7/20/16 TL
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.
Samples Arrived within Hold Time:	☒Yes ☐No ☐N/A	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes ☒No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☒No ☐N/A	7.
Sufficient Volume:	☒Yes ☐No ☐N/A	8.
Correct Containers Used:	☒Yes ☐No ☐N/A	9.
-Pace Containers Used:	☒Yes ☐No ☐N/A	
-Pace IR Containers Used:	☐Yes ☐No ☒N/A	
Containers Intact:	☒Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC:	☐Yes ☒No ☐N/A	12. 006 collect time 1120 7/20/16 TL
-Includes date/time/ID/Analysis Matrix: W		
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	☒Yes ☐No ☐N/A	13. ☒ HNO3 ☐ H2SO4 ☐ NaOH ☐ NaOH +ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	☒Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	☐Yes ☒No	Initial when completed TL / Lab Std #ID of preservative / Date/ Time:
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☒N/A	14.
Trip Blank Present:	☐Yes ☒No ☐N/A	15.
Trip Blank Custody Seals Present	☐Yes ☐No ☒N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

If checked, see attached form for additional comments ☐

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: AMH for DM **Date:** 7/20/16

F-GB-C-031-Rev.03 (9April2015) SCUR Form

A4 Round 4 Background Sampling, Analytical Laboratory Report

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

November 22, 2016

Meghan Blodgett
SCS ENGINEERS
2830 Dairy Drive
Madison, WI 53718

RE: Project: 25216071 NELSON DEWEY CCR
Pace Project No.: 40140654

Dear Meghan Blodgett:
Enclosed are the analytical results for sample(s) received by the laboratory on October 22, 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,

Dan Milewsky
dan.milewsky@pacelabs.com
Project Manager

Enclosures

cc: Tom Karwoski, SCS ENGINEERS
Jeff Maxted, ALLIANT ENERGY
Marc Morandi, ALLIANT ENERGY

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: 25216071 NELSON DEWEY CCR
Pace Project No.: 40140654

Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150
Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: 25216071 NELSON DEWEY CCR
Pace Project No.: 40140654

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40140654001	**FIELD BLANK**	Water	10/20/16 18:45	10/22/16 07:30
40140654002	**B-7R**	Water	10/19/16 17:30	10/22/16 07:30
40140654003	**B-11R**	Water	10/20/16 10:40	10/22/16 07:30
40140654004	**B-11A**	Water	10/19/16 18:35	10/22/16 07:30
40140654005	**B-11B**	Water	10/20/16 09:45	10/22/16 07:30
40140654006	**B-26**	Water	10/20/16 17:30	10/22/16 07:30
40140654007	**B-31R**	Water	10/20/16 12:20	10/22/16 07:30
40140654008	**B-31A**	Water	10/20/16 11:30	10/22/16 07:30
40140654009	**B-39**	Water	10/20/16 19:10	10/22/16 07:30

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SAMPLE ANALYTE COUNT

Project: 25216071 NELSON DEWEY CCR
Pace Project No.: 40140654

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40140654001	**FIELD BLANK**	EPA 6020	DS1	14
		EPA 7470	AJT	1
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	JMN	3
40140654002	**B-7R**	EPA 6020	DS1	14
		EPA 7470	AJT	1
			JLJ	7
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	JMN	3
40140654003	**B-11R**	EPA 6020	DS1	14
		EPA 7470	AJT	1
			JLJ	7
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	JMN	3
40140654004	**B-11A**	EPA 6020	DS1	14
		EPA 7470	AJT	1
			JLJ	7
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	JMN	3
40140654005	**B-11B**	EPA 6020	DS1	14
		EPA 7470	AJT	1
			JLJ	7
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	JMN	3
40140654006	**B-26**	EPA 6020	DS1	14
		EPA 7470	AJT	1
			JLJ	7
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	JMN	3
40140654007	**B-31R**	EPA 6020	DS1	14
		EPA 7470	AJT	1

Pace Analytical Services, LLC
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SAMPLE ANALYTE COUNT

Project: 25216071 NELSON DEWEY CCR
Pace Project No.: 40140654

Lab ID	Sample ID	Method	Analysts	Analytes Reported
			JLJ	7
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	JMN	3
40140654008	**B-31A**	EPA 6020	DS1	14
		EPA 7470	AJT	1
			JLJ	7
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	JMN	3
40140654009	**B-39**	EPA 6020	DS1	14
		EPA 7470	AJT	1
			JLJ	7
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	JMN	3

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 25216071 NELSON DEWEY CCR
Pace Project No.: 40140654

Sample: FIELD BLANK **Lab ID: 40140654001** Collected: 10/20/16 18:45 Received: 10/22/16 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**<0.073**	ug/L	1.0	0.073	1	11/03/16 09:57	11/05/16 02:50	7440-36-0	
Arsenic	**<0.099**	ug/L	1.0	0.099	1	11/03/16 09:57	11/05/16 02:50	7440-38-2	
Barium	**0.25J**	ug/L	1.0	0.062	1	11/03/16 09:57	11/05/16 02:50	7440-39-3	
Beryllium	**<0.13**	ug/L	1.0	0.13	1	11/03/16 09:57	11/07/16 20:59	7440-41-7	
Boron	**<2.0**	ug/L	10.0	2.0	1	11/03/16 09:57	11/07/16 20:59	7440-42-8	1q
Cadmium	**<0.089**	ug/L	1.0	0.089	1	11/03/16 09:57	11/05/16 02:50	7440-43-9	
Calcium	**<73.6**	ug/L	250	73.6	1	11/03/16 09:57	11/05/16 02:50	7440-70-2	
Chromium	**<0.39**	ug/L	1.0	0.39	1	11/03/16 09:57	11/05/16 02:50	7440-47-3	
Cobalt	**<0.036**	ug/L	1.0	0.036	1	11/03/16 09:57	11/05/16 02:50	7440-48-4	
Lead	**<0.040**	ug/L	1.0	0.040	1	11/03/16 09:57	11/05/16 02:50	7439-92-1	
Lithium	**<0.11**	ug/L	1.0	0.11	1	11/03/16 09:57	11/07/16 20:59	7439-93-2	
Molybdenum	**0.12J**	ug/L	1.0	0.070	1	11/03/16 09:57	11/05/16 02:50	7439-98-7	B
Selenium	**<0.21**	ug/L	1.0	0.21	1	11/03/16 09:57	11/05/16 02:50	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	11/03/16 09:57	11/05/16 02:50	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	10/31/16 07:45	10/31/16 11:44	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**<8.7**	mg/L	20.0	8.7	1		10/26/16 17:00		
9040 pH	Analytical Method: EPA 9040								
pH	**6.7**	Std. Units	0.10	0.010	1		10/31/16 12:10		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**<0.50**	mg/L	2.0	0.50	1		11/14/16 18:25	16887-00-6	
Fluoride	**<0.10**	mg/L	0.30	0.10	1		11/14/16 18:25	16984-48-8	
Sulfate	**<1.0**	mg/L	3.0	1.0	1		11/14/16 18:25	14808-79-8	

Sample: B-7R **Lab ID: 40140654002** Collected: 10/19/16 17:30 Received: 10/22/16 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.086J**	ug/L	1.0	0.073	1	11/03/16 09:57	11/05/16 03:44	7440-36-0	
Arsenic	**5.7**	ug/L	1.0	0.099	1	11/03/16 09:57	11/05/16 03:44	7440-38-2	
Barium	**78.8**	ug/L	1.0	0.062	1	11/03/16 09:57	11/05/16 03:44	7440-39-3	
Beryllium	**<0.13**	ug/L	1.0	0.13	1	11/03/16 09:57	11/07/16 21:13	7440-41-7	
Boron	**154**	ug/L	10.0	2.0	1	11/03/16 09:57	11/07/16 21:13	7440-42-8	
Cadmium	**0.13J**	ug/L	1.0	0.089	1	11/03/16 09:57	11/05/16 03:44	7440-43-9	
Calcium	**56600**	ug/L	2500	736	10	11/03/16 09:57	11/05/16 03:04	7440-70-2	P6
Chromium	**<0.39**	ug/L	1.0	0.39	1	11/03/16 09:57	11/05/16 03:44	7440-47-3	
Cobalt	**1.8**	ug/L	1.0	0.036	1	11/03/16 09:57	11/05/16 03:44	7440-48-4	
Lead	**0.14J**	ug/L	1.0	0.040	1	11/03/16 09:57	11/05/16 03:44	7439-92-1	B

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 25216071 NELSON DEWEY CCR
Pace Project No.: 40140654

Sample: B-7R **Lab ID: 40140654002** Collected: 10/19/16 17:30 Received: 10/22/16 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Lithium	**0.23J**	ug/L	1.0	0.11	1	11/03/16 09:57	11/07/16 21:13	7439-93-2	
Molybdenum	**4.3**	ug/L	1.0	0.070	1	11/03/16 09:57	11/05/16 03:44	7439-98-7	
Selenium	**0.23J**	ug/L	1.0	0.21	1	11/03/16 09:57	11/05/16 03:44	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	11/03/16 09:57	11/05/16 03:44	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	10/31/16 07:45	10/31/16 11:46	7439-97-6	
Field Data	Analytical Method:								
Field pH	**6.55**	Std. Units			1		10/19/16 17:30		
Field Specific Conductance	**583.4**	umhos/cm			1		10/19/16 17:30		
Oxygen, Dissolved	**0.37**	mg/L			1		10/19/16 17:30	7782-44-7	
REDOX	**137.3**	mV			1		10/19/16 17:30		
Turbidity	**2.22**	NTU			1		10/19/16 17:30		
Static Water Level	**608.59**	feet			1		10/19/16 17:30		
Temperature, Water (C)	**16**	deg C			1		10/19/16 17:30		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**288**	mg/L	20.0	8.7	1		10/25/16 15:34		
9040 pH	Analytical Method: EPA 9040								
pH	**7.1**	Std. Units	0.10	0.010	1		10/31/16 12:10		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**22.0**	mg/L	10.0	2.5	5		11/14/16 18:37	16887-00-6	
Fluoride	**<0.50**	mg/L	1.5	0.50	5		11/14/16 18:37	16984-48-8	
Sulfate	**<5.0**	mg/L	15.0	5.0	5		11/14/16 18:37	14808-79-8	

Sample: B-11R **Lab ID: 40140654003** Collected: 10/20/16 10:40 Received: 10/22/16 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.22J**	ug/L	1.0	0.073	1	11/03/16 09:57	11/05/16 03:31	7440-36-0	
Arsenic	**7.4**	ug/L	1.0	0.099	1	11/03/16 09:57	11/05/16 03:31	7440-38-2	
Barium	**159**	ug/L	1.0	0.062	1	11/03/16 09:57	11/05/16 03:31	7440-39-3	
Beryllium	**0.36J**	ug/L	2.0	0.25	2	11/03/16 09:57	11/07/16 21:40	7440-41-7	D4
Boron	**4120**	ug/L	20.0	4.0	2	11/03/16 09:57	11/07/16 21:40	7440-42-8	
Cadmium	**0.15J**	ug/L	1.0	0.089	1	11/03/16 09:57	11/05/16 03:31	7440-43-9	
Calcium	**128000**	ug/L	250	73.6	1	11/03/16 09:57	11/05/16 03:31	7440-70-2	
Chromium	**<0.39**	ug/L	1.0	0.39	1	11/03/16 09:57	11/05/16 03:31	7440-47-3	
Cobalt	**1.0**	ug/L	1.0	0.036	1	11/03/16 09:57	11/05/16 03:31	7440-48-4	
Lead	**0.19J**	ug/L	1.0	0.040	1	11/03/16 09:57	11/05/16 03:31	7439-92-1	B

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 25216071 NELSON DEWEY CCR
Pace Project No.: 40140654

Sample: B-11R **Lab ID: 40140654003** Collected: 10/20/16 10:40 Received: 10/22/16 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Lithium	**2.0J**	ug/L	2.0	0.21	2	11/03/16 09:57	11/07/16 21:40	7439-93-2	D4
Molybdenum	**43.8**	ug/L	1.0	0.070	1	11/03/16 09:57	11/05/16 03:31	7439-98-7	
Selenium	**0.30J**	ug/L	1.0	0.21	1	11/03/16 09:57	11/05/16 03:31	7782-49-2	
Thallium	**0.50J**	ug/L	1.0	0.14	1	11/03/16 09:57	11/05/16 03:31	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	10/31/16 07:45	10/31/16 11:48	7439-97-6	
Field Data	Analytical Method:								
Field pH	**6.77**	Std. Units			1		10/20/16 10:40		
Field Specific Conductance	**1139**	umhos/cm			1		10/20/16 10:40		
Oxygen, Dissolved	**0.34**	mg/L			1		10/20/16 10:40	7782-44-7	
REDOX	**-113.2**	mV			1		10/20/16 10:40		
Turbidity	**1.66**	NTU			1		10/20/16 10:40		
Static Water Level	**608.35**	feet			1		10/20/16 10:40		
Temperature, Water (C)	**15.5**	deg C			1		10/20/16 10:40		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**660**	mg/L	20.0	8.7	1		10/26/16 17:01		
9040 pH	Analytical Method: EPA 9040								
pH	**7.3**	Std. Units	0.10	0.010	1		10/31/16 12:10		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**39.1**	mg/L	10.0	2.5	5		11/15/16 19:49	16887-00-6	
Fluoride	**<0.50**	mg/L	1.5	0.50	5		11/15/16 19:49	16984-48-8	D3
Sulfate	**118**	mg/L	15.0	5.0	5		11/15/16 19:49	14808-79-8	

Sample: B-11A **Lab ID: 40140654004** Collected: 10/19/16 18:35 Received: 10/22/16 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.44J**	ug/L	1.0	0.073	1	11/03/16 09:57	11/05/16 04:32	7440-36-0	
Arsenic	**0.51J**	ug/L	1.0	0.099	1	11/03/16 09:57	11/05/16 04:32	7440-38-2	
Barium	**181**	ug/L	1.0	0.062	1	11/03/16 09:57	11/05/16 04:32	7440-39-3	
Beryllium	**<0.13**	ug/L	1.0	0.13	1	11/03/16 09:57	11/07/16 21:53	7440-41-7	
Boron	**112**	ug/L	10.0	2.0	1	11/03/16 09:57	11/07/16 21:53	7440-42-8	
Cadmium	**0.26J**	ug/L	1.0	0.089	1	11/03/16 09:57	11/05/16 04:32	7440-43-9	
Calcium	**54600**	ug/L	250	73.6	1	11/03/16 09:57	11/05/16 04:32	7440-70-2	
Chromium	**<0.39**	ug/L	1.0	0.39	1	11/03/16 09:57	11/05/16 04:32	7440-47-3	
Cobalt	**1.3**	ug/L	1.0	0.036	1	11/03/16 09:57	11/05/16 04:32	7440-48-4	
Lead	**0.34J**	ug/L	1.0	0.040	1	11/03/16 09:57	11/05/16 04:32	7439-92-1	B

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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ANALYTICAL RESULTS

Project: 25216071 NELSON DEWEY CCR
Pace Project No.: 40140654

Sample: B-11A **Lab ID: 40140654004** Collected: 10/19/16 18:35 Received: 10/22/16 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Lithium	**5.9**	ug/L	1.0	0.11	1	11/03/16 09:57	11/07/16 21:53	7439-93-2	
Molybdenum	**21.8**	ug/L	1.0	0.070	1	11/03/16 09:57	11/05/16 04:32	7439-98-7	
Selenium	**0.27J**	ug/L	1.0	0.21	1	11/03/16 09:57	11/05/16 04:32	7782-49-2	
Thallium	**0.50J**	ug/L	1.0	0.14	1	11/03/16 09:57	11/05/16 04:32	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	10/31/16 07:45	10/31/16 11:55	7439-97-6	
Field Data	Analytical Method:								
Field pH	**7.47**	Std. Units			1		10/19/16 18:35		
Field Specific Conductance	**631**	umhos/cm			1		10/19/16 18:35		
Oxygen, Dissolved	**0.37**	mg/L			1		10/19/16 18:35	7782-44-7	
REDOX	**-76.8**	mV			1		10/19/16 18:35		
Turbidity	**0.15**	NTU			1		10/19/16 18:35		
Static Water Level	**608.21**	feet			1		10/19/16 18:35		
Temperature, Water (C)	**14.9**	deg C			1		10/19/16 18:35		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**340**	mg/L	20.0	8.7	1		10/25/16 15:35		
9040 pH	Analytical Method: EPA 9040								
pH	**7.9**	Std. Units	0.10	0.010	1		10/31/16 12:10		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**46.5**	mg/L	2.0	0.50	1		11/14/16 18:53	16887-00-6	
Fluoride	**0.36**	mg/L	0.30	0.10	1		11/14/16 18:53	16984-48-8	
Sulfate	**3.0J**	mg/L	3.0	1.0	1		11/14/16 18:53	14808-79-8	

Sample: B-11B **Lab ID: 40140654005** Collected: 10/20/16 09:45 Received: 10/22/16 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.21J**	ug/L	1.0	0.073	1	11/03/16 09:57	11/05/16 04:38	7440-36-0	
Arsenic	**0.52J**	ug/L	1.0	0.099	1	11/03/16 09:57	11/05/16 04:38	7440-38-2	
Barium	**130**	ug/L	1.0	0.062	1	11/03/16 09:57	11/05/16 04:38	7440-39-3	
Beryllium	**<0.25**	ug/L	2.0	0.25	2	11/03/16 09:57	11/07/16 22:14	7440-41-7	D4
Boron	**1460**	ug/L	20.0	4.0	2	11/03/16 09:57	11/07/16 22:14	7440-42-8	
Cadmium	**0.18J**	ug/L	1.0	0.089	1	11/03/16 09:57	11/05/16 04:38	7440-43-9	
Calcium	**59100**	ug/L	250	73.6	1	11/03/16 09:57	11/05/16 04:38	7440-70-2	
Chromium	**<0.39**	ug/L	1.0	0.39	1	11/03/16 09:57	11/05/16 04:38	7440-47-3	
Cobalt	**0.38J**	ug/L	1.0	0.036	1	11/03/16 09:57	11/05/16 04:38	7440-48-4	
Lead	**0.36J**	ug/L	1.0	0.040	1	11/03/16 09:57	11/05/16 04:38	7439-92-1	B

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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ANALYTICAL RESULTS

Project: 25216071 NELSON DEWEY CCR
Pace Project No.: 40140654

Sample: B-11B **Lab ID: 40140654005** Collected: 10/20/16 09:45 Received: 10/22/16 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Lithium	**19.8**	ug/L	2.0	0.21	2	11/03/16 09:57	11/07/16 22:14	7439-93-2	
Molybdenum	**48.1**	ug/L	1.0	0.070	1	11/03/16 09:57	11/05/16 04:38	7439-98-7	
Selenium	**0.28J**	ug/L	1.0	0.21	1	11/03/16 09:57	11/05/16 04:38	7782-49-2	
Thallium	**0.32J**	ug/L	1.0	0.14	1	11/03/16 09:57	11/05/16 04:38	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	10/31/16 07:45	10/31/16 11:57	7439-97-6	
Field Data	Analytical Method:								
Field pH	**7.91**	Std. Units			1		10/20/16 09:45		
Field Specific Conductance	**807**	umhos/cm			1		10/20/16 09:45		
Oxygen, Dissolved	**0.3**	mg/L			1		10/20/16 09:45	7782-44-7	
REDOX	**-114.5**	mV			1		10/20/16 09:45		
Turbidity	**0.33**	NTU			1		10/20/16 09:45		
Static Water Level	**608.19**	feet			1		10/20/16 09:45		
Temperature, Water (C)	**14.6**	deg C			1		10/20/16 09:45		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**496**	mg/L	20.0	8.7	1		10/26/16 17:01		
9040 pH	Analytical Method: EPA 9040								
pH	**8.0**	Std. Units	0.10	0.010	1		10/31/16 12:10		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**34.3**	mg/L	2.0	0.50	1		11/15/16 20:02	16887-00-6	
Fluoride	**0.53**	mg/L	0.30	0.10	1		11/15/16 20:02	16984-48-8	
Sulfate	**178**	mg/L	15.0	5.0	5		11/15/16 20:14	14808-79-8	

Sample: B-26 **Lab ID: 40140654006** Collected: 10/20/16 17:30 Received: 10/22/16 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.20J**	ug/L	1.0	0.073	1	11/03/16 09:57	11/05/16 04:45	7440-36-0	
Arsenic	**0.59J**	ug/L	1.0	0.099	1	11/03/16 09:57	11/05/16 04:45	7440-38-2	
Barium	**81.2**	ug/L	1.0	0.062	1	11/03/16 09:57	11/05/16 04:45	7440-39-3	
Beryllium	**<0.13**	ug/L	1.0	0.13	1	11/03/16 09:57	11/07/16 22:20	7440-41-7	
Boron	**33.0**	ug/L	10.0	2.0	1	11/03/16 09:57	11/07/16 22:20	7440-42-8	
Cadmium	**0.13J**	ug/L	1.0	0.089	1	11/03/16 09:57	11/05/16 04:45	7440-43-9	
Calcium	**82700**	ug/L	250	73.6	1	11/03/16 09:57	11/05/16 04:45	7440-70-2	
Chromium	**0.83J**	ug/L	1.0	0.39	1	11/03/16 09:57	11/05/16 04:45	7440-47-3	
Cobalt	**0.21J**	ug/L	1.0	0.036	1	11/03/16 09:57	11/05/16 04:45	7440-48-4	
Lead	**0.15J**	ug/L	1.0	0.040	1	11/03/16 09:57	11/05/16 04:45	7439-92-1	B

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
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ANALYTICAL RESULTS

Project: 25216071 NELSON DEWEY CCR
Pace Project No.: 40140654

Sample: B-26 **Lab ID: 40140654006** Collected: 10/20/16 17:30 Received: 10/22/16 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Lithium	**2.2**	ug/L	1.0	0.11	1	11/03/16 09:57	11/07/16 22:20	7439-93-2	
Molybdenum	**0.39J**	ug/L	1.0	0.070	1	11/03/16 09:57	11/05/16 04:45	7439-98-7	B
Selenium	**1.1**	ug/L	1.0	0.21	1	11/03/16 09:57	11/05/16 04:45	7782-49-2	
Thallium	**0.27J**	ug/L	1.0	0.14	1	11/03/16 09:57	11/05/16 04:45	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	10/31/16 07:45	10/31/16 12:00	7439-97-6	
Field Data	Analytical Method:								
Field pH	**7.19**	Std. Units			1		10/20/16 17:30		
Field Specific Conductance	**823**	umhos/cm			1		10/20/16 17:30		
Oxygen, Dissolved	**6.25**	mg/L			1		10/20/16 17:30	7782-44-7	
REDOX	**68.9**	mV			1		10/20/16 17:30		
Turbidity	**0.37**	NTU			1		10/20/16 17:30		
Static Water Level	**608.84**	feet			1		10/20/16 17:30		
Temperature, Water (C)	**11.3**	deg C			1		10/20/16 17:30		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**466**	mg/L	20.0	8.7	1		10/26/16 17:02		
9040 pH	Analytical Method: EPA 9040								
pH	**7.7**	Std. Units	0.10	0.010	1		10/31/16 12:10		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**52.8**	mg/L	2.0	0.50	1		11/15/16 20:27	16887-00-6	
Fluoride	**0.13J**	mg/L	0.30	0.10	1		11/15/16 20:27	16984-48-8	
Sulfate	**35.0**	mg/L	3.0	1.0	1		11/15/16 20:27	14808-79-8	

Sample: B-31R **Lab ID: 40140654007** Collected: 10/20/16 12:20 Received: 10/22/16 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.24J**	ug/L	1.0	0.073	1	11/03/16 09:57	11/05/16 04:52	7440-36-0	
Arsenic	**0.37J**	ug/L	1.0	0.099	1	11/03/16 09:57	11/05/16 04:52	7440-38-2	
Barium	**92.6**	ug/L	1.0	0.062	1	11/03/16 09:57	11/05/16 04:52	7440-39-3	
Beryllium	**<0.25**	ug/L	2.0	0.25	2	11/03/16 09:57	11/07/16 22:27	7440-41-7	D4
Boron	**1020**	ug/L	20.0	4.0	2	11/03/16 09:57	11/07/16 22:27	7440-42-8	
Cadmium	**3.0**	ug/L	1.0	0.089	1	11/03/16 09:57	11/05/16 04:52	7440-43-9	
Calcium	**84200**	ug/L	250	73.6	1	11/03/16 09:57	11/05/16 04:52	7440-70-2	
Chromium	**<0.39**	ug/L	1.0	0.39	1	11/03/16 09:57	11/05/16 04:52	7440-47-3	
Cobalt	**5.2**	ug/L	1.0	0.036	1	11/03/16 09:57	11/05/16 04:52	7440-48-4	
Lead	**0.37J**	ug/L	1.0	0.040	1	11/03/16 09:57	11/05/16 04:52	7439-92-1	B

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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ANALYTICAL RESULTS

Project: 25216071 NELSON DEWEY CCR
Pace Project No.: 40140654

Sample: B-31R **Lab ID: 40140654007** Collected: 10/20/16 12:20 Received: 10/22/16 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Lithium	**22.3**	ug/L	2.0	0.21	2	11/03/16 09:57	11/07/16 22:27	7439-93-2	
Molybdenum	**24.4**	ug/L	1.0	0.070	1	11/03/16 09:57	11/05/16 04:52	7439-98-7	
Selenium	**0.29J**	ug/L	1.0	0.21	1	11/03/16 09:57	11/05/16 04:52	7782-49-2	
Thallium	**2.3**	ug/L	1.0	0.14	1	11/03/16 09:57	11/05/16 04:52	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	10/31/16 07:45	10/31/16 12:02	7439-97-6	
Field Data	Analytical Method:								
Field pH	**6.53**	Std. Units			1		10/20/16 12:20		
Field Specific Conductance	**742**	umhos/cm			1		10/20/16 12:20		
Oxygen, Dissolved	**0.33**	mg/L			1		10/20/16 12:20	7782-44-7	
REDOX	**5.8**	mV			1		10/20/16 12:20		
Turbidity	**0.70**	NTU			1		10/20/16 12:20		
Static Water Level	**608.51**	feet			1		10/20/16 12:20		
Temperature, Water (C)	**15.2**	deg C			1		10/20/16 12:20		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**452**	mg/L	20.0	8.7	1		10/26/16 17:02		
9040 pH	Analytical Method: EPA 9040								
pH	**7.1**	Std. Units	0.10	0.010	1		10/31/16 12:10		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**16.4**	mg/L	2.0	0.50	1		11/15/16 20:39	16887-00-6	
Fluoride	**0.17J**	mg/L	0.30	0.10	1		11/15/16 20:39	16984-48-8	
Sulfate	**49.7**	mg/L	3.0	1.0	1		11/15/16 20:39	14808-79-8	

Sample: B-31A **Lab ID: 40140654008** Collected: 10/20/16 11:30 Received: 10/22/16 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.084J**	ug/L	1.0	0.073	1	11/03/16 09:57	11/05/16 04:59	7440-36-0	
Arsenic	**1.5**	ug/L	1.0	0.099	1	11/03/16 09:57	11/05/16 04:59	7440-38-2	
Barium	**128**	ug/L	1.0	0.062	1	11/03/16 09:57	11/05/16 04:59	7440-39-3	
Beryllium	**<0.13**	ug/L	1.0	0.13	1	11/03/16 09:57	11/07/16 22:34	7440-41-7	
Boron	**63.7**	ug/L	10.0	2.0	1	11/03/16 09:57	11/07/16 22:34	7440-42-8	
Cadmium	**<0.089**	ug/L	1.0	0.089	1	11/03/16 09:57	11/05/16 04:59	7440-43-9	
Calcium	**45800**	ug/L	250	73.6	1	11/03/16 09:57	11/05/16 04:59	7440-70-2	
Chromium	**<0.39**	ug/L	1.0	0.39	1	11/03/16 09:57	11/05/16 04:59	7440-47-3	
Cobalt	**1.8**	ug/L	1.0	0.036	1	11/03/16 09:57	11/05/16 04:59	7440-48-4	
Lead	**0.050J**	ug/L	1.0	0.040	1	11/03/16 09:57	11/05/16 04:59	7439-92-1	B

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 25216071 NELSON DEWEY CCR
Pace Project No.: 40140654

Sample: B-31A **Lab ID: 40140654008** Collected: 10/20/16 11:30 Received: 10/22/16 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Lithium	**0.97J**	ug/L	1.0	0.11	1	11/03/16 09:57	11/07/16 22:34	7439-93-2	
Molybdenum	**22.6**	ug/L	1.0	0.070	1	11/03/16 09:57	11/05/16 04:59	7439-98-7	
Selenium	**<0.21**	ug/L	1.0	0.21	1	11/03/16 09:57	11/05/16 04:59	7782-49-2	
Thallium	**0.20J**	ug/L	1.0	0.14	1	11/03/16 09:57	11/05/16 04:59	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	10/31/16 07:45	10/31/16 12:04	7439-97-6	
Field Data	Analytical Method:								
Field pH	**7.54**	Std. Units			1		10/20/16 11:30		
Field Specific Conductance	**509.7**	umhos/cm			1		10/20/16 11:30		
Oxygen, Dissolved	**0.34**	mg/L			1		10/20/16 11:30	7782-44-7	
REDOX	**-113**	mV			1		10/20/16 11:30		
Turbidity	**0.38**	NTU			1		10/20/16 11:30		
Static Water Level	**608.2**	feet			1		10/20/16 11:30		
Temperature, Water (C)	**15**	deg C			1		10/20/16 11:30		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**292**	mg/L	20.0	8.7	1		10/27/16 17:37		
9040 pH	Analytical Method: EPA 9040								
pH	**7.8**	Std. Units	0.10	0.010	1		10/31/16 12:10		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**39.0**	mg/L	2.0	0.50	1		11/15/16 20:52	16887-00-6	
Fluoride	**0.18J**	mg/L	0.30	0.10	1		11/15/16 20:52	16984-48-8	
Sulfate	**27.2**	mg/L	3.0	1.0	1		11/15/16 20:52	14808-79-8	

Sample: B-39 **Lab ID: 40140654009** Collected: 10/20/16 19:10 Received: 10/22/16 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.27J**	ug/L	1.0	0.073	1	11/03/16 09:57	11/05/16 05:05	7440-36-0	
Arsenic	**4.2**	ug/L	1.0	0.099	1	11/03/16 09:57	11/05/16 05:05	7440-38-2	
Barium	**77.2**	ug/L	1.0	0.062	1	11/03/16 09:57	11/05/16 05:05	7440-39-3	
Beryllium	**<0.25**	ug/L	2.0	0.25	2	11/03/16 09:57	11/07/16 22:41	7440-41-7	D4
Boron	**814**	ug/L	20.0	4.0	2	11/03/16 09:57	11/07/16 22:41	7440-42-8	
Cadmium	**0.15J**	ug/L	1.0	0.089	1	11/03/16 09:57	11/05/16 05:05	7440-43-9	
Calcium	**67200**	ug/L	250	73.6	1	11/03/16 09:57	11/05/16 05:05	7440-70-2	
Chromium	**<0.39**	ug/L	1.0	0.39	1	11/03/16 09:57	11/05/16 05:05	7440-47-3	
Cobalt	**1.2**	ug/L	1.0	0.036	1	11/03/16 09:57	11/05/16 05:05	7440-48-4	
Lead	**0.062J**	ug/L	1.0	0.040	1	11/03/16 09:57	11/05/16 05:05	7439-92-1	B

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 25216071 NELSON DEWEY CCR
Pace Project No.: 40140654

Sample: B-39 **Lab ID: 40140654009** Collected: 10/20/16 19:10 Received: 10/22/16 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Lithium	**4.7**	ug/L	2.0	0.21	2	11/03/16 09:57	11/07/16 22:41	7439-93-2	
Molybdenum	**16.2**	ug/L	1.0	0.070	1	11/03/16 09:57	11/05/16 05:05	7439-98-7	
Selenium	**34.0**	ug/L	1.0	0.21	1	11/03/16 09:57	11/05/16 05:05	7782-49-2	
Thallium	**0.44J**	ug/L	1.0	0.14	1	11/03/16 09:57	11/05/16 05:05	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	10/31/16 07:45	10/31/16 12:07	7439-97-6	
Field Data	Analytical Method:								
Field pH	**6.68**	Std. Units			1		10/20/16 19:10		
Field Specific Conductance	**618**	umhos/cm			1		10/20/16 19:10		
Oxygen, Dissolved	**0.4**	mg/L			1		10/20/16 19:10	7782-44-7	
REDOX	**53.8**	mV			1		10/20/16 19:10		
Turbidity	**4.92**	NTU			1		10/20/16 19:10		
Static Water Level	**609.09**	feet			1		10/20/16 19:10		
Temperature, Water (C)	**16.1**	deg C			1		10/20/16 19:10		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**380**	mg/L	20.0	8.7	1		10/27/16 17:37		
9040 pH	Analytical Method: EPA 9040								
pH	**7.3**	Std. Units	0.10	0.010	1		10/31/16 12:10		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**20.9**	mg/L	2.0	0.50	1		11/15/16 21:05	16887-00-6	
Fluoride	**0.24J**	mg/L	0.30	0.10	1		11/15/16 21:05	16984-48-8	
Sulfate	**30.9**	mg/L	3.0	1.0	1		11/15/16 21:05	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25216071 NELSON DEWEY CCR
Pace Project No.: 40140654

QC Batch: 239734 Analysis Method: EPA 7470
QC Batch Method: EPA 7470 Analysis Description: 7470 Mercury
Associated Lab Samples: 40140654001, 40140654002, 40140654003, 40140654004, 40140654005, 40140654006, 40140654007, 40140654008, 40140654009

METHOD BLANK: 1420372 Matrix: Water
Associated Lab Samples: 40140654001, 40140654002, 40140654003, 40140654004, 40140654005, 40140654006, 40140654007, 40140654008, 40140654009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	<0.13	0.42	10/31/16 11:27	

LABORATORY CONTROL SAMPLE: 1420373

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.1	102	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1420374 1420375

Parameter	Units	40140937001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	<0.13	5	5	4.9	4.9	97	98	85-115	1	20	

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QUALITY CONTROL DATA

Project: 25216071 NELSON DEWEY CCR
Pace Project No.: 40140654

QC Batch: 240186 Analysis Method: EPA 6020
QC Batch Method: EPA 3010 Analysis Description: 6020 MET
Associated Lab Samples: 40140654001, 40140654002, 40140654003, 40140654004, 40140654005, 40140654006, 40140654007, 40140654008, 40140654009

METHOD BLANK: 1422705 Matrix: Water
Associated Lab Samples: 40140654001, 40140654002, 40140654003, 40140654004, 40140654005, 40140654006, 40140654007, 40140654008, 40140654009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	<0.073	1.0	11/05/16 02:44	
Arsenic	ug/L	<0.099	1.0	11/05/16 02:44	
Barium	ug/L	<0.062	1.0	11/05/16 02:44	
Beryllium	ug/L	<0.13	1.0	11/07/16 20:53	
Boron	ug/L	<2.0	10.0	11/07/16 20:53	
Cadmium	ug/L	<0.089	1.0	11/05/16 02:44	
Calcium	ug/L	<73.6	250	11/05/16 02:44	
Chromium	ug/L	<0.39	1.0	11/05/16 02:44	
Cobalt	ug/L	<0.036	1.0	11/05/16 02:44	
Lead	ug/L	0.048J	1.0	11/05/16 02:44	
Lithium	ug/L	<0.11	1.0	11/07/16 20:53	
Molybdenum	ug/L	0.25J	1.0	11/05/16 02:44	
Selenium	ug/L	<0.21	1.0	11/05/16 02:44	
Thallium	ug/L	<0.14	1.0	11/05/16 02:44	

LABORATORY CONTROL SAMPLE: 1422706

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	538	108	80-120	
Arsenic	ug/L	500	500	100	80-120	
Barium	ug/L	500	502	100	80-120	
Beryllium	ug/L	500	499	100	80-120	
Boron	ug/L	500	481	96	80-120	
Cadmium	ug/L	500	512	102	80-120	
Calcium	ug/L	5000	5200	104	80-120	
Chromium	ug/L	500	508	102	80-120	
Cobalt	ug/L	500	531	106	80-120	
Lead	ug/L	500	523	105	80-120	
Lithium	ug/L	500	493	99	80-120	
Molybdenum	ug/L	500	532	106	80-120	
Selenium	ug/L	500	512	102	80-120	
Thallium	ug/L	500	487	97	80-120	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25216071 NELSON DEWEY CCR
Pace Project No.: 40140654

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1422707 1422708

Parameter	Units	40140654002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	0.086J	500	500	512	523	102	105	75-125	2	20	
Arsenic	ug/L	5.7	500	500	504	507	100	100	75-125	1	20	
Barium	ug/L	78.8	500	500	571	579	98	100	75-125	1	20	
Beryllium	ug/L	<0.13	500	500	487	495	97	99	75-125	2	20	
Boron	ug/L	154	500	500	634	649	96	99	75-125	2	20	
Cadmium	ug/L	0.13J	500	500	485	496	97	99	75-125	2	20	
Calcium	ug/L	56600	5000	5000	58100	60600	29	80	75-125	4	20	P6
Chromium	ug/L	<0.39	500	500	493	499	99	100	75-125	1	20	
Cobalt	ug/L	1.8	500	500	509	519	101	104	75-125	2	20	
Lead	ug/L	0.14J	500	500	506	517	101	103	75-125	2	20	
Lithium	ug/L	0.23J	500	500	488	491	98	98	75-125	0	20	
Molybdenum	ug/L	4.3	500	500	526	537	104	107	75-125	2	20	
Selenium	ug/L	0.23J	500	500	505	511	101	102	75-125	1	20	
Thallium	ug/L	<0.14	500	500	477	486	95	97	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25216071 NELSON DEWEY CCR
Pace Project No.: 40140654

QC Batch: 239240 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 40140654002, 40140654004

METHOD BLANK: 1417442 Matrix: Water
Associated Lab Samples: 40140654002, 40140654004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<8.7	20.0	10/25/16 15:33	

LABORATORY CONTROL SAMPLE: 1417443

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	640	580	91	80-120	

SAMPLE DUPLICATE: 1417444

Parameter	Units	40140654002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	288	280	3	5	

SAMPLE DUPLICATE: 1417445

Parameter	Units	40140697001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	312	308	1	5	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25216071 NELSON DEWEY CCR
Pace Project No.: 40140654

QC Batch: 239436 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 40140654001, 40140654003, 40140654005, 40140654006, 40140654007

METHOD BLANK: 1418461 Matrix: Water
Associated Lab Samples: 40140654001, 40140654003, 40140654005, 40140654006, 40140654007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<8.7	20.0	10/26/16 16:58	

LABORATORY CONTROL SAMPLE: 1418462

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	640	630	98	80-120	

SAMPLE DUPLICATE: 1418463

Parameter	Units	40140654003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	660	664	1	5	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25216071 NELSON DEWEY CCR
Pace Project No.: 40140654

QC Batch: 239583 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 40140654008, 40140654009

METHOD BLANK: 1419205 Matrix: Water
Associated Lab Samples: 40140654008, 40140654009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<8.7	20.0	10/27/16 17:36	

LABORATORY CONTROL SAMPLE: 1419206

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	640	616	96	80-120	

SAMPLE DUPLICATE: 1419207

Parameter	Units	40140678001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	110	108	2	5	

SAMPLE DUPLICATE: 1419208

Parameter	Units	40140743001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	96.0	100	4	5	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25216071 NELSON DEWEY CCR
Pace Project No.: 40140654

QC Batch: 239820 Analysis Method: EPA 9040
QC Batch Method: EPA 9040 Analysis Description: 9040 pH
Associated Lab Samples: 40140654001, 40140654002, 40140654003, 40140654004, 40140654005, 40140654006, 40140654007, 40140654008, 40140654009

SAMPLE DUPLICATE: 1420658

Parameter	Units	40140770001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH	Std. Units	7.7	7.8	1	20	H6

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25216071 NELSON DEWEY CCR
Pace Project No.: 40140654

QC Batch: 241194 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 40140654001, 40140654002, 40140654004

METHOD BLANK: 1430237 Matrix: Water
Associated Lab Samples: 40140654001, 40140654002, 40140654004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<0.50	2.0	11/14/16 12:21	
Fluoride	mg/L	<0.10	0.30	11/14/16 12:21	
Sulfate	mg/L	<1.0	3.0	11/14/16 12:21	

LABORATORY CONTROL SAMPLE: 1430238

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	20.5	102	90-110	
Fluoride	mg/L	2	2.0	98	90-110	
Sulfate	mg/L	20	19.9	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1430239 1430240

Parameter	Units	40140602017 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	79.0	100	100	188	188	109	109	90-110	0	15	
Fluoride	mg/L	<1.5	10	10	9.7	9.8	97	98	90-110	0	15	
Sulfate	mg/L	72.8	100	100	179	179	106	106	90-110	0	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1430241 1430242

Parameter	Units	40140694016 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	36.9	20	20	57.6	56.7	104	99	90-110	2	15	
Fluoride	mg/L	<0.10	2	2	2.1	2.1	101	101	90-110	0	15	
Sulfate	mg/L	32.4	20	20	54.2	53.1	109	104	90-110	2	15	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25216071 NELSON DEWEY CCR
Pace Project No.: 40140654

QC Batch: 241291 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 40140654003, 40140654005, 40140654006, 40140654007, 40140654008, 40140654009

METHOD BLANK: 1430535 Matrix: Water
Associated Lab Samples: 40140654003, 40140654005, 40140654006, 40140654007, 40140654008, 40140654009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<0.50	2.0	11/15/16 11:36	
Fluoride	mg/L	<0.10	0.30	11/15/16 11:36	
Sulfate	mg/L	<1.0	3.0	11/15/16 11:36	

LABORATORY CONTROL SAMPLE: 1430536

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	21.5	107	90-110	
Fluoride	mg/L	2	2.1	103	90-110	
Sulfate	mg/L	20	21.3	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1430537 1430538

Parameter	Units	40140650001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	180	1000	1000	1230	1230	105	105	90-110	0	15	
Fluoride	mg/L	<5.0	100	100	102	103	102	103	90-110	1	15	
Sulfate	mg/L	50.7J	1000	1000	1050	1060	100	101	90-110	1	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1430539 1430540

Parameter	Units	40141145001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	265	200	200	485	476	110	105	90-110	2	15	
Fluoride	mg/L	8.0	10	10	17.7	17.8	97	99	90-110	1	15	
Sulfate	mg/L	144	100	100	245	247	101	102	90-110	1	15	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALIFIERS

Project: 25216071 NELSON DEWEY CCR
Pace Project No.: 40140654

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 LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

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 at or above the adjusted LOD.

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

1q	Analyte was measured in the associated method blank at -2.8 ug/L.
B	Analyte was detected in the associated method blank.
D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
D4	Sample was diluted due to the presence of high levels of target analytes.
H6	Analysis initiated outside of the 15 minute EPA required holding time.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

Pace Analytical Services, LLC
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(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 25216071 NELSON DEWEY CCR
Pace Project No.: 40140654

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40140654001	**FIELD BLANK**	EPA 3010	240186	EPA 6020	240271
40140654002	**B-7R**	EPA 3010	240186	EPA 6020	240271
40140654003	**B-11R**	EPA 3010	240186	EPA 6020	240271
40140654004	**B-11A**	EPA 3010	240186	EPA 6020	240271
40140654005	**B-11B**	EPA 3010	240186	EPA 6020	240271
40140654006	**B-26**	EPA 3010	240186	EPA 6020	240271
40140654007	**B-31R**	EPA 3010	240186	EPA 6020	240271
40140654008	**B-31A**	EPA 3010	240186	EPA 6020	240271
40140654009	**B-39**	EPA 3010	240186	EPA 6020	240271
40140654001	**FIELD BLANK**	EPA 7470	239734	EPA 7470	239755
40140654002	**B-7R**	EPA 7470	239734	EPA 7470	239755
40140654003	**B-11R**	EPA 7470	239734	EPA 7470	239755
40140654004	**B-11A**	EPA 7470	239734	EPA 7470	239755
40140654005	**B-11B**	EPA 7470	239734	EPA 7470	239755
40140654006	**B-26**	EPA 7470	239734	EPA 7470	239755
40140654007	**B-31R**	EPA 7470	239734	EPA 7470	239755
40140654008	**B-31A**	EPA 7470	239734	EPA 7470	239755
40140654009	**B-39**	EPA 7470	239734	EPA 7470	239755
40140654002	**B-7R**				
40140654003	**B-11R**				
40140654004	**B-11A**				
40140654005	**B-11B**				
40140654006	**B-26**				
40140654007	**B-31R**				
40140654008	**B-31A**				
40140654009	**B-39**				
40140654001	**FIELD BLANK**	SM 2540C	239436		
40140654002	**B-7R**	SM 2540C	239240		
40140654003	**B-11R**	SM 2540C	239436		
40140654004	**B-11A**	SM 2540C	239240		
40140654005	**B-11B**	SM 2540C	239436		
40140654006	**B-26**	SM 2540C	239436		
40140654007	**B-31R**	SM 2540C	239436		
40140654008	**B-31A**	SM 2540C	239583		
40140654009	**B-39**	SM 2540C	239583		
40140654001	**FIELD BLANK**	EPA 9040	239820		
40140654002	**B-7R**	EPA 9040	239820		
40140654003	**B-11R**	EPA 9040	239820		
40140654004	**B-11A**	EPA 9040	239820		
40140654005	**B-11B**	EPA 9040	239820		
40140654006	**B-26**	EPA 9040	239820		
40140654007	**B-31R**	EPA 9040	239820		
40140654008	**B-31A**	EPA 9040	239820		
40140654009	**B-39**	EPA 9040	239820		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 25216071 NELSON DEWEY CCR
Pace Project No.: 40140654

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40140654001	**FIELD BLANK**	EPA 300.0	241194		
40140654002	**B-7R**	EPA 300.0	241194		
40140654003	**B-11R**	EPA 300.0	241291		
40140654004	**B-11A**	EPA 300.0	241194		
40140654005	**B-11B**	EPA 300.0	241291		
40140654006	**B-26**	EPA 300.0	241291		
40140654007	**B-31R**	EPA 300.0	241291		
40140654008	**B-31A**	EPA 300.0	241291		
40140654009	**B-39**	EPA 300.0	241291		

401406054

Pace Analytical®
www.pacelabs.com

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

CHAIN OF CUSTODY

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

(Please Print Clearly)	
Company Name:	SCS
Branch/Location:	Madison, WI
Project Contact:	Meg Blodgett
Phone:	(608) 216-7362
Project Number:	25216071
Project Name:	Alliant - Nelson Dewey
Project State:	WI
Sampled By (Print):	Paul A Grover
Sampled By (Sign):	Paul A. Grover
PO #:	Regulatory Program:

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes

A = Air	W = Water
B = Biota	DW = Drinking Water
C = Charcoal	GW = Ground Water
O = Oil	SW = Surface Water
S = Soil	WW = Waste Water
Si = Sludge	WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested: Metals	Hg	Pb, TDS, Sulfate	Ca, Cl, Florida	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
					No	D	D	A	A				
001	Field Blank	10/20/16	18:45	DI								4-250mlp HADD	
002	B-7R	10/19	17:30	GW									
003	B-11R	10/20	10:40										
004	B-11A	10/19	18:35										
005	B-11B	10/20	9:45										
006	B-26		17:30										
007	B-31R		12:20										
008	B-31A		11:30										
009	B-39		19:10										

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
Paul A. Grover	10/21/16 16:00		
CS Logistics	10/22/16 0730	Katie Johnson Pace	10/22/16 0730

PACE Project No.
401406054

Receipt Temp = R01 °C

Sample Receipt pH
OK / Adjusted

Cooler Custody Seal
Present / Not Present
Intact / Not Intact

C019a(27Jun2006)

Version 6.0 06/14/06

ORIGINAL

Pace Analytical

Sample Condition Upon Receipt

Pace Analytical Services, Inc.
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Client Name: SCS

Project # **WO#: 40140654**

40140654

Courier: ☐ Fed Ex ☐ UPS ☐ Client ☐ Pace ☑ Other: CS Logistics
Tracking #: 1908-102116

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no
Custody Seal on Samples Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no
Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other
Thermometer Used NA **Type of Ice:** (Wet) Blue Dry None ☑ Samples on ice, cooling process has begun
Cooler Temperature Uncorr: /Corr: ROI **Biological Tissue is Frozen:** ☐ yes ☐ no
Temp Blank Present: ☐ yes ☑ no

Temp should be above freezing to 6°C for all sample except Biota.
Frozen Biota Samples should be received ≤ 0°C.

Person examining contents:
Date: 10/22/16
Initials: KG

				Comments:
Chain of Custody Present:	☑Yes	☐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.
Samples Arrived within Hold Time:	☑Yes	☐No	☐N/A	5.
- VOA Samples frozen upon receipt	☐Yes	☐No		Date/Time:
Short Hold Time Analysis (<72hr):	(☑Yes)	~~☑No~~ KG 10/22/16	☐N/A	6. TDS KG 10/22/16
Rush Turn Around Time Requested:	☐Yes	☑No	☐N/A	7.
Sufficient Volume:	☑Yes	☐No	☐N/A	8.
Correct Containers Used:	☑Yes	☐No	☐N/A	9.
-Pace Containers Used:	☑Yes	☐No	☐N/A	
-Pace IR Containers Used:	☐Yes	☐No	☑N/A	
Containers Intact:	☑Yes	☐No	☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes	☐No	☑N/A	11.
Sample Labels match COC:	☑Yes	☐No	☐N/A	12.
-Includes date/time/ID/Analysis Matrix: W				
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	☑Yes	☐No	☐N/A	13. ☑ HNO3 ☐ H2SO4 ☐ NaOH ☐ NaOH +ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	☑Yes	☐No	☐N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	☐Yes	☑No		Initial when completed: KG / Lab Std #ID of preservative / Date/Time:
Headspace in VOA Vials (>6mm):	☐Yes	☐No	☑N/A	14.
Trip Blank Present:	☐Yes	☐No	☑N/A	15.
Trip Blank Custody Seals Present	☐Yes	☐No	☑N/A	
Pace Trip Blank Lot # (if purchased):				

Client Notification/ Resolution: If checked, see attached form for additional comments ☐

Person Contacted: ____ Date/Time: ____

Comments/ Resolution: ____

Project Manager Review: [signature] PM **Date:** 10/22/16

F-GB-C-031-Rev.03 (9April2015) SCUR Form

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

November 22, 2016

Meghan Blodgett
SCS ENGINEERS
2830 Dairy Drive
Madison, WI 53718

RE: Project: 25216071 NELSON DEWEY CCR RAD
Pace Project No.: 40140693

Dear Meghan Blodgett:
Enclosed are the analytical results for sample(s) received by the laboratory on October 22, 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,

Dan Milewsky
dan.milewsky@pacelabs.com
Project Manager

Enclosures

cc: Tom Karwoski, SCS ENGINEERS
Jeff Maxted, ALLIANT ENERGY
Marc Morandi, ALLIANT ENERGY

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: 25216071 NELSON DEWEY CCR RAD
Pace Project No.: 40140693

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

Pace Analytical Services, LLC
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Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: 25216071 NELSON DEWEY CCR RAD
Pace Project No.: 40140693

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40140693001	**FIELD BLANK**	Water	10/20/16 18:45	10/22/16 07:30
40140693002	**B-7R**	Water	10/19/16 17:30	10/22/16 07:30
40140693003	**B-11R**	Water	10/20/16 10:40	10/22/16 07:30
40140693004	**B-11A**	Water	10/19/16 18:35	10/22/16 07:30
40140693005	**B-11B**	Water	10/20/16 09:45	10/22/16 07:30
40140693006	**B-26**	Water	10/20/16 17:30	10/22/16 07:30
40140693007	**B-31R**	Water	10/20/16 12:20	10/22/16 07:30
40140693008	**B-31A**	Water	10/20/16 11:30	10/22/16 07:30
40140693009	**B-39**	Water	10/20/16 19:10	10/22/16 07:30

Pace Analytical Services, LLC
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(920)469-2436

SAMPLE ANALYTE COUNT

Project: 25216071 NELSON DEWEY CCR RAD
Pace Project No.: 40140693

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40140693001	**FIELD BLANK**	EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
40140693002	**B-7R**	EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
40140693003	**B-11R**	EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
40140693004	**B-11A**	EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
40140693005	**B-11B**	EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
40140693006	**B-26**	EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
40140693007	**B-31R**	EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
40140693008	**B-31A**	EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
40140693009	**B-39**	EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 25216071 NELSON DEWEY CCR RAD
Pace Project No.: 40140693

Sample: FIELD BLANK **Lab ID: 40140693001** Collected: 10/20/16 18:45 Received: 10/22/16 07:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.329 ± 0.752 (1.21) C:NA T:97%**	pCi/L	11/16/16 20:07	13982-63-3	
Radium-228	EPA 904.0	**0.125 ± 0.503 (1.14) C:65% T:86%**	pCi/L	11/17/16 10:40	15262-20-1	
Total Radium	Total Radium Calculation	**0.454 ± 1.26 (2.35)**	pCi/L	11/18/16 10:32	7440-14-4	

Sample: B-7R **Lab ID: 40140693002** Collected: 10/19/16 17:30 Received: 10/22/16 07:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**-0.243 ± 0.621 (1.31) C:NA T:88%**	pCi/L	11/16/16 20:09	13982-63-3	
Radium-228	EPA 904.0	**0.118 ± 0.361 (0.811) C:66% T:87%**	pCi/L	11/17/16 10:27	15262-20-1	
Total Radium	Total Radium Calculation	**0.118 ± 0.982 (2.12)**	pCi/L	11/18/16 10:32	7440-14-4	

Sample: B-11R **Lab ID: 40140693003** Collected: 10/20/16 10:40 Received: 10/22/16 07:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.516 ± 0.787 (1.27) C:NA T:91%**	pCi/L	11/16/16 20:07	13982-63-3	
Radium-228	EPA 904.0	**0.997 ± 0.545 (1.02) C:77% T:79%**	pCi/L	11/17/16 10:27	15262-20-1	
Total Radium	Total Radium Calculation	**1.51 ± 1.33 (2.29)**	pCi/L	11/18/16 10:32	7440-14-4	

Sample: B-11A **Lab ID: 40140693004** Collected: 10/19/16 18:35 Received: 10/22/16 07:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.172 ± 0.802 (1.44) C:NA T:90%**	pCi/L	11/16/16 20:07	13982-63-3	
Radium-228	EPA 904.0	**0.778 ± 0.381 (0.657) C:80% T:91%**	pCi/L	11/17/16 10:27	15262-20-1	
Total Radium	Total Radium Calculation	**0.950 ± 1.18 (2.10)**	pCi/L	11/18/16 10:32	7440-14-4	

Sample: B-11B **Lab ID: 40140693005** Collected: 10/20/16 09:45 Received: 10/22/16 07:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**-0.487 ± 0.677 (1.29) C:NA T:93%**	pCi/L	11/16/16 20:08	13982-63-3	
Radium-228	EPA 904.0	**0.534 ± 0.464 (0.937) C:62% T:79%**	pCi/L	11/17/16 10:27	15262-20-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 25216071 NELSON DEWEY CCR RAD
Pace Project No.: 40140693

Sample: B-11B **Lab ID: 40140693005** Collected: 10/20/16 09:45 Received: 10/22/16 07:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Total Radium	Total Radium Calculation	**0.534 ± 1.14 (2.23)**	pCi/L	11/18/16 10:32	7440-14-4	

Sample: B-26 **Lab ID: 40140693006** Collected: 10/20/16 17:30 Received: 10/22/16 07:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.353 ± 0.806 (1.30) C:NA T:86%**	pCi/L	11/16/16 20:36	13982-63-3	
Radium-228	EPA 904.0	**0.360 ± 0.458 (0.974) C:61% T:83%**	pCi/L	11/17/16 10:27	15262-20-1	
Total Radium	Total Radium Calculation	**0.713 ± 1.26 (2.27)**	pCi/L	11/18/16 10:32	7440-14-4	

Sample: B-31R **Lab ID: 40140693007** Collected: 10/20/16 12:20 Received: 10/22/16 07:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.583 ± 0.854 (1.33) C:NA T:93%**	pCi/L	11/16/16 20:36	13982-63-3	
Radium-228	EPA 904.0	**0.717 ± 0.472 (0.903) C:64% T:83%**	pCi/L	11/17/16 10:28	15262-20-1	
Total Radium	Total Radium Calculation	**1.30 ± 1.33 (2.23)**	pCi/L	11/18/16 10:32	7440-14-4	

Sample: B-31A **Lab ID: 40140693008** Collected: 10/20/16 11:30 Received: 10/22/16 07:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.000 ± 0.813 (1.31) C:NA T:91%**	pCi/L	11/16/16 20:39	13982-63-3	
Radium-228	EPA 904.0	**0.331 ± 0.343 (0.709) C:72% T:86%**	pCi/L	11/17/16 10:28	15262-20-1	
Total Radium	Total Radium Calculation	**0.331 ± 1.16 (2.02)**	pCi/L	11/18/16 10:32	7440-14-4	

Sample: B-39 **Lab ID: 40140693009** Collected: 10/20/16 19:10 Received: 10/22/16 07:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**-0.253 ± 0.588 (1.27) C:NA T:98%**	pCi/L	11/16/16 20:38	13982-63-3	
Radium-228	EPA 904.0	**0.374 ± 0.415 (0.871) C:73% T:83%**	pCi/L	11/17/16 10:28	15262-20-1	
Total Radium	Total Radium Calculation	**0.374 ± 1.00 (2.14)**	pCi/L	11/18/16 10:32	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL - RADIOCHEMISTRY

Project: 25216071 NELSON DEWEY CCR RAD
Pace Project No.: 40140693

QC Batch: 239384 Analysis Method: EPA 903.1
QC Batch Method: EPA 903.1 Analysis Description: 903.1 Radium-226
Associated Lab Samples: 40140693001, 40140693002, 40140693003, 40140693004, 40140693005, 40140693006, 40140693007, 40140693008, 40140693009

METHOD BLANK: 1176604 Matrix: Water
Associated Lab Samples: 40140693001, 40140693002, 40140693003, 40140693004, 40140693005, 40140693006, 40140693007, 40140693008, 40140693009

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0707 ± 0.367 (0.761) C:NA T:90%	pCi/L	11/16/16 20:09	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL - RADIOCHEMISTRY

Project: 25216071 NELSON DEWEY CCR RAD
Pace Project No.: 40140693

QC Batch: 239385 Analysis Method: EPA 904.0
QC Batch Method: EPA 904.0 Analysis Description: 904.0 Radium 228
Associated Lab Samples: 40140693001, 40140693002, 40140693003, 40140693004, 40140693005, 40140693006, 40140693007, 40140693008, 40140693009

METHOD BLANK: 1176610 Matrix: Water
Associated Lab Samples: 40140693001, 40140693002, 40140693003, 40140693004, 40140693005, 40140693006, 40140693007, 40140693008, 40140693009

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.0584 ± 0.383 (0.875) C:66% T:82%	pCi/L	11/17/16 10:27	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALIFIERS

Project: 25216071 NELSON DEWEY CCR RAD
Pace Project No.: 40140693

DEFINITIONS

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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 LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

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 at or above the adjusted LOD.

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 25216071 NELSON DEWEY CCR RAD
Pace Project No.: 40140693

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40140693001	**FIELD BLANK**	EPA 903.1	239384		
40140693002	**B-7R**	EPA 903.1	239384		
40140693003	**B-11R**	EPA 903.1	239384		
40140693004	**B-11A**	EPA 903.1	239384		
40140693005	**B-11B**	EPA 903.1	239384		
40140693006	**B-26**	EPA 903.1	239384		
40140693007	**B-31R**	EPA 903.1	239384		
40140693008	**B-31A**	EPA 903.1	239384		
40140693009	**B-39**	EPA 903.1	239384		
40140693001	**FIELD BLANK**	EPA 904.0	239385		
40140693002	**B-7R**	EPA 904.0	239385		
40140693003	**B-11R**	EPA 904.0	239385		
40140693004	**B-11A**	EPA 904.0	239385		
40140693005	**B-11B**	EPA 904.0	239385		
40140693006	**B-26**	EPA 904.0	239385		
40140693007	**B-31R**	EPA 904.0	239385		
40140693008	**B-31A**	EPA 904.0	239385		
40140693009	**B-39**	EPA 904.0	239385		
40140693001	**FIELD BLANK**	Total Radium Calculation	240798		
40140693002	**B-7R**	Total Radium Calculation	240798		
40140693003	**B-11R**	Total Radium Calculation	240798		
40140693004	**B-11A**	Total Radium Calculation	240798		
40140693005	**B-11B**	Total Radium Calculation	240798		
40140693006	**B-26**	Total Radium Calculation	240798		
40140693007	**B-31R**	Total Radium Calculation	240798		
40140693008	**B-31A**	Total Radium Calculation	240798		
40140693009	**B-39**	Total Radium Calculation	240798		

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

40140693

Pace Analytical®
www.pacelabs.com

CHAIN OF CUSTODY

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

(Please Print Clearly)	
Company Name:	SCS
Branch/Location:	Madison, WI
Project Contact:	Meg Blodgett
Phone:	(608) 216-7362
Project Number:	25216071
Project Name:	Alliant - Nelson Dewey
Project State:	WI
Sampled By (Print):	Paul A. Grover
Sampled By (Sign):	Paul A. Grover
PO #:	Regulatory Program:

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes
A = Air, W = Water
B = Biota, DW = Drinking Water
C = Charcoal, GW = Ground Water
O = Oil, SW = Surface Water
S = Soil, WW = Waste Water
SI = Sludge, WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
							Radium 226 / Radium 228			
001	Field Blank	10/20/16	18:45	DI	A	D	X		2-500mlP DA	
002	B-7R	10/19/16	17:30	GW						
003	B-11R	10/20/16	10:40							
004	B-11A	10/19/16	18:35							
005	B-11B	10/20/16	9:45							
006	B-26		17:30							
007	B-31R		12:20							
008	B-31A		11:30							
009	B-39		19:10							

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
Paul A. Grover	10/21/16 16:00		
CS Logistics	10221630	[illegible]	10221630

PACE Project No.
40140693

Receipt Temp = R01 °C

Sample Receipt pH
OK / Adjusted

Cooler Custody Seal
Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

Sample Condition Upon Receipt

Pace Analytical Services, Inc.
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Project # **WO# : 40140693**

40140693

Client Name: SCS

Courier: ☐ Fed Ex ☐ UPS ☐ Client ☐ Pace Other: CS Logistics

Tracking #: 1908 1021 1116

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☑ no

Custody Seal on Samples Present: ☐ yes ☑ no Seals intact: ☐ yes ☑ no

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

Thermometer Used NA

Type of Ice: (Wet) Blue Dry None ☑ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: R01 /Corr:

Biological Tissue is Frozen: ☐ yes ☐ no

Temp Blank Present: ☐ yes ☑ no

Temp should be above freezing to 6°C for all sample except Biota.
Frozen Biota Samples should be received ≤ 0°C.

Person examining contents:
Date: 10.22.16
Initials: MM

		Comments:
Chain of Custody Present:	☑Yes ☐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.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
-Pace IR Containers Used:	☐Yes ☐No ☑N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: WW		
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	☑Yes ☐No ☐N/A	13. ☑ HNO3 ☐ H2SO4 ☐ NaOH ☐ NaOH +ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	☑Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	☐Yes ☑No	Initial when completed NM / Lab Std #ID of preservative / Date/ Time:
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	14.
Trip Blank Present:	☐Yes ☐No ☑N/A	15.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:
Person Contacted: _____ Date/Time: _____
If checked, see attached form for additional comments ☐
Comments/ Resolution: _____

Project Manager Review: Anita for PM **Date:** 10/22/16

F-GB-C-031-Rev.03 (9April2015) SCUR Form

A5 Round 5 Background Sampling, Analytical Laboratory Report

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

February 08, 2017

Meghan Blodgett
SCS ENGINEERS
2830 Dairy Drive
Madison, WI 53718

RE: Project: 25216071.01 NELSON DEWEY-CCR
Pace Project No.: 40144487

Dear Meghan Blodgett:
Enclosed are the analytical results for sample(s) received by the laboratory on January 14, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Dan Milewsky
dan.milewsky@pacelabs.com
Project Manager

Enclosures

cc: Tom Karwoski, SCS ENGINEERS
Jeff Maxted, ALLIANT ENERGY
Marc Morandi, ALLIANT ENERGY

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: 25216071.01 NELSON DEWEY-CCR
Pace Project No.: 40144487

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150
Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: 25216071.01 NELSON DEWEY-CCR
Pace Project No.: 40144487

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40144487001	**FIELD BLANK**	Water	01/12/17 15:15	01/14/17 07:35
40144487002	**B39**	Water	01/11/17 18:45	01/14/17 07:35
40144487003	**B26**	Water	01/12/17 09:00	01/14/17 07:35
40144487004	**B7R**	Water	01/12/17 10:45	01/14/17 07:35
40144487005	**B11B**	Water	01/12/17 11:50	01/14/17 07:35
40144487006	**B11A**	Water	01/12/17 12:30	01/14/17 07:35
40144487007	**B11R**	Water	01/12/17 13:25	01/14/17 07:35
40144487008	**B31A**	Water	01/12/17 14:15	01/14/17 07:35
40144487009	**B31R**	Water	01/12/17 15:00	01/14/17 07:35

Pace Analytical Services, LLC
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Green Bay, WI 54302
(920)469-2436

SAMPLE ANALYTE COUNT

Project: 25216071.01 NELSON DEWEY-CCR
Pace Project No.: 40144487

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40144487001	**FIELD BLANK**	EPA 6020	DS1	14	PASI-G
		EPA 7470	AJT	1	PASI-G
		EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
		SM 2540C	TMK	1	PASI-G
		EPA 9040	ALY	1	PASI-G
		EPA 300.0	HMB	3	PASI-G
40144487002	**B39**	EPA 6020	DS1	14	PASI-G
		EPA 7470	AJT	1	PASI-G
			JLJ	7	PASI-G
		EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
		SM 2540C	TMK	1	PASI-G
		EPA 9040	ALY	1	PASI-G
		EPA 300.0	HMB	3	PASI-G
40144487003	**B26**	EPA 6020	DS1	14	PASI-G
		EPA 7470	AJT	1	PASI-G
			JLJ	7	PASI-G
		EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
		SM 2540C	TMK	1	PASI-G
		EPA 9040	ALY	1	PASI-G
		EPA 300.0	HMB	3	PASI-G
40144487004	**B7R**	EPA 6020	DS1	14	PASI-G
		EPA 7470	AJT	1	PASI-G
			JLJ	7	PASI-G
		EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
		SM 2540C	TMK	1	PASI-G
		EPA 9040	ALY	1	PASI-G
		EPA 300.0	HMB	3	PASI-G
40144487005	**B11B**	EPA 6020	DS1	14	PASI-G
		EPA 7470	AJT	1	PASI-G

Pace Analytical Services, LLC
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Green Bay, WI 54302
(920)469-2436

SAMPLE ANALYTE COUNT

Project: 25216071.01 NELSON DEWEY-CCR
Pace Project No.: 40144487

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
			JLJ	7	PASI-G
		EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
		SM 2540C	TMK	1	PASI-G
		EPA 9040	ALY	1	PASI-G
		EPA 300.0	HMB	3	PASI-G
40144487006	**B11A**	EPA 6020	DS1	14	PASI-G
		EPA 7470	AJT	1	PASI-G
			JLJ	7	PASI-G
		EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
		SM 2540C	TMK	1	PASI-G
		EPA 9040	ALY	1	PASI-G
		EPA 300.0	HMB	3	PASI-G
40144487007	**B11R**	EPA 6020	DS1	14	PASI-G
		EPA 7470	AJT	1	PASI-G
			JLJ	7	PASI-G
		EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
		SM 2540C	TMK	1	PASI-G
		EPA 9040	ALY	1	PASI-G
		EPA 300.0	HMB	3	PASI-G
40144487008	**B31A**	EPA 6020	DS1	14	PASI-G
		EPA 7470	AJT	1	PASI-G
			JLJ	7	PASI-G
		EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
		SM 2540C	TMK	1	PASI-G
		EPA 9040	ALY	1	PASI-G
		EPA 300.0	HMB	3	PASI-G
40144487009	**B31R**	EPA 6020	DS1	14	PASI-G
		EPA 7470	AJT	1	PASI-G
			JLJ	7	PASI-G

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE ANALYTE COUNT

Project: 25216071.01 NELSON DEWEY-CCR
Pace Project No.: 40144487

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
		SM 2540C	TMK	1	PASI-G
		EPA 9040	ALY	1	PASI-G
		EPA 300.0	HMB	3	PASI-G

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 25216071.01 NELSON DEWEY-CCR
Pace Project No.: 40144487

Sample: FIELD BLANK **Lab ID: 40144487001** Collected: 01/12/17 15:15 Received: 01/14/17 07:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.15J**	ug/L	1.0	0.073	1	01/19/17 08:21	01/24/17 04:47	7440-36-0	
Arsenic	**0.12J**	ug/L	1.0	0.099	1	01/19/17 08:21	01/24/17 04:47	7440-38-2	
Barium	**0.35J**	ug/L	1.0	0.062	1	01/19/17 08:21	01/24/17 04:47	7440-39-3	B
Beryllium	**<0.13**	ug/L	1.0	0.13	1	01/19/17 08:21	01/24/17 04:47	7440-41-7	
Boron	**3.1J**	ug/L	10.0	2.0	1	01/19/17 08:21	01/24/17 04:47	7440-42-8	
Cadmium	**0.13J**	ug/L	1.0	0.089	1	01/19/17 08:21	01/24/17 04:47	7440-43-9	
Calcium	**<73.6**	ug/L	250	73.6	1	01/19/17 08:21	01/24/17 04:47	7440-70-2	
Chromium	**0.45J**	ug/L	1.0	0.39	1	01/19/17 08:21	01/24/17 04:47	7440-47-3	
Cobalt	**0.12J**	ug/L	1.0	0.036	1	01/19/17 08:21	01/24/17 04:47	7440-48-4	
Lead	**0.13J**	ug/L	1.0	0.040	1	01/19/17 08:21	01/24/17 04:47	7439-92-1	
Lithium	**0.15J**	ug/L	1.0	0.11	1	01/19/17 08:21	01/24/17 04:47	7439-93-2	
Molybdenum	**0.16J**	ug/L	1.0	0.070	1	01/19/17 08:21	01/24/17 04:47	7439-98-7	B
Selenium	**<0.21**	ug/L	1.0	0.21	1	01/19/17 08:21	01/24/17 04:47	7782-49-2	
Thallium	**0.15J**	ug/L	1.0	0.14	1	01/19/17 08:21	01/24/17 04:47	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	01/17/17 09:30	01/18/17 09:16	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**<8.7**	mg/L	20.0	8.7	1		01/17/17 16:58		
9040 pH	Analytical Method: EPA 9040								
pH	**5.9**	Std. Units	0.10	0.010	1		01/16/17 09:50		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**0.62J**	mg/L	2.0	0.50	1		01/21/17 00:22	16887-00-6	
Fluoride	**<0.10**	mg/L	0.30	0.10	1		01/21/17 00:22	16984-48-8	
Sulfate	**<1.0**	mg/L	3.0	1.0	1		01/21/17 00:22	14808-79-8	

Sample: B39 **Lab ID: 40144487002** Collected: 01/11/17 18:45 Received: 01/14/17 07:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.79J**	ug/L	1.0	0.073	1	01/19/17 08:21	01/24/17 04:07	7440-36-0	
Arsenic	**4.6**	ug/L	1.0	0.099	1	01/19/17 08:21	01/24/17 04:07	7440-38-2	
Barium	**67.3**	ug/L	1.0	0.062	1	01/19/17 08:21	01/24/17 04:07	7440-39-3	
Beryllium	**0.22J**	ug/L	1.0	0.13	1	01/19/17 08:21	01/24/17 04:07	7440-41-7	
Boron	**228**	ug/L	10.0	2.0	1	01/19/17 08:21	01/24/17 04:07	7440-42-8	
Cadmium	**0.61J**	ug/L	1.0	0.089	1	01/19/17 08:21	01/24/17 04:07	7440-43-9	
Calcium	**55200**	ug/L	2500	736	10	01/19/17 08:21	01/24/17 03:40	7440-70-2	P6
Chromium	**0.75J**	ug/L	1.0	0.39	1	01/19/17 08:21	01/24/17 04:07	7440-47-3	
Cobalt	**1.7**	ug/L	1.0	0.036	1	01/19/17 08:21	01/24/17 04:07	7440-48-4	
Lead	**0.58J**	ug/L	1.0	0.040	1	01/19/17 08:21	01/24/17 04:07	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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ANALYTICAL RESULTS

Project: 25216071.01 NELSON DEWEY-CCR
Pace Project No.: 40144487

Sample: B39 **Lab ID: 40144487002** Collected: 01/11/17 18:45 Received: 01/14/17 07:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Lithium	**4.6**	ug/L	1.0	0.11	1	01/19/17 08:21	01/24/17 04:07	7439-93-2	
Molybdenum	**14.9**	ug/L	1.0	0.070	1	01/19/17 08:21	01/24/17 04:07	7439-98-7	
Selenium	**1.3**	ug/L	1.0	0.21	1	01/19/17 08:21	01/24/17 04:07	7782-49-2	
Thallium	**1.0J**	ug/L	1.0	0.14	1	01/19/17 08:21	01/24/17 04:07	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	01/17/17 09:30	01/18/17 09:23	7439-97-6	
Field Data	Analytical Method:								
Field pH	**7.06**	Std. Units			1		01/11/17 18:45		
Field Specific Conductance	**909**	umhos/cm			1		01/11/17 18:45		
Oxygen, Dissolved	**0.21**	mg/L			1		01/11/17 18:45	7782-44-7	
REDOX	**14.9**	mV			1		01/11/17 18:45		
Turbidity	**2.71**	NTU			1		01/11/17 18:45		
Static Water Level	**608.92**	feet			1		01/11/17 18:45		
Temperature, Water (C)	**14.5**	deg C			1		01/11/17 18:45		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**280**	mg/L	20.0	8.7	1		01/17/17 16:59		
9040 pH	Analytical Method: EPA 9040								
pH	**7.4**	Std. Units	0.10	0.010	1		01/16/17 09:50		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**36.7**	mg/L	2.0	0.50	1		01/21/17 00:34	16887-00-6	
Fluoride	**0.34**	mg/L	0.30	0.10	1		01/21/17 00:34	16984-48-8	
Sulfate	**18.7**	mg/L	3.0	1.0	1		01/21/17 00:34	14808-79-8	

Sample: B26 **Lab ID: 40144487003** Collected: 01/12/17 09:00 Received: 01/14/17 07:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.24J**	ug/L	1.0	0.073	1	01/19/17 08:21	01/24/17 04:54	7440-36-0	
Arsenic	**0.60J**	ug/L	1.0	0.099	1	01/19/17 08:21	01/24/17 04:54	7440-38-2	
Barium	**89.2**	ug/L	1.0	0.062	1	01/19/17 08:21	01/24/17 04:54	7440-39-3	
Beryllium	**0.13J**	ug/L	1.0	0.13	1	01/19/17 08:21	01/24/17 04:54	7440-41-7	
Boron	**35.2**	ug/L	10.0	2.0	1	01/19/17 08:21	01/24/17 04:54	7440-42-8	
Cadmium	**0.15J**	ug/L	1.0	0.089	1	01/19/17 08:21	01/24/17 04:54	7440-43-9	
Calcium	**89400**	ug/L	250	73.6	1	01/19/17 08:21	01/24/17 04:54	7440-70-2	
Chromium	**1.0**	ug/L	1.0	0.39	1	01/19/17 08:21	01/24/17 04:54	7440-47-3	
Cobalt	**0.25J**	ug/L	1.0	0.036	1	01/19/17 08:21	01/24/17 04:54	7440-48-4	
Lead	**0.20J**	ug/L	1.0	0.040	1	01/19/17 08:21	01/24/17 04:54	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 25216071.01 NELSON DEWEY-CCR
Pace Project No.: 40144487

Sample: B26 **Lab ID: 40144487003** Collected: 01/12/17 09:00 Received: 01/14/17 07:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Lithium	**2.5**	ug/L	1.0	0.11	1	01/19/17 08:21	01/24/17 04:54	7439-93-2	
Molybdenum	**0.34J**	ug/L	1.0	0.070	1	01/19/17 08:21	01/24/17 04:54	7439-98-7	B
Selenium	**0.99J**	ug/L	1.0	0.21	1	01/19/17 08:21	01/24/17 04:54	7782-49-2	
Thallium	**0.16J**	ug/L	1.0	0.14	1	01/19/17 08:21	01/24/17 04:54	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	01/17/17 09:30	01/18/17 09:25	7439-97-6	
Field Data	Analytical Method:								
Field pH	**7.57**	Std. Units			1		01/12/17 09:00		
Field Specific Conductance	**1394**	umhos/cm			1		01/12/17 09:00		
Oxygen, Dissolved	**5.58**	mg/L			1		01/12/17 09:00	7782-44-7	
REDOX	**59.1**	mV			1		01/12/17 09:00		
Turbidity	**0.14**	NTU			1		01/12/17 09:00		
Static Water Level	**604.52**	feet			1		01/12/17 09:00		
Temperature, Water (C)	**11.5**	deg C			1		01/12/17 09:00		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**446**	mg/L	20.0	8.7	1		01/17/17 17:00		
9040 pH	Analytical Method: EPA 9040								
pH	**7.6**	Std. Units	0.10	0.010	1		01/16/17 09:50		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**54.5**	mg/L	2.0	0.50	1		01/25/17 13:03	16887-00-6	
Fluoride	**<0.10**	mg/L	0.30	0.10	1		01/25/17 13:03	16984-48-8	
Sulfate	**35.0**	mg/L	3.0	1.0	1		01/25/17 13:03	14808-79-8	

Sample: B7R **Lab ID: 40144487004** Collected: 01/12/17 10:45 Received: 01/14/17 07:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.20J**	ug/L	1.0	0.073	1	01/19/17 08:21	01/24/17 05:14	7440-36-0	
Arsenic	**6.6**	ug/L	1.0	0.099	1	01/19/17 08:21	01/24/17 05:14	7440-38-2	
Barium	**98.4**	ug/L	1.0	0.062	1	01/19/17 08:21	01/24/17 05:14	7440-39-3	
Beryllium	**0.16J**	ug/L	1.0	0.13	1	01/19/17 08:21	01/24/17 05:14	7440-41-7	
Boron	**159**	ug/L	10.0	2.0	1	01/19/17 08:21	01/24/17 05:14	7440-42-8	
Cadmium	**0.16J**	ug/L	1.0	0.089	1	01/19/17 08:21	01/24/17 05:14	7440-43-9	
Calcium	**56700**	ug/L	250	73.6	1	01/19/17 08:21	01/24/17 05:14	7440-70-2	
Chromium	**0.62J**	ug/L	1.0	0.39	1	01/19/17 08:21	01/24/17 05:14	7440-47-3	
Cobalt	**1.5**	ug/L	1.0	0.036	1	01/19/17 08:21	01/24/17 05:14	7440-48-4	
Lead	**0.42J**	ug/L	1.0	0.040	1	01/19/17 08:21	01/24/17 05:14	7439-92-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 25216071.01 NELSON DEWEY-CCR
Pace Project No.: 40144487

Sample: B7R **Lab ID: 40144487004** Collected: 01/12/17 10:45 Received: 01/14/17 07:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Lithium	**0.35J**	ug/L	1.0	0.11	1	01/19/17 08:21	01/24/17 05:14	7439-93-2	
Molybdenum	**3.3**	ug/L	1.0	0.070	1	01/19/17 08:21	01/24/17 05:14	7439-98-7	
Selenium	**0.47J**	ug/L	1.0	0.21	1	01/19/17 08:21	01/24/17 05:14	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	01/19/17 08:21	01/24/17 05:14	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	01/17/17 09:30	01/18/17 09:28	7439-97-6	
Field Data	Analytical Method:								
Field pH	**7.43**	Std. Units			1		01/12/17 10:45		
Field Specific Conductance	**1054**	umhos/cm			1		01/12/17 10:45		
Oxygen, Dissolved	**0.1**	mg/L			1		01/12/17 10:45	7782-44-7	
REDOX	**-122.2**	mV			1		01/12/17 10:45		
Turbidity	**2.69**	NTU			1		01/12/17 10:45		
Static Water Level	**604.94**	feet			1		01/12/17 10:45		
Temperature, Water (C)	**11.7**	deg C			1		01/12/17 10:45		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**240**	mg/L	20.0	8.7	1		01/17/17 17:00		
9040 pH	Analytical Method: EPA 9040								
pH	**6.6**	Std. Units	0.10	0.010	1		01/16/17 09:50		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**19.7**	mg/L	10.0	2.5	5		01/25/17 13:51	16887-00-6	
Fluoride	**<0.50**	mg/L	1.5	0.50	5		01/25/17 13:51	16984-48-8	D3
Sulfate	**<5.0**	mg/L	15.0	5.0	5		01/25/17 13:51	14808-79-8	D3

Sample: B11B **Lab ID: 40144487005** Collected: 01/12/17 11:50 Received: 01/14/17 07:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.12J**	ug/L	1.0	0.073	1	01/19/17 08:21	01/24/17 05:21	7440-36-0	
Arsenic	**0.40J**	ug/L	1.0	0.099	1	01/19/17 08:21	01/24/17 05:21	7440-38-2	
Barium	**145**	ug/L	1.0	0.062	1	01/19/17 08:21	01/24/17 05:21	7440-39-3	
Beryllium	**<0.13**	ug/L	1.0	0.13	1	01/19/17 08:21	01/24/17 05:21	7440-41-7	
Boron	**1540**	ug/L	10.0	2.0	1	01/19/17 08:21	01/24/17 05:21	7440-42-8	
Cadmium	**<0.089**	ug/L	1.0	0.089	1	01/19/17 08:21	01/24/17 05:21	7440-43-9	
Calcium	**63900**	ug/L	250	73.6	1	01/19/17 08:21	01/24/17 05:21	7440-70-2	
Chromium	**<0.39**	ug/L	1.0	0.39	1	01/19/17 08:21	01/24/17 05:21	7440-47-3	
Cobalt	**0.30J**	ug/L	1.0	0.036	1	01/19/17 08:21	01/24/17 05:21	7440-48-4	
Lead	**0.083J**	ug/L	1.0	0.040	1	01/19/17 08:21	01/24/17 05:21	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 25216071.01 NELSON DEWEY-CCR
Pace Project No.: 40144487

Sample: B11B **Lab ID: 40144487005** Collected: 01/12/17 11:50 Received: 01/14/17 07:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Lithium	**20.0**	ug/L	1.0	0.11	1	01/19/17 08:21	01/24/17 05:21	7439-93-2	
Molybdenum	**52.6**	ug/L	1.0	0.070	1	01/19/17 08:21	01/24/17 05:21	7439-98-7	
Selenium	**<0.21**	ug/L	1.0	0.21	1	01/19/17 08:21	01/24/17 05:21	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	01/19/17 08:21	01/24/17 05:21	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	01/17/17 09:30	01/18/17 09:30	7439-97-6	
Field Data	Analytical Method:								
Field pH	**8.18**	Std. Units			1		01/12/17 11:50		
Field Specific Conductance	**1342**	umhos/cm			1		01/12/17 11:50		
Oxygen, Dissolved	**0.16**	mg/L			1		01/12/17 11:50	7782-44-7	
REDOX	**-135.7**	mV			1		01/12/17 11:50		
Turbidity	**0.38**	NTU			1		01/12/17 11:50		
Static Water Level	**604.32**	feet			1		01/12/17 11:50		
Temperature, Water (C)	**14.1**	deg C			1		01/12/17 11:50		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**488**	mg/L	20.0	8.7	1		01/17/17 17:00		
9040 pH	Analytical Method: EPA 9040								
pH	**7.9**	Std. Units	0.10	0.010	1		01/16/17 09:50		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**36.1**	mg/L	2.0	0.50	1		01/25/17 14:03	16887-00-6	
Fluoride	**0.52**	mg/L	0.30	0.10	1		01/25/17 14:03	16984-48-8	
Sulfate	**182**	mg/L	15.0	5.0	5		01/25/17 17:40	14808-79-8	

Sample: B11A **Lab ID: 40144487006** Collected: 01/12/17 12:30 Received: 01/14/17 07:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.22J**	ug/L	1.0	0.073	1	01/19/17 08:21	01/24/17 05:28	7440-36-0	
Arsenic	**0.19J**	ug/L	1.0	0.099	1	01/19/17 08:21	01/24/17 05:28	7440-38-2	
Barium	**187**	ug/L	1.0	0.062	1	01/19/17 08:21	01/24/17 05:28	7440-39-3	
Beryllium	**<0.13**	ug/L	1.0	0.13	1	01/19/17 08:21	01/24/17 05:28	7440-41-7	
Boron	**106**	ug/L	10.0	2.0	1	01/19/17 08:21	01/24/17 05:28	7440-42-8	
Cadmium	**<0.089**	ug/L	1.0	0.089	1	01/19/17 08:21	01/24/17 05:28	7440-43-9	
Calcium	**54500**	ug/L	250	73.6	1	01/19/17 08:21	01/24/17 05:28	7440-70-2	
Chromium	**0.46J**	ug/L	1.0	0.39	1	01/19/17 08:21	01/24/17 05:28	7440-47-3	
Cobalt	**1.2**	ug/L	1.0	0.036	1	01/19/17 08:21	01/24/17 05:28	7440-48-4	
Lead	**<0.040**	ug/L	1.0	0.040	1	01/19/17 08:21	01/24/17 05:28	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 25216071.01 NELSON DEWEY-CCR
Pace Project No.: 40144487

Sample: B11A **Lab ID: 40144487006** Collected: 01/12/17 12:30 Received: 01/14/17 07:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Lithium	**5.9**	ug/L	1.0	0.11	1	01/19/17 08:21	01/24/17 05:28	7439-93-2	
Molybdenum	**21.8**	ug/L	1.0	0.070	1	01/19/17 08:21	01/24/17 05:28	7439-98-7	
Selenium	**<0.21**	ug/L	1.0	0.21	1	01/19/17 08:21	01/24/17 05:28	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	01/19/17 08:21	01/24/17 05:28	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	01/17/17 09:30	01/18/17 09:32	7439-97-6	
Field Data	Analytical Method:								
Field pH	**7.89**	Std. Units			1		01/12/17 12:30		
Field Specific Conductance	**1049**	umhos/cm			1		01/12/17 12:30		
Oxygen, Dissolved	**0.19**	mg/L			1		01/12/17 12:30	7782-44-7	
REDOX	**-88.3**	mV			1		01/12/17 12:30		
Turbidity	**0.21**	NTU			1		01/12/17 12:30		
Static Water Level	**604.36**	feet			1		01/12/17 12:30		
Temperature, Water (C)	**14.2**	deg C			1		01/12/17 12:30		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**322**	mg/L	20.0	8.7	1		01/17/17 17:01		
9040 pH	Analytical Method: EPA 9040								
pH	**7.7**	Std. Units	0.10	0.010	1		01/16/17 09:50		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**46.6**	mg/L	2.0	0.50	1		01/25/17 14:15	16887-00-6	
Fluoride	**0.43**	mg/L	0.30	0.10	1		01/25/17 14:15	16984-48-8	
Sulfate	**2.3J**	mg/L	3.0	1.0	1		01/25/17 14:15	14808-79-8	

Sample: B11R **Lab ID: 40144487007** Collected: 01/12/17 13:25 Received: 01/14/17 07:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**<0.073**	ug/L	1.0	0.073	1	01/19/17 08:21	01/24/17 05:34	7440-36-0	
Arsenic	**7.1**	ug/L	1.0	0.099	1	01/19/17 08:21	01/24/17 05:34	7440-38-2	
Barium	**144**	ug/L	1.0	0.062	1	01/19/17 08:21	01/24/17 05:34	7440-39-3	
Beryllium	**<0.13**	ug/L	1.0	0.13	1	01/19/17 08:21	01/24/17 05:34	7440-41-7	
Boron	**3530**	ug/L	10.0	2.0	1	01/19/17 08:21	01/24/17 05:34	7440-42-8	
Cadmium	**<0.089**	ug/L	1.0	0.089	1	01/19/17 08:21	01/24/17 05:34	7440-43-9	
Calcium	**126000**	ug/L	250	73.6	1	01/19/17 08:21	01/24/17 05:34	7440-70-2	
Chromium	**<0.39**	ug/L	1.0	0.39	1	01/19/17 08:21	01/24/17 05:34	7440-47-3	
Cobalt	**1.2**	ug/L	1.0	0.036	1	01/19/17 08:21	01/24/17 05:34	7440-48-4	
Lead	**<0.040**	ug/L	1.0	0.040	1	01/19/17 08:21	01/24/17 05:34	7439-92-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 25216071.01 NELSON DEWEY-CCR
Pace Project No.: 40144487

Sample: B11R **Lab ID: 40144487007** Collected: 01/12/17 13:25 Received: 01/14/17 07:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Lithium	**1.4**	ug/L	1.0	0.11	1	01/19/17 08:21	01/24/17 05:34	7439-93-2	
Molybdenum	**42.8**	ug/L	1.0	0.070	1	01/19/17 08:21	01/24/17 05:34	7439-98-7	
Selenium	**<0.21**	ug/L	1.0	0.21	1	01/19/17 08:21	01/24/17 05:34	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	01/19/17 08:21	01/24/17 05:34	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	01/17/17 09:30	01/18/17 09:35	7439-97-6	
Field Data	Analytical Method:								
Field pH	**6.98**	Std. Units			1		01/12/17 13:25		
Field Specific Conductance	**1876**	umhos/cm			1		01/12/17 13:25		
Oxygen, Dissolved	**0.14**	mg/L			1		01/12/17 13:25	7782-44-7	
REDOX	**-72.9**	mV			1		01/12/17 13:25		
Turbidity	**2.51**	NTU			1		01/12/17 13:25		
Static Water Level	**604.57**	feet			1		01/12/17 13:25		
Temperature, Water (C)	**12.7**	deg C			1		01/12/17 13:25		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**616**	mg/L	20.0	8.7	1		01/17/17 17:01		
9040 pH	Analytical Method: EPA 9040								
pH	**6.9**	Std. Units	0.10	0.010	1		01/16/17 09:50		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**42.3**	mg/L	10.0	2.5	5		01/25/17 14:27	16887-00-6	
Fluoride	**<0.50**	mg/L	1.5	0.50	5		01/25/17 14:27	16984-48-8	D3
Sulfate	**108**	mg/L	15.0	5.0	5		01/25/17 14:27	14808-79-8	

Sample: B31A **Lab ID: 40144487008** Collected: 01/12/17 14:15 Received: 01/14/17 07:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**<0.073**	ug/L	1.0	0.073	1	01/19/17 08:21	01/24/17 05:41	7440-36-0	
Arsenic	**1.5**	ug/L	1.0	0.099	1	01/19/17 08:21	01/24/17 05:41	7440-38-2	
Barium	**146**	ug/L	1.0	0.062	1	01/19/17 08:21	01/24/17 05:41	7440-39-3	
Beryllium	**<0.13**	ug/L	1.0	0.13	1	01/19/17 08:21	01/24/17 05:41	7440-41-7	
Boron	**76.4**	ug/L	10.0	2.0	1	01/19/17 08:21	01/24/17 05:41	7440-42-8	
Cadmium	**<0.089**	ug/L	1.0	0.089	1	01/19/17 08:21	01/24/17 05:41	7440-43-9	
Calcium	**46600**	ug/L	250	73.6	1	01/19/17 08:21	01/24/17 05:41	7440-70-2	
Chromium	**<0.39**	ug/L	1.0	0.39	1	01/19/17 08:21	01/24/17 05:41	7440-47-3	
Cobalt	**2.0**	ug/L	1.0	0.036	1	01/19/17 08:21	01/24/17 05:41	7440-48-4	
Lead	**<0.040**	ug/L	1.0	0.040	1	01/19/17 08:21	01/24/17 05:41	7439-92-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 25216071.01 NELSON DEWEY-CCR
Pace Project No.: 40144487

Sample: B31A **Lab ID: 40144487008** Collected: 01/12/17 14:15 Received: 01/14/17 07:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Lithium	**0.98J**	ug/L	1.0	0.11	1	01/19/17 08:21	01/24/17 05:41	7439-93-2	
Molybdenum	**23.9**	ug/L	1.0	0.070	1	01/19/17 08:21	01/24/17 05:41	7439-98-7	
Selenium	**<0.21**	ug/L	1.0	0.21	1	01/19/17 08:21	01/24/17 05:41	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	01/19/17 08:21	01/24/17 05:41	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	01/17/17 09:30	01/18/17 09:37	7439-97-6	
Field Data	Analytical Method:								
Field pH	**7.82**	Std. Units			1		01/12/17 14:15		
Field Specific Conductance	**858**	umhos/cm			1		01/12/17 14:15		
Oxygen, Dissolved	**0.13**	mg/L			1		01/12/17 14:15	7782-44-7	
REDOX	**-98.4**	mV			1		01/12/17 14:15		
Turbidity	**0.21**	NTU			1		01/12/17 14:15		
Static Water Level	**607.84**	feet			1		01/12/17 14:15		
Temperature, Water (C)	**14.6**	deg C			1		01/12/17 14:15		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**284**	mg/L	20.0	8.7	1		01/19/17 16:29		
9040 pH	Analytical Method: EPA 9040								
pH	**7.3**	Std. Units	0.10	0.010	1		01/16/17 10:25		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**39.9**	mg/L	2.0	0.50	1		01/25/17 14:39	16887-00-6	
Fluoride	**0.22J**	mg/L	0.30	0.10	1		01/25/17 14:39	16984-48-8	
Sulfate	**29.8**	mg/L	3.0	1.0	1		01/25/17 14:39	14808-79-8	

Sample: B31R **Lab ID: 40144487009** Collected: 01/12/17 15:00 Received: 01/14/17 07:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.18J**	ug/L	1.0	0.073	1	01/19/17 08:21	01/24/17 05:48	7440-36-0	
Arsenic	**0.22J**	ug/L	1.0	0.099	1	01/19/17 08:21	01/24/17 05:48	7440-38-2	
Barium	**86.7**	ug/L	1.0	0.062	1	01/19/17 08:21	01/24/17 05:48	7440-39-3	
Beryllium	**<0.13**	ug/L	1.0	0.13	1	01/19/17 08:21	01/24/17 05:48	7440-41-7	
Boron	**749**	ug/L	10.0	2.0	1	01/19/17 08:21	01/24/17 05:48	7440-42-8	
Cadmium	**2.2**	ug/L	1.0	0.089	1	01/19/17 08:21	01/24/17 05:48	7440-43-9	
Calcium	**73900**	ug/L	250	73.6	1	01/19/17 08:21	01/24/17 05:48	7440-70-2	
Chromium	**0.41J**	ug/L	1.0	0.39	1	01/19/17 08:21	01/24/17 05:48	7440-47-3	
Cobalt	**6.6**	ug/L	1.0	0.036	1	01/19/17 08:21	01/24/17 05:48	7440-48-4	
Lead	**0.047J**	ug/L	1.0	0.040	1	01/19/17 08:21	01/24/17 05:48	7439-92-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 25216071.01 NELSON DEWEY-CCR
Pace Project No.: 40144487

Sample: B31R **Lab ID: 40144487009** Collected: 01/12/17 15:00 Received: 01/14/17 07:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Lithium	**21.4**	ug/L	1.0	0.11	1	01/19/17 08:21	01/24/17 05:48	7439-93-2	
Molybdenum	**27.1**	ug/L	1.0	0.070	1	01/19/17 08:21	01/24/17 05:48	7439-98-7	
Selenium	**0.63J**	ug/L	1.0	0.21	1	01/19/17 08:21	01/24/17 05:48	7782-49-2	
Thallium	**2.1**	ug/L	1.0	0.14	1	01/19/17 08:21	01/24/17 05:48	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	01/17/17 09:30	01/18/17 09:09	7439-97-6	
Field Data	Analytical Method:								
Field pH	**6.8**	Std. Units			1		01/12/17 15:00		
Field Specific Conductance	**1100**	umhos/cm			1		01/12/17 15:00		
Oxygen, Dissolved	**0.21**	mg/L			1		01/12/17 15:00	7782-44-7	
REDOX	**12.3**	mV			1		01/12/17 15:00		
Turbidity	**0.72**	NTU			1		01/12/17 15:00		
Static Water Level	**608.37**	feet			1		01/12/17 15:00		
Temperature, Water (C)	**14.5**	deg C			1		01/12/17 15:00		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**380**	mg/L	20.0	8.7	1		01/19/17 16:29		
9040 pH	Analytical Method: EPA 9040								
pH	**6.8**	Std. Units	0.10	0.010	1		01/16/17 10:25		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**26.0**	mg/L	2.0	0.50	1		01/25/17 14:51	16887-00-6	
Fluoride	**0.26J**	mg/L	0.30	0.10	1		01/25/17 14:51	16984-48-8	
Sulfate	**34.9**	mg/L	3.0	1.0	1		01/25/17 14:51	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25216071.01 NELSON DEWEY-CCR
Pace Project No.: 40144487

QC Batch: 246434 Analysis Method: EPA 7470
QC Batch Method: EPA 7470 Analysis Description: 7470 Mercury
Associated Lab Samples: 40144487001, 40144487002, 40144487003, 40144487004, 40144487005, 40144487006, 40144487007, 40144487008, 40144487009

METHOD BLANK: 1457443 Matrix: Water
Associated Lab Samples: 40144487001, 40144487002, 40144487003, 40144487004, 40144487005, 40144487006, 40144487007, 40144487008, 40144487009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	<0.13	0.42	01/18/17 09:04	

LABORATORY CONTROL SAMPLE: 1457444

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.3	105	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1457445 1457446

Parameter	Units	40144487009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	<0.13	5	5	5.1	5.1	102	101	85-115	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25216071.01 NELSON DEWEY-CCR
Pace Project No.: 40144487

QC Batch: 246626 Analysis Method: EPA 6020
QC Batch Method: EPA 3010 Analysis Description: 6020 MET
Associated Lab Samples: 40144487001, 40144487002, 40144487003, 40144487004, 40144487005, 40144487006, 40144487007, 40144487008, 40144487009

METHOD BLANK: 1458189 Matrix: Water
Associated Lab Samples: 40144487001, 40144487002, 40144487003, 40144487004, 40144487005, 40144487006, 40144487007, 40144487008, 40144487009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	<0.073	1.0	01/24/17 03:27	
Arsenic	ug/L	<0.099	1.0	01/24/17 03:27	
Barium	ug/L	0.063J	1.0	01/24/17 03:27	
Beryllium	ug/L	<0.13	1.0	01/24/17 03:27	
Boron	ug/L	<2.0	10.0	01/24/17 03:27	
Cadmium	ug/L	<0.089	1.0	01/24/17 03:27	
Calcium	ug/L	<73.6	250	01/24/17 03:27	
Chromium	ug/L	<0.39	1.0	01/24/17 03:27	
Cobalt	ug/L	<0.036	1.0	01/24/17 03:27	
Lead	ug/L	<0.040	1.0	01/24/17 03:27	
Lithium	ug/L	<0.11	1.0	01/24/17 03:27	
Molybdenum	ug/L	0.24J	1.0	01/24/17 03:27	
Selenium	ug/L	<0.21	1.0	01/24/17 03:27	
Thallium	ug/L	<0.14	1.0	01/24/17 03:27	

LABORATORY CONTROL SAMPLE: 1458190

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	512	102	80-120	
Arsenic	ug/L	500	498	100	80-120	
Barium	ug/L	500	507	101	80-120	
Beryllium	ug/L	500	493	99	80-120	
Boron	ug/L	500	471	94	80-120	
Cadmium	ug/L	500	504	101	80-120	
Calcium	ug/L	5000	4790	96	80-120	
Chromium	ug/L	500	486	97	80-120	
Cobalt	ug/L	500	512	102	80-120	
Lead	ug/L	500	507	101	80-120	
Lithium	ug/L	500	489	98	80-120	
Molybdenum	ug/L	500	506	101	80-120	
Selenium	ug/L	500	534	107	80-120	
Thallium	ug/L	500	491	98	80-120	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25216071.01 NELSON DEWEY-CCR
Pace Project No.: 40144487

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1458191 1458192

Parameter	Units	40144487002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	0.79J	500	500	505	520	101	104	75-125	3	20	
Arsenic	ug/L	4.6	500	500	486	508	96	101	75-125	4	20	
Barium	ug/L	67.3	500	500	552	567	97	100	75-125	3	20	
Beryllium	ug/L	0.22J	500	500	486	500	97	100	75-125	3	20	
Boron	ug/L	228	500	500	677	705	90	95	75-125	4	20	
Cadmium	ug/L	0.61J	500	500	494	510	99	102	75-125	3	20	
Calcium	ug/L	55200	5000	5000	59200	61600	80	128	75-125	4	20	P6
Chromium	ug/L	0.75J	500	500	473	495	94	99	75-125	5	20	
Cobalt	ug/L	1.7	500	500	462	488	92	97	75-125	5	20	
Lead	ug/L	0.58J	500	500	499	521	100	104	75-125	4	20	
Lithium	ug/L	4.6	500	500	494	509	98	101	75-125	3	20	
Molybdenum	ug/L	14.9	500	500	503	524	98	102	75-125	4	20	
Selenium	ug/L	1.3	500	500	526	541	105	108	75-125	3	20	
Thallium	ug/L	1.0J	500	500	485	510	97	102	75-125	5	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25216071.01 NELSON DEWEY-CCR
Pace Project No.: 40144487

QC Batch: 246514 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 40144487001, 40144487002, 40144487003, 40144487004, 40144487005, 40144487006, 40144487007

METHOD BLANK: 1457652 Matrix: Water
Associated Lab Samples: 40144487001, 40144487002, 40144487003, 40144487004, 40144487005, 40144487006, 40144487007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<8.7	20.0	01/17/17 16:52	

LABORATORY CONTROL SAMPLE: 1457653

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	586	580	99	80-120	

SAMPLE DUPLICATE: 1457654

Parameter	Units	40144427001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	20400	20400	0	5	

SAMPLE DUPLICATE: 1457655

Parameter	Units	40144447005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	386	386	0	5	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25216071.01 NELSON DEWEY-CCR
Pace Project No.: 40144487

QC Batch: 246703 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 40144487008, 40144487009

METHOD BLANK: 1458674 Matrix: Water
Associated Lab Samples: 40144487008, 40144487009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<8.7	20.0	01/19/17 16:27	

LABORATORY CONTROL SAMPLE: 1458675

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	586	592	101	80-120	

SAMPLE DUPLICATE: 1458676

Parameter	Units	40144528001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	406	414	2	5	

SAMPLE DUPLICATE: 1458677

Parameter	Units	40144664001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	248	244	2	5	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 25216071.01 NELSON DEWEY-CCR
Pace Project No.: 40144487

QC Batch: 246376 Analysis Method: EPA 9040
QC Batch Method: EPA 9040 Analysis Description: 9040 pH
Associated Lab Samples: 40144487001, 40144487002, 40144487003, 40144487004, 40144487005, 40144487006, 40144487007, 40144487008, 40144487009

SAMPLE DUPLICATE: 1457265

Parameter	Units	40144303001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH	Std. Units	6.7	6.8	1	20	H6

SAMPLE DUPLICATE: 1457266

Parameter	Units	40144372001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH	Std. Units	6.9	6.8	0	20	H6

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25216071.01 NELSON DEWEY-CCR
Pace Project No.: 40144487

QC Batch: 246457 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 40144487001, 40144487002

METHOD BLANK: 1457530 Matrix: Water
Associated Lab Samples: 40144487001, 40144487002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<0.50	2.0	01/20/17 18:45	
Fluoride	mg/L	<0.10	0.30	01/20/17 18:45	
Sulfate	mg/L	<1.0	3.0	01/20/17 18:45	

LABORATORY CONTROL SAMPLE: 1457531

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	20.1	100	90-110	
Fluoride	mg/L	2	2.0	100	90-110	
Sulfate	mg/L	20	20.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1457532 1457533

Parameter	Units	40144402001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	48.0	400	400	458	456	102	102	90-110	0	15	
Fluoride	mg/L	<2.0	40	40	41.5	41.7	104	104	90-110	1	15	
Sulfate	mg/L	<20.0	400	400	427	427	102	102	90-110	0	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1457534 1457535

Parameter	Units	40144487002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	36.7	20	20	57.3	57.1	103	102	90-110	0	15	
Fluoride	mg/L	0.34	2	2	2.5	2.5	108	109	90-110	1	15	
Sulfate	mg/L	18.7	20	20	40.5	40.5	109	109	90-110	0	15	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25216071.01 NELSON DEWEY-CCR
Pace Project No.: 40144487

QC Batch: 246492 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 40144487003, 40144487004, 40144487005, 40144487006, 40144487007, 40144487008, 40144487009

METHOD BLANK: 1457632 Matrix: Water
Associated Lab Samples: 40144487003, 40144487004, 40144487005, 40144487006, 40144487007, 40144487008, 40144487009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<0.50	2.0	01/25/17 11:14	
Fluoride	mg/L	<0.10	0.30	01/25/17 11:14	
Sulfate	mg/L	<1.0	3.0	01/25/17 11:14	

LABORATORY CONTROL SAMPLE: 1457633

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	18.8	94	90-110	
Fluoride	mg/L	2	1.9	94	90-110	
Sulfate	mg/L	20	18.7	93	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1457634 1457635

Parameter	Units	40144540001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	29.8	100	100	131	128	101	99	90-110	2	15	
Fluoride	mg/L	ND	10	10	10.3	10.0	100	97	90-110	2	15	
Sulfate	mg/L	48.3	100	100	147	143	98	94	90-110	3	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1457636 1457637

Parameter	Units	40144447005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	13.2	20	20	34.1	35.4	105	111	90-110	4	15	M0
Fluoride	mg/L	1.0	2	2	3.1	3.2	101	108	90-110	4	15	
Sulfate	mg/L	143	100	100	231	235	89	92	90-110	1	15	M0

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 25216071.01 NELSON DEWEY-CCR
Pace Project No.: 40144487

Sample: FIELD BLANK **Lab ID: 40144487001** Collected: 01/12/17 15:15 Received: 01/14/17 07:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**-0.234 ± 1.07 (2.17) C:NA T:81%**	pCi/L	02/03/17 23:12	13982-63-3	
Radium-228	EPA 904.0	**0.370 ± 0.321 (0.641) C:75% T:87%**	pCi/L	02/06/17 12:20	15262-20-1	
Total Radium	Total Radium Calculation	**0.370 ± 1.39 (2.81)**	pCi/L	02/07/17 17:51	7440-14-4	

Sample: B39 **Lab ID: 40144487002** Collected: 01/11/17 18:45 Received: 01/14/17 07:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**1.05 ± 1.37 (2.28) C:NA T:96%**	pCi/L	02/03/17 23:12	13982-63-3	
Radium-228	EPA 904.0	**0.704 ± 0.378 (0.665) C:72% T:90%**	pCi/L	02/06/17 12:20	15262-20-1	
Total Radium	Total Radium Calculation	**1.75 ± 1.75 (2.95)**	pCi/L	02/07/17 17:51	7440-14-4	

Sample: B26 **Lab ID: 40144487003** Collected: 01/12/17 09:00 Received: 01/14/17 07:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.000 ± 0.915 (1.86) C:NA T:92%**	pCi/L	02/03/17 23:12	13982-63-3	
Radium-228	EPA 904.0	**0.672 ± 0.401 (0.741) C:70% T:92%**	pCi/L	02/06/17 12:20	15262-20-1	
Total Radium	Total Radium Calculation	**0.672 ± 1.32 (2.60)**	pCi/L	02/07/17 17:51	7440-14-4	

Sample: B7R **Lab ID: 40144487004** Collected: 01/12/17 10:45 Received: 01/14/17 07:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**-0.253 ± 1.31 (3.04) C:NA T:73%**	pCi/L	02/03/17 23:12	13982-63-3	
Radium-228	EPA 904.0	**0.828 ± 0.387 (0.640) C:76% T:88%**	pCi/L	02/06/17 12:20	15262-20-1	
Total Radium	Total Radium Calculation	**0.828 ± 1.70 (3.68)**	pCi/L	02/07/17 17:51	7440-14-4	

Sample: B11B **Lab ID: 40144487005** Collected: 01/12/17 11:50 Received: 01/14/17 07:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**-0.434 ± 1.20 (2.85) C:NA T:81%**	pCi/L	02/03/17 23:12	13982-63-3	
Radium-228	EPA 904.0	**0.787 ± 0.476 (0.885) C:77% T:78%**	pCi/L	02/06/17 12:23	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 25216071.01 NELSON DEWEY-CCR
Pace Project No.: 40144487

Sample: B11B **Lab ID: 40144487005** Collected: 01/12/17 11:50 Received: 01/14/17 07:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Total Radium	Total Radium Calculation	**0.787 ± 1.68 (3.74)**	pCi/L	02/07/17 17:51	7440-14-4	

Sample: B11A **Lab ID: 40144487006** Collected: 01/12/17 12:30 Received: 01/14/17 07:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.000 ± 0.959 (2.15) C:NA T:87%**	pCi/L	02/03/17 23:12	13982-63-3	
Radium-228	EPA 904.0	**0.845 ± 0.421 (0.730) C:75% T:88%**	pCi/L	02/06/17 12:20	15262-20-1	
Total Radium	Total Radium Calculation	**0.845 ± 1.38 (2.88)**	pCi/L	02/07/17 17:51	7440-14-4	

Sample: B11R **Lab ID: 40144487007** Collected: 01/12/17 13:25 Received: 01/14/17 07:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.000 ± 0.785 (1.27) C:NA T:98%**	pCi/L	02/03/17 23:46	13982-63-3	
Radium-228	EPA 904.0	**0.345 ± 0.362 (0.748) C:72% T:83%**	pCi/L	02/06/17 12:21	15262-20-1	
Total Radium	Total Radium Calculation	**0.345 ± 1.15 (2.02)**	pCi/L	02/07/17 17:51	7440-14-4	

Sample: B31A **Lab ID: 40144487008** Collected: 01/12/17 14:15 Received: 01/14/17 07:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.000 ± 0.926 (1.88) C:NA T:84%**	pCi/L	02/03/17 23:46	13982-63-3	
Radium-228	EPA 904.0	**0.407 ± 0.412 (0.852) C:63% T:92%**	pCi/L	02/06/17 12:23	15262-20-1	
Total Radium	Total Radium Calculation	**0.407 ± 1.34 (2.73)**	pCi/L	02/07/17 17:51	7440-14-4	

Sample: B31R **Lab ID: 40144487009** Collected: 01/12/17 15:00 Received: 01/14/17 07:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.920 ± 1.30 (2.21) C:NA T:90%**	pCi/L	02/03/17 23:46	13982-63-3	
Radium-228	EPA 904.0	**0.310 ± 0.309 (0.635) C:75% T:86%**	pCi/L	02/06/17 15:33	15262-20-1	
Total Radium	Total Radium Calculation	**1.23 ± 1.61 (2.85)**	pCi/L	02/07/17 17:51	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL - RADIOCHEMISTRY

Project: 25216071.01 NELSON DEWEY-CCR
Pace Project No.: 40144487

QC Batch: 247274 Analysis Method: EPA 904.0
QC Batch Method: EPA 904.0 Analysis Description: 904.0 Radium 228
Associated Lab Samples: 40144487001, 40144487002, 40144487003, 40144487004, 40144487005, 40144487006, 40144487007, 40144487008, 40144487009

METHOD BLANK: 1216074 Matrix: Water
Associated Lab Samples: 40144487001, 40144487002, 40144487003, 40144487004, 40144487005, 40144487006, 40144487007, 40144487008, 40144487009

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.0825 ± 0.342 (0.776) C:73% T:86%	pCi/L	02/06/17 12:19	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 25216071.01 NELSON DEWEY-CCR
Pace Project No.: 40144487

QC Batch: 247272 Analysis Method: EPA 903.1
QC Batch Method: EPA 903.1 Analysis Description: 903.1 Radium-226
Associated Lab Samples: 40144487001, 40144487002, 40144487003, 40144487004, 40144487005, 40144487006, 40144487007, 40144487008, 40144487009

METHOD BLANK: 1216068 Matrix: Water
Associated Lab Samples: 40144487001, 40144487002, 40144487003, 40144487004, 40144487005, 40144487006, 40144487007, 40144487008, 40144487009

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.000 ± 0.369 (0.596) C:NA T:86%	pCi/L	02/03/17 22:35	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALIFIERS

Project: 25216071.01 NELSON DEWEY-CCR
Pace Project No.: 40144487

DEFINITIONS

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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 LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

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 at or above the adjusted LOD.

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-G	Pace Analytical Services - Green Bay
PASI-PA	Pace Analytical Services - Greensburg

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
H6	Analysis initiated outside of the 15 minute EPA required holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 25216071.01 NELSON DEWEY-CCR
Pace Project No.: 40144487

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40144487001	**FIELD BLANK**	EPA 3010	246626	EPA 6020	246696
40144487002	**B39**	EPA 3010	246626	EPA 6020	246696
40144487003	**B26**	EPA 3010	246626	EPA 6020	246696
40144487004	**B7R**	EPA 3010	246626	EPA 6020	246696
40144487005	**B11B**	EPA 3010	246626	EPA 6020	246696
40144487006	**B11A**	EPA 3010	246626	EPA 6020	246696
40144487007	**B11R**	EPA 3010	246626	EPA 6020	246696
40144487008	**B31A**	EPA 3010	246626	EPA 6020	246696
40144487009	**B31R**	EPA 3010	246626	EPA 6020	246696
40144487001	**FIELD BLANK**	EPA 7470	246434	EPA 7470	246473
40144487002	**B39**	EPA 7470	246434	EPA 7470	246473
40144487003	**B26**	EPA 7470	246434	EPA 7470	246473
40144487004	**B7R**	EPA 7470	246434	EPA 7470	246473
40144487005	**B11B**	EPA 7470	246434	EPA 7470	246473
40144487006	**B11A**	EPA 7470	246434	EPA 7470	246473
40144487007	**B11R**	EPA 7470	246434	EPA 7470	246473
40144487008	**B31A**	EPA 7470	246434	EPA 7470	246473
40144487009	**B31R**	EPA 7470	246434	EPA 7470	246473
40144487002	**B39**				
40144487003	**B26**				
40144487004	**B7R**				
40144487005	**B11B**				
40144487006	**B11A**				
40144487007	**B11R**				
40144487008	**B31A**				
40144487009	**B31R**				
40144487001	**FIELD BLANK**	EPA 903.1	247272		
40144487002	**B39**	EPA 903.1	247272		
40144487003	**B26**	EPA 903.1	247272		
40144487004	**B7R**	EPA 903.1	247272		
40144487005	**B11B**	EPA 903.1	247272		
40144487006	**B11A**	EPA 903.1	247272		
40144487007	**B11R**	EPA 903.1	247272		
40144487008	**B31A**	EPA 903.1	247272		
40144487009	**B31R**	EPA 903.1	247272		
40144487001	**FIELD BLANK**	EPA 904.0	247274		
40144487002	**B39**	EPA 904.0	247274		
40144487003	**B26**	EPA 904.0	247274		
40144487004	**B7R**	EPA 904.0	247274		
40144487005	**B11B**	EPA 904.0	247274		
40144487006	**B11A**	EPA 904.0	247274		
40144487007	**B11R**	EPA 904.0	247274		
40144487008	**B31A**	EPA 904.0	247274		
40144487009	**B31R**	EPA 904.0	247274		
40144487001	**FIELD BLANK**	Total Radium Calculation	248708		
40144487002	**B39**	Total Radium Calculation	248708		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 25216071.01 NELSON DEWEY-CCR
Pace Project No.: 40144487

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40144487003	**B26**	Total Radium Calculation	248708		
40144487004	**B7R**	Total Radium Calculation	248708		
40144487005	**B11B**	Total Radium Calculation	248708		
40144487006	**B11A**	Total Radium Calculation	248708		
40144487007	**B11R**	Total Radium Calculation	248708		
40144487008	**B31A**	Total Radium Calculation	248708		
40144487009	**B31R**	Total Radium Calculation	248708		
40144487001	**FIELD BLANK**	SM 2540C	246514		
40144487002	**B39**	SM 2540C	246514		
40144487003	**B26**	SM 2540C	246514		
40144487004	**B7R**	SM 2540C	246514		
40144487005	**B11B**	SM 2540C	246514		
40144487006	**B11A**	SM 2540C	246514		
40144487007	**B11R**	SM 2540C	246514		
40144487008	**B31A**	SM 2540C	246703		
40144487009	**B31R**	SM 2540C	246703		
40144487001	**FIELD BLANK**	EPA 9040	246376		
40144487002	**B39**	EPA 9040	246376		
40144487003	**B26**	EPA 9040	246376		
40144487004	**B7R**	EPA 9040	246376		
40144487005	**B11B**	EPA 9040	246376		
40144487006	**B11A**	EPA 9040	246376		
40144487007	**B11R**	EPA 9040	246376		
40144487008	**B31A**	EPA 9040	246376		
40144487009	**B31R**	EPA 9040	246376		
40144487001	**FIELD BLANK**	EPA 300.0	246457		
40144487002	**B39**	EPA 300.0	246457		
40144487003	**B26**	EPA 300.0	246492		
40144487004	**B7R**	EPA 300.0	246492		
40144487005	**B11B**	EPA 300.0	246492		
40144487006	**B11A**	EPA 300.0	246492		
40144487007	**B11R**	EPA 300.0	246492		
40144487008	**B31A**	EPA 300.0	246492		
40144487009	**B31R**	EPA 300.0	246492		

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

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401444487

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CHAIN OF CUSTODY

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

(Please Print Clearly)	
Company Name:	SCS
Branch/Location:	Madison, WI
Project Contact:	Meg Blodgett
Phone:	608 216-7362
Project Number:	25216071.01
Project Name:	Nelson Dewey
Project State:	WI
Sampled By (Print):	Paul A. Grover
Sampled By (Sign):	Paul A. Grover
PO #:	Regulatory Program:

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes

A = Air	W = Water
B = Biota	DW = Drinking Water
C = Charcoal	GW = Ground Water
O = Oil	SW = Surface Water
S = Soil	WW = Waste Water
Sl = Sludge	WP = Wipe

FILTERED? (YES/NO) — Y/N: N
PRESERVATION (CODE)* — Pick Letter: A D D D D

Analyses Requested: Ph, Cl, TDS, SO4, Fluoride | Ca, B, As, Ba, Be, Cd, Cr, Co, Pb, Hg | Mo, Se, Tl, Sb, Li | Ra 226 | Ra 228

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
001	Field Blank	1-12-17	15:15	DI	2-500mLp	4-250mLp AADD	
002	~~MW~~ B 39	1-11-17	18:45	GW			
003	B 26	1-12-17	9:00				
004	B 7R		10:45				
005	B 11B		11:50				
006	B 11A		12:30				
007	B 11R		13:25				
008	B 31A		14:15				
009	B 31R		15:00				

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
Paul A. Grover	1-13-17		
CS Logistics	1/14/17 0735	Katie Schramm PaCE	1/14/17 0735

PACE Project No.
401444487

Receipt Temp = R01 °C

Sample Receipt pH
OK / Adjusted

Cooler Custody Seal
Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

Sample Condition Upon Receipt

Pace Analytical Services, Inc.
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Project # **WO# : 40144487**

40144487

Client Name: SCS

Courier: ☐ Fed Ex ☐ UPS ☐ Client ☐ Pace ☑ Other: CS Logistics

Tracking #:

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

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

Thermometer Used NA **Type of Ice:** (Wet) Blue Dry None ☑ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: /Corr: R01 **Biological Tissue is Frozen:** ☐ yes ☐ no

Temp Blank Present: ☐ yes ☑ no

Temp should be above freezing to 6°C for all sample except Biota.
Frozen Biota Samples should be received ≤ 0°C.

Person examining contents:
Date: 1/14/17
Initials: KF

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3. no time KF 1/14/17
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr): KF 1/14/17	☑Yes ☐No ☐N/A	6. TDS KF 1/14/17
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
-Pace IR Containers Used:	☐Yes ☐No ☑N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: WO		
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	☑Yes ☐No ☐N/A	13. ☑ HNO3 ☐ H2SO4 ☐ NaOH ☐ NaOH +ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	☑Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	☐Yes ☑No	Initial when completed KF / Lab Std #ID of preservative / Date/ Time:
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	14.
Trip Blank Present:	☐Yes ☐No ☑N/A	15.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: If checked, see attached form for additional comments ☐

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: Must for DM **Date:** 1/14/17

A6 Round 6 Background Sampling, Analytical Laboratory Report

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

May 04, 2017

Meghan Blodgett
SCS ENGINEERS
2830 Dairy Drive
Madison, WI 53718

RE: Project: 25216071.17 NELSON DEWEY
Pace Project No.: 40148589

Dear Meghan Blodgett:
Enclosed are the analytical results for sample(s) received by the laboratory on April 19, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Dan Milewsky
dan.milewsky@pacelabs.com
(920)469-2436
Project Manager

Enclosures

cc: Tom Karwoski, SCS ENGINEERS
Jeff Maxted, ALLIANT ENERGY
Marc Morandi, ALLIANT ENERGY

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: 25216071.17 NELSON DEWEY
Pace Project No.: 40148589

Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150
Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0

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SAMPLE SUMMARY

Project: 25216071.17 NELSON DEWEY
Pace Project No.: 40148589

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40148589001	**B-7R**	Water	04/17/17 19:00	04/19/17 09:00
40148589002	**B-11A**	Water	04/17/17 20:15	04/19/17 09:00
40148589003	**B-11B**	Water	04/17/17 21:10	04/19/17 09:00
40148589004	**B-11R**	Water	04/17/17 21:35	04/19/17 09:00
40148589005	**B-26**	Water	04/17/17 20:05	04/19/17 09:00
40148589006	**B-31R**	Water	04/17/17 19:00	04/19/17 09:00
40148589007	**B-31A**	Water	04/17/17 18:05	04/19/17 09:00
40148589008	**B-39**	Water	04/17/17 16:40	04/19/17 09:00
40148589009	**FIELD BLANK**	Water	04/17/17 20:40	04/19/17 09:00

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SAMPLE ANALYTE COUNT

Project: 25216071.17 NELSON DEWEY
Pace Project No.: 40148589

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40148589001	**B-7R**	EPA 6020	DS1	14
		EPA 7470	AJT	1
			AMH	7
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	HMB	3
40148589002	**B-11A**	EPA 6020	DS1	14
		EPA 7470	AJT	1
			AMH	7
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	HMB	3
40148589003	**B-11B**	EPA 6020	DS1	14
		EPA 7470	AJT	1
			AMH	7
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	HMB	3
40148589004	**B-11R**	EPA 6020	DS1	14
		EPA 7470	AJT	1
			AMH	7
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	HMB	3
40148589005	**B-26**	EPA 6020	DS1	14
		EPA 7470	AJT	1
			AMH	7
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	HMB	3
40148589006	**B-31R**	EPA 6020	DS1	14
		EPA 7470	AJT	1
			AMH	7
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	HMB	3
40148589007	**B-31A**	EPA 6020	DS1	14

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SAMPLE ANALYTE COUNT

Project: 25216071.17 NELSON DEWEY
Pace Project No.: 40148589

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 7470	AJT	1
			AMH	7
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	HMB	3
40148589008	**B-39**	EPA 6020	DS1	14
		EPA 7470	AJT	1
			AMH	7
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	HMB	3
40148589009	**FIELD BLANK**	EPA 6020	DS1	14
		EPA 7470	AJT	1
		SM 2540C	TMK	1
		EPA 300.0	HMB	3

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ANALYTICAL RESULTS

Project: 25216071.17 NELSON DEWEY
Pace Project No.: 40148589

Sample: B-7R **Lab ID: 40148589001** Collected: 04/17/17 19:00 Received: 04/19/17 09:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.18J**	ug/L	1.0	0.073	1	04/25/17 09:03	04/26/17 23:32	7440-36-0	
Arsenic	**3.5**	ug/L	1.0	0.099	1	04/25/17 09:03	04/26/17 23:32	7440-38-2	
Barium	**83.3**	ug/L	1.0	0.062	1	04/25/17 09:03	04/26/17 23:32	7440-39-3	
Beryllium	**<0.13**	ug/L	1.0	0.13	1	04/25/17 09:03	04/26/17 23:32	7440-41-7	
Boron	**129**	ug/L	10.0	2.0	1	04/25/17 09:03	04/26/17 23:32	7440-42-8	
Cadmium	**0.11J**	ug/L	1.0	0.089	1	04/25/17 09:03	04/26/17 23:32	7440-43-9	
Calcium	**61400**	ug/L	250	73.6	1	04/25/17 09:03	04/26/17 23:32	7440-70-2	
Chromium	**0.41J**	ug/L	1.0	0.39	1	04/25/17 09:03	04/26/17 23:32	7440-47-3	
Cobalt	**1.4**	ug/L	1.0	0.036	1	04/25/17 09:03	04/26/17 23:32	7440-48-4	
Lead	**0.26J**	ug/L	1.0	0.040	1	04/25/17 09:03	04/26/17 23:32	7439-92-1	
Lithium	**0.26J**	ug/L	1.0	0.11	1	04/25/17 09:03	04/26/17 23:32	7439-93-2	
Molybdenum	**2.1**	ug/L	1.0	0.070	1	04/25/17 09:03	04/26/17 23:32	7439-98-7	B
Selenium	**0.39J**	ug/L	1.0	0.21	1	04/25/17 09:03	04/26/17 23:32	7782-49-2	
Thallium	**0.22J**	ug/L	1.0	0.14	1	04/25/17 09:03	04/26/17 23:32	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	04/24/17 13:20	04/25/17 10:20	7439-97-6	
Field Data	Analytical Method:								
Field pH	**6.60**	Std. Units			1		04/17/17 19:00		
Field Specific Conductance	**532.0**	umhos/cm			1		04/17/17 19:00		
Oxygen, Dissolved	**0.10**	mg/L			1		04/17/17 19:00	7782-44-7	
REDOX	**-83.3**	mV			1		04/17/17 19:00		
Turbidity	**3.53**	NTU			1		04/17/17 19:00		
Static Water Level	**609.08**	feet			1		04/17/17 19:00		
Temperature, Water (C)	**10.9**	deg C			1		04/17/17 19:00		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**278**	mg/L	20.0	8.7	1		04/20/17 14:09		
9040 pH	Analytical Method: EPA 9040								
pH	**6.8**	Std. Units	0.10	0.010	1		04/20/17 09:15		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**13.1**	mg/L	10.0	2.5	5		04/28/17 14:04	16887-00-6	
Fluoride	**<0.50**	mg/L	1.5	0.50	5		04/28/17 14:04	16984-48-8	D3
Sulfate	**<5.0**	mg/L	15.0	5.0	5		04/28/17 14:04	14808-79-8	D3

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 25216071.17 NELSON DEWEY
Pace Project No.: 40148589

Sample: B-11A **Lab ID: 40148589002** Collected: 04/17/17 20:15 Received: 04/19/17 09:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.51J**	ug/L	1.0	0.073	1	04/25/17 09:03	04/27/17 00:13	7440-36-0	
Arsenic	**0.40J**	ug/L	1.0	0.099	1	04/25/17 09:03	04/27/17 00:13	7440-38-2	
Barium	**192**	ug/L	1.0	0.062	1	04/25/17 09:03	04/27/17 00:13	7440-39-3	
Beryllium	**<0.13**	ug/L	1.0	0.13	1	04/25/17 09:03	04/27/17 00:13	7440-41-7	
Boron	**100**	ug/L	10.0	2.0	1	04/25/17 09:03	04/27/17 00:13	7440-42-8	
Cadmium	**0.24J**	ug/L	1.0	0.089	1	04/25/17 09:03	04/27/17 00:13	7440-43-9	
Calcium	**54800**	ug/L	250	73.6	1	04/25/17 09:03	04/27/17 00:13	7440-70-2	
Chromium	**0.52J**	ug/L	1.0	0.39	1	04/25/17 09:03	04/27/17 00:13	7440-47-3	
Cobalt	**1.4**	ug/L	1.0	0.036	1	04/25/17 09:03	04/27/17 00:13	7440-48-4	
Lead	**0.33J**	ug/L	1.0	0.040	1	04/25/17 09:03	04/27/17 00:13	7439-92-1	
Lithium	**5.9**	ug/L	1.0	0.11	1	04/25/17 09:03	04/27/17 00:13	7439-93-2	
Molybdenum	**22.4**	ug/L	1.0	0.070	1	04/25/17 09:03	04/27/17 00:13	7439-98-7	
Selenium	**0.36J**	ug/L	1.0	0.21	1	04/25/17 09:03	04/27/17 00:13	7782-49-2	
Thallium	**0.46J**	ug/L	1.0	0.14	1	04/25/17 09:03	04/27/17 00:13	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	04/24/17 13:20	04/25/17 10:27	7439-97-6	
Field Data	Analytical Method:								
Field pH	**7.38**	Std. Units			1		04/17/17 20:15		
Field Specific Conductance	**583.3**	umhos/cm			1		04/17/17 20:15		
Oxygen, Dissolved	**0.11**	mg/L			1		04/17/17 20:15	7782-44-7	
REDOX	**-103.6**	mV			1		04/17/17 20:15		
Turbidity	**0.51**	NTU			1		04/17/17 20:15		
Static Water Level	**609.05**	feet			1		04/17/17 20:15		
Temperature, Water (C)	**14.4**	deg C			1		04/17/17 20:15		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**326**	mg/L	20.0	8.7	1		04/20/17 14:09		
9040 pH	Analytical Method: EPA 9040								
pH	**7.7**	Std. Units	0.10	0.010	1		04/20/17 09:15		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**45.4**	mg/L	2.0	0.50	1		04/28/17 14:15	16887-00-6	
Fluoride	**0.36**	mg/L	0.30	0.10	1		04/28/17 14:15	16984-48-8	
Sulfate	**<1.0**	mg/L	3.0	1.0	1		04/28/17 14:15	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 25216071.17 NELSON DEWEY
Pace Project No.: 40148589

Sample: B-11B **Lab ID: 40148589003** Collected: 04/17/17 21:10 Received: 04/19/17 09:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.098J**	ug/L	1.0	0.073	1	04/25/17 09:03	04/27/17 00:26	7440-36-0	
Arsenic	**0.47J**	ug/L	1.0	0.099	1	04/25/17 09:03	04/27/17 00:26	7440-38-2	
Barium	**151**	ug/L	1.0	0.062	1	04/25/17 09:03	04/27/17 00:26	7440-39-3	
Beryllium	**<0.13**	ug/L	1.0	0.13	1	04/25/17 09:03	04/27/17 00:26	7440-41-7	
Boron	**1760**	ug/L	10.0	2.0	1	04/25/17 09:03	04/27/17 00:26	7440-42-8	
Cadmium	**<0.089**	ug/L	1.0	0.089	1	04/25/17 09:03	04/27/17 00:26	7440-43-9	
Calcium	**67400**	ug/L	250	73.6	1	04/25/17 09:03	04/27/17 00:26	7440-70-2	
Chromium	**0.45J**	ug/L	1.0	0.39	1	04/25/17 09:03	04/27/17 00:26	7440-47-3	
Cobalt	**0.29J**	ug/L	1.0	0.036	1	04/25/17 09:03	04/27/17 00:26	7440-48-4	
Lead	**0.061J**	ug/L	1.0	0.040	1	04/25/17 09:03	04/27/17 00:26	7439-92-1	
Lithium	**19.5**	ug/L	1.0	0.11	1	04/25/17 09:03	04/27/17 00:26	7439-93-2	
Molybdenum	**53.8**	ug/L	1.0	0.070	1	04/25/17 09:03	04/27/17 00:26	7439-98-7	
Selenium	**<0.21**	ug/L	1.0	0.21	1	04/25/17 09:03	04/27/17 00:26	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	04/25/17 09:03	04/27/17 00:26	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	04/24/17 13:20	04/25/17 10:29	7439-97-6	
Field Data	Analytical Method:								
Field pH	**7.83**	Std. Units			1		04/17/17 21:10		
Field Specific Conductance	**799**	umhos/cm			1		04/17/17 21:10		
Oxygen, Dissolved	**0.09**	mg/L			1		04/17/17 21:10	7782-44-7	
REDOX	**-121.3**	mV			1		04/17/17 21:10		
Turbidity	**0.36**	NTU			1		04/17/17 21:10		
Static Water Level	**608.99**	feet			1		04/17/17 21:10		
Temperature, Water (C)	**14.2**	deg C			1		04/17/17 21:10		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**502**	mg/L	20.0	8.7	1		04/20/17 14:10		
9040 pH	Analytical Method: EPA 9040								
pH	**7.9**	Std. Units	0.10	0.010	1		04/20/17 09:35		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**36.3**	mg/L	2.0	0.50	1		04/28/17 14:26	16887-00-6	
Fluoride	**0.58**	mg/L	0.30	0.10	1		04/28/17 14:26	16984-48-8	
Sulfate	**181**	mg/L	15.0	5.0	5		05/01/17 12:42	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 25216071.17 NELSON DEWEY
Pace Project No.: 40148589

Sample: B-11R **Lab ID: 40148589004** Collected: 04/17/17 21:35 Received: 04/19/17 09:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**<0.073**	ug/L	1.0	0.073	1	04/25/17 09:03	04/27/17 00:33	7440-36-0	
Arsenic	**6.9**	ug/L	1.0	0.099	1	04/25/17 09:03	04/27/17 00:33	7440-38-2	
Barium	**149**	ug/L	1.0	0.062	1	04/25/17 09:03	04/27/17 00:33	7440-39-3	
Beryllium	**<0.13**	ug/L	1.0	0.13	1	04/25/17 09:03	04/27/17 00:33	7440-41-7	
Boron	**3520**	ug/L	10.0	2.0	1	04/25/17 09:03	04/27/17 00:33	7440-42-8	
Cadmium	**<0.089**	ug/L	1.0	0.089	1	04/25/17 09:03	04/27/17 00:33	7440-43-9	
Calcium	**123000**	ug/L	250	73.6	1	04/25/17 09:03	04/27/17 00:33	7440-70-2	
Chromium	**<0.39**	ug/L	1.0	0.39	1	04/25/17 09:03	04/27/17 00:33	7440-47-3	
Cobalt	**1.3**	ug/L	1.0	0.036	1	04/25/17 09:03	04/27/17 00:33	7440-48-4	
Lead	**0.12J**	ug/L	1.0	0.040	1	04/25/17 09:03	04/27/17 00:33	7439-92-1	
Lithium	**1.4**	ug/L	1.0	0.11	1	04/25/17 09:03	04/27/17 00:33	7439-93-2	
Molybdenum	**57.2**	ug/L	1.0	0.070	1	04/25/17 09:03	04/27/17 00:33	7439-98-7	
Selenium	**<0.21**	ug/L	1.0	0.21	1	04/25/17 09:03	04/27/17 00:33	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	04/25/17 09:03	04/27/17 00:33	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	04/24/17 13:20	04/25/17 10:32	7439-97-6	
Field Data	Analytical Method:								
Field pH	**7.11**	Std. Units			1		04/17/17 21:35		
Field Specific Conductance	**1020**	umhos/cm			1		04/17/17 21:35		
Oxygen, Dissolved	**0.11**	mg/L			1		04/17/17 21:35	7782-44-7	
REDOX	**-53.3**	mV			1		04/17/17 21:35		
Turbidity	**3.85**	NTU			1		04/17/17 21:35		
Static Water Level	**608.34**	feet			1		04/17/17 21:35		
Temperature, Water (C)	**11.7**	deg C			1		04/17/17 21:35		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**620**	mg/L	20.0	8.7	1		04/20/17 14:10		
9040 pH	Analytical Method: EPA 9040								
pH	**7.2**	Std. Units	0.10	0.010	1		04/20/17 09:35		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**40.2**	mg/L	10.0	2.5	5		04/28/17 14:37	16887-00-6	
Fluoride	**<0.50**	mg/L	1.5	0.50	5		04/28/17 14:37	16984-48-8	D3
Sulfate	**108**	mg/L	15.0	5.0	5		04/28/17 14:37	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 25216071.17 NELSON DEWEY
Pace Project No.: 40148589

Sample: B-26 **Lab ID: 40148589005** Collected: 04/17/17 20:05 Received: 04/19/17 09:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.087J**	ug/L	1.0	0.073	1	04/25/17 09:03	04/27/17 00:39	7440-36-0	
Arsenic	**0.50J**	ug/L	1.0	0.099	1	04/25/17 09:03	04/27/17 00:39	7440-38-2	
Barium	**91.0**	ug/L	1.0	0.062	1	04/25/17 09:03	04/27/17 00:39	7440-39-3	
Beryllium	**<0.13**	ug/L	1.0	0.13	1	04/25/17 09:03	04/27/17 00:39	7440-41-7	
Boron	**50.1**	ug/L	10.0	2.0	1	04/25/17 09:03	04/27/17 00:39	7440-42-8	
Cadmium	**<0.089**	ug/L	1.0	0.089	1	04/25/17 09:03	04/27/17 00:39	7440-43-9	
Calcium	**89000**	ug/L	250	73.6	1	04/25/17 09:03	04/27/17 00:39	7440-70-2	
Chromium	**1.1**	ug/L	1.0	0.39	1	04/25/17 09:03	04/27/17 00:39	7440-47-3	
Cobalt	**0.13J**	ug/L	1.0	0.036	1	04/25/17 09:03	04/27/17 00:39	7440-48-4	
Lead	**0.079J**	ug/L	1.0	0.040	1	04/25/17 09:03	04/27/17 00:39	7439-92-1	
Lithium	**2.1**	ug/L	1.0	0.11	1	04/25/17 09:03	04/27/17 00:39	7439-93-2	
Molybdenum	**0.20J**	ug/L	1.0	0.070	1	04/25/17 09:03	04/27/17 00:39	7439-98-7	B
Selenium	**1.5**	ug/L	1.0	0.21	1	04/25/17 09:03	04/27/17 00:39	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	04/25/17 09:03	04/27/17 00:39	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	04/24/17 13:20	04/25/17 10:34	7439-97-6	
Field Data	Analytical Method:								
Field pH	**7.54**	Std. Units			1		04/17/17 20:05		
Field Specific Conductance	**800**	umhos/cm			1		04/17/17 20:05		
Oxygen, Dissolved	**7.79**	mg/L			1		04/17/17 20:05	7782-44-7	
REDOX	**148.4**	mV			1		04/17/17 20:05		
Turbidity	**0.56**	NTU			1		04/17/17 20:05		
Static Water Level	**608.59**	feet			1		04/17/17 20:05		
Temperature, Water (C)	**11.1**	deg C			1		04/17/17 20:05		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**468**	mg/L	20.0	8.7	1		04/20/17 14:10		
9040 pH	Analytical Method: EPA 9040								
pH	**7.5**	Std. Units	0.10	0.010	1		04/20/17 09:35		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**56.0**	mg/L	2.0	0.50	1		04/28/17 14:47	16887-00-6	
Fluoride	**<0.10**	mg/L	0.30	0.10	1		04/28/17 14:47	16984-48-8	
Sulfate	**32.4**	mg/L	3.0	1.0	1		04/28/17 14:47	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 25216071.17 NELSON DEWEY
Pace Project No.: 40148589

Sample: B-31R **Lab ID: 40148589006** Collected: 04/17/17 19:00 Received: 04/19/17 09:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.22J**	ug/L	1.0	0.073	1	04/25/17 09:03	04/27/17 00:46	7440-36-0	
Arsenic	**0.29J**	ug/L	1.0	0.099	1	04/25/17 09:03	04/27/17 00:46	7440-38-2	
Barium	**91.1**	ug/L	1.0	0.062	1	04/25/17 09:03	04/27/17 00:46	7440-39-3	
Beryllium	**<0.13**	ug/L	1.0	0.13	1	04/25/17 09:03	04/27/17 00:46	7440-41-7	
Boron	**929**	ug/L	10.0	2.0	1	04/25/17 09:03	04/27/17 00:46	7440-42-8	
Cadmium	**3.0**	ug/L	1.0	0.089	1	04/25/17 09:03	04/27/17 00:46	7440-43-9	
Calcium	**85600**	ug/L	250	73.6	1	04/25/17 09:03	04/27/17 00:46	7440-70-2	
Chromium	**<0.39**	ug/L	1.0	0.39	1	04/25/17 09:03	04/27/17 00:46	7440-47-3	
Cobalt	**3.1**	ug/L	1.0	0.036	1	04/25/17 09:03	04/27/17 00:46	7440-48-4	
Lead	**0.57J**	ug/L	1.0	0.040	1	04/25/17 09:03	04/27/17 00:46	7439-92-1	
Lithium	**21.7**	ug/L	1.0	0.11	1	04/25/17 09:03	04/27/17 00:46	7439-93-2	
Molybdenum	**26.8**	ug/L	1.0	0.070	1	04/25/17 09:03	04/27/17 00:46	7439-98-7	
Selenium	**0.96J**	ug/L	1.0	0.21	1	04/25/17 09:03	04/27/17 00:46	7782-49-2	
Thallium	**2.2**	ug/L	1.0	0.14	1	04/25/17 09:03	04/27/17 00:46	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	04/24/17 13:20	04/25/17 10:36	7439-97-6	
Field Data	Analytical Method:								
Field pH	**6.80**	Std. Units			1		04/17/17 19:00		
Field Specific Conductance	**637.0**	umhos/cm			1		04/17/17 19:00		
Oxygen, Dissolved	**0.16**	mg/L			1		04/17/17 19:00	7782-44-7	
REDOX	**676**	mV			1		04/17/17 19:00		
Turbidity	**0.62**	NTU			1		04/17/17 19:00		
Static Water Level	**607.20**	feet			1		04/17/17 19:00		
Temperature, Water (C)	**13.8**	deg C			1		04/17/17 19:00		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**416**	mg/L	20.0	8.7	1		04/20/17 14:10		
9040 pH	Analytical Method: EPA 9040								
pH	**6.8**	Std. Units	0.10	0.010	1		04/20/17 09:35		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**20.4**	mg/L	2.0	0.50	1		04/28/17 14:58	16887-00-6	
Fluoride	**0.12J**	mg/L	0.30	0.10	1		04/28/17 14:58	16984-48-8	
Sulfate	**43.0**	mg/L	3.0	1.0	1		04/28/17 14:58	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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(920)469-2436

ANALYTICAL RESULTS

Project: 25216071.17 NELSON DEWEY
Pace Project No.: 40148589

Sample: B-31A **Lab ID: 40148589007** Collected: 04/17/17 18:05 Received: 04/19/17 09:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**<0.073**	ug/L	1.0	0.073	1	04/25/17 09:03	04/27/17 00:53	7440-36-0	
Arsenic	**1.3**	ug/L	1.0	0.099	1	04/25/17 09:03	04/27/17 00:53	7440-38-2	
Barium	**146**	ug/L	1.0	0.062	1	04/25/17 09:03	04/27/17 00:53	7440-39-3	
Beryllium	**<0.13**	ug/L	1.0	0.13	1	04/25/17 09:03	04/27/17 00:53	7440-41-7	
Boron	**69.9**	ug/L	10.0	2.0	1	04/25/17 09:03	04/27/17 00:53	7440-42-8	
Cadmium	**<0.089**	ug/L	1.0	0.089	1	04/25/17 09:03	04/27/17 00:53	7440-43-9	
Calcium	**46900**	ug/L	250	73.6	1	04/25/17 09:03	04/27/17 00:53	7440-70-2	
Chromium	**<0.39**	ug/L	1.0	0.39	1	04/25/17 09:03	04/27/17 00:53	7440-47-3	
Cobalt	**1.9**	ug/L	1.0	0.036	1	04/25/17 09:03	04/27/17 00:53	7440-48-4	
Lead	**0.36J**	ug/L	1.0	0.040	1	04/25/17 09:03	04/27/17 00:53	7439-92-1	
Lithium	**0.97J**	ug/L	1.0	0.11	1	04/25/17 09:03	04/27/17 00:53	7439-93-2	
Molybdenum	**23.8**	ug/L	1.0	0.070	1	04/25/17 09:03	04/27/17 00:53	7439-98-7	
Selenium	**<0.21**	ug/L	1.0	0.21	1	04/25/17 09:03	04/27/17 00:53	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	04/25/17 09:03	04/27/17 00:53	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	04/24/17 13:20	04/25/17 10:43	7439-97-6	
Field Data	Analytical Method:								
Field pH	**7.83**	Std. Units			1		04/17/17 18:05		
Field Specific Conductance	**486.0**	umhos/cm			1		04/17/17 18:05		
Oxygen, Dissolved	**0.14**	mg/L			1		04/17/17 18:05	7782-44-7	
REDOX	**-55.2**	mV			1		04/17/17 18:05		
Turbidity	**0.37**	NTU			1		04/17/17 18:05		
Static Water Level	**608.98**	feet			1		04/17/17 18:05		
Temperature, Water (C)	**14.8**	deg C			1		04/17/17 18:05		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**318**	mg/L	20.0	8.7	1		04/24/17 14:43		
9040 pH	Analytical Method: EPA 9040								
pH	**7.7**	Std. Units	0.10	0.010	1		04/20/17 09:35		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**40.3**	mg/L	2.0	0.50	1		04/28/17 15:09	16887-00-6	
Fluoride	**0.19J**	mg/L	0.30	0.10	1		04/28/17 15:09	16984-48-8	
Sulfate	**31.0**	mg/L	3.0	1.0	1		04/28/17 15:09	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

ANALYTICAL RESULTS

Project: 25216071.17 NELSON DEWEY
Pace Project No.: 40148589

Sample: B-39 **Lab ID: 40148589008** Collected: 04/17/17 16:40 Received: 04/19/17 09:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.15J**	ug/L	1.0	0.073	1	04/25/17 09:03	04/27/17 01:00	7440-36-0	
Arsenic	**3.1**	ug/L	1.0	0.099	1	04/25/17 09:03	04/27/17 01:00	7440-38-2	
Barium	**89.4**	ug/L	1.0	0.062	1	04/25/17 09:03	04/27/17 01:00	7440-39-3	
Beryllium	**<0.13**	ug/L	1.0	0.13	1	04/25/17 09:03	04/27/17 01:00	7440-41-7	
Boron	**297**	ug/L	10.0	2.0	1	04/25/17 09:03	04/27/17 01:00	7440-42-8	
Cadmium	**0.12J**	ug/L	1.0	0.089	1	04/25/17 09:03	04/27/17 01:00	7440-43-9	
Calcium	**66600**	ug/L	250	73.6	1	04/25/17 09:03	04/27/17 01:00	7440-70-2	
Chromium	**<0.39**	ug/L	1.0	0.39	1	04/25/17 09:03	04/27/17 01:00	7440-47-3	
Cobalt	**3.4**	ug/L	1.0	0.036	1	04/25/17 09:03	04/27/17 01:00	7440-48-4	
Lead	**<0.040**	ug/L	1.0	0.040	1	04/25/17 09:03	04/27/17 01:00	7439-92-1	
Lithium	**4.8**	ug/L	1.0	0.11	1	04/25/17 09:03	04/27/17 01:00	7439-93-2	
Molybdenum	**6.0**	ug/L	1.0	0.070	1	04/25/17 09:03	04/27/17 01:00	7439-98-7	
Selenium	**1.5**	ug/L	1.0	0.21	1	04/25/17 09:03	04/27/17 01:00	7782-49-2	
Thallium	**0.33J**	ug/L	1.0	0.14	1	04/25/17 09:03	04/27/17 01:00	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	04/24/17 13:20	04/25/17 10:46	7439-97-6	
Field Data	Analytical Method:								
Field pH	**6.81**	Std. Units			1		04/17/17 16:40		
Field Specific Conductance	**520.6**	umhos/cm			1		04/17/17 16:40		
Oxygen, Dissolved	**0.12**	mg/L			1		04/17/17 16:40	7782-44-7	
REDOX	**61.2**	mV			1		04/17/17 16:40		
Turbidity	**3.92**	NTU			1		04/17/17 16:40		
Static Water Level	**610.23**	feet			1		04/17/17 16:40		
Temperature, Water (C)	**14.6**	deg C			1		04/17/17 16:40		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**332**	mg/L	20.0	8.7	1		04/24/17 14:43		
9040 pH	Analytical Method: EPA 9040								
pH	**6.8**	Std. Units	0.10	0.010	1		04/20/17 09:35		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**3.2**	mg/L	2.0	0.50	1		04/28/17 15:20	16887-00-6	
Fluoride	**0.15J**	mg/L	0.30	0.10	1		04/28/17 15:20	16984-48-8	
Sulfate	**7.1**	mg/L	3.0	1.0	1		04/28/17 15:20	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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ANALYTICAL RESULTS

Project: 25216071.17 NELSON DEWEY
Pace Project No.: 40148589

Sample: FIELD BLANK **Lab ID: 40148589009** Collected: 04/17/17 20:40 Received: 04/19/17 09:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**<0.073**	ug/L	1.0	0.073	1	04/25/17 09:03	04/26/17 22:45	7440-36-0	
Arsenic	**<0.099**	ug/L	1.0	0.099	1	04/25/17 09:03	04/26/17 22:45	7440-38-2	
Barium	**0.15J**	ug/L	1.0	0.062	1	04/25/17 09:03	04/26/17 22:45	7440-39-3	
Beryllium	**<0.13**	ug/L	1.0	0.13	1	04/25/17 09:03	04/26/17 22:45	7440-41-7	
Boron	**<2.0**	ug/L	10.0	2.0	1	04/25/17 09:03	04/26/17 22:45	7440-42-8	
Cadmium	**<0.089**	ug/L	1.0	0.089	1	04/25/17 09:03	04/26/17 22:45	7440-43-9	
Calcium	**<73.6**	ug/L	250	73.6	1	04/25/17 09:03	04/26/17 22:45	7440-70-2	
Chromium	**<0.39**	ug/L	1.0	0.39	1	04/25/17 09:03	04/26/17 22:45	7440-47-3	
Cobalt	**<0.036**	ug/L	1.0	0.036	1	04/25/17 09:03	04/26/17 22:45	7440-48-4	
Lead	**<0.040**	ug/L	1.0	0.040	1	04/25/17 09:03	04/26/17 22:45	7439-92-1	
Lithium	**<0.11**	ug/L	1.0	0.11	1	04/25/17 09:03	04/26/17 22:45	7439-93-2	
Molybdenum	**<0.070**	ug/L	1.0	0.070	1	04/25/17 09:03	04/26/17 22:45	7439-98-7	
Selenium	**<0.21**	ug/L	1.0	0.21	1	04/25/17 09:03	04/26/17 22:45	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	04/25/17 09:03	04/26/17 22:45	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	04/24/17 13:20	04/25/17 10:48	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**<8.7**	mg/L	20.0	8.7	1		04/24/17 14:44		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**<0.50**	mg/L	2.0	0.50	1		05/01/17 13:03	16887-00-6	
Fluoride	**<0.10**	mg/L	0.30	0.10	1		05/01/17 13:03	16984-48-8	
Sulfate	**<1.0**	mg/L	3.0	1.0	1		05/01/17 13:03	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 25216071.17 NELSON DEWEY
Pace Project No.: 40148589

QC Batch: 253623 Analysis Method: EPA 7470
QC Batch Method: EPA 7470 Analysis Description: 7470 Mercury
Associated Lab Samples: 40148589001, 40148589002, 40148589003, 40148589004, 40148589005, 40148589006, 40148589007, 40148589008, 40148589009

METHOD BLANK: 1496223 Matrix: Water
Associated Lab Samples: 40148589001, 40148589002, 40148589003, 40148589004, 40148589005, 40148589006, 40148589007, 40148589008, 40148589009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	<0.13	0.42	04/25/17 10:16	

LABORATORY CONTROL SAMPLE: 1496224

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.1	102	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1496225 1496226

Parameter	Units	40148589001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	<0.13	5	5	5.0	5.0	101	101	85-115	0	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25216071.17 NELSON DEWEY
Pace Project No.: 40148589

QC Batch: 253731 Analysis Method: EPA 6020
QC Batch Method: EPA 3010 Analysis Description: 6020 MET
Associated Lab Samples: 40148589001, 40148589002, 40148589003, 40148589004, 40148589005, 40148589006, 40148589007, 40148589008, 40148589009

METHOD BLANK: 1496489 Matrix: Water
Associated Lab Samples: 40148589001, 40148589002, 40148589003, 40148589004, 40148589005, 40148589006, 40148589007, 40148589008, 40148589009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	<0.073	1.0	04/26/17 22:38	
Arsenic	ug/L	<0.099	1.0	04/26/17 22:38	
Barium	ug/L	<0.062	1.0	04/26/17 22:38	
Beryllium	ug/L	<0.13	1.0	04/26/17 22:38	
Boron	ug/L	<2.0	10.0	04/26/17 22:38	
Cadmium	ug/L	<0.089	1.0	04/26/17 22:38	
Calcium	ug/L	<73.6	250	04/26/17 22:38	
Chromium	ug/L	<0.39	1.0	04/26/17 22:38	
Cobalt	ug/L	<0.036	1.0	04/26/17 22:38	
Lead	ug/L	<0.040	1.0	04/26/17 22:38	
Lithium	ug/L	<0.11	1.0	04/26/17 22:38	
Molybdenum	ug/L	0.24J	1.0	04/26/17 22:38	
Selenium	ug/L	<0.21	1.0	04/26/17 22:38	
Thallium	ug/L	<0.14	1.0	04/26/17 22:38	

LABORATORY CONTROL SAMPLE: 1496490

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	514	103	80-120	
Arsenic	ug/L	500	506	101	80-120	
Barium	ug/L	500	516	103	80-120	
Beryllium	ug/L	500	517	103	80-120	
Boron	ug/L	500	491	98	80-120	
Cadmium	ug/L	500	517	103	80-120	
Calcium	ug/L	5000	5050	101	80-120	
Chromium	ug/L	500	514	103	80-120	
Cobalt	ug/L	500	517	103	80-120	
Lead	ug/L	500	516	103	80-120	
Lithium	ug/L	500	504	101	80-120	
Molybdenum	ug/L	500	525	105	80-120	
Selenium	ug/L	500	538	108	80-120	
Thallium	ug/L	500	537	107	80-120	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25216071.17 NELSON DEWEY
Pace Project No.: 40148589

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1496491 1496492

Parameter	Units	40148589001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	0.18J	500	500	524	522	105	104	75-125	0	20	
Arsenic	ug/L	3.5	500	500	532	526	106	105	75-125	1	20	
Barium	ug/L	83.3	500	500	615	601	106	103	75-125	2	20	
Beryllium	ug/L	<0.13	500	500	525	525	105	105	75-125	0	20	
Boron	ug/L	129	500	500	633	618	101	98	75-125	2	20	
Cadmium	ug/L	0.11J	500	500	529	518	106	104	75-125	2	20	
Calcium	ug/L	61400	5000	5000	67200	65500	115	82	75-125	2	20	
Chromium	ug/L	0.41J	500	500	532	521	106	104	75-125	2	20	
Cobalt	ug/L	1.4	500	500	532	516	106	103	75-125	3	20	
Lead	ug/L	0.26J	500	500	531	519	106	104	75-125	2	20	
Lithium	ug/L	0.26J	500	500	518	512	104	102	75-125	1	20	
Molybdenum	ug/L	2.1	500	500	554	535	110	107	75-125	3	20	
Selenium	ug/L	0.39J	500	500	552	548	110	109	75-125	1	20	
Thallium	ug/L	0.22J	500	500	552	543	110	109	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

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(920)469-2436

QUALITY CONTROL DATA

Project: 25216071.17 NELSON DEWEY
Pace Project No.: 40148589

QC Batch: 253378 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 40148589001, 40148589002, 40148589003, 40148589004, 40148589005, 40148589006

METHOD BLANK: 1494692 Matrix: Water
Associated Lab Samples: 40148589001, 40148589002, 40148589003, 40148589004, 40148589005, 40148589006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<8.7	20.0	04/20/17 14:05	

LABORATORY CONTROL SAMPLE: 1494693

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	557	534	96	80-120	

SAMPLE DUPLICATE: 1494694

Parameter	Units	40148477001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	410	398	3	5	

SAMPLE DUPLICATE: 1494695

Parameter	Units	40148499001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	792	830	5	5	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25216071.17 NELSON DEWEY
Pace Project No.: 40148589

QC Batch: 253659 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 40148589007, 40148589008, 40148589009

METHOD BLANK: 1496291 Matrix: Water
Associated Lab Samples: 40148589007, 40148589008, 40148589009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<8.7	20.0	04/24/17 14:43	

LABORATORY CONTROL SAMPLE: 1496292

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	557	564	101	80-120	

SAMPLE DUPLICATE: 1496293

Parameter	Units	40148564001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	896	900	0	5	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25216071.17 NELSON DEWEY
Pace Project No.: 40148589

QC Batch: 253348 Analysis Method: EPA 9040
QC Batch Method: EPA 9040 Analysis Description: 9040 pH
Associated Lab Samples: 40148589001, 40148589002, 40148589003, 40148589004, 40148589005, 40148589006, 40148589007, 40148589008

SAMPLE DUPLICATE: 1494454

Parameter	Units	40148483001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH	Std. Units	8.0	8.0	0	20	H6

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25216071.17 NELSON DEWEY
Pace Project No.: 40148589

QC Batch: 253950 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 40148589001, 40148589002, 40148589003, 40148589004, 40148589005, 40148589006, 40148589007, 40148589008, 40148589009

METHOD BLANK: 1497662 Matrix: Water
Associated Lab Samples: 40148589001, 40148589002, 40148589003, 40148589004, 40148589005, 40148589006, 40148589007, 40148589008, 40148589009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<0.50	2.0	04/28/17 11:33	
Fluoride	mg/L	<0.10	0.30	04/28/17 11:33	
Sulfate	mg/L	<1.0	3.0	04/28/17 11:33	

LABORATORY CONTROL SAMPLE: 1497663

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	19.4	97	90-110	
Fluoride	mg/L	2	1.9	96	90-110	
Sulfate	mg/L	20	19.5	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1497664 1497665

Parameter	Units	40148781002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	12.9	100	100	121	118	108	105	90-110	3	15	
Fluoride	mg/L	ND	10	10	11.1	10.8	111	108	90-110	3	15	M0
Sulfate	mg/L	18.7	100	100	126	122	108	104	90-110	3	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1497666 1497667

Parameter	Units	40148589008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	3.2	20	20	25.0	24.2	109	105	90-110	3	15	
Fluoride	mg/L	0.15J	2	2	2.3	2.2	109	104	90-110	5	15	
Sulfate	mg/L	7.1	20	20	28.7	27.9	108	104	90-110	3	15	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 25216071.17 NELSON DEWEY
Pace Project No.: 40148589

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 LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

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 at or above the adjusted LOD.

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

B	Analyte was detected in the associated method blank.
D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
H6	Analysis initiated outside of the 15 minute EPA required holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

Pace Analytical Services, LLC
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 25216071.17 NELSON DEWEY
Pace Project No.: 40148589

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40148589001	**B-7R**	EPA 3010	253731	EPA 6020	253820
40148589002	**B-11A**	EPA 3010	253731	EPA 6020	253820
40148589003	**B-11B**	EPA 3010	253731	EPA 6020	253820
40148589004	**B-11R**	EPA 3010	253731	EPA 6020	253820
40148589005	**B-26**	EPA 3010	253731	EPA 6020	253820
40148589006	**B-31R**	EPA 3010	253731	EPA 6020	253820
40148589007	**B-31A**	EPA 3010	253731	EPA 6020	253820
40148589008	**B-39**	EPA 3010	253731	EPA 6020	253820
40148589009	**FIELD BLANK**	EPA 3010	253731	EPA 6020	253820
40148589001	**B-7R**	EPA 7470	253623	EPA 7470	253665
40148589002	**B-11A**	EPA 7470	253623	EPA 7470	253665
40148589003	**B-11B**	EPA 7470	253623	EPA 7470	253665
40148589004	**B-11R**	EPA 7470	253623	EPA 7470	253665
40148589005	**B-26**	EPA 7470	253623	EPA 7470	253665
40148589006	**B-31R**	EPA 7470	253623	EPA 7470	253665
40148589007	**B-31A**	EPA 7470	253623	EPA 7470	253665
40148589008	**B-39**	EPA 7470	253623	EPA 7470	253665
40148589009	**FIELD BLANK**	EPA 7470	253623	EPA 7470	253665
40148589001	**B-7R**				
40148589002	**B-11A**				
40148589003	**B-11B**				
40148589004	**B-11R**				
40148589005	**B-26**				
40148589006	**B-31R**				
40148589007	**B-31A**				
40148589008	**B-39**				
40148589001	**B-7R**	SM 2540C	253378		
40148589002	**B-11A**	SM 2540C	253378		
40148589003	**B-11B**	SM 2540C	253378		
40148589004	**B-11R**	SM 2540C	253378		
40148589005	**B-26**	SM 2540C	253378		
40148589006	**B-31R**	SM 2540C	253378		
40148589007	**B-31A**	SM 2540C	253659		
40148589008	**B-39**	SM 2540C	253659		
40148589009	**FIELD BLANK**	SM 2540C	253659		
40148589001	**B-7R**	EPA 9040	253348		
40148589002	**B-11A**	EPA 9040	253348		
40148589003	**B-11B**	EPA 9040	253348		
40148589004	**B-11R**	EPA 9040	253348		
40148589005	**B-26**	EPA 9040	253348		
40148589006	**B-31R**	EPA 9040	253348		
40148589007	**B-31A**	EPA 9040	253348		
40148589008	**B-39**	EPA 9040	253348		
40148589001	**B-7R**	EPA 300.0	253950		
40148589002	**B-11A**	EPA 300.0	253950		
40148589003	**B-11B**	EPA 300.0	253950		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 25216071.17 NELSON DEWEY
Pace Project No.: 40148589

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40148589004	**B-11R**	EPA 300.0	253950		
40148589005	**B-26**	EPA 300.0	253950		
40148589006	**B-31R**	EPA 300.0	253950		
40148589007	**B-31A**	EPA 300.0	253950		
40148589008	**B-39**	EPA 300.0	253950		
40148589009	**FIELD BLANK**	EPA 300.0	253950		

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CHAIN OF CUSTODY

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

Page 1 of

40148584

(Please Print Clearly)

Company Name:	SCS
Branch/Location:	Madison
Project Contact:	Meg Blodgett
Phone:	608 216-7362
Project Number:	25216071.17
Project Name:	Nelson Dewey
Project State:	WI
Sampled By (Print):	Paul A. Grover
Sampled By (Sign):	Paul A. Grover
PO #:	
Regulatory Program:	

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes
A = Air, B = Biota, C = Charcoal, O = Oil, S = Soil, Sl = Sludge
W = Water, DW = Drinking Water, GW = Ground Water, SW = Surface Water, WW = Waste Water, WP = Wipe

FILTERED? (YES/NO): No | No
PRESERVATION (CODE)*: A | D
Analyses Requested: See Attached List | See Attached List

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	See Attached List	See Attached List	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
001	B-7R	4/17/17	1900	W	X	X		3-250mlp AAD	
002	B-11A	↓	2015	↓	↓	↓		↓	
003	B-11B		2110						
004	B-11R		2135						
005	B-26		2005						
006	B-31R		1900						
007	B-31A		1805						
008	B-39		1640				No Ph sample		
009	Field Blank	↓	2040	↓	↓	↓		2-250mlp AD	

① Filled in by Lab from sample labels 4/19/17

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
Paul A. Grover	4/18/17 15:45		
C Schneider	4/19/17 0900	Susan Kulyk Pace	4/19/17 0900

PACE Project No. 40148584
Receipt Temp = RO T °C
Sample Receipt pH OK / Adjusted
Cooler Custody Seal Present / Not Present
Intact / Not Intact

C019a(27Jun2006)

Version 6.0 06/14/06

ORIGINAL

40148589

Table 2. Sampling Points and Parameters - CCR Rule Sampling Program
Groundwater Monitoring - Nelson Dewey Generating Station / SCS Engineers Project #25216071

	Parameter	B7R	B11R	B11A	B11B	B26	B31R	B31A	B39	Field Blank	TOTAL
Appendix III Parameters	Boron	x	x	x	x	x	x	x	x	x	9
	Calcium	x	x	x	x	x	x	x	x	x	9
	Chloride	x	x	x	x	x	x	x	x	x	9
	Fluoride	x	x	x	x	x	x	x	x	x	9
	pH	x	x	x	x	x	x	x	x	x	9
	Sulfate	x	x	x	x	x	x	x	x	x	9
	TDS	x	x	x	x	x	x	x	x	x	9
Appendix IV Parameters	Antimony	x	x	x	x	x	x	x	x	x	9
	Arsenic	x	x	x	x	x	x	x	x	x	9
	Barium	x	x	x	x	x	x	x	x	x	9
	Beryllium	x	x	x	x	x	x	x	x	x	9
	Cadmium	x	x	x	x	x	x	x	x	x	9
	Chromium	x	x	x	x	x	x	x	x	x	9
	Cobalt	x	x	x	x	x	x	x	x	x	9
	Fluoride	x	x	x	x	x	x	x	x	x	9
	Lead	x	x	x	x	x	x	x	x	x	9
	Lithium	x	x	x	x	x	x	x	x	x	9
	Mercury	x	x	x	x	x	x	x	x	x	9
	Molybdenum	x	x	x	x	x	x	x	x	x	9
	Selenium	x	x	x	x	x	x	x	x	x	9
	Thallium	x	x	x	x	x	x	x	x	x	9
	Radium	x	x	x	x	x	x	x	x	x	9
Field Parameters	Groundwater Elevation	x	x	x	x	x	x	x	x		8
	Well Depth	x	x	x	x	x	x	x	x		8
	pH (field)	x	x	x	x	x	x	x	x		8
	Specific Conductance	x	x	x	x	x	x	x	x		8
	Dissolved Oxygen	x	x	x	x	x	x	x	x		8
	ORP	x	x	x	x	x	x	x	x		8
	Temperature	x	x	x	x	x	x	x	x		8
	Turbidity	x	x	x	x	x	x	x	x		8
	Color	x	x	x	x	x	x	x	x		8
	Odor	x	x	x	x	x	x	x	x		8

Notes: All samples are unfiltered (total).

I:\25216071.00\Deliverables\Sampling & Analysis Plan\[Table_2_ND_CCR_Rule_Sampling.xls]Sheet1

Sample Condition Upon Receipt

Pace Analytical Services, Inc.
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Pace Analytical™

Client Name: SCS

Project #: WO#: 40148589

Courier: ☐ Fed Ex ☐ UPS ☐ Client ☐ Pace Other CS Logistics

Tracking #: 1Z d0 304 18 17

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☒ None ☐ Other

Thermometer Used N/A **Type of Ice:** (Wet) Blue Dry None ☒ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: ROL /Corr: **Biological Tissue is Frozen:** ☐ yes ☐ no

Temp Blank Present: ☐ yes ☒ no

Person examining contents:
Date: 4-19-17
Initials: SW

Temp should be above freezing to 6°C for all sample except Biota.
Frozen Biota Samples should be received ≤ 0°C.

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1. Original and a copy 4-19-17 SW
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2. Lab filled in collect date, time +
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3. matrix from sample labels 4-19-17 SW
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6. 4/19/17 SW
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
-Pace IR Containers Used:	☐Yes ☐No ☑N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: W		
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	☑Yes ☐No ☐N/A	13. ☑HNO3 ☐ H2SO4 ☐ NaOH ☐ NaOH +ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 <2; NaOH+ZnAct ≥9, NaOH ≥12)	☑Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	☐Yes ☑No	Initial when completed KW / Lab Std #ID of preservative / Date/ Time:
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	14.
Trip Blank Present:	☐Yes ☐No ☑N/A	15.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: If checked, see attached form for additional comments ☐

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: for DM **Date:** 4/19/17

F-GB-C-031-Rev.03 (9April2015) SCUR Form

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

May 10, 2017

Meghan Blodgett
SCS ENGINEERS
2830 Dairy Drive
Madison, WI 53718

RE: Project: 25216071.17 NELSON DEWEY
Pace Project No.: 40148591

Dear Meghan Blodgett:
Enclosed are the analytical results for sample(s) received by the laboratory on April 19, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Dan Milewsky
dan.milewsky@pacelabs.com
(920)469-2436
Project Manager

Enclosures

cc: Tom Karwoski, SCS ENGINEERS
Jeff Maxted, ALLIANT ENERGY
Marc Morandi, ALLIANT ENERGY

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: 25216071.17 NELSON DEWEY
Pace Project No.: 40148591

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: 25216071.17 NELSON DEWEY
Pace Project No.: 40148591

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40148591001	**B-7R**	Water	04/17/17 19:00	04/19/17 09:00
40148591002	**B-11A**	Water	04/17/17 20:15	04/19/17 09:00
40148591003	**B-11B**	Water	04/17/17 21:10	04/19/17 09:00
40148591004	**B-11R**	Water	04/17/17 21:35	04/19/17 09:00
40148591005	**B-26**	Water	04/17/17 20:05	04/19/17 09:00
40148591006	**B-31R**	Water	04/17/17 19:00	04/19/17 09:00
40148591007	**B-31A**	Water	04/17/17 18:05	04/19/17 09:00
40148591008	**B-39**	Water	04/17/17 16:40	04/19/17 09:00
40148591009	**FIELD BLANK**	Water	04/17/17 20:40	04/19/17 09:00

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SAMPLE ANALYTE COUNT

Project: 25216071.17 NELSON DEWEY
Pace Project No.: 40148591

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40148591001	**B-7R**	EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
40148591002	**B-11A**	EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
40148591003	**B-11B**	EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
40148591004	**B-11R**	EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
40148591005	**B-26**	EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
40148591006	**B-31R**	EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
40148591007	**B-31A**	EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
40148591008	**B-39**	EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
40148591009	**FIELD BLANK**	EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

Pace Analytical Services, LLC
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(920)469-2436

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 25216071.17 NELSON DEWEY
Pace Project No.: 40148591

Sample: B-7R **Lab ID: 40148591001** Collected: 04/17/17 19:00 Received: 04/19/17 09:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.345 ± 0.450 (0.742) C:NA T:83%**	pCi/L	05/03/17 20:04	13982-63-3	
Radium-228	EPA 904.0	**0.402 ± 0.339 (0.675) C:75% T:81%**	pCi/L	05/03/17 11:21	15262-20-1	
Total Radium	Total Radium Calculation	**0.747 ± 0.789 (1.42)**	pCi/L	05/10/17 08:58	7440-14-4	

Sample: B-11A **Lab ID: 40148591002** Collected: 04/17/17 20:15 Received: 04/19/17 09:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.948 ± 0.492 (0.171) C:NA T:89%**	pCi/L	05/03/17 20:04	13982-63-3	
Radium-228	EPA 904.0	**0.447 ± 0.364 (0.723) C:73% T:85%**	pCi/L	05/03/17 15:27	15262-20-1	
Total Radium	Total Radium Calculation	**1.40 ± 0.856 (0.894)**	pCi/L	05/10/17 08:58	7440-14-4	

Sample: B-11B **Lab ID: 40148591003** Collected: 04/17/17 21:10 Received: 04/19/17 09:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.193 ± 0.294 (0.472) C:NA T:86%**	pCi/L	05/03/17 20:04	13982-63-3	
Radium-228	EPA 904.0	**0.450 ± 0.343 (0.668) C:76% T:85%**	pCi/L	05/03/17 15:28	15262-20-1	
Total Radium	Total Radium Calculation	**0.643 ± 0.637 (1.14)**	pCi/L	05/10/17 08:58	7440-14-4	

Sample: B-11R **Lab ID: 40148591004** Collected: 04/17/17 21:35 Received: 04/19/17 09:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.719 ± 0.503 (0.607) C:NA T:88%**	pCi/L	05/03/17 20:04	13982-63-3	
Radium-228	EPA 904.0	**0.732 ± 0.388 (0.681) C:80% T:83%**	pCi/L	05/03/17 15:28	15262-20-1	
Total Radium	Total Radium Calculation	**1.45 ± 0.891 (1.29)**	pCi/L	05/10/17 08:58	7440-14-4	

Sample: B-26 **Lab ID: 40148591005** Collected: 04/17/17 20:05 Received: 04/19/17 09:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.398 ± 0.488 (0.796) C:NA T:87%**	pCi/L	05/03/17 20:04	13982-63-3	
Radium-228	EPA 904.0	**0.469 ± 0.358 (0.702) C:79% T:83%**	pCi/L	05/03/17 15:28	15262-20-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 25216071.17 NELSON DEWEY
Pace Project No.: 40148591

Sample: B-26 **Lab ID: 40148591005** Collected: 04/17/17 20:05 Received: 04/19/17 09:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Total Radium	Total Radium Calculation	**0.867 ± 0.846 (1.50)**	pCi/L	05/10/17 08:58	7440-14-4	

Sample: B-31R **Lab ID: 40148591006** Collected: 04/17/17 19:00 Received: 04/19/17 09:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.380 ± 0.466 (0.760) C:NA T:89%**	pCi/L	05/03/17 20:17	13982-63-3	
Radium-228	EPA 904.0	**0.233 ± 0.315 (0.671) C:79% T:79%**	pCi/L	05/03/17 15:28	15262-20-1	
Total Radium	Total Radium Calculation	**0.613 ± 0.781 (1.43)**	pCi/L	05/10/17 08:58	7440-14-4	

Sample: B-31A **Lab ID: 40148591007** Collected: 04/17/17 18:05 Received: 04/19/17 09:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.482 ± 0.525 (0.826) C:NA T:87%**	pCi/L	05/03/17 20:17	13982-63-3	
Radium-228	EPA 904.0	**0.696 ± 0.344 (0.565) C:73% T:91%**	pCi/L	05/03/17 15:28	15262-20-1	
Total Radium	Total Radium Calculation	**1.18 ± 0.869 (1.39)**	pCi/L	05/10/17 08:58	7440-14-4	

Sample: B-39 **Lab ID: 40148591008** Collected: 04/17/17 16:40 Received: 04/19/17 09:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.263 ± 0.448 (0.790) C:NA T:88%**	pCi/L	05/03/17 20:17	13982-63-3	
Radium-228	EPA 904.0	**0.340 ± 0.329 (0.671) C:78% T:85%**	pCi/L	05/03/17 15:29	15262-20-1	
Total Radium	Total Radium Calculation	**0.603 ± 0.777 (1.46)**	pCi/L	05/10/17 08:58	7440-14-4	

Sample: FIELD BLANK **Lab ID: 40148591009** Collected: 04/17/17 20:40 Received: 04/19/17 09:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.0676 ± 0.308 (0.183) C:NA T:81%**	pCi/L	05/03/17 20:17	13982-63-3	
Radium-228	EPA 904.0	**-0.0342 ± 0.331 (0.782) C:76% T:79%**	pCi/L	05/03/17 15:29	15262-20-1	
Total Radium	Total Radium Calculation	**0.0676 ± 0.639 (0.965)**	pCi/L	05/10/17 08:58	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL - RADIOCHEMISTRY

Project: 25216071.17 NELSON DEWEY
Pace Project No.: 40148591

QC Batch: 256535 Analysis Method: EPA 904.0
QC Batch Method: EPA 904.0 Analysis Description: 904.0 Radium 228
Associated Lab Samples: 40148591001, 40148591002, 40148591003, 40148591004, 40148591005, 40148591006, 40148591007, 40148591008, 40148591009

METHOD BLANK: 1263574 Matrix: Water
Associated Lab Samples: 40148591001, 40148591002, 40148591003, 40148591004, 40148591005, 40148591006, 40148591007, 40148591008, 40148591009

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.445 ± 0.363 (0.720) C:74% T:79%	pCi/L	05/03/17 11:21	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL - RADIOCHEMISTRY

Project: 25216071.17 NELSON DEWEY
Pace Project No.: 40148591

QC Batch: 256534 Analysis Method: EPA 903.1
QC Batch Method: EPA 903.1 Analysis Description: 903.1 Radium-226
Associated Lab Samples: 40148591001, 40148591002, 40148591003, 40148591004, 40148591005, 40148591006, 40148591007, 40148591008, 40148591009

METHOD BLANK: 1263572 Matrix: Water
Associated Lab Samples: 40148591001, 40148591002, 40148591003, 40148591004, 40148591005, 40148591006, 40148591007, 40148591008, 40148591009

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.179 ± 0.389 (0.719) C:NA T:92%	pCi/L	05/03/17 20:04	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALIFIERS

Project: 25216071.17 NELSON DEWEY
Pace Project No.: 40148591

DEFINITIONS

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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 LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

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 at or above the adjusted LOD.

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 25216071.17 NELSON DEWEY
Pace Project No.: 40148591

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40148591001	**B-7R**	EPA 903.1	256534		
40148591002	**B-11A**	EPA 903.1	256534		
40148591003	**B-11B**	EPA 903.1	256534		
40148591004	**B-11R**	EPA 903.1	256534		
40148591005	**B-26**	EPA 903.1	256534		
40148591006	**B-31R**	EPA 903.1	256534		
40148591007	**B-31A**	EPA 903.1	256534		
40148591008	**B-39**	EPA 903.1	256534		
40148591009	**FIELD BLANK**	EPA 903.1	256534		
40148591001	**B-7R**	EPA 904.0	256535		
40148591002	**B-11A**	EPA 904.0	256535		
40148591003	**B-11B**	EPA 904.0	256535		
40148591004	**B-11R**	EPA 904.0	256535		
40148591005	**B-26**	EPA 904.0	256535		
40148591006	**B-31R**	EPA 904.0	256535		
40148591007	**B-31A**	EPA 904.0	256535		
40148591008	**B-39**	EPA 904.0	256535		
40148591009	**FIELD BLANK**	EPA 904.0	256535		
40148591001	**B-7R**	Total Radium Calculation	257982		
40148591002	**B-11A**	Total Radium Calculation	257982		
40148591003	**B-11B**	Total Radium Calculation	257982		
40148591004	**B-11R**	Total Radium Calculation	257982		
40148591005	**B-26**	Total Radium Calculation	257982		
40148591006	**B-31R**	Total Radium Calculation	257982		
40148591007	**B-31A**	Total Radium Calculation	257982		
40148591008	**B-39**	Total Radium Calculation	257982		
40148591009	**FIELD BLANK**	Total Radium Calculation	257982		

Pace Analytical®
www.pacelabs.com

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

Page 1 of

40148594

CHAIN OF CUSTODY

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

(Please Print Clearly)	
Company Name:	SCS
Branch/Location:	Madison
Project Contact:	Meg Blodgett
Phone:	608 216-7362
Project Number:	25216071.17
Project Name:	Nelson Dewey
Project State:	WI
Sampled By (Print):	Paul A. Grover
Sampled By (Sign):	Paul A. Grover
PO #:	Regulatory Program:

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes
A = Air, W = Water, B = Biota, DW = Drinking Water, C = Charcoal, GW = Ground Water, O = Oil, SW = Surface Water, S = Soil, WW = Waste Water, SI = Sludge, WP = Wipe

FILTERED? (YES/NO)
PRESERVATION (CODE)*

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	Y/N	Pick Letter	Analyses Requested: Radium 226	Analyses Requested: Radium 228	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
001	B-7R	4/11/17	19:00	GW			X	X		2-1Lp D	
002	B-11A		20:15								
003	B-11B		21:10								
004	B-11R		21:35								
005	B-26		20:05								
006	B-31R		19:00								
007	B-31A		18:05								
008	B-39		16:40								
009	Field Blank		20:40	DI							

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
Paul A. Grover	4/18/17 15:45		
Meg Blodgett	4-19-17 0900	Susan Kelly Pace	4-19-17 0900

PACE Project No.: 40148594
Receipt Temp = 2.0 °C
Sample Receipt pH: OK / Adjusted
Cooler Custody Seal: Present / Not Present
Intact / Not Intact

C019a(27Jun2006)

Version 6.0 06/14/06

ORIGINAL

Sample Condition Upon Receipt

Pace Analytical Services, Inc.
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Pace Analytical™

Project #: **WO# : 40148591**

40148591

Client Name: SCS

Courier: ☐ Fed Ex ☐ UPS ☐ Client ☐ Pace ☐ Other CS Logistics

Tracking #: 1Z6030418117

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☒ None ☐ Other

Thermometer Used N/A **Type of Ice:** (Wet) Blue Dry None ☑ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: ROL /Corr: **Biological Tissue is Frozen:** ☐ yes ☐ no

Temp Blank Present: ☐ yes ☒ no

Person examining contents:
Date: 4-19-17
Initials:

Temp should be above freezing to 6°C for all sample except Biota.
Frozen Biota Samples should be received ≤ 0°C.

Comments:

Chain of Custody Present:	☑Yes ☐No ☐N/A	1. Original and a copy 4-19-17
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.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☐Yes ☑No ☐N/A	
-Pace IR Containers Used:	☐Yes ☐No ☑N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: W		
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	☑Yes ☐No ☐N/A	13. ☑ HNO3 ☐ H2SO4 ☐ NaOH ☐ NaOH +ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 <2; NaOH+ZnAct ≥9, NaOH ≥12)	☑Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	☐Yes ☑No	Initial when completed KW / Lab Std #ID of preservative / Date/ Time:
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	14.
Trip Blank Present:	☐Yes ☐No ☑N/A	15.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: If checked, see attached form for additional comments ☐

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: Audit for DW **Date:** 4/19/17

A7 Round 7 Background Sampling, Analytical Laboratory Report

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

June 28, 2017

Meghan Blodgett
SCS ENGINEERS
2830 Dairy Drive
Madison, WI 53718

RE: Project: 25216071.17 ALLIANT-ND
Pace Project No.: 40151353

Dear Meghan Blodgett:
Enclosed are the analytical results for sample(s) received by the laboratory on June 09, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Dan Milewsky
dan.milewsky@pacelabs.com
(920)469-2436
Project Manager

Enclosures

cc: Tom Karwoski, SCS ENGINEERS
Jeff Maxted, ALLIANT ENERGY
Marc Morandi, ALLIANT ENERGY

This report is revised to switch sample IDs B-31A with B-31R on the original report as requested by Tom Karwoski at SCS.

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: 25216071.17 ALLIANT-ND
Pace Project No.: 40151353

Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150
Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: 25216071.17 ALLIANT-ND
Pace Project No.: 40151353

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40151353001	**B-39**	Water	06/07/17 13:55	06/09/17 10:25
40151353002	**B-7R**	Water	06/07/17 15:50	06/09/17 10:25
40151353003	**B-11R**	Water	06/07/17 17:15	06/09/17 10:25
40151353004	**B-26**	Water	06/07/17 18:05	06/09/17 10:25
40151353005	**B-11B**	Water	06/08/17 10:15	06/09/17 10:25
40151353006	**FIELD BLANK**	Water	06/08/17 11:00	06/09/17 10:25
40151353007	**B-11A**	Water	06/08/17 11:15	06/09/17 10:25
40151353008	**B-31A**	Water	06/08/17 12:10	06/09/17 10:25
40151353009	**B-31R**	Water	06/08/17 13:00	06/09/17 10:25

Pace Analytical Services, LLC
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(920)469-2436

SAMPLE ANALYTE COUNT

Project: 25216071.17 ALLIANT-ND
Pace Project No.: 40151353

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40151353001	**B-39**	EPA 6020	DS1, SDW	14
		EPA 7470	AJT	1
			RMW	7
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	HMB	3
40151353002	**B-7R**	EPA 6020	DS1, SDW	14
		EPA 7470	AJT	1
			RMW	7
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	HMB	3
40151353003	**B-11R**	EPA 6020	DS1, SDW	14
		EPA 7470	AJT	1
			RMW	7
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	HMB	3
40151353004	**B-26**	EPA 6020	DS1, SDW	14
		EPA 7470	AJT	1
			RMW	7
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	HMB	3
40151353005	**B-11B**	EPA 6020	DS1, SDW	14
		EPA 7470	AJT	1
			RMW	7
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	HMB	3
40151353006	**FIELD BLANK**	EPA 6020	DS1, SDW	14
		EPA 7470	AJT	1
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	HMB	3
40151353007	**B-11A**	EPA 6020	DS1, SDW	14
		EPA 7470	AJT	1

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE ANALYTE COUNT

Project: 25216071.17 ALLIANT-ND
Pace Project No.: 40151353

Lab ID	Sample ID	Method	Analysts	Analytes Reported
			RMW	7
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	HMB	3
40151353008	**B-31A**	EPA 6020	DS1, SDW	14
		EPA 7470	AJT	1
			RMW	7
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	HMB	3
40151353009	**B-31R**	EPA 6020	DS1, SDW	14
		EPA 7470	AJT	1
			RMW	7
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	HMB	3

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 25216071.17 ALLIANT-ND
Pace Project No.: 40151353

Sample: B-39 **Lab ID: 40151353001** Collected: 06/07/17 13:55 Received: 06/09/17 10:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**<0.15**	ug/L	1.0	0.15	1	06/12/17 10:10	06/13/17 20:06	7440-36-0	
Arsenic	**7.2**	ug/L	1.0	0.28	1	06/12/17 10:10	06/13/17 20:06	7440-38-2	
Barium	**81.7**	ug/L	1.1	0.34	1	06/12/17 10:10	06/13/17 20:06	7440-39-3	
Beryllium	**<0.18**	ug/L	1.0	0.18	1	06/12/17 10:10	06/13/17 20:06	7440-41-7	
Boron	**142**	ug/L	11.0	3.3	1	06/12/17 10:10	06/14/17 23:44	7440-42-8	
Cadmium	**<0.081**	ug/L	1.0	0.081	1	06/12/17 10:10	06/13/17 20:06	7440-43-9	
Calcium	**57600**	ug/L	250	69.8	1	06/12/17 10:10	06/14/17 23:44	7440-70-2	
Chromium	**<1.0**	ug/L	3.4	1.0	1	06/12/17 10:10	06/13/17 20:06	7440-47-3	
Cobalt	**1.3**	ug/L	1.0	0.085	1	06/12/17 10:10	06/13/17 20:06	7440-48-4	
Lead	**<0.20**	ug/L	1.0	0.20	1	06/12/17 10:10	06/13/17 20:06	7439-92-1	
Lithium	**4.4**	ug/L	1.0	0.14	1	06/12/17 10:10	06/13/17 20:06	7439-93-2	
Molybdenum	**14.0**	ug/L	1.5	0.44	1	06/12/17 10:10	06/13/17 20:06	7439-98-7	
Selenium	**0.54J**	ug/L	1.1	0.32	1	06/12/17 10:10	06/13/17 20:06	7782-49-2	
Thallium	**0.27J**	ug/L	1.0	0.14	1	06/12/17 10:10	06/13/17 20:06	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	06/20/17 13:05	06/21/17 10:41	7439-97-6	
Field Data	Analytical Method:								
Field pH	**7.05**	Std. Units			1		06/07/17 13:55		
Field Specific Conductance	**372**	umhos/cm			1		06/07/17 13:55		
Oxygen, Dissolved	**0.16**	mg/L			1		06/07/17 13:55	7782-44-7	
REDOX	**83.6**	mV			1		06/07/17 13:55		
Turbidity	**3.81**	NTU			1		06/07/17 13:55		
Static Water Level	**611.53**	feet			1		06/07/17 13:55		
Temperature, Water (C)	**14.1**	deg C			1		06/07/17 13:55		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**308**	mg/L	20.0	8.7	1		06/13/17 15:50		
9040 pH	Analytical Method: EPA 9040								
pH	**7.5**	Std. Units	0.10	0.010	1		06/13/17 10:40		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**37.7**	mg/L	2.0	0.50	1		06/21/17 23:16	16887-00-6	
Fluoride	**0.27J**	mg/L	0.30	0.10	1		06/21/17 23:16	16984-48-8	
Sulfate	**26.6**	mg/L	3.0	1.0	1		06/21/17 23:16	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 25216071.17 ALLIANT-ND
Pace Project No.: 40151353

Sample: B-7R **Lab ID: 40151353002** Collected: 06/07/17 15:50 Received: 06/09/17 10:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**<0.15**	ug/L	1.0	0.15	1	06/12/17 10:10	06/13/17 20:13	7440-36-0	
Arsenic	**2.6**	ug/L	1.0	0.28	1	06/12/17 10:10	06/13/17 20:13	7440-38-2	
Barium	**65.8**	ug/L	1.1	0.34	1	06/12/17 10:10	06/13/17 20:13	7440-39-3	
Beryllium	**<0.18**	ug/L	1.0	0.18	1	06/12/17 10:10	06/13/17 20:13	7440-41-7	
Boron	**110**	ug/L	11.0	3.3	1	06/12/17 10:10	06/15/17 00:05	7440-42-8	
Cadmium	**<0.081**	ug/L	1.0	0.081	1	06/12/17 10:10	06/13/17 20:13	7440-43-9	
Calcium	**51600**	ug/L	250	69.8	1	06/12/17 10:10	06/15/17 00:05	7440-70-2	
Chromium	**<1.0**	ug/L	3.4	1.0	1	06/12/17 10:10	06/13/17 20:13	7440-47-3	
Cobalt	**1.1**	ug/L	1.0	0.085	1	06/12/17 10:10	06/13/17 20:13	7440-48-4	
Lead	**<0.20**	ug/L	1.0	0.20	1	06/12/17 10:10	06/13/17 20:13	7439-92-1	
Lithium	**<0.14**	ug/L	1.0	0.14	1	06/12/17 10:10	06/13/17 20:13	7439-93-2	
Molybdenum	**2.8**	ug/L	1.5	0.44	1	06/12/17 10:10	06/13/17 20:13	7439-98-7	
Selenium	**<0.32**	ug/L	1.1	0.32	1	06/12/17 10:10	06/13/17 20:13	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	06/12/17 10:10	06/13/17 20:13	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	06/20/17 13:05	06/21/17 10:43	7439-97-6	
Field Data	Analytical Method:								
Field pH	**6.65**	Std. Units			1		06/07/17 15:50		
Field Specific Conductance	**303.0**	umhos/cm			1		06/07/17 15:50		
Oxygen, Dissolved	**0.22**	mg/L			1		06/07/17 15:50	7782-44-7	
REDOX	**-12.6**	mV			1		06/07/17 15:50		
Turbidity	**3.28**	NTU			1		06/07/17 15:50		
Static Water Level	**610.74**	feet			1		06/07/17 15:50		
Temperature, Water (C)	**13.5**	deg C			1		06/07/17 15:50		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**240**	mg/L	20.0	8.7	1		06/13/17 15:51		
9040 pH	Analytical Method: EPA 9040								
pH	**7.7**	Std. Units	0.10	0.010	1		06/13/17 10:40		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**12.8**	mg/L	10.0	2.5	5		06/21/17 23:27	16887-00-6	
Fluoride	**<0.50**	mg/L	1.5	0.50	5		06/21/17 23:27	16984-48-8	D3
Sulfate	**<5.0**	mg/L	15.0	5.0	5		06/21/17 23:27	14808-79-8	D3

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 25216071.17 ALLIANT-ND
Pace Project No.: 40151353

Sample: B-11R **Lab ID: 40151353003** Collected: 06/07/17 17:15 Received: 06/09/17 10:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**<0.15**	ug/L	1.0	0.15	1	06/12/17 10:10	06/13/17 20:19	7440-36-0	
Arsenic	**6.1**	ug/L	1.0	0.28	1	06/12/17 10:10	06/13/17 20:19	7440-38-2	
Barium	**152**	ug/L	1.1	0.34	1	06/12/17 10:10	06/13/17 20:19	7440-39-3	
Beryllium	**<0.18**	ug/L	1.0	0.18	1	06/12/17 10:10	06/13/17 20:19	7440-41-7	
Boron	**3420**	ug/L	110	33.0	10	06/12/17 10:10	06/15/17 00:11	7440-42-8	
Cadmium	**<0.081**	ug/L	1.0	0.081	1	06/12/17 10:10	06/13/17 20:19	7440-43-9	
Calcium	**128000**	ug/L	2500	698	10	06/12/17 10:10	06/15/17 00:11	7440-70-2	
Chromium	**<1.0**	ug/L	3.4	1.0	1	06/12/17 10:10	06/13/17 20:19	7440-47-3	
Cobalt	**1.5**	ug/L	1.0	0.085	1	06/12/17 10:10	06/13/17 20:19	7440-48-4	
Lead	**<0.20**	ug/L	1.0	0.20	1	06/12/17 10:10	06/13/17 20:19	7439-92-1	
Lithium	**1.3**	ug/L	1.0	0.14	1	06/12/17 10:10	06/13/17 20:19	7439-93-2	
Molybdenum	**53.8**	ug/L	1.5	0.44	1	06/12/17 10:10	06/13/17 20:19	7439-98-7	
Selenium	**<0.32**	ug/L	1.1	0.32	1	06/12/17 10:10	06/13/17 20:19	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	06/12/17 10:10	06/13/17 20:19	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	06/20/17 13:05	06/21/17 10:46	7439-97-6	
Field Data	Analytical Method:								
Field pH	**6.80**	Std. Units			1		06/07/17 17:15		
Field Specific Conductance	**721**	umhos/cm			1		06/07/17 17:15		
Oxygen, Dissolved	**0.21**	mg/L			1		06/07/17 17:15	7782-44-7	
REDOX	**-26.8**	mV			1		06/07/17 17:15		
Turbidity	**1.72**	NTU			1		06/07/17 17:15		
Static Water Level	**610.42**	feet			1		06/07/17 17:15		
Temperature, Water (C)	**11.9**	deg C			1		06/07/17 17:15		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**630**	mg/L	20.0	8.7	1		06/13/17 15:51		
9040 pH	Analytical Method: EPA 9040								
pH	**7.1**	Std. Units	0.10	0.010	1		06/13/17 10:40		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**42.0**	mg/L	10.0	2.5	5		06/21/17 23:38	16887-00-6	
Fluoride	**<0.50**	mg/L	1.5	0.50	5		06/21/17 23:38	16984-48-8	D3
Sulfate	**98.2**	mg/L	15.0	5.0	5		06/21/17 23:38	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 25216071.17 ALLIANT-ND
Pace Project No.: 40151353

Sample: B-26 **Lab ID: 40151353004** Collected: 06/07/17 18:05 Received: 06/09/17 10:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**<0.15**	ug/L	1.0	0.15	1	06/12/17 10:10	06/13/17 20:26	7440-36-0	
Arsenic	**0.39J**	ug/L	1.0	0.28	1	06/12/17 10:10	06/13/17 20:26	7440-38-2	
Barium	**107**	ug/L	1.1	0.34	1	06/12/17 10:10	06/13/17 20:26	7440-39-3	
Beryllium	**<0.18**	ug/L	1.0	0.18	1	06/12/17 10:10	06/13/17 20:26	7440-41-7	
Boron	**45.8**	ug/L	11.0	3.3	1	06/12/17 10:10	06/15/17 00:18	7440-42-8	
Cadmium	**<0.081**	ug/L	1.0	0.081	1	06/12/17 10:10	06/13/17 20:26	7440-43-9	
Calcium	**105000**	ug/L	250	69.8	1	06/12/17 10:10	06/15/17 00:18	7440-70-2	
Chromium	**<1.0**	ug/L	3.4	1.0	1	06/12/17 10:10	06/13/17 20:26	7440-47-3	
Cobalt	**<0.085**	ug/L	1.0	0.085	1	06/12/17 10:10	06/13/17 20:26	7440-48-4	
Lead	**<0.20**	ug/L	1.0	0.20	1	06/12/17 10:10	06/13/17 20:26	7439-92-1	
Lithium	**2.2**	ug/L	1.0	0.14	1	06/12/17 10:10	06/13/17 20:26	7439-93-2	
Molybdenum	**<0.44**	ug/L	1.5	0.44	1	06/12/17 10:10	06/13/17 20:26	7439-98-7	
Selenium	**1.5**	ug/L	1.1	0.32	1	06/12/17 10:10	06/13/17 20:26	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	06/12/17 10:10	06/13/17 20:26	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	06/20/17 13:05	06/21/17 10:48	7439-97-6	
Field Data	Analytical Method:								
Field pH	**7.22**	Std. Units			1		06/07/17 18:05		
Field Specific Conductance	**575.9**	umhos/cm			1		06/07/17 18:05		
Oxygen, Dissolved	**2.92**	mg/L			1		06/07/17 18:05	7782-44-7	
REDOX	**53.4**	mV			1		06/07/17 18:05		
Turbidity	**0.44**	NTU			1		06/07/17 18:05		
Static Water Level	**611.25**	feet			1		06/07/17 18:05		
Temperature, Water (C)	**10.9**	deg C			1		06/07/17 18:05		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**538**	mg/L	20.0	8.7	1		06/13/17 15:52		
9040 pH	Analytical Method: EPA 9040								
pH	**7.5**	Std. Units	0.10	0.010	1		06/13/17 10:40		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**59.6**	mg/L	10.0	2.5	5		06/22/17 17:23	16887-00-6	M0
Fluoride	**<0.10**	mg/L	0.30	0.10	1		06/21/17 23:49	16984-48-8	
Sulfate	**31.0**	mg/L	3.0	1.0	1		06/21/17 23:49	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 25216071.17 ALLIANT-ND
Pace Project No.: 40151353

Sample: B-11B **Lab ID: 40151353005** Collected: 06/08/17 10:15 Received: 06/09/17 10:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**<0.15**	ug/L	1.0	0.15	1	06/12/17 10:10	06/13/17 20:33	7440-36-0	
Arsenic	**<0.28**	ug/L	1.0	0.28	1	06/12/17 10:10	06/13/17 20:33	7440-38-2	
Barium	**151**	ug/L	1.1	0.34	1	06/12/17 10:10	06/13/17 20:33	7440-39-3	
Beryllium	**<0.18**	ug/L	1.0	0.18	1	06/12/17 10:10	06/13/17 20:33	7440-41-7	
Boron	**1880**	ug/L	55.0	16.5	5	06/12/17 10:10	06/15/17 00:25	7440-42-8	
Cadmium	**<0.081**	ug/L	1.0	0.081	1	06/12/17 10:10	06/13/17 20:33	7440-43-9	
Calcium	**68200**	ug/L	1250	349	5	06/12/17 10:10	06/15/17 00:25	7440-70-2	
Chromium	**<1.0**	ug/L	3.4	1.0	1	06/12/17 10:10	06/13/17 20:33	7440-47-3	
Cobalt	**0.26J**	ug/L	1.0	0.085	1	06/12/17 10:10	06/13/17 20:33	7440-48-4	
Lead	**<0.20**	ug/L	1.0	0.20	1	06/12/17 10:10	06/13/17 20:33	7439-92-1	
Lithium	**19.4**	ug/L	1.0	0.14	1	06/12/17 10:10	06/13/17 20:33	7439-93-2	
Molybdenum	**55.1**	ug/L	1.5	0.44	1	06/12/17 10:10	06/13/17 20:33	7439-98-7	
Selenium	**<0.32**	ug/L	1.1	0.32	1	06/12/17 10:10	06/13/17 20:33	7782-49-2	
Thallium	**0.16J**	ug/L	1.0	0.14	1	06/12/17 10:10	06/13/17 20:33	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	06/20/17 13:05	06/21/17 10:50	7439-97-6	
Field Data	Analytical Method:								
Field pH	**8.07**	Std. Units			1		06/08/17 10:15		
Field Specific Conductance	**534.3**	umhos/cm			1		06/08/17 10:15		
Oxygen, Dissolved	**0.28**	mg/L			1		06/08/17 10:15	7782-44-7	
REDOX	**36.2**	mV			1		06/08/17 10:15		
Turbidity	**0.7**	NTU			1		06/08/17 10:15		
Static Water Level	**610.08**	feet			1		06/08/17 10:15		
Temperature, Water (C)	**14.1**	deg C			1		06/08/17 10:15		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**516**	mg/L	20.0	8.7	1		06/15/17 16:18		
9040 pH	Analytical Method: EPA 9040								
pH	**8.1**	Std. Units	0.10	0.010	1		06/13/17 10:40		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**33.9**	mg/L	2.0	0.50	1		06/21/17 17:53	16887-00-6	
Fluoride	**0.59**	mg/L	0.30	0.10	1		06/21/17 17:53	16984-48-8	
Sulfate	**191**	mg/L	30.0	10.0	10		06/21/17 23:18	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
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ANALYTICAL RESULTS

Project: 25216071.17 ALLIANT-ND
Pace Project No.: 40151353

Sample: FIELD BLANK **Lab ID: 40151353006** Collected: 06/08/17 11:00 Received: 06/09/17 10:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**<0.15**	ug/L	1.0	0.15	1	06/12/17 10:10	06/13/17 17:31	7440-36-0	
Arsenic	**<0.28**	ug/L	1.0	0.28	1	06/12/17 10:10	06/13/17 17:31	7440-38-2	
Barium	**<0.34**	ug/L	1.1	0.34	1	06/12/17 10:10	06/13/17 17:31	7440-39-3	
Beryllium	**<0.18**	ug/L	1.0	0.18	1	06/12/17 10:10	06/13/17 17:31	7440-41-7	
Boron	**<3.3**	ug/L	11.0	3.3	1	06/12/17 10:10	06/14/17 21:48	7440-42-8	
Cadmium	**<0.081**	ug/L	1.0	0.081	1	06/12/17 10:10	06/13/17 17:31	7440-43-9	
Calcium	**<69.8**	ug/L	250	69.8	1	06/12/17 10:10	06/14/17 21:48	7440-70-2	
Chromium	**<1.0**	ug/L	3.4	1.0	1	06/12/17 10:10	06/13/17 17:31	7440-47-3	
Cobalt	**<0.085**	ug/L	1.0	0.085	1	06/12/17 10:10	06/13/17 17:31	7440-48-4	
Lead	**<0.20**	ug/L	1.0	0.20	1	06/12/17 10:10	06/13/17 17:31	7439-92-1	
Lithium	**<0.14**	ug/L	1.0	0.14	1	06/12/17 10:10	06/13/17 17:31	7439-93-2	
Molybdenum	**<0.44**	ug/L	1.5	0.44	1	06/12/17 10:10	06/13/17 17:31	7439-98-7	
Selenium	**<0.32**	ug/L	1.1	0.32	1	06/12/17 10:10	06/13/17 17:31	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	06/12/17 10:10	06/13/17 17:31	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	06/20/17 13:05	06/21/17 10:57	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**<8.7**	mg/L	20.0	8.7	1		06/15/17 16:18		
9040 pH	Analytical Method: EPA 9040								
pH	**6.6**	Std. Units	0.10	0.010	1		06/13/17 10:40		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**<0.50**	mg/L	2.0	0.50	1		06/21/17 18:25	16887-00-6	
Fluoride	**<0.10**	mg/L	0.30	0.10	1		06/21/17 18:25	16984-48-8	
Sulfate	**<1.0**	mg/L	3.0	1.0	1		06/21/17 18:25	14808-79-8	

Sample: B-11A **Lab ID: 40151353007** Collected: 06/08/17 11:15 Received: 06/09/17 10:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**<0.15**	ug/L	1.0	0.15	1	06/12/17 10:10	06/13/17 20:40	7440-36-0	
Arsenic	**<0.28**	ug/L	1.0	0.28	1	06/12/17 10:10	06/13/17 20:40	7440-38-2	
Barium	**194**	ug/L	1.1	0.34	1	06/12/17 10:10	06/13/17 20:40	7440-39-3	
Beryllium	**<0.18**	ug/L	1.0	0.18	1	06/12/17 10:10	06/13/17 20:40	7440-41-7	
Boron	**102**	ug/L	11.0	3.3	1	06/12/17 10:10	06/15/17 00:32	7440-42-8	
Cadmium	**<0.081**	ug/L	1.0	0.081	1	06/12/17 10:10	06/13/17 20:40	7440-43-9	
Calcium	**57800**	ug/L	250	69.8	1	06/12/17 10:10	06/15/17 00:32	7440-70-2	
Chromium	**<1.0**	ug/L	3.4	1.0	1	06/12/17 10:10	06/13/17 20:40	7440-47-3	
Cobalt	**1.1**	ug/L	1.0	0.085	1	06/12/17 10:10	06/13/17 20:40	7440-48-4	
Lead	**<0.20**	ug/L	1.0	0.20	1	06/12/17 10:10	06/13/17 20:40	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 25216071.17 ALLIANT-ND
Pace Project No.: 40151353

Sample: B-11A **Lab ID: 40151353007** Collected: 06/08/17 11:15 Received: 06/09/17 10:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Lithium	**6.1**	ug/L	1.0	0.14	1	06/12/17 10:10	06/13/17 20:40	7439-93-2	
Molybdenum	**22.2**	ug/L	1.5	0.44	1	06/12/17 10:10	06/13/17 20:40	7439-98-7	
Selenium	**<0.32**	ug/L	1.1	0.32	1	06/12/17 10:10	06/13/17 20:40	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	06/12/17 10:10	06/13/17 20:40	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	06/20/17 13:05	06/21/17 10:59	7439-97-6	
Field Data	Analytical Method:								
Field pH	**7.78**	Std. Units			1		06/08/17 11:15		
Field Specific Conductance	**407.9**	umhos/cm			1		06/08/17 11:15		
Oxygen, Dissolved	**0.23**	mg/L			1		06/08/17 11:15	7782-44-7	
REDOX	**31.4**	mV			1		06/08/17 11:15		
Turbidity	**0.39**	NTU			1		06/08/17 11:15		
Static Water Level	**609.81**	feet			1		06/08/17 11:15		
Temperature, Water (C)	**14.3**	deg C			1		06/08/17 11:15		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**338**	mg/L	20.0	8.7	1		06/15/17 16:18		
9040 pH	Analytical Method: EPA 9040								
pH	**7.7**	Std. Units	0.10	0.010	1		06/13/17 10:40		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**46.9**	mg/L	2.0	0.50	1		06/21/17 18:36	16887-00-6	
Fluoride	**0.37**	mg/L	0.30	0.10	1		06/21/17 18:36	16984-48-8	
Sulfate	**1.4J**	mg/L	3.0	1.0	1		06/21/17 18:36	14808-79-8	

Sample: B-31R **Lab ID: 40151353008** Collected: 06/08/17 12:10 Received: 06/09/17 10:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**<0.15**	ug/L	1.0	0.15	1	06/12/17 10:10	06/13/17 20:46	7440-36-0	
Arsenic	**1.3**	ug/L	1.0	0.28	1	06/12/17 10:10	06/13/17 20:46	7440-38-2	
Barium	**150**	ug/L	1.1	0.34	1	06/12/17 10:10	06/13/17 20:46	7440-39-3	
Beryllium	**<0.18**	ug/L	1.0	0.18	1	06/12/17 10:10	06/13/17 20:46	7440-41-7	
Boron	**58.5**	ug/L	11.0	3.3	1	06/12/17 10:10	06/15/17 00:39	7440-42-8	
Cadmium	**<0.081**	ug/L	1.0	0.081	1	06/12/17 10:10	06/13/17 20:46	7440-43-9	
Calcium	**49400**	ug/L	250	69.8	1	06/12/17 10:10	06/15/17 00:39	7440-70-2	
Chromium	**9.4**	ug/L	3.4	1.0	1	06/12/17 10:10	06/13/17 20:46	7440-47-3	
Cobalt	**2.2**	ug/L	1.0	0.085	1	06/12/17 10:10	06/13/17 20:46	7440-48-4	
Lead	**<0.20**	ug/L	1.0	0.20	1	06/12/17 10:10	06/13/17 20:46	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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ANALYTICAL RESULTS

Project: 25216071.17 ALLIANT-ND
Pace Project No.: 40151353

Sample: B-31A **Lab ID: 40151353008** Collected: 06/08/17 12:10 Received: 06/09/17 10:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Lithium	**0.94J**	ug/L	1.0	0.14	1	06/12/17 10:10	06/13/17 20:46	7439-93-2	
Molybdenum	**22.9**	ug/L	1.5	0.44	1	06/12/17 10:10	06/13/17 20:46	7439-98-7	
Selenium	**<0.32**	ug/L	1.1	0.32	1	06/12/17 10:10	06/13/17 20:46	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	06/12/17 10:10	06/13/17 20:46	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	06/20/17 13:05	06/21/17 11:02	7439-97-6	
Field Data	Analytical Method:								
Field pH	**7.74**	Std. Units			1		06/08/17 12:10		
Field Specific Conductance	**334.2**	umhos/cm			1		06/08/17 12:10		
Oxygen, Dissolved	**0.25**	mg/L			1		06/08/17 12:10	7782-44-7	
REDOX	**-19.8**	mV			1		06/08/17 12:10		
Turbidity	**0.66**	NTU			1		06/08/17 12:10		
Static Water Level	**609.63**	feet			1		06/08/17 12:10		
Temperature, Water (C)	**14.7**	deg C			1		06/08/17 12:10		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**296**	mg/L	20.0	8.7	1		06/15/17 16:18		
9040 pH	Analytical Method: EPA 9040								
pH	**7.8**	Std. Units	0.10	0.010	1		06/13/17 11:00		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**40.9**	mg/L	2.0	0.50	1		06/21/17 18:47	16887-00-6	
Fluoride	**0.18J**	mg/L	0.30	0.10	1		06/21/17 18:47	16984-48-8	
Sulfate	**31.2**	mg/L	3.0	1.0	1		06/21/17 18:47	14808-79-8	

Sample: B-31A **Lab ID: 40151353009** Collected: 06/08/17 13:00 Received: 06/09/17 10:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**<0.15**	ug/L	1.0	0.15	1	06/12/17 10:10	06/13/17 20:53	7440-36-0	
Arsenic	**<0.28**	ug/L	1.0	0.28	1	06/12/17 10:10	06/13/17 20:53	7440-38-2	
Barium	**93.9**	ug/L	1.1	0.34	1	06/12/17 10:10	06/13/17 20:53	7440-39-3	
Beryllium	**<0.18**	ug/L	1.0	0.18	1	06/12/17 10:10	06/13/17 20:53	7440-41-7	
Boron	**895**	ug/L	22.0	6.6	2	06/12/17 10:10	06/15/17 00:45	7440-42-8	
Cadmium	**2.9**	ug/L	1.0	0.081	1	06/12/17 10:10	06/13/17 20:53	7440-43-9	
Calcium	**90700**	ug/L	500	140	2	06/12/17 10:10	06/15/17 00:45	7440-70-2	
Chromium	**<1.0**	ug/L	3.4	1.0	1	06/12/17 10:10	06/13/17 20:53	7440-47-3	
Cobalt	**2.3**	ug/L	1.0	0.085	1	06/12/17 10:10	06/13/17 20:53	7440-48-4	
Lead	**<0.20**	ug/L	1.0	0.20	1	06/12/17 10:10	06/13/17 20:53	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 25216071.17 ALLIANT-ND
Pace Project No.: 40151353

Sample: B-31R **Lab ID: 40151353009** Collected: 06/08/17 13:00 Received: 06/09/17 10:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Lithium	**21.4**	ug/L	1.0	0.14	1	06/12/17 10:10	06/13/17 20:53	7439-93-2	
Molybdenum	**25.4**	ug/L	1.5	0.44	1	06/12/17 10:10	06/13/17 20:53	7439-98-7	
Selenium	**<0.32**	ug/L	1.1	0.32	1	06/12/17 10:10	06/13/17 20:53	7782-49-2	
Thallium	**2.2**	ug/L	1.0	0.14	1	06/12/17 10:10	06/13/17 20:53	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	06/20/17 13:05	06/21/17 11:04	7439-97-6	
Field Data	Analytical Method:								
Field pH	**6.67**	Std. Units			1		06/08/17 13:00		
Field Specific Conductance	**465.4**	umhos/cm			1		06/08/17 13:00		
Oxygen, Dissolved	**0.21**	mg/L			1		06/08/17 13:00	7782-44-7	
REDOX	**64.7**	mV			1		06/08/17 13:00		
Turbidity	**0.92**	NTU			1		06/08/17 13:00		
Static Water Level	**610.50**	feet			1		06/08/17 13:00		
Temperature, Water (C)	**13.6**	deg C			1		06/08/17 13:00		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**426**	mg/L	20.0	8.7	1		06/15/17 16:19		
9040 pH	Analytical Method: EPA 9040								
pH	**6.8**	Std. Units	0.10	0.010	1		06/13/17 11:00		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**20.7**	mg/L	2.0	0.50	1		06/21/17 18:58	16887-00-6	
Fluoride	**0.13J**	mg/L	0.30	0.10	1		06/21/17 18:58	16984-48-8	
Sulfate	**41.1**	mg/L	3.0	1.0	1		06/21/17 18:58	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 25216071.17 ALLIANT-ND
Pace Project No.: 40151353

QC Batch: 259095 Analysis Method: EPA 7470
QC Batch Method: EPA 7470 Analysis Description: 7470 Mercury
Associated Lab Samples: 40151353001, 40151353002, 40151353003, 40151353004, 40151353005, 40151353006, 40151353007, 40151353008, 40151353009

METHOD BLANK: 1526396 Matrix: Water
Associated Lab Samples: 40151353001, 40151353002, 40151353003, 40151353004, 40151353005, 40151353006, 40151353007, 40151353008, 40151353009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	<0.13	0.42	06/21/17 10:02	

LABORATORY CONTROL SAMPLE: 1526397

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	4.6	92	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1526398 1526399

Parameter	Units	40151359013 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	<0.13	5	5	4.5	4.6	91	91	85-115	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25216071.17 ALLIANT-ND
Pace Project No.: 40151353

QC Batch: 258263 Analysis Method: EPA 6020
QC Batch Method: EPA 3010 Analysis Description: 6020 MET
Associated Lab Samples: 40151353001, 40151353002, 40151353003, 40151353004, 40151353005, 40151353006, 40151353007, 40151353008, 40151353009

METHOD BLANK: 1521787 Matrix: Water
Associated Lab Samples: 40151353001, 40151353002, 40151353003, 40151353004, 40151353005, 40151353006, 40151353007, 40151353008, 40151353009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	<0.15	1.0	06/13/17 17:11	
Arsenic	ug/L	<0.28	1.0	06/13/17 17:11	
Barium	ug/L	<0.34	1.1	06/13/17 17:11	
Beryllium	ug/L	<0.18	1.0	06/13/17 17:11	
Boron	ug/L	<3.3	11.0	06/14/17 21:28	
Cadmium	ug/L	<0.081	1.0	06/13/17 17:11	
Calcium	ug/L	<69.8	250	06/14/17 21:28	
Chromium	ug/L	<1.0	3.4	06/13/17 17:11	
Cobalt	ug/L	<0.085	1.0	06/13/17 17:11	
Lead	ug/L	<0.20	1.0	06/13/17 17:11	
Lithium	ug/L	<0.14	1.0	06/13/17 17:11	
Molybdenum	ug/L	<0.44	1.5	06/13/17 17:11	
Selenium	ug/L	<0.32	1.1	06/13/17 17:11	
Thallium	ug/L	<0.14	1.0	06/13/17 17:11	

LABORATORY CONTROL SAMPLE: 1521788

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	520	104	80-120	
Arsenic	ug/L	500	510	102	80-120	
Barium	ug/L	500	526	105	80-120	
Beryllium	ug/L	500	515	103	80-120	
Boron	ug/L	500	499	100	80-120	
Cadmium	ug/L	500	525	105	80-120	
Calcium	ug/L	5000	5150	103	80-120	
Chromium	ug/L	500	514	103	80-120	
Cobalt	ug/L	500	515	103	80-120	
Lead	ug/L	500	535	107	80-120	
Lithium	ug/L	500	521	104	80-120	
Molybdenum	ug/L	500	525	105	80-120	
Selenium	ug/L	500	551	110	80-120	
Thallium	ug/L	500	572	114	80-120	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25216071.17 ALLIANT-ND
Pace Project No.: 40151353

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1521789 1521790

Parameter	Units	40151280001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	0.32J	500	500	518	505	103	101	75-125	2	20	
Arsenic	ug/L	25.2	500	500	551	545	105	104	75-125	1	20	
Barium	ug/L	143	500	500	673	666	106	105	75-125	1	20	
Beryllium	ug/L	0.33J	500	500	495	478	99	95	75-125	3	20	
Boron	ug/L	4570	500	500	5110	5090	107	103	75-125	0	20	
Cadmium	ug/L	0.17J	500	500	518	508	104	102	75-125	2	20	
Calcium	ug/L	154000	5000	5000	156000	158000	56	84	75-125	1	20	P6
Chromium	ug/L	2.1J	500	500	523	514	104	102	75-125	2	20	
Cobalt	ug/L	3.4	500	500	521	519	104	103	75-125	0	20	
Lead	ug/L	0.56J	500	500	536	525	107	105	75-125	2	20	
Lithium	ug/L	9.3	500	500	522	505	103	99	75-125	3	20	
Molybdenum	ug/L	4.5	500	500	541	531	107	105	75-125	2	20	
Selenium	ug/L	0.50J	500	500	571	561	114	112	75-125	2	20	
Thallium	ug/L	0.36J	500	500	578	561	115	112	75-125	3	20	

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REPORT OF LABORATORY ANALYSIS

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(920)469-2436

QUALITY CONTROL DATA

Project: 25216071.17 ALLIANT-ND
Pace Project No.: 40151353

QC Batch: 258474 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 40151353001, 40151353002, 40151353003, 40151353004

METHOD BLANK: 1522612 Matrix: Water
Associated Lab Samples: 40151353001, 40151353002, 40151353003, 40151353004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<8.7	20.0	06/13/17 15:48	

LABORATORY CONTROL SAMPLE: 1522613

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	585	592	101	80-120	

SAMPLE DUPLICATE: 1522614

Parameter	Units	40151258001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	698	702	1	5	

SAMPLE DUPLICATE: 1522615

Parameter	Units	40151353001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	308	316	3	5	

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QUALITY CONTROL DATA

Project: 25216071.17 ALLIANT-ND
Pace Project No.: 40151353

QC Batch: 258758 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 40151353005, 40151353006, 40151353007, 40151353008, 40151353009

METHOD BLANK: 1524510 Matrix: Water
Associated Lab Samples: 40151353005, 40151353006, 40151353007, 40151353008, 40151353009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<8.7	20.0	06/15/17 16:16	

LABORATORY CONTROL SAMPLE: 1524511

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	585	598	102	80-120	

SAMPLE DUPLICATE: 1524512

Parameter	Units	40151344001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	908	876	4	5	

SAMPLE DUPLICATE: 1524513

Parameter	Units	40151554002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	496	494	0	5	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25216071.17 ALLIANT-ND
Pace Project No.: 40151353

QC Batch: 258441 Analysis Method: EPA 9040
QC Batch Method: EPA 9040 Analysis Description: 9040 pH
Associated Lab Samples: 40151353001, 40151353002, 40151353003, 40151353004, 40151353005, 40151353006, 40151353007, 40151353008, 40151353009

SAMPLE DUPLICATE: 1522424

Parameter	Units	40151299002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH	Std. Units	7.5	7.6	1	20	H6

SAMPLE DUPLICATE: 1522425

Parameter	Units	40151395001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH	Std. Units	4.3	4.4	2	20	H6

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25216071.17 ALLIANT-ND
Pace Project No.: 40151353

QC Batch: 259136 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 40151353001, 40151353002, 40151353003, 40151353004

METHOD BLANK: 1526509 Matrix: Water
Associated Lab Samples: 40151353001, 40151353002, 40151353003, 40151353004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<0.50	2.0	06/21/17 18:35	
Fluoride	mg/L	<0.10	0.30	06/21/17 18:35	
Sulfate	mg/L	<1.0	3.0	06/21/17 18:35	

LABORATORY CONTROL SAMPLE: 1526510

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	21.2	106	90-110	
Fluoride	mg/L	2	2.1	105	90-110	
Sulfate	mg/L	20	21.0	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1526511 1526512

Parameter	Units	40151015001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	84.6	100	100	180	190	95	105	90-110	5	15	
Fluoride	mg/L	0.38	2	2	2.5	2.5	105	107	90-110	1	15	
Sulfate	mg/L	138	100	100	228	240	89	102	90-110	5	15	M0

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1526513 1526514

Parameter	Units	40151353004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	59.6	100	100	169	172	110	112	90-110	1	15	M0
Fluoride	mg/L	<0.10	2	2	2.2	2.2	106	108	90-110	2	15	
Sulfate	mg/L	31.0	20	20	51.9	52.3	105	106	90-110	1	15	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25216071.17 ALLIANT-ND
Pace Project No.: 40151353

QC Batch: 259138 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 40151353005, 40151353006, 40151353007, 40151353008, 40151353009

METHOD BLANK: 1526521 Matrix: Water
Associated Lab Samples: 40151353005, 40151353006, 40151353007, 40151353008, 40151353009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<0.50	2.0	06/21/17 17:31	
Fluoride	mg/L	<0.10	0.30	06/21/17 17:31	
Sulfate	mg/L	<1.0	3.0	06/21/17 17:31	

LABORATORY CONTROL SAMPLE: 1526522

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	20.5	103	90-110	
Fluoride	mg/L	2	2.0	102	90-110	
Sulfate	mg/L	20	20.4	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1526523 1526524

Parameter	Units	40151353005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	33.9	20	20	54.1	54.1	101	101	90-110	0	15	
Fluoride	mg/L	0.59	2	2	2.8	2.8	108	108	90-110	0	15	
Sulfate	mg/L	191	200	200	404	403	107	106	90-110	0	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1526525 1526526

Parameter	Units	40151438007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	<0.50	20	20	22.4	22.6	112	113	90-110	1	15	M0
Fluoride	mg/L	<0.10	2	2	2.2	2.3	112	114	90-110	2	15	M0
Sulfate	mg/L	<1.0	20	20	22.2	22.3	111	112	90-110	1	15	M0

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 25216071.17 ALLIANT-ND
Pace Project No.: 40151353

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 LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

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 at or above the adjusted LOD.

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

D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
H6	Analysis initiated outside of the 15 minute EPA required holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 25216071.17 ALLIANT-ND
Pace Project No.: 40151353

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40151353001	**B-39**	EPA 3010	258263	EPA 6020	258358
40151353002	**B-7R**	EPA 3010	258263	EPA 6020	258358
40151353003	**B-11R**	EPA 3010	258263	EPA 6020	258358
40151353004	**B-26**	EPA 3010	258263	EPA 6020	258358
40151353005	**B-11B**	EPA 3010	258263	EPA 6020	258358
40151353006	**FIELD BLANK**	EPA 3010	258263	EPA 6020	258358
40151353007	**B-11A**	EPA 3010	258263	EPA 6020	258358
40151353008	**B-31A**	EPA 3010	258263	EPA 6020	258358
40151353009	**B-31R**	EPA 3010	258263	EPA 6020	258358
40151353001	**B-39**	EPA 7470	259095	EPA 7470	259180
40151353002	**B-7R**	EPA 7470	259095	EPA 7470	259180
40151353003	**B-11R**	EPA 7470	259095	EPA 7470	259180
40151353004	**B-26**	EPA 7470	259095	EPA 7470	259180
40151353005	**B-11B**	EPA 7470	259095	EPA 7470	259180
40151353006	**FIELD BLANK**	EPA 7470	259095	EPA 7470	259180
40151353007	**B-11A**	EPA 7470	259095	EPA 7470	259180
40151353008	**B-31A**	EPA 7470	259095	EPA 7470	259180
40151353009	**B-31R**	EPA 7470	259095	EPA 7470	259180
40151353001	**B-39**				
40151353002	**B-7R**				
40151353003	**B-11R**				
40151353004	**B-26**				
40151353005	**B-11B**				
40151353007	**B-11A**				
40151353008	**B-31A**				
40151353009	**B-31R**				
40151353001	**B-39**	SM 2540C	258474		
40151353002	**B-7R**	SM 2540C	258474		
40151353003	**B-11R**	SM 2540C	258474		
40151353004	**B-26**	SM 2540C	258474		
40151353005	**B-11B**	SM 2540C	258758		
40151353006	**FIELD BLANK**	SM 2540C	258758		
40151353007	**B-11A**	SM 2540C	258758		
40151353008	**B-31A**	SM 2540C	258758		
40151353009	**B-31R**	SM 2540C	258758		
40151353001	**B-39**	EPA 9040	258441		
40151353002	**B-7R**	EPA 9040	258441		
40151353003	**B-11R**	EPA 9040	258441		
40151353004	**B-26**	EPA 9040	258441		
40151353005	**B-11B**	EPA 9040	258441		
40151353006	**FIELD BLANK**	EPA 9040	258441		
40151353007	**B-11A**	EPA 9040	258441		
40151353008	**B-31A**	EPA 9040	258441		
40151353009	**B-31R**	EPA 9040	258441		
40151353001	**B-39**	EPA 300.0	259136		
40151353002	**B-7R**	EPA 300.0	259136		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 25216071.17 ALLIANT-ND
Pace Project No.: 40151353

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40151353003	**B-11R**	EPA 300.0	259136		
40151353004	**B-26**	EPA 300.0	259136		
40151353005	**B-11B**	EPA 300.0	259138		
40151353006	**FIELD BLANK**	EPA 300.0	259138		
40151353007	**B-11A**	EPA 300.0	259138		
40151353008	**B-31A**	EPA 300.0	259138		
40151353009	**B-31R**	EPA 300.0	259138		

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KR

4015353

(Please Print Clearly)

Company Name:	SCS Engineers
Branch/Location:	25-Madison
Project Contact:	Tom Karwoski
Phone:	608-224-2830
Project Number:	25216071.17
Project Name:	Alliant-WD
Project State:	WI
Sampled By (Print):	Nate Harms
Sampled By (Sign):	[signature]
PO #:	
Regulatory Program:	

Quote #:	
Mail To Contact:	Tom Karwoski
Mail To Company:	SCS Engineers
Mail To Address:	2830 Dairy Drive Madison, WI 53718
Invoice To Contact:	Same
Invoice To Company:	Same
Invoice To Address:	
Invoice To Phone:	

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes
A = Air, B = Biota, C = Charcoal, O = Oil, S = Soil, Sl = Sludge
W = Water, DW = Drinking Water, GW = Ground Water, SW = Surface Water, WW = Waste Water, WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	pH	TDS, Cl, F, SO4	Metals	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
FILTERED? (YES/NO) — Y/N					N	—	—			
PRESERVATION (CODE)* — Pick Letter					A	A	D			
001	B-39	6-7-17	1355	GW	X	X	X		3-250mLp AAD	
002	B-7R	↓	1550	↓	↓	↓	↓		↓	
003	B-11R	↓	1715	↓	↓	↓	↓		↓	
004	B-26	↓	1805	↓	↓	↓	↓		↓	
005	B-11B	6-8-17	1015	↓	↓	↓	↓		↓	
006	Field Blank	↓	1100	↓	↓	↓	↓		↓	
007	B-11A	↓	1115	↓	↓	↓	↓		↓	
008	B-31R	↓	1210	↓	↓	↓	↓		↓	
009	B-31A	↓	1300	↓	↓	↓	↓		↓	

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
Nate Harms	6-8-17 1500		
Fed Ex	6/9/17 1025	Rachel Pace	6/9/17 1025

PACE Project No. 4015353

Receipt Temp = 1.2 °C

Sample Receipt pH
OK / Adjusted

Cooler Custody Seal
Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

Sample Condition Upon Receipt

Pace Analytical Services, LLC. - Green Bay WI
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Project #: WO#: 40151353

Client Name: SB Engineers

Courier: ☑ Fed Ex ☐ UPS ☐ Client ☐ Pace Other: _____

Tracking #: 3102 8966 0656

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

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

Thermometer Used N/A **Type of Ice:** (Wet) Blue Dry None ☑ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 20.1 /Corr: **Biological Tissue is Frozen:** ☐ yes ☐ no

Temp Blank Present: ☐ yes ☑ no

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C.

Person examining contents:
Date: 6/9/17
Initials: RMN

				Comments:
Chain of Custody Present:	☑Yes	☐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.
Samples Arrived within Hold Time:	☑Yes	☐No	☐N/A	5.
- VOA Samples frozen upon receipt	☐Yes	☐No		Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes	☑No	☐N/A	6.
Rush Turn Around Time Requested:	☐Yes	☑No	☐N/A	7.
Sufficient Volume:	☑Yes	☐No	☐N/A	8.
Correct Containers Used:	☑Yes	☐No	☐N/A	9.
-Pace Containers Used:	☑Yes	☐No	☐N/A	
-Pace IR Containers Used:	☐Yes	☐No	☑N/A	
Containers Intact:	☑Yes	☐No	☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes	☑No	☐N/A	11.
Sample Labels match COC:	☑Yes	☐No	☐N/A	12.
-Includes date/time/ID/Analysis Matrix: W				
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	☑Yes	☐No	☐N/A	13. ☑ HNO3 ☐ H2SO4 ☐ NaOH ☐ NaOH +ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	☑Yes	☐No	☐N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	☐Yes	☑No		Initial when completed RMN / Lab Std #ID of preservative / Date/ Time:
Headspace in VOA Vials (>6mm):	☐Yes	☐No	☑N/A	14.
Trip Blank Present:	☐Yes	☐No	☑N/A	15.
Trip Blank Custody Seals Present	☐Yes	☐No	☑N/A	
Pace Trip Blank Lot # (if purchased):				

Client Notification/ Resolution: If checked, see attached form for additional comments ☐

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: Review for DM **Date:** 6/9/17

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

June 28, 2017

Meghan Blodgett
SCS ENGINEERS
2830 Dairy Drive
Madison, WI 53718

RE: Project: 25216071.17 ALLIANT-NELSON DEW
Pace Project No.: 40151411

Dear Meghan Blodgett:
Enclosed are the analytical results for sample(s) received by the laboratory on June 09, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Dan Milewsky
dan.milewsky@pacelabs.com
(920)469-2436
Project Manager

Enclosures

cc: Tom Karwoski, SCS ENGINEERS
Jeff Maxted, ALLIANT ENERGY
Marc Morandi, ALLIANT ENERGY

This report is revised to switch sample IDs B-31A with B-31R on the original report as requested by Tom Karwoski at SCS.

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: 25216071.17 ALLIANT-NELSON DEW
Pace Project No.: 40151411

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

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(920)469-2436

SAMPLE SUMMARY

Project: 25216071.17 ALLIANT-NELSON DEW
Pace Project No.: 40151411

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40151411001	**B-39**	Water	06/07/17 13:55	06/09/17 10:25
40151411002	**B-7R**	Water	06/07/17 15:50	06/09/17 10:25
40151411003	**B-11R**	Water	06/07/17 17:15	06/09/17 10:25
40151411004	**B-26**	Water	06/07/17 18:05	06/09/17 10:25
40151411005	**B-11B**	Water	06/08/17 10:15	06/09/17 10:25
40151411006	**FIELD BLANK**	Water	06/08/17 11:00	06/09/17 10:25
40151411007	**B-11A**	Water	06/08/17 11:15	06/09/17 10:25
40151411008	**B-31A**	Water	06/08/17 12:10	06/09/17 10:25
40151411009	**B-31R**	Water	06/08/17 13:00	06/09/17 10:25

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE ANALYTE COUNT

Project: 25216071.17 ALLIANT-NELSON DEW
Pace Project No.: 40151411

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40151411001	**B-39**	EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
40151411002	**B-7R**	EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
40151411003	**B-11R**	EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
40151411004	**B-26**	EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
40151411005	**B-11B**	EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
40151411006	**FIELD BLANK**	EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
40151411007	**B-11A**	EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
40151411008	**B-31A**	EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
40151411009	**B-31R**	EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 25216071.17 ALLIANT-NELSON DEW
Pace Project No.: 40151411

Sample: B-39 **Lab ID: 40151411001** Collected: 06/07/17 13:55 Received: 06/09/17 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.516 ± 0.442 (0.599) C:NA T:85%**	pCi/L	06/22/17 11:21	13982-63-3	
Radium-228	EPA 904.0	**0.186 ± 0.332 (0.726) C:78% T:96%**	pCi/L	06/26/17 15:45	15262-20-1	
Total Radium	Total Radium Calculation	**0.702 ± 0.774 (1.33)**	pCi/L	06/28/17 14:03	7440-14-4	

Sample: B-7R **Lab ID: 40151411002** Collected: 06/07/17 15:50 Received: 06/09/17 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.181 ± 0.277 (0.445) C:NA T:93%**	pCi/L	06/22/17 11:21	13982-63-3	
Radium-228	EPA 904.0	**-0.0577 ± 0.354 (0.830) C:76% T:88%**	pCi/L	06/26/17 15:45	15262-20-1	
Total Radium	Total Radium Calculation	**0.181 ± 0.631 (1.28)**	pCi/L	06/28/17 14:03	7440-14-4	

Sample: B-11R **Lab ID: 40151411003** Collected: 06/07/17 17:15 Received: 06/09/17 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.272 ± 0.355 (0.585) C:NA T:97%**	pCi/L	06/22/17 11:21	13982-63-3	
Radium-228	EPA 904.0	**1.83 ± 0.541 (0.648) C:83% T:88%**	pCi/L	06/26/17 15:45	15262-20-1	
Total Radium	Total Radium Calculation	**2.10 ± 0.896 (1.23)**	pCi/L	06/28/17 14:03	7440-14-4	

Sample: B-26 **Lab ID: 40151411004** Collected: 06/07/17 18:05 Received: 06/09/17 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.124 ± 0.514 (0.981) C:NA T:92%**	pCi/L	06/22/17 11:21	13982-63-3	
Radium-228	EPA 904.0	**0.522 ± 0.346 (0.658) C:81% T:90%**	pCi/L	06/26/17 15:45	15262-20-1	
Total Radium	Total Radium Calculation	**0.646 ± 0.860 (1.64)**	pCi/L	06/28/17 14:03	7440-14-4	

Sample: B-11B **Lab ID: 40151411005** Collected: 06/08/17 10:15 Received: 06/09/17 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.389 ± 0.292 (0.151) C:NA T:88%**	pCi/L	06/22/17 11:21	13982-63-3	
Radium-228	EPA 904.0	**0.661 ± 0.401 (0.740) C:80% T:77%**	pCi/L	06/26/17 15:45	15262-20-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 25216071.17 ALLIANT-NELSON DEW
Pace Project No.: 40151411

Sample: B-11B **Lab ID: 40151411005** Collected: 06/08/17 10:15 Received: 06/09/17 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Total Radium	Total Radium Calculation	**1.05 ± 0.693 (0.891)**	pCi/L	06/28/17 14:03	7440-14-4	

Sample: FIELD BLANK **Lab ID: 40151411006** Collected: 06/08/17 11:00 Received: 06/09/17 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.382 ± 0.309 (0.173) C:NA T:90%**	pCi/L	06/22/17 11:21	13982-63-3	
Radium-228	EPA 904.0	**0.609 ± 0.560 (1.16) C:78% T:75%**	pCi/L	06/26/17 15:49	15262-20-1	
Total Radium	Total Radium Calculation	**0.991 ± 0.869 (1.33)**	pCi/L	06/28/17 14:03	7440-14-4	

Sample: B-11A **Lab ID: 40151411007** Collected: 06/08/17 11:15 Received: 06/09/17 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.454 ± 0.448 (0.681) C:NA T:95%**	pCi/L	06/22/17 11:37	13982-63-3	
Radium-228	EPA 904.0	**1.43 ± 0.534 (0.830) C:76% T:92%**	pCi/L	06/26/17 15:49	15262-20-1	
Total Radium	Total Radium Calculation	**1.88 ± 0.982 (1.51)**	pCi/L	06/28/17 14:03	7440-14-4	

Sample: B-31A **Lab ID: 40151411008** Collected: 06/08/17 12:10 Received: 06/09/17 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.594 ± 0.550 (0.837) C:NA T:94%**	pCi/L	06/22/17 11:37	13982-63-3	
Radium-228	EPA 904.0	**0.746 ± 0.521 (1.03) C:77% T:85%**	pCi/L	06/26/17 15:49	15262-20-1	
Total Radium	Total Radium Calculation	**1.34 ± 1.07 (1.87)**	pCi/L	06/28/17 14:03	7440-14-4	

Sample: B-31R **Lab ID: 40151411009** Collected: 06/08/17 13:00 Received: 06/09/17 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.534 ± 0.375 (0.181) C:NA T:78%**	pCi/L	06/22/17 11:37	13982-63-3	
Radium-228	EPA 904.0	**0.827 ± 0.517 (0.997) C:73% T:90%**	pCi/L	06/26/17 15:49	15262-20-1	
Total Radium	Total Radium Calculation	**1.36 ± 0.892 (1.18)**	pCi/L	06/28/17 14:03	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL - RADIOCHEMISTRY

Project: 25216071.17 ALLIANT-NELSON DEW
Pace Project No.: 40151411

QC Batch: 261745 Analysis Method: EPA 903.1
QC Batch Method: EPA 903.1 Analysis Description: 903.1 Radium-226
Associated Lab Samples: 40151411001, 40151411002, 40151411003, 40151411004, 40151411005, 40151411006, 40151411007, 40151411008, 40151411009

METHOD BLANK: 1288791 Matrix: Water
Associated Lab Samples: 40151411001, 40151411002, 40151411003, 40151411004, 40151411005, 40151411006, 40151411007, 40151411008, 40151411009

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.398 ± 0.404 (0.612) C:NA T:94%	pCi/L	06/22/17 11:01	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL - RADIOCHEMISTRY

Project: 25216071.17 ALLIANT-NELSON DEW
Pace Project No.: 40151411

QC Batch: 261765 Analysis Method: EPA 904.0
QC Batch Method: EPA 904.0 Analysis Description: 904.0 Radium 228
Associated Lab Samples: 40151411001, 40151411002, 40151411003, 40151411004, 40151411005, 40151411006, 40151411007, 40151411008, 40151411009

METHOD BLANK: 1288847 Matrix: Water
Associated Lab Samples: 40151411001, 40151411002, 40151411003, 40151411004, 40151411005, 40151411006, 40151411007, 40151411008, 40151411009

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.383 ± 0.440 (0.926) C:77% T:71%	pCi/L	06/26/17 15:45	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALIFIERS

Project: 25216071.17 ALLIANT-NELSON DEW
Pace Project No.: 40151411

DEFINITIONS

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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 LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

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 at or above the adjusted LOD.

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 25216071.17 ALLIANT-NELSON DEW
Pace Project No.: 40151411

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40151411001	**B-39**	EPA 903.1	261745		
40151411002	**B-7R**	EPA 903.1	261745		
40151411003	**B-11R**	EPA 903.1	261745		
40151411004	**B-26**	EPA 903.1	261745		
40151411005	**B-11B**	EPA 903.1	261745		
40151411006	**FIELD BLANK**	EPA 903.1	261745		
40151411007	**B-11A**	EPA 903.1	261745		
40151411008	**B-31A**	EPA 903.1	261745		
40151411009	**B-31R**	EPA 903.1	261745		
40151411001	**B-39**	EPA 904.0	261765		
40151411002	**B-7R**	EPA 904.0	261765		
40151411003	**B-11R**	EPA 904.0	261765		
40151411004	**B-26**	EPA 904.0	261765		
40151411005	**B-11B**	EPA 904.0	261765		
40151411006	**FIELD BLANK**	EPA 904.0	261765		
40151411007	**B-11A**	EPA 904.0	261765		
40151411008	**B-31A**	EPA 904.0	261765		
40151411009	**B-31R**	EPA 904.0	261765		
40151411001	**B-39**	Total Radium Calculation	263481		
40151411002	**B-7R**	Total Radium Calculation	263481		
40151411003	**B-11R**	Total Radium Calculation	263481		
40151411004	**B-26**	Total Radium Calculation	263481		
40151411005	**B-11B**	Total Radium Calculation	263481		
40151411006	**FIELD BLANK**	Total Radium Calculation	263481		
40151411007	**B-11A**	Total Radium Calculation	263481		
40151411008	**B-31A**	Total Radium Calculation	263481		
40151411009	**B-31R**	Total Radium Calculation	263481		

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

40151411

Pace Analytical®
www.pacelabs.com

CHAIN OF CUSTODY

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

(Please Print Clearly)

Company Name:	SCS Engineers
Branch/Location:	25-Madison
Project Contact:	Tom Kanwoski
Phone:	608-224-2830
Project Number:	25216071.17
Project Name:	Alliant-Nelson Dewey
Project State:	WI
Sampled By (Print):	Wade Haines
Sampled By (Sign):	
PO #:	Regulatory Program:

Quote #:	
Mail To Contact:	Tom Kanwoski
Mail To Company:	SCS Engineers
Mail To Address:	2830 Dairy Dr. MSN, WI 53718
Invoice To Contact:	
Invoice To Company:	SAME
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes

A = Air	W = Water
B = Biota	DW = Drinking Water
C = Charcoal	GW = Ground Water
O = Oil	SW = Surface Water
S = Soil	WW = Waste Water
Sl = Sludge	WP = Wipe

FILTERED? (YES/NO) — Y/N
PRESERVATION (CODE)* — Pick Letter

Analyses Requested: Radium 226, Radium 228

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	Y/N	Pick Letter	Radium 226, Radium 228							CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
001	B-39	6-7-17	1353	GW	N	D	X			2 HNO3	1 HNO3			B-39 →	Radium 228 bottle is unpreserved	
002	B-7R		1530													
003	B-11R		1715													
004	B-26		1805													
005	B-11B	6-8-17	1015													
006	Field Blank		1100													
007	B-11A		1115													
008	B-31R		1210													
009	B-31A		1300													

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
Wade Haines	6-8-17 1500		
Fed Ex	6/9/17 1025	Sam Nelson Pace	6/9/17 1025

PACE Project No.: 40151411
Receipt Temp = 2.8 °C
Sample Receipt pH OK / Adjusted
Cooler Custody Seal: Present / Not Present; Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

Sample Condition Upon Receipt

Pace Analytical Services, LLC. - Green Bay WI
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Pace Analytical™

Client Name: SCS

Project #: **WO#: 40151411**

40151411

Courier: [X] Fed Ex [ ] UPS [ ] Client [ ] Pace Other: _____

Tracking #: 8102 8966 0667

Custody Seal on Cooler/Box Present: [ ] yes [X] no Seals intact: [ ] yes [ ] no

Custody Seal on Samples Present: [ ] yes [X] no Seals intact: [ ] yes [ ] no

Packing Material: [X] Bubble Wrap [ ] Bubble Bags [ ] None [ ] Other _____

Thermometer Used SR-53 **Type of Ice:** Wet Blue Dry [X] None [X] Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 2.8 /Corr: 2.8 **Biological Tissue is Frozen:** [ ] yes [ ] no

Temp Blank Present: [ ] yes [X] no

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C.

Person examining contents:
Date: 6/9/17
Initials: SSM

Comments:

Chain of Custody Present:	[X]Yes	[ ]No	[ ]N/A
Chain of Custody Filled Out:	[X]Yes	[ ]No	[ ]N/A
Chain of Custody Relinquished:	[X]Yes	[ ]No	[ ]N/A
Sampler Name & Signature on COC:	[X]Yes	[ ]No	[ ]N/A
Samples Arrived within Hold Time:	[X]Yes	[ ]No	[ ]N/A
- VOA Samples frozen upon receipt	[ ]Yes	[ ]No	
Short Hold Time Analysis (<72hr):	[ ]Yes	[X]No	[ ]N/A
Rush Turn Around Time Requested:	[ ]Yes	[X]No	[ ]N/A
Sufficient Volume:	[X]Yes	[ ]No	[ ]N/A
Correct Containers Used:	[ ]Yes	[X]No	[ ]N/A
-Pace Containers Used:	[X]Yes	[ ]No	[ ]N/A
-Pace IR Containers Used:	[ ]Yes	[ ]No	[X]N/A
Containers Intact:	[X]Yes	[ ]No	[ ]N/A
Filtered volume received for Dissolved tests	[ ]Yes	[X]No	[ ]N/A
Sample Labels match COC:	[X]Yes	[ ]No	[ ]N/A
-Includes date/time/ID/Analysis Matrix: W			
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	[X]Yes	[ ]No	[ ]N/A
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	[ ]Yes	[X]No	[ ]N/A
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	[ ]Yes	[X]No	
Headspace in VOA Vials (>6mm):	[ ]Yes	[ ]No	[X]N/A
Trip Blank Present:	[ ]Yes	[ ]No	[X]N/A
Trip Blank Custody Seals Present	[ ]Yes	[ ]No	[X]N/A
Pace Trip Blank Lot # (if purchased):			

1.
2.
3.
4.
5. Date/Time:
6.
7.
8.
9. 001 all PM email KB 6/9/17
10.
11.
12.
13. [X] HNO3 [ ] H2SO4 [ ] NaOH [ ] NaOH +ZnAct
001- 1-14p' rec'd unpreserved → pH>7 → added 10mL HNO3 → pH<2 SSM 6/9/1

Initial when completed SM | Lab Std #ID of preservative 68543 | Date/ Time: 6/9/17 1500

14.
15.

Client Notification/ Resolution: If checked, see attached form for additional comments [ ]

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: RMN for TW **Date:** 6/9/17

A8 Round 8 Background Sampling, Analytical Laboratory Report

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

August 18, 2017

Meghan Blodgett
SCS ENGINEERS
2830 Dairy Drive
Madison, WI 53718

RE: Project: 25216041.14 NELSON DEWEY-ALLIA
Pace Project No.: 40154446

Dear Meghan Blodgett:
Enclosed are the analytical results for sample(s) received by the laboratory on August 04, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Dan Milewsky
dan.milewsky@pacelabs.com
(920)469-2436
Project Manager

Enclosures

cc: Tom Karwoski, SCS ENGINEERS
Jeff Maxted, ALLIANT ENERGY
Marc Morandi, ALLIANT ENERGY

Pace Analytical Services, LLC
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CERTIFICATIONS

Project: 25216041.14 NELSON DEWEY-ALLIA
Pace Project No.: 40154446

Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150
Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: 25216041.14 NELSON DEWEY-ALLIA
Pace Project No.: 40154446

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40154446001	**B7R**	Water	08/01/17 15:40	08/04/17 09:35
40154446002	**B11R**	Water	08/01/17 18:20	08/04/17 09:35
40154446003	**B11A**	Water	08/01/17 17:40	08/04/17 09:35
40154446004	**B11B**	Water	08/01/17 17:00	08/04/17 09:35
40154446005	**B26**	Water	08/02/17 12:20	08/04/17 09:35
40154446006	**B31R**	Water	08/01/17 20:00	08/04/17 09:35
40154446007	**B31A**	Water	08/01/17 19:10	08/04/17 09:35
40154446008	**B39**	Water	08/02/17 10:50	08/04/17 09:35
40154446009	**FIELD BLANK**	Water	08/02/17 11:15	08/04/17 09:35

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SAMPLE ANALYTE COUNT

Project: 25216041.14 NELSON DEWEY-ALLIA
Pace Project No.: 40154446

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40154446001	**B7R**	EPA 6020	DS1, SDW	14
		EPA 7470	AJT	1
			AXL	7
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	HMB	3
40154446002	**B11R**	EPA 6020	DS1, SDW	14
		EPA 7470	AJT	1
			AXL	7
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	HMB	3
40154446003	**B11A**	EPA 6020	DS1, SDW	14
		EPA 7470	AJT	1
			AXL	7
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	HMB	3
40154446004	**B11B**	EPA 6020	DS1, SDW	14
		EPA 7470	AJT	1
			AXL	7
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	HMB	3
40154446005	**B26**	EPA 6020	DS1, SDW	14
		EPA 7470	AJT	1
			AXL	7
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	HMB	3
40154446006	**B31R**	EPA 6020	DS1, SDW	14
		EPA 7470	AJT	1
			AXL	7
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	HMB	3
40154446007	**B31A**	EPA 6020	DS1, SDW	14

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SAMPLE ANALYTE COUNT

Project: 25216041.14 NELSON DEWEY-ALLIA
Pace Project No.: 40154446

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 7470	AJT	1
			AXL	7
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	HMB	3
40154446008	**B39**	EPA 6020	DS1, SDW	14
		EPA 7470	AJT	1
			AXL	7
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	HMB	3
40154446009	**FIELD BLANK**	EPA 6020	DS1, SDW	14
		EPA 7470	AJT	1
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	HMB	3

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 25216041.14 NELSON DEWEY-ALLIA
Pace Project No.: 40154446

Sample: B7R **Lab ID: 40154446001** Collected: 08/01/17 15:40 Received: 08/04/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.33J**	ug/L	1.0	0.15	1	08/11/17 08:25	08/15/17 02:56	7440-36-0	
Arsenic	**2.0**	ug/L	1.0	0.28	1	08/11/17 08:25	08/15/17 02:56	7440-38-2	
Barium	**54.2**	ug/L	1.1	0.34	1	08/11/17 08:25	08/15/17 02:56	7440-39-3	
Beryllium	**<0.18**	ug/L	1.0	0.18	1	08/11/17 08:25	08/15/17 02:56	7440-41-7	
Boron	**129**	ug/L	11.0	3.3	1	08/11/17 08:25	08/16/17 10:20	7440-42-8	
Cadmium	**0.23J**	ug/L	1.0	0.081	1	08/11/17 08:25	08/15/17 02:56	7440-43-9	
Calcium	**50400**	ug/L	2500	698	10	08/11/17 08:25	08/15/17 02:30	7440-70-2	P6
Chromium	**<1.0**	ug/L	3.4	1.0	1	08/11/17 08:25	08/15/17 02:56	7440-47-3	
Cobalt	**1.3**	ug/L	1.0	0.085	1	08/11/17 08:25	08/15/17 02:56	7440-48-4	
Lead	**0.29J**	ug/L	1.0	0.20	1	08/11/17 08:25	08/15/17 02:56	7439-92-1	
Lithium	**0.41J**	ug/L	1.0	0.14	1	08/11/17 08:25	08/15/17 02:56	7439-93-2	
Molybdenum	**1.9**	ug/L	1.5	0.44	1	08/11/17 08:25	08/15/17 02:56	7439-98-7	B
Selenium	**0.56J**	ug/L	1.1	0.32	1	08/11/17 08:25	08/15/17 02:56	7782-49-2	
Thallium	**0.36J**	ug/L	1.0	0.14	1	08/11/17 08:25	08/15/17 02:56	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	08/14/17 10:55	08/15/17 09:12	7439-97-6	M0
Field Data	Analytical Method:								
Field pH	**6.28**	Std. Units			1		08/01/17 15:40		
Field Specific Conductance	**411.8**	umhos/cm			1		08/01/17 15:40		
Oxygen, Dissolved	**0.47**	mg/L			1		08/01/17 15:40	7782-44-7	
REDOX	**-3.0**	mV			1		08/01/17 15:40		
Turbidity	**1.31**	NTU			1		08/01/17 15:40		
Elevation Water Level	**607.02**	feet			1		08/01/17 15:40		
Temperature, Water (C)	**16.5**	deg C			1		08/01/17 15:40		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**220**	mg/L	20.0	8.7	1		08/08/17 17:14		
9040 pH	Analytical Method: EPA 9040								
pH	**6.6**	Std. Units	0.10	0.010	1		08/07/17 11:15		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**8.1**	mg/L	2.0	0.50	1		08/11/17 16:51	16887-00-6	
Fluoride	**<0.10**	mg/L	0.30	0.10	1		08/11/17 16:51	16984-48-8	
Sulfate	**3.7**	mg/L	3.0	1.0	1		08/11/17 16:51	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 25216041.14 NELSON DEWEY-ALLIA
Pace Project No.: 40154446

Sample: B11R **Lab ID: 40154446002** Collected: 08/01/17 18:20 Received: 08/04/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.42J**	ug/L	1.0	0.15	1	08/11/17 08:25	08/15/17 03:37	7440-36-0	
Arsenic	**7.5**	ug/L	1.0	0.28	1	08/11/17 08:25	08/15/17 03:37	7440-38-2	
Barium	**168**	ug/L	1.1	0.34	1	08/11/17 08:25	08/15/17 03:37	7440-39-3	
Beryllium	**<0.18**	ug/L	1.0	0.18	1	08/11/17 08:25	08/15/17 03:37	7440-41-7	
Boron	**2040**	ug/L	110	33.0	10	08/11/17 08:25	08/16/17 10:47	7440-42-8	
Cadmium	**0.32J**	ug/L	1.0	0.081	1	08/11/17 08:25	08/15/17 03:37	7440-43-9	
Calcium	**139000**	ug/L	250	69.8	1	08/11/17 08:25	08/15/17 03:37	7440-70-2	
Chromium	**<1.0**	ug/L	3.4	1.0	1	08/11/17 08:25	08/15/17 03:37	7440-47-3	
Cobalt	**1.4**	ug/L	1.0	0.085	1	08/11/17 08:25	08/15/17 03:37	7440-48-4	
Lead	**0.39J**	ug/L	1.0	0.20	1	08/11/17 08:25	08/15/17 03:37	7439-92-1	
Lithium	**2.0**	ug/L	1.0	0.14	1	08/11/17 08:25	08/15/17 03:37	7439-93-2	
Molybdenum	**22.7**	ug/L	1.5	0.44	1	08/11/17 08:25	08/15/17 03:37	7439-98-7	
Selenium	**0.78J**	ug/L	1.1	0.32	1	08/11/17 08:25	08/15/17 03:37	7782-49-2	
Thallium	**0.47J**	ug/L	1.0	0.14	1	08/11/17 08:25	08/15/17 03:37	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	08/14/17 10:55	08/15/17 09:24	7439-97-6	
Field Data	Analytical Method:								
Field pH	**6.70**	Std. Units			1		08/01/17 18:20		
Field Specific Conductance	**1192**	umhos/cm			1		08/01/17 18:20		
Oxygen, Dissolved	**0.10**	mg/L			1		08/01/17 18:20	7782-44-7	
REDOX	**-41.3**	mV			1		08/01/17 18:20		
Turbidity	**1.04**	NTU			1		08/01/17 18:20		
Elevation Water Level	**606.73**	feet			1		08/01/17 18:20		
Temperature, Water (C)	**14.4**	deg C			1		08/01/17 18:20		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**738**	mg/L	20.0	8.7	1		08/08/17 17:14		
9040 pH	Analytical Method: EPA 9040								
pH	**6.9**	Std. Units	0.10	0.010	1		08/07/17 11:15		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**24.7**	mg/L	2.0	0.50	1		08/11/17 17:02	16887-00-6	
Fluoride	**0.25J**	mg/L	0.30	0.10	1		08/11/17 17:02	16984-48-8	
Sulfate	**126**	mg/L	15.0	5.0	5		08/11/17 19:01	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 25216041.14 NELSON DEWEY-ALLIA
Pace Project No.: 40154446

Sample: B11A **Lab ID: 40154446003** Collected: 08/01/17 17:40 Received: 08/04/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.27J**	ug/L	1.0	0.15	1	08/11/17 08:25	08/15/17 03:50	7440-36-0	
Arsenic	**<0.28**	ug/L	1.0	0.28	1	08/11/17 08:25	08/15/17 03:50	7440-38-2	
Barium	**184**	ug/L	1.1	0.34	1	08/11/17 08:25	08/15/17 03:50	7440-39-3	
Beryllium	**<0.18**	ug/L	1.0	0.18	1	08/11/17 08:25	08/15/17 03:50	7440-41-7	
Boron	**105**	ug/L	11.0	3.3	1	08/11/17 08:25	08/16/17 11:01	7440-42-8	
Cadmium	**<0.081**	ug/L	1.0	0.081	1	08/11/17 08:25	08/15/17 03:50	7440-43-9	
Calcium	**54500**	ug/L	250	69.8	1	08/11/17 08:25	08/15/17 03:50	7440-70-2	
Chromium	**<1.0**	ug/L	3.4	1.0	1	08/11/17 08:25	08/15/17 03:50	7440-47-3	
Cobalt	**1.3**	ug/L	1.0	0.085	1	08/11/17 08:25	08/15/17 03:50	7440-48-4	
Lead	**<0.20**	ug/L	1.0	0.20	1	08/11/17 08:25	08/15/17 03:50	7439-92-1	
Lithium	**4.9**	ug/L	1.0	0.14	1	08/11/17 08:25	08/15/17 03:50	7439-93-2	
Molybdenum	**20.0**	ug/L	1.5	0.44	1	08/11/17 08:25	08/15/17 03:50	7439-98-7	
Selenium	**<0.32**	ug/L	1.1	0.32	1	08/11/17 08:25	08/15/17 03:50	7782-49-2	
Thallium	**0.15J**	ug/L	1.0	0.14	1	08/11/17 08:25	08/15/17 03:50	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	08/14/17 10:55	08/15/17 09:26	7439-97-6	
Field Data	Analytical Method:								
Field pH	**7.67**	Std. Units			1		08/01/17 17:40		
Field Specific Conductance	**588.8**	umhos/cm			1		08/01/17 17:40		
Oxygen, Dissolved	**0.10**	mg/L			1		08/01/17 17:40	7782-44-7	
REDOX	**-44.1**	mV			1		08/01/17 17:40		
Turbidity	**0.12**	NTU			1		08/01/17 17:40		
Elevation Water Level	**605.57**	feet			1		08/01/17 17:40		
Temperature, Water (C)	**14.7**	deg C			1		08/01/17 17:40		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**326**	mg/L	20.0	8.7	1		08/08/17 17:15		
9040 pH	Analytical Method: EPA 9040								
pH	**7.7**	Std. Units	0.10	0.010	1		08/07/17 11:15		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**46.7**	mg/L	2.0	0.50	1		08/11/17 17:13	16887-00-6	
Fluoride	**0.37**	mg/L	0.30	0.10	1		08/11/17 17:13	16984-48-8	
Sulfate	**2.4J**	mg/L	3.0	1.0	1		08/11/17 17:13	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 25216041.14 NELSON DEWEY-ALLIA
Pace Project No.: 40154446

Sample: B11B **Lab ID: 40154446004** Collected: 08/01/17 17:00 Received: 08/04/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**<0.15**	ug/L	1.0	0.15	1	08/11/17 08:25	08/15/17 03:57	7440-36-0	
Arsenic	**<0.28**	ug/L	1.0	0.28	1	08/11/17 08:25	08/15/17 03:57	7440-38-2	
Barium	**132**	ug/L	1.1	0.34	1	08/11/17 08:25	08/15/17 03:57	7440-39-3	
Beryllium	**<0.18**	ug/L	1.0	0.18	1	08/11/17 08:25	08/15/17 03:57	7440-41-7	
Boron	**1800**	ug/L	110	33.0	10	08/11/17 08:25	08/16/17 11:21	7440-42-8	
Cadmium	**<0.081**	ug/L	1.0	0.081	1	08/11/17 08:25	08/15/17 03:57	7440-43-9	
Calcium	**61400**	ug/L	250	69.8	1	08/11/17 08:25	08/15/17 03:57	7440-70-2	
Chromium	**<1.0**	ug/L	3.4	1.0	1	08/11/17 08:25	08/15/17 03:57	7440-47-3	
Cobalt	**0.20J**	ug/L	1.0	0.085	1	08/11/17 08:25	08/15/17 03:57	7440-48-4	
Lead	**<0.20**	ug/L	1.0	0.20	1	08/11/17 08:25	08/15/17 03:57	7439-92-1	
Lithium	**17.0**	ug/L	1.0	0.14	1	08/11/17 08:25	08/15/17 03:57	7439-93-2	
Molybdenum	**55.9**	ug/L	1.5	0.44	1	08/11/17 08:25	08/15/17 03:57	7439-98-7	
Selenium	**<0.32**	ug/L	1.1	0.32	1	08/11/17 08:25	08/15/17 03:57	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	08/11/17 08:25	08/15/17 03:57	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	08/14/17 10:55	08/15/17 09:28	7439-97-6	
Field Data	Analytical Method:								
Field pH	**7.77**	Std. Units			1		08/01/17 17:00		
Field Specific Conductance	**776**	umhos/cm			1		08/01/17 17:00		
Oxygen, Dissolved	**0.13**	mg/L			1		08/01/17 17:00	7782-44-7	
REDOX	**-81.1**	mV			1		08/01/17 17:00		
Turbidity	**0.07**	NTU			1		08/01/17 17:00		
Elevation Water Level	**605.50**	feet			1		08/01/17 17:00		
Temperature, Water (C)	**14.5**	deg C			1		08/01/17 17:00		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**498**	mg/L	20.0	8.7	1		08/08/17 17:15		
9040 pH	Analytical Method: EPA 9040								
pH	**7.9**	Std. Units	0.10	0.010	1		08/07/17 11:15		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**35.9**	mg/L	2.0	0.50	1		08/11/17 17:56	16887-00-6	
Fluoride	**0.60**	mg/L	0.30	0.10	1		08/11/17 17:56	16984-48-8	
Sulfate	**179**	mg/L	15.0	5.0	5		08/11/17 19:12	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Green Bay, WI 54302
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ANALYTICAL RESULTS

Project: 25216041.14 NELSON DEWEY-ALLIA
Pace Project No.: 40154446

Sample: B26 **Lab ID: 40154446005** Collected: 08/02/17 12:20 Received: 08/04/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**<0.15**	ug/L	1.0	0.15	1	08/11/17 08:25	08/15/17 04:04	7440-36-0	
Arsenic	**0.50J**	ug/L	1.0	0.28	1	08/11/17 08:25	08/15/17 04:04	7440-38-2	
Barium	**100**	ug/L	1.1	0.34	1	08/11/17 08:25	08/15/17 04:04	7440-39-3	
Beryllium	**<0.18**	ug/L	1.0	0.18	1	08/11/17 08:25	08/15/17 04:04	7440-41-7	
Boron	**54.6**	ug/L	11.0	3.3	1	08/11/17 08:25	08/16/17 11:28	7440-42-8	
Cadmium	**<0.081**	ug/L	1.0	0.081	1	08/11/17 08:25	08/15/17 04:04	7440-43-9	
Calcium	**98100**	ug/L	250	69.8	1	08/11/17 08:25	08/15/17 04:04	7440-70-2	
Chromium	**<1.0**	ug/L	3.4	1.0	1	08/11/17 08:25	08/15/17 04:04	7440-47-3	
Cobalt	**0.13J**	ug/L	1.0	0.085	1	08/11/17 08:25	08/15/17 04:04	7440-48-4	
Lead	**<0.20**	ug/L	1.0	0.20	1	08/11/17 08:25	08/15/17 04:04	7439-92-1	
Lithium	**2.0**	ug/L	1.0	0.14	1	08/11/17 08:25	08/15/17 04:04	7439-93-2	
Molybdenum	**<0.44**	ug/L	1.5	0.44	1	08/11/17 08:25	08/15/17 04:04	7439-98-7	
Selenium	**1.4**	ug/L	1.1	0.32	1	08/11/17 08:25	08/15/17 04:04	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	08/11/17 08:25	08/15/17 04:04	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	08/14/17 10:55	08/15/17 09:31	7439-97-6	
Field Data	Analytical Method:								
Field pH	**7.21**	Std. Units			1		08/02/17 12:20		
Field Specific Conductance	**836**	umhos/cm			1		08/02/17 12:20		
Oxygen, Dissolved	**6.80**	mg/L			1		08/02/17 12:20	7782-44-7	
REDOX	**155.9**	mV			1		08/02/17 12:20		
Turbidity	**0.15**	NTU			1		08/02/17 12:20		
Elevation Water Level	**607.39**	feet			1		08/02/17 12:20		
Temperature, Water (C)	**11.3**	deg C			1		08/02/17 12:20		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**496**	mg/L	20.0	8.7	1		08/08/17 17:15		
9040 pH	Analytical Method: EPA 9040								
pH	**7.3**	Std. Units	0.10	0.010	1		08/07/17 11:15		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**52.6**	mg/L	2.0	0.50	1		08/11/17 18:07	16887-00-6	
Fluoride	**<0.10**	mg/L	0.30	0.10	1		08/11/17 18:07	16984-48-8	
Sulfate	**28.5**	mg/L	3.0	1.0	1		08/11/17 18:07	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 25216041.14 NELSON DEWEY-ALLIA
Pace Project No.: 40154446

Sample: B31R **Lab ID: 40154446006** Collected: 08/01/17 20:00 Received: 08/04/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.18J**	ug/L	1.0	0.15	1	08/11/17 08:25	08/15/17 04:10	7440-36-0	
Arsenic	**<0.28**	ug/L	1.0	0.28	1	08/11/17 08:25	08/15/17 04:10	7440-38-2	
Barium	**97.4**	ug/L	1.1	0.34	1	08/11/17 08:25	08/15/17 04:10	7440-39-3	
Beryllium	**<0.18**	ug/L	1.0	0.18	1	08/11/17 08:25	08/15/17 04:10	7440-41-7	
Boron	**1550**	ug/L	110	33.0	10	08/11/17 08:25	08/16/17 11:35	7440-42-8	
Cadmium	**3.1**	ug/L	1.0	0.081	1	08/11/17 08:25	08/15/17 04:10	7440-43-9	
Calcium	**93400**	ug/L	250	69.8	1	08/11/17 08:25	08/15/17 04:10	7440-70-2	
Chromium	**<1.0**	ug/L	3.4	1.0	1	08/11/17 08:25	08/15/17 04:10	7440-47-3	
Cobalt	**4.4**	ug/L	1.0	0.085	1	08/11/17 08:25	08/15/17 04:10	7440-48-4	
Lead	**<0.20**	ug/L	1.0	0.20	1	08/11/17 08:25	08/15/17 04:10	7439-92-1	
Lithium	**22.0**	ug/L	1.0	0.14	1	08/11/17 08:25	08/15/17 04:10	7439-93-2	
Molybdenum	**21.6**	ug/L	1.5	0.44	1	08/11/17 08:25	08/15/17 04:10	7439-98-7	
Selenium	**1.4**	ug/L	1.1	0.32	1	08/11/17 08:25	08/15/17 04:10	7782-49-2	
Thallium	**2.0**	ug/L	1.0	0.14	1	08/11/17 08:25	08/15/17 04:10	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	08/14/17 10:55	08/15/17 09:33	7439-97-6	
Field Data	Analytical Method:								
Field pH	**6.56**	Std. Units			1		08/01/17 20:00		
Field Specific Conductance	**697**	umhos/cm			1		08/01/17 20:00		
Oxygen, Dissolved	**0.27**	mg/L			1		08/01/17 20:00	7782-44-7	
REDOX	**2.9**	mV			1		08/01/17 20:00		
Turbidity	**1.18**	NTU			1		08/01/17 20:00		
Elevation Water Level	**606.84**	feet			1		08/01/17 20:00		
Temperature, Water (C)	**14.8**	deg C			1		08/01/17 20:00		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**432**	mg/L	20.0	8.7	1		08/08/17 17:15		
9040 pH	Analytical Method: EPA 9040								
pH	**6.8**	Std. Units	0.10	0.010	1		08/07/17 11:15		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**3.6**	mg/L	2.0	0.50	1		08/11/17 18:18	16887-00-6	
Fluoride	**0.16J**	mg/L	0.30	0.10	1		08/11/17 18:18	16984-48-8	
Sulfate	**55.6**	mg/L	3.0	1.0	1		08/11/17 18:18	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

ANALYTICAL RESULTS

Project: 25216041.14 NELSON DEWEY-ALLIA
Pace Project No.: 40154446

Sample: B31A **Lab ID: 40154446007** Collected: 08/01/17 19:10 Received: 08/04/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**<0.15**	ug/L	1.0	0.15	1	08/11/17 08:25	08/15/17 04:17	7440-36-0	
Arsenic	**1.2**	ug/L	1.0	0.28	1	08/11/17 08:25	08/15/17 04:17	7440-38-2	
Barium	**133**	ug/L	1.1	0.34	1	08/11/17 08:25	08/15/17 04:17	7440-39-3	
Beryllium	**<0.18**	ug/L	1.0	0.18	1	08/11/17 08:25	08/15/17 04:17	7440-41-7	
Boron	**56.3**	ug/L	11.0	3.3	1	08/11/17 08:25	08/16/17 11:41	7440-42-8	
Cadmium	**<0.081**	ug/L	1.0	0.081	1	08/11/17 08:25	08/15/17 04:17	7440-43-9	
Calcium	**46000**	ug/L	250	69.8	1	08/11/17 08:25	08/15/17 04:17	7440-70-2	
Chromium	**<1.0**	ug/L	3.4	1.0	1	08/11/17 08:25	08/15/17 04:17	7440-47-3	
Cobalt	**1.8**	ug/L	1.0	0.085	1	08/11/17 08:25	08/15/17 04:17	7440-48-4	
Lead	**<0.20**	ug/L	1.0	0.20	1	08/11/17 08:25	08/15/17 04:17	7439-92-1	
Lithium	**0.93J**	ug/L	1.0	0.14	1	08/11/17 08:25	08/15/17 04:17	7439-93-2	
Molybdenum	**22.9**	ug/L	1.5	0.44	1	08/11/17 08:25	08/15/17 04:17	7439-98-7	
Selenium	**<0.32**	ug/L	1.1	0.32	1	08/11/17 08:25	08/15/17 04:17	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	08/11/17 08:25	08/15/17 04:17	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	08/14/17 10:55	08/15/17 09:35	7439-97-6	
Field Data	Analytical Method:								
Field pH	**7.56**	Std. Units			1		08/01/17 19:10		
Field Specific Conductance	**479.5**	umhos/cm			1		08/01/17 19:10		
Oxygen, Dissolved	**0.12**	mg/L			1		08/01/17 19:10	7782-44-7	
REDOX	**-77.3**	mV			1		08/01/17 19:10		
Turbidity	**0.17**	NTU			1		08/01/17 19:10		
Elevation Water Level	**605.69**	feet			1		08/01/17 19:10		
Temperature, Water (C)	**14.9**	deg C			1		08/01/17 19:10		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**284**	mg/L	20.0	8.7	1		08/08/17 17:16		
9040 pH	Analytical Method: EPA 9040								
pH	**7.6**	Std. Units	0.10	0.010	1		08/07/17 11:15		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**40.8**	mg/L	2.0	0.50	1		08/11/17 18:29	16887-00-6	
Fluoride	**0.20J**	mg/L	0.30	0.10	1		08/11/17 18:29	16984-48-8	
Sulfate	**26.6**	mg/L	3.0	1.0	1		08/11/17 18:29	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 25216041.14 NELSON DEWEY-ALLIA
Pace Project No.: 40154446

Sample: B39 **Lab ID: 40154446008** Collected: 08/02/17 10:50 Received: 08/04/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.26J**	ug/L	1.0	0.15	1	08/11/17 08:25	08/15/17 04:24	7440-36-0	
Arsenic	**3.1**	ug/L	1.0	0.28	1	08/11/17 08:25	08/15/17 04:24	7440-38-2	
Barium	**105**	ug/L	1.1	0.34	1	08/11/17 08:25	08/15/17 04:24	7440-39-3	
Beryllium	**<0.18**	ug/L	1.0	0.18	1	08/11/17 08:25	08/15/17 04:24	7440-41-7	
Boron	**1650**	ug/L	110	33.0	10	08/11/17 08:25	08/16/17 11:48	7440-42-8	
Cadmium	**<0.081**	ug/L	1.0	0.081	1	08/11/17 08:25	08/15/17 04:24	7440-43-9	
Calcium	**80200**	ug/L	250	69.8	1	08/11/17 08:25	08/15/17 04:24	7440-70-2	
Chromium	**<1.0**	ug/L	3.4	1.0	1	08/11/17 08:25	08/15/17 04:24	7440-47-3	
Cobalt	**0.51J**	ug/L	1.0	0.085	1	08/11/17 08:25	08/15/17 04:24	7440-48-4	
Lead	**<0.20**	ug/L	1.0	0.20	1	08/11/17 08:25	08/15/17 04:24	7439-92-1	
Lithium	**6.1**	ug/L	1.0	0.14	1	08/11/17 08:25	08/15/17 04:24	7439-93-2	
Molybdenum	**6.7**	ug/L	1.5	0.44	1	08/11/17 08:25	08/15/17 04:24	7439-98-7	
Selenium	**77.4**	ug/L	1.1	0.32	1	08/11/17 08:25	08/15/17 04:24	7782-49-2	
Thallium	**0.28J**	ug/L	1.0	0.14	1	08/11/17 08:25	08/15/17 04:24	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	08/14/17 10:55	08/15/17 09:37	7439-97-6	
Field Data	Analytical Method:								
Field pH	**6.29**	Std. Units			1		08/02/17 10:50		
Field Specific Conductance	**560.3**	umhos/cm			1		08/02/17 10:50		
Oxygen, Dissolved	**0.27**	mg/L			1		08/02/17 10:50	7782-44-7	
REDOX	**171.1**	mV			1		08/02/17 10:50		
Turbidity	**1.49**	NTU			1		08/02/17 10:50		
Elevation Water Level	**608.71**	feet			1		08/02/17 10:50		
Temperature, Water (C)	**15.3**	deg C			1		08/02/17 10:50		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**358**	mg/L	20.0	8.7	1		08/08/17 17:16		
9040 pH	Analytical Method: EPA 9040								
pH	**6.7**	Std. Units	0.10	0.010	1		08/07/17 11:15		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**0.92J**	mg/L	2.0	0.50	1		08/15/17 18:47	16887-00-6	
Fluoride	**0.23J**	mg/L	0.30	0.10	1		08/15/17 18:47	16984-48-8	
Sulfate	**51.8**	mg/L	15.0	5.0	5		08/16/17 14:20	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 25216041.14 NELSON DEWEY-ALLIA
Pace Project No.: 40154446

Sample: FIELD BLANK **Lab ID: 40154446009** Collected: 08/02/17 11:15 Received: 08/04/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**<0.15**	ug/L	1.0	0.15	1	08/11/17 08:25	08/15/17 02:16	7440-36-0	
Arsenic	**<0.28**	ug/L	1.0	0.28	1	08/11/17 08:25	08/15/17 02:16	7440-38-2	
Barium	**<0.34**	ug/L	1.1	0.34	1	08/11/17 08:25	08/15/17 02:16	7440-39-3	
Beryllium	**<0.18**	ug/L	1.0	0.18	1	08/11/17 08:25	08/15/17 02:16	7440-41-7	
Boron	**<3.3**	ug/L	11.0	3.3	1	08/11/17 08:25	08/16/17 10:06	7440-42-8	
Cadmium	**<0.081**	ug/L	1.0	0.081	1	08/11/17 08:25	08/15/17 02:16	7440-43-9	
Calcium	**<69.8**	ug/L	250	69.8	1	08/11/17 08:25	08/15/17 02:16	7440-70-2	
Chromium	**<1.0**	ug/L	3.4	1.0	1	08/11/17 08:25	08/15/17 02:16	7440-47-3	
Cobalt	**<0.085**	ug/L	1.0	0.085	1	08/11/17 08:25	08/15/17 02:16	7440-48-4	
Lead	**<0.20**	ug/L	1.0	0.20	1	08/11/17 08:25	08/15/17 02:16	7439-92-1	
Lithium	**<0.14**	ug/L	1.0	0.14	1	08/11/17 08:25	08/15/17 02:16	7439-93-2	
Molybdenum	**<0.44**	ug/L	1.5	0.44	1	08/11/17 08:25	08/15/17 02:16	7439-98-7	
Selenium	**<0.32**	ug/L	1.1	0.32	1	08/11/17 08:25	08/15/17 02:16	7782-49-2	
Thallium	**<0.14**	ug/L	1.0	0.14	1	08/11/17 08:25	08/15/17 02:16	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.13**	ug/L	0.42	0.13	1	08/14/17 10:55	08/15/17 09:40	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**<8.7**	mg/L	20.0	8.7	1		08/08/17 17:16		
9040 pH	Analytical Method: EPA 9040								
pH	**6.1**	Std. Units	0.10	0.010	1		08/07/17 11:15		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**<0.50**	mg/L	2.0	0.50	1		08/15/17 19:19	16887-00-6	
Fluoride	**<0.10**	mg/L	0.30	0.10	1		08/15/17 19:19	16984-48-8	
Sulfate	**<1.0**	mg/L	3.0	1.0	1		08/15/17 19:19	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 25216041.14 NELSON DEWEY-ALLIA
Pace Project No.: 40154446

QC Batch: 264468 Analysis Method: EPA 7470
QC Batch Method: EPA 7470 Analysis Description: 7470 Mercury
Associated Lab Samples: 40154446001, 40154446002, 40154446003, 40154446004, 40154446005, 40154446006, 40154446007, 40154446008, 40154446009

METHOD BLANK: 1556442 Matrix: Water
Associated Lab Samples: 40154446001, 40154446002, 40154446003, 40154446004, 40154446005, 40154446006, 40154446007, 40154446008, 40154446009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	<0.13	0.42	08/15/17 09:07	

LABORATORY CONTROL SAMPLE: 1556443

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.0	101	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1556444 1556445

Parameter	Units	40154446001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	<0.13	5	5	5.4	5.8	108	116	85-115	7	20	M0

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25216041.14 NELSON DEWEY-ALLIA
Pace Project No.: 40154446

QC Batch: 264291 Analysis Method: EPA 6020
QC Batch Method: EPA 3010 Analysis Description: 6020 MET
Associated Lab Samples: 40154446001, 40154446002, 40154446003, 40154446004, 40154446005, 40154446006, 40154446007, 40154446008, 40154446009

METHOD BLANK: 1555423 Matrix: Water
Associated Lab Samples: 40154446001, 40154446002, 40154446003, 40154446004, 40154446005, 40154446006, 40154446007, 40154446008, 40154446009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	<0.15	1.0	08/15/17 02:10	
Arsenic	ug/L	<0.28	1.0	08/15/17 02:10	
Barium	ug/L	<0.34	1.1	08/15/17 02:10	
Beryllium	ug/L	<0.18	1.0	08/15/17 02:10	
Boron	ug/L	<3.3	11.0	08/16/17 12:46	
Cadmium	ug/L	<0.081	1.0	08/15/17 02:10	
Calcium	ug/L	<69.8	250	08/15/17 02:10	
Chromium	ug/L	<1.0	3.4	08/15/17 02:10	
Cobalt	ug/L	<0.085	1.0	08/15/17 02:10	
Lead	ug/L	<0.20	1.0	08/15/17 02:10	
Lithium	ug/L	<0.14	1.0	08/15/17 02:10	
Molybdenum	ug/L	0.51J	1.5	08/15/17 02:10	
Selenium	ug/L	<0.32	1.1	08/15/17 02:10	
Thallium	ug/L	<0.14	1.0	08/15/17 02:10	

LABORATORY CONTROL SAMPLE: 1555424

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	515	103	80-120	
Arsenic	ug/L	500	503	101	80-120	
Barium	ug/L	500	507	101	80-120	
Beryllium	ug/L	500	502	100	80-120	
Boron	ug/L	500	519	104	80-120	
Cadmium	ug/L	500	520	104	80-120	
Calcium	ug/L	5000	5020	100	80-120	
Chromium	ug/L	500	508	102	80-120	
Cobalt	ug/L	500	500	100	80-120	
Lead	ug/L	500	503	101	80-120	
Lithium	ug/L	500	506	101	80-120	
Molybdenum	ug/L	500	512	102	80-120	
Selenium	ug/L	500	536	107	80-120	
Thallium	ug/L	500	504	101	80-120	

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REPORT OF LABORATORY ANALYSIS

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(920)469-2436

QUALITY CONTROL DATA

Project: 25216041.14 NELSON DEWEY-ALLIA
Pace Project No.: 40154446

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1555425 1555426

Parameter	Units	40154446001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	0.33J	500	500	510	508	102	102	75-125	0	20	
Arsenic	ug/L	2.0	500	500	506	500	101	100	75-125	1	20	
Barium	ug/L	54.2	500	500	552	556	100	100	75-125	1	20	
Beryllium	ug/L	<0.18	500	500	502	492	100	98	75-125	2	20	
Boron	ug/L	129	500	500	657	638	106	102	75-125	3	20	
Cadmium	ug/L	0.23J	500	500	513	512	103	102	75-125	0	20	
Calcium	ug/L	50400	5000	5000	53300	54500	58	81	75-125	2	20	P6
Chromium	ug/L	<1.0	500	500	504	501	101	100	75-125	1	20	
Cobalt	ug/L	1.3	500	500	494	491	99	98	75-125	1	20	
Lead	ug/L	0.29J	500	500	494	494	99	99	75-125	0	20	
Lithium	ug/L	0.41J	500	500	494	489	99	98	75-125	1	20	
Molybdenum	ug/L	1.9	500	500	511	510	102	102	75-125	0	20	
Selenium	ug/L	0.56J	500	500	539	532	108	106	75-125	1	20	
Thallium	ug/L	0.36J	500	500	498	502	100	100	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25216041.14 NELSON DEWEY-ALLIA
Pace Project No.: 40154446

QC Batch: 263939 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 40154446001, 40154446002, 40154446003, 40154446004, 40154446005, 40154446006, 40154446007, 40154446008, 40154446009

METHOD BLANK: 1553281 Matrix: Water
Associated Lab Samples: 40154446001, 40154446002, 40154446003, 40154446004, 40154446005, 40154446006, 40154446007, 40154446008, 40154446009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<8.7	20.0	08/08/17 17:13	

LABORATORY CONTROL SAMPLE: 1553282

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	553	582	105	80-120	

SAMPLE DUPLICATE: 1553283

Parameter	Units	40154446001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	220	214	3	5	

SAMPLE DUPLICATE: 1553284

Parameter	Units	40154514001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	454	462	2	5	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25216041.14 NELSON DEWEY-ALLIA
Pace Project No.: 40154446

QC Batch: 263761 Analysis Method: EPA 9040
QC Batch Method: EPA 9040 Analysis Description: 9040 pH
Associated Lab Samples: 40154446001, 40154446002, 40154446003, 40154446004, 40154446005, 40154446006, 40154446007, 40154446008, 40154446009

SAMPLE DUPLICATE: 1552410

Parameter	Units	40154219001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH	Std. Units	7.4	7.5	1	20	H6

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25216041.14 NELSON DEWEY-ALLIA
Pace Project No.: 40154446

QC Batch: 264183 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 40154446001, 40154446002, 40154446003, 40154446004, 40154446005, 40154446006, 40154446007

METHOD BLANK: 1554571 Matrix: Water
Associated Lab Samples: 40154446001, 40154446002, 40154446003, 40154446004, 40154446005, 40154446006, 40154446007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<0.50	2.0	08/11/17 13:10	
Fluoride	mg/L	<0.10	0.30	08/11/17 13:10	
Sulfate	mg/L	<1.0	3.0	08/11/17 13:10	

LABORATORY CONTROL SAMPLE: 1554572

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	18.7	93	90-110	
Fluoride	mg/L	2	1.9	93	90-110	
Sulfate	mg/L	20	18.8	94	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1554573 1554574

Parameter	Units	40154456001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	234	400	400	640	639	102	101	90-110	0	15	
Fluoride	mg/L	202	200	200	450	454	124	126	90-110	1	15	M0
Sulfate	mg/L	208	400	400	607	606	100	100	90-110	0	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1554575 1554576

Parameter	Units	40154446007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	40.8	20	20	59.1	59.3	91	92	90-110	0	15	
Fluoride	mg/L	0.20J	2	2	2.3	2.3	105	106	90-110	1	15	
Sulfate	mg/L	26.6	20	20	46.9	47.2	101	103	90-110	1	15	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25216041.14 NELSON DEWEY-ALLIA
Pace Project No.: 40154446

QC Batch: 264190
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Associated Lab Samples: 40154446008, 40154446009

METHOD BLANK: 1554662 Matrix: Water
Associated Lab Samples: 40154446008, 40154446009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<0.50	2.0	08/15/17 18:25	
Fluoride	mg/L	<0.10	0.30	08/15/17 18:25	
Sulfate	mg/L	<1.0	3.0	08/15/17 18:25	

LABORATORY CONTROL SAMPLE: 1554663

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	20.8	104	90-110	
Fluoride	mg/L	2	2.1	103	90-110	
Sulfate	mg/L	20	20.7	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1554664 1554665

Parameter	Units	40154446008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	0.92J	20	20	21.5	21.7	103	104	90-110	1	15	
Fluoride	mg/L	0.23J	2	2	2.3	2.3	102	103	90-110	1	15	
Sulfate	mg/L	51.8	100	100	154	155	103	103	90-110	0	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1554666 1554667

Parameter	Units	40154680001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	249	400	400	661	662	103	103	90-110	0	15	
Fluoride	mg/L	<2.0	40	40	41.7	42.3	104	106	90-110	1	15	
Sulfate	mg/L	<20.0	400	400	417	421	104	105	90-110	1	15	

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REPORT OF LABORATORY ANALYSIS

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(920)469-2436

QUALIFIERS

Project: 25216041.14 NELSON DEWEY-ALLIA
Pace Project No.: 40154446

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 LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

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 at or above the adjusted LOD.

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

B	Analyte was detected in the associated method blank.
H6	Analysis initiated outside of the 15 minute EPA required holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

Pace Analytical Services, LLC
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 25216041.14 NELSON DEWEY-ALLIA
Pace Project No.: 40154446

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40154446001	**B7R**	EPA 3010	264291	EPA 6020	264388
40154446002	**B11R**	EPA 3010	264291	EPA 6020	264388
40154446003	**B11A**	EPA 3010	264291	EPA 6020	264388
40154446004	**B11B**	EPA 3010	264291	EPA 6020	264388
40154446005	**B26**	EPA 3010	264291	EPA 6020	264388
40154446006	**B31R**	EPA 3010	264291	EPA 6020	264388
40154446007	**B31A**	EPA 3010	264291	EPA 6020	264388
40154446008	**B39**	EPA 3010	264291	EPA 6020	264388
40154446009	**FIELD BLANK**	EPA 3010	264291	EPA 6020	264388
40154446001	**B7R**	EPA 7470	264468	EPA 7470	264535
40154446002	**B11R**	EPA 7470	264468	EPA 7470	264535
40154446003	**B11A**	EPA 7470	264468	EPA 7470	264535
40154446004	**B11B**	EPA 7470	264468	EPA 7470	264535
40154446005	**B26**	EPA 7470	264468	EPA 7470	264535
40154446006	**B31R**	EPA 7470	264468	EPA 7470	264535
40154446007	**B31A**	EPA 7470	264468	EPA 7470	264535
40154446008	**B39**	EPA 7470	264468	EPA 7470	264535
40154446009	**FIELD BLANK**	EPA 7470	264468	EPA 7470	264535
40154446001	**B7R**				
40154446002	**B11R**				
40154446003	**B11A**				
40154446004	**B11B**				
40154446005	**B26**				
40154446006	**B31R**				
40154446007	**B31A**				
40154446008	**B39**				
40154446001	**B7R**	SM 2540C	263939		
40154446002	**B11R**	SM 2540C	263939		
40154446003	**B11A**	SM 2540C	263939		
40154446004	**B11B**	SM 2540C	263939		
40154446005	**B26**	SM 2540C	263939		
40154446006	**B31R**	SM 2540C	263939		
40154446007	**B31A**	SM 2540C	263939		
40154446008	**B39**	SM 2540C	263939		
40154446009	**FIELD BLANK**	SM 2540C	263939		
40154446001	**B7R**	EPA 9040	263761		
40154446002	**B11R**	EPA 9040	263761		
40154446003	**B11A**	EPA 9040	263761		
40154446004	**B11B**	EPA 9040	263761		
40154446005	**B26**	EPA 9040	263761		
40154446006	**B31R**	EPA 9040	263761		
40154446007	**B31A**	EPA 9040	263761		
40154446008	**B39**	EPA 9040	263761		
40154446009	**FIELD BLANK**	EPA 9040	263761		
40154446001	**B7R**	EPA 300.0	264183		
40154446002	**B11R**	EPA 300.0	264183		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 25216041.14 NELSON DEWEY-ALLIA
Pace Project No.: 40154446

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40154446003	**B11A**	EPA 300.0	264183		
40154446004	**B11B**	EPA 300.0	264183		
40154446005	**B26**	EPA 300.0	264183		
40154446006	**B31R**	EPA 300.0	264183		
40154446007	**B31A**	EPA 300.0	264183		
40154446008	**B39**	EPA 300.0	264190		
40154446009	**FIELD BLANK**	EPA 300.0	264190		

(Please Print Clearly)

Company Name:	SCS
Branch/Location:	Madison WI
Project Contact:	Meg Blodgett
Phone:	(608) 216-7362
Project Number:	25216071.17
Project Name:	Nelson Dewey - Alliant
Project State:	WI
Sampled By (Print):	Paul A Grover
Sampled By (Sign):	Paul A. Grover
PO #:	

Regulatory Program:

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CHAIN OF CUSTODY

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

Page 1 of

40154446

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

FILTERED? (YES/NO)
PRESERVATION (CODE)*

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
- ☐ EPA Level III
- ☐ EPA Level IV

MS/MSD
- ☐ On your sample (billable)
- ☐ NOT needed on your sample

Matrix Codes
A = Air, B = Biota, C = Charcoal, O = Oil, S = Soil, Sl = Sludge
W = Water, DW = Drinking Water, GW = Ground Water, SW = Surface Water, WW = Waste Water, WP = Wipe

Analyses Requested (Y/N, Pick Letter)

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	TDS, Ph, Cl, F, SO4	Metals	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
001	B 7R	8-1-17	15:40	GW	X	X	2-1L pD; 3-250mL p	AAD	
002	B 11R	↓	18:20	↓	↓	↓	↓		
003	B 11A	↓	17:40	↓	↓	↓	↓		
004	B 11B	↓	17:00	↓	↓	↓	↓		
005	B 26	8-2-17	12:20	↓	↓	↓	↓		
006	B 31R	8-1-17	20:00	↓	↓	↓	↓		
007	B 31A	↓	19:10	↓	↓	↓	↓		
008	B 29	8-2-17	10:50	↓	↓	↓	↓		
009	Field Blank	↓	11:15	DI	↓	↓	↓		

8/4/17 [initials]

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
FedEx	8-4-17 0935	[signature] Pace	8-4-17 0935

PACE Project No. 40154446
Receipt Temp = ROI °C
Sample Receipt pH: OK / Adjusted
Cooler Custody Seal: Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

Pace Analytical

Sample Condition Upon Receipt

Pace Analytical Services, LLC. - Green Bay WI
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Client Name: SCS

Project #:

WO#: 40154446

40154446

Courier: ☒ Fed Ex ☐ UPS ☐ Client ☐ Pace Other:
Tracking #: 787403486410

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other

Thermometer Used N/A

Type of Ice: (Wet) Blue Dry None ☒ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: ROT /Corr:

Biological Tissue is Frozen: ☐ yes ☐ no

Temp Blank Present: ☐ yes ☒ no

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C.

Person examining contents:
Date: 8-4-17
Initials: gx

				Comments:
Chain of Custody Present:	☒Yes	☐No	☐N/A	1. Oregnal and a copy
Chain of Custody Filled Out:	☒Yes	☐No	☐N/A	2.
Chain of Custody Relinquished:	☐Yes	☒No	☐N/A	3. ~~first pg. only~~ kd 8/4/17
Sampler Name & Signature on COC:	☒Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time:	☒Yes	☐No	☐N/A	5.
- VOA Samples frozen upon receipt	☐Yes	☐No		Date/Time:
Short Hold Time Analysis (<72hr):	☒Yes	☐No	☐N/A	6.
Rush Turn Around Time Requested:	☐Yes	☒No	☐N/A	7.
Sufficient Volume:	☒Yes	☐No	☐N/A	8.
Correct Containers Used:	☒Yes	☐No	☐N/A	9.
-Pace Containers Used:	☒Yes	☐No	☐N/A	
-Pace IR Containers Used:	☐Yes	☐No	☒N/A	
Containers Intact:	☒Yes	☐No	☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes	☐No	☒N/A	11.
Sample Labels match COC:	☒Yes	☐No	☐N/A	12.
-Includes date/time/ID/Analysis Matrix: W				
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	☒Yes	☐No	☐N/A	13. ☒HNO3 ☐ H2SO4 ☐ NaOH ☐ NaOH +ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. ((HNO3), H2SO4 (<2), NaOH+ZnAct ≥9, NaOH ≥12)	☒Yes	☐No	☐N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	☐Yes	☒No		Initial when completed: KU / Lab Std #ID of preservative / Date/ Time:
Headspace in VOA Vials (>6mm):	☐Yes	☐No	☒N/A	14.
Trip Blank Present:	☐Yes	☐No	☒N/A	15.
Trip Blank Custody Seals Present	☐Yes	☐No	☒N/A	
Pace Trip Blank Lot # (if purchased):				

Client Notification/ Resolution:

If checked, see attached form for additional comments ☐

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: RMR for DM **Date:** 8/4/17

F-GB-C-031-Rev.04 (12Dec2016) SCUR.xls
Pace Analytical Services LLC. - Green Bay WI

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

August 25, 2017

Meghan Blodgett
SCS ENGINEERS
2830 Dairy Drive
Madison, WI 53718

RE: Project: 25216071.17 NELSON DEWEY-ALLIA
Pace Project No.: 40154465

Dear Meghan Blodgett:
Enclosed are the analytical results for sample(s) received by the laboratory on August 04, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Dan Milewsky
dan.milewsky@pacelabs.com
(920)469-2436
Project Manager

Enclosures

cc: Tom Karwoski, SCS ENGINEERS
Jeff Maxted, ALLIANT ENERGY
Marc Morandi, ALLIANT ENERGY

Pace Analytical Services, LLC
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CERTIFICATIONS

Project: 25216071.17 NELSON DEWEY-ALLIA
Pace Project No.: 40154465

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: 25216071.17 NELSON DEWEY-ALLIA
Pace Project No.: 40154465

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40154465001	**B7R**	Water	08/01/17 15:40	08/04/17 09:35
40154465002	**B11R**	Water	08/01/17 18:20	08/04/17 09:35
40154465003	**B11A**	Water	08/01/17 17:40	08/04/17 09:35
40154465004	**B11B**	Water	08/01/17 17:00	08/04/17 09:35
40154465005	**B26**	Water	08/02/17 12:20	08/04/17 09:35
40154465006	**B31R**	Water	08/01/17 20:00	08/04/17 09:35
40154465007	**B31A**	Water	08/01/17 19:10	08/04/17 09:35
40154465008	**B39**	Water	08/02/17 10:50	08/04/17 09:35
40154465009	**FIELD BLANK**	Water	08/02/17 11:15	08/04/17 09:35

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Green Bay, WI 54302
(920)469-2436

SAMPLE ANALYTE COUNT

Project: 25216071.17 NELSON DEWEY-ALLIA
Pace Project No.: 40154465

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40154465001	**B7R**	EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
40154465002	**B11R**	EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
40154465003	**B11A**	EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
40154465004	**B11B**	EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
40154465005	**B26**	EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
40154465006	**B31R**	EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
40154465007	**B31A**	EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
40154465008	**B39**	EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
40154465009	**FIELD BLANK**	EPA 903.1	WRR	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 25216071.17 NELSON DEWEY-ALLIA
Pace Project No.: 40154465

Sample: B7R **Lab ID: 40154465001** Collected: 08/01/17 15:40 Received: 08/04/17 09:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.379 ± 0.395 (0.557) C:NA T:91%**	pCi/L	08/14/17 23:39	13982-63-3	
Radium-228	EPA 904.0	**0.588 ± 0.479 (0.966) C:70% T:82%**	pCi/L	08/14/17 11:28	15262-20-1	
Total Radium	Total Radium Calculation	**0.967 ± 0.874 (1.52)**	pCi/L	08/25/17 15:48	7440-14-4	

Sample: B11R **Lab ID: 40154465002** Collected: 08/01/17 18:20 Received: 08/04/17 09:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.602 ± 0.510 (0.633) C:NA T:85%**	pCi/L	08/14/17 23:36	13982-63-3	
Radium-228	EPA 904.0	**0.826 ± 0.366 (0.595) C:74% T:98%**	pCi/L	08/14/17 11:28	15262-20-1	
Total Radium	Total Radium Calculation	**1.43 ± 0.876 (1.23)**	pCi/L	08/25/17 15:48	7440-14-4	

Sample: B11A **Lab ID: 40154465003** Collected: 08/01/17 17:40 Received: 08/04/17 09:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.0728 ± 0.378 (0.784) C:NA T:93%**	pCi/L	08/14/17 23:36	13982-63-3	
Radium-228	EPA 904.0	**0.844 ± 0.451 (0.811) C:74% T:80%**	pCi/L	08/14/17 11:28	15262-20-1	
Total Radium	Total Radium Calculation	**0.917 ± 0.829 (1.60)**	pCi/L	08/25/17 15:48	7440-14-4	

Sample: B11B **Lab ID: 40154465004** Collected: 08/01/17 17:00 Received: 08/04/17 09:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.766 ± 0.527 (0.563) C:NA T:94%**	pCi/L	08/14/17 23:36	13982-63-3	
Radium-228	EPA 904.0	**1.44 ± 0.495 (0.682) C:73% T:86%**	pCi/L	08/14/17 11:28	15262-20-1	
Total Radium	Total Radium Calculation	**2.21 ± 1.02 (1.25)**	pCi/L	08/25/17 15:48	7440-14-4	

Sample: B26 **Lab ID: 40154465005** Collected: 08/02/17 12:20 Received: 08/04/17 09:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.224 ± 0.440 (0.803) C:NA T:95%**	pCi/L	08/14/17 23:36	13982-63-3	
Radium-228	EPA 904.0	**0.457 ± 0.364 (0.725) C:76% T:87%**	pCi/L	08/14/17 11:29	15262-20-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 25216071.17 NELSON DEWEY-ALLIA
Pace Project No.: 40154465

Sample: B26 **Lab ID: 40154465005** Collected: 08/02/17 12:20 Received: 08/04/17 09:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Total Radium	Total Radium Calculation	**0.681 ± 0.804 (1.53)**	pCi/L	08/25/17 15:48	7440-14-4	

Sample: B31R **Lab ID: 40154465006** Collected: 08/01/17 20:00 Received: 08/04/17 09:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.612 ± 0.697 (1.10) C:NA T:75%**	pCi/L	08/14/17 23:36	13982-63-3	
Radium-228	EPA 904.0	**0.698 ± 0.409 (0.754) C:73% T:87%**	pCi/L	08/14/17 11:29	15262-20-1	
Total Radium	Total Radium Calculation	**1.31 ± 1.11 (1.85)**	pCi/L	08/25/17 15:48	7440-14-4	

Sample: B31A **Lab ID: 40154465007** Collected: 08/01/17 19:10 Received: 08/04/17 09:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.163 ± 0.453 (0.878) C:NA T:88%**	pCi/L	08/14/17 23:50	13982-63-3	
Radium-228	EPA 904.0	**0.982 ± 0.407 (0.638) C:81% T:83%**	pCi/L	08/14/17 11:29	15262-20-1	
Total Radium	Total Radium Calculation	**1.15 ± 0.860 (1.52)**	pCi/L	08/25/17 15:48	7440-14-4	

Sample: B39 **Lab ID: 40154465008** Collected: 08/02/17 10:50 Received: 08/04/17 09:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.0805 ± 0.569 (1.13) C:NA T:91%**	pCi/L	08/14/17 23:50	13982-63-3	
Radium-228	EPA 904.0	**0.358 ± 0.323 (0.656) C:78% T:93%**	pCi/L	08/14/17 11:29	15262-20-1	
Total Radium	Total Radium Calculation	**0.439 ± 0.892 (1.79)**	pCi/L	08/25/17 15:48	7440-14-4	

Sample: FIELD BLANK **Lab ID: 40154465009** Collected: 08/02/17 11:15 Received: 08/04/17 09:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**0.919 ± 0.572 (0.564) C:NA T:96%**	pCi/L	08/14/17 23:50	13982-63-3	
Radium-228	EPA 904.0	**0.291 ± 0.425 (0.913) C:75% T:63%**	pCi/L	08/14/17 11:29	15262-20-1	
Total Radium	Total Radium Calculation	**1.21 ± 0.997 (1.48)**	pCi/L	08/25/17 15:48	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL - RADIOCHEMISTRY

Project: 25216071.17 NELSON DEWEY-ALLIA
Pace Project No.: 40154465

QC Batch: 267927 Analysis Method: EPA 904.0
QC Batch Method: EPA 904.0 Analysis Description: 904.0 Radium 228
Associated Lab Samples: 40154465001, 40154465002, 40154465003, 40154465004, 40154465005, 40154465006, 40154465007, 40154465008, 40154465009

METHOD BLANK: 1318537 Matrix: Water
Associated Lab Samples: 40154465001, 40154465002, 40154465003, 40154465004, 40154465005, 40154465006, 40154465007, 40154465008, 40154465009

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.180 ± 0.375 (0.827) C:80% T:72%	pCi/L	08/14/17 11:25	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL - RADIOCHEMISTRY

Project: 25216071.17 NELSON DEWEY-ALLIA
Pace Project No.: 40154465

QC Batch: 267926 Analysis Method: EPA 903.1
QC Batch Method: EPA 903.1 Analysis Description: 903.1 Radium-226
Associated Lab Samples: 40154465001, 40154465002, 40154465003, 40154465004, 40154465005, 40154465006, 40154465007, 40154465008, 40154465009

METHOD BLANK: 1318536 Matrix: Water
Associated Lab Samples: 40154465001, 40154465002, 40154465003, 40154465004, 40154465005, 40154465006, 40154465007, 40154465008, 40154465009

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.303 ± 0.347 (0.205) C:NA T:94%	pCi/L	08/14/17 23:08	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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(920)469-2436

QUALIFIERS

Project: 25216071.17 NELSON DEWEY-ALLIA
Pace Project No.: 40154465

DEFINITIONS

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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 LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

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 at or above the adjusted LOD.

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 25216071.17 NELSON DEWEY-ALLIA
Pace Project No.: 40154465

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40154465001	**B7R**	EPA 903.1	267926		
40154465002	**B11R**	EPA 903.1	267926		
40154465003	**B11A**	EPA 903.1	267926		
40154465004	**B11B**	EPA 903.1	267926		
40154465005	**B26**	EPA 903.1	267926		
40154465006	**B31R**	EPA 903.1	267926		
40154465007	**B31A**	EPA 903.1	267926		
40154465008	**B39**	EPA 903.1	267926		
40154465009	**FIELD BLANK**	EPA 903.1	267926		
40154465001	**B7R**	EPA 904.0	267927		
40154465002	**B11R**	EPA 904.0	267927		
40154465003	**B11A**	EPA 904.0	267927		
40154465004	**B11B**	EPA 904.0	267927		
40154465005	**B26**	EPA 904.0	267927		
40154465006	**B31R**	EPA 904.0	267927		
40154465007	**B31A**	EPA 904.0	267927		
40154465008	**B39**	EPA 904.0	267927		
40154465009	**FIELD BLANK**	EPA 904.0	267927		
40154465001	**B7R**	Total Radium Calculation	269604		
40154465002	**B11R**	Total Radium Calculation	269604		
40154465003	**B11A**	Total Radium Calculation	269604		
40154465004	**B11B**	Total Radium Calculation	269604		
40154465005	**B26**	Total Radium Calculation	269604		
40154465006	**B31R**	Total Radium Calculation	269604		
40154465007	**B31A**	Total Radium Calculation	269604		
40154465008	**B39**	Total Radium Calculation	269604		
40154465009	**FIELD BLANK**	Total Radium Calculation	269604		

RMR 8/4/17
~~40154446~~ 40154465

Pace Analytical®
www.pacelabs.com

CHAIN OF COUSTODY

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

(Please Print Clearly)

Company Name:	SCS
Branch/Location:	Madison, WI
Project Contact:	Meg Blodgett
Phone:	(608) 216-7362
Project Number:	25216071.17
Project Name:	Nelson Dewey-Alliant
Project State:	WI
Sampled By (Print):	Paul A. Grover
Sampled By (Sign):	Paul A. Grover
PO #:	
Regulatory Program:	

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
- ☐ EPA Level III
- ☐ EPA Level IV

MS/MSD
- ☐ On your sample (billable)
- ☐ NOT needed on your sample

Matrix Codes
A = Air, B = Biota, C = Charcoal, O = Oil, S = Soil, Sl = Sludge
W = Water, DW = Drinking Water, GW = Ground Water, SW = Surface Water, WW = Waste Water, WP = Wipe

FILTERED? (YES/NO) — Y/N: No | No
PRESERVATION (CODE)* — Pick Letter: D | D

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	Radium 226	Radium 228	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
001	B7R	8-1-17	15:40	GW	X	X		2-1LpD	
002	B 11R	↓	18:20	↓	↓	↓		↓	
003	B 11A	↓	17:40	↓	↓	↓		↓	
004	B 11B	↓	17:00	↓	↓	↓		↓	
005	B 26	8-2-17	12:20	↓	↓	↓		↓	
006	B 31R	8-1-17	20:00	↓	↓	↓		↓	
007	B 31A	↓	19:10	↓	↓	↓		↓	
008	B 39	8-2-17	16:50	↓	↓	↓		↓	
009	Field Blank	↓	11:15	DI	↓	↓		↓	

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):
Email #1:
Email #2:
Telephone:
Fax:

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
Paul A. Grover	8/3/17 20:00		
FedEx	8-4-17 0935	[signature]	8-4-17 0935

PACE Project No. 40154465 ~~40154446~~ RMR 8/4/17
Receipt Temp = ROI °C
Sample Receipt pH: OK / Adjusted
Cooler Custody Seal: Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

Sample Condition Upon Receipt

Pace Analytical Services, LLC. - Green Bay WI
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Pace Analytical

Project: **WO# : 40154465**

40154465

Client Name: SCS

Courier: ☒ Fed Ex ☐ UPS ☐ Client ☐ Pace Other: _____

Tracking #: 787403486410

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other

Thermometer Used N/A **Type of Ice:** (Wet) Blue Dry None ☒ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 20.1 /Corr: **Biological Tissue is Frozen:** ☐ yes ☐ no

Temp Blank Present: ☐ yes ☒ no

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C.

Person examining contents:
Date: 8-4-17
Initials:

				Comments:
Chain of Custody Present:	☒Yes	☐No	☐N/A	1. Original and a copy
Chain of Custody Filled Out:	☒Yes	☐No	☐N/A	2.
Chain of Custody Relinquished:	☐Yes	☒No	☐N/A	3. first pg only KS 8/4/17
Sampler Name & Signature on COC:	☒Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time:	☒Yes	☐No	☐N/A	5.
- VOA Samples frozen upon receipt	☐Yes	☐No		Date/Time:
Short Hold Time Analysis (<72hr):	☒Yes	☐No	☐N/A	6.
Rush Turn Around Time Requested:	☐Yes	☒No	☐N/A	7.
Sufficient Volume:	☒Yes	☐No	☐N/A	8.
Correct Containers Used:	☒Yes	☐No	☐N/A	9.
-Pace Containers Used:	☒Yes	☐No	☐N/A	
-Pace IR Containers Used:	☐Yes	☐No	☒N/A	
Containers Intact:	☒Yes	☐No	☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes	☐No	☒N/A	11.
Sample Labels match COC:	☒Yes	☐No	☐N/A	12.
-Includes date/time/ID/Analysis Matrix: W				
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	☒Yes	☐No	☐N/A	13. ☒ HNO3 ☐ H2SO4 ☐ NaOH ☐ NaOH +ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 <2; NaOH+ZnAct ≥9, NaOH ≥12)	☒Yes	☐No	☐N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	☐Yes	☒No		Initial when completed: KW / Lab Std #ID of preservative / Date/ Time:
Headspace in VOA Vials (>6mm):	☐Yes	☐No	☒N/A	14.
Trip Blank Present:	☐Yes	☐No	☒N/A	15.
Trip Blank Custody Seals Present	☐Yes	☐No	☒N/A	
Pace Trip Blank Lot # (if purchased):				

Client Notification/ Resolution: If checked, see attached form for additional comments ☐

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: RMR for DM **Date:** 8/9/17

A9 Fall 2017 Detection Sampling, Analytical Laboratory Report

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

November 07, 2017

Meghan Blodgett
SCS ENGINEERS
2830 Dairy Drive
Madison, WI 53718

RE: Project: 25216071.17 NELSON DEWEY CCR
Pace Project No.: 40159197

Dear Meghan Blodgett:
Enclosed are the analytical results for sample(s) received by the laboratory on October 21, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Dan Milewsky
dan.milewsky@pacelabs.com
(920)469-2436
Project Manager

Enclosures

cc: Tom Karwoski, SCS ENGINEERS
Kyle Kramer, SCS ENGINEERS
Jeff Maxted, ALLIANT ENERGY
Marc Morandi, ALLIANT ENERGY

Pace Analytical Services, LLC
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CERTIFICATIONS

Project: 25216071.17 NELSON DEWEY CCR
Pace Project No.: 40159197

Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150
Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: 25216071.17 NELSON DEWEY CCR
Pace Project No.: 40159197

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40159197001	**B7R**	Water	10/19/17 12:40	10/21/17 09:35
40159197002	**B11B**	Water	10/19/17 14:00	10/21/17 09:35
40159197003	**B11A**	Water	10/19/17 14:50	10/21/17 09:35
40159197004	**B11R**	Water	10/19/17 15:35	10/21/17 09:35
40159197005	**B31A**	Water	10/19/17 16:20	10/21/17 09:35
40159197006	**B31R**	Water	10/19/17 16:50	10/21/17 09:35
40159197007	**FIELD BLANK**	Water	10/19/17 17:05	10/21/17 09:35
40159197008	**B39**	Water	10/19/17 18:15	10/21/17 09:35
40159197009	**B-26**	Water	10/19/17 18:15	10/21/17 09:35

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SAMPLE ANALYTE COUNT

Project: 25216071.17 NELSON DEWEY CCR
Pace Project No.: 40159197

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40159197001	**B7R**	EPA 6020	DS1	2
			RMW	7
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	HMB	3
40159197002	**B11B**	EPA 6020	DS1	2
			RMW	7
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	HMB	3
40159197003	**B11A**	EPA 6020	DS1	2
			RMW	7
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	HMB	3
40159197004	**B11R**	EPA 6020	DS1	2
			RMW	7
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	HMB	3
40159197005	**B31A**	EPA 6020	DS1	2
			RMW	7
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	HMB	3
40159197006	**B31R**	EPA 6020	DS1	2
			RMW	7
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	HMB	3
40159197007	**FIELD BLANK**	EPA 6020	DS1	2
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	HMB	3
40159197008	**B39**	EPA 6020	DS1	2
			RMW	7
		SM 2540C	TMK	1

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE ANALYTE COUNT

Project: 25216071.17 NELSON DEWEY CCR
Pace Project No.: 40159197

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 9040	ALY	1
		EPA 300.0	HMB	3
40159197009	**B-26**	EPA 6020	DS1	2
			RMW	7
		SM 2540C	TMK	1
		EPA 9040	ALY	1
		EPA 300.0	HMB	3

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 25216071.17 NELSON DEWEY CCR
Pace Project No.: 40159197

Sample: B7R **Lab ID: 40159197001** Collected: 10/19/17 12:40 Received: 10/21/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Boron	**159**	ug/L	11.0	3.3	1	10/31/17 10:40	11/04/17 01:43	7440-42-8	
Calcium	**56200**	ug/L	2500	698	10	10/31/17 10:40	11/04/17 01:13	7440-70-2	P6
Field Data	Analytical Method:								
Field pH	**6.88**	Std. Units			1		10/19/17 12:40		
Field Specific Conductance	**480.9**	umhos/cm			1		10/19/17 12:40		
Oxygen, Dissolved	**0.31**	mg/L			1		10/19/17 12:40	7782-44-7	
REDOX	**112.8**	mV			1		10/19/17 12:40		
Turbidity	**3.00**	NTU			1		10/19/17 12:40		
Static Water Level	**609.6**	feet			1		10/19/17 12:40		
Temperature, Water (C)	**16**	deg C			1		10/19/17 12:40		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**242**	mg/L	20.0	8.7	1		10/25/17 16:01		
9040 pH	Analytical Method: EPA 9040								
pH	**6.6**	Std. Units	0.10	0.010	1		10/30/17 12:10		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**12.0**	mg/L	10.0	2.5	5		11/06/17 13:06	16887-00-6	
Fluoride	**<0.50**	mg/L	1.5	0.50	5		11/06/17 13:06	16984-48-8	D3
Sulfate	**<5.0**	mg/L	15.0	5.0	5		11/06/17 13:06	14808-79-8	D3

Sample: B11B **Lab ID: 40159197002** Collected: 10/19/17 14:00 Received: 10/21/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Boron	**1500**	ug/L	11.0	3.3	1	10/31/17 10:40	11/04/17 02:28	7440-42-8	
Calcium	**52400**	ug/L	250	69.8	1	10/31/17 10:40	11/04/17 02:28	7440-70-2	
Field Data	Analytical Method:								
Field pH	**7.77**	Std. Units			1		10/19/17 14:00		
Field Specific Conductance	**709**	umhos/cm			1		10/19/17 14:00		
Oxygen, Dissolved	**0.22**	mg/L			1		10/19/17 14:00	7782-44-7	
REDOX	**93.7**	mV			1		10/19/17 14:00		
Turbidity	**1.01**	NTU			1		10/19/17 14:00		
Static Water Level	**609.65**	feet			1		10/19/17 14:00		
Temperature, Water (C)	**14.8**	deg C			1		10/19/17 14:00		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**510**	mg/L	20.0	8.7	1		10/25/17 16:01		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 25216071.17 NELSON DEWEY CCR
Pace Project No.: 40159197

Sample: B11B **Lab ID: 40159197002** Collected: 10/19/17 14:00 Received: 10/21/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
9040 pH	Analytical Method: EPA 9040								
pH	**7.7**	Std. Units	0.10	0.010	1		10/30/17 12:10		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**36.1**	mg/L	2.0	0.50	1		11/06/17 13:38	16887-00-6	
Fluoride	**0.59**	mg/L	0.30	0.10	1		11/06/17 13:38	16984-48-8	
Sulfate	**175**	mg/L	15.0	5.0	5		11/06/17 14:41	14808-79-8	

Sample: B11A **Lab ID: 40159197003** Collected: 10/19/17 14:50 Received: 10/21/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Boron	**116**	ug/L	11.0	3.3	1	10/31/17 10:40	11/04/17 02:43	7440-42-8	
Calcium	**55000**	ug/L	250	69.8	1	10/31/17 10:40	11/04/17 02:43	7440-70-2	
Field Data	Analytical Method:								
Field pH	**7.96**	Std. Units			1		10/19/17 14:50		
Field Specific Conductance	**519.1**	umhos/cm			1		10/19/17 14:50		
Oxygen, Dissolved	**0.51**	mg/L			1		10/19/17 14:50	7782-44-7	
REDOX	**112.1**	mV			1		10/19/17 14:50		
Turbidity	**0.78**	NTU			1		10/19/17 14:50		
Static Water Level	**609.58**	feet			1		10/19/17 14:50		
Temperature, Water (C)	**14.9**	deg C			1		10/19/17 14:50		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**322**	mg/L	20.0	8.7	1		10/25/17 16:01		
9040 pH	Analytical Method: EPA 9040								
pH	**7.6**	Std. Units	0.10	0.010	1		10/30/17 12:10		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**49.9**	mg/L	2.0	0.50	1		11/06/17 13:48	16887-00-6	
Fluoride	**0.32**	mg/L	0.30	0.10	1		11/06/17 13:48	16984-48-8	
Sulfate	**5.1**	mg/L	3.0	1.0	1		11/06/17 13:48	14808-79-8	

Sample: B11R **Lab ID: 40159197004** Collected: 10/19/17 15:35 Received: 10/21/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Boron	**3120**	ug/L	11.0	3.3	1	10/31/17 10:40	11/04/17 02:50	7440-42-8	
Calcium	**117000**	ug/L	250	69.8	1	10/31/17 10:40	11/04/17 02:50	7440-70-2	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 25216071.17 NELSON DEWEY CCR
Pace Project No.: 40159197

Sample: B11R **Lab ID: 40159197004** Collected: 10/19/17 15:35 Received: 10/21/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**7.22**	Std. Units			1		10/19/17 15:35		
Field Specific Conductance	**870**	umhos/cm			1		10/19/17 15:35		
Oxygen, Dissolved	**0.19**	mg/L			1		10/19/17 15:35	7782-44-7	
REDOX	**133.4**	mV			1		10/19/17 15:35		
Turbidity	**2.5**	NTU			1		10/19/17 15:35		
Static Water Level	**609.42**	feet			1		10/19/17 15:35		
Temperature, Water (C)	**15.1**	deg C			1		10/19/17 15:35		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**586**	mg/L	20.0	8.7	1		10/25/17 16:02		
9040 pH	Analytical Method: EPA 9040								
pH	**6.8**	Std. Units	0.10	0.010	1		10/30/17 12:10		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**38.8**	mg/L	10.0	2.5	5		11/06/17 13:59	16887-00-6	
Fluoride	**<0.50**	mg/L	1.5	0.50	5		11/06/17 13:59	16984-48-8	D3
Sulfate	**97.7**	mg/L	15.0	5.0	5		11/06/17 13:59	14808-79-8	

Sample: B31A **Lab ID: 40159197005** Collected: 10/19/17 16:20 Received: 10/21/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Boron	**63.9**	ug/L	11.0	3.3	1	10/31/17 10:40	11/04/17 02:58	7440-42-8	
Calcium	**49600**	ug/L	250	69.8	1	10/31/17 10:40	11/04/17 02:58	7440-70-2	
Field Data	Analytical Method:								
Field pH	**7.92**	Std. Units			1		10/19/17 16:20		
Field Specific Conductance	**433.5**	umhos/cm			1		10/19/17 16:20		
Oxygen, Dissolved	**0.23**	mg/L			1		10/19/17 16:20	7782-44-7	
REDOX	**97.1**	mV			1		10/19/17 16:20		
Turbidity	**1.25**	NTU			1		10/19/17 16:20		
Static Water Level	**609.43**	feet			1		10/19/17 16:20		
Temperature, Water (C)	**14.9**	deg C			1		10/19/17 16:20		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**290**	mg/L	20.0	8.7	1		10/25/17 16:02		
9040 pH	Analytical Method: EPA 9040								
pH	**7.5**	Std. Units	0.10	0.010	1		10/30/17 12:10		H6

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 25216071.17 NELSON DEWEY CCR
Pace Project No.: 40159197

Sample: B31A **Lab ID: 40159197005** Collected: 10/19/17 16:20 Received: 10/21/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**40.8**	mg/L	2.0	0.50	1		11/03/17 01:52	16887-00-6	
Fluoride	**0.16J**	mg/L	0.30	0.10	1		11/03/17 01:52	16984-48-8	
Sulfate	**26.1**	mg/L	3.0	1.0	1		11/03/17 01:52	14808-79-8	

Sample: B31R **Lab ID: 40159197006** Collected: 10/19/17 16:50 Received: 10/21/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Boron	**645**	ug/L	11.0	3.3	1	10/31/17 10:40	11/04/17 03:05	7440-42-8	
Calcium	**75700**	ug/L	250	69.8	1	10/31/17 10:40	11/04/17 03:05	7440-70-2	
Field Data	Analytical Method:								
Field pH	**7.19**	Std. Units			1		10/19/17 16:50		
Field Specific Conductance	**519.6**	umhos/cm			1		10/19/17 16:50		
Oxygen, Dissolved	**0.21**	mg/L			1		10/19/17 16:50	7782-44-7	
REDOX	**153.0**	mV			1		10/19/17 16:50		
Turbidity	**1.53**	NTU			1		10/19/17 16:50		
Static Water Level	**609.47**	feet			1		10/19/17 16:50		
Temperature, Water (C)	**15.0**	deg C			1		10/19/17 16:50		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**358**	mg/L	20.0	8.7	1		10/25/17 16:02		
9040 pH	Analytical Method: EPA 9040								
pH	**6.8**	Std. Units	0.10	0.010	1		10/30/17 12:10		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**29.0**	mg/L	2.0	0.50	1		11/03/17 02:03	16887-00-6	
Fluoride	**0.14J**	mg/L	0.30	0.10	1		11/03/17 02:03	16984-48-8	
Sulfate	**19.2**	mg/L	3.0	1.0	1		11/03/17 02:03	14808-79-8	

Sample: FIELD BLANK **Lab ID: 40159197007** Collected: 10/19/17 17:05 Received: 10/21/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Boron	**<3.3**	ug/L	11.0	3.3	1	10/31/17 10:40	11/04/17 00:51	7440-42-8	
Calcium	**<69.8**	ug/L	250	69.8	1	10/31/17 10:40	11/04/17 00:51	7440-70-2	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**<8.7**	mg/L	20.0	8.7	1		10/25/17 16:02		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 25216071.17 NELSON DEWEY CCR
Pace Project No.: 40159197

Sample: FIELD BLANK **Lab ID: 40159197007** Collected: 10/19/17 17:05 Received: 10/21/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
9040 pH	Analytical Method: EPA 9040								
pH	**6.0**	Std. Units	0.10	0.010	1		10/30/17 12:10		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**<0.50**	mg/L	2.0	0.50	1		11/03/17 02:13	16887-00-6	
Fluoride	**<0.10**	mg/L	0.30	0.10	1		11/03/17 02:13	16984-48-8	
Sulfate	**<1.0**	mg/L	3.0	1.0	1		11/03/17 02:13	14808-79-8	

Sample: B39 **Lab ID: 40159197008** Collected: 10/19/17 18:15 Received: 10/21/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Boron	**320**	ug/L	11.0	3.3	1	10/31/17 10:40	11/04/17 03:13	7440-42-8	
Calcium	**52400**	ug/L	250	69.8	1	10/31/17 10:40	11/04/17 03:13	7440-70-2	
Field Data	Analytical Method:								
Field pH	**7.43**	Std. Units			1		10/19/17 18:15		
Field Specific Conductance	**357.2**	umhos/cm			1		10/19/17 18:15		
Oxygen, Dissolved	**0.15**	mg/L			1		10/19/17 18:15	7782-44-7	
REDOX	**141.2**	mV			1		10/19/17 18:15		
Turbidity	**0.98**	NTU			1		10/19/17 18:15		
Static Water Level	**608.55**	feet			1		10/19/17 18:15		
Temperature, Water (C)	**16.8**	deg C			1		10/19/17 18:15		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**246**	mg/L	20.0	8.7	1		10/25/17 16:03		
9040 pH	Analytical Method: EPA 9040								
pH	**7.1**	Std. Units	0.10	0.010	1		10/30/17 12:10		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**4.6**	mg/L	2.0	0.50	1		11/03/17 02:24	16887-00-6	
Fluoride	**0.32**	mg/L	0.30	0.10	1		11/03/17 02:24	16984-48-8	
Sulfate	**23.0**	mg/L	3.0	1.0	1		11/03/17 02:24	14808-79-8	

Sample: B-26 **Lab ID: 40159197009** Collected: 10/19/17 18:15 Received: 10/21/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Boron	**47.4**	ug/L	11.0	3.3	1	10/31/17 10:40	11/04/17 03:20	7440-42-8	
Calcium	**102000**	ug/L	250	69.8	1	10/31/17 10:40	11/04/17 03:20	7440-70-2	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

ANALYTICAL RESULTS

Project: 25216071.17 NELSON DEWEY CCR
Pace Project No.: 40159197

Sample: B-26 **Lab ID: 40159197009** Collected: 10/19/17 18:15 Received: 10/21/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**7.5**	Std. Units			1		10/19/17 18:15		
Field Specific Conductance	**786**	umhos/cm			1		10/19/17 18:15		
Oxygen, Dissolved	**8.49**	mg/L			1		10/19/17 18:15	7782-44-7	
REDOX	**215.6**	mV			1		10/19/17 18:15		
Turbidity	**0.89**	NTU			1		10/19/17 18:15		
Static Water Level	**608.84**	feet			1		10/19/17 18:15		
Temperature, Water (C)	**11.7**	deg C			1		10/19/17 18:15		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**542**	mg/L	20.0	8.7	1		10/25/17 16:03		
9040 pH	Analytical Method: EPA 9040								
pH	**7.4**	Std. Units	0.10	0.010	1		10/30/17 12:30		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**79.3**	mg/L	10.0	2.5	5		11/06/17 10:49	16887-00-6	
Fluoride	**<0.10**	mg/L	0.30	0.10	1		11/03/17 02:34	16984-48-8	
Sulfate	**25.3**	mg/L	15.0	5.0	5		11/06/17 10:49	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 25216071.17 NELSON DEWEY CCR
Pace Project No.: 40159197

QC Batch: 272475 Analysis Method: EPA 6020
QC Batch Method: EPA 3010 Analysis Description: 6020 MET
Associated Lab Samples: 40159197001, 40159197002, 40159197003, 40159197004, 40159197005, 40159197006, 40159197007, 40159197008, 40159197009

METHOD BLANK: 1602625 Matrix: Water
Associated Lab Samples: 40159197001, 40159197002, 40159197003, 40159197004, 40159197005, 40159197006, 40159197007, 40159197008, 40159197009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Boron	ug/L	<3.3	11.0	11/04/17 00:43	
Calcium	ug/L	<69.8	250	11/04/17 00:43	

LABORATORY CONTROL SAMPLE: 1602626

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	500	448	90	80-120	
Calcium	ug/L	5000	4680	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1602627 1602628

Parameter	Units	40159197001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	ug/L	159	500	500	620	625	92	93	75-125	1	20	
Calcium	ug/L	56200	5000	5000	55200	59100	-19	58	75-125	7	20	P6

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25216071.17 NELSON DEWEY CCR
Pace Project No.: 40159197

QC Batch: 271885 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 40159197001, 40159197002, 40159197003, 40159197004, 40159197005, 40159197006, 40159197007, 40159197008, 40159197009

METHOD BLANK: 1598747 Matrix: Water
Associated Lab Samples: 40159197001, 40159197002, 40159197003, 40159197004, 40159197005, 40159197006, 40159197007, 40159197008, 40159197009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<8.7	20.0	10/25/17 15:57	

LABORATORY CONTROL SAMPLE: 1598748

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	635	582	92	80-120	

SAMPLE DUPLICATE: 1598749

Parameter	Units	40159220001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	426	434	2	5	

SAMPLE DUPLICATE: 1598750

Parameter	Units	40159197001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	242	246	2	5	

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25216071.17 NELSON DEWEY CCR
Pace Project No.: 40159197

QC Batch: 272346 Analysis Method: EPA 9040
QC Batch Method: EPA 9040 Analysis Description: 9040 pH
Associated Lab Samples: 40159197001, 40159197002, 40159197003, 40159197004, 40159197005, 40159197006, 40159197007, 40159197008, 40159197009

SAMPLE DUPLICATE: 1601938

Parameter	Units	40158898005 Result	Dup Result	RPD	Max RPD	Qualifiers
pH	Std. Units	7.8	7.8	1	20	H6

SAMPLE DUPLICATE: 1601939

Parameter	Units	40159178001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH	Std. Units	6.9	7.0	1	20	H6

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25216071.17 NELSON DEWEY CCR
Pace Project No.: 40159197

QC Batch: 272194 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 40159197005, 40159197006, 40159197007, 40159197008, 40159197009

METHOD BLANK: 1600724 Matrix: Water
Associated Lab Samples: 40159197005, 40159197006, 40159197007, 40159197008, 40159197009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<0.50	2.0	11/03/17 12:59	
Fluoride	mg/L	<0.10	0.30	11/03/17 12:59	
Sulfate	mg/L	<1.0	3.0	11/03/17 12:59	

LABORATORY CONTROL SAMPLE: 1600725

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	19.9	99	90-110	
Fluoride	mg/L	2	2.0	102	90-110	
Sulfate	mg/L	20	19.9	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1600728 1600729

Parameter	Units	40159197009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	79.3	100	100	182	182	103	103	90-110	0	15	
Fluoride	mg/L	<0.10	2	2	2.2	2.1	108	106	90-110	3	15	
Sulfate	mg/L	25.3	100	100	129	129	104	104	90-110	0	15	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25216071.17 NELSON DEWEY CCR
Pace Project No.: 40159197

QC Batch: 273043 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 40159197001, 40159197002, 40159197003, 40159197004

METHOD BLANK: 1606551 Matrix: Water
Associated Lab Samples: 40159197001, 40159197002, 40159197003, 40159197004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<0.50	2.0	11/06/17 12:45	
Fluoride	mg/L	<0.10	0.30	11/06/17 12:45	
Sulfate	mg/L	<1.0	3.0	11/06/17 12:45	

LABORATORY CONTROL SAMPLE: 1606552

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	19.8	99	90-110	
Fluoride	mg/L	2	2.0	99	90-110	
Sulfate	mg/L	20	19.9	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1606553 1606554

Parameter	Units	40159197001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	12.0	100	100	115	116	103	104	90-110	1	15	
Fluoride	mg/L	<0.50	10	10	10.3	10.4	103	104	90-110	1	15	
Sulfate	mg/L	<5.0	100	100	105	106	104	105	90-110	1	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1606555 1606556

Parameter	Units	40159349007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	5.5	20	20	26.9	27.2	107	108	90-110	1	15	
Fluoride	mg/L	0.44	2	2	2.5	2.5	103	104	90-110	1	15	
Sulfate	mg/L	26.7	20	20	46.7	47.7	100	105	90-110	2	15	

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

REPORT OF LABORATORY ANALYSIS

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Green Bay, WI 54302
(920)469-2436

QUALIFIERS

Project: 25216071.17 NELSON DEWEY CCR
Pace Project No.: 40159197

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 LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

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 at or above the adjusted LOD.

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

D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
H6	Analysis initiated outside of the 15 minute EPA required holding time.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

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Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 25216071.17 NELSON DEWEY CCR
Pace Project No.: 40159197

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40159197001	**B7R**	EPA 3010	272475	EPA 6020	272659
40159197002	**B11B**	EPA 3010	272475	EPA 6020	272659
40159197003	**B11A**	EPA 3010	272475	EPA 6020	272659
40159197004	**B11R**	EPA 3010	272475	EPA 6020	272659
40159197005	**B31A**	EPA 3010	272475	EPA 6020	272659
40159197006	**B31R**	EPA 3010	272475	EPA 6020	272659
40159197007	**FIELD BLANK**	EPA 3010	272475	EPA 6020	272659
40159197008	**B39**	EPA 3010	272475	EPA 6020	272659
40159197009	**B-26**	EPA 3010	272475	EPA 6020	272659
40159197001	**B7R**				
40159197002	**B11B**				
40159197003	**B11A**				
40159197004	**B11R**				
40159197005	**B31A**				
40159197006	**B31R**				
40159197008	**B39**				
40159197009	**B-26**				
40159197001	**B7R**	SM 2540C	271885		
40159197002	**B11B**	SM 2540C	271885		
40159197003	**B11A**	SM 2540C	271885		
40159197004	**B11R**	SM 2540C	271885		
40159197005	**B31A**	SM 2540C	271885		
40159197006	**B31R**	SM 2540C	271885		
40159197007	**FIELD BLANK**	SM 2540C	271885		
40159197008	**B39**	SM 2540C	271885		
40159197009	**B-26**	SM 2540C	271885		
40159197001	**B7R**	EPA 9040	272346		
40159197002	**B11B**	EPA 9040	272346		
40159197003	**B11A**	EPA 9040	272346		
40159197004	**B11R**	EPA 9040	272346		
40159197005	**B31A**	EPA 9040	272346		
40159197006	**B31R**	EPA 9040	272346		
40159197007	**FIELD BLANK**	EPA 9040	272346		
40159197008	**B39**	EPA 9040	272346		
40159197009	**B-26**	EPA 9040	272346		
40159197001	**B7R**	EPA 300.0	273043		
40159197002	**B11B**	EPA 300.0	273043		
40159197003	**B11A**	EPA 300.0	273043		
40159197004	**B11R**	EPA 300.0	273043		
40159197005	**B31A**	EPA 300.0	272194		
40159197006	**B31R**	EPA 300.0	272194		
40159197007	**FIELD BLANK**	EPA 300.0	272194		
40159197008	**B39**	EPA 300.0	272194		
40159197009	**B-26**	EPA 300.0	272194		

REPORT OF LABORATORY ANALYSIS

Pace Analytical®
www.pacelabs.com

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

40159/97

CHAIN OF CUSTODY

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

(Please Print Clearly)	
Company Name:	SCS Engineers
Branch/Location:	25 - Madison
Project Contact:	Tom Karwoski
Phone:	608 224 2830
Project Number:	25219071.17
Project Name:	Nelson Dewey
Project State:	WI
Sampled By (Print):	Nate Harms
Sampled By (Sign):	
PO #:	Regulatory Program:

Quote #:	
Mail To Contact:	Tom Karwoski
Mail To Company:	SCS Engineers
Mail To Address:	2830 Dairy Dr. Madison, WI 53718
Invoice To Contact:	SAME
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes
A = Air W = Water
B = Biota DW = Drinking Water
C = Charcoal GW = Ground Water
O = Oil SW = Surface Water
S = Soil WW = Waste Water
SI = Sludge WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO)	PRESERVATION (CODE)*	Analyses Requested: Y/N	Pick Letter	Metals	pH	TDS, Cl, F, SO4	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
							N	D	A	A	A			
001	B7R	10/19/17	1240	GW					X	X	X		3-250mL HNO3	
002	B11B		1400											
003	B11A		1450											
004	B11R		1535											
005	B31A		1620											
006	B31R		1650											
007	Field Blank		1705	GW										
008	B39		1815	GW										
009 ①	B-26	10/19	1815											

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):
Email #1:
Email #2:
Telephone:
Fax:

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
Nate Harms	10/20/17 1300		
Fedex	10/21/17 0935		

PACE Project No.: 40159/97

Receipt Temp = 2.0 °C

Sample Receipt pH: OK / Adjusted

Cooler Custody Seal: Present / ~~Not Present~~ Intact / ~~Not Intact~~

Version 6.0 06/14/06

C019a(27Jun2006)

① added to COC by lab 10/21/17

ORIGINAL

Sample Condition Upon Receipt

Pace Analytical Services, LLC. - Green Bay WI
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Pace Analytical

Project #: WO#: 40159197

40159197

Client Name: SCS

Courier: Fed Ex UPS Client Pace Other:

Tracking #: 8102896603 91

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Custody Seal on Samples Present: yes no Seals intact: yes no

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used NA **Type of Ice:** (Wet) Blue Dry None Samples on ice, cooling process has begun

Cooler Temperature Uncorr: /Corr: R01 **Biological Tissue is Frozen:** yes no

Temp Blank Present: yes no

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C.

Person examining contents:
Date: 10/21/17
Initials:

		Comments:
Chain of Custody Present:	Yes No N/A	1.
Chain of Custody Filled Out:	10/21/17 Yes No N/A	2. ①
Chain of Custody Relinquished:	Yes No N/A	3.
Sampler Name & Signature on COC:	Yes No N/A	4.
Samples Arrived within Hold Time:	Yes No N/A	5.
- VOA Samples frozen upon receipt	Yes No	Date/Time:
Short Hold Time Analysis (<72hr):	Yes No N/A	6.
Rush Turn Around Time Requested:	Yes No N/A	7.
Sufficient Volume:	Yes No N/A	8. NO MS/MSD 10/21/17
Correct Containers Used:	Yes No N/A	9.
-Pace Containers Used:	Yes No N/A	
-Pace IR Containers Used:	Yes No N/A	
Containers Intact:	Yes No N/A	10.
Filtered volume received for Dissolved tests	Yes No N/A	11.
Sample Labels match COC: 10/21/17	Yes No N/A	12. 008 time 1730
-Includes date/time/ID/Analysis Matrix: W		10/21/17
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	Yes No N/A	13. HNO3 H2SO4 NaOH NaOH +ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	Yes No N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	Yes No	Initial when completed: Lab Std #ID of preservative: Date/ Time:
Headspace in VOA Vials (>6mm):	Yes No N/A	14.
Trip Blank Present:	Yes No N/A	15.
Trip Blank Custody Seals Present	Yes No N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: If checked, see attached form for additional comments ☐

Person Contacted: Date/Time:

Comments/ Resolution: ① 009 received not on COC added by lab 10/21/17

Project Manager Review: RMR for PM **Date:** 10/21/17