

# Texas Commission on Environmental Quality Waste Permits Division Correspondence Cover Sheet

Date: 2/22/2024 Facility Name: <u>Monticello Steam Electric Station</u> Permit or Registration No.: <u>CCR114</u> Nature of Correspondence:

Initial/New

Response/Revision to TCEQ Tracking No.: \_\_\_\_\_ (from subject line of TCEQ letter regarding initial submission)

Affix this cover sheet to the front of your submission to the Waste Permits Division. Check appropriate box for type of correspondence. Contact WPD at (512) 239-2335 if you have questions regarding this form.

Applications	Reports and Notifications
New Notice of Intent	Alternative Daily Cover Report
Notice of Intent Revision	Closure Report
New Permit (including Subchapter T)	Compost Report
New Registration (including Subchapter T)	Groundwater Alternate Source Demonstration
🗌 Major Amendment	Groundwater Corrective Action
🗌 Minor Amendment	Groundwater Monitoring Report
Limited Scope Major Amendment	Groundwater Background Evaluation
Notice Modification	Landfill Gas Corrective Action
Non-Notice Modification	Landfill Gas Monitoring
Transfer/Name Change Modification	Liner Evaluation Report
Temporary Authorization	Soil Boring Plan
Uvoluntary Revocation	Special Waste Request
Subchapter T Disturbance Non-Enclosed Structure	Other:
Other:	

#### Table 1 - Municipal Solid Waste Correspondence

#### Table 2 - Industrial & Hazardous Waste Correspondence

Applications	Reports and Responses
□ New	Annual/Biennial Site Activity Report
🗌 Renewal	CPT Plan/Result
Post-Closure Order	Closure Certification/Report
🗌 Major Amendment	Construction Certification/Report
🗌 Minor Amendment	CPT Plan/Result
CCR Registration	Extension Request
CCR Registration Major Amendment	Groundwater Monitoring Report
CCR Registration Minor Amendment	🗌 Interim Status Change
Class 3 Modification	Interim Status Closure Plan
Class 2 Modification	Soil Core Monitoring Report
Class 1 ED Modification	Treatability Study
Class 1 Modification	🗌 Trial Burn Plan/Result
Endorsement	Unsaturated Zone Monitoring Report
Temporary Authorization	Waste Minimization Report
□ Voluntary Revocation	Other:
335.6 Notification	
Other:	



February 22, 2024

Texas Commission on Environmental Quality Industrial and Hazardous Waste Permits Section - CCR MC-130 PO Box 13087 Austin, Texas 78711-3087

#### RE: Monticello Steam Electric Station – Ash Settling Ponds – CCR Annual Groundwater Report

On behalf of Golden Eagle Development, LLC (Golden Eagle), Gemini Engineering is submitting the 2023 Annual CCR Groundwater Monitoring Report for the ash settling ponds at the former Monticello Steam Electric Station (MOSES).

Based on the attached report, we are recommending closure of the CCR unit prior to approval of the CCR registration. The CCR registration application can be withdrawn, and groundwater Detection Monitoring can be discontinued.

Please contact me at (512) 566-6878 or A.Kaiser@GeminiSTL.com if you have any questions or comments.

Sincerely,

Han J. Vaiser

Adam J. Kaiser, PE Senior Project Engineer Gemini Engineering, LLC

CC: Golden Eagle Development



# 2023 Annual CCR Groundwater Monitoring Report Bottom Ash Ponds

Former Monticello Steam Electric Station FM 127, Mt. Pleasant, Titus County, Texas

Prepared for:

**GOLDEN EAGLE DEVELOPMENT LLC** 

Prepared by:

**Gemini Engineering LLC** 2275 Cassens Drive, Suite 118 Fenton, Missouri 63026

February 2024



# TABLE OF CONTENTS

LIST (	OF FIGURES	2
	DF TABLES	
	DF APPENDICES	
	NYMS AND ABBREVIATIONS	
1.0	INTRODUCTION	4
2.0	MONITORING AND CORRECTIVE ACTION PROGRAM STATUS	5
3.0	KEY ACTIONS COMPLETED IN 2023	6
4.0	PROBLEMS ENCOUNTERED AND ACTIONS TO RESOLVE THE PROBLEMS	7
5.0	KEY ACTIVITIES PLANNED FOR 2024	8
6.0	REFERENCES	9

## LIST OF FIGURES

Figure 1	Well Locations & Potentiometric – May
Figure 2	Well Locations & Potentiometric – November
Figure 3	Well Locations & Potentiometric – February 2024

## LIST OF TABLES

- Table 1
   Statistical Background Values
- Table 2
   Laboratory Results Summary

# LIST OF APPENDICES

Appendix A Laboratory Analytical Reports



# ACRONYMS AND ABBREVIATIONS

- mg/L Milligrams per Liter
- NA Not Analyzed



# **1.0 INTRODUCTION**

On behalf of Golden Eagle Development, LLC (Golden Eagle), Gemini Engineering LLC (Gemini) has prepared this report as an update to the annual groundwater monitoring and corrective action reporting requirements of the Coal Combustion Residuals (CCR) Rule for the Northeast Ash Water Retention Pond, West Ash Settling Pond, and Southwest Ash Settling Pond at the Monticello Steam Electric Station (MOSES) in Mount Pleasant, Texas. The CCR units and CCR monitoring well network are shown on Figure 1. Golden Eagle acquired MOSES in December 2019 from Luminant Generation Company, LLC (Luminant).

The CCR Rule (40 Code of Federal Regulations (CFR) 257 Subpart D - *Standards for the Receipt of Coal Combustion Residuals in Landfills and Surface Impoundments*) has been promulgated by the United States Environmental Protection Agency (USEPA) to regulate the management and disposal of CCRs as solid waste under Resource Conservation and Recovery Act (RCRA) Subtitle D. This report is in accordance with 30 Texas Administrative Code (30 TAC) Chapter 352, Coal Combustion Residuals Waste Management which establishes a CCR registration and management program to regulate CCR waste and requires the Owner/Operator to obtain a CCR registration and implement a groundwater detection/monitoring program.

For existing CCR landfills and surface impoundments, the CCR Rule requires that the owner or operator prepare an annual groundwater monitoring and corrective action report to document the status of the groundwater monitoring and corrective action program for the CCR unit for the previous calendar year. Per 40 CFR 257.90(e) and 30 TAC Chapter 352, Subchapter H of the CCR Rule, the report should contain the following information, to the extent available:

- (1) 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;
- (2) 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;
- (3) 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;
- (4) 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); and
- (5) Other information required to be included in the annual report as specified in §257.90 through §257.98.



# 2.0 MONITORING AND CORRECTIVE ACTION PROGRAM STATUS

The MOSES CCR Ash Settling Ponds are currently in the Detection Monitoring Program. Luminant collected the initial Detection Monitoring Program groundwater samples from the Bottom Ash Ponds CCR monitoring well network in September 2017. Detection Monitoring groundwater samples have been collected from the CCR groundwater monitoring network on a semi-annual basis in 2018 through 2023, as required by the CCR Rule. All CCR groundwater monitoring wells were sampled for Appendix III constituents during the detection monitoring sampling events, except W-29 in November 2023. The demolition of the steam generating units caused unsafe conditions near W-29 in 2021. In 2022, it was discovered that the demolition contractors damaged W-29; however, a groundwater sample was collected from the monitoring well in May 2023. The following table provides a summary of the Detection Monitoring Program:

Sampling Dates	Parameters	SSIs	Assessment Monitoring
Sampling Dates	r ar ameter s	0018	Program Established
September 2017	Appendix III	No	No
June 2018	Appendix III	No	No
September 2018	Appendix III	No	No
May 2019	Appendix III	No	No
October 2019	Appendix III	No	No
April 2020	Appendix III	Yes*	No
October/November 2020	Appendix III	Yes*	No
March 2021	Appendix III	No	No
August 2021	Appendix III	No	No
May 2022	Appendix III	No	No
December 2022	Appendix III	No	No
May 2023	Appendix III	No	No
November 2023	Appendix III	No	No

Detection Monitoring Program Summary

\* SSIs due to equipment issues

The statistical background values and Appendix III analytical data are presented in Tables 1 and 2, respectively, and the 2023 laboratory analytical reports are provided in Appendix A. Table 1 has been updated with some new background values due to a re-evaluation of the background parameters. There were no Statistically Significant Increases (SSIs) of downgradient point of compliance monitoring wells of Appendix III parameters in 2017 through 2023. An SSI is a detection monitoring constituent concentration in a downgradient compliance monitoring well that is above the respective background value. The analytical data from the 2023 detection monitoring sampling events were evaluated using procedures described in the Statistical Analysis Plan (PBW 2017) to identify SSIs of Appendix III parameters over background concentrations. In 2020, there was an SSI for one parameter; however, the issue was identified as an equipment malfunction. Following the repair of the pH meter, pH levels have been within the Statistical Background Values for downgradient monitoring wells.



## 3.0 KEY ACTIONS COMPLETED IN 2023

Detection Monitoring Program groundwater monitoring events were completed in May & November 2023. The groundwater analytical results for the background and downgradient point of compliance wells are summarized in Table 2. The CCR units, monitoring wells, the groundwater potentiometric surfaces are illustrated on Figure 1, Figure 2, and Figure 3.

The background data was reevaluated, and an updated report was provided to TCEQ (Gemini, 2023b).

No CCR wells were installed or decommissioned in 2023.



#### 4.0 PROBLEMS ENCOUNTERED AND ACTIONS TO RESOLVE THE PROBLEMS

The demolition of the steam generating units caused unsafe conditions near W-29 in 2021, then the monitoring well was damaged. The monitoring well was found, and the damage was above ground to the upper riser, so the monitoring well was salvageable. The monitoring well has not been resurveyed, but it was purged, and a sample was collected in December 2022. However, the groundwater sample technician reported issues with the monitoring well in November 2023. Monitoring well W-29 will be reevaluated in the spring of 2024. Due to the dry conditions in the fall, the potentiometric groundwater map had data gaps with an inconclusive groundwater direction. The groundwater was remeasured in February after several significant rain events. Additionally, TPDES monitoring wells were included to provide additional data. The potentiometric data is summarized on Figure 3.

Several November 2023 analytic results exceeded hold times because of delays from the shipping company, therefore; some of the concentrations should be considered estimates. The analytical results compared to past results were for the parameters past the hold times appear to be within the typical concentrations.



# 5.0 KEY ACTIVITIES PLANNED FOR 2023

The following key activities are planned for 2024:

- Investigate the damage issues with W-29.
- Discontinue the Detection Monitoring Program due site closure per 30 TAC 352, Subchapter J.



## 6.0 **REFERENCES**

Gemini Engineering, LLC, 2023b. Updated Coal Combustion Residual Background Evaluation Report, Former Monticello Steam Electric Station, Ash Ponds, Mount Pleasant, Texas. December.

Gemini Engineering, LLC, 2023a. Coal Combustion Residual Rule Groundwater Sampling Analysis Plan, Former Monticello Steam Electric Station, Ash Ponds, Mount Pleasant, Texas. April.

Pastor, Behling & Wheeler, LLC, 2017. Coal Combustion Residual Rule Statistical Analysis Plan, Monticello Steam Electric Station, Ash Ponds, Mount Pleasant, Texas.



# **Signature Page**

Elan J. Kaiser

Adam J. Kaiser, P.E. Senior Project Engineer **Gemini Engineering, LLC** Texas PE No 126387, Expires 3/31/2024 Texas Engineering Firm F-23183



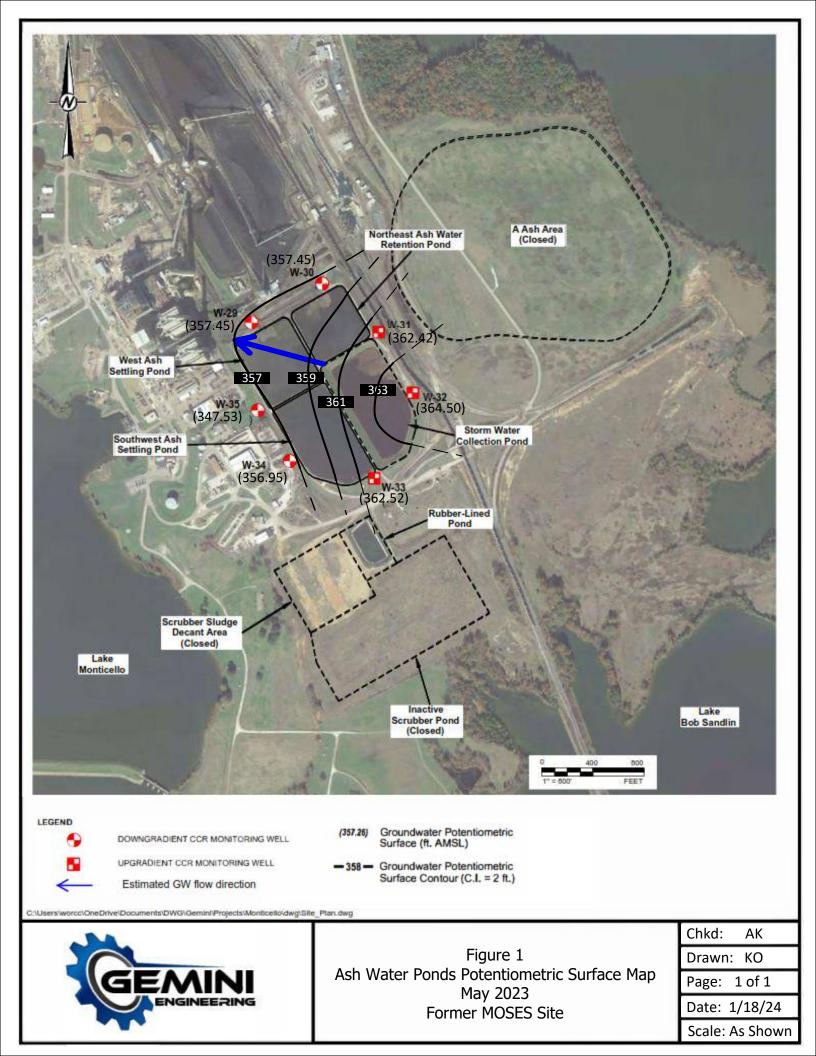
2/22/2024

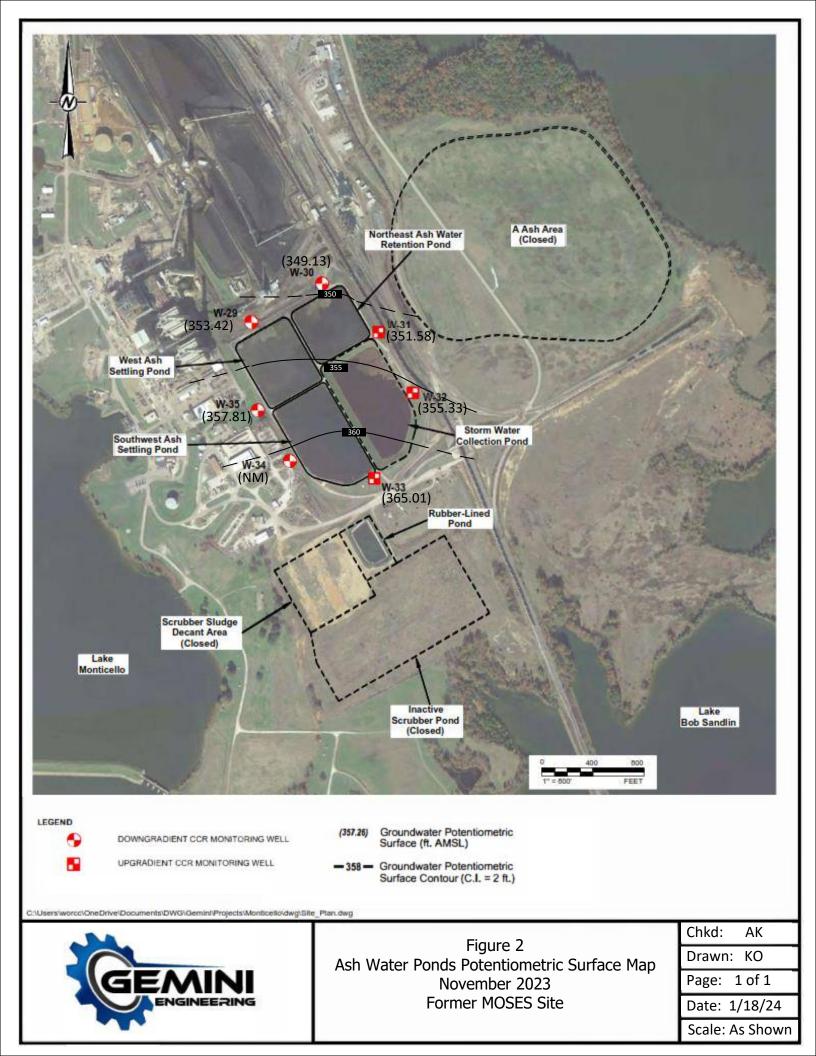
TABLES

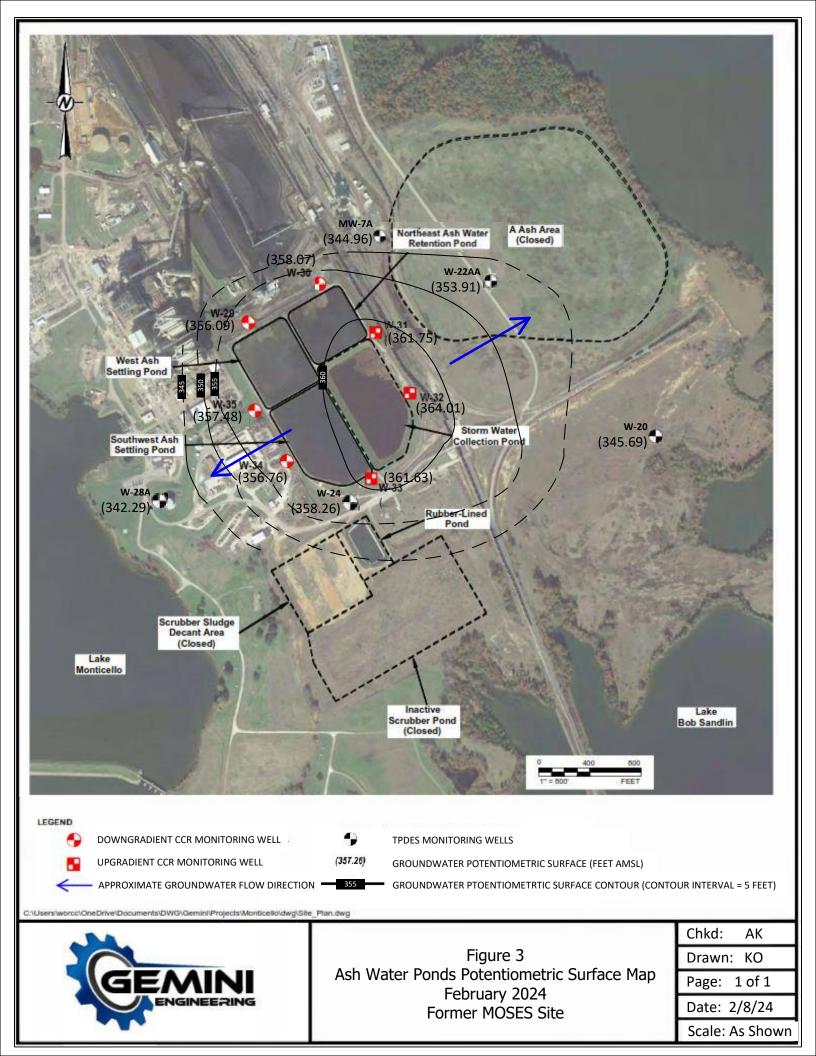
# Table 1Statistical Background ValuesMOSES Bottom Ash Ponds

Parameter	Statistical Background Value
Boron (B) (mg/L)	8.52
Calcium (Ca) (mg/L)	311
Chloride (Cl) (mg/L)	157
Fluoride (F) (mg/L)	2.96
field pH (s.u.)	5.27 -
	7.36
Sulfate $(SO_4)$ (mg/L)	1,193
Total Dissolved Solids (TDS) (mg/L)	2,159

# **FIGURES**







TABLES

# Table 1Statistical Background ValuesMOSES Bottom Ash Ponds

Parameter	Statistical Background Value
Boron (B) (mg/L)	8.52
Calcium (Ca) (mg/L)	311
Chloride (Cl) (mg/L)	157
Fluoride (F) (mg/L)	2.96
field pH (s.u.)	5.27 -
	7.36
Sulfate $(SO_4)$ (mg/L)	1,193
Total Dissolved Solids (TDS) (mg/L)	2,159

#### Table 2 Analytical Results MOSES CCR BAP Monitoring 2023

aradiont Mclin	Date Sampled	B (mg/L)	Ca (mg/L)	CI (mg/L)	F (mg/L)	pH (s.u.)	SO <sub>4</sub> (mg/L)	TDS (mg
gradient Wells W-31	10/15/15	3.74	130	66.2	0.14	5.67	808	1,510
11-01	12/07/15	3.81	136	51.2	0.28 J	5.86	714	1,250
	02/22/16	3.65	130	49.2	0.12	5.79	694	1,500
	04/04/16	3.80	119	48.9	0.22 J	6.06	737	1,220
	06/06/16	3.84	104	47.8	<0.10	6.17	701	1,150
	08/08/16	2.67	92.4	58.4	<0.10	6.11	396	862
	10/12/16	1.74	71.7	55.1	0.11	6.13	292	654
	12/29/16	3.15	89.7	49.3	<0.10	4.99	729	1,150
	09/20/17	3.88	96.3	49.8	<0.10	6.72	316	696 925
	06/08/18	3.28	86.3	48.6	0.30 J	6.72	577	
	09/10/18	3.19	86.5	46.3	0.22 J	4.84	595	973
	05/09/19	0.88	36.5	54.0	0.16 J	6.87	115	319
	10/30/19	1.29	35.6	49.1	0.10 J	6.84	131	343
	04/26/20	0.79	34.4	51.1	0.09 J	7.41	86	279
	10/31/20	1.27	36.9	48.3	0.08 J	6.60	156	384
	03/24/21	1.38	41.4 47.7 0.12 J 5.59		173	373		
	08/15/21	1.84	51.6	49.9	0.07 J	5.52	242	400
	05/30/22	2.06	57.5	57.0	0.167	5.44	409	477
-	12/03/22	1.15	36.5	49.3	0.0737	5.19	161	362
	05/28/23	1.20	37.2	45.3	< 0.10	5.75	155	348
	11/26/23	1.61	43.3	55.6 Q	0.186 Q	5.37	188 Q	557
W-32	10/15/15	5.85	282	160	0.44	6.72	1,040	1,970
	12/07/15	6.76	260	122	1.19	6.74	872	1,610
	02/22/16	6.95	247	124	0.79	6.74	850	1,870
	04/04/16	6.50	239	139	1.01	6.73	844	1,380
	06/06/16	6.18	192	105	0.76	6.71	694	1,440
L_	08/08/16	4.43	261	110	0.54	6.71	945	1,650
	10/12/16	6.32	284	134	0.34	6.19	986	1,820
	12/29/16	6.38	310	147	0.57	6.46	1,210	1,950
ſ	09/20/17	5.81	270	118	0.38 J	6.79	901	1,920
	06/08/18	5.79	380	149	1.71	6.74	1,340	2,390
	09/10/18	5.38	370	140	1.19	6.56	1,270	2,200
	05/09/19	3.83	91	21.9	1.83	6.73	236	479
	10/30/19	4.24	130	35.0	1.70	6.91	363	746
	04/26/20	1.96	48.6	9.7	2.29	8.72	96	290
	10/31/20	2.85	64.8	12.5	1.34	8.16	141	344
	03/24/21	1.62	40.0	5.32	2.18	7.09	42.9	204
	08/15/21	2.07	52.3	9.64	1.75	7.12	76.3	270
	05/30/22							
		1.97	266	8.68	1.40	7.14	51.2	266
	12/03/22	1.43	78.9	7.93	1.72	7.25	134	347
	05/28/23	1.37	85.8	5.90	1.70	7.34	213	420
	05/28/23 Dup	1.46	86.0	5.70	1.80	7.33	212	412
	11/26/23	1.41	75.7	5.49 Q	1.65 Q	7.13	195 Q	395 C
	11/26/23 11/26/2023 Dup	1.41	75.7	5.49 Q	1.65 Q	7.13	195 Q 179 O	
W/ 22	11/26/2023 Dup	1.46	75.3	5.72 Q	1.64 Q	7.14	179 Q	387
W-33	11/26/2023 Dup 10/15/15	<b>1.46</b> 6.36	<b>75.3</b> 311	<b>5.72 Q</b> 162	<b>1.64 Q</b> 2.01	<b>7.14</b> 7.14	<b>179 Q</b> 1,080	<b>387</b> 1,630
W-33	<b>11/26/2023 Dup</b> 10/15/15 12/07/15	<b>1.46</b> 6.36 6.68	75.3 311 252	5.72 Q 162 120	1.64 Q 2.01 2.80	<b>7.14</b> 7.14 7.12	<b>179 Q</b> 1,080 853	387 1,630 1,680
W-33	11/26/2023 Dup 10/15/15	<b>1.46</b> 6.36	<b>75.3</b> 311	<b>5.72 Q</b> 162	<b>1.64 Q</b> 2.01	<b>7.14</b> 7.14	<b>179 Q</b> 1,080	387 1,630 1,680
W-33	<b>11/26/2023 Dup</b> 10/15/15 12/07/15	<b>1.46</b> 6.36 6.68	75.3 311 252	5.72 Q 162 120	1.64 Q 2.01 2.80	<b>7.14</b> 7.14 7.12	<b>179 Q</b> 1,080 853	387 1,630 1,680 1,960
W-33	11/26/2023 Dup 10/15/15 12/07/15 02/22/16	1.46 6.36 6.68 7.52	75.3 311 252 243	<b>5.72 Q</b> 162 120 124	1.64 Q 2.01 2.80 2.40	<b>7.14</b> 7.14 7.12 7.11	<b>179 Q</b> 1,080 853 790	387 1,630 1,680 1,960 1,540
W-33	11/26/2023 Dup 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16	1.46           6.36           6.68           7.52           7.24           7.08	<b>75.3</b> 311 252 243 278 229	<b>5.72 Q</b> 162 120 124 171 120	1.64 Q 2.01 2.80 2.40 2.50 2.12	7.14 7.14 7.12 7.11 7.14 7.10	179 Q 1,080 853 790 935 700	387 1,630 1,680 1,960 1,540 1,490
W-33	11/26/2023 Dup 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 08/08/16	1.46 6.36 6.68 7.52 7.24 7.08 6.37	<b>75.3</b> 311 252 243 278 229 215	<b>5.72 Q</b> 162 120 124 171 120 108	1.64 Q 2.01 2.80 2.40 2.50 2.12 1.92	<b>7.14</b> 7.14 7.12 7.11 7.14 7.10 6.97	179 Q           1,080           853           790           935           700           655	387 1,630 1,680 1,960 1,540 1,490 1,300
W-33	11/26/2023 Dup 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 08/08/16 10/12/16	1.46           6.36           6.68           7.52           7.24           7.08           6.37           5.15	<b>75.3</b> 311 252 243 278 229 215 237	<b>5.72 Q</b> 162 120 124 171 120 108 111	1.64 Q 2.01 2.80 2.40 2.50 2.12 1.92 2.43	7.14 7.14 7.12 7.11 7.14 7.10 6.97 6.84	179 Q 1,080 853 790 935 700 655 797	387 1,630 1,680 1,960 1,540 1,540 1,300 1,540
W-33	11/26/2023 Dup 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 08/08/16 10/12/16 12/29/16	1.46           6.36           6.68           7.52           7.24           7.08           6.37           5.15           5.23	<b>75.3</b> 311 252 243 278 229 215 237 275	<b>5.72 Q</b> 162 120 124 171 120 108 111 125	1.64 Q 2.01 2.80 2.40 2.50 2.12 1.92 2.43 2.25	7.14 7.14 7.12 7.11 7.14 7.10 6.97 6.84 6.82	179 Q 1,080 853 790 935 700 655 797 965	387 1,630 1,680 1,960 1,540 1,540 1,540 1,730
W-33	11/26/2023 Dup 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 08/08/16 10/12/16 12/29/16 09/20/17	1.46           6.36           6.68           7.52           7.24           7.08           6.37           5.15           5.23           5.89	75.3 311 252 243 278 229 215 237 275 271	<b>5.72 Q</b> 162 120 124 171 120 108 111 125 112	1.64 Q 2.01 2.80 2.40 2.50 2.12 1.92 2.43 2.25 2.04	7.14 7.14 7.12 7.11 7.14 7.10 6.97 6.84 6.82 6.73	179 Q           1,080           853           790           935           700           655           797           965           863	387 1,630 1,680 1,960 1,540 1,540 1,300 1,540 1,730 1,970
W-33	11/26/2023 Dup 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 08/08/16 10/12/16 12/29/16	1.46           6.36           6.68           7.52           7.24           7.08           6.37           5.15           5.23	<b>75.3</b> 311 252 243 278 229 215 237 275	5.72 Q 162 120 124 171 120 108 111 125 112 142	1.64 Q 2.01 2.80 2.40 2.50 2.12 1.92 2.43 2.25 2.04 3.59	7.14 7.14 7.12 7.11 7.14 7.10 6.97 6.84 6.82 6.73 6.55	179 Q 1,080 853 790 935 700 655 797 965	387 1,630 1,680 1,960 1,540 1,540 1,300 1,540 1,730 1,970
W-33	11/26/2023 Dup 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 08/08/16 10/12/16 12/29/16 09/20/17	1.46           6.36           6.68           7.52           7.24           7.08           6.37           5.15           5.23           5.89	75.3 311 252 243 278 229 215 237 275 271	<b>5.72 Q</b> 162 120 124 171 120 108 111 125 112	1.64 Q 2.01 2.80 2.40 2.50 2.12 1.92 2.43 2.25 2.04	7.14 7.14 7.12 7.11 7.14 7.10 6.97 6.84 6.82 6.73	179 Q           1,080           853           790           935           700           655           797           965           863	387 1,630 1,680 1,960 1,540 1,540 1,300 1,540 1,730 1,730 1,970 2,230
W-33	11/26/2023 Dup 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 06/08/16 10/12/16 12/29/16 09/20/17 06/08/18 09/10/18	1.46           6.36           6.68           7.52           7.24           7.08           6.37           5.15           5.23           5.89           6.01	75.3 311 252 243 278 229 215 237 275 271 364	5.72 Q 162 120 124 171 120 108 111 125 112 142	1.64 Q 2.01 2.80 2.40 2.50 2.12 1.92 2.43 2.25 2.04 3.59	7.14 7.14 7.12 7.11 7.14 7.10 6.97 6.84 6.82 6.73 6.55 6.78	179 Q 1,080 853 790 935 700 655 797 965 863 1,200	1,630 1,680 1,960 1,540 1,300 1,540 1,730 1,970 2,230 2,120
W-33	11/26/2023 Dup 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 10/12/16 12/29/16 09/20/17 06/08/18 09/10/18 05/09/19	1.46           6.36           6.68           7.52           7.24           7.08           6.37           5.15           5.23           5.89           6.01           5.45           3.41	75.3 311 252 243 278 229 215 237 275 271 364 351 93.7	5.72 Q 162 120 124 171 120 108 111 125 112 142 142 132 36.7	1.64 Q 2.01 2.80 2.40 2.50 2.12 1.92 2.43 2.25 2.04 3.59 2.99 1.41	7.14 7.14 7.12 7.11 7.14 7.10 6.97 6.84 6.82 6.73 6.55 6.78 6.85	179 Q 1,080 853 790 935 700 655 797 965 863 1,200 1,160 443	387 1,630 1,680 1,960 1,540 1,490 1,300 1,540 1,730 1,970 2,230 2,120 775
W-33	11/26/2023 Dup 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 08/08/16 10/12/16 12/29/16 09/20/17 06/08/18 09/10/18 05/09/19 10/30/19	1.46           6.36           6.68           7.52           7.24           7.08           6.37           5.15           5.23           5.89           6.01           5.45           3.41           5.18	75.3           311           252           243           278           229           215           237           275           271           364           351           93.7           169	5.72 Q 162 120 124 171 120 108 111 125 112 142 132 36.7 39.7	1.64 Q 2.01 2.80 2.50 2.12 1.92 2.43 2.25 2.04 3.59 2.99 1.41 1.21	7.14 7.14 7.12 7.11 7.14 7.10 6.97 6.84 6.82 6.73 6.55 6.78 6.85 6.68	179 Q 1,080 853 790 935 700 655 797 965 863 1,200 1,160 443 477	387 1,630 1,680 1,960 1,540 1,490 1,300 1,540 1,730 1,970 2,230 2,120 775 911
W-33	11/26/2023 Dup 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 08/08/16 10/12/16 12/29/16 09/20/17 06/08/18 09/10/18 05/09/19 10/30/19 04/26/20	1.46           6.36           6.68           7.52           7.24           7.08           5.15           5.23           5.89           6.01           5.45           3.41           5.18           3.43	75.3           311           252           243           278           229           215           237           275           271           364           351           93.7           169           96.4	5.72 Q 162 120 124 171 120 108 111 125 112 142 132 36.7 39.7 17.7	1.64 Q 2.01 2.80 2.40 2.50 2.12 1.92 2.43 2.25 2.04 3.59 2.99 1.41 1.21 3.13	7.14 7.14 7.12 7.11 7.14 7.10 6.97 6.84 6.82 6.73 6.55 6.78 6.85 6.85 6.68 6.85 6.68	179 Q 1,080 853 790 935 700 655 797 965 863 1,200 1,160 443 477 171	387 1,630 1,680 1,960 1,540 1,300 1,540 1,540 1,540 1,540 1,970 2,233 2,120 775 911 580
W-33	11/26/2023 Dup 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 08/08/16 10/12/16 12/29/16 09/20/17 06/08/18 09/10/18 05/09/19 10/30/19 04/26/20 11/01/20	1.46           6.36           6.68           7.52           7.24           7.08           6.37           5.15           5.23           5.89           6.01           5.45           3.41           5.18           3.43           2.33	75.3 311 252 243 278 229 215 237 275 271 364 351 93.7 169 96.4 80.9	5.72 Q 162 120 124 171 120 108 111 125 112 142 132 36.7 39.7 17.7 10.8	1.64 Q 2.01 2.80 2.50 2.12 1.92 2.43 2.25 2.04 3.59 2.99 1.41 1.21 3.13 3.73	7.14 7.12 7.12 7.11 7.14 7.10 6.97 6.84 6.82 6.73 6.55 6.78 6.85 6.78 6.85 6.68 8.35 8.39	179 Q 1,080 853 790 935 700 655 863 1,200 1,160 443 477 171 104	387 1,630 1,680 1,960 1,540 1,300 1,540 1,730 1,540 1,730 1,970 2,230 2,220 775 911 580 387
W-33	11/26/2023 Dup 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 08/08/16 10/12/16 12/29/16 09/20/17 06/08/18 09/10/18 05/09/19 10/30/19 04/26/20 11/01/20 03/24/21	1.46           6.36           6.68           7.52           7.24           7.08           6.37           5.15           5.23           5.45           5.45           3.41           5.18           3.43           2.33           2.32	75.3 311 252 243 278 229 215 237 275 271 364 351 93.7 169 96.4 80.9 77.0	5.72 Q 162 120 124 171 120 108 111 125 112 142 132 36.7 39.7 17.7 10.8 8.55	1.64 Q 2.01 2.80 2.40 2.50 2.12 2.43 2.25 2.04 3.59 2.99 1.41 1.21 3.13 3.73 3.48	7.14 7.12 7.11 7.11 7.10 6.97 6.84 6.82 6.73 6.55 6.78 6.85 6.68 8.35 8.39 7.10	179 Q 1,080 853 790 935 700 655 797 965 863 1,200 1,160 1,160 1,160 1,171 104	387 1,630 1,960 1,540 1,540 1,540 1,540 1,540 1,540 1,540 1,540 1,730 2,230 2,120 775 911 580 387 342
W-33	11/26/2023 Dup 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 08/08/16 10/12/16 12/29/16 09/20/17 06/08/18 09/10/18 05/09/19 10/30/19 04/26/20 11/01/20 03/24/21 08/15/21	1.46           6.36           6.68           7.52           7.24           7.08           6.37           5.15           5.23           5.89           6.01           5.45           3.41           5.18           3.43           2.33	75.3           311           252           243           278           229           215           237           275           271           364           351           93.7           169           96.4           80.9           77.0           61.7	5.72 Q 162 120 124 171 120 108 111 125 112 142 132 36.7 39.7 17.7 10.8 8.55 8.05	1.64 Q 2.01 2.80 2.50 2.12 2.43 2.25 2.04 3.59 2.99 1.41 1.21 3.13 3.73 3.48 4.22	7.14 7.12 7.12 7.11 7.14 7.10 6.97 6.84 6.82 6.73 6.55 6.78 6.85 6.85 6.85 6.85 6.85 8.36 8.39 7.10 7.13	179 Q 1,080 853 790 935 700 655 797 965 863 1,200 1,160 443 477 171 104 55 51.4	387 1,630 1,680 1,960 1,540 1,300 1,540 1,730 1,730 1,730 2,233 2,120 775 911 580 387 382 2,255
W-33	11/26/2023 Dup 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 08/08/16 10/12/16 12/29/16 09/20/17 06/08/18 09/10/18 05/09/19 10/30/19 04/26/20 11/01/20 03/24/21	1.46           6.36           6.68           7.52           7.24           7.08           6.37           5.15           5.23           5.45           5.45           3.41           5.18           3.43           2.33           2.32	75.3 311 252 243 278 229 215 237 275 271 364 351 93.7 169 96.4 80.9 77.0	5.72 Q 162 120 124 171 120 108 111 125 112 142 132 36.7 39.7 17.7 10.8 8.55	1.64 Q 2.01 2.80 2.40 2.50 2.12 2.43 2.25 2.04 3.59 2.99 1.41 1.21 3.13 3.73 3.48	7.14 7.12 7.11 7.11 7.10 6.97 6.84 6.82 6.73 6.55 6.78 6.85 6.68 8.35 8.39 7.10	179 Q 1,080 853 790 935 700 655 797 965 863 1,200 1,160 1,160 1,160 1,171 104	387 1,630 1,960 1,540 1,540 1,540 1,540 1,540 1,540 1,540 1,540 1,730 2,230 2,120 775 911 580 387 342
W-33	11/26/2023 Dup 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 08/08/16 10/12/16 12/29/16 09/20/17 06/08/18 09/10/18 05/09/19 10/30/19 04/26/20 11/01/20 03/24/21 08/15/21	1.46           6.36           6.68           7.52           7.24           7.08           6.37           5.15           5.23           5.89           6.01           5.45           3.41           5.18           3.43           2.33           2.32           1.81	75.3           311           252           243           278           229           215           237           275           271           364           351           93.7           169           96.4           80.9           77.0           61.7	5.72 Q 162 120 124 171 120 108 111 125 112 142 132 36.7 39.7 17.7 10.8 8.55 8.05	1.64 Q 2.01 2.80 2.50 2.12 2.43 2.25 2.04 3.59 2.99 1.41 1.21 3.13 3.73 3.48 4.22	7.14 7.12 7.12 7.11 7.14 7.10 6.97 6.84 6.82 6.73 6.55 6.78 6.85 6.85 6.85 6.85 6.85 8.36 8.39 7.10 7.13	179 Q 1,080 853 790 935 700 655 797 965 863 1,200 1,160 443 477 171 104 55 51.4	387 1,630 1,680 1,960 1,540 1,300 1,540 1,730 1,730 1,730 2,233 2,120 775 911 580 387 382 2,255
W-33	11/26/2023 Dup 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 08/08/16 10/12/16 12/29/16 09/20/17 06/08/18 09/10/18 05/09/19 10/30/19 04/26/20 11/01/20 03/24/21 08/15/21 05/30/22 12/03/22	1.46           6.36           6.68           7.52           7.24           7.08           6.37           5.15           5.23           5.45           3.41           5.18           3.43           2.33           2.32           1.81           1.10           1.17	75.3           311           262           243           278           229           215           237           275           271           364           351           93.7           169           96.9           77.0           61.7           77.5           80.9	5.72 Q 162 120 124 171 120 108 111 125 112 142 132 36.7 39.7 17.7 10.8 8.55 8.05 10.4 9.08	1.64 Q 2.01 2.80 2.40 2.50 2.12 2.43 2.25 2.04 3.59 2.92 2.04 3.59 2.90 1.41 1.21 3.13 3.73 3.48 4.222 3.346	7.14 7.14 7.12 7.11 7.14 7.10 6.97 6.84 6.82 6.73 6.55 6.78 6.85 6.68 8.35 6.68 8.35 7.10 7.13 7.05 7.24	179 Q 1,080 853 790 935 700 655 797 965 863 1,200 1,160 1,160 443 477 171 104 55 51.4 82.9 97.2	387 1,630 1,960 1,960 1,540 1,540 1,570 2,230 2,120 775 911 580 387 342 295 368 337
W-33	11/26/2023 Dup 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 08/08/16 10/12/16 12/29/16 09/20/17 06/08/18 09/10/18 05/09/19 10/30/19 04/26/20 11/01/20 03/24/21 08/15/21 05/30/22 12/03/22 05/28/23	1.46           6.36           6.68           7.52           7.24           7.08           6.37           5.15           5.23           5.89           6.01           5.45           3.41           5.18           3.43           2.33           2.32           1.81           1.10           1.17           1.60	75.3           311           252           243           278           229           215           237           275           271           364           351           93.7           169           96.4           80.9           77.0           61.7           77.5           80.9           101	5.72 Q 162 120 124 171 120 108 111 125 112 142 132 36.7 39.7 17.7 10.8 8.55 8.05 10.4 9.08 6.7	1.64 Q 2.01 2.80 2.40 2.50 2.12 1.92 2.43 2.25 2.04 3.59 2.99 1.41 3.73 3.78 4.22 2.99 1.41 3.13 3.748 4.22 2.93 3.348 4.22 2.93 3.300	7.14 7.12 7.11 7.12 7.11 7.10 6.84 6.82 6.73 6.55 6.88 6.85 6.85 6.85 6.85 6.85 6.85	179 Q 1,080 853 790 935 700 655 797 965 863 1,200 1,160 443 477 171 104 55 51.4 82.9 82.9 97.2 203	387 1,630 1,680 1,960 1,540 1,540 1,540 1,977 2,230 2,122 775 911 580 387 342 295 368 337 471
	11/26/2023 Dup 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 08/08/16 10/12/16 12/29/16 09/20/17 06/08/18 09/10/18 05/09/19 10/30/19 04/26/20 11/01/20 03/24/21 08/15/21 05/30/22 12/03/22	1.46           6.36           6.68           7.52           7.24           7.08           6.37           5.15           5.23           5.45           3.41           5.18           3.43           2.33           2.32           1.81           1.10           1.17	75.3           311           262           243           278           229           215           237           275           271           364           351           93.7           169           96.9           77.0           61.7           77.5           80.9	5.72 Q 162 120 124 171 120 108 111 125 112 142 132 36.7 39.7 17.7 10.8 8.55 8.05 10.4 9.08	1.64 Q 2.01 2.80 2.40 2.50 2.12 2.43 2.25 2.04 3.59 2.92 2.04 3.59 2.90 1.41 1.21 3.13 3.73 3.48 4.222 3.346	7.14 7.14 7.12 7.11 7.14 7.10 6.97 6.84 6.82 6.73 6.55 6.78 6.85 6.68 8.35 6.68 8.35 7.10 7.13 7.05 7.24	179 Q 1,080 853 790 935 700 655 797 965 863 1,200 1,160 1,160 443 477 171 104 55 51.4 82.9 97.2	387 1,630 1,680 1,960 1,540 1,540 1,540 1,977 2,230 2,122 775 911 580 387 342 295 368 337 471
vngradient Weils	11/26/2023 Dup 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 08/08/16 10/12/16 12/29/16 09/20/17 06/08/18 09/10/18 05/09/19 10/30/19 04/26/20 11/01/20 03/24/21 08/15/21 05/30/22 12/03/22 05/28/23 11/26/23	1.46           6.36           6.68           7.52           7.24           7.08           6.37           5.15           5.23           5.89           6.01           5.45           3.41           5.18           3.43           2.33           2.32           1.81           1.10           1.17           1.60           1.23	75.3           311           262           243           278           229           215           237           275           271           364           351           98.7           169           96.4           80.9           77.0           61.7           77.5           80.9           101           93.7	5.72 Q 162 120 124 171 120 108 111 125 112 142 132 36.7 39.7 17.7 10.8 8.55 8.05 10.4 9.08 6.7 7.33 Q	1.64 Q 2.01 2.80 2.40 2.50 2.12 2.43 2.25 2.04 3.59 2.92 2.44 3.59 2.94 3.59 2.94 1.41 1.21 3.13 3.48 4.22 2.93 3.46 3.00 3.07 Q	7.14 7.14 7.12 7.11 7.11 7.10 6.97 6.84 6.82 6.73 6.85 6.78 6.85 6.78 6.85 6.68 8.35 6.85 6.68 8.35 7.10 7.13 7.05 7.24 7.09	179 Q 1,080 853 790 935 700 655 797 965 863 1,200 1,160 1,160 443 477 171 104 55 51.4 82.9 97.2 203 189 Q	387 1,633 1,660 1,960 1,540 1,540 1,540 1,540 1,540 1,540 1,540 1,540 1,970 2,233 2,120 775 911 580 387 342 295 368 337 471 456 C
	11/26/2023 Dup 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 08/08/16 10/12/16 12/29/16 12/29/16 09/20/17 06/08/18 09/10/18 05/09/19 10/30/19 04/26/20 11/01/20 03/24/21 05/30/22 12/03/22 05/28/23 11/26/23 10/15/15	1.46           6.36           6.68           7.52           7.24           7.08           6.37           5.15           5.23           5.89           6.01           5.45           3.41           5.18           3.43           2.33           2.32           1.81           1.10           1.17           1.60           4.58	75.3           311           252           243           278           229           215           237           275           271           364           351           93.7           77.0           61.7           77.0           61.7           77.80.9           101           93.7           111	5.72 Q 162 120 124 171 120 108 111 125 112 142 132 36.7 39.7 17.7 10.8 8.55 8.05 10.4 9.08 6.7 7.33 Q 101	1.64 Q 2.01 2.80 2.40 2.50 2.12 1.92 2.43 2.25 2.04 3.59 2.99 1.41 1.21 3.73 3.73 3.48 4.22 2.93 1.41 4.21 3.348 4.22 2.93 3.46 3.00 3.07 Q	7.14 7.12 7.11 7.12 7.11 7.10 6.87 6.84 6.82 6.73 6.55 6.78 6.85 6.68 6.68 6.68 8.35 8.39 7.10 7.13 7.05 7.24 7.29 7.09	179 Q 1,080 853 790 935 700 655 797 965 863 1,200 1,160 443 477 171 104 55 51.4 82.9 97.2 203 189 Q 861	387 1,633 1,660 1,966 1,540 1,499 1,544 1,300 1,544 1,300 1,544 1,730 1,970 2,230 2,220 775 911 580 387 342 295 368 337 471 456 C 1,680
vngradient Weils	11/26/2023 Dup 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 08/08/16 10/12/16 12/29/16 09/20/17 06/08/18 09/10/18 05/09/19 10/30/19 04/26/20 11/01/20 03/24/21 05/30/22 12/03/22 05/28/23 11/26/23 10/15/15 12/07/15	1.46           6.36           6.68           7.52           7.24           7.08           6.37           5.15           5.23           5.89           6.01           5.45           3.41           5.18           3.43           2.32           1.81           1.10           1.17           1.60           1.23	75.3           311           252           243           278           229           215           237           275           271           364           361           93.7           77.0           61.7           77.5           80.9           93.7           111           86.6	5.72 Q 162 120 124 171 120 108 111 125 112 142 132 36.7 39.7 17.7 10.8 8.55 8.05 10.4 9.08 6.7 7.33 Q	1.64 Q 2.01 2.80 2.50 2.12 1.92 2.43 2.25 2.04 3.59 2.99 1.41 3.13 3.73 3.48 4.22 2.93 3.46 3.00 3.07 Q	7.14 7.12 7.12 7.11 7.14 7.10 6.97 6.84 6.82 6.73 6.55 6.78 6.85 6.68 8.35 6.68 8.35 7.10 7.13 7.05 7.24 7.29 7.09	179 Q 1,080 853 790 935 700 655 797 965 863 1,200 1,160 443 477 171 104 55 51.4 82.9 97.2 203 189 Q 861 501	387 1,633 1,660 1,960 1,540 1,300 1,540 1,733 2,122 775 387 3422 295 368 337 471 456 C 1,680 1,020
vngradient Weils	11/26/2023 Dup 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 08/08/16 10/12/16 12/29/16 12/29/16 09/20/17 06/08/18 09/10/18 05/09/19 10/30/19 04/26/20 11/01/20 03/24/21 05/30/22 12/03/22 05/28/23 11/26/23 10/15/15	1.46           6.36           6.68           7.52           7.24           7.08           6.37           5.15           5.23           5.89           6.01           5.45           3.41           5.18           3.43           2.33           2.32           1.81           1.10           1.17           1.60           4.58	75.3           311           252           243           278           229           215           237           275           271           364           351           93.7           77.0           61.7           77.0           61.7           77.80.9           101           93.7           111	5.72 Q 162 120 124 171 120 108 111 125 112 142 132 36.7 39.7 17.7 10.8 8.55 8.05 10.4 9.08 6.7 7.33 Q 101	1.64 Q 2.01 2.80 2.40 2.50 2.12 1.92 2.43 2.25 2.04 3.59 2.99 1.41 1.21 3.73 3.73 3.48 4.22 2.93 1.41 4.21 3.348 4.22 2.93 3.46 3.00 3.07 Q	7.14 7.12 7.11 7.12 7.11 7.10 6.87 6.84 6.82 6.73 6.55 6.78 6.85 6.68 6.68 6.68 8.35 8.39 7.10 7.13 7.05 7.24 7.29 7.09	179 Q 1,080 853 790 935 700 655 797 965 863 1,200 1,160 443 477 171 104 55 51.4 82.9 97.2 203 189 Q 861	387 1,633 1,660 1,960 1,540 1,300 1,540 1,733 2,122 775 387 3422 295 368 337 471 456 C 1,680 1,020
vngradient Weils	11/26/2023 Dup 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 08/08/16 10/12/16 12/29/16 09/20/17 06/08/18 09/10/18 05/09/19 10/30/19 04/26/20 11/01/20 03/24/21 05/30/22 12/03/22 05/28/23 11/26/23 10/15/15 12/07/15	1.46           6.36           6.68           7.52           7.24           7.08           6.37           5.15           5.23           5.89           6.01           5.45           3.41           5.18           3.43           2.32           1.81           1.10           1.17           1.60           1.23	75.3           311           252           243           278           229           215           237           275           271           364           361           93.7           77.0           61.7           77.5           80.9           93.7           111           86.6	5.72 Q 162 120 124 171 120 108 111 125 112 142 132 36.7 39.7 17.7 10.8 8.55 8.05 10.4 9.08 6.7 7.33 Q	1.64 Q 2.01 2.80 2.50 2.12 1.92 2.43 2.25 2.04 3.59 2.99 1.41 3.13 3.73 3.48 4.22 2.93 3.46 3.00 3.07 Q	7.14 7.12 7.12 7.11 7.14 7.10 6.97 6.84 6.82 6.73 6.55 6.78 6.85 6.68 8.35 6.68 8.35 7.10 7.13 7.05 7.24 7.29 7.09	179 Q 1,080 853 790 935 700 655 797 965 863 1,200 1,160 443 477 171 104 55 51.4 82.9 97.2 203 189 Q 861 501	387 1,633 1,660 1,960 1,540 1,300 1,540 1,733 2,122 775 387 3422 295 368 337 471 456 C 1,680 1,020
vngradient Weils	11/26/2023 Dup 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 08/08/16 10/12/16 12/29/16 12/29/16 09/20/17 06/08/18 09/10/18 05/09/19 10/30/19 04/26/20 11/01/20 03/24/21 08/15/21 05/30/22 12/03/22 05/28/23 11/26/23 10/15/15 12/07/15 02/22/16 04/04/16	1.46           6.36           6.68           7.52           7.24           7.08           6.37           5.15           5.23           5.89           6.01           5.45           3.41           5.18           3.43           2.33           2.32           1.81           1.10           1.17           4.58           3.47           4.98           3.32	75.3           311           262           243           278           229           215           237           275           271           364           351           93.7           169           96.4           80.9           77.0           61.7           77.5           80.9           101           93.7           101           93.7	5.72 Q 162 120 124 171 120 108 111 125 112 142 132 36.7 39.7 17.7 10.8 8.55 8.05 10.4 9.08 6.7 7.33 Q 101 81.1 82.3 75.9	1.64 Q 2.01 2.80 2.40 2.50 2.12 2.43 2.25 2.04 3.59 2.99 2.94 1.21 3.13 3.73 3.48 4.22 2.93 3.46 3.00 3.07 Q 0.32 J 0.32 J 0.32 J 0.23 J	7.14 7.12 7.11 7.12 7.11 7.10 6.97 6.84 6.82 6.73 6.55 6.68 8.35 6.68 8.35 8.39 7.10 7.13 7.05 7.24 7.29 7.09 7.09	179 Q           1,080           853           790           935           700           655           797           965           863           1,200           1,160           443           477           171           104           55           51.4           82.9           97.2           203           189 Q           861           501           909           465	387 1.630 1.540 1.540 1.540 1.540 1.300 1.540 1.300 1.540 1.300 1.540 1.300 1.540 1.300 1.540 1.300 1.540 1.730 2.2300 2.330 2.330 2.2300 2.3300 2.33000 2.3300 2.3300 2.3300 2.33000 2.33000 2.33000 2.33000 2.33000 2.33000 2.33000 2.33000 2.33000 2.330000 2.330000000000
vngradient Weils	11/26/2023 Dup 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 08/08/16 10/12/16 12/29/16 09/20/17 06/08/18 09/10/18 05/09/19 10/30/19 04/26/20 11/01/20 03/24/21 06/30/22 12/03/25 12/07/15 02/22/16 04/04/16 06/06/16	1.46           6.36           6.68           7.52           7.24           7.08           5.15           5.23           5.89           6.01           5.45           3.41           5.18           3.43           2.33           2.32           1.81           1.10           1.17           1.60           3.47           4.58           3.47           4.98           3.32           5.77	75.3           311           252           243           278           229           215           237           275           271           364           351           93.7           169           96.4           80.9           77.0           61.7           77.5           80.9           101           93.7           111           86.6           114           162	5.72 Q 162 120 124 171 120 108 111 125 112 142 132 36.7 39.7 17.7 10.8 8.55 8.05 10.4 9.08 6.7 7.33 Q 101 81.1 82.3 75.9 85.5	1.64 Q 2.01 2.80 2.40 2.50 2.12 1.92 2.43 2.25 2.99 1.41 3.13 3.73 3.48 4.22 2.93 3.46 4.22 1.93 3.40 3.00 3.07 Q 0.32 J 0.36 J 0.24 0.24 0.24 0.24 0.32 J 0.36 J 0.24 0.32 J 0.36 J 0.24 0.32 J 0.36 J 0.32 J 0.36 J 0.36 J 0.37 J 0.36 J 0.32 J 0.36 J 0.37 J 0.36 J 0.37 J 0.36 J 0.37 J 0.36 J 0.37 J 0.37 J 0.36 J 0.37 J 0.36 J 0.37 J 0.37 J 0.36 J 0.37 J 0.37 J 0.37 J 0.36 J 0.37 J 0.37 J 0.37 J 0.37 J 0.36 J 0.37 J 0.37 J 0.37 J 0.37 J 0.36 J 0.37 J 0.37 J 0.37 J 0.36 J 0.37 J 0.37 J 0.37 J 0.37 J 0.36 J 0.37 J 0.	7.14 7.14 7.12 7.11 7.14 7.10 6.97 6.84 6.82 6.73 6.55 6.78 6.85 6.68 8.36 8.39 7.10 7.13 7.05 7.24 7.29 7.09 6.21 6.22 6.27 6.17 6.29	179 Q 1,080 853 790 935 700 655 797 965 863 1,200 1,160 443 477 171 104 55 51.4 82.9 97.2 203 189 Q 861 501 909 965 696	387 1,6362 1,960 1,540 1,5
vngradient Weils	11/26/2023 Dup 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 09/08/16 10/12/16 12/29/16 09/20/17 06/08/18 09/10/18 05/09/19 10/30/19 04/26/20 11/01/20 03/24/21 08/15/21 05/30/22 12/03/22 05/28/23 11/26/23 11/26/23 12/07/15 02/22/16 04/04/16 06/06/16 08/08/16	1.46           6.36           6.68           7.52           7.24           7.08           6.37           5.15           5.23           5.89           6.01           5.45           3.41           5.18           3.43           2.33           2.32           1.81           1.10           1.17           1.60           3.47           4.98           3.32           5.77           5.70	75.3           311           252           243           278           229           215           237           275           271           364           351           93.7           169           96.4           80.9           77.0           61.7           77.5           80.9           101           93.7           101           93.7           169           96.4           101           93.7           101           93.7           101           93.7           101           93.7           153	5.72 Q 162 120 124 171 120 108 111 125 112 142 132 36.7 39.7 17.7 10.8 8.55 8.05 10.4 9.08 6.7 7.33 Q 101 81.1 82.3 75.9 85.5 85.6	1.64 Q 2.01 2.80 2.40 2.50 2.12 2.43 2.24 3.59 2.94 3.59 2.94 3.59 2.94 3.59 2.94 3.59 2.94 3.59 2.94 3.59 2.93 3.44 4.22 2.93 3.46 3.00 3.07 Q 0.32 J 0.34 J 0.24 0.32 J 0.36 J 0.24 0.32 J 0.32 J	7.14 7.14 7.12 7.11 7.11 7.10 6.97 6.84 6.82 6.73 6.85 6.78 6.85 6.68 8.35 6.68 8.35 7.10 7.13 7.05 7.24 7.29 7.09 6.21 6.22 6.27 6.17 6.29 6.32	179 Q 1,080 853 790 935 700 655 797 965 863 1,200 1,160 1,160 443 477 171 104 55 51.4 82.9 97.2 203 189 Q 861 501 909 465 61,100	387 1,6303 1,6805 1,9600 1,5404 1,9707 2,2302 1,5404 1,7307 2,2302 1,775 5 9111 1,9707 1,9707 9111 1,9707 9111 387 382 395 397 3942 395 397 397 397 397 397 397 397 397 397 397
vngradient Weils	11/26/2023 Dup 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 08/08/16 10/12/16 12/29/16 12/29/16 09/20/17 06/08/18 09/10/18 05/09/19 10/30/19 04/26/20 11/01/26 03/24/21 08/15/21 05/30/22 12/03/22 05/28/23 11/26/23 10/15/15 12/07/15	1.46           6.36           6.68           7.52           7.24           7.08           6.37           5.15           5.23           5.45           3.41           5.18           3.43           2.33           2.32           1.81           1.10           1.17           1.60           3.47           3.47           3.32           5.70           6.42	75.3           311           252           243           278           229           215           237           275           271           364           351           93.7           96.4           80.9           96.17           77.5           80.9           101           93.7           111           86.9.9           101           93.7           111           86.6           152           111           81.6           111           82.6           111           116           111           162           153	5.72 Q 162 120 124 171 120 108 111 125 112 142 132 36.7 39.7 17.7 10.8 8.55 8.05 10.4 9.08 6.7 7.33 Q 101 81.1 82.3 75.9 85.5 85.6 82.4	1.64 Q 2.01 2.80 2.40 2.50 2.12 2.43 2.25 2.04 3.59 2.99 2.94 1.21 3.13 3.73 3.48 4.22 2.93 3.46 3.00 3.07 Q 0.32 J 0.32 J 0.32 J 0.32 J 0.24 J 0.23 J <0.10 <0.23 J <0.21 J 0.24 J 0.2	7.14 7.14 7.12 7.11 7.11 7.10 6.97 6.84 6.82 6.73 6.55 6.78 6.85 6.68 8.35 8.39 7.10 7.13 7.05 7.24 7.29 7.09 7.09 6.21 6.22 6.27 6.17 6.32 6.32 6.19	179 Q 1,080 853 790 935 700 655 797 965 863 1,200 1,160 1,160 1,160 1,160 1,160 1,160 1,160 1,160 1,104 55 51.4 82.9 97.2 203 189 Q 861 501 501 909 465 696 696 1,100 1,100 1,140	387 1.6303 1.6804 1.5404 1.5404 1.3000 1.5404 1.3000 1.5404 1.3000 1.5404 1.3000 1.5404 1.3000 1.97775 7755 2.23002 2.23020 2.230000 2.23000 2.23000 2.230000 2.230000000000
vngradient Weils	11/26/2023 Dup 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 08/08/16 10/12/16 12/29/16 09/20/17 06/08/18 09/10/18 05/09/19 10/30/19 04/26/20 11/01/20 03/24/21 08/15/21 05/30/22 12/03/22 12/03/22 12/03/22 12/03/22 11/26/23 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 08/08/16 10/12/16 12/29/16	1.46           6.36           6.68           7.52           7.24           7.08           6.37           5.15           5.23           5.89           6.01           5.45           3.41           5.18           3.43           2.33           2.32           1.81           1.10           1.17           1.60           1.23           4.58           3.47           4.98           3.32           5.77           5.70           6.42           6.52	75.3           311           252           243           278           229           215           237           275           271           364           351           93.7           77.0           61.7           77.5           80.9           93.7           111           86.6           114           169           161.7           77.5           80.9           101           93.7           111           86.6           114           169           162           153           174           185	5.72 Q 162 120 124 171 120 108 111 125 112 142 132 36.7 39.7 17.7 10.8 8.55 8.05 10.4 9.08 6.7 7.33 Q 101 81.1 82.3 75.9 85.5 85.6 82.4 82.5	1.64 Q 2.01 2.80 2.40 2.50 2.12 1.92 2.43 2.25 2.99 1.41 3.73 3.79 2.99 1.41 3.13 3.73 3.48 4.22 2.93 3.48 4.22 2.93 3.48 4.22 2.93 3.00 3.07 Q 0.32 J 0.32 J 0.23 J <0.10 <0.10 0.23 J	7.14 7.14 7.12 7.11 7.10 6.97 6.84 6.82 6.73 6.55 6.78 6.85 6.68 8.35 6.68 8.35 7.10 7.13 7.05 7.24 7.29 7.09 6.21 6.22 6.27 6.17 6.32 6.32 6.19 6.14	179 Q 1,080 853 790 935 700 655 797 965 863 1,200 1,160 1,160 443 477 171 104 55 51.4 82.9 97.2 203 189 Q 861 501 909 465 61,100	387 1,6362 1,960 1,540 1
vngradient Weils	11/26/2023 Dup 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 08/08/16 10/12/16 12/29/16 12/29/16 09/20/17 06/08/18 09/10/18 05/09/19 10/30/19 04/26/20 11/01/26 03/24/21 08/15/21 05/30/22 12/03/22 05/28/23 11/26/23 10/15/15 12/07/15	1.46           6.36           6.68           7.52           7.24           7.08           6.37           5.15           5.23           5.45           3.41           5.18           3.43           2.33           2.32           1.81           1.10           1.17           1.60           3.47           3.47           3.32           5.70           6.42	75.3           311           252           243           278           229           215           237           275           271           364           351           93.7           96.4           80.9           96.17           77.5           80.9           101           93.7           111           86.9.9           101           93.7           111           86.6           152           111           81.6           111           82.6           111           116           111           162           153	5.72 Q 162 120 124 171 120 108 111 125 112 142 132 36.7 39.7 17.7 10.8 8.55 8.05 10.4 9.08 6.7 7.33 Q 101 81.1 82.3 75.9 85.5 85.6 82.4	1.64 Q 2.01 2.80 2.40 2.50 2.12 2.43 2.25 2.04 3.59 2.99 2.94 1.21 3.13 3.73 3.48 4.22 2.93 3.46 3.00 3.07 Q 0.32 J 0.32 J 0.32 J 0.32 J 0.24 J 0.23 J <0.10 <0.23 J <0.21 J 0.24 J 0.2	7.14 7.14 7.12 7.11 7.11 7.10 6.97 6.84 6.82 6.73 6.55 6.78 6.85 6.68 8.35 8.39 7.10 7.13 7.05 7.24 7.29 7.09 7.09 6.21 6.22 6.27 6.17 6.32 6.32 6.19	179 Q 1,080 853 790 935 700 655 797 965 863 1,200 1,160 1,160 1,160 1,160 1,160 1,160 1,160 1,160 1,104 55 51.4 82.9 97.2 203 189 Q 861 501 501 909 465 696 696 1,100 1,100 1,140	387 1,6362 1,960 1,540 1
vngradient Weils	11/26/2023 Dup 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 09/08/16 10/12/16 12/29/16 09/20/17 06/08/18 09/10/18 05/09/19 10/30/19 04/26/20 11/01/20 03/24/21 08/15/21 05/30/22 12/03/22 05/28/23 11/26/23 11/26/23 11/26/23	1.46           6.36           6.68           7.52           7.24           7.08           6.37           5.15           5.23           5.89           6.01           5.45           3.41           5.18           3.43           2.32           1.81           1.10           1.17           1.60           1.23           4.58           3.47           4.98           3.32           5.77           5.70           6.62           4.84	75.3           311           252           243           278           229           215           237           275           271           364           351           93.7           169           96.4           80.9           77.0           61.7           77.5           80.9           101           93.7           101           93.7           101           93.7           101           93.7           101           93.7           101           93.7           101           93.7           101           93.7           101           93.7           111           86.6           114           169           162           153           174           185           128	5.72 Q 162 120 124 171 120 108 111 125 112 142 132 36.7 39.7 17.7 10.8 8.55 8.05 10.4 9.08 6.7 7.33 Q 101 81.1 82.3 75.9 85.5 85.6 82.4 82.5 80.6	1.64 Q           2.01           2.80           2.40           2.50           2.12           2.43           2.24           3.59           2.94           3.59           2.94           3.59           2.93           1.41           1.21           3.13           3.48           4.22           2.93           3.46           3.07 Q           0.32 J           0.36 J           0.24           0.23 J           <0.10	7.14 7.14 7.12 7.11 7.11 7.14 7.10 6.97 6.84 6.82 6.73 6.85 6.88 6.68 8.35 6.68 8.35 6.68 8.35 7.10 7.13 7.05 7.24 7.29 7.09 6.21 6.22 6.27 6.17 6.32 6.32 6.32 6.32 6.32 6.32 6.32 6.32	179 Q           1,080           853           790           935           700           655           797           965           863           1,200           1,160           443           477           171           104           55           51.4           82.9           97.2           203           189 Q           861           501           909           465           696           1,100           1,140           1,150           882	387 1,630 1,960 1,960 1,960 1,960 1,960 1,970 1,
vngradient Weils	11/26/2023 Dup 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 08/08/16 10/12/16 12/29/16 09/20/17 06/08/18 09/10/18 05/09/19 10/30/19 04/26/20 11/01/20 03/24/21 08/15/21 05/30/22 10/15/15 12/07/15 02/22/16 04/04/16 08/08/16 10/12/16 12/29/16	1.46           6.36           6.68           7.52           7.24           7.08           6.37           5.15           5.23           5.89           6.01           5.45           3.41           5.18           3.43           2.32           1.81           1.10           1.17           1.60           3.47           4.58           3.32           5.70           6.42           6.52           4.84           3.70	75.3           311           252           243           278           229           215           237           275           271           364           351           93.7           169           96.4           80.9           101           93.7           111           86.9           30.9           101           93.7           111           86.9           111           86.9           128           174           185           127	5.72 Q 162 120 124 171 120 108 111 125 112 142 132 36.7 39.7 17.7 17.7 10.8 8.55 8.05 10.4 9.08 6.7 7.33 Q 101 81.1 82.3 75.9 85.6 82.4 82.5 80.6 87.9	1.64 Q 2.01 2.80 2.40 2.50 2.12 2.43 2.25 2.04 3.59 2.92 2.43 2.25 2.04 3.59 2.92 1.92 2.43 3.59 2.94 3.59 3.48 4.22 2.93 3.46 3.00 3.07 Q 0.32 J 0.64 J 0.23 J 0.04 J 0.02 J 0.04 J 0.02 J 0.04 J 0.02 J 0.04 J 0.02 J 0.04 J 0.02 J 0.02 J 0.04 J 0.03 J 0.04 J 0.03 J 0.04 J 0.03 J 0.04 J 0.03 J 0.04 J 0.03 J 0.04 J 0.03 J 0.03 J 0.05 J 0.05 J 0.05 J 0.05 J 0.05 J 0.05	7.14 7.14 7.12 7.11 7.14 7.10 6.97 6.84 6.82 6.73 6.55 6.78 6.85 6.68 8.35 7.10 7.13 7.10 7.13 7.05 7.24 7.29 7.09 6.21 6.22 6.27 6.17 6.29 6.32 6.19 6.32 6.14 6.85 6.62	179 Q 1,080 853 790 935 700 655 797 965 863 1,200 1,160 1,160 1,160 1,160 1,160 1,160 1,160 1,160 1,160 1,160 863 97.2 203 189 Q 861 501 909 465 696 696 694	387 1.6303 1.6806 1.5404 1.5404 1.3000 1.5404 1.3000 1.5404 1.3000 1.5404 1.3000 1.3000 1.9707 9111 387 387 3912 2255 387 3914 2255 3914 39775 3914 39775 3914 456 C 1.8205 1.820
vngradient Weils	11/26/2023 Dup 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 08/08/16 10/12/16 12/29/16 12/29/16 09/20/17 06/08/18 09/10/18 05/09/19 10/30/19 04/26/20 11/01/20 03/24/21 05/30/12 10/15/21 10/15/21 12/20/15 12/03/22 05/28/23 11/26/23 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 08/08/16 10/12/16 12/29/16 09/20/17 06/08/18 09/10/18	1.46           6.36           6.68           7.52           7.24           7.08           6.37           5.15           5.23           5.89           6.01           5.45           3.41           5.18           3.43           2.33           2.32           1.81           1.10           1.17           1.60           3.347           4.58           3.47           4.58           3.32           5.77           5.70           6.42           6.52           4.84           3.70           4.14	75.3           311           252           243           278           227           215           237           275           271           364           351           93.7           169           96.4           80.9           977.0           61.7           77.0           61.7           77.0           61.7           77.0           101           93.7           101           93.7           111           86.6           114           169           162           153           128           127           140	5.72 Q 162 120 124 171 120 108 111 125 112 142 132 36.7 39.7 17.7 10.8 8.55 8.05 10.4 9.08 6.7 7.33 Q 101 81.1 82.3 75.9 85.5 85.6 82.4 82.5 80.6 87.9 81.5	1.64 Q 2.01 2.80 2.40 2.50 2.12 1.92 2.43 2.25 2.99 1.41 1.21 3.13 3.73 3.48 4.22 2.93 3.46 3.00 3.07 Q 0.32 J 0.36 J 0.23 J 0.21 D 0.23 J 0.23 J 0.21 D 0.23 J 0.21 D 0.21 D 0.	7.14 7.14 7.12 7.11 7.10 6.97 6.84 6.82 6.73 6.55 6.78 6.85 6.68 8.35 8.39 7.10 7.13 7.05 7.24 7.29 7.09 6.21 6.22 6.27 6.17 6.22 6.32 6.19 6.14 6.85 6.62 6.30	179 Q 1,080 853 790 935 700 655 797 965 863 1,200 1,160 443 477 171 104 55 51.4 82.9 97.2 203 189 Q 861 501 909 465 696 1,100 1,140 1,150 882 694 858	387 1,630 1,960 1,540 1,540 1,540 1,300 1,540 1,300 1,540 1,300 1,300 1,300 1,300 1,300 1,300 1,300 1,300 1,300 1,977 1,977 5,580 1,977 5,580 1,977 5,580 1,977 5,580 1,977 5,580 5,590 1,977 5,590 5,
vngradient Weils	11/26/2023 Dup 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 08/08/16 10/12/16 12/29/16 09/20/17 06/08/18 09/10/18 05/09/19 10/30/19 04/26/20 11/01/20 03/24/21 08/15/21 05/30/22 12/03/22 12/03/22 05/28/23 11/26/25 11/26/25 11/26/25 11/26/25 11/26/25 11/26/25 11/26/25 11/26/25 11/26/25 11/26/25	1.46           6.36           6.68           7.52           7.24           7.08           6.37           5.15           5.23           5.89           6.01           5.45           3.41           5.18           3.43           2.32           1.81           1.10           1.17           1.60           1.23           4.58           3.47           4.98           3.32           5.77           5.70           6.62           4.84           3.70           4.14	75.3           311           252           243           278           229           215           237           275           271           364           351           93.7           169           96.4           80.9           77.0           61.7           77.5           80.9           101           93.7           186.6           114           169           162           153           174           185           128           127           128           127           128           127           128           127           128           127           128           127           128           127           128           127           128           127           128           129	5.72 Q 162 120 124 171 120 108 111 125 112 142 132 36.7 39.7 17.7 10.8 8.55 8.05 10.4 9.08 6.7 7.33 Q 101 81.1 82.3 75.9 85.5 85.6 82.4 82.5 80.6 87.9 81.5 92.1	1.64 Q           2.01           2.80           2.40           2.50           2.12           2.43           2.25           2.43           2.24           3.59           2.94           3.59           2.93           3.48           4.22           2.93           3.46           3.07 Q           0.32 J           0.36 J           0.24           0.23 J           <0.10	7.14 7.14 7.12 7.11 7.11 7.14 7.10 6.97 6.84 6.82 6.73 6.85 6.88 8.35 6.78 6.85 6.68 8.35 7.10 7.13 7.05 7.24 7.29 7.09 6.21 6.22 6.27 6.17 6.32 6.32 6.32 6.32 6.32 6.32 6.32 6.32	179 Q 1,080 853 790 935 700 655 797 965 863 1,200 1,16	387 1.6303 1.6805 1.5404 1.9600 1.5404 1.9707 2.2302 1.5404 1.7302 2.2302 1.775 9111 1.9707 9111 1.9707 9111 1.9707 9111 387 775 9111 387 337 337 342 2955 387 337 342 2955 387 397 342 2955 387 397 342 2955 307 397 342 2955 307 397 342 2955 307 397 307 307 307 307 307 307 307 307 307 30
vngradient Weils	11/26/2023 Dup 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 08/08/16 10/12/16 12/29/16 12/29/16 09/20/17 06/08/18 09/10/18 05/09/19 10/30/19 04/26/20 11/01/20 03/24/21 05/30/12 10/15/21 10/15/21 12/20/15 12/03/22 05/28/23 11/26/23 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 08/08/16 10/12/16 12/29/16 09/20/17 06/08/18 09/10/18	1.46           6.36           6.68           7.52           7.24           7.08           6.37           5.15           5.23           5.89           6.01           5.45           3.41           5.18           3.43           2.33           2.32           1.81           1.10           1.17           1.60           3.347           4.58           3.47           4.58           3.32           5.77           5.70           6.42           6.52           4.84           3.70           4.14	75.3           311           252           243           278           227           215           237           275           271           364           351           93.7           169           96.4           80.9           977.0           61.7           77.0           61.7           77.0           61.7           77.0           101           93.7           101           93.7           111           86.6           114           169           162           153           128           127           140	5.72 Q 162 120 124 171 120 108 111 125 112 142 132 36.7 39.7 17.7 10.8 8.55 8.05 10.4 9.08 6.7 7.33 Q 101 81.1 82.3 75.9 85.5 85.6 82.4 82.5 80.6 87.9 81.5	1.64 Q 2.01 2.80 2.40 2.50 2.12 1.92 2.43 2.25 2.99 1.41 1.21 3.13 3.73 3.48 4.22 2.93 3.46 3.00 3.07 Q 0.32 J 0.36 J 0.23 J 0.21 D 0.23 J 0.23 J 0.21 D 0.23 J 0.21 D 0.21 D 0.	7.14 7.14 7.12 7.11 7.10 6.97 6.84 6.82 6.73 6.55 6.78 6.85 6.68 8.35 8.39 7.10 7.13 7.05 7.24 7.29 7.09 6.21 6.22 6.27 6.17 6.22 6.32 6.19 6.14 6.85 6.62 6.30	179 Q 1,080 853 790 935 700 655 797 965 863 1,200 1,160 443 477 171 104 55 51.4 82.9 97.2 203 189 Q 861 501 909 465 696 1,100 1,140 1,150 882 694 858	387 1,630 1,960 1,540 1,540 1,540 1,300 1,540 1,300 1,540 1,300 1,300 1,300 1,300 1,300 1,300 1,300 1,300 1,300 1,977 1,977 5,580 1,977 5,580 1,977 5,580 1,977 5,580 1,977 5,580 5,590 1,977 5,590 5,
vngradient Weils	11/26/2023 Dup 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 08/08/16 10/12/16 12/29/16 09/20/17 06/08/18 09/10/18 05/09/19 10/30/19 04/26/20 11/01/20 03/24/21 08/15/21 05/30/22 12/03/22 12/03/22 05/28/23 11/26/25 11/26/25 11/26/25 11/26/25 11/26/25 11/26/25 11/26/25 11/26/25 11/26/25 11/26/25	1.46           6.36           6.68           7.52           7.24           7.08           6.37           5.15           5.23           5.89           6.01           5.45           3.41           5.18           3.43           2.32           1.81           1.10           1.17           1.60           1.23           4.58           3.47           4.98           3.32           5.77           5.70           6.62           4.84           3.70           4.14	75.3           311           252           243           278           229           215           237           275           271           364           351           93.7           169           96.4           80.9           77.0           61.7           77.5           80.9           101           93.7           186.6           114           169           162           153           174           185           128           127           128           127           128           127           128           127           128           127           128           127           128           127           128           127           128           127           128           129	5.72 Q 162 120 124 171 120 108 111 125 112 142 132 36.7 39.7 17.7 10.8 8.55 8.05 10.4 9.08 6.7 7.33 Q 101 81.1 82.3 75.9 85.5 85.6 82.4 82.5 80.6 87.9 81.5 92.1	1.64 Q           2.01           2.80           2.40           2.50           2.12           2.43           2.25           2.43           2.24           3.59           2.94           3.59           2.93           3.48           4.22           2.93           3.46           3.07 Q           0.32 J           0.36 J           0.24           0.23 J           <0.10	7.14 7.14 7.12 7.11 7.11 7.14 7.10 6.97 6.84 6.82 6.73 6.85 6.88 8.35 6.78 6.85 6.68 8.35 7.10 7.13 7.05 7.24 7.29 7.09 6.21 6.22 6.27 6.17 6.32 6.32 6.32 6.32 6.32 6.32 6.32 6.32	179 Q 1,080 853 790 935 700 655 797 965 863 1,200 1,16	387 1.6303 1.6805 1.5404 1.9600 1.5404 1.9707 2.2302 1.5404 1.7302 2.2302 1.775 9111 1.9707 9111 1.9707 9111 1.9707 9111 387 775 9111 387 337 337 342 2955 387 337 342 2955 387 397 342 2955 387 397 342 2955 307 397 342 2955 307 397 342 2955 307 397 307 307 307 307 307 307 307 307 307 30
vngradient Weils	11/26/2023 Dup 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 08/08/16 10/12/16 12/29/16 12/29/16 09/20/17 06/08/18 09/10/18 05/09/19 10/30/19 04/26/20 11/01/20 03/24/21 08/15/21 05/30/22 12/23/22 05/28/23 11/26/23 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 08/08/16 10/12/16 12/29/16 09/20/17 06/08/18 09/10/18 05/10/19 10/30/19	1.46           6.36           6.68           7.52           7.24           7.08           6.37           5.15           5.23           5.89           6.01           5.45           3.41           5.18           3.43           2.33           2.32           1.81           1.10           1.17           1.60           3.37           5.77           5.70           6.42           6.52           4.84           3.70           4.14           1.94           1.36	75.3           311           252           243           278           227           275           2771           364           351           93.7           77.0           61.7           77.0           61.7           77.5           80.9           101           93.7           111           86.6           114           169           162           153           174           185           127           140           95.4           100           70	5.72 Q 162 120 124 171 120 108 111 125 112 142 132 36.7 39.7 17.7 10.8 8.55 8.05 10.4 9.08 6.7 7.33 Q 101 81.1 82.3 75.9 85.5 85.6 82.4 82.5 80.6 87.9 81.5 92.1 86.2	1.64 Q 2.01 2.80 2.40 2.50 2.12 1.92 2.43 2.25 2.04 3.59 2.99 1.41 3.13 3.73 3.48 4.22 2.93 3.46 3.00 3.07 Q 0.32 J 0.36 J 0.23 J -0.10 0.23 J -0.10 0.37 J 0.41 0.21 J 0.21 J 0.41 0.21 J 0.41 J 0.21 J 0.41 J 0.51 J 0.	7.14 7.14 7.12 7.11 7.11 7.10 6.97 6.84 6.82 6.73 6.55 6.78 6.85 6.68 8.35 8.39 7.10 7.13 7.05 7.24 7.29 7.09 7.09 7.24 7.29 7.09 6.21 6.22 6.27 6.17 6.32 6.32 6.32 6.32 6.52 6.30 6.35 6.52 6.52 6.70	179 Q           1,080           853           790           935           700           655           797           965           863           1,200           1,160           443           477           171           104           55           51.4           82.9           97.2           203           189 Q           861           501           909           465           696           1,100           1,140           1,150           882           694           858           361           252           270	387 1.630 1.540 1.540 1.540 1.540 1.300 1.540 1.300 1.540 1.3000 1.30000 1.30000 1.30000 1.30000 1.30000 1.30000000000
vngradient Weils	11/26/2023 Dup 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 08/08/16 10/12/16 12/29/16 09/20/17 06/08/18 09/10/18 05/09/19 10/30/19 04/26/20 11/01/20 05/28/23 11/26/23 11/26/23 11/26/23 11/26/23 11/26/23 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 08/08/18 09/20/17 06/08/19 00/26/20 11/0/20 00/26/20 11/01/20	1.46           6.36           6.68           7.52           7.24           7.08           6.37           5.15           5.23           5.89           6.01           5.45           3.41           5.18           3.43           2.32           1.81           1.10           1.17           1.60           1.23           4.58           3.47           4.98           3.32           5.70           6.42           5.77           5.70           6.42           6.52           4.84           3.70           4.84           3.70           1.94           1.69	75.3           311           252           243           278           229           215           237           275           271           364           351           93.7           169           96.4           80.9           77.0           61.7           77.5           80.9           77.5           80.9           101           93.7           111           86.6           114           169           162           153           174           182           128           127           128           127           95.4           100           70           84	5.72 Q 162 120 124 171 120 108 111 125 112 142 132 36.7 39.7 17.7 10.8 8.55 8.05 10.4 9.08 6.7 7.33 Q 101 81.1 82.3 85.5 85.6 82.4 82.5 80.6 87.9 81.5 92.1 86.1 86.2 88.1	1.64 Q 2.01 2.80 2.40 2.50 2.12 2.43 2.24 3.59 2.94 3.59 2.94 3.59 2.94 1.41 1.21 3.13 3.73 3.48 4.22 2.93 3.46 3.07 Q 3.07 Q 0.32 J 0.36 J 0.24 0.23 J <0.10 <0.10 <0.23 J <0.10 0.23 J <0.10 0.24 J 0.24 J 0.24 J 0.24 J 0.24 J 0.22 J 0.24 J 0.24 J 0.24 J 0.24 J 0.22 J 0.24 J 0.24 J 0.24 J 0.22 J 0.24 J 0.22 J 0.24 J 0.22 J 0.24 J 0.24 J 0.22 J 0.24 J 0.24 J 0.24 J 0.24 J 0.24 J 0.22 J 0.24 J 0.25	7.14 7.14 7.12 7.11 7.11 7.14 7.10 6.97 6.84 6.82 6.82 6.73 6.85 6.85 6.85 6.68 8.35 7.10 7.13 7.05 7.24 7.29 7.29 7.29 6.21 6.22 6.27 6.17 6.22 6.32 6.32 6.32 6.32 6.32 6.32 6.32	179 Q 1,080 853 790 935 700 655 797 965 863 1,200 1,160 1,270 1,270 1,270 1,270 1,214 1,21	387 1,630 1,680 1,960 1,540 1,960 1,540 1,970 1,540 1,970 1,540 1,970 2,230 2,120 2,
vngradient Weils	11/26/2023 Dup 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 08/08/16 10/12/16 12/29/16 09/20/17 06/08/18 09/10/18 05/09/19 10/30/19 04/26/20 11/01/20 03/24/21 08/15/21 05/30/22 12/03/22 05/28/23 11/26/23 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 08/08/16 10/12/16 12/29/16 09/20/17 06/08/18 09/10/18 05/10/19 04/26/20 11/01/21/6 10/12/16 10/12/16 10/12/16 10/12/16 10/12/16 10/12/16 10/12/16 10/12/16 10/12/16 10/12/16 10/12/16 10/12/16 10/12/16 10/12/16 10/12/16 10/12/17 06/08/18 09/10/18 05/10/19 04/26/20 11/01/20 03/29/21	1.46           6.36           6.68           7.52           7.24           7.08           6.37           5.15           5.23           5.89           6.01           5.45           3.41           5.18           3.43           2.32           1.81           1.10           1.17           1.60           3.47           4.58           3.47           4.98           3.32           5.70           6.42           6.52           4.84           3.70           4.84           1.94           1.69           1.23	75.3           311           262           243           278           229           215           237           275           271           364           351           93.7           169           96.4           80.9           77.0           61.7           77.5           80.9           101           93.7           169           96.4           80.9           174           163           174           163           174           185           127           140           95.4           100           70           84           89.9	5.72 Q 162 120 124 171 120 108 111 125 112 142 132 36.7 39.7 17.7 10.8 8.55 8.05 10.4 9.08 6.7 7.33 Q 101 81.1 82.3 75.9 85.5 85.6 82.4 82.5 80.6 87.9 81.5 82.1 86.1 88.2 86.1 83.3	1.64 Q 2.01 2.80 2.40 2.50 2.12 2.43 2.25 2.94 3.59 2.94 3.59 2.94 3.59 2.94 3.59 2.94 3.59 2.94 3.59 2.94 3.59 2.94 3.59 2.94 3.59 2.94 3.59 3.48 4.22 2.94 3.48 4.22 3.46 3.00 3.07 Q 0.32 J 0.32 J 0.32 J 0.24 J 0.23 J 0.41 J 0.24 J 0.21 J 0.24 J 0.25 J 0.	7.14 7.14 7.12 7.11 7.14 7.10 6.97 6.84 6.82 6.73 6.55 6.78 6.85 6.68 8.35 6.68 8.35 7.10 7.13 7.05 7.24 7.09 7.09 7.29 7.09 6.21 6.22 6.27 6.17 6.22 6.27 6.14 6.85 6.62 6.32 6.14 6.85 6.62 6.32 6.52 6.52 6.52 6.52 6.52 6.52 6.52 6.5	179 Q           1,080           853           790           935           700           655           797           965           863           1,200           1,160           1,160           1,160           1,160           55           51.4           55           51.4           861           501           909           465           696           1,100           1,140           1,150           882           694           858           361           252           270           214	387 1.6303 1.6806 1.5404 1.5404 1.5404 1.3000 1.5404 1.3000 1.5404 1.3000 1.5404 1.3000 1.5404 1.3700 2.23030 1.3775 9111 1.9777 9111 387 387 387 387 387 387 387 387 387 387
vngradient Weils	11/26/2023 Dup 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 08/08/16 10/12/16 12/29/16 09/20/17 06/08/18 09/10/18 05/09/19 10/30/19 04/26/20 11/01/20 05/28/23 11/26/23 11/26/23 11/26/23 11/26/23 11/26/23 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 08/08/18 09/20/17 06/08/19 00/26/20 11/0/20 00/26/20 11/01/20	1.46           6.36           6.68           7.52           7.24           7.08           6.37           5.15           5.23           5.89           6.01           5.45           3.41           5.18           3.43           2.32           1.81           1.10           1.17           1.60           1.23           4.58           3.47           4.98           3.32           5.70           6.42           5.77           5.70           6.42           6.52           4.84           3.70           4.84           3.70           1.94           1.69	75.3           311           252           243           278           229           215           237           275           271           364           351           93.7           169           96.4           80.9           77.0           61.7           77.5           80.9           77.5           80.9           101           93.7           111           86.6           114           169           162           153           174           182           128           127           128           127           95.4           100           70           84	5.72 Q 162 120 124 171 120 108 111 125 112 142 132 36.7 39.7 17.7 10.8 8.55 8.05 10.4 9.08 6.7 7.33 Q 101 81.1 82.3 85.5 85.6 82.4 82.5 80.6 87.9 81.5 92.1 86.1 86.2 88.1	1.64 Q 2.01 2.80 2.40 2.50 2.12 2.43 2.24 3.59 2.94 3.59 2.94 3.59 2.94 1.41 1.21 3.13 3.73 3.48 4.22 2.93 3.46 3.07 Q 3.07 Q 0.32 J 0.36 J 0.24 0.23 J <0.10 <0.10 <0.23 J <0.10 0.23 J <0.10 0.24 J 0.24 J 0.24 J 0.24 J 0.24 J 0.22 J 0.24 J 0.24 J 0.24 J 0.24 J 0.22 J 0.24 J 0.24 J 0.24 J 0.22 J 0.24 J 0.22 J 0.24 J 0.22 J 0.24 J 0.24 J 0.22 J 0.24 J 0.24 J 0.24 J 0.24 J 0.24 J 0.22 J 0.24 J 0.25	7.14 7.14 7.12 7.11 7.11 7.14 7.10 6.97 6.84 6.82 6.82 6.73 6.85 6.85 6.85 6.68 8.35 7.10 7.13 7.05 7.24 7.29 7.29 7.29 6.21 6.22 6.27 6.17 6.22 6.32 6.32 6.32 6.32 6.32 6.32 6.32	179 Q 1,080 853 790 935 700 655 797 965 863 1,200 1,160 1,270 1,270 1,270 1,270 1,214 1,21	387 1,630 1,680 1,960 1,540 1,540 1,540 1,540 1,540 1,540 1,540 1,540 1,540 2,230 2,255 3,377 4,71 4,560 1,620 1,540 1,540 1,540 1,640 1,540 1,540 1,640 1,540 1,540 1,640 1,540 1,640 1,540 1,640 1,540 1,640 1,540 1,640 1,540 1,640 1,640 1,540 1,640 1,540 1,650 1,540 1,650 1,540 1,650 1,540 1,650 1,540 1,650 1,540 1,650 1,540 1,540 1,550
vngradient Wells	11/26/2023 Dup 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 08/08/16 10/12/16 12/29/16 12/29/16 09/20/17 06/08/18 09/10/18 05/09/19 10/30/19 04/26/20 11/01/20 03/24/21 05/30/22 12/03/22 05/28/23 11/26/23 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 08/08/16 10/12/16 12/29/16 09/20/17 06/08/18 09/10/18 05/10/19 10/30/19 04/26/20 11/01/20 05/10/19 05/10/19 05/10/19 05/10/19 00/12/16 10/12/16 10/12/16 10/12/16 09/20/17 06/08/18 09/10/18 05/10/19 10/30/19 04/26/20 11/01/20 03/29/21 08/15/21	1.46           6.36           6.68           7.52           7.24           7.08           6.37           5.15           5.23           5.89           6.01           5.45           3.41           5.18           3.43           2.32           1.81           1.10           1.17           1.60           3.47           4.58           3.47           4.98           3.32           5.70           6.42           6.52           4.84           3.70           4.14           1.94           1.69           1.24	75.3           311           262           243           278           229           215           237           275           271           364           351           93.7           169           96.4           80.9           77.0           61.7           77.5           80.9           101           93.7           169           96.4           80.9           174           163           174           163           174           185           127           140           95.4           100           70           84           89.9	5.72 Q 162 120 124 171 120 108 111 125 112 142 132 36.7 39.7 17.7 10.8 8.55 8.05 10.4 9.08 6.7 7.33 Q 101 81.1 82.3 75.9 85.5 85.6 82.4 82.5 80.6 87.9 81.5 82.1 86.1 88.2 86.1 83.3	1.64 Q 2.01 2.80 2.40 2.50 2.12 2.43 2.25 2.94 3.59 2.94 3.59 2.94 3.59 2.94 3.59 2.94 3.59 2.94 3.59 2.94 3.59 2.94 3.59 2.94 3.59 2.94 3.59 3.48 4.22 2.94 3.48 4.22 3.46 3.00 3.07 Q 0.32 J 0.32 J 0.32 J 0.24 J 0.23 J 0.41 J 0.24 J 0.21 J 0.24 J 0.25 J 0.	7.14 7.14 7.12 7.11 7.14 7.10 6.97 6.84 6.82 6.73 6.55 6.78 6.85 6.68 8.35 7.10 7.13 7.05 7.24 7.09 7.09 6.21 6.22 6.27 6.17 6.22 6.27 6.14 6.85 6.62 6.32 6.14 6.85 6.62 6.32 6.52 6.52 6.52 6.52 6.52 6.52 6.52 6.5	179 Q           1,080           853           790           935           700           655           797           965           863           1,200           1,160           1,160           1,160           1,160           55           51.4           55           51.4           861           501           909           465           696           1,100           1,140           1,150           882           694           858           361           252           270           214	387 1.6303 1.6806 1.5404 1.5404 1.5404 1.3000 1.5404 1.3000 1.5404 1.3000 1.5404 1.3000 1.5404 1.3700 2.23030 1.3775 9111 1.9777 9111 387 387 387 387 387 387 387 387 387 387
vngradient Weils	11/26/2023 Dup 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 09/00/16 10/12/16 12/29/16 09/20/17 06/08/18 09/10/18 05/09/19 10/30/19 04/26/20 11/01/20 03/24/21 08/15/21 05/30/22 12/03/22 05/28/23 11/26/23 11/26/23 10/15/15 12/27/15 02/22/16 04/04/16 06/06/16 08/08/18 09/20/17 06/08/18 09/20/17 00/22/21 00/15/21 00/15/21 00/15/21 00/15/21 00/15/21 00/15/21 00/15/21 00/15/21 00/15/21 00/16/20 00/20/17	1.46           6.36           6.68           7.52           7.24           7.08           6.37           5.15           5.23           5.89           6.01           5.45           3.41           5.18           3.43           2.32           1.81           1.10           1.17           1.60           1.23           4.58           3.47           4.98           3.32           5.70           6.42           6.52           4.84           3.70           6.52           4.84           3.70           1.94           1.69           1.36           1.24           1.25           NA           NA	75.3           311           252           243           278           229           215           237           275           271           364           351           93.7           169           96.4           80.9           77.0           61.77.5           80.9           77.5           80.9           101           93.7           169           96.4           80.9           111           86.6           114           162           153           174           185           128           127           128           127           128           127           128           127           128           127           128           127           128           127           138           128           127           128 <td>5.72 Q 162 120 124 171 120 108 111 125 112 142 132 36.7 39.7 17.7 10.8 8.55 8.05 10.4 9.08 6.7 7.33 Q 101 81.1 82.3 75.9 85.5 85.6 82.4 82.5 80.6 87.9 81.5 92.1 86.1 86.2 83.3 NA NA</td> <td>1.64 Q 2.01 2.80 2.40 2.50 2.12 2.43 2.24 3.59 2.94 3.59 2.94 3.59 2.94 1.41 1.21 3.13 3.73 3.48 4.22 2.93 3.46 3.07 Q 3.07 Q 0.32 J 0.36 J 0.24 0.23 J &lt;0.10 &lt;0.10 &lt;0.23 J &lt;0.10 0.41 J 0.22 J 0.24 J 0.21 J 0.22 J 0.21 J 0.22 J &lt;0.21 J 0.22 J 0.36 J 0.22 J 0.37 J 0.22 J 0.24 J 0.21 J 0.22 J 0.21 J 0.22 J 0.22 J 0.22 J 0.22 J 0.24 J 0.23 J &lt;0.10 0.41 J 0.22 J 0.21 J 0.22 J 0.22 J 0.23 J &lt;0.10 0.41 J 0.22 J 0.21 J 0.21 J 0.22 J 0.22 J 0.23 J &lt;0.10 0.41 J 0.22 J 0.21 J 0.22 J 0.24 J 0.21 J 0.22 J 0.22 J 0.23 J &lt;0.10 0.41 J 0.21 J 0.24 J 0.21 J 0.24 J 0.21 J 0.22 J 0.24 J 0.22 J 0.24 J 0.23 J &lt;0.10 0.41 J 0.21 J 0.22 J 0.24 J 0.24 J 0.22 J 0.24 J 0.24 J 0.27 J 0.27 J 0.27 J 0.28 J 0.78 J</td> <td>7.14 7.14 7.12 7.11 7.11 7.14 7.10 6.97 6.84 6.82 6.73 6.85 6.88 8.35 6.85 6.68 8.35 7.10 7.13 7.05 7.24 7.29 7.09 6.21 6.22 6.27 6.17 6.22 6.27 6.12 6.32 6.32 6.32 6.32 6.32 6.32 6.32 6.3</td> <td>179 Q 1,080 853 790 935 700 655 797 965 863 1,200 1,160 443 477 171 104 55 51.4 82.9 97.2 203 189 Q 861 501 909 465 696 1,100 1,150 882 696 1,100 1,150 882 696 1,100 1,150 882 696 1,100 1,150 882 696 1,100 1,150 882 696 1,100 1,150 882 696 1,100 1,100 1,100 1,100 1,100 1,100 1,100 1,100 1,100 1,100 1,100 1,100 1,100 1,100 1,100 1,100 1,100 1,000 1,100 1,000 1,100 1,000 1,000 1,100 1,000</td> <td>387 1.6303 1.5440 1.5440 1.5440 1.5440 1.5440 1.5440 1.5440 1.5440 1.7540 1.5440 1.7540 1.5440 1.775 2.2302 1.5404 1.775 2.2302 1.5404 1.775 1.977 1.911 1.970 1.977 1.911 1.970 1.977 1.911 1.920 1.930 1.940 1.920 1.940 1.9</td>	5.72 Q 162 120 124 171 120 108 111 125 112 142 132 36.7 39.7 17.7 10.8 8.55 8.05 10.4 9.08 6.7 7.33 Q 101 81.1 82.3 75.9 85.5 85.6 82.4 82.5 80.6 87.9 81.5 92.1 86.1 86.2 83.3 NA NA	1.64 Q 2.01 2.80 2.40 2.50 2.12 2.43 2.24 3.59 2.94 3.59 2.94 3.59 2.94 1.41 1.21 3.13 3.73 3.48 4.22 2.93 3.46 3.07 Q 3.07 Q 0.32 J 0.36 J 0.24 0.23 J <0.10 <0.10 <0.23 J <0.10 0.41 J 0.22 J 0.24 J 0.21 J 0.22 J 0.21 J 0.22 J <0.21 J 0.22 J 0.36 J 0.22 J 0.37 J 0.22 J 0.24 J 0.21 J 0.22 J 0.21 J 0.22 J 0.22 J 0.22 J 0.22 J 0.24 J 0.23 J <0.10 0.41 J 0.22 J 0.21 J 0.22 J 0.22 J 0.23 J <0.10 0.41 J 0.22 J 0.21 J 0.21 J 0.22 J 0.22 J 0.23 J <0.10 0.41 J 0.22 J 0.21 J 0.22 J 0.24 J 0.21 J 0.22 J 0.22 J 0.23 J <0.10 0.41 J 0.21 J 0.24 J 0.21 J 0.24 J 0.21 J 0.22 J 0.24 J 0.22 J 0.24 J 0.23 J <0.10 0.41 J 0.21 J 0.22 J 0.24 J 0.24 J 0.22 J 0.24 J 0.24 J 0.27 J 0.27 J 0.27 J 0.28 J 0.78 J	7.14 7.14 7.12 7.11 7.11 7.14 7.10 6.97 6.84 6.82 6.73 6.85 6.88 8.35 6.85 6.68 8.35 7.10 7.13 7.05 7.24 7.29 7.09 6.21 6.22 6.27 6.17 6.22 6.27 6.12 6.32 6.32 6.32 6.32 6.32 6.32 6.32 6.3	179 Q 1,080 853 790 935 700 655 797 965 863 1,200 1,160 443 477 171 104 55 51.4 82.9 97.2 203 189 Q 861 501 909 465 696 1,100 1,150 882 696 1,100 1,150 882 696 1,100 1,150 882 696 1,100 1,150 882 696 1,100 1,150 882 696 1,100 1,150 882 696 1,100 1,100 1,100 1,100 1,100 1,100 1,100 1,100 1,100 1,100 1,100 1,100 1,100 1,100 1,100 1,100 1,100 1,000 1,100 1,000 1,100 1,000 1,000 1,100 1,000	387 1.6303 1.5440 1.5440 1.5440 1.5440 1.5440 1.5440 1.5440 1.5440 1.7540 1.5440 1.7540 1.5440 1.775 2.2302 1.5404 1.775 2.2302 1.5404 1.775 1.977 1.911 1.970 1.977 1.911 1.970 1.977 1.911 1.920 1.930 1.940 1.920 1.940 1.9
vngradient Wells	11/26/2023 Dup 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 08/08/16 10/12/16 12/29/16 12/29/16 09/20/17 06/08/18 09/10/18 05/09/19 10/30/19 04/26/20 11/01/20 03/24/21 05/30/22 12/03/22 05/28/23 11/26/23 10/15/15 12/07/15 02/22/16 04/04/16 06/06/16 08/08/16 10/12/16 12/29/16 09/20/17 06/08/18 09/10/18 05/10/19 10/30/19 04/26/20 11/01/20 05/10/19 05/10/19 05/10/19 05/10/19 00/12/16 10/12/16 10/12/16 10/12/16 09/20/17 06/08/18 09/10/18 05/10/19 10/30/19 04/26/20 11/01/20 03/29/21 08/15/21	1.46           6.36           6.68           7.52           7.24           7.08           6.37           5.15           5.23           5.89           6.01           5.45           3.41           5.18           3.43           2.33           2.32           1.81           1.10           1.17           1.60           3.47           4.98           3.32           5.70           6.42           6.52           4.84           3.70           4.14           1.94           1.36           1.23	75.3           311           252           243           278           227           237           275           271           364           351           93.7           77.0           61.7           77.5           80.9           101           93.7           111           86.6           111           86.9           101           95.4           102           152           127           140           95.4           100           70           84           89.9           NA	5.72 Q 162 120 124 171 120 108 111 125 112 142 132 36.7 39.7 17.7 10.8 8.55 8.05 10.4 9.08 6.7 7.33 Q 101 81.1 82.3 75.9 85.5 85.6 82.4 82.5 80.6 87.9 81.5 92.1 86.1 88.2 88.1 83.3 NA	1.64 Q 2.01 2.80 2.40 2.50 2.12 1.92 2.43 2.25 2.04 3.59 2.99 1.41 1.21 3.13 3.73 3.48 4.22 2.93 3.48 4.22 2.93 3.46 3.00 3.07 Q 0.32 J 0.36 J 0.24 J 0.23 J <0.10 0.23 J <0.10 0.37 J 0.41 0.21 J 0.24 J 0.41 J 0.21 J 0.41 J 0.22 J 0.41 J 0.22 J 0.41 J 0.24 J 0.41 J 0.27 J 0.41 J 0.27 J 0.41 J 0.27 J 0.41 J 0.27 J 0.41 J 0.27 J 0.41 J 0.41 J 0.24 J 0.41 J 0.41 J 0.41 J 0.41 J 0.42 J 0.44 J	7.14 7.14 7.12 7.11 7.11 7.10 6.97 6.84 6.82 6.73 6.55 6.78 6.85 6.68 8.35 8.39 7.10 7.13 7.05 7.24 7.29 7.09 7.09 7.09 6.21 6.22 6.27 6.32 6.32 6.32 6.32 6.32 6.32 6.32 6.32	179 Q 1,080 853 790 935 700 655 797 965 863 1,200 1,160 1,160 1,160 1,160 1,160 1,160 1,160 1,160 82.9 97.2 203 189 Q 861 501 501 909 465 696 1,100 1,150 882 696 1,100 1,150 882 861 361 252 270 214 224 NA	387 1.6300 1.5404 1.5404 1.5404 1.5404 1.5404 1.5404 1.5404 1.5404 1.7202 2.23020

#### Table 2 Analytical Results MOSES CCR BAP Monitoring 2023

W-30	10/15/15 12/07/15 02/22/16 04/04/16 06/06/16	6.06 7.04	133	106	0.58	5.78	919	
W-35	02/22/16 04/04/16	-					515	1,490
W-35	04/04/16		135	98.3	0.81	5.95	875	1,530
W-35		6.83	138	96.3	0.72	5.94	873	1,790
W-35	06/06/16	6.28	141	95.2	0.96	5.93	925	1,460
W-35	00/00/10	6.89	132	94.9	0.36 J	5.96	884	1,460
W-35	08/08/16	5.94	136	85.7	0.45	6.23	848	1,550
W-35	10/12/16	6.51	130	79.9	0.79	6.02	817	1,300
W-35	12/29/16	8.54	192	85.3	0.50	5.34	863	1,510
W-35	09/20/17	5.76	127	76.5	0.394 J	6.85	734	1,570
W-35	06/08/18	5.06	127	87.8	0.92	6.78	724	1,280
W-35	09/10/18	4.53	115	81.1	0.91	5.25	713	1,230
W-35	05/09/19	5.13	115	97.5	0.85	6.72	734	1,300
W-35	10/30/19	5.06	161	59.4	0.57	6.43	755	1,330
W-35	04/26/20	4.18	135	51.4	0.69	7.49	763	1,150
W-35	10/31/20	4.26	141	44.0	0.68	7.11	735	1,140
W-35	03/24/21	4.33	133	40.5	0.58	5.67	686	1,070
W-35	08/15/21	4.01	100	33.4	0.82	5.83	606	979
W-35	05/30/22	4.04	112	43.8	0.70	5.61	682	1,090
W-35	12/03/22	4.6	119	45.4	0.813	5.58	636	1,030
W-35	05/28/23	6.18	97.9	35.5	< 1.0	6.03	633	911
W-35	11/26/23	4.78	108	50.4 Q	0.59 Q	5.47	589 Q	990
	10/15/15	2.38	124	87.1	0.38 J	6.55	453	878
	12/07/15	4.10	153	82.2	0.49	6.58	671	1,500
	02/22/16	3.44	117	85.9	0.42	6.59	641	1,570
	04/04/16	2.09	86.9	80.7	0.287 J	6.63	378	817
	06/06/16	2.12	66.2	73.0	<0.1	6.64	343	795
	08/08/16	3.56	121	98.4	<0.1	6.52	634	1,030
	10/12/16	3.13	110	84.9	0.29	6.57	556	935
	12/29/16	6.10	158	122	0.336 J	6.03	937	1,620
	09/20/17	5.36	181	117	0.244 J	6.75	873	1,720
	06/08/18	4.95	180	116	0.90	6.85	835	1,540
	09/10/18	4.53	161	114	0.66	6.64	819	1,530
	05/09/19	1.51	64.7	45.1	0.348 J	6.78	164	568
	10/30/19	4.11	154	103	0.322 J	6.62	677	1,260
	04/26/20	4.26	182	108	0.44	7.67	817	1,370
	11/01/20	5.47	217	114	0.35	7.50	930	1,560
	03/24/21	5.80	229	132	0.48	6.20	1,130	1,640
	08/15/21	4.83	210	125	0.35	6.16	933	1,620
	05/30/22	5.61	220	108	0.29	6.30	918	1,800
	12/17/22	5.67	216	122	0.19	6.38	973	1,600
	05/28/23	NA	NA	NA	NA	NA	NA	NA
	11/26/23	NA	NA	NA	NA	NA	NA	NA
	10/15/15	5.58	175	98.2	<0.1	6.05	893	1,720
	12/07/15	6.13	177	90.2	0.128 J	6.16	861	1,580
	02/22/16	6.29	160	85.4	<0.1	6.12	824	1,650
	04/04/16	6.16	169	91.3	<0.1	6.09	835	1,310
	06/06/16	6.17	158	98.5	<0.1	6.36	858	1,460
	08/08/16	6.07	159	97.8	<0.1	6.41	810	1,470
100	10/12/16	6.25	150	97.8	0.1	6.12	793	1,320
100	12/29/16	6.89	151	110	<0.1	5.06	839	1,370
10/	09/20/17	6.27	186	120	<0.100	6.74	854	1,650
10/	06/08/18	5.81	200	120	0.163 J	6.55	925	1,660
10/	09/10/18	5.70	200	132	<0.1	5.42	940	1,580
10/	05/10/19	5.46	182	75.5	<0.1	6.94	501	865
10/	10/30/19	3.63	102	95.5	<0.100	6.92	682	1,280
	)/30/2019 DUP	4.57	142	95.5 99.1	<0.100	6.92	699	1,280
10/	04/26/20	5.30	209	129	<0.100	6.50	984	1,200
	11/01/20		209	129	<0.150		984 945	
		5.95		118 129		6.73		1,550
	03/25/21	6.16	213		0.0725 J	5.29	1,010	1,510
	08/15/21	6.04	216	137	<0.0640	5.70	992	1,650
	05/30/22	5.26	232	115	<0.15	5.42	946	1,670
	12/17/22	5.55	228	104	<0.15	5.60	942	1,520
	05/28/23 11/26/23	5.21 6.36	41.4 188	96.7 82.6	< 1.0 0.07 BJ	5.75 5.50	936 799	1,530 1,260

Notes:

Abbreviations: mg/L - milligrams per liter; TDS - total dissolved solids; s.u. - standard units.

Samples from the Current Period are bold.

J - concentration is below method quantitation limit; result is an estimate.

B - The same analyte is found in the associated blank.

Q - Sample was prepared and/or analyzed past holding time as defined in the method. Concentrations should be considered minimum values.

T8 - Sample(s) received past/too close to holding time expiration. NA - not analyzed

# **APPENDIX A - 2023 LABORATORY ANALYTICAL REPORTS**



Pace Analytical® ANALYTICAL REPORT

January 03, 2024

# **GEMINI Engineering**

Sample Delivery Group: Samples Received:

Project Number:

Description:

Site:

Report To:

L1684185 12/04/2023

Monticello GW - Mt. Pleasant, TX **GOLDEN EAGLE** Adam Kaiser 2275 Cassens Drive Suite 118 Fenton, MO 63026

Тс Ss Cn . Tr Śr Qc GI AI Sc

Entire Report Reviewed By: <sup>\</sup>

John V Hankins

John Hawkins 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 National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

ACCOUNT: **GEMINI** Engineering PROJECT:

SDG: L1684185

DATE/TIME: 01/03/24 13:05

PAGE: 1 of 24

# TABLE OF CONTENTS

Cp: Cover Page	1
Tc: Table of Contents	2
Ss: Sample Summary	3
Cn: Case Narrative	4
Tr: TRRP Summary	5
TRRP form R	6
TRRP form S	7
TRRP Exception Reports	8
Sr: Sample Results	9
W-31 L1684185-01	9
W-32 L1684185-02	10
W-33 L1684185-03	11
CCR DUP L1684185-04	12
W-30 L1684185-05	13
Qc: Quality Control Summary	14
Gravimetric Analysis by Method 2540 C-2011	14
Wet Chemistry by Method 9056A	17
Metals (ICPMS) by Method 6020	20
GI: Glossary of Terms	21
Al: Accreditations & Locations	22
Sc: Sample Chain of Custody	23

SDG: L1684185 DATE/TIME: 01/03/24 13:05

# SAMPLE SUMMARY

W-31 L1684185-01 GW			Collected by Jeff N.	Collected date/time 11/26/23 12:00	Received da 12/04/23 10:**	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2183814	1	12/06/23 14:03	12/06/23 15:21	DLS	Mt. Juliet, TN
Vet Chemistry by Method 9056A	WG2188440	1	12/30/23 01:56	12/30/23 01:56	ASM	Mt. Juliet, TN
Net Chemistry by Method 9056A	WG2199084	5	01/01/24 16:08	01/01/24 16:08	ASM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2183585	1	12/07/23 08:55	12/09/23 09:41	JPD	Mt. Juliet, TN
Aetals (ICPMS) by Method 6020	WG2183585	10	12/07/23 08:55	12/09/23 10:56	JPD	Mt. Juliet, TN
W-32 L1684185-02 GW			Collected by Jeff N.	Collected date/time 11/26/23 11:00	Received da 12/04/23 10:*	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2183754	1	12/06/23 20:02	12/06/23 23:22	DLS	Mt. Juliet, TN
Net Chemistry by Method 9056A	WG2188440	1	12/30/23 02:48	12/30/23 02:48	ASM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2183585	1	12/07/23 08:55	12/09/23 09:44	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2183585	10	12/07/23 08:55	12/09/23 10:59	JPD	Mt. Juliet, TN
			Collected by	Collected date/time	Received da	te/time
W-33 L1684185-03 GW			Jeff N.	11/26/23 10:00	12/04/23 10:	15
Aethod	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2183759	1	12/06/23 20:38	12/07/23 07:49	MMF	Mt. Juliet, TN
Vet Chemistry by Method 9056A	WG2188440	1	12/30/23 03:01	12/30/23 03:01	ASM	Mt. Juliet, TN
Ietals (ICPMS) by Method 6020	WG2183585	1	12/07/23 08:55	12/09/23 09:48	JPD	Mt. Juliet, TN
Aetals (ICPMS) by Method 6020	WG2183585	10	12/07/23 08:55	12/09/23 11:02	JPD	Mt. Juliet, TN
			Collected by	Collected date/time	Received da	
CCR DUP L1684185-04 GW			Jeff N.	11/26/23 11:00	12/04/23 10:	15
<i>f</i> lethod	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2183759	1	12/06/23 20:38	12/07/23 07:49	MMF	Mt. Juliet, TN
Vet Chemistry by Method 9056A	WG2188440	1	12/30/23 03:13	12/30/23 03:13	ASM	Mt. Juliet, TN
Vet Chemistry by Method 9056A	WG2199084	5	01/01/24 16:21	01/01/24 16:21	ASM	Mt. Juliet, TN
Netals (ICPMS) by Method 6020	WG2183585	1	12/07/23 08:55	12/09/23 09:51	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2183585	10	12/07/23 08:55	12/09/23 11:06	JPD	Mt. Juliet, TN
			Collected by	Collected date/time	Received da	te/time
W-30 L1684185-05 GW			Jeff N.	11/26/23 13:00	12/04/23 10:	15
Nethod	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2183759	1	12/06/23 20:38	12/07/23 07:49	MMF	Mt. Juliet, TN
Vet Chemistry by Method 9056A	WG2188440	1	12/30/23 03:52	12/30/23 03:52	ASM	Mt. Juliet, TN
Vet Chemistry by Method 9056A	WG2188440	10	12/30/23 04:05	12/30/23 04:05	ASM	Mt. Juliet, TN
Netals (ICPMS) by Method 6020	WG2183585	1	12/07/23 08:55	12/09/23 09:54	JPD	Mt. Juliet, TN
						inte ounor, int

SDG: L1684185 DATE/TIME: 01/03/24 13:05 <sup>5</sup>Tr <sup>6</sup>Sr <sup>7</sup>Qc <sup>8</sup>GI <sup>9</sup>AI

Ср

<sup>2</sup>Tc

Ss

°Cn

# 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.

VHputino

John Hawkins Project Manager



SDG: L1684185 DATE/TIME: 01/03/24 13:05

# Laboratory Data Package Cover Page

This data package consists of this signature page, the laboratory review checklist, and the following reportable data as applicable:

- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - a. Items consistent with NELAC Chapter 5,
  - b. dilution factors,
  - c. preparation methods,
  - d. cleanup methods, and
  - e. if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
  - a. Calculated recovery (%R), and
  - b. The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - a. LCS spiking amounts,
  - b. Calculated %R for each analyte, and
  - c. The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - a. Samples associated with the MS/MSD clearly identified,
  - b. MS/MSD spiking amounts,
  - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
  - d. Calculated %Rs and relative percent differences (RPDs), and
  - e. The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - a. The amount of analyte measured in the duplicate,
  - b. The calculated RPD, and
  - c. The laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte
  - for each method and matrix.
- R10 Other problems or anomalies.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

John Hawkins Project Manager

SDG: L1684185

# Laboratory Review Checklist: Reportable Data

Lab	orato	ory Name: Pace Analytical National	LRC Date: 01/03/2024 13:05							
Project Name: Monticello GW - Mt. Pleasant, TX			Laboratory Job Number: L1684185-01, 02, 03, 04 and 05							
Rev	iewe	r Name: John Hawkins	Prep Batch Number(s): WG2183585, WG2183814, WG2183759, WG2183754, and WG2199084							
# <sup>1</sup>	A <sup>2</sup>	Description		Yes	No	NA <sup>3</sup>	NR⁴	ER# <sup>5</sup>		
R1	OI	Chain-of-custody (C-O-C)								
		Did samples meet the laboratory's standard condition	ons of sample acceptability upon receipt?	Х						
		Were all departures from standard conditions descri	bed in an exception report?			Х				
R2	OI	Sample and quality control (QC) identification						_		
		Are all field sample ID numbers cross-referenced to	the laboratory ID numbers?	Х						
		Are all laboratory ID numbers cross-referenced to th	e corresponding QC data?	Х						
R3	OI	Test reports								
		Were all samples prepared and analyzed within hold	ling times?		Х			1		
		Other than those results < MQL, were all other raw v	alues bracketed by calibration standards?		Х			2		
		Were calculations checked by a peer or supervisor?		Х						
		Were all analyte identifications checked by a peer o	r supervisor?	X						
		Were sample detection limits reported for all analyte	es not detected?	X						
		Were all results for soil and sediment samples repor		Х				1		
		Were % moisture (or solids) reported for all soil and s	· · ·			X				
		Were bulk soils/solids samples for volatile analysis e				Х				
		If required for the project, are TICs reported?	·····			Х				
₹4	0	Surrogate recovery data				1		4		
••		Were surrogates added prior to extraction?		<u>г</u>	1	X	T	Т		
		Were surrogate percent recoveries in all samples wi	thin the laboratory OC limits?	X		~	1	1		
25	OI	Test reports/summary forms for blank samples			1			<u> </u>		
		Were appropriate type(s) of blanks analyzed?		X	1	1	<u> </u>	1		
				X				-		
		Were blanks analyzed at the appropriate frequency?								
		cleanup procedures?	tical process, including preparation and, if applicable,	X						
		Were blank concentrations < MQL?		X				1		
76	01	Laboratory control samples (LCS):			1		<b>I</b>	4		
		Were all COCs included in the LCS?		X	1	1	T	Т		
		Was each LCS taken through the entire analytical pr	ocedure including prep and cleanup steps?	X			1	-		
		Were LCSs analyzed at the required frequency?	cecule, melaling prop and cleanap steps.	X				1		
		Were LCS (and LCSD, if applicable) %Rs within the la	boratory OC limits?	X			+			
		Does the detectability check sample data document	the laboratory's capability to detect the COCs at the MDL	X				1		
		used to calculate the SDLs? Was the LCSD RPD within QC limits?		X				┼──		
77	OI	Matrix spike (MS) and matrix spike duplicate (MSD) of	lata		1					
.,		Were the project/method specified analytes include		X	1	1	1	T		
		Were MS/MSD analyzed at the appropriate frequence		X				-		
		Were MS (and MSD, if applicable) %Rs within the lab	•		X			3		
		Were MS/MSD RPDs within laboratory QC limits?		X						
88	OI	Analytical duplicate data					•	<u> </u>		
		Were appropriate analytical duplicates analyzed for	each matrix?	X	1	1	1	Τ		
		Were analytical duplicates analyzed at the appropriate		X			+			
		Were RPDs or relative standard deviations within the	· · ·		X		+	4		
29	OI	Method guantitation limits (MQLs):		1			<u> </u>	<u> </u>		
19		Are the MQLs for each method analyte included in the	ho laboratory data packago?	X	1	1	1	1		
		Do the MQLs for each method analyte included in the								
		•		X		-				
10		Are unadjusted MQLs and DCSs included in the labo	bratory data package?	X				1		
210	OI	Other problems/anomalies	a material in this LDC and ED2		1	-	<u> </u>	1		
		Are all known problems/anomalies/special condition		X		-		+		
		the sample results?	wer the SDL to minimize the matrix interference effects on	Х						
		Is the laboratory NELAC-accredited under the Texas and methods associated with this laboratory data pa	Laboratory Accreditation Program for the analytes, matrices ickage?	X						
shoul 2. O 3. NA 4. NF	ld be r = orga A = No R = No	ntified by the letter "R" must be included in the laborate etained and made available upon request for the apprint anic analyses; I = inorganic analyses (and general che t applicable; t reviewed;	atory data package submitted in the TRRP-required report(s). ropriate retention period.		identifie	ed by th	ie letter	"S"		

# Laboratory Review Checklist: Supporting Data

Lab	orato	ory Name: Pace Analytical National	LRC Date: 01/03/2024 13:05								
Pro	ject N	Name: Monticello GW - Mt. Pleasant, TX	Laboratory Job Number: L1684185-01, 02, 03, 04	Job Number: L1684185-01, 02, 03, 04 and 05         Number(s): WG2183585, WG2183814, WG2183759, WG2183754, WG2188440         O084         Yes       No       NA <sup>3</sup> NR <sup>4</sup> ER# <sup>5</sup> yte within QC limits?       X       Image: Constraint of the							
Rev	iewe	er Name: John Hawkins	Prep Batch Number(s): WG2183585, WG2183814, and WG2199084	Prep Batch Number(s): WG2183585, WG2183814, WG2183759, WG2183754, WG218844 and WG2199084							
# <sup>1</sup>	A <sup>2</sup>	Description		Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER# <sup>5</sup>			
S1	OI	Initial calibration (ICAL)									
		Were response factors and/or relative response factors	ors for each analyte within QC limits?			X		Т			
		Were percent RSDs or correlation coefficient criteria	met?	Х							
		Was the number of standards recommended in the r	nethod used for all analytes?	Х							
		Were all points generated between the lowest and h	ighest standard used to calculate the curve?	Х							
		Are ICAL data available for all instruments used?		Х							
		Has the initial calibration curve been verified using a	n appropriate second source standard?	X			1				
52	OI	Initial and continuing calibration verification (ICCV an	•••	<b>e</b>				-			
		Was the CCV analyzed at the method-required frequ		Х			T	Т			
		Were percent differences for each analyte within the	•	X			1				
		Was the ICAL curve verified for each analyte?		X							
		Was the absolute value of the analyte concentration	in the inorganic CCB < MDL?	X							
53	0	Mass spectral tuning									
-		Was the appropriate compound for the method used	for tunina?	X		Т	Т	Т			
		Were ion abundance data within the method-require					1				
4	0	Internal standards (IS)			1			-			
		Were IS area counts and retention times within the m	nethod-required QC limits?	X	1	1	1	Т			
5	OI	Raw data (NELAC Section 5.5.10)		^		1	1	-			
0	10.	Were the raw data (for example, chromatograms, spe	ectral data) reviewed by an analyst?	X	1	1	1	Т			
		Were data associated with manual integrations flagg	· · · · · · · · · · · · · · · · · · ·			×	+	+			
6	0	Dual column confirmation					<u> </u>	-			
0		Did dual column confirmation results meet the metho	od-required OC?		1		T	Т			
57	0	Tentatively identified compounds (TICs)					<u> </u>	-			
		If TICs were requested, were the mass spectra and T	TC data subject to appropriate checks?		1		T	Т			
8	1	Interference Check Sample (ICS) results					1				
	1	Were percent recoveries within method QC limits?		X	1	T	T	T			
9	1	Serial dilutions, post digestion spikes, and method or	f standard additions		1		<b>I</b>				
5	1	Were percent differences, recoveries, and the linear		X	1	1	T	Т			
510	01	Method detection limit (MDL) studies	ty within the de limits specified in the method:	^			<u> </u>				
10		Was a MDL study performed for each reported analy	te?	X	1	T	T	T			
		Is the MDL either adjusted or supported by the analy		X			+	-			
11	01	Proficiency test reports	313 01 DC33:	^			<u> </u>				
		Was the laboratory's performance acceptable on the	applicable proficioney tests or avaluation studies?	X		1	T	Т			
512	OI	Standards documentation	applicable proficiency tests of evaluation studies:	^			I				
12		Are all standards used in the analyses NIST-traceable	e or obtained from other appropriate sources?	X	1	1	T	T			
513	OI	· · · · · ·	e of obtailed nom other appropriate sources:	^			I				
013		Compound/analyte identification procedures Are the procedures for compound/analyte identificat	ion documented?	X	1	1	1	T			
514	01	Demonstration of analyst competency (DOC)	ion documented :				<u> </u>				
14	0		- 52		1	1	<u> </u>	1			
		Was DOC conducted consistent with NELAC Chapte		X							
15	01	Is documentation of the analyst's competency up-to- Verification/validation documentation for methods (N		X	1	1	1	1			
515	0		1 <i>/</i>			1	1				
10		Are all the methods used to generate the data docur	nenteu, venneu, and validated, where applicable?	X	I	<u> </u>	<u> </u>				
516	OI	Laboratory standard operating procedures (SOPs)			1	1	1	T			
		Are laboratory SOPs current and on file for each met		I X	1		1	1			

4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

# Laboratory Review Checklist: Exception Reports

Laborat	tory Name: Pace Analytical National	LRC Date: 01/03/2024 13:05					
Project	Name: Monticello GW - Mt. Pleasant, TX	Laboratory Job Number: L1684185-01, 02, 03, 04 and 05					
Review	er Name: John Hawkins	Prep Batch Number(s): WG2183585, WG2183814, WG2183759, WG2183754, WG2188440 and WG2199084					
ER # <sup>1</sup>	Description						
1	<ul> <li>9056A WG2188440 L1684185-02, 03, 04, 05 and 01: Prepared and/or analyzed past holding time as defined in the method. Concentrations should be considered minimum values.</li> <li>9056A WG2199084 L1684185-01 and 04: Prepared and/or analyzed past holding time as defined in the method. Concentrations should be considered minimum values.</li> <li>2540 C-2011 WG2183754 L1684185-02: Prepared and/or analyzed past holding time as defined in the method. Concentrations should be considered minimum values.</li> <li>2540 C-2011 WG2183754 L1684185-01: Prepared and/or analyzed past holding time as defined in the method. Concentrations should be considered minimum values.</li> <li>2540 C-2011 WG2183814 L1684185-01: Prepared and/or analyzed past holding time as defined in the method. Concentrations should be considered minimum values.</li> </ul>						
2	6020 WG2183585 R4010176-4 and 5: The a instrument established by the initial calibrati	nalyte concentration exceeds the upper limit of the calibration range of the ion (ICAL).					
3	9056A WG2188440 Chloride: Percent Reco 6020 WG2183585 Boron: Percent Recovery 9056A WG2199084 Sulfate: Percent Recovery	/ is outside of established control limits.					
4		ent Difference is outside of established control limits. Relative Percent Difference is outside of established control limits.					
should be 2. O = org 3. NA = N	dentified by the letter "R" must be included in the laborato retained and made available upon request for the approp ganic analyses; I = inorganic analyses (and general chemis lot applicable; lot reviewed;	ry data package submitted in the TRRP-required report(s). Items identified by the letter "S" priate retention period. stry, when applicable);					

5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

## Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	Unadj. MQL	MQL	Dilution	Analysis	Batch	 Ср
Analyte	mg/l		mg/l	mg/l		date / time		2
Dissolved Solids	557	<u>T8</u>	10.0	10.0	1	12/06/2023 15:21	WG2183814	ЪС

#### Wet Chemistry by Method 9056A

Collected date/time: 11/26/23 12:00

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch				
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		<sup>₄</sup> Cn			
Chloride	55.6	Q	0.379	1.00	1.00	1	12/30/2023 01:56	WG2188440				
Fluoride	0.186	P1 Q	0.0640	0.150	0.150	1	12/30/2023 01:56	WG2188440	5			
Sulfate	188	Q	2.97	5.00	25.0	5	01/01/2024 16:08	WG2199084	۲r			

#### Metals (ICPMS) by Method 6020

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Boron	1.61		0.0963	0.0300	0.300	10	12/09/2023 10:56	WG2183585
Calcium	43.3		0.0936	1.00	1.00	1	12/09/2023 09:41	WG2183585

## Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	Unadj. MQL	MQL	Dilution	Analysis	Batch	 Ср
Analyte	mg/l		mg/l	mg/l		date / time		2
Dissolved Solids	395	<u>T8</u>	10.0	10.0	1	12/06/2023 23:22	WG2183754	Tc

#### Wet Chemistry by Method 9056A

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch				
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		$^{4}$ Cp			
Chloride	5.49	Q	0.379	1.00	1.00	1	12/30/2023 02:48	WG2188440				
Fluoride	1.65	Q	0.0640	0.150	0.150	1	12/30/2023 02:48	WG2188440	5			
Sulfate	195	Q	0.594	5.00	5.00	1	12/30/2023 02:48	WG2188440	Tr			

#### Metals (ICPMS) by Method 6020

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Boron	1.41		0.0963	0.0300	0.300	10	12/09/2023 10:59	WG2183585
Calcium	75.7		0.0936	1.00	1.00	1	12/09/2023 09:44	WG2183585



## Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	Unadj. MQL	MQL	Dilution	Analysis	Batch	 Ср
Analyte	mg/l		mg/l	mg/l		date / time		2
Dissolved Solids	456		10.0	10.0	1	12/07/2023 07:49	WG2183759	Tc

#### Wet Chemistry by Method 9056A

Collected date/time: 11/26/23 10:00

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch				
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		<sup>4</sup> Cn			
Chloride	7.33	Q	0.379	1.00	1.00	1	12/30/2023 03:01	WG2188440				
Fluoride	3.07	Q	0.0640	0.150	0.150	1	12/30/2023 03:01	WG2188440	5			
Sulfate	189	Q	0.594	5.00	5.00	1	12/30/2023 03:01	WG2188440	۲r			

#### Metals (ICPMS) by Method 6020

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Boron	1.23		0.0963	0.0300	0.300	10	12/09/2023 11:02	WG2183585
Calcium	93.7		0.0936	1.00	1.00	1	12/09/2023 09:48	WG2183585



1

## Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	Unadj. MQL	MQL	Dilution	Analysis	Batch	 Ср
Analyte	mg/l		mg/l	mg/l		date / time		2
Dissolved Solids	387		10.0	10.0	1	12/07/2023 07:49	WG2183759	Tc

#### Wet Chemistry by Method 9056A

									55
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		<sup>4</sup> Cn
Chloride	5.72	Q	0.379	1.00	1.00	1	12/30/2023 03:13	WG2188440	
Fluoride	1.64	Q	0.0640	0.150	0.150	1	12/30/2023 03:13	WG2188440	5
Sulfate	179	Q	2.97	5.00	25.0	5	01/01/2024 16:21	WG2199084	۲r

#### Metals (ICPMS) by Method 6020

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Boron	1.46		0.0963	0.0300	0.300	10	12/09/2023 11:06	WG2183585
Calcium	75.3		0.0936	1.00	1.00	1	12/09/2023 09:51	WG2183585

1

#### Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	Unadj. MQL	MQL	Dilution	Analysis	Batch	Ср
Analyte	mg/l		mg/l	mg/l		date / time		2
Dissolved Solids	990		20.0	20.0	1	12/07/2023 07:49	WG2183759	Tc

#### Wet Chemistry by Method 9056A

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		<sup>4</sup> Cn
Chloride	50.4	Q	0.379	1.00	1.00	1	12/30/2023 03:52	WG2188440	
Fluoride	0.589	Q	0.0640	0.150	0.150	1	12/30/2023 03:52	WG2188440	5
Sulfate	589	Q	5.94	5.00	50.0	10	12/30/2023 04:05	WG2188440	۲r

#### Metals (ICPMS) by Method 6020

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Boron	4.78		0.482	0.0300	1.50	50	12/09/2023 11:09	WG2183585
Calcium	108		0.0936	1.00	1.00	1	12/09/2023 09:54	WG2183585



Gravimetric Analysis by Method 2540 C-2011

# QUALITY CONTROL SUMMARY

#### Method Blank (MB)

(MB) R4010284-1 12/06	/23 23:22			
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Dissolved Solids	U		10.0	10.0

#### L1684185-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1684185-02 12/06/	/23 23:22 • (DUF	P) R4010284-3	12/06/23	23:22		
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Dissolved Solids	395	397	1	0.505		5

## L1684262-02 Original Sample (OS) • Duplicate (DUP)

## Laboratory Control Sample (LCS)

(LCS) R4010284-2 12	(LCS) R4010284-2 12/06/23 23:22							
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier			
Analyte	mg/l	mg/l	%	%				
Dissolved Solids	8800	8850	101	85.0-115				

DATE/TIME: 01/03/24 13:05 Тс

Ss

Cn

٢r

Sr

<sup>10</sup>Sc

Gravimetric Analysis by Method 2540 C-2011

# QUALITY CONTROL SUMMARY

#### Method Blank (MB)

(MB) R4010283-1 12/07/23 07:49					
	MB Result	MB Qualifier	MB MDL	MB RDL	
Analyte	mg/l		mg/l	mg/l	
Dissolved Solids	U		10.0	10.0	

#### L1684149-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1684149-03 12/07/	23 07:49 • (DUP)	) R4010283-3	12/07/23	07:49		
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Dissolved Solids	122	128	1	4.80		5

## L1684185-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1684185-03 12/	/07/23 07:49 • (DUF	P) R4010283-4	12/07/23	07:49		
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Dissolved Solids	456	464	1	1.74		5

## Laboratory Control Sample (LCS)

(LCS) R4010283-2 12/07/23 07:49							
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier		
Analyte	mg/l	mg/l	%	%			
Dissolved Solids	8800	8710	99.0	85.0-115			

DATE/TIME: 01/03/24 13:05 Тс

Ss

Cn

٢r

Sr

Gravimetric Analysis by Method 2540 C-2011

# QUALITY CONTROL SUMMARY

#### Method Blank (MB)

(MB) R4010280-1 12/06/23 15:21						
	MB Result	MB Qualifier	MB MDL	MB RDL		
Analyte	mg/l		mg/l	mg/l		
Dissolved Solids	U	<u>J</u>	10.0	10.0		

#### L1683438-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1683438-04 12/06	6/23 15:21 • (DUP)	) R4010280-3	12/06/23	15:21		
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Dissolved Solids	2010	2170	1	7.67	<u>J3</u>	5

## L1684185-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1684185-01 12/06/2	23 15:21 • (DUP)	R4010280-4	12/06/23 1	5:21		
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Dissolved Solids	557	552	1	0.902		5

## Laboratory Control Sample (LCS)

(LCS) R4010280-2 12/06/23 15:21							
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier		
Analyte	mg/l	mg/l	%	%			
Dissolved Solids	8800	8670	98.5	85.0-115			

DATE/TIME: 01/03/24 13:05 Тс

Ss

Cn

٢r

Sr

Wet Chemistry by Method 9056A

#### QUALITY CONTROL SUMMARY L1684185-01,02,03,04,05

## Method Blank (MB)

(MB) R4018525-1	12/30/23 01:31				
	MB Result	MB Qualifier	MB MDL	MB RDL	
Analyte	mg/l		mg/l	mg/l	
Chloride	U		0.379	1.00	
Fluoride	U		0.0640	0.150	
Sulfate	U		0.594	5.00	

⁺Cn

٢r

Sr

Qc

Ĝ

ΆΙ

Sc

17 of 24

#### L1684185-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1684185-01 12/30/2	3 01:56 • (DUP)	R4018525-6	12/30/23 (	02:09		
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Chloride	55.6	54.5	1	1.87		15
Fluoride	0.186	U	1	200	<u>P1</u>	15

## L1691117-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1691117-03 12/30/23 05:35 · (DUP) R4018525-9 12/30/23 05:48

(	(= = : )					
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Chloride	170	166	1	2.39		15
Fluoride	0.101	0.121	1	17.6	<u>J P1</u>	15
Sulfate	0.644	0.597	1	7.54	J	15

#### Laboratory Control Sample (LCS)

**GEMINI Engineering** 

(LCS) R4018525-2 12/30/2	23 01:43				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Chloride	40.0	42.5	106	80.0-120	
Fluoride	8.00	8.55	107	80.0-120	
Sulfate	40.0	40.7	102	80.0-120	

#### L1684185-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1684185-01 12/3	30/23 01:56 • (MS) R	4018525-7 12	/30/23 02:22	• (MSD) R40185	525-8 12/30/2	3 02:35							
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits	
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%	
Chloride	40.0	55.6	89.3	87.8	84.3	80.6	1	80.0-120			1.69	15	
Fluoride	8.00	0.186	8.87	8.32	109	102	1	80.0-120			6.33	15	
	ACCOUNT:			PRC	DJECT:			SDG:		DATE/	TIME:		PAGE:

L1684185

01/03/24 13:05

#### WG2188440 Wet Chemistry by Method 9056A

# QUALITY CONTROL SUMMARY

## L1691117-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L1691117-03 12/30/23	8 05:35 • (MS) R	4018525-10 12	2/30/23 06:26				
	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Analyte	mg/l	mg/l	mg/l	%		%	
Chloride	40.0	170	177	18.2	1	80.0-120	$\underline{\vee}$
Fluoride	8.00	0.101	8.40	104	1	80.0-120	
Sulfate	40.0	0.644	42.6	105	1	80.0-120	

#### Sample Narrative:

MS: CI spike failed due to high parent hit

<sup>2</sup>Tc <sup>3</sup>Ss <sup>4</sup>Cn <sup>5</sup>Tr <sup>6</sup>Sr <sup>7</sup>Qc <sup>8</sup>Gl <sup>9</sup>Al <sup>10</sup>Sc

DATE/TIME: 01/03/24 13:05

Wet Chemistry by Method 9056A

# QUALITY CONTROL SUMMARY

#### Method Blank (MB)

(MB) R4018723-1 01/0	01/24 14:23			
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Sulfate	U		0.594	5.00

#### L1690532-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1690532-04 01/01,	/24 18:28 • (DUP	) R4018723-3	01/01/24 1	8:41		
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Sulfate	111	111	1	0.312		15

#### Laboratory Control Sample (LCS)

(LCS) R4018723-2 01/01/	24 14:35				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Sulfate	40.0	37.9	94.7	80.0-120	

## L1690532-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L169	0532-04 01/01/2	4 18:28 • (MS) F	24018723-4 01	/01/24 18:54 • (	MSD) R4018723	3-5 01/01/24 19	9:07						L
		Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte		mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Sulfate		40.0	111	125	124	35.2	32.9	1	80.0-120	<u>J6</u>	<u>J6</u>	0.725	15

#### Sample Narrative:

MS: SO4 spike failed due to sample matrix

MSD: SO4 spike failed due to sample matrix

SDG: L1684185 DATE/TIME: 01/03/24 13:05

Metals (ICPMS) by Method 6020

# QUALITY CONTROL SUMMARY

## Method Blank (MB)

(MB) R4010176-1 12/0	9/23 08:57			
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Boron	U		0.00963	0.0300
Calcium	U		0.0936	1.00

#### Laboratory Control Sample (LCS)

(LCS) R4010176-2 12/09/2	23 09:00				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Boron	0.0500	0.0506	101	80.0-120	
Calcium	5.00	4.87	97.3	80.0-120	

#### L1682607-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1682607-01 12/09/2	23 09:04 • (MS)	R4010176-4 12	2/09/23 09:10 •	(MSD) R401017	76-5 12/09/23	09:13						
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Boron	0.0500	0.492	0.526	0.543	68.2	102	1	75.0-125	EV	E	3.17	20
Calcium	5.00	5.29	10.3	10.1	100	96.7	1	75.0-125			1.71	20

SDG: L1684185 DATE/TIME: 01/03/24 13:05 PAGE: 20 of 24

## 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

MDL	Method Detection Limit.
MQL	Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
SDL	Sample Detection Limit.
U	Not detected at the Sample Detection Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
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
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
JG	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.
Q	Sample was prepared and/or analyzed past holding time as defined in the method. Concentrations should be considered minimum values.
Т8	Sample(s) received past/too close to holding time expiration.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCOUNT:					
GEMINI Engineering					

Τс

Ss

Cn

Tr

Śr

Qc

GI

AI

## 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 <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
lowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky <sup>16</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>14</sup>	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 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> 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.

SDG: L1684185 Τс

Ss

Cn

Tr

Śr

Qc

GI

Company Name/Address:	***		Billing Infor	mation:	- 93 <sup>3</sup>	7	L	2	A	nalvsis / C	ontainer	/ Preservative		Chain of Cust	ody Page of	
GEMINI Engineering			Adam Ka 2275 Cas	iser sens Drive		Pres Chk	U	~							Baco	
2275 Cassens Drive			Suite 118			1								PE	ACC OPLE ADVANCING SCIENCE	
Suite 118 Fenton. MO 63026			Fenton, N	NO 63026		1										
Report to:			Email To: a.	kaiser@geminis	tl.com		- 36							MT	JULIET, TN	
Adam Kaiser															Mount Juliet, TN 37122 Ne via this chain of custody	
Project Description:		City/State			Please C	irde:	- 39	res						constitutes acknow Pace Terms and Co	wledgment and acceptance of the anditions found at:	
Monticello GW - Mt. Pleasant, TX		Collected:	mt.ple	usant, D	PT MT	CT/ ET		lop						https://info.pacela terms.pdf	abs.com/hubfs/pas-standard-	
Phone: <b>512-566-6878</b>	Client Proje	ect#		Lab Project # GEMFMO-N	ONTICELLO	2	6020 250mlHDPE-HNO3	SO4 125mlHDPE-NoPres					944 (1974) 944 (1974)		62 4185 A024	
Collected by (print): Jeff Norffeet	Site/Facility GOLDEN			P.O. #		Ĭ	HOPE	25mlH	res					Acctnum: G		
Collected by (signature	Same	Lab MUST Be	Day	Quote #	st.	ight is	250m	S04 1	E NoPres			1000		Template: <b>T</b> Prelogin: <b>P</b> :	209229	
Immediately Packed on Ice N Y		Day 5 Da Day 10 D e Day		Date Resu	lts Needed	No. of	- 6020	LL.	1L-HDP					PM: 206 - Je PB: 10 2	Has AR	
Sample ID	Comp/Gra	b Matrix *	Depth	Date	Time	Cntrs	8, Ca	Chloride,	TDS 1					Shipped Via Remarks	Sample # (lab only)	
W-31	Grab	GW	24.75	11-26-23	1200	3	X	x	X						6	
W-32		GW	and the second second second second	11-26-2		3	X	X	X						-2	
W-33		GW	1	11-26-23		1	X	x	X			2003			-3	
w-34		GW	DRY	11-26-2			3	*	遇					DRY WI		
		GW	and a construction of the second	11-26-23			X	X	X			19072	11.005	019 44	34	
CCR Dup W-30		GW		11-26-23			X	X	x			10.000	-			
W-20	×	GW	21.80	11-24-0.	1300	3	X	x	X					3.00	65	
		GW				3	X	x	X		DARK -				and the second s	
		GW	+				^	<b> </b> ^					0.650			
								ļ		ļ			-			
	est <sup>e</sup>					1	10.00									
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater	Remarks:									pH Flow	1.5	Temp Other	COC Sea COC Sign Bottles	ample Receipt Present/Inta red/Accurate: arrive intact bottles used:	$ \begin{array}{c} \text{ct:} & \underline{NP} & \underline{Y} \\ \vdots & \underline{Y} & \underline{Y} \\ \end{array} $	
and a second second	Samples return UPSFec	ied via: IEx Courier		Trac	king #		664	34	312	\$037		6	Sufficie VOA Zere	ent volume sen <u>If Applic</u> Headspace:	t: <u>I</u> Y_N able _Y_N	
Relinquished by : (Signature)		Date: 11-30-23	1600 Time:	Rece	ived by: (Signa	iture)		1.10	.	Trip Blank	Received	HCL / MeoH		ation Correct/ sen <0.5 mR/hr		
Relinquished by : (Signature) Date: Time:					Received by: (Signature)					13.30		Bottles Received:		If PH-10BDH4321 TRC-2352362 "Atte/Time CR6-20221V		
Relinquished by : (Signature)		Date:	Time	Rece	ived for lab by	: (Signa	ture)	~		Date:		Time:	Hold:		Condition: NCF / OK	

	1	ú	
	1	s	
	e	5	
9	62	2	
	τ.	2	
	d	э	
	×.	2	
		=	

# LIUBHIBS

Time ment. Oh	4/23 - NCF GEMFMO (MS#4) R2/K3/K4/K3/EA	
	12/04/23 - NCF GEMFMO (MS#4)	

10.0	
10	
81	
2	
100	
	7.0
	· •
	10.00
100	- A.
10	
10	-
1	-
÷	
*	- C.
8.1	
1	1
8.	~
*	P-

MS Matthew Shacklock (responsible) Jc Jeff Carr	
Parameter(s) past holding time	
Temperature not in range	
Improper container type	
pH not in range	
Insufficient sample volume	
Sample is biphasic	
Vials received with headspace	
Broken container	
Sufficient sample remains	
] If broken container: Insufficient packing material around container	ainer
If broken container: Insufficient packing material inside cooler	
If broken container: Improper handling by carrier:	
If broken container: Sample was frozen	
If broken container: Container lid not intact	
Client informed by Call	
Client informed by Email	
Client informed by Voicemail	
Date/Time:	
PM initials:	
Client Contact:	
Comments	
Matthew Shacklock	4 December 2023 11:39 AM
Received @ 13.3 degrees. Ice melted	
Jeff Carr	4 December 2023 12:50 PM
Proceed.	
Matthew Shacklock	5 December 2023 2:39 PM
11684185 11684188	



# Pace Analytical® ANALYTICAL REPORT

December 20, 2023

## **GEMINI Engineering**

Sample Delivery Group: Samples Received:

Project Number:

Description:

Site:

Report To:

L1685047 12/06/2023

Monticello GW - Mt. Pleasant, TX **GOLDEN EAGLE** Adam Kaiser 2275 Cassens Drive Suite 118 Fenton, MO 63026

Тс Ss Cn Ϋ́r Śr Qc GI Al Sc

Entire Report Reviewed By:

Jason Romer 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 National**

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

ACCOUNT: **GEMINI Engineering**  PROJECT:

SDG: L1685047

DATE/TIME: 12/20/23 13:18 PAGE: 1 of 16

## TABLE OF CONTENTS

Cp: Cover Page	1
Tc: Table of Contents	2
Ss: Sample Summary	3
Cn: Case Narrative	4
Tr: TRRP Summary	5
TRRP form R	6
TRRP form S	7
TRRP Exception Reports	8
Sr: Sample Results	9
W-35 L1685047-01	9
Qc: Quality Control Summary	10
Gravimetric Analysis by Method 2540 C-2011	10
Wet Chemistry by Method 9056A	11
Metals (ICPMS) by Method 6020	13
GI: Glossary of Terms	14
Al: Accreditations & Locations	15
Sc: Sample Chain of Custody	16

## SAMPLE SUMMARY

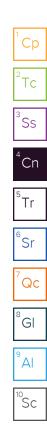
		Jeff Norfleet					
W-35 L1685047-01 GW							
atch	Dilution	Preparation Analysis		Analyst	Location		
		date/time	date/time				
/G2186153	1	12/09/23 14:16	12/10/23 11:20	MMF	Mt. Juliet, TN		
/G2190217	1	12/18/23 22:28	12/18/23 22:28	MDM	Mt. Juliet, TN		
/G2190217	10	12/18/23 23:06	12/18/23 23:06	MDM	Mt. Juliet, TN		
/G2185138	1	12/10/23 10:46	12/11/23 00:42	LD	Mt. Juliet, TN		
/G2185138	50	12/10/23 10:46	12/11/23 13:24	SJM	Mt. Juliet, TN		
	G2186153 G2190217 G2190217 G2185138	G2186153 1 G2190217 1 G2190217 10 G2185138 1	date/time           G2186153         1         12/09/23 14:16           G2190217         1         12/18/23 22:28           G2190217         10         12/18/23 23:06           G2185138         1         12/10/23 10:46	date/time         date/time           G2186153         1         12/09/23 14:16         12/10/23 11:20           G2190217         1         12/18/23 22:28         12/18/23 22:28           G2190217         10         12/18/23 23:06         12/18/23 23:06           G2185138         1         12/10/23 10:46         12/11/23 00:42	date/time         date/time           G2186153         1         12/09/23 14:16         12/10/23 11:20         MMF           G2190217         1         12/18/23 22:28         12/18/23 22:28         MDM           G2190217         10         12/18/23 23:06         12/18/23 23:06         MDM           G2185138         1         12/10/23 10:46         12/11/23 00:42         LD		



## 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.

Jason Romer Project Manager



## Laboratory Data Package Cover Page

This data package consists of this signature page, the laboratory review checklist, and the following reportable data as applicable:

- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - a. Items consistent with NELAC Chapter 5,
  - b. dilution factors,
  - c. preparation methods,
  - d. cleanup methods, and
  - e. if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
  - a. Calculated recovery (%R), and
  - b. The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - a. LCS spiking amounts,
  - b. Calculated %R for each analyte, and
  - c. The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - a. Samples associated with the MS/MSD clearly identified,
  - b. MS/MSD spiking amounts,
  - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
  - d. Calculated %Rs and relative percent differences (RPDs), and
  - e. The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - a. The amount of analyte measured in the duplicate,
  - b. The calculated RPD, and
  - c. The laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte
  - for each method and matrix.
- R10 Other problems or anomalies.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Jason Romer Project Manager

SDG: L1685047

## Laboratory Review Checklist: Reportable Data

Labo	orato	ry Name: Pace Analytical National	LRC Date: 12/20/2023 13:18										
Proj	ect N	lame: Monticello GW - Mt. Pleasant, TX	Laboratory Job Number: L1685047-01										
Revi	iewe	r Name: Jason Romer	Prep Batch Number(s): WG2185138, WG2186153 and V	VG219	0217								
# <sup>1</sup>	A <sup>2</sup>	Description		Yes	No	NA <sup>3</sup>	NR⁴	ER# <sup>5</sup>					
R1	OI	Chain-of-custody (C-O-C)											
		Did samples meet the laboratory's standard conditions	of sample acceptability upon receipt?	Х									
		Were all departures from standard conditions describe	d in an exception report?			Х	1						
R2	OI	DI Sample and quality control (QC) identification											
		Are all field sample ID numbers cross-referenced to the	e laboratory ID numbers?	Х	1		T						
		Are all laboratory ID numbers cross-referenced to the c		Х									
R3	OI	Test reports				•	<b>I</b>	I					
	<b>.</b>	Were all samples prepared and analyzed within holding	a times?	Х		T	T						
		Other than those results < MQL, were all other raw value		X			<u> </u>						
		Were calculations checked by a peer or supervisor?	les bracketed by calibration standards:	X									
		· · · ·											
		Were all analyte identifications checked by a peer or su	•	X									
		Were sample detection limits reported for all analytes r		Х	ļ		ļ						
		Were all results for soil and sediment samples reported		Х			<b> </b>						
		Were % moisture (or solids) reported for all soil and sec	liment samples?			Х							
		Were bulk soils/solids samples for volatile analysis extr	acted with methanol per SW846 Method 5035?			Х							
		If required for the project, are TICs reported?				Х							
R4	0	Surrogate recovery data											
		Were surrogates added prior to extraction?				Х							
		Were surrogate percent recoveries in all samples within	n the laboratory QC limits?	Х									
R5	OI	Test reports/summary forms for blank samples	,			•	•						
		Were appropriate type(s) of blanks analyzed?		Х	1	1	1						
		Were blanks analyzed at the appropriate frequency?		X			<u> </u>						
		Were method blanks taken through the entire analytica	I process including proparation and if applicable				ł —						
		cleanup procedures?	in process, including preparation and, it applicable,	Х									
		Were blank concentrations < MQL?											
R6	OI	Laboratory control samples (LCS):				•	•						
		Were all COCs included in the LCS?		Х		1	1						
		Was each LCS taken through the entire analytical proce	edure including prep and cleanup steps?	X									
		Were LCSs analyzed at the required frequency?	courte, inclouing prop and cleanup stops.	X			<u> </u>						
		Were LCS (and LCSD, if applicable) %Rs within the labo	ratory OC limits?	X									
		· · · · · · ·	e laboratory's capability to detect the COCs at the MDL										
		used to calculate the SDLs?	e laboratory's capability to detect the COCs at the MDL	Х									
		Was the LCSD RPD within QC limits?		Х									
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data				-	-						
		Were the project/method specified analytes included in	n the MS and MSD?	Х									
		Were MS/MSD analyzed at the appropriate frequency?		Х									
		Were MS (and MSD, if applicable) %Rs within the labora	atory QC limits?		Х			1					
		Were MS/MSD RPDs within laboratory QC limits?		Х									
R8	OI	Analytical duplicate data											
		Were appropriate analytical duplicates analyzed for each	ch matrix?	Х									
		Were analytical duplicates analyzed at the appropriate	frequency?	Х									
		Were RPDs or relative standard deviations within the la	boratory QC limits?		Х		1	2					
R9	OI	Method quantitation limits (MQLs):		•				•					
-		Are the MQLs for each method analyte included in the	laboratory data package?	Х	1	Г	T						
		Do the MQLs correspond to the concentration of the lo		X									
		Are unadjusted MQLs and DCSs included in the laborat		X									
R10	OI	Other problems/anomalies											
KIU		Are all known problems/anomalies/special conditions n	ooted in this LRC and EP?	Х		1	1						
		· · ·											
		the sample results?	r the SDL to minimize the matrix interference effects on	Х									
		Is the laboratory NELAC-accredited under the Texas La and methods associated with this laboratory data pack	boratory Accreditation Program for the analytes, matrices age?	х									
shoul 2. O 3. NA 4. NR	d be re = orga A = Not R = Not	ntified by the letter "R" must be included in the laborator etained and made available upon request for the approp nic analyses; I = inorganic analyses (and general chemis t applicable; t reviewed;	y data package submitted in the TRRP-required report(s). riate retention period.		dentifie	ed by th	e letter	"S"					

## Laboratory Review Checklist: Supporting Data

Lab	orato	ory Name: Pace Analytical National	LRC Date: 12/20/2023 13:18								
Proj	ject N	Name: Monticello GW - Mt. Pleasant, TX	Laboratory Job Number: L1685047-01								
Rev	iewe	r Name: Jason Romer	Prep Batch Number(s): WG2185138, WG2186153 and WG2190217								
# <sup>1</sup>	A <sup>2</sup>	Description		Yes	No	NA <sup>3</sup>	NR⁴	ER# <sup>5</sup>			
S1	OI	Initial calibration (ICAL)		_	-	_					
		Were response factors and/or relative response fact	ors for each analyte within QC limits?			Х					
		Were percent RSDs or correlation coefficient criteria	met?	X							
		Was the number of standards recommended in the r	method used for all analytes?	X							
		Were all points generated between the lowest and h	nighest standard used to calculate the curve?	X							
		Are ICAL data available for all instruments used?		X							
		Has the initial calibration curve been verified using a	in appropriate second source standard?	X							
52	OI	Initial and continuing calibration verification (ICCV ar	nd CCV) and continuing calibration blank (CCB):	_		-					
		Was the CCV analyzed at the method-required frequ	iency?	X							
		Were percent differences for each analyte within the	e method-required QC limits?	Х							
		Was the ICAL curve verified for each analyte?		X							
		Was the absolute value of the analyte concentration	in the inorganic CCB < MDL?	X							
53	0	Mass spectral tuning									
		Was the appropriate compound for the method used	for tuning?	X							
		Were ion abundance data within the method-require	ed QC limits?	X							
54	0	Internal standards (IS)									
		Were IS area counts and retention times within the n	X								
55	OI	Raw data (NELAC Section 5.5.10)		•							
		Were the raw data (for example, chromatograms, sp	X								
		Were data associated with manual integrations flagged on the raw data?									
6	0	Dual column confirmation		•							
		Did dual column confirmation results meet the method-required QC?									
57	0	Tentatively identified compounds (TICs)	•								
		If TICs were requested, were the mass spectra and T	IC data subject to appropriate checks?			X	1	1			
58	1	Interference Check Sample (ICS) results	- · · · · · · · · · · · · · · · · · · ·								
		Were percent recoveries within method QC limits?		Тх		Т	T	1			
59	1	Serial dilutions, post digestion spikes, and method o	f standard additions	1	1						
		Were percent differences, recoveries, and the linear		Тх	1	Т	T	1			
510	OI	Method detection limit (MDL) studies		1	1						
		Was a MDL study performed for each reported analy	rte?	X		T	1	1			
		Is the MDL either adjusted or supported by the analy		X			<u> </u>				
S11	OI	Proficiency test reports						<u> </u>			
	101	Was the laboratory's performance acceptable on the	applicable proficiency tests or evaluation studies?	X	1	1	T	1			
512	0	Standards documentation					<u> </u>				
512		Are all standards used in the analyses NIST-traceabl	e or obtained from other appropriate sources?	X		Т	r –	1			
S13	OI	Compound/analyte identification procedures			1		<u> </u>				
		Are the procedures for compound/analyte identification	tion documented?	X	1	1	Г	Г			
514	OI	Demonstration of analyst competency (DOC)					<u> </u>	I			
	101	Was DOC conducted consistent with NELAC Chapte	r 5?	X	1	1	T	1			
		Is documentation of the analyst's competency up-to-		X							
515	OI	Verification/validation documentation for methods (N			1		I				
515		Are all the methods used to generate the data docu	•	X	1	1	1	Г			
516	OI	Laboratory standard operating procedures (SOPs)	mented, vermed, and valuated, where applicable:				<u> </u>				
510	Are laboratory SOPs current and on file for each method performed X										
shou 2. O 3. N/	ld be r = orga A = No	· · ·	tory data package submitted in the TRRP-required report(s). opriate retention period.		I identifie	ed by th	I e letter	"S"			

## Laboratory Review Checklist: Exception Reports

Laborat	ory Name: Pace Analytical National	LRC Date: 12/20/2023 13:18					
Project	Name: Monticello GW - Mt. Pleasant, TX	Laboratory Job Number: L1685047-01					
Review	er Name: Jason Romer	Prep Batch Number(s): WG2185138, WG2186153 and WG2190217					
ER # <sup>1</sup>	Description						
1	6020 WG2185138 Calcium: Percent Recovery is outside of established control limits. 9056A WG2190217 Sulfate: Percent Recovery is outside of established control limits.						
2	9056A WG2190217 Chloride: Relative Perce	9056A WG2190217 Chloride: Relative Percent Difference is outside of established control limits.					
<ol> <li>Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.</li> <li>O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);</li> <li>NA = Not applicable;</li> <li>NR = Not reviewed;</li> <li>ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).</li> </ol>							

ACCOUNT: GEMINI Engineering

## SAMPLE RESULTS - 01

## Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	Unadj. MQL	MQL	Dilution	Analysis	Batch	Ср
Analyte	mg/l		mg/l	mg/l		date / time		2
Dissolved Solids	1260		20.0	20.0	1	12/10/2023 11:20	WG2186153	Tc

#### Wet Chemistry by Method 9056A

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch			
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		<sup>4</sup> Cr		
Chloride	82.6		0.379	1.00	1.00	1	12/18/2023 22:28	WG2190217			
Fluoride	0.0695	<u>B J</u>	0.0640	0.150	0.150	1	12/18/2023 22:28	WG2190217	5		
Sulfate	799		5.94	5.00	50.0	10	12/18/2023 23:06	WG2190217	۲r		

#### Metals (ICPMS) by Method 6020

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Boron	6.36		0.482	0.0300	1.50	50	12/11/2023 13:24	WG2185138
Calcium	188		0.0936	1.00	1.00	1	12/11/2023 00:42	WG2185138



Gravimetric Analysis by Method 2540 C-2011

# QUALITY CONTROL SUMMARY

#### Method Blank (MB)

(MB) R4010954-1 12/10/23 11:20									
	MB Result	MB Qualifier	MB MDL	MB RDL					
Analyte	mg/l		mg/l	mg/l					
Dissolved Solids	U		10.0	10.0					

#### L1685031-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1685031-02 12/10/2	3 11:20 • (DUP) F	R4010954-3 1	2/10/23 11:	20		
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Dissolved Solids	732	756	1	3.23		5

## L1685036-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1685036-01 12/10/23	3 11:20 • (DUP) F	4010954-4 1	2/10/23 11:	20		
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Dissolved Solids	483	489	1	1.23		5

## Laboratory Control Sample (LCS)

(LCS) R4010954-2 12/1	_CS) R4010954-2 12/10/23 11:20										
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier						
Analyte	mg/l	mg/l	%	%							
Dissolved Solids	8800	8610	97.8	85.0-115							

DATE/TIME: 12/20/23 13:18

Тс

Ss

Cn

٢r

Sr

<sup>10</sup>Sc

Wet Chemistry by Method 9056A

#### QUALITY CONTROL SUMMARY L1685047-01

## Method Blank (MB)

(MB) R4014537-1	12/18/23 12:03

(MB) R4014537-1	12/18/23 12:03				
	MB Result	MB Qualifier	MB MDL	MB RDL	
Analyte	mg/l		mg/l	mg/l	
Chloride	U		0.379	1.00	
Fluoride	0.0674	J	0.0640	0.150	
Sulfate	U		0.594	5.00	

#### L1684873-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1684873-01 12/18/23	3 19:55 • (DUP) I	R4014537-3 1	2/18/23 20	):33		
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Chloride	1.14	0.894	1	24.4	<u>J P1</u>	15
Fluoride	U	U	1	0.000		15
Sulfate	U	U	1	0.000		15

## L1685487-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1685487-03 12/18/2	23 23:32 • (DUP	) R4014537-6	12/18/23 2	23:44		
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Chloride	19.3	19.1	1	1.15		15
Fluoride	U	U	1	0.000		15
Sulfate	38.1	37.6	1	1.31		15

#### Laboratory Control Sample (LCS)

.CS) R4014537-2 12/18/23 12:16												
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier							
Analyte	mg/l	mg/l	%	%								
Chloride	40.0	39.2	98.0	80.0-120								
Fluoride	8.00	7.94	99.3	80.0-120								
Sulfate	40.0	37.4	93.5	80.0-120								

ACCOUNT:
GEMINI Engineering

°Cn

٢r

Sr

Qc

GI

ΆΙ

Wet Chemistry by Method 9056A

# QUALITY CONTROL SUMMARY

## L1684873-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1684873-01 12/18/23	3 19:55 • (MS) R	4014537-4 12/	18/23 20:46 • (I	MSD) R401453	7-5 12/18/23 20	D:59						
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Chloride	40.0	1.14	41.4	40.6	101	98.6	1	80.0-120			1.90	15
Fluoride	8.00	U	8.31	8.33	104	104	1	80.0-120			0.206	15
Sulfate	40.0	U	38.6	37.8	96.5	94.6	1	80.0-120			1.99	15

#### L1685487-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L1685487-03 12/	/18/23 23:32 • (MS)	R4014537-7 12	/18/23 23:57				
	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Analyte	mg/l	mg/l	mg/l	%		%	
Chloride	40.0	19.3	55.9	91.4	1	80.0-120	
Fluoride	8.00	U	8.10	101	1	80.0-120	
Sulfate	40.0	38.1	69.1	77.5	1	80.0-120	<u>J6</u>

DATE/TIME: 12/20/23 13:18

PAGE: 12 of 16 Тс

Ss

Cn

٢r

Sr

Qc

GI

Â

Metals (ICPMS) by Method 6020

## QUALITY CONTROL SUMMARY L1685047-01

## Method Blank (MB)

				1					
(MB) R4010482-1 12/10/23 23:42									
MB Result	MB Qualifier	MB MDL	MB RDL	2					
mg/l		mg/l	.mg/l						
U		0.0936	1.00						
				з					
	2/10/23 23:42 MB Result mg/l	2/10/23 23:42 MB Result <u>MB Qualifier</u> mg/l	2/10/23 23:42 MB Result <u>MB Qualifier</u> MB MDL N mg/l mg/l n	2/10/23 23:42 MB Result MB Qualifier MB MDL MB RDL mg/l mg/l mg/l					

## Method Blank (MB)

(MB) R4010762-1 12/11	/23 12:58			
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Boron	U		0.00963	0.0300

#### Laboratory Control Sample (LCS)

(LCS) R4010482-2 12/10	)/23 23:45				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Calcium	5.00	5.03	101	80.0-120	

#### Laboratory Control Sample (LCS)

(LCS) R4010762-2 12/11/	23 13:01				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Boron	0.0500	0.0528	106	80.0-120	

#### L1684886-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1684886-12 12/10/	(OS) L1684886-12 12/10/23 23:49 • (MS) R4010482-4 12/10/23 23:55 • (MSD) R4010482-5 12/10/23 23:59													
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits		
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%		
Calcium	5.00	209	208	210	0.000	20.3	1	75.0-125	$\underline{\vee}$	$\underline{\vee}$	1.04	20		

ACCOUNT:						
GEMINI Engineering						

SDG: L1685047

DATE/TIME: 12/20/23 13:18 Cn

٢r

Sr

Qc

GI

ΆΙ

## 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

MDL	Method Detection Limit.
MQL	Method Quantitation Limit.
RDL	Reported Detection Limit.
RDL Rec.	
RPD	Recovery. Relative Percent Difference.
SDG	
SDG	Sample Delivery Group.
U	Sample Detection Limit.
-	Not detected at the Sample Detection Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
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
В	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.
V	The sample concentration is too high to evaluate accurate spike recoveries.

Τс

Ss

Cn

Tr

Śr

Qc

GI

AI

## 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 <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
lowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky <sup>16</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>14</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	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 <sup>₅</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> 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.

SDG: L1685047 Τс

Ss

Cn

Tr

Śr

Qc

GI

GEMINI Engineering 2275 Cassens Drive			Suite 118	sens Drive		Pres Chk									- Pa	ace
Suite 118 Fenton. MO 63026	C 63026 Fenton, MO 63026													1 2000	FARANCIN, SE IDE F	
Report to: Adam Kaiser		Email To: a.kaiser@geministl.com			stl.com			S						anne de la su de la compañía	MT JI 1200: Le E Samo Rel Mo Subjet topig a sample ve	ULIET, TN DUL BARE, 14 37 102 IAINS CHAIN OF CUSSION
Project Description: Monticello GW - Mt. Pleasant, TX		And the second s	nt. Ple	alant, TX	Please Ci PT_MT_C		m	loPre								goint and acceptance of the two found a:
Phone: 512-566-6878	Client Project	H		Lab Project # GEMFMO-I	MONTICELLO		ONH-	DPE-N							SDG # 216	85047
Collected by (print): Jeff Norffeet	Site/Facility 1D GOLDEN EA			P.O. #	an an Andrean an Anna Albert Anna - An Albert	j.	250mlHDPE-HNO3	125mlHDPE-NoPres	es						Acctrium: GEI	0052
Collected by (signature)	Same Da	ab MUST Be	Day	Quote #	M-V-Al-Marketon (1999)	-		504 1:	E NoPres						Temp: ate: T20 Prebg in: P10	19229
Immediately Packed on Ice N Y		y5 Day 10 Da ay		Date Rest	ults Needed	No. of	- 6020	LL'	11-HDP						PM:2016 - Jeff PB: VD au	Circ
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cutrs	B, Ca	Chloride,	TDS 1						Shippe d Via: F	Sample # (tab only)
10-35	Grab	GW	23.60	12-3.2	3 0900	3	X	X	X							-01
W-35 W-29		GW	DRY	12-3-2:	3 1000	0	X	X	X						****	
		GW				8	X	X	X							
		GW				18	X	X	X			1				n an Annair ann ann ann ann ann ann ann ann ann an
		GW				×	X	X	X				1			anna an
		GW				13	X	X	X			·····		-		ng pang pang pang pang pang pang ban kata bang pang pang pang pang pang pang pang p
	a saide a d'hanne, satur ghadhan d	GW				8	X	X	X			****				
		GW				1	X	X	X							ang a an a
10 10 1 10 10 10 10 10 10 10 10 10 10 10		<u> </u>				+	<u> </u>		<b>_</b>							
			1	L.,	_L.,.,.,	1	I	1	ļ							
* Matrix: SS - Soif AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater	Remarks:							and a start of the	-			emp	Bot	) Sear F 1 Signer tles az	ple Reservent Cl Present/Intact D/Accumatice: crive intract: ottles used:	
DW - Drinking Water OT - Other	Samples returned UPSFedEx			Trac	:king #	1 Transcrietter	664	13	(	1312	80	xxy	vo	Zero I	volume sent: <u>If Ap<b>plica</b>b</u> Headspac <b>e:</b>	Y/N
Resinquished by : (Signature)		ate: 2-5-2	3 Je	OO Rec	eived by: (Signat	ure)				Trip Blank R	eceived	Yes /No) #CL / MeoH IBR	19AL		ion Corresct/Ch i <0.5 m.₽/hr:	ected: N
Relinquising by (Signature)	ľ	late:	Time	: Rec	eived by: (Signat	ure)				Temp: DPA2		Bottles Received		reservati	on require d by Lo	gin Date/Time
Relinquished by : (Signature)	E	Date:	Time	Rec	eived for lab by:	(Signal	ure)	1		Date: ] L - 6-		Time: 9:30	Ho	d:		Condition: NCF / OK



## Pace Analytical® ANALYTICAL REPORT June 29, 2023

## **GEMINI Engineering**

Sample Delivery Group:

Samples Received: Project Number:

Description:

Site:

Report To:

L1621910 06/01/2023

Golden Eagle Groundwater CCR MONTICELLO Adam Kaiser 2275 Cassens Drive Suite 118 Fenton, MO 63026

Тс Ss Cn Ϋ́r Śr Qc GI Al Sc

Entire Report Reviewed By:

Jason Romer 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 National**

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

ACCOUNT: **GEMINI Engineering**  PROJECT:

SDG: L1621910

DATE/TIME: 06/29/23 11:26

PAGE: 1 of 40

## TABLE OF CONTENTS

Cp: Cover Page	1
Tc: Table of Contents	2
Ss: Sample Summary	3
Cn: Case Narrative	5
Tr: TRRP Summary	6
TRRP form R	7
TRRP form S	8
TRRP Exception Reports	9
Sr: Sample Results	10
W-29 L1621910-01	10
W-30 L1621910-02	11
W-31 L1621910-03	12
W-32 L1621910-04	13
W-33 L1621910-05	14
W-35 L1621910-06	15
CCR DUP L1621910-07	16
Qc: Quality Control Summary	17
Gravimetric Analysis by Method 2540 C-2011	17
Metals (ICPMS) by Method 6020	19
GI: Glossary of Terms	20
Al: Accreditations & Locations	21
Sc: Sample Chain of Custody	22

DATE/TIME: 06/29/23 11:26

## SAMPLE SUMMARY

W-29 L1621910-01 GW			Collected by Jeff Norfleet	Collected date/time 05/28/23 14:00	Received da 06/01/23 09	
/lethod	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2071808	1	06/05/23 12:50	06/05/23 14:29	MMF	Mt. Juliet, TN
Netals (ICPMS) by Method 6020	WG2070782	1	06/05/23 10:25	06/07/23 00:44	SJM	Mt. Juliet, TN
Netals (ICPMS) by Method 6020	WG2070782	5	06/05/23 10:25	06/07/23 11:29	SJM	Mt. Juliet, TN
ubcontracted Analyses	WG2078281	1	06/29/23 00:00	06/29/23 00:00	-	Indianapolis, IN 46268
N-30 L1621910-02 GW			Collected by Jeff Norfleet	Collected date/time 05/28/23 13:00	Received da 06/01/23 09	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2071808	1	06/05/23 12:50	06/05/23 14:29	MMF	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2070782	1	06/05/23 10:25	06/07/23 00:47	SJM	Mt. Juliet, TN
Aletals (ICPMS) by Method 6020	WG2070782	5	06/05/23 10:25	06/07/23 11:32	SJM	Mt. Juliet, TN
ubcontracted Analyses	WG2078281	1	06/29/23 00:00	06/29/23 00:00	-	Indianapolis, IN 46268
V-31 L1621910-03 GW			Collected by Jeff Norfleet	Collected date/time 05/28/23 12:00	Received da 06/01/23 09	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2071808	1	06/05/23 12:50	06/05/23 14:29	MMF	Mt. Juliet, TN
Aetals (ICPMS) by Method 6020	WG2070782	1	06/05/23 10:25	06/07/23 00:51	SJM	Mt. Juliet, TN
letals (ICPMS) by Method 6020	WG2070782	1	06/05/23 10:25	06/07/23 11:35	SJM	Mt. Juliet, TN
						Indianapolis, II
bcontracted Analyses	WG2078281	1	06/29/23 00:00	06/29/23 00:00	-	46268
V-32 L1621910-04 GW			Collected by Jeff Norfleet	Collected date/time 05/28/23 11:00	Received date/time 06/01/23 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Fravimetric Analysis by Method 2540 C-2011	WG2075016	1	06/10/23 06:50	06/10/23 07:25	MMF	Mt. Juliet, TN
etals (ICPMS) by Method 6020	WG2070782	1	06/05/23 10:25	06/07/23 00:54	SJM	Mt. Juliet, TN
letals (ICPMS) by Method 6020	WG2070782	1	06/05/23 10:25	06/07/23 11:39	SJM	Mt. Juliet, TN
ubcontracted Analyses	WG2078281	1	06/29/23 00:00	06/29/23 00:00	-	Indianapolis, II 46268
			Collected by Jeff Norfleet	Collected date/time 05/28/23 10:00	Received da 06/01/23 09	
W-33 L1621910-05 GW			Jen NUMEEL	03/20/23 10.00	00/01/20 09	
lethod	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
ravimetric Analysis by Method 2540 C-2011	WG2071808	1	06/05/23 12:50	06/05/23 14:29	MMF	Mt. Juliet, TN
letals (ICPMS) by Method 6020	WG2070782	1	06/05/23 10:25	06/07/23 00:57	SJM	Mt. Juliet, TN
letals (ICPMS) by Method 6020	WG2070782	1	06/05/23 10:25	06/07/23 11:42	SJM	Mt. Juliet, TN
ubcontracted Analyses	WG2078281	1	06/29/23 00:00	06/29/23 00:00	-	Indianapolis, II
						46268
W-35 L1621910-06 GW			Collected by Jeff Norfleet	Collected date/time 05/28/23 09:00	Received da 06/01/23 09	
Vethod	Batch	Dilution	Preparation	Analysis	Analyst	Location
	Datch	Diation	date/time	date/time	Analyst	LUCALIUII
Gravimetric Analysis by Method 2540 C-2011	WG2071808	1	06/05/23 12:50	06/05/23 14:29	MMF	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2070782	1	06/05/23 10:25	06/07/23 01:01	SJM	Mt. Juliet, TN
ACCOUNT:	PROJECT:		SDG:		E/TIME:	
GEMINI Engineering			L1621910	06/29	)/23 11:26	

## SAMPLE SUMMARY

			Collected by	Collected date/time	Received da	ite/time
W-35 L1621910-06 GW			Jeff Norfleet	05/28/23 09:00	06/01/23 09	:00
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Metals (ICPMS) by Method 6020	WG2070782	5	06/05/23 10:25	06/07/23 12:05	SJM	Mt. Juliet, TN
Subcontracted Analyses	WG2078281	1	06/29/23 00:00	06/29/23 00:00	-	Indianapolis, IN 46268
			Collected by	Collected date/time	Received da	ite/time
CCR DUP L1621910-07 GW			Jeff Norfleet	05/28/23 11:00	06/01/23 09	:00
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Gravimetric Analysis by Method 2540 C-2011	WG2071808	1	06/05/23 12:50	06/05/23 14:29	MMF	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2070782	1	06/05/23 10:25	06/07/23 01:04	SJM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2070782	1	06/05/23 10:25	06/07/23 11:49	SJM	Mt. Juliet, TN
						Indianapolis, IN

Ср

<sup>2</sup>Tc

Ss

⁴Cn

⁵Tr

Ŝ٢

Qc

°GI

A

<sup>10</sup>Sc

## 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.

Jason Romer Project Manager

#### Project Narrative

L1621910 -01, -02, -03, -04, -05, -06, -07 contains subout data that is included after the chain of custody.

## Laboratory Data Package Cover Page

This data package consists of this signature page, the laboratory review checklist, and the following reportable data as applicable:

- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - a. Items consistent with NELAC Chapter 5,
  - b. dilution factors,
  - c. preparation methods,
  - d. cleanup methods, and
  - e. if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
  - a. Calculated recovery (%R), and
  - b. The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - a. LCS spiking amounts,
  - b. Calculated %R for each analyte, and
  - c. The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - a. Samples associated with the MS/MSD clearly identified,
  - b. MS/MSD spiking amounts,
  - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
  - d. Calculated %Rs and relative percent differences (RPDs), and
  - e. The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - a. The amount of analyte measured in the duplicate,
  - b. The calculated RPD, and
  - c. The laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte
  - for each method and matrix.
- R10 Other problems or anomalies.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Jason Romer Project Manager

SDG: L1621910

## Laboratory Review Checklist: Reportable Data

Labo	Laboratory Name: Pace Analytical National		LRC Date: 06/29/2023 11:26									
Proj	ect N	lame: Golden Eagle Groundwater CCR	Laboratory Job Number: L1621910-01, 02, 03, 04, 05, 06 and 07									
Revi		r Name: Jason Romer	Prep Batch Number(s): WG2070782, WG2071808, WG2075016 and WG2078281									
# <sup>1</sup>	A <sup>2</sup>	Description Yes No NA <sup>3</sup> NR <sup>4</sup> ER# <sup>5</sup>										
R1	OI	Chain-of-custody (C-O-C)		-			·					
		Did samples meet the laboratory's standard conditions	of sample acceptability upon receipt?	Х								
		Were all departures from standard conditions described	d in an exception report?			Х						
R2	OI	Sample and quality control (QC) identification				-		_				
		Are all field sample ID numbers cross-referenced to the	e laboratory ID numbers?	Х								
		Are all laboratory ID numbers cross-referenced to the c	orresponding QC data?	Х								
R3	OI	Test reports										
		Were all samples prepared and analyzed within holding	g times?		Х			1				
		Other than those results < MQL, were all other raw valu	es bracketed by calibration standards?	Х								
		Were calculations checked by a peer or supervisor?	·	Х								
		Were all analyte identifications checked by a peer or su	upervisor?	Х								
		Were sample detection limits reported for all analytes n	•	X								
		Were all results for soil and sediment samples reported		X								
		Were % moisture (or solids) reported for all soil and sed	, ,			X	<u> </u>					
		Were bulk soils/solids samples for volatile analysis extra				X						
						X						
<b>D</b> 4		If required for the project, are TICs reported?				^	I	I				
R4	0	Surrogate recovery data			r –		1					
		Were surrogates added prior to extraction?				X						
		Were surrogate percent recoveries in all samples within	n the laboratory QC limits?	Х								
R5	OI	Test reports/summary forms for blank samples		-		-						
		Were appropriate type(s) of blanks analyzed?		Х								
		Were blanks analyzed at the appropriate frequency?		Х								
		Were method blanks taken through the entire analytica cleanup procedures?	I process, including preparation and, if applicable,	х								
		Were blank concentrations < MQL?		Х								
R6	OI	Laboratory control samples (LCS):										
		Were all COCs included in the LCS?		Х								
		Was each LCS taken through the entire analytical proce	edure, including prep and cleanup steps?	Х								
		Were LCSs analyzed at the required frequency?		Х								
		Were LCS (and LCSD, if applicable) %Rs within the labo	ratory QC limits?	Х								
		Does the detectability check sample data document the used to calculate the SDLs?	e laboratory's capability to detect the COCs at the MDL	х								
		Was the LCSD RPD within QC limits?		Х			1					
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data	3					•				
		Were the project/method specified analytes included in		Х			1					
		Were MS/MSD analyzed at the appropriate frequency?		Х								
		Were MS (and MSD, if applicable) %Rs within the labora	atory QC limits?		Х			2				
		Were MS/MSD RPDs within laboratory QC limits?		Х								
R8	OI	Analytical duplicate data						I				
	<b>.</b>	Were appropriate analytical duplicates analyzed for each	ch matrix?	Х	I	T	1					
		Were analytical duplicates analyzed at the appropriate		X			<u> </u>					
		Were RPDs or relative standard deviations within the la	· · ·		х			3				
R9	OI	Method quantitation limits (MQLs):					<u> </u>					
KJ		Are the MQLs for each method analyte included in the	laboratory data packago?	Х		1	<u> </u>					
				X								
		Do the MQLs correspond to the concentration of the lo										
DIA		Are unadjusted MQLs and DCSs included in the laborat		Х	L	I	L					
R10	OI	Other problems/anomalies	ested in this LDC and ED2	v	-	1	1					
		Are all known problems/anomalies/special conditions n		Х								
		Was applicable and available technology used to lower the sample results?		Х								
		Is the laboratory NELAC-accredited under the Texas La and methods associated with this laboratory data packa	boratory Accreditation Program for the analytes, matrices age?	х								
shoul 2. O 3. NA 4. NR	Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" hould be retained and made available upon request for the appropriate retention period. . O = organic analyses; I = inorganic analyses (and general chemistry, when applicable); . NA = Not applicable; . NR = Not reviewed; . ER# = Evcention Periort identification number (an Evcention Periort should be completed for an item if "NP" or "No" is checked)											

## Laboratory Review Checklist: Supporting Data

Laborat	ory Name: Pace Analytical National	LRC Date: 06/29/2023 11:26									
Project	Name: Golden Eagle Groundwater CCR	Laboratory Job Number: L1621910-01, 02, 03, 04, 05, 06 and 07									
Reviewe	er Name: Jason Romer	Prep Batch Number(s): WG2070782, WG2071808, V	Prep Batch Number(s): WG2070782, WG2071808, WG2075016 and WG2078.								
# <sup>1</sup> Α <sup>2</sup>	Description		Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER# <sup>5</sup>				
51 OI	Initial calibration (ICAL)										
	Were response factors and/or relative response factors	tors for each analyte within QC limits?			Х						
	Were percent RSDs or correlation coefficient criteria	a met?	Х								
	Was the number of standards recommended in the	method used for all analytes?	X	1							
	Were all points generated between the lowest and	nighest standard used to calculate the curve?	Х			1					
	Are ICAL data available for all instruments used?	·	X								
	Has the initial calibration curve been verified using a	an appropriate second source standard?	X								
52 OI	Initial and continuing calibration verification (ICCV a										
	Was the CCV analyzed at the method-required freq	· · · · · · · · · · · · · · · · · · ·	X		1		1				
	Were percent differences for each analyte within the	•	X	1							
	Was the ICAL curve verified for each analyte?		X								
	Was the absolute value of the analyte concentration	in the inorganic CCB $\leq$ MDI?	X								
63 O	Mass spectral tuning			1		1					
	Was the appropriate compound for the method use	d for tuning?	X	1	1	T T	1				
	Were ion abundance data within the method-require										
64 0	Internal standards (IS)		^	I		I	I				
4 0		mathead vary include Collimite?		1	T	1	1				
	Were IS area counts and retention times within the	nethod-required QC limits?	X			I	I				
5 OI	Raw data (NELAC Section 5.5.10)	a stud slata) was incread by an analysis		1	T	1	<u> </u>				
	Were the raw data (for example, chromatograms, sp		<u> </u>								
	Were data associated with manual integrations flage	ged on the raw data?			Х						
6 O	Dual column confirmation			1	1	1					
	Did dual column confirmation results meet the meth	od-required QC?			Х						
67 O	Tentatively identified compounds (TICs)			-	1		1				
	If TICs were requested, were the mass spectra and	TIC data subject to appropriate checks?			Х						
58   1	Interference Check Sample (ICS) results				_						
	Were percent recoveries within method QC limits?		Х								
59 I	Serial dilutions, post digestion spikes, and method of	of standard additions		•	-	-					
	Were percent differences, recoveries, and the linear	rity within the QC limits specified in the method?		Х			4				
510 OI	Method detection limit (MDL) studies										
	Was a MDL study performed for each reported anal	yte?	Х								
	Is the MDL either adjusted or supported by the anal	ysis of DCSs?	X								
511 OI	Proficiency test reports										
	Was the laboratory's performance acceptable on the	e applicable proficiency tests or evaluation studies?	Х								
512 OI	Standards documentation										
	Are all standards used in the analyses NIST-traceab	le or obtained from other appropriate sources?	Х								
513 OI	Compound/analyte identification procedures			•							
	Are the procedures for compound/analyte identifica	tion documented?	Х		Ι						
514 OI	Demonstration of analyst competency (DOC)										
	Was DOC conducted consistent with NELAC Chapter	er 5?	X	1	Г	1	1				
	Is documentation of the analyst's competency up-to		X								
515 OI	Verification/validation documentation for methods (										
	Are all the methods used to generate the data docu	• •	X								
516 OI	Laboratory standard operating procedures (SOPs)										
	Are laboratory SOPs current and on file for each me	thad performed	X	1	1	<u> </u>	Г				
should be 2. O = org 3. NA = No		atory data package submitted in the TRRP-required report( ropriate retention period.		L dentifie	d by th	e letter	"S"				

5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

## Laboratory Review Checklist: Exception Reports

Laboratory Name: Pace Analytical National		LRC Date: 06/29/2023 11:26				
Project Name: Golden Eagle Groundwater CCR		Laboratory Job Number: L1621910-01, 02, 03, 04, 05, 06 and 07				
Reviewer Name: Jason Romer		Prep Batch Number(s): WG2070782, WG2071808, WG2075016 and WG2078281				
ER # <sup>1</sup>	R # <sup>1</sup> Description					
1	2540 C-2011 WG2071808 L1621910-01, 02, 03, 05, 06 and 07: Prepared and/or analyzed past holding time as defined in the method. Concentrations should be considered minimum values. 2540 C-2011 WG2075016 L1621910-04: Prepared and/or analyzed past holding time as defined in the method. Concentrations should be considered minimum values.					
2	6020 WG2070782 Calcium: Percent Recovery is outside of established control limits.					
3	2540 C-2011 WG2075016 Dissolved Solids: Relative Percent Difference is outside of established control limits.					
4	6020 WG2070782 Calcium: Post Spike Percent Recovery and/or Serial Dilution Relative Percent Difference was outside of established control limits.					
	entified by the letter "R" must be included in the labora	tory data package submitted in the TRRP-required report(s). Items identified by the letter "S"				

should be retained and made available upon request for the appropriate retention period.
O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
NA = Not applicable;
NR = Not reviewed;
ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

### SAMPLE RESULTS - 01 L1621910

# Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l		date / time		
Dissolved Solids	1250	Q	20.0	20.0	1	06/05/2023 14:29	WG2071808	

### Metals (ICPMS) by Method 6020

	-									<b>J</b> J
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch		
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		4	Cn
Boron	3.35		0.0482	0.0300	0.150	5	06/07/2023 11:29	WG2070782		CII
Calcium	97.7		0.0936	1.00	1.00	1	06/07/2023 00:44	WG2070782	5	
									٥.	Tr

Sr

Qc

GI

A

### SAMPLE RESULTS - 02 L1621910

# Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l		date / time		
Dissolved Solids	911	Q	13.3	13.3	1	06/05/2023 14:29	WG2071808	

# Metals (ICPMS) by Method 6020

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
nalyte	mg/l		mg/l	mg/l	mg/l		date / time	
oron	6.18		0.0482	0.0300	0.150	5	06/07/2023 11:32	WG2070782
alcium	97.9		0.0936	1.00	1.00	1	06/07/2023 00:47	WG2070782

Sr

Qc

GI

A

<sup>10</sup>Sc

### SAMPLE RESULTS - 03 L1621910

# Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	348	Q	10.0	10.0	1	06/05/2023 14:29	WG2071808

# Metals (ICPMS) by Method 6020

Collected date/time: 05/28/23 12:00

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
nalyte	mg/l		mg/l	mg/l	mg/l		date / time	
ron	1.20		0.00963	0.0300	0.0300	1	06/07/2023 11:35	WG2070782
alcium	37.2		0.0936	1.00	1.00	1	06/07/2023 00:51	WG2070782

Ŝ٢

Qc

GI

A

### SAMPLE RESULTS - 04 L1621910

# Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	420	Q	10.0	10.0	1	06/10/2023 07:25	WG2075016

## Metals (ICPMS) by Method 6020

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
nalyte	mg/l		mg/l	mg/l	mg/l		date / time	
pron	1.37		0.00963	0.0300	0.0300	1	06/07/2023 11:39	WG2070782
alcium	85.8		0.0936	1.00	1.00	1	06/07/2023 00:54	WG2070782

Ŝ٢

Qc

GI

A

### SAMPLE RESULTS - 05 L1621910

# Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l		date / time	
issolved Solids	471	Q	10.0	10.0	1	06/05/2023 14:29	WG2071808

# Metals (ICPMS) by Method 6020

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
alyte	mg/l		mg/l	mg/l	mg/l		date / time	
on	1.60		0.00963	0.0300	0.0300	1	06/07/2023 11:42	WG2070782
um	101		0.0936	1.00	1.00	1	06/07/2023 00:57	WG2070782

Sr

Qc

GI

A

<sup>10</sup>Sc

### SAMPLE RESULTS - 06 L1621910

# Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l		date / time		
Dissolved Solids	1530	Q	20.0	20.0	1	06/05/2023 14:29	WG2071808	

# Metals (ICPMS) by Method 6020

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
nalyte	mg/l		mg/l	mg/l	mg/l		date / time	
on	5.21		0.0482	0.0300	0.150	5	06/07/2023 12:05	WG2070782
lcium	41.4		0.0936	1.00	1.00	1	06/07/2023 01:01	WG2070782

Ŝ٢

Qc

GI

A

<sup>10</sup>Sc

### SAMPLE RESULTS - 07 L1621910

# Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	412	Q	10.0	10.0	1	06/05/2023 14:29	WG2071808

## Metals (ICPMS) by Method 6020

Metals (ICPMS) by Method 6020											
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch			
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		4		
Boron	1.46		0.00963	0.0300	0.0300	1	06/07/2023 11:49	WG2070782			
Calcium	86.0		0.0936	1.00	1.00	1	06/07/2023 01:04	WG2070782	5		
									Ť		

Sr

Qc

GI

A

# WG2071808

Gravimetric Analysis by Method 2540 C-2011

# QUALITY CONTROL SUMMARY

Method Blank (MB)

(MB) R3934370-1 06/05/23 14:29										
	MB Result	MB Qualifier	MB MDL	MB RDL						
Analyte	mg/l		mg/l	mg/l						
Dissolved Solids	U		10.0	10.0						

### L1620293-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1620293-03 06/0	DS) L1620293-03 06/05/23 14:29 • (DUP) R3934370-3 06/05/23 14:29											
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits						
Analyte	mg/l	mg/l		%		%						
Dissolved Solids	7540	7840	1	3.90		5						

# L1620293-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1620293-04 06/05/23 14:29 • (DUP) R3934370-4 06/05/23 14:29											
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits					
Analyte	mg/l	mg/l		%		%					
Dissolved Solids	6170	5960	1	3.46		5					

# Laboratory Control Sample (LCS)

(LCS) R3934370-2 06	(LCS) R3934370-2 06/05/23 14:29											
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier							
Analyte	mg/l	mg/l	%	%								
Dissolved Solids	8800	8550	97.2	77.3-123								

Тс

Ss

Cn

٢r

Sr

<sup>10</sup>Sc

# WG2075016

Gravimetric Analysis by Method 2540 C-2011

# QUALITY CONTROL SUMMARY

Method Blank (MB)

(MB) R3936294-1 06	MB) R3936294-1 06/10/23 07:25								
	MB Result	MB Qualifier	MB MDL	MB RDL					
Analyte	mg/l		mg/l	mg/l					
Dissolved Solids	U		10.0	10.0					

### L1623266-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1623266-01 06/10/	(OS) L1623266-01 06/10/23 07:25 • (DUP) R3936294-3 06/10/23 07:25											
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits						
Analyte	mg/l	mg/l		%		%						
Dissolved Solids	2170	2310	1	6.25	<u>J3</u>	5						

# Laboratory Control Sample (LCS)

(LCS) R3936294-2 0	CS) R3936294-2 06/10/23 07:25										
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier						
Analyte	mg/l	mg/l	%	%							
Dissolved Solids	8800	7820	88.9	77.3-123							

DATE/TIME: 06/29/23 11:26 Тс

Ss

Cn

٢r

Sr

Qc

GI

Â

# WG2070782

Metals (ICPMS) by Method 6020

# QUALITY CONTROL SUMMARY

Method Blank (MB)

(MB) R3933550-1 06	6/06/23 23:11			
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Boron	U		0.00963	0.0300
Calcium	U		0.0936	1.00

# Laboratory Control Sample (LCS)

(LCS) R3933550-2 06/06	CS) R3933550-2 06/06/23 23:14										
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier						
Analyte	mg/l	mg/l	%	%							
Boron	0.0500	0.0500	100	80.0-120							
Calcium	5.00	4.96	99.3	80.0-120							

# L1621870-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1621870-07 06/06/23 23:17 • (MS) R3933550-4 06/06/23 23:24 • (MSD) R3933550-5 06/06/23 23:28												
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Boron	0.0500	0.0862	0.133	0.136	93.6	99.0	1	75.0-125			2.01	20
Calcium	5.00	203	205	208	41.2	108	1	75.0-125	V		1.62	20

 'Ср
<sup>2</sup> Tc
<sup>3</sup> Ss
 <sup>4</sup> Cn
<sup>5</sup> Tr
<sup>6</sup> Sr
<sup>7</sup> Qc
<sup>°</sup> Gl
 <sup>9</sup> Al
<sup>10</sup> Sc

1

SDG: L1621910 DATE/TIME: 06/29/23 11:26

# 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

MDL	Method Detection Limit.
MQL	Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
SDL	Sample Detection Limit.
U	Not detected at the Sample Detection Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
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
J3	The associated batch QC was outside the established quality control range for precision.
Q	Sample was prepared and/or analyzed past holding time as defined in the method. Concentrations should be considered minimum values.
V	The sample concentration is too high to evaluate accurate spike recoveries.

Τс

Ss

Cn

Tr

Śr

Qc

GI

AI

# 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 <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
lowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky <sup>16</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>14</sup>	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 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> 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.

SDG: L1621910

Company Name/Address:			Billing Infor	mation:						Apalvsis / Contaip	er / Preservative	Chain	of Custody Page of
Commercial Liability P 2275 Cassens Drive Suite 118	Partners, Ll	LC	Suite 118	sens Drive		Pres Chk		42				-	People advancing science
Fenton. MO 63026 Report to:			Email To:			1	ន						MT JULIET, TN
Adam Kaiser Project Description:		City/State	a.kaiser@g	eministl.com;jef		1	oPre					Submitt	ebanon Rd Mount Juliet, TN 37122 ing a sample via this chain of custody ites acknowledgment and acceptance of the
Golden Eagle Groundwater CC	R	Collected:	ntiplea	santiTK	Please Ci PT MT C		E-N	-					rms and Conditions found at: info.pacelabs.com/hubfs/pas-standard- df
Phone: <b>314-624-1604</b>	Client Project	t #		Lab Project # COMLIAFMO	-GOLDEAG	ILE	125mlHDPE-NoPre	-HNO3				SDG	# 1621910
Collected by (print): Jeff Narfleet	Site/Facility I	ontice	110	P.O. #				250miHDPE-HNO	loPres			Acctr	UM: COMLIAFMO
Collected by (signature): Quiff Muthod Immediately Packed on Ice N Y Y	Same D	ay 5 Da ay 10 D	Day	Quote # Date Resul	ts Needed	No. of	s - Cld, F, SO4	- 6020 250m	250mlHDPE-NoPres			Prelo	olate: <b>T175182</b> gin: <b>P998374</b> 206 - Jeff Carr BW 599
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cntrs	Anions	B, Ca -	TDS 2			CONTRACTOR CONTRACTOR	Remarks Sample # (lab only)
W-29	Grab	GW	20.40	5-28-23	1400	3	X	x	X				- 01
W-30	1	GW	19,50		1300	3	X	x	X				-05
W-31		GW	13,90		1200	3	X	x	X				-02
W-32		GW	14.40		1100	3	X	X	X				-04
W-33		GW	24.60		1000	3	X	X	X				- 05
W-35		GW	23,60		0900	3	X	X	X				-06
CCR DUD	1	GW	14.40		1100	3	X	x	X				-07
1		GW				3	X	x	X				
A state of the second s		GW				3	X	x	X				
		GW				3	X	x	X				
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater	Remarks:									pH	Temp	Sample Reg COC Seal Present COC Signed/Accur Bottles arrive i Correct bottles	ate: N ntact: N
DW - Drinking Water OT - Other	Samples returned UPS FedEx			Tracki	ng #	63	,39	7	22	18 0	802	Sufficient volum If A VOA Zero Headspa	e sent: Y_N pplicable ce: Y_N
Relinquished by : (Signature)	Di	ate: 5-3]-7	-3 Time:	30 Receiv	ed by: (Signat	ure)				Trip Blank Receiv	ed: Yes / No HCL / MeoH TBR	Preservation Cor RAD Screen <0.5	rect/Checked:N
Relinduished by : (Sighature)		ate:	Time:		ed by: (Signat					Temp: L. J °C NSA7	2.14022-)	If preservation require	red by Login: Date/Time
Relinquished by : (Signature)	Di	ate:	Time:	Receiv	ed for lab by:	Signati	ure)	104	A	Date: 1/23	Time: 01:00	PH-10BDH4321 TRC- CR6-20221V	2144141 Condition NCF / OK



Pace Analytical Services, LLC 7726 Moller Road Indianapolis, IN 46268 (317)228-3100

June 28, 2023

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

RE: Project: Golden Eagle GW CCR/WG2078281 Pace Project No.: 50347460

Dear Jimmy Huckaba:

Enclosed are the analytical results for sample(s) received by the laboratory on June 16, 2023. 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 - Indianapolis

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

Sincerely,

Randal Rastorn

Randal Rastorfer randal.rastorfer@pacelabs.com (317)228-3100 Project Manager

Enclosures

cc: Pace National Subout Team, Pace National





#### CERTIFICATIONS

Project: Golden Eagle GW CCR/WG2078281

Pace Project No.: 50347460

#### **Pace Analytical Services Indianapolis**

7726 Moller Road, Indianapolis, IN 46268 Illinois Accreditation #: 200074 Indiana Drinking Water Laboratory #: C-49-06 Kansas/TNI Certification #: E-10177 Kentucky UST Agency Interest #: 80226 Kentucky WW Laboratory ID #: 98019 Michigan Drinking Water Laboratory #9050 Ohio VAP Certified Laboratory #: CL0065 Oklahoma Laboratory #: 9204 Texas Certification #: T104704355 Wisconsin Laboratory #: 999788130 USDA Foreign Soil Permit #: 525-23-13-23119 USDA Compliance Agreement #: IN-SL-22-001



### SAMPLE SUMMARY

Project: Golden Eagle GW CCR/WG2078281

Pace Project No.: 50347460

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50347460001	W-29	Water	05/28/23 14:00	06/16/23 08:55
50347460002	W-30	Water	05/28/23 13:00	06/16/23 08:55
50347460003	W-31	Water	05/28/23 12:00	06/16/23 08:55
50347460004	W-32	Water	05/28/23 11:00	06/16/23 08:55
50347460005	W-33	Water	05/28/23 10:00	06/16/23 08:55
50347460006	W-35	Water	05/28/23 09:00	06/16/23 08:55
50347460007	CCR DUP	Water	05/28/23 11:00	06/16/23 08:55



### SAMPLE ANALYTE COUNT

Project:Golden Eagle GW CCR/WG2078281Pace Project No.:50347460

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50347460001	W-29	EPA 9056	RID	3	PASI-I
50347460002	W-30	EPA 9056	RID	3	PASI-I
50347460003	W-31	EPA 9056	RID	3	PASI-I
50347460004	W-32	EPA 9056	RID	3	PASI-I
50347460005	W-33	EPA 9056	RID	3	PASI-I
50347460006	W-35	EPA 9056	RID	3	PASI-I
50347460007	CCR DUP	EPA 9056	RID	3	PASI-I

PASI-I = Pace Analytical Services - Indianapolis



### SUMMARY OF DETECTION

Project: Golden Eagle GW CCR/WG2078281

Pace Project No.: 50347460

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50347460001	W-29					
EPA 9056	Chloride	81.7	mg/L	2.5	06/22/23 00:30	
EPA 9056	Fluoride	0.33	mg/L	0.10	06/24/23 06:15	
EPA 9056	Sulfate	707	mg/L	25.0	06/22/23 00:48	
50347460002	W-30					
EPA 9056	Chloride	35.5	mg/L	2.5	06/21/23 23:36	
EPA 9056	Sulfate	633	mg/L	25.0	06/21/23 23:54	
50347460003	W-31					
EPA 9056	Chloride	45.3	mg/L	2.5	06/21/23 21:47	
EPA 9056	Sulfate	155	mg/L	2.5	06/21/23 21:47	
50347460004	W-32					
EPA 9056	Chloride	5.9	mg/L	2.5	06/21/23 19:59	
EPA 9056	Fluoride	1.7	mg/L	1.0	06/21/23 19:59	
EPA 9056	Sulfate	213	mg/L	2.5	06/21/23 19:59	
50347460005	W-33					
EPA 9056	Chloride	6.7	mg/L	2.5	06/21/23 18:10	
EPA 9056	Fluoride	3.0	mg/L	1.0	06/21/23 18:10	
EPA 9056	Sulfate	203	mg/L	2.5	06/21/23 18:10	
50347460006	W-35					
EPA 9056	Chloride	96.7	mg/L	2.5	06/21/23 14:33	
EPA 9056	Sulfate	936	mg/L	25.0	06/21/23 14:51	
50347460007	CCR DUP					
EPA 9056	Chloride	5.7	mg/L	2.5	06/21/23 20:53	
EPA 9056	Fluoride	1.8	mg/L	1.0	06/21/23 20:53	
EPA 9056	Sulfate	212	mg/L	2.5	06/21/23 20:53	



Project: Golden Eagle GW CCR/WG2078281

Pace Project No.: 50347460

Sample: W-29	Lab ID: 50	347460001	Collected: 05/28/2	23 14:00	Received: 0	6/16/23 08:55 M	latrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	,	0	L Final Volume/We	eight: 10 i	mL			
Chloride	81.7	mg/L	2.5	10		06/22/23 00:30	16887-00-6	
Chionae								
Fluoride	0.33	mg/L	0.10	1		06/24/23 06:15	16984-48-8	



Project: Golden Eagle GW CCR/WG2078281

Pace Project No.: 50347460

Sample: W-30	Lab ID:	50347460002	Collected: 05/28/2	23 13:00	Received: 06	6/16/23 08:55 N	latrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Initial Volu	Method: EPA 90 ume/Weight: 10 r lytical Services -	nL Final Volume/We	eight: 10	mL			
Chloride	35.	5 mg/L	2.5	10		06/21/23 23:36	16887-00-6	
Fluoride	N	D mg/L	1.0	10		06/21/23 23:36	16984-48-8	
		-						



Project: Golden Eagle GW CCR/WG2078281

Pace Project No.: 50347460

Sample: W-31	Lab ID: 503	47460003	Collected: 05/28/2	3 12:00	Received: 0	6/16/23 08:55 N	latrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Meth		56 L Final Volume/We	iaht: 10	mL			
	Pace Analytica	0						
Chloride	45.3	mg/L	2.5	10		06/21/23 21:47	16887-00-6	
Fluoride	ND	mg/L	0.10	1		06/22/23 19:05	16984-48-8	
Sulfate	155	mg/L	2.5	10		06/21/23 21:47	14808-79-8	



Project: Golden Eagle GW CCR/WG2078281

Pace Project No.: 50347460

Sample: W-32	Lab ID: 503	47460004	Collected: 05/28/2	3 11:00	Received: 06	6/16/23 08:55 N	latrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Met Initial Volume/		i6 L Final Volume/We	iaht: 10	mL			
	Pace Analytica	0		5				
Chloride	5.9	mg/L	2.5	10		06/21/23 19:59	16887-00-6	
Fluoride	1.7	mg/L	1.0	10		06/21/23 19:59	16984-48-8	
	213	mg/L	2.5	10		06/21/23 19:59	14808-79-8	



Project: Golden Eagle GW CCR/WG2078281

Pace Project No.: 50347460

Sample: W-33	Lab ID: 503	47460005	Collected: 05/28/2	23 10:00	Received: 0	6/16/23 08:55 M	latrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Met		i6 L Final Volume/We	iaht: 10	mL			
	Pace Analytica	0		.g				
Chloride	6.7	mg/L	2.5	10		06/21/23 18:10	16887-00-6	
Fluoride	3.0	mg/L	1.0	10		06/21/23 18:10	16984-48-8	
Sulfate	203	mg/L	2.5	10		06/21/23 18:10	4 4000 70 0	



Project: Golden Eagle GW CCR/WG2078281

Pace Project No.: 50347460

Sample: W-35	Lab ID: 503	347460006	Collected: 05/28/2	3 09:00	Received: 06	6/16/23 08:55 N	latrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Met	hod: EPA 90	056					
	Initial Volume/	Weight: 10 r	mL Final Volume/We	ight: 10	mL			
	Pace Analytic	al Services -	Indianapolis					
Chloride	96.7	mg/L	2.5	10		06/21/23 14:33	16887-00-6	
Fluoride	ND	mg/L	1.0	10		06/21/23 14:33	16984-48-8	
Sulfate	936	mg/L	25.0	100		06/21/23 14:51	14808-79-8	



Project: Golden Eagle GW CCR/WG2078281

Pace Project No.: 50347460

Sample: CCR DUP	Lab ID:	50347460007	Collected: 05/28/2	23 11:00	Received: 0	6/16/23 08:55 N	latrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	,	Method: EPA 90	956 nL Final Volume/We	iaht: 10	ml			
		vtical Services -		igni. 10				
	T ace Anal	yilda Services -	Indianapolis					
Chloride	5.7	<b>7</b> mg/L	2.5	10		06/21/23 20:53	16887-00-6	
Fluoride	1.8	B mg/L	1.0	10		06/21/23 20:53	16984-48-8	
Sulfate	212	2 mg/L	2.5	10		06/21/23 20:53	14808-79-8	



### **QUALITY CONTROL DATA**

Pace Project No.:	50347	460											
QC Batch:	7403	41		Analy	sis Metho	d: E	PA 9056						
QC Batch Method:	EPA	9056		Analy	/sis Descrij	otion: 9	056 IC Ani	ons					
				Labo	ratory:	F	Pace Analy	tical Service	es - Indiana	apolis			
Associated Lab Sa	mples:	503474600	01, 5034746000	2, 5034746	0003, 503	47460004, క	503474600	05, 503474	60006, 50	347460007			
METHOD BLANK:	33960	92			Matrix: W	ater							
Associated Lab Sa	mples:	503474600	01, 5034746000	2, 5034746	0003, 5034	47460004, క	503474600	05, 503474	60006, 50	347460007			
				Blar	nk l	Reporting							
Para	meter		Units	Res	ult	Limit	Anal	yzed	Qualifier	S			
Chloride			mg/L		ND	0.25	5 06/21/2	3 13:03					
Fluoride			mg/L		ND	0.10	06/21/2	3 13:03					
Sulfate			mg/L		ND	0.25	5 06/21/2	3 13:03					
LABORATORY CO	ONTROL	SAMPLE:	3396093	Spike	LC	S	LCS	% Re	ec				
Para	meter		Units	Conc.	Res		% Rec	Limi		Qualifiers			
Chloride			mg/L	2	.5	2.3	9	 1	30-120				
Fluoride			mg/L		1	0.98	9		30-120				
Sulfate			mg/L		5	4.8	9	7 8	30-120				
MATRIX SPIKE &			-ICATE: 3396	004		3396095							
WATRIA SPIRE &		SFIRE DUFL	ICATE. 3390	MS	MSD	2290095							
			50347507001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Paramete	er	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Chloride		mg/L		250	250	337	332	94	92	80-120	1	15	
Fluoride		mg/L	0.34	1	1	1.2	1.3	88	94		5		H1
Sulfate		mg/L	2330	500	500	2810	2800	96	93	80-120	1	15	
		יסי וח אומפ	_ICATE: 3396	006		2206007							
MATRIX SPIKE &		SFIRE DUPL	LIGATE. 3390	MS	MSD	3396097							
			50347537002	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Paramete	er	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Chloride		mg/L	83.3	25	25	108	108	99	100	80-120	0	15	
Fluoride		mg/L	0.15	1	1	1.1	1.1	94	95	80-120	0		
luonuo			-					-		-	-	-	

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

### **REPORT OF LABORATORY ANALYSIS**

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.



### QUALIFIERS

Project: Golden Eagle GW CCR/WG2078281

Pace Project No.: 50347460

#### 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

H1 Analysis conducted outside the recognized method holding time.



### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project:Golden Eagle GW CCR/WG2078281Pace Project No.:50347460

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytica Batch
50347460006		EPA 9056	740341		
50347460005	W-33	EPA 9056	740341		
50347460004	W-32	EPA 9056	740341		
50347460007	CCR DUP	EPA 9056	740341		
50347460003	W-31	EPA 9056	740341		
50347460002	W-30	EPA 9056	740341		
50347460001	W-29	EPA 9056	740341		

WD 5 034746 C		Page: 1 Of 1		Regulatory Agency		State / Location	X		(N/A) e	ninolrið leubises			GCX		r v (		9 [	200					SAMPLE CONDITIONS		25 Y Y Y		$\uparrow$	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	
		Pac		Participation of the second second		の一方の大学の一方の	(N/N)			·····								-					TINE T		0855 2				
<b>ument</b> e completed		ſ					Requested Analysis Filtered (Y/N)																DATE		6/16				
CHAIN-OF-CUSTODY / Analytical Request Document The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.						torfer	Requested A	 <b>人</b>	3291	eesvisnA 950e 9056 950e ebitoul 950e vd eisilui 950e vd eisilui		; ,	< , < , < ,	< ,	< > < >	< ,	<u>&lt;                                    </u>	×					ACCEPTED BY / AFFILATION	dari " Manima di Anandre 1. Anangra da ang ang ang ang ang ang ang ang ang an				DATE Signed:	
DY / Analytica BAL DOCUMENT. AII		Matron: Adam Kaiser	me:		1	Manager: Randal Rastorfer		Preservatives		)(µet \eftysuoj \fysty	1 1 1	•				-								Feder	Juistry				
CUSTOE ody is a LEG	Section C Invoice Infor	Attention: Adam k	Company Name:	Address:	Pace Quote:	Pace Profile # 2003			Si	H2SO4 Jupreserved # OF CONTAINER								-						11:24	0855		RE		
AIN-OF-(								 NC		E E E E E E E E E E E E E E E E E E E		13:00		11:00	10:00	00-6	11-00	20					⊂. DATE	15-Jun	6/16		NAME AND SIGNATURE	FKIN I NAME OF SAMPLER: SIGNATURE OF SAMPLER:	-
CH/ The C	.e	ut Team				volgen cagle Groundwater CCR		COLLECTED		TIME	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	28-Mav	28-May	28-Mav	28-Mav	28-Mav	28-May						FILATION	( ,			SAMPLER NAME	SIGNATURE	
	t Information:	Pace Analytical Subout Team				Golden Eagle		 	(G≖GRAB C														RELINQUISHED BY / AFFILIATION	kaba	Fedry				-
	Section B Required Proiec	Report To: Pace Analytical Si	Copy To:		Purchase Order #: Droiort Name:	Project #:		CODE	ря Р wy И	중 운 당 당 제주가지 CODE	ΨŢ	 M	5	1×	1×	ΨŢ	۲. ۲						REU	James C Huckaba	L <sup>i</sup>				
	0, 12				2151 758 5850			MATRIX Deletion Method	Unimung water Water Waste Water Product Soil/Soild Oil														LIS - SI						
	Section A Required Client Information:	Pace Analytical	12065 Lebanon Rd.	Mt. Juliet, TN 37122 Email: Arr III 2. III 0	MIJLSUPOUTIEam@pacelabs.com	Requested Due Date: 28-Jun			SAMPLE ID	One Character per box. (A-Z, 0-9 /, -) Sample Ids must be unique	W-29	W-30	W-31	W-32	W-33	W-35	CCR DUP						ADDITIONAL COMMENTS		Pace Analytical Batch: WG2078281 Pace Analytical SDGs: L1621910	Location: Indianapolis, IN 46268			
	Section A Required	Company:	Address:	Mt. Julier	Phone:	Request		 		# MƏTI		2	3	4	S	9	$\mathbf{z}_{\mathbf{z}}$		6	10	11	-12			Pace An	Location	Page	e 16 of	18

e O

Pace	E COND	ITION	UPON RECEI	PT FORM				
/ Date/Time and Initials of person examining contents:	7	R 61/6123	123 1100					
1. Courier: 🐼 FED EX 🗆 UPS 🔅 CLIENT 🗇 PACE		USPS 🗆	OTHER	5. Packing Material:	🗌 Bubble Wrap	y Bubble Bags	Bags	
2. Custody Seal on Cooler/Box Present: 🕾 Yes	No				□ None	□ Other_	-	
(If yes)Seals Intact: 🔂 Yes 🗋 No _ (leave blank if no seals were present)	if no seals we	ere prese	nt)					
3. Thermometer: 123456 ABCDEF				6. Ice Type: 🕅 Wet	Blue None			
4. Cooler Temperature(s): $2 \sqrt{\lambda 5}$ $1/\sqrt{\lambda - 3}$	4			7. If temp. is over $6^{\circ}$ C or under 0°C, was the PM notified?:	nder 0°C, was the PM r	notified?:	□ Yes	°N D
TEMPS OF ALL COOLERS R	VED (use Comr	nents belo		Cooler temp	Cooler temp should be above freezing to 6°C	zing to 6°C		
All d	liscrepancie	s will be	written out in the co	All discrepancies will be written out in the comments section below.				
	Yes	No				Yes	Ŷ	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		×	All containers needi CHECKED?: Except any container with a	All containers needing acid/base preservation have been pH <u>CHECKED</u> ?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCI.	ave been pH O&G, RAD CHEM, and h HCI.			×
Short Hold Time Analysis (48 hours or less)? Analysis:		X	HNO3 (<2) H2SO4 Any non-conformance count form	HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form	Ac (>9) a noted on the container			
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:					Present	Absent	<u>ر الم</u>
			Residual Chlorine C	Residual Chlorine Check (SVOC 625 Pest/PCB 608)	608)			2
Ruch TAT Rommetrod (A dove or loce).		<u>४</u>	Residual Chlorine C	Residual Chlorine Check (Total/Amenable/Free Cyanide)	Cyanide)			x
Curtody, Standeling Brook?			Headspace Wisconsin Sulfide?	n Sulfide?				x
	. X		Headspace in VOA Vials (>6mm): See Containter Count form for details	ials (>6mm): It form for details		Present	Absent	No VOA Vials Sent
Containers Intact?. Sample Label (IDs/Dates/Times) Match COC?:	X		Trip Blank Present?				R	
Extra labels on Terracore Vials? (soils only)		X	Trip Blank Custody Seals?:	Seals?:				<u>ک</u>
COMMENTS:								
Page								
∋ 17 o								
f 18						-		

ł

F-IN-Q-290-rev.22, 22Apr2022

.

COC PAGE	В В	0f								Sal	nple	Sample Container Count	ntain	ler C	oun										*	lace a	RED do	ot on co	** Place a RED dot on containers	
																								•	£.	at are (	out of c	that are out of conformance	nce **	1
	MeOH																											Sodium	Ť	2
	(only) SBS	VIALS	လု				AMI	AMBER GLASS	ILAS	(0)					Ъ	PLASTIC	с					OTHER	ER .		-]	Red	Yeltow	Green	Black	1
	5 CC	AG9U AMFH2 AG9H AG9H AG9H	0690	769V	00∋A	HIÐA		¥G2U	8638	AG3SF	963C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	SE98	BP3B	ZE98	сезн	CG3F	Syringe Syringe	() <b>h</b> &8	Matrix T	~ NO3 V03	HN03 H2S04 <2 <2	NaOH >10	NaOH/Zn Ac >9	T
			<b> </b>		<u> </u>	/ · 	′ <u> </u>	,	/																1.					<u></u>
2																			*****											<u> </u>
0																														T
4																														ľ.
2													••••••																	r
9	   									-																				<u> </u>
2																								3	<del>ج</del>					1
ω		     														 				 						<u> </u>				
6													_																	
10											,																			
1																														1
12																														<b>T</b>
Container Codes	odes																													1
		Glass	SS													Õ.	<b>Plastic</b>	<u>с</u>												
DG9H 40m	L HCI am	40mL HCI amber voa vial	BG1T		L Na Ti	hiosulfa	ate cles	1L Na Thiosulfate clear glass	BP1B	in the second	1L NaOH plastic	lastic			Ē	BP4U 1	25mL	125mL unpreserved plastic	serve	d plas	ť									
DG9P 40m	40mL TSP amber vial	40mL TSP amber vial	BG1U	- de	1L unpreserved glass	ved gl	ass		BP1N BP1S	manager,	1L HNO3 plastic	1L HNO3 plastic				BP4N 1	25mL	125mL HNO3 plastic	plasi	tic tic						T				
	IL Na Thin	40mL N2 Thin amber vial	BG3U	-	250ml Unbres Clear Glass	res Cle	ear Gla	SS	BP1U		Drese	1L unbreserved plastic	lastic		5	-1										Т				
-	L unprese	40mL unpreserved amber vial	AGOU		100mL unpres amber glass	res am	ther gla	ISS	BP1Z	CORD DO	aOH,	1L NaOH, Zn, Ac							S S	Ð	WISCEIIaneous	0 0	S							
┝╼╼╞	40mL HCI clear vial	ar vial	AG1H	in the second se	1L HCI amber glass	ber glat	SS		BP2N		HN/H	500mL HNO3 plastic	stic		Ś	0		LL Cr+6 sampling kit	sam	pling	ţ;					П				
	L Na Thio	40mL Na Thio. clear vial	AG1S		1L H2SO4 amber glass	amber	glass		BP2C	-	nL Nac	500mL NaOH plastic	stic		<u>N</u>	Ŋ	Ziploc Bag	Bag												
VG9U 40m	L unprest	40mL unpreserved clear vial	AG1T		1L Na Thiosulfate amber glass	ulfate ar	mber gli	ass	BP2S		IL H25	500mL H2SO4 plastic	astic		<u>۲ </u>		erraco	Terracore Kit				1								
	IL W/nexal	4UmL w/nexane wipe vial	AG10		Tilter unpres amber glass	is amp(	er glas	s	102730 10077	the second second		SOUTH UNDESERVED PLASTIC		Suc	50			Ceneral Contriner		unito	Constal Container	litate				T				
WGFU 402	402 clear soil jar	ooz unpreserveu crear jar 4oz clear soil jar	AG2S		500mL H2SO4 amber glass	304 arr	nber gl	ass	BP3B		IL NaC	250mL NaOH plastic	stic	Ţ			nmma	Summa Can (air sample)	air sa	(aldmi						]				
JGFU 4oz 1	unpreserv	4oz unpreserved amber wide	AG2U	-	500mL unpres amber glass	res am	ther gla	tss	<b>BP3N</b>	the second s	IL HN(	250mL HNO3 plastic	stic		5		Water													
_	250mL clear glass HCI	lass HCI	AG3S		250mL H2SO4 amber glass	504 an	nber gli	ass	ВРЗF		HN03	250mL HNO3 plastic-field filtered	eld filter	-	히		Solid Solid	olid												
	IL clear gla	250mL clear glass HCI, Field Filter	AG3SF		250mL H2SO4 amb glass -field filtered	amb glat	ss -field I	filtered	BP3U			250mL unpreserved plastic	ed pla:	stic	012		0il													
BG1H 1L HC BG1S 1L H2	1L HCI clear glass 1L H2SO4 clear glass	alass	AG3C AG3C		250mL NaOH amber glass	OH an	nber gi	ass lass	BP3Z		IL NaC	250mL N2SU4 plastic 250mL NaOH, ZnAc plastic	Ac pla	stic	2 5		Wipe	Non-aqueous liquid Wipe	Plduk											
-							2					-	-		1	7	÷									1				

F-IN-Q-270-rev.17,1Nov2022

Sample Container Count

ٰ ھ COC PAGE

Page 18 of 18