

Haley Griffith (adpce.ad)

From: craig.cothron@pacelabs.com
Sent: Monday, July 15, 2024 10:51 AM
To: lefuerschbach@aep.com; gwreports@adeq.state.ar.us
Subject: Pace Analytical National Level II Report for Turk L1751436
Attachments: L1751436.pdf

Importance: High

"Privileged and Confidential"

Thank you for choosing Pace National!

Please find enclosed PDF report containing your laboratory analysis and chain of custody.

Pace Analytical® is the first commercial laboratory in the US to offer testing of wastewater for SARS-COV2 (the virus that causes COVID-19).

<https://www.pacelabs.com/environmental-sciences/testing-services/specialty-services/covid-19-wastewater-testing.html>

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Pace National ... "Your Lab of Choice"

Craig Cothron
Project Manager
615-773-9664
craig.cothron@pacelabs.com

Pace Analytical National
12065 Lebanon Rd
Mount Juliet, TN 37122
mydata.pacelabs.com

Recipients configured to receive report file: lefuerschbach@aep.com, gwreports@adeq.state.ar.us

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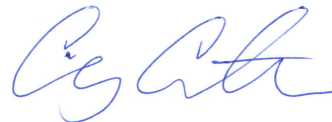
 Please consider the environment before printing this email

American Electric Power - AR

Sample Delivery Group: L1751436
Samples Received: 06/27/2024
Project Number:
Description: Turk

Report To: Ms. Leslie Fuerschbach
502 N. Allen Ave.
Shreveport, LA 71101

Entire Report Reviewed By:



Craig Cothron
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

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		⁷ Sc

SAMPLE SUMMARY

MW-1 L1751436-01 GW

				Collected by KM/MH	Collected date/time 06/25/24 09:08	Received date/time 06/27/24 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2314166	1	07/11/24 00:00	07/11/24 00:00	-	St. Rose, LA 70087

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Gl

⁶ Al

⁷ Sc

MW-2 L1751436-02 GW

				Collected by KM/MH	Collected date/time 06/25/24 10:28	Received date/time 06/27/24 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2314166	1	07/11/24 00:00	07/11/24 00:00	-	St. Rose, LA 70087

MW-3 L1751436-03 GW

				Collected by KM/MH	Collected date/time 06/25/24 10:52	Received date/time 06/27/24 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2314166	1	07/11/24 00:00	07/11/24 00:00	-	St. Rose, LA 70087

MW-4 L1751436-04 GW

				Collected by KM/MH	Collected date/time 06/25/24 10:10	Received date/time 06/27/24 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2314166	1	07/11/24 00:00	07/11/24 00:00	-	St. Rose, LA 70087

MW-5 L1751436-05 GW

				Collected by KM/MH	Collected date/time 06/25/24 11:09	Received date/time 06/27/24 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2314166	1	07/11/24 00:00	07/11/24 00:00	-	St. Rose, LA 70087

MW-6 L1751436-06 GW

				Collected by KM/MH	Collected date/time 06/25/24 11:26	Received date/time 06/27/24 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2314166	1	07/11/24 00:00	07/11/24 00:00	-	St. Rose, LA 70087

MW-7 L1751436-07 GW

				Collected by KM/MH	Collected date/time 06/25/24 09:40	Received date/time 06/27/24 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2314166	1	07/11/24 00:00	07/11/24 00:00	-	St. Rose, LA 70087

MW-78 L1751436-08 GW

				Collected by KM/MH	Collected date/time 06/25/24 09:08	Received date/time 06/27/24 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2314166	1	07/11/24 00:00	07/11/24 00:00	-	St. Rose, LA 70087

SAMPLE SUMMARY

MW-9 L1751436-09 GW

				Collected by KM/MH	Collected date/time 06/25/24 08:45	Received date/time 06/27/24 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2314166	1	07/11/24 00:00	07/11/24 00:00	-	St. Rose, LA 70087

MW-10 L1751436-10 GW

				Collected by KM/MH	Collected date/time 06/25/24 10:45	Received date/time 06/27/24 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2314166	1	07/11/24 00:00	07/11/24 00:00	-	St. Rose, LA 70087

MW-11 L1751436-11 GW

				Collected by KM/MH	Collected date/time 06/25/24 11:20	Received date/time 06/27/24 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2314166	1	07/11/24 00:00	07/11/24 00:00	-	St. Rose, LA 70087

LEACHATE POND L1751436-12 GW

				Collected by KM/MH	Collected date/time 06/25/24 11:11	Received date/time 06/27/24 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2314166	1	07/11/24 00:00	07/11/24 00:00	-	St. Rose, LA 70087

DUPLICATE L1751436-13 GW

				Collected by KM/MH	Collected date/time 06/25/24 12:30	Received date/time 06/27/24 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2314166	1	07/11/24 00:00	07/11/24 00:00	-	St. Rose, LA 70087

ACID BLANK L1751436-14 GW

				Collected by KM/MH	Collected date/time 06/25/24 12:15	Received date/time 06/27/24 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2314166	1	07/11/24 00:00	07/11/24 00:00	-	St. Rose, LA 70087


EQUIPMENT BLANK L1751436-15 GW

				Collected by KM/MH	Collected date/time 06/25/24 09:40	Received date/time 06/27/24 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2314166	1	07/11/24 00:00	07/11/24 00:00	-	St. Rose, LA 70087



CASE NARRATIVE

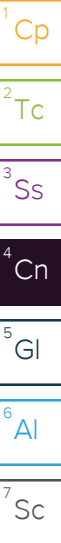
All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Craig Cothron
Project Manager

Project Narrative

L1751436 -01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15 contains subout data that is included after the chain of custody.



GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

SDG	Sample Delivery Group.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.



ACCREDITATIONS & LOCATIONS

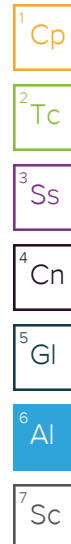
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey--NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio--VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA -- ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA -- ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA--Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.



Company Name/Address: American Electric Power - AR 502 N. Allen Ave. Shreveport, LA 71101				Billing Information: Attn: AEP Accounts Payable PO Box 24400 Canton, OH 44701-4400				Pres Chk		Analysis / Container / Preservative										Chain of Custody Page <u>1</u> of <u>2</u>					
				Report to: Ms. Leslie Fuerschbach				Email To: lefuerschbach@aep.com; gwreports@adeq.state																 PEOPLE ADVANCING SCIENCE MT JULIET, TN 12065 Lebanon Rd Mount Juliet, TN 37122 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubs/pas-standard-terms.pdf	
Project Description: Turk				City/State Collected:				Please Circle: PT MT CT ET												SDG # <u>LP514310</u> H146					
Phone: 318-673-2721				Client Project #				Lab Project # AEP TURKAR-TURK														Table			
Collected by (print): Kenny McDowell / Matt Hamilton				Site/Facility ID #				P.O. # 2879700														Acctnum: AEP TURKAR Template: T124567			
Collected by (signature): 				Rush? (Lab MUST Be Notified) <input type="checkbox"/> Same Day <input type="checkbox"/> Five Day <input type="checkbox"/> Next Day <input type="checkbox"/> 5 Day (Rad Only) <input type="checkbox"/> Two Day <input type="checkbox"/> 10 Day (Rad Only) <input type="checkbox"/> Three Day				Quote #														Prelogin: P1081483 PM: 034 - Craig Cothron PB: BF 6/8/24			
Immediately Packed on Ice N <u> </u> Y <u>X</u>				Date Results Needed				No. of Cntrs														Shipped Via: FedEX Ground			
Sample ID		Comp/Grab	Matrix *	Depth	Date	Time																Remarks		Sample # (lab only)	
MW-1		GNAB	GW		06/25/24	0908	8	X	X	X	X	X	X	X	X	X	X	X			-01				
MW-2		GNAB	GW		06/25/24	1028	8	X	X	X	X	X	X	X	X	X	X	X			-02				
MW-3		GNAB	GW		06/25/24	1052	8	X	X	X	X	X	X	X	X	X	X	X			-03				
MW-4		GRAB	GW		06/25/24	1010	8	X	X	X	X	X	X	X	X	X	X	X			-04				
MW-5		GNAB	GW		06/25/24	1109	8	X	X	X	X	X	X	X	X	X	X	X			-05				
MW-6		GNAB	GW		06/25/24	1126	8	X	X	X	X	X	X	X	X	X	X	X			-06				
MW-7		GNAB	GW		06/25/24	0940	8	X	X	X	X	X	X	X	X	X	X	X			-07				
MW-8		GNAB	GW		06/25/24	0908	8	X	X	X	X	X	X	X	X	X	X	X			-08				
MW-9		GNAB	GW		06/25/24	0845	8	X	X	X	X	X	X	X	X	X	X	X			-09				
MW-10		GNAB	GW		06/25/24	1045	8	X	X	X	X	X	X	X	X	X	X	X			-10				

* Matrix: SS - Soil AIR - Air F - Filter
 GW - Groundwater B - Bioassay
 WW - WasteWater
 DW - Drinking Water
 OT - Other

Remarks:

pH _____ Temp _____
 Flow _____ Other _____

Samples returned via: UPS FedEx Courier

Tracking # MULTI

Relinquished by: (Signature)

Trip Blank Received: Yes/No
 HCL / MeOH
 TBR

Relinquished by: (Signature)

Temp: MULTI °C Bottles Received: 120

Relinquished by: (Signature)

Date: 6/27/24 Time: 0900

Received by: (Signature) Justin Brown

If preservation required by Login: Date/Time

Received for lab by: (Signature)

Hold: Condition: OK

Sample Receipt Checklist	
COC Seal Present/Intact:	<u> </u> Y <u> </u> N
COC Signed/Accurate:	<u> </u> Y <u> </u> N
Bottles arrive intact:	<u> </u> Y <u> </u> N
Correct bottles used:	<u> </u> Y <u> </u> N
Sufficient volume sent:	<u> </u> Y <u> </u> N
If Applicable	
VOA Zero Headspace:	<u> </u> Y <u> </u> N
Preservation Correct/Checked:	<u> </u> Y <u> </u> N
RAD Screen <0.5 mR/hr:	<u> </u> Y <u> </u> N

[illegible]

Name

Date _____



July 12, 2024

Jimmy Huckaba
Pace National
12065 Lebanon Rd
Mt. Juliet, TN 37122

RE: Project: WG2314166 / L1751436
Pace Project No.: 20322394

Dear Jimmy Huckaba:

Enclosed are the analytical results for sample(s) received by the laboratory on June 29, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - New Orleans

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

Sincerely,

A handwritten signature in black ink, reading 'Devin McDougal'.

Devin McDougal
devin.mcdougal@pacelabs.com
(225) 769-4900
Project Manager

Enclosures

cc: Jimmie Huckaba, Pace National
SuboutTeam, Pace National



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: WG2314166 / L1751436

Pace Project No.: 20322394

Pace Analytical Services New Orleans

Florida Department of Health (NELAC): E87595

Illinois Environmental Protection Agency: 2000662023-7

Kansas Department of Health and Environment (NELAC):
E-10266

Louisiana Dept. of Environmental Quality (NELAC/LELAP):
02006

Texas Commission on Env. Quality (NELAC):

T104704405-23-18

U.S. Dept. of Agriculture Foreign Soil Import: 525-23-117-
89728

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: WG2314166 / L1751436

Pace Project No.: 20322394

Lab ID	Sample ID	Matrix	Date Collected	Date Received
20322394001	L1751436-01	Water	06/25/24 09:08	06/29/24 08:35
20322394002	L1751436-02	Water	06/25/24 10:28	06/29/24 08:35
20322394003	L1751436-03	Water	06/25/24 10:52	06/29/24 08:35
20322394004	L1751436-04	Water	06/25/24 10:10	06/29/24 08:35
20322394005	L1751436-05	Water	06/25/24 11:09	06/29/24 08:35
20322394006	L1751436-06	Water	06/25/24 11:26	06/29/24 08:35
20322394007	L1751436-07	Water	06/25/24 09:40	06/29/24 08:35
20322394008	L1751436-08	Water	06/25/24 09:08	06/29/24 08:35
20322394009	L1751436-09	Water	06/25/24 08:45	06/29/24 08:35
20322394010	L1751436-10	Water	06/25/24 10:45	06/29/24 08:35
20322394011	L1751436-11	Water	06/25/24 11:20	06/29/24 08:35
20322394012	L1751436-12	Water	06/25/24 11:11	06/29/24 08:35
20322394013	L1751436-13	Water	06/25/24 12:30	06/29/24 08:35
20322394014	L1751436-14	Water	06/25/24 12:15	06/29/24 08:35
20322394015	L1751436-15	Water	06/25/24 09:40	06/29/24 08:35

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: WG2314166 / L1751436

Pace Project No.: 20322394

Lab ID	Sample ID	Method	Analysts	Analytes Reported
20322394001	L1751436-01	EPA 6020A	AJS	1
20322394002	L1751436-02	EPA 6020A	AJS	1
20322394003	L1751436-03	EPA 6020A	AJS	1
20322394004	L1751436-04	EPA 6020A	AJS	1
20322394005	L1751436-05	EPA 6020A	AJS	1
20322394006	L1751436-06	EPA 6020A	AJS	1
20322394007	L1751436-07	EPA 6020A	AJS	1
20322394008	L1751436-08	EPA 6020A	AJS	1
20322394009	L1751436-09	EPA 6020A	AJS	1
20322394010	L1751436-10	EPA 6020A	AJS	1
20322394011	L1751436-11	EPA 6020A	AJS	1
20322394012	L1751436-12	EPA 6020A	AJS	1
20322394013	L1751436-13	EPA 6020A	AJS	1
20322394014	L1751436-14	EPA 6020A	AJS	1
20322394015	L1751436-15	EPA 6020A	AJS	1

PASI-N = Pace Analytical Services - New Orleans

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: WG2314166 / L1751436

Pace Project No.: 20322394

Method: EPA 6020A

Description: 6020 MET ICPMS

Client: PACE_ANALYTICAL NATIONAL CENTER FOR TESTING AND INNOVATION

Date: July 12, 2024

General Information:

15 samples were analyzed for EPA 6020A by Pace Analytical Services New Orleans. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

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

Sample Preparation:

The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Internal Standards:

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

Method Blank:

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

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Additional Comments:

Analyte Comments:

QC Batch: 334364

N2: The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

- BLANK (Lab ID: 1604268)
 - Tungsten
- L1751436-01 (Lab ID: 20322394001)
 - Tungsten
- L1751436-02 (Lab ID: 20322394002)
 - Tungsten
- L1751436-03 (Lab ID: 20322394003)
 - Tungsten

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: WG2314166 / L1751436

Pace Project No.: 20322394

Method: EPA 6020A

Description: 6020 MET ICPMS

Client: PACE_ANALYTICAL NATIONAL CENTER FOR TESTING AND INNOVATION

Date: July 12, 2024

Analyte Comments:

QC Batch: 334364

N2: The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

- L1751436-04 (Lab ID: 20322394004)
 - Tungsten
- L1751436-05 (Lab ID: 20322394005)
 - Tungsten
- L1751436-06 (Lab ID: 20322394006)
 - Tungsten
- L1751436-07 (Lab ID: 20322394007)
 - Tungsten
- L1751436-08 (Lab ID: 20322394008)
 - Tungsten
- L1751436-09 (Lab ID: 20322394009)
 - Tungsten
- L1751436-10 (Lab ID: 20322394010)
 - Tungsten
- L1751436-11 (Lab ID: 20322394011)
 - Tungsten
- L1751436-12 (Lab ID: 20322394012)
 - Tungsten
- L1751436-13 (Lab ID: 20322394013)
 - Tungsten
- L1751436-14 (Lab ID: 20322394014)
 - Tungsten
- L1751436-15 (Lab ID: 20322394015)
 - Tungsten
- LCS (Lab ID: 1604269)
 - Tungsten
- MS (Lab ID: 1604270)
 - Tungsten
- MSD (Lab ID: 1604271)
 - Tungsten

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

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: WG2314166 / L1751436

Pace Project No.: 20322394

Sample: L1751436-01		Lab ID: 20322394001		Collected: 06/25/24 09:08		Received: 06/29/24 08:35		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS		Analytical Method: EPA 6020A Preparation Method: EPA 3010 Initial Volume/Weight: 25 mL Final Volume/Weight: 25 mL Pace Analytical Services - New Orleans							
Tungsten	ND	ug/L	1.0	0.37	1	07/08/24 10:02	07/10/24 19:58	7440-33-7	N2

Sample: L1751436-02		Lab ID: 20322394002		Collected: 06/25/24 10:28		Received: 06/29/24 08:35		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS		Analytical Method: EPA 6020A Preparation Method: EPA 3010 Initial Volume/Weight: 25 mL Final Volume/Weight: 25 mL Pace Analytical Services - New Orleans							
Tungsten	ND	ug/L	1.0	0.37	1	07/08/24 10:02	07/10/24 17:02	7440-33-7	N2

Sample: L1751436-03		Lab ID: 20322394003		Collected: 06/25/24 10:52		Received: 06/29/24 08:35		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS		Analytical Method: EPA 6020A Preparation Method: EPA 3010 Initial Volume/Weight: 25 mL Final Volume/Weight: 25 mL Pace Analytical Services - New Orleans							
Tungsten	ND	ug/L	1.0	0.37	1	07/08/24 10:02	07/10/24 17:14	7440-33-7	N2

Sample: L1751436-04		Lab ID: 20322394004		Collected: 06/25/24 10:10		Received: 06/29/24 08:35		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS		Analytical Method: EPA 6020A Preparation Method: EPA 3010 Initial Volume/Weight: 25 mL Final Volume/Weight: 25 mL Pace Analytical Services - New Orleans							
Tungsten	ND	ug/L	1.0	0.37	1	07/08/24 10:02	07/10/24 17:26	7440-33-7	N2

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ANALYTICAL RESULTS

Project: WG2314166 / L1751436

Pace Project No.: 20322394

Sample: L1751436-05		Lab ID: 20322394005		Collected: 06/25/24 11:09		Received: 06/29/24 08:35		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS		Analytical Method: EPA 6020A Preparation Method: EPA 3010 Initial Volume/Weight: 25 mL Final Volume/Weight: 25 mL Pace Analytical Services - New Orleans							
Tungsten	ND	ug/L	1.0	0.37	1	07/08/24 10:02	07/10/24 17:38	7440-33-7	N2

Sample: L1751436-06		Lab ID: 20322394006		Collected: 06/25/24 11:26		Received: 06/29/24 08:35		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS		Analytical Method: EPA 6020A Preparation Method: EPA 3010 Initial Volume/Weight: 25 mL Final Volume/Weight: 25 mL Pace Analytical Services - New Orleans							
Tungsten	ND	ug/L	1.0	0.37	1	07/08/24 10:02	07/10/24 17:49	7440-33-7	N2

Sample: L1751436-07		Lab ID: 20322394007		Collected: 06/25/24 09:40		Received: 06/29/24 08:35		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS		Analytical Method: EPA 6020A Preparation Method: EPA 3010 Initial Volume/Weight: 25 mL Final Volume/Weight: 25 mL Pace Analytical Services - New Orleans							
Tungsten	ND	ug/L	1.0	0.37	1	07/08/24 10:02	07/10/24 18:01	7440-33-7	N2

Sample: L1751436-08		Lab ID: 20322394008		Collected: 06/25/24 09:08		Received: 06/29/24 08:35		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS		Analytical Method: EPA 6020A Preparation Method: EPA 3010 Initial Volume/Weight: 25 mL Final Volume/Weight: 25 mL Pace Analytical Services - New Orleans							
Tungsten	ND	ug/L	1.0	0.37	1	07/08/24 10:02	07/10/24 18:13	7440-33-7	N2

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ANALYTICAL RESULTS

Project: WG2314166 / L1751436

Pace Project No.: 20322394

Sample: L1751436-09		Lab ID: 20322394009		Collected: 06/25/24 08:45		Received: 06/29/24 08:35		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS		Analytical Method: EPA 6020A Preparation Method: EPA 3010 Initial Volume/Weight: 25 mL Final Volume/Weight: 25 mL Pace Analytical Services - New Orleans							
Tungsten	ND	ug/L	1.0	0.37	1	07/08/24 10:02	07/10/24 18:24	7440-33-7	N2

Sample: L1751436-10		Lab ID: 20322394010		Collected: 06/25/24 10:45		Received: 06/29/24 08:35		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS		Analytical Method: EPA 6020A Preparation Method: EPA 3010 Initial Volume/Weight: 25 mL Final Volume/Weight: 25 mL Pace Analytical Services - New Orleans							
Tungsten	1.1	ug/L	1.0	0.37	1	07/08/24 10:02	07/10/24 18:36	7440-33-7	N2

Sample: L1751436-11		Lab ID: 20322394011		Collected: 06/25/24 11:20		Received: 06/29/24 08:35		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS		Analytical Method: EPA 6020A Preparation Method: EPA 3010 Initial Volume/Weight: 25 mL Final Volume/Weight: 25 mL Pace Analytical Services - New Orleans							
Tungsten	ND	ug/L	1.0	0.37	1	07/08/24 10:02	07/10/24 18:59	7440-33-7	N2

Sample: L1751436-12		Lab ID: 20322394012		Collected: 06/25/24 11:11		Received: 06/29/24 08:35		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS		Analytical Method: EPA 6020A Preparation Method: EPA 3010 Initial Volume/Weight: 25 mL Final Volume/Weight: 25 mL Pace Analytical Services - New Orleans							
Tungsten	107	ug/L	5.0	1.8	5	07/08/24 10:02	07/11/24 14:27	7440-33-7	N2

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ANALYTICAL RESULTS

Project: WG2314166 / L1751436

Pace Project No.: 20322394

Sample: L1751436-13		Lab ID: 20322394013		Collected: 06/25/24 12:30		Received: 06/29/24 08:35		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS		Analytical Method: EPA 6020A Preparation Method: EPA 3010 Initial Volume/Weight: 25 mL Final Volume/Weight: 25 mL Pace Analytical Services - New Orleans							
Tungsten	0.39J	ug/L	1.0	0.37	1	07/08/24 10:02	07/10/24 19:23	7440-33-7	N2

Sample: L1751436-14		Lab ID: 20322394014		Collected: 06/25/24 12:15		Received: 06/29/24 08:35		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS		Analytical Method: EPA 6020A Preparation Method: EPA 3010 Initial Volume/Weight: 25 mL Final Volume/Weight: 25 mL Pace Analytical Services - New Orleans							
Tungsten	ND	ug/L	1.0	0.37	1	07/08/24 10:02	07/10/24 19:34	7440-33-7	N2

Sample: L1751436-15		Lab ID: 20322394015		Collected: 06/25/24 09:40		Received: 06/29/24 08:35		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS		Analytical Method: EPA 6020A Preparation Method: EPA 3010 Initial Volume/Weight: 25 mL Final Volume/Weight: 25 mL Pace Analytical Services - New Orleans							
Tungsten	ND	ug/L	1.0	0.37	1	07/08/24 10:02	07/10/24 19:46	7440-33-7	N2

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QUALITY CONTROL DATA

Project: WG2314166 / L1751436

Pace Project No.: 20322394

QC Batch: 334364

Analysis Method: EPA 6020A

QC Batch Method: EPA 3010

Analysis Description: 6020 MET

Laboratory: Pace Analytical Services - New Orleans

Associated Lab Samples: 20322394001, 20322394002, 20322394003, 20322394004, 20322394005, 20322394006, 20322394007, 20322394008, 20322394009, 20322394010, 20322394011, 20322394012, 20322394013, 20322394014, 20322394015

METHOD BLANK: 1604268

Matrix: Water

Associated Lab Samples: 20322394001, 20322394002, 20322394003, 20322394004, 20322394005, 20322394006, 20322394007, 20322394008, 20322394009, 20322394010, 20322394011, 20322394012, 20322394013, 20322394014, 20322394015

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Tungsten	ug/L	ND	1.0	0.37	07/10/24 14:31	N2

LABORATORY CONTROL SAMPLE: 1604269

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Tungsten	ug/L	60	61.8	103	80-120	N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1604270 1604271

Parameter	Units	20322394001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Tungsten	ug/L	ND	60	60	64.0	63.5	107	106	75-125	1	20	N2

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

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QUALIFIERS

Project: WG2314166 / L1751436
Pace Project No.: 20322394

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.
ND - Not Detected at or above adjusted reporting limit.
TNTC - Too Numerous To Count
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
MDL - Adjusted Method Detection Limit.
PQL - Practical Quantitation Limit.
RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.
S - Surrogate
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
LCS(D) - Laboratory Control Sample (Duplicate)
MS(D) - Matrix Spike (Duplicate)
DUP - Sample Duplicate
RPD - Relative Percent Difference
NC - Not Calculable.
SG - Silica Gel - Clean-Up
U - Indicates the compound was analyzed for, but not detected.
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
TNI - The Nelac Institute

ANALYTE QUALIFIERS

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WG2314166 / L1751436

Pace Project No.: 20322394

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
20322394001	L1751436-01	EPA 3010	334364	EPA 6020A	334425
20322394002	L1751436-02	EPA 3010	334364	EPA 6020A	334425
20322394003	L1751436-03	EPA 3010	334364	EPA 6020A	334425
20322394004	L1751436-04	EPA 3010	334364	EPA 6020A	334425
20322394005	L1751436-05	EPA 3010	334364	EPA 6020A	334425
20322394006	L1751436-06	EPA 3010	334364	EPA 6020A	334425
20322394007	L1751436-07	EPA 3010	334364	EPA 6020A	334425
20322394008	L1751436-08	EPA 3010	334364	EPA 6020A	334425
20322394009	L1751436-09	EPA 3010	334364	EPA 6020A	334425
20322394010	L1751436-10	EPA 3010	334364	EPA 6020A	334425
20322394011	L1751436-11	EPA 3010	334364	EPA 6020A	334425
20322394012	L1751436-12	EPA 3010	334364	EPA 6020A	334425
20322394013	L1751436-13	EPA 3010	334364	EPA 6020A	334425
20322394014	L1751436-14	EPA 3010	334364	EPA 6020A	334425
20322394015	L1751436-15	EPA 3010	334364	EPA 6020A	334425

REPORT OF LABORATORY ANALYSIS

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18541/29

Sub-Contract Chain of Custody

Batch Date/Time: 06/28/24 14:06
 Sub-Contract Lab: PACESRLA
 Address: 1000 Riverbend Blvd Suite
 F
 City/State: St. Rose, LA 70087
 Contact:
 devin.mcdougal@pacelabs.com
 Owner Lab: PACEMTJL
 Address: 12065 Lebanon Rd.
 City/State: Mt. Juliet, TN 37122
 Phone: (615) 773-9756
 Fax: (615) 758-5859

WO: WG2314166
 Email: MTJLSuboutTeam@pacelabs.com
 Results Due Date: 07/12/24
 ESC Purchase Order #: L1751436
 Send Reports to: Angela Ford



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 Phone: (615) 773-9756
 Fax: (615) 758-5859

Sample ID Container ID	Matrix	State	Collect Date	Description	Sample Number Lab Use Only	Sample Comments Lab Use Only
MW-1	GW	AR	06/25/24 09:08	Tungsten by 6020	1. L1751436-01	
MW-2	GW	AR	06/25/24 10:28	Tungsten by 6020	2. L1751436-02	
MW-3	GW	AR	06/25/24 10:52	Tungsten by 6020	3. L1751436-03	
MW-4	GW	AR	06/25/24 10:10	Tungsten by 6020	4. L1751436-04	
MW-5	GW	AR	06/25/24 11:09	Tungsten by 6020	5. L1751436-05	
MW-6	GW	AR	06/25/24 11:26	Tungsten by 6020	6. L1751436-06	
MW-7	GW	AR	06/25/24 09:40	Tungsten by 6020	7. L1751436-07	
MW-78	GW	AR	06/25/24 09:08	Tungsten by 6020	8. L1751436-08	
MW-9	GW	AR	06/25/24 08:45	Tungsten by 6020	9. L1751436-09	
MW-10	GW	AR	06/25/24 10:45	Tungsten by 6020	10. L1751436-10	
MW-11	GW	AR	06/25/24 11:20	Tungsten by 6020	11. L1751436-11	
LEACHATE POND	GW	AR	06/25/24 11:11	Tungsten by 6020	12. L1751436-12	
DUPLICATE	GW	AR	06/25/24 12:30	Tungsten by 6020	13. L1751436-13	
ACID BLANK	GW	AR	06/25/24 12:15	Tungsten by 6020	14. L1751436-14	
EQUIPMENT BLANK	GW	AR	06/25/24 09:40	Tungsten by 6020	15. L1751436-15	

*= Container used for multiple Samples and/or Analyses

Relinquished by: [Signature] Date 6-28-24

Received by: [Signature] Date 6-28-24

Relinquished by: [Signature] Date 6-28-24

Received by: [Signature] Date 6-28-24

WO#: 20322394



7315 3208 0575



Sample Condition Upon

WO#: 20322394

PM: DRM

Due Date: 07/16/24

CLIENT: BR-PACE PAN

1000 Riverbend Blvd, Suite F, St. Rose, LA 70087

Cooler Inspected by/date:

JMB/7/2/2024

Means of receipt:		<input type="checkbox"/> Pace	<input type="checkbox"/> Client	<input type="checkbox"/> UPS	<input type="checkbox"/> FedEx	<input type="checkbox"/> Other:
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	Were custody seals present on the cooler?			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	If custody seals were present, were they intact and unbroken?			
Method:		<input type="checkbox"/> Temperature Blank	<input type="checkbox"/> Against Bottles	IR Gun ID: _____ IR Gun Correction Factor: _____ °C		
Cooler #1	Cooler Temp °C:	_____ (Actual/True)		Samples on ice	pH Strip Lot #	
Cooler #2	Cooler Temp °C:	_____ (Actual/True)		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2010623	
Cooler #3	Cooler Temp °C:	_____ (Actual/True)		Method of coolant:		
Cooler #4	Cooler Temp °C:	_____ (Actual/True)		<input type="checkbox"/> Wet <input type="checkbox"/> Ice Packs <input type="checkbox"/> Dry Ice <input checked="" type="checkbox"/> None		
Tracking #: 7315 3208 0575						
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	Is a temperature blank present?			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	Was a chain of custody (COC) received?			
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> NA	Was the line and profile number listed on the COC?			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	Were all coolers received at or below 6.0°C? If no, notify Project Manager via email. Email Notification Date and Time: _____			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	Were proper custody procedures (relinquished/received) followed?			
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> NA	Is the sampler name and signature on the COC?			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	Were sample IDs listed on the COC and all sample containers?			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	Was collection date & time listed on the COC and all sample containers?			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	Did all container label information (ID, date, time) agree with the COC?			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	Were tests to be performed listed on the COC?			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	Did all samples arrive in the proper containers for each test and in good condition (unbroken, lids on, etc.)?			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	Was adequate sample volume available?			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	Were all samples received within ½ the holding time or 48 hours, whichever comes first?			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	Were all samples containers accounted for? (No missing/excess)			
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA	Were VOA, 8015C (GRO/VPH), and RSK-175 samples free of bubbles > "pea size" (1/4" or 6mm in diameter) in any of the VOA vials?			
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA	Was there a trip blank present?			
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA	Filtered volume received for dissolved tests? If no, list affected sample(s) in comments below.			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	Were all metals/nutrient samples received at a pH of < 2?			
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA	Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?			
If No, was preservative added? <input type="checkbox"/> Yes <input type="checkbox"/> No If added, record lots. Dispenser/pipette lot #: _____ HNO3 _____ H2SO4 _____ NaOH _____ Date: _____ Time: _____						
Comments:						